

## Mongolian ASX coal sector – early-mover advantage in a frontier coal market

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### ■ Initiating coverage of Aspire Mining and Guildford Coal

The coal sector in Mongolia is undergoing significant growth, driven by the country's vast resources, an increasingly supportive Government platform and proximity to the world's largest coal consumer, China. We visited Aspire's Ovoot project and Guildford's South Gobi project in November 2011. We believe these companies are well placed to capture this growth, where saleable coal production in country has the potential to quadruple from ~23Mt in 2011 to >90Mtpa by 2020.

### ■ Aspire – premium HCC seeking the seaborne market (Neutral, \$0.45 PT)

Aspire is targeting 12Mtpa saleable production from Ovoot in northern Mongolia, supported by a 331Mt high-quality hard coking coal resource. While the Project is high-cost (UBSe US\$84/t), owing to transportation distance in accessing Russia's far east ports, it achieves a 28% EBITDA margin at our US\$130/t LT price.

### ■ Guildford – near-term production at China's doorstep (Buy, \$1.40 PT)

Guildford plans to adopt the proven model of nearby producers at its South Gobi project, only 60km from the China border. This involves contract mining and mine-gate sales to off-takers for ultimate sale into China. We estimate 3.6Mtpa production starting in FY13, comprising 70% semi-soft & 30% higher-ash product.

### ■ Valuation: Aspire NPV \$0.46/sh; Guildford NPV \$1.41/sh

We have applied DCF valuations for both companies. Our PT for Aspire is set broadly inline with the diluted NPV, given all options are currently in-the-money.

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Figure 1: Aspire drill core from Upper Seam at Ovoot



Source: UBS

This report has been prepared by UBS Securities Australia Ltd

**ANALYST CERTIFICATION AND REQUIRED DISCLOSURES BEGIN ON PAGE 74.**

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## Mongolia coal sector overview

The mining industry in Mongolia is undergoing significant growth, with an increasingly supportive Government platform attracting substantial levels of foreign investment. Notwithstanding the current freeze on issuance of Exploration Licences (ELs), pending the approval of the new Minerals Law, exploration work across existing ELs has not slowed, and capital expenditure for mine development and expansion is underpinning the country's high economic growth rate (IMF expects average real GDP growth of 13% from 2011-2015).

The Investment Agreement (IA) for the development of the Oyu Tolgoi mine, signed in October 2009 between the Mongolian Government, Ivanhoe Mines and Rio Tinto, was a key turning point in firming Mongolia's standing as an accommodative destination for mining investment. The IA has acted as a clear catalyst in spurring increasing levels of exploration, development and acquisitions across the sector since then.

The coal sector has captured the biggest proportion of this investment, driven by the vast resources within the country, success of existing operators and proximity to the world's largest coal consumer, China. Saleable coal production has the potential to quadruple from approximately 23Mt in 2011 to more than 90Mtpa by 2020, subject to the delivery of a number of major projects.

Exploration to date in Mongolia has identified more than 10Bt of coal reserves, while the Government estimates over 150Bt of resources exist within country. Coal geology is generally well exposed, featuring tectonically deformed massif & basin landscapes. In the south in particular, where the largest known deposits occur, entire geological formations have been thrust over each other, with seams typically distorted and continuity over 1km quite rare. Offsetting these characteristics are the frequently large deposits, general proximity to surface and thickness of the seams (often >10m). In the north of the country, deposits are less deformed and more continuous, also with generally thick seams.

Figure 2: Typical southern topography in South Gobi province



Source: UBS

Figure 3: Typical northern landform in Khuvsgul province



Source: UBS

## Coal production growth

Overall coal production in Mongolia is set to significantly increase over the next decade, as existing mines ramp up to design production levels and new mines come on stream. Table 1 below outlines the expected 2011 and ultimate ‘design’ production from the major existing and planned coal mines in country.

Tavan Tolgoi will provide the biggest contribution, with the main Tsankhi deposit likely to be split into a Government-owned operation (East Tsankhi) and a privately-run operation (West Tsankhi). The Government is planning to reach a 15Mtpa (ROM) mining rate by 2015, with the potential to increase beyond that. West Tsankhi will likely see similar production volumes. The Government has shortlisted companies/consortia from 5 countries to operate the mine, including Peabody, China Shenhua, Russian Railways, and consortia from Japan and Korea. However, the final structure for West Tsankhi is not yet determined.

Mongolian Mining Corp (MMC), mining the Ukhaa Khudag coalfield (the northernmost in the overall Tavan Tolgoi deposit), is currently operating at a 7Mtpa rate, and is expected to ramp up to 15Mtpa by 2014, following commissioning of a 3<sup>rd</sup> wash plant.

SouthGobi Resources (SGR) and Mongolyn Alt Group (MAK), located adjacent to each other 400km west of Tavan Tolgoi in South Gobi province, are currently operating at a combined rate of approximately 13Mtpa (ROM). Planned expansions by both companies (including SGR’s nearby greenfield Soumber mine) would double combined production to approximately 26Mtpa by 2015.

Aspire Mining (ASX: AKM) is currently developing its Ovoot hard coking coal deposit in the north (Khuvsgul province). Aspire is planning a 15Mtpa operation (3 wash plants), targeting sales into the seaborne market via Russia’s far eastern ports.

Guildford Coal’s (ASX: GUF) South Gobi project is located 50km east of SGR & MAK. Guildford is targeting production from a number of conceptual pits from FY13 (UBSe 3.6Mtpa). The company plans to adopt a similar strategy to SGR & MAK, utilising mine-gate sales to traders for ultimate sale within China.

Figure 4: MAK’s Naryn Sukhait pit in South Gobi province (adjacent to SGR’s Ovoot Tolgoi mine)



Source: UBS

Figure 5: True thickness of main 5 Seam at Ovoot Tolgoi ranges from 20-80m



Source: UBS

**Table 1: Mongolia coal production growth profile from key existing or planned mines**

Company	Ticker	Mine	Coal Type	2011 planned production		Design production		
				ROM (Mt)	Saleable (Mt)	ROM (Mt)	Saleable (Mt)	Expected by
Tavan Tolgoi - Govt	n/a	East Tsankhi	HCC	0.5	0.3	15.0	9.8	2015
Tavan Tolgoi - Private	To be listed	West Tsankhi	HCC	-	-	15.0	9.8	2015+
Mongolian Mining Corp	975 HK	Ukhaa Khudag	HCC & thermal	7.0	4.6	15.2	9.9	2014
		Baruun Naran	HCC & thermal	-	-	10.0	5.9	2013
Aspire Mining	AKM AU	Ovoot	HCC	-	-	15.0	12.0	2018
SouthGobi Resources	SGQ CN /	Ovoot Tolgoi	Semi soft	5.0	4.0	9.0	7.0	2013
	1878 HK	Soumber	Semi soft	-	-	5.0	3.0	2015
Mongolyn Alt Group	Private	Naryn Sukhait	Semi soft	8.0	6.0	12.0	9.0	2015
Mongolia Energy Corp	276 HK	Khushuut	HCC	0.5	0.5	8.0	5.9	2016
Tavan Tolgoi JSC	TTL MO	Little Tavan Tolgoi	HCC	3.5	3.5	5.0	5.0	2015
Gobi Coal & Energy	Private	Shinejinst	Semi soft	-	-	6.7	5.0	2014
Guildford Coal	GUF AU	South Gobi	Semi soft	-	-	3.6	3.6	2013
Baganuur	BAN MO	Baganuur	Thermal	3.4	3.4	3.4	3.4	n/a
Prophecy Coal	PCY CN	Ulaan Ovoo	Thermal	-	-	2.0	2.0	2013
Sharyn Gol JSC	SHG MO	Sharyn Gol	Thermal	0.8	0.5	2.5	1.5	2015
<b>Total</b>				<b>28.7</b>	<b>22.8</b>	<b>127.4</b>	<b>92.8</b>	

Source: Company information, UBS estimates. Table excludes mines producing or planning to produce at less than 1Mtpa

## Key selling routes

Currently most coal produced in Mongolia is exported directly into China via two border crossings:

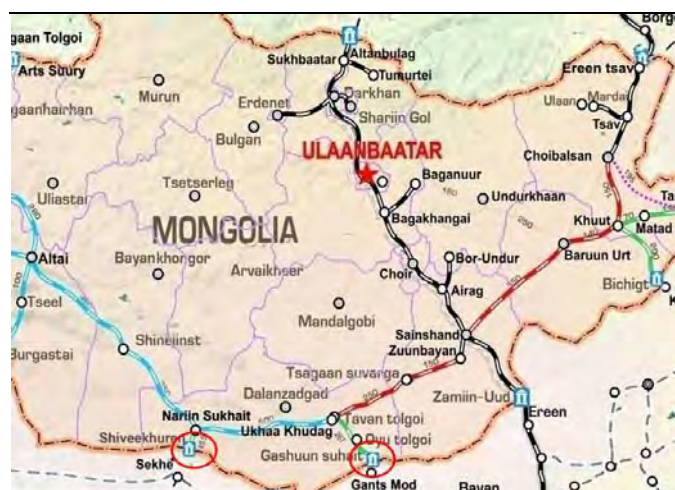
- Shiveekhuren (Mongolia) / Ceke (China) – used by SGR and MAK;
- Gashuun Sukhait (Mongolia) / Gants Mod (China) – used by MMC, and Tavan Tolgoi going forward.

These direct-to-China routes are utilised given the close proximity of the mines to the border: SGR and MAK are located only 45km from Shiveekhuren, while MMC is 240km from Gashuun Sukhait. However, this approach attracts a much lower price (China price) than that achieved on the seaborne market. See “Pricing mechanics” on page 6 below.

Accessing the seaborne market requires rail access along the Trans-Mongolian Railway to the north, linking in with the Trans-Siberian Railway in Russia and exporting through the Russian far east ports, primarily Vostochny and Vanino. While attracting a significantly higher price than the China price, this also leads to much higher transportation costs. Therefore, the seaborne market is a more compelling option for deposits towards the north of the country (minimising rail distance – e.g. Aspire) or larger deposits towards the south with potential for economies of scale (e.g. Tavan Tolgoi).



**Figure 6: Major southern border crossings at Shiveekhuren and Gashuun Sukhait**



Source: Ministry Of Road, Transportation, Construction and Urban Planning; UBS

**Figure 7: Congestion (and dust pollution) along existing gravel road from SGR & MAK to Shiveekhuren border crossing**



Source: UBS

The quality of coal transportation infrastructure within Mongolia has until recently been quite poor, with each of SGR, MAK and MMC trucking their product to the border along gravel roads. This has led to inefficiencies, environmental issues (dust pollution) and also several fatalities.

These gravel roads are, however, being replaced by paved roads. MMC commissioned its 240km paved road in October 2011 under a 10-year build, operate & transfer (BOT) agreement with the Government. MMC expects the 18Mtpa capacity road to lower its transportation costs by US\$4-6/t from approximately US\$25/t to US\$20/t. SGR recently secured approval to construct a 45km paved road from its Ovoot Tolgoi mine to Shiveekhuren. It expects a US\$1.80/t reduction in trucking costs (net of tolling).

## Pricing mechanics

The price received on coal sales direct into China is significantly lower than the reference seaborne price for each coal type. The pricing methodology is generally based on applying a series of netbacks to the relevant China domestic price (at which each product is ultimately sold), to arrive at a Mongolia border or mine-gate price.

Both MMC and SGR's selling prices are calculated applying this methodology. For MMC, whose selling point is primarily at the Gants Mod border crossing, the price is derived by taking the China domestic FOB price at its ultimate port of shipment (Tangshan, Qinhuangdao, etc.) and deducting the various costs of transporting the coal from Gants Mod to that port. This includes: Mongolian VAT, Mongolia-China border costs and trans-shipment costs, trucking costs to Baotou, trans-shipment costs onto rail, rail costs to port and unloading/logistics costs at the port. In addition, general handling costs and a traders' margin are also commonly factored in.

For MMC, these netbacks currently approximate US\$100-105/t, which accounts for the difference between the domestic Tangshan Port FOB price (Y1,660/t or ~US\$260/t) and MMC's selling price of approximately US\$155/t.

Table 2: An example of 'China price' methodology

Starting point: China domestic FOB port price
<i>Netbacks:</i>
Unloading/logistics @ China port
Rail costs (regional centre to China port)
Provincial tax
Transshipment @ regional centre
Trucking costs (Mongolia border to regional centre)
China-Mongolia border cost
Transshipment @ border
Mongolian VAT
<i>Other costs:</i>
Handling costs
Traders' margin
Received price: Mongolia border price
Rail / trucking costs (mine to Mongolia border) (if mine-gate selling point)
Received price: Mine-gate price

Source: UBS

## Rail expansion

Existing bulk rail infrastructure in Mongolia is limited. The only major rail lines include: the Trans-Mongolian Railway (TMR), linking the Trans-Siberian Railway (TSR) in Russia to the north, crossing through Ulaanbaatar and linking to China in the south at Zamyn Uud; and a rail line in the north-east from Choibalsan to the border town of Ereen Tsav, which ultimately also links to the TSR. While the TMR is used for several purposes, total coal-carrying capacity is in the order of 20Mtpa, with approximately 4Mtpa in current excess capacity.

The Government has embarked on an ambitious multi-phase rail development program, which would open up multiple additional selling points for mining operations, including the seaborne market via the Russian far east ports. In our view, the primary objective is to enable the giant Tavan Tolgoi mines to access the seaborne market and thereby reduce reliance on China as a direct customer. The 3 phases of the development are outlined below (see also Figure 8 below):

- **Phase 1** (red line): from Tavan Tolgoi running north-east, crossing the TMR at Sainshand, and linking to Choibalsan, providing access to the TSR and ultimately the seaborne market via the Russian far east ports;
- **Phase 2** (green lines): linking the Phase 1 line to various selling points into China. These include: from Khuut to Nomrog, opening up access to Dandong and Dalian ports (see Figure 9); from Khuut to Bichigt, opening up alternative access to Qinhuangdao port; from Tavan Tolgoi to Gashuun Sukhait; and from Naryn Sukhait to Shiveekhuren;
- **Phase 3** (blue lines): opening up the west of Mongolia for mining and industrial activity and passenger transportation. We view this Phase as purely a long-term option for the Government.

The Government has estimated a construction cost for Phase 1 of approximately US\$3.0bn. At 1,065km overall track length, this equates to a low capital intensity of US\$2.8m/km. This should be achievable given the unchallenging terrain and low labour costs.

While the financing structure is not yet determined, Mongolian Railway (MR), the state-owned entity overseeing the project, is currently contemplating a 40% equity / 60% debt arrangement. MR is in discussion with the Government, the international bidders on Tavan Tolgoi and other strategic investors to contribute the equity funding. The debt funding is targeted to be sourced from international commercial banks and development banks.

Phase 2 construction would likely only commence following completion of Phase 1. The final configuration is not yet settled; for example, the line from Khuut to Bichigt may be deferred or cancelled, given it is dependent on a 250km spur line on the China side from the border to Zuun Uzemchin. In addition, the line to Gashuun Sukhait is likely to be built by MMC under a BOT arrangement.

Figure 8: Outline of the Government's planned 3-phase rail development project



Source: Ministry Of Road, Transportation, Construction and Urban Planning



Figure 9: Connectivity of the planned rail network to Russia's TSR and far east ports, and to China's rail &amp; port networks



Source: Mongolian Railway

## Strategic Deposits

The level of participation in (or ownership of) a mining asset by the Government is determined by whether or not the asset is considered to be a “mineral deposit of strategic importance” (Strategic Deposit). The Minerals Law defines Strategic Deposits as those that:

- may impact on national security; or
- may impact the economic and social development of the country at the national and regional levels; or
- are producing or have the potential to produce more than 5% of total GDP in any given year.

If the Strategic Deposit in question was discovered by private exploration, the Government is entitled to a maximum 34% stake. If the deposit was originally discovered by State-backed exploration (and subsequently divested to a private entity), the Government is entitled to a 50% interest. The Government is not entitled to a stake in non-Strategic Deposits.

The Government is required to provide consideration for its acquired stake in Strategic Deposits. However, given the early-stage nature of the mining industry in Mongolia, in particular large privately-owned Strategic Deposits, there is not yet a clear evolved practice as to the valuation methodology to be applied.

Further, as the Government may not be able to provide upfront consideration for these stakes, payment is likely to be deferred and recouped through foregone dividends from the cash flows of the asset.

### No ASX-listed coal projects on the list...

There are currently 15 Strategic Deposits across the country, covering a range of commodities, with Oyu Tolgoi, Tavan Tolgoi and the major copper mining complex at Erdenet the most significant. There is also a secondary 'watchlist' of deposits, which the Government is considering to recognise as Strategic Deposits. There are 39 deposits currently in the secondary list. No ASX-listed coal projects currently exist on either the Strategic Deposits list or the watchlist.

## Royalties & taxes

### Complicated royalty system in need of overhaul

Mineral royalties in Mongolia are levied via a two-tier structure, comprising:

- Base royalty: 2.5% for domestic coal sales / 5.0% for export coal sales; and
- Additional (sliding-scale) royalty: 0%-5.0% depending on the applicable "Reference Price" and whether the coal is unwashed or washed.

The sliding-scale categories for the additional royalty are outlined below:

**Table 3: Additional mineral royalty categories**

Unwashed Coal		Washed Coal	
Reference Price (US\$/t)	Additional royalty (%)	Reference Price (US\$/t)	Additional royalty (%)
0-25	0.0	0-100	0.0
25-50	1.0	100-130	1.0
50-75	2.0	130-160	1.5
75-100	3.0	160-190	2.0
100-125	4.0	190-210	2.5
Above 125	5.0	Above 210	3.0

Source: UBS, Hogan Lovells

The maximum additional royalty for washed coal is lower than for unwashed coal, under a Government initiative to incentivise the development of a downstream processing industry in Mongolia. This differential also applies to most other commodities.

Importantly, the royalty rates are not levied on the actual selling price for each mine's coal product, but rather according to the series of Reference Prices published monthly by the Ministry of Mineral Resources. There is only a single Reference Price for washed coal, while unwashed coal has 3 tiers of Reference Prices based on a combination of energy content and other quality characteristics. There has been some volatility in the historical movement of the Reference Prices, however they have begun to stabilise over the past 6 months (see Table 4 below).

Table 4: Mongolian royalty 'Reference Prices' – last 12 months

Month	Unwashed Coal			Washed Coal
	Tier 1 (<4000 kcal/kg)	Tier 2 (4000-5500 kcal/kg)	Tier 3 (>5500 kcal/kg)	
January 2012	79.0	98.0	115.0	174.3
December 2011	79.0	96.0	115.0	173.5
November 2011	77.3	96.2	115.1	174.1
October 2011	75.0	88.0	114.0	172.0
September 2011	72.0	88.0	114.0	172.0
August 2011	71.0	87.0	109.0	170.9
July 2011	63.0	86.0	99.6	172.6
June 2011	63.0	86.0	99.6	172.6
May 2011	63.0	86.0	119.0	206.0
April 2011	62.5	85.0	119.0	206.0
March 2011	62.5	64.7	70.0	202.7
February 2011	62.0	64.0	70.0	200.6

Source: Mongolian Tax Authority

The weakness of the present system is that the same Reference Prices apply regardless of the selling point of the coal. As an example, SGR realised an average selling price of US\$66.83/t and US\$39.74/t for its raw semi-soft coal and raw higher-ash coal respectively in the September quarter 2011, on a mixture of mine-gate and Mongolian border sales. The average Reference Prices for these two products in the September quarter (Tiers 3 and 2 respectively) were US\$107.5/t and US\$87.0/t, for respective headline royalty rates of 9% on the semi-soft coal and 8% on the higher-ash coal. However, SGR's effective royalty rates (against its actual selling prices) were 14% and 18% respectively.

We understand that the Government is aware of the flaws in the present royalty framework and believe it is likely to move to a more standardised and commercial system over the next 12-24 months.

## Other taxes

The other key taxes imposed on mining companies include:

- Income tax: 10% on taxable income up to MNT3.0bn (US\$2.1m); 25% on taxable income over MNT3.0bn
- VAT: 10% of selling value. Only applies to domestic coal sales. Further, 'finished mineral products' are exempt – while not yet certain, it is likely that washed coal will be classified as a finished product for VAT purposes.
- Customs Clearance Fee: MNT1,500/t of coal (US\$1.05/t)

## Valuations

Table 5: Mongolian coal company trading & valuation metrics

Company	Ticker	Mkt Cap	EV	Resources	Reserves	EV/t		P/E (x)		EV/EBITDA (x)		EV/t production	
		(US\$m)	(US\$m)	(Mt)	(Mt)	Resource	Reserve	2012	2013	2012	2013	2011	Design
Mongolian Mining Corp	0975 HK	2,868	3,132	860	468	3.6	6.7	9.2	6.5	7.0	4.8	688	198
SouthGobi Resources	SGO CN <sup>(1)</sup>	1,048	991	536	107	1.8	9.3	24.7	10.1	7.2	3.9	248	99
Mongolia Energy Corp	0276 HK	596	950	149	0	6.4	-	nmf	nmf	nmf	nmf	1,901	162
Prophecy Coal Corp	PCY CN	89	81	1,434	21	0.1	3.9	nmf	nmf	nmf	nmf	-	40
Aspire Mining	AKM AU	229	189	331	0	0.6	-	nmf	nmf	nmf	nmf	-	16
Guildford Coal	GUF AU	344	319	1,320	0	0.2	-	nmf	24.1	nmf	17.8	-	89
Modun Resources	MOU AU	31	30	489	0	0.1	-	nmf	nmf	nmf	nmf	-	-
Xanadu Mines	XAM AU	47	25	497	0	0.1	-	nmf	nmf	nmf	nmf	-	-

Source: Bloomberg, IRESS (as at 17/1/12), company reports, UBS estimates (for AKM and GUF). Excludes Mongolian Stock Exchange (MSE) listed stocks, given lower liquidity

1. SouthGobi Resources' secondary listing on HKSE, code 1878 HK

Trading metrics among listed Mongolian coal companies (excluding MSE-listed stocks) are variable, as outlined in Table 5. This reflects the diverse stages of asset development for each company, from existing producers (MMC, SGR) to those in exploration phase (Xanadu Mines). The average EV/resource multiple is US\$1.60/t, however the range is clearly skewed between existing producers (ave. US\$3.95/t) and companies in pre-production (ave. US\$0.20/t).

The recently completed takeover of ASX-listed developer Hunnu Coal by Banpu PCL underscores the increasing corporate interest in Mongolian coal projects. The all-cash offer of \$1.80 per share represented a 53% and 41% premium to Hunnu's 1-month VWAP and 3-month VWAP, respectively. On an EV/t basis, this represented US\$0.45 per tonne of Hunnu's overall resource of 843.5Mt (undiluted basis). Excluding projects other than Hunnu's only near-term producing asset (Tsant Uul, 167.1Mt resource), the multiple was US\$2.26/t.





## UBS Investment Research

### Aspire Mining Limited

## Premium hard coking coal seeking the seaborne market

### ■ Developing the high-quality Ovoot coking coal project in Mongolia

We initiate coverage of Aspire Mining with a Neutral rating and A\$0.45 price target. Aspire owns 100% of the Ovoot hard coking coal project in northern Mongolia. Ovoot is a high-quality product, featuring very high energy and vitrinite content and low ash. The Project has a 331Mt resource suitable for open pit mining. The company has intersected similar coal at depth 4km to the north-east, with an updated resource estimate expected in March quarter. Further resource upside remains across the company's 700km<sup>2</sup> of exploration licences.

### ■ Planning for a major mining operation; infrastructure the constraint

Aspire is targeting a 15Mtpa (ROM) operation, producing 12Mtpa of saleable coal via 3 wash plants. The company estimates first production in 2016, however it may undertake a 'Stage 1' development of ~0.5-1.0Mtpa in the interim. We factor an 18-month delay to the full-scale operation, due to potential logistics constraints. The key selling routes are to access the seaborne market via Russia's far east ports or to sell directly into China. Either way, the Project will require construction of a 550km rail line linking Ovoot to the Trans-Mongolian Railway.

### ■ High-cost, but highly-leveraged coal exposure

The Project is high-cost, owing to the transportation distance involved (~4,900km from Ovoot to Vostochny port in Russia). We estimate FOB cash costs of US\$84/t, including US\$55/t for rail. At UBS' long-term HCC price (US\$130/t), however, the Project achieves sound margins (28% EBITDA / 21% EBIT) and a 12% IRR. Additionally, Ovoot has a leveraged position to higher-than-expected HCC prices.

### ■ Valuation: NPV A\$0.65 (undiluted) / A\$0.46 (diluted); PT A\$0.45

Highlights (A\$m)	06/10	06/11	06/12E	06/13E	06/14E
Revenues	0	0	0	0	42
EBIT (UBS)	(1)	(5)	(16)	(11)	10
Net Income (UBS)	(1)	(4)	(15)	(4)	8
EPS (UBS, A\$)	(.00)	(0.01)	(0.02)	(.00)	0.01
Net DPS (UBS, A\$)	0.00	0.00	0.00	0.00	0.00
Profitability & Valuation	5-yr hist av.	06/11	06/12E	06/13E	06/14E
EBIT margin %	-	<-500	-	-	24.4
ROIC (EBIT) %	-	(40.9)	(75.1)	(23.5)	7.4
EV/EBITDA (core) x	-	-40.1	-11.8	-3.1	16.0
PE (UBS) x	-	NM	NM	NM	36.6
Net dividend yield %	-	0.0	0.0	0.0	0.0

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of A\$0.36 on 17 Jan 2012 23:37 EST

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## Global Equity Research

Australia

Mining

12-month rating **Neutral \***  
*Prior: Not Rated*

12m price target **A\$0.45/US\$0.47**

Price **A\$0.36/US\$0.37**

RIC: AKM.AX BBG: AKM AU

### Trading data (local/US\$)

52-wk range	A\$1.08-0.28/US\$1.13-0.29
Market cap.	A\$0.22bn/US\$0.23bn
Shares o/s	621m (ORD)
Free float	28%
Avg. daily volume ('000)	1,780
Avg. daily value (m)	A\$0.6

### Balance sheet data 06/12E

Shareholders' equity	A\$0.06bn
P/BV (UBS)	3.8x
Net Cash (debt)	A\$0.03bn

### Forecast returns

Forecast price appreciation	+26.8%
Forecast dividend yield	0.0%
Forecast stock return	+26.8%
Market return assumption	8.7%
Forecast excess return	+18.1%

### EPS (UBS, A\$)

	From	06/12E To	Cons.	06/11 Actual
H1E	-	(0.01)	-	(.00)
H2E	-	(0.01)	-	(.00)
06/12E	-	(0.02)	(0.01)	
06/13E	-	(.00)	0.01	

### Performance (A\$)



Source: UBS

www.ubs.com/investmentresearch

\* Exception to core rating bands; See page76

# Investment thesis

## Overview of Aspire Mining

Aspire owns 100% of the Ovoot coking coal project in northern Mongolia. Ovoot contains high-quality hard coking coal, featuring amongst others, very high energy and vitrinite content and low ash. The Project has a 331Mt resource at depths suitable for open pit mining. The company has intersected similar quality coal at depth 4km to the north-east (NE Ovoot), and expects to release an updated resource estimate in March quarter 2012.

Aspire is targeting the development of a 15Mtpa (ROM) mining operation at Ovoot, producing 12Mtpa of saleable coal via 3 wash plants. The company estimates first production in 2016, however it may undertake a 'Stage 1' development of 0.5-1.0Mtpa in the interim, to test markets and selling routes. We model Stage 1 proceeding, but factor an 18-month delay to the full-scale operation, due to the Project's infrastructure constraints, as outlined below.

The key selling routes include: (i) accessing Russia's far east ports via the Trans-Siberian Railway (TSR), to achieve the seaborne price; or (ii) selling direct into China via the Trans-Mongolian Railway (TMR). To export via Russia, Aspire must secure TSR and port access at acceptable tariffs; to sell direct to China, an expansion in TMR capacity is required. Both routes, however, require the construction of a rail line from Ovoot to the TMR at Erdenet (Rail Link). We estimate capex of US\$1.65bn for the Rail Link.

## Why we rate Neutral on Aspire

Notwithstanding the excellent quality of Ovoot coal, we are cautious: in the absence of further clarity regarding securing capacity along the company's potential logistics routes; and on our diluted valuation at our long-term price assumption.

For sales via Russia's far east ports, while ample capacity exists along the TSR, there is currently insufficient port capacity to support a third-party project of Ovoot's size. While new capacity is being planned (e.g. Mechel, one of Russia's largest coking coal producers, plans to construct a new 25Mtpa terminal at Vanino Port), it is uncertain how much will be made available to third parties. For sales direct to China, an upgrade in the coal-carrying capacity of the TMR is required, with only 4Mtpa estimated to be presently available. Notably however, Aspire has recently entered into an Alliance Agreement with substantial shareholder, Noble Group, to assist with marketing and supply-chain logistics.

On valuation, we have applied: a diluted NPV, given all options outstanding are deeply in-the-money; and our long-term HCC price forecasts of US\$130/t. We outline the sensitivity of Aspire's NPV to a range of LT prices on page 30.

Importantly, we agree with the company's focus in 2012 on introducing a strategic partner and proving up the resource base. Bringing on a partner to assist with project financing would derisk the Project, and potentially lead to a rerating of the stock. In addition to this, with further exploration success, we are confident that the size and quality of the Project would help to serve as a catalyst to drive a logistics solution enabling the development of the Project.

## Valuation

We value Aspire based on our forecast discounted free cash flows from the Ovoot project. We model Stage 1 production proceeding, followed by the full-scale operation. However, we assume an 18-month delay to the commencement of full-scale mining operations, to account for the current uncertainty regarding logistics and infrastructure.

With reference to the company's intention to introduce a strategic partner to assist with project financing, we assume a 50% selldown at the asset level for A\$200m (for conservatism at a small discount to half our Ovoot NPV pre-selldown).

We value the company on a fully-diluted basis, given all options on issue are currently deeply in-the-money. See pages 29-30 for further discussion, peer analysis and sensitivities.

**Table 6: NPV breakdown**

	A\$m	A\$/sh (basic)	A\$/sh (diluted)
Ovoot	422	0.68	0.49
Corporate / exploration	-150	-0.24	-0.17
Exploration upside	100	0.16	0.12
Net (debt) / cash	32	0.05	0.04
<b>Total</b>	<b>403</b>	<b>0.65</b>	<b>0.46</b>
Discount rate	10%		
IRR	12.2%		
Shares on issue (basic)	620.6		
Shares on issue (diluted) <sup>(1)</sup>	867.8		

Source: UBS estimates

(1) We assume full exercise of options on issue, but not SouthGobi Resources' top-up right to retain a 19.9% shareholding in Aspire

**Table 7: UBS commodity & currency forecasts**

		2012	2013	2014	2015	LT (real)
Hard coking coal	US\$/t	204	174	159	150	130
AUD:USD	fx	1.00	0.96	0.90	0.84	0.80

Source: UBS estimates

## Near-term catalysts

- **Release of updated resource:** The upgraded resource statement, expected in March quarter, will likely include a maiden reserve for Ovoot and an initial resource estimate for the NE Ovoot prospect. The Ovoot reserve should indicate how much of the existing 331Mt resource can be economically mined via an open pit. The NE Ovoot resource should indicate whether that orebody can support an underground mine.
- **Completion of Rail PFS and Project PFS:** Aspire is progressing separate pre-feasibility studies on the Rail Link (Rail PFS) and the rest of the Project (Project PFS), with estimated completion by end of March quarter. These

should provide initial guidance on important parameters impacting valuation: the Rail PFS regarding capex & timing for the Rail Link; the Project PFS regarding operating cost estimates, wash plant design, etc.

- **Receipt of Mining Licence:** The Mining Licence is the key approval required for the Project, comprising both mining and environmental approvals. Mining Licences are generally issued by the Government shortly after the formal application is made, as the detailed process of preparation and government consultation is completed prior to the formal application. Aspire expects to submit its formal Mining Licence application in 1H 2012.
- **Securing a strategic partner(s):** Aspire is aiming to complete funding negotiations, including the introduction of any partner(s) to the Project, in 2H 2012, to enable development of the Rail Link to commence in 2013. We believe the introduction of a strategic partner, with the capacity to secure financing for the Rail Link and remainder of the Project on attractive terms, would derisk the Project and likely lead to a rerating of the company.

## Risks

- **Ability to secure capacity along logistics chain:** The Project is ultimately dependent on securing sufficient infrastructure access. For direct sales to China, the TMR has sufficient capacity to support the Stage 1 development, but requires expansion to support the full-scale mining operation. For exports via Russia's far east ports, the TSR has sufficient capacity, however Aspire will need to secure a third-party port allocation. Notably, Aspire has recently entered into an Alliance Agreement with substantial shareholder, Noble Group, to assist with marketing and supply-chain logistics.
- **Delay in approval/construction of Rail Link:** Aspire is currently progressing the Rail PFS, to support the grant of a licence by the Government for the construction of the Rail Link. We see the potential for delay in this approval, as the Government may seek clarity regarding the likely mix of sales by destination. Additionally, construction may take longer than expected, depending on the ability of contractors to mobilise equipment and workforce given the remoteness of the route. We have factored into our forecasts an 18-month delay to first production to account for these risks.
- **Country risk / Strategic Deposits:** While we view the Government as increasingly supportive towards foreign investment in the mining sector, some uncertainty remains pending the release of the new Minerals Law, expected in 2012. In addition, the Government has the right to acquire a 34% interest in the Project should it be deemed a Strategic Deposit. The key test is whether the Project would represent 5% or more of GDP. This is unlikely following the ramp-up of Oyu Tolgoi and the Tavan Tolgoi mines.
- **Lower-than-expected HCC prices:** As a high-cost project (given the transportation distances involved), Ovoot is more exposed to fluctuations in long-term HCC prices than many of its peers. However, at our long-term price assumption of US\$130/t, the Project generates an EBITDA margin of 28% and an IRR of 12%. Additionally, Aspire is positioned as a strong leverage play on valuation to higher long-term prices.



# Ovoot Project

## Background

The Ovoot coking coal project is located in the Khuvsgul province in northern Mongolia. Aspire acquired a 100% interest in the Project in November 2009 from a consortium of local vendors. The Project consists of 3 contiguous exploration licences (ELs) (Ovoot, Hurimt & Zuun Del) over an area of 509km<sup>2</sup>. The company also has an interest in 3 other coal prospects (Nuramt – AKM 100%, Jilchigbulag – AKM 100%, Shanagan – AKM 51% earn in right) and an iron ore prospect (Zavkhan – AKM earning 70%).

The Ovoot mineralisation is located on the western edge of a large Lower Jurassic sedimentary basin, interpreted to extend over an area of 820km<sup>2</sup>. Compared with the typical coal formations in southern Mongolia, the basin is understood to have been relatively tectonically stable, with only minor faulting and folding. The mineralisation at the main Ovoot orebody is hosted within a shallow syncline structure, dipping towards the east.

Figure 10: Aspire projects



Source: Aspire Mining Ltd

Figure 11: Ovoot campsite



Source: UBS

## Ovoot resources & coal quality

The Vendors had completed an 8-hole, 1,881m diamond drill program to target the potential resource size. Four of these holes intersected coal seams, at thicknesses of between 6-38 metres. Following the acquisition, Aspire drilled a further 44 holes (for 8,364 metres) to define its initial JORC resource on the Project, outlined in Table 8 below.

Table 8: Ovoot Resources

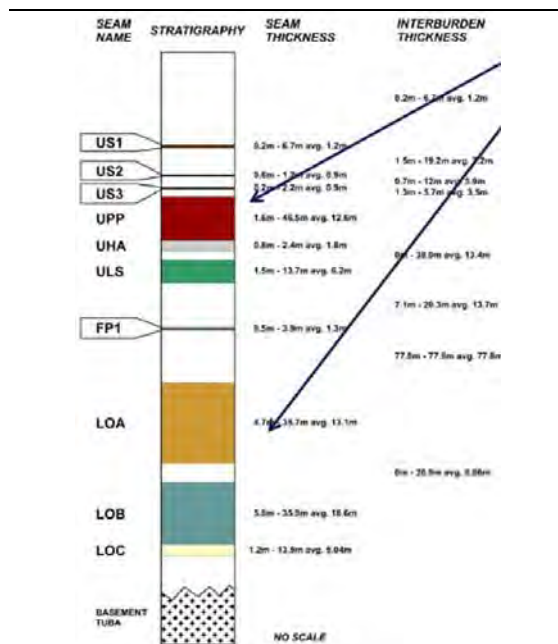
	Overall	Depth	
		0m - 250m	Below 250m
Measured	93.3	70.4	22.9
Indicated	182.4	135	47.4
Inferred	55	41.9	13.1
<b>Total</b>	<b>330.7</b>	<b>247.3</b>	<b>83.4</b>

Source: Aspire Mining Ltd

## Deposition

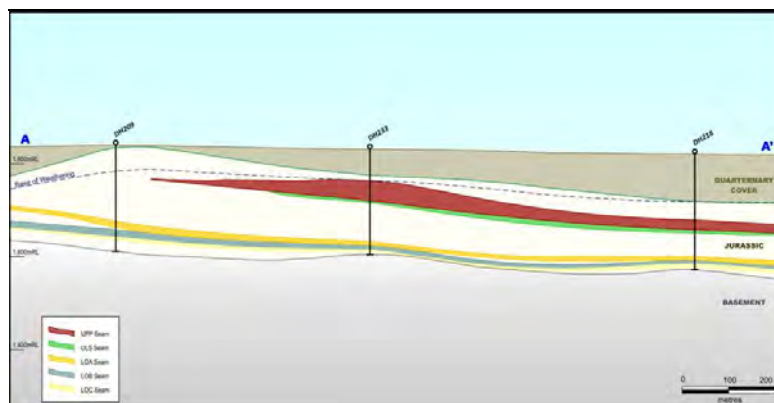
The central thick portion of the Ovoot orebody occurs over an area roughly 1km x 4km. Approximately 93% of the resources are located in the Upper Seam and 3 plies of the Lower Seam. The average thickness of the Upper Seam is 12.6m and the average thickness of the 3 plies of the Lower Seam (A, B & C) is 13.1m, 18.6m and 5.0m respectively. Three quarters of the resource sits above 250m depth, confirming suitability for an open pit operation. The coal seams have an average plunge to the east of 6 degrees.

Figure 12: Ovoot stratigraphy – 93% of Resources in the Upper and 3 plies of the Lower Seam



Source: Aspire Mining Ltd

Figure 13: Ovoot indicative cross-section – gently-dipping continuous seams



Source: Aspire Mining Ltd

Figure 14: More than 15m core sample of Ovoot Upper Seam



Source: UBS

Figure 15: Thickness of the same Upper Seam demonstrated at an adjacent mine (~12m thickness)



Source: UBS

## Quality & washing test results

Detailed testwork has confirmed Ovoot as a high-quality premium hard coking coal product. Key characteristics include its high vitrinite content (96-97%), high fluidity, high energy content, low ash content, high crucible swelling number (CSN) and high yield.

The company took 338 samples for raw coal analysis and over 300 samples for coal washing analysis. The results are summarised in Tables 9 & 10 below. Aspire is confident on the basis of these results that not all coal mined at Ovoot will need to be washed.

**Table 9: Average Ovoot raw coal quality (air dried basis, testing by SGS Laboratories)**

Inherent Moisture (%)	Ash (%)	Volatiles (%)	Sulphur (%)	CSN	Energy (kcal/kg)
0.6	19.5	26.5	1.2	7.7	6,668

Source: Aspire Mining Ltd

**Table 10: Ovoot coal washability test results**

Yield (%)	Inherent Moisture (%)	Ash (%)	Volatiles (%)	Sulphur (%)	CSN	Energy (kcal/kg)
80	0.6	8	25-28	1.0-1.1 <sup>(1)</sup>	8-9	7,700 <sup>(1)</sup>

Source: Aspire Mining Ltd

<sup>(1)</sup> Indicative results only

## Exploration upside

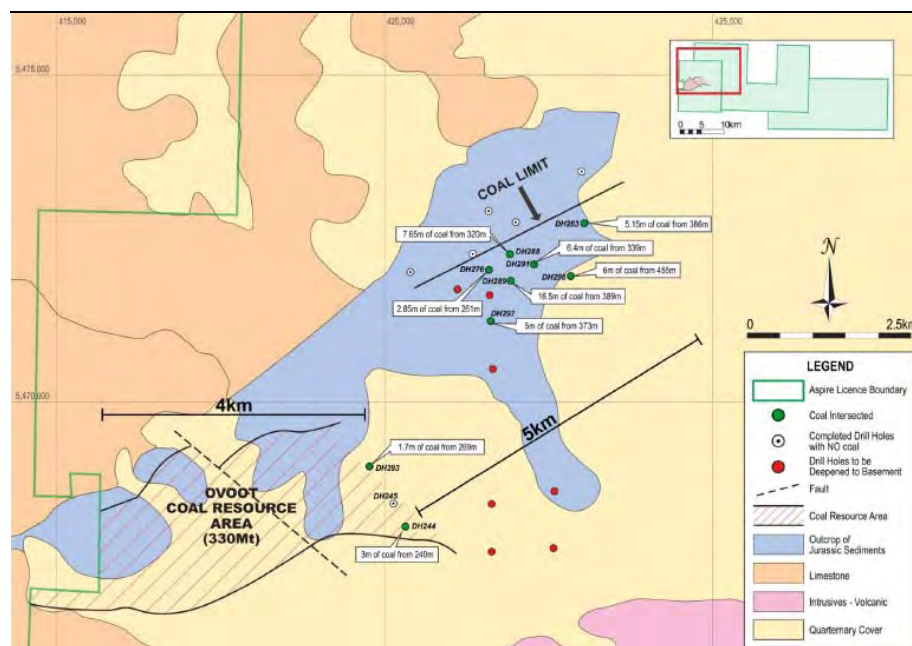
Aspire announced in September the intersection of a previously unknown area of coal seam formation 4km north east of the existing Ovoot resource (NE Ovoot). Drilling has intersected hard, bright bituminous coal in 7 holes (announced to date) across a 2km x 1km area (see Figure 16).

The coal seams occur at depth, with the shallowest intersection at 261m and the deepest at 455m. The intersected thickness of the seams to date is mostly between 2-5m, however the thickest intersection has been 16.5m, starting at 389m depth. The orebody deepens to the south-east and remains open to the east, south & west.

Next steps for the company at NE Ovoot include: (i) continuing drilling to the south & east to grow the footprint of the potential resource; (ii) drilling to the south-west to assess whether the main Ovoot resource and NE Ovoot are connected; & (iii) following this trend eastward into the western portion of the Hurimt licence (see Figure 17).

The company currently has 5 rigs operating across Ovoot (infill drilling / maiden reserve) and NE Ovoot (determining maiden resource), with drilling continuing throughout the Mongolian winter season. Aspire is targeting the release of an updated overall resource for the Ovoot project in March quarter 2012.

Figure 16: NE Ovoot drill holes and seam direction



Source: Aspire Mining Ltd

## Ongoing exploration strategy

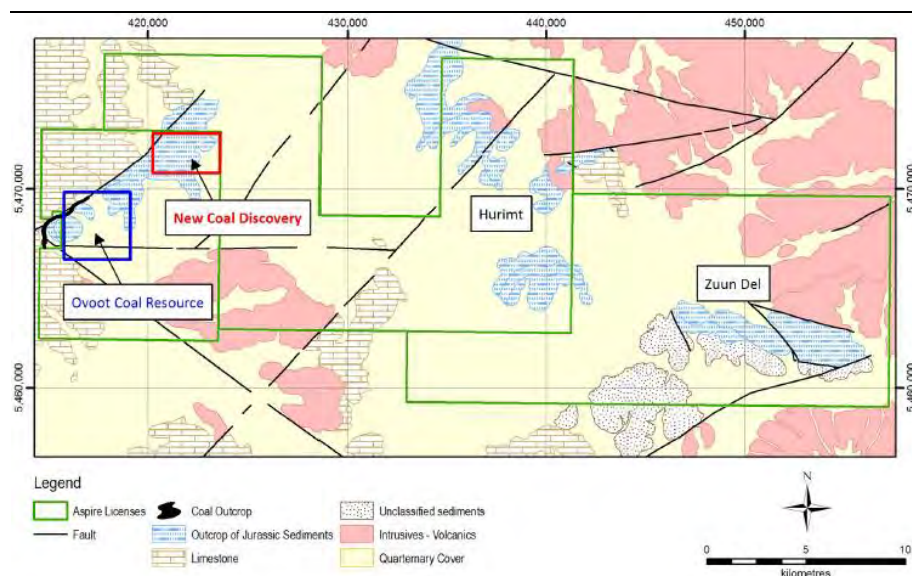
Aspire's exploration strategy is to target mapped Jurassic age sediments where the depth of potential coal is relatively shallow (similar to the setting in which the existing Ovoot resource occurs). Within the overall Ovoot project area, the company's approach has been to: (i) identify the base of the Jurassic sequence, then work up-sequence until coal is struck; (ii) follow along strike to test continuity; & (iii) continue to drill up-sequence to grow the resource.

Aspire recently completed an airborne magnetics program across all 3 ELs within the Ovoot project and also over the Nuramt project, to determine the structure and shape of these basins. This follows detailed mapping work undertaken at Hurimt and Zuun Del from August to October 2011 and a seismic program across the Ovoot project in 2010. The data from the airborne magnetics program is currently being processed.

The Board has approved a 25,000m drilling program through to June 2012; 5,000m of this has been completed to date. 16-17 holes have been allocated for infill drilling at Ovoot (to enable conversion of an initial reserve); 28 holes have been allocated to additional drilling at NE Ovoot; and 21 holes have been allocated to initial drilling at Hurimt.



Figure 17: Ovoot project licence area open to the east (Hurimt & Zuun Del prospects)



Source: Aspire Mining Ltd

A summary of the exploration focus at Aspire's other projects is outlined below:

#### Nuramt (AKM 100%)

- 200km<sup>2</sup> EL, 40km south-west of provincial capital of Moron
- Features the same Jurassic sediments containing coal at Ovoot
- Following the airborne magnetics program in December quarter 2011, Aspire is planning a targeted RC drilling program to commence in 2H 2012.

#### Jilchigbulag (AKM 100%)

- 2.5km<sup>2</sup> EL, 20km south-east of Moron
- Aspire drilled 11 RC holes from June to August 2011, which intersected hard, bright coal (similar in appearance to Ovoot); up to 8m thickness and between 80-150m depth
- However, tonnage is likely to be very modest (potentially <20Mt).

#### Shanagan (AKM 51% earn in rights)

- 20km<sup>2</sup> EL, 150km south-east of Ulaanbaatar
- A small drilling program was undertaken in June quarter 2011, with thin ashy coal intersected in 1 hole.

#### Zavkhan (AKM earning 70%)

- EL prospective for iron ore 165km west of Ovoot
- A previous ground magnetics program identified a 2km x 200m magnetic high anomaly overlying an iron rich skarn. Rock chip samples contained magnetite with chemical analysis of iron +60% and low sulphur and phos
- Aspire can earn a 70% interest by defining a JORC resource within 3 years.

## Development approach

Aspire is targeting a 15Mtpa (ROM) mining operation, utilising a 3 wash plant configuration, to produce 12Mtpa of saleable hard coking coal (80% yield). This would place Ovoot as the equal largest coal mine in the country, along with Mongolian Mining Corp (MMC) and Tavan Tolgoi (although both the Government-run and privately-run Tavan Tolgoi mines may ultimately be expanded beyond 15Mtpa).

### Stage 1 development an option

In the lead up to development of the full-scale operation, Aspire may undertake a small-scale operation (Stage 1), to prove up the development capability of the Project and promote the Ovoot product to international markets. Stage 1 would likely produce at 0.5-1.0Mtpa, with road capacity being the limiting factor.

Aspire has completed a Scoping Study into Stage 1, which contemplates development of a box cut (500m x 500m) which would essentially scrape the top of the Upper Seam. Given the raw coal quality of this portion of the Upper Seam, the coal would like be sold as a DSO product. However, Aspire is considering the use of a small wash plant on site (up to 0.5Mtpa capacity). See Table 11 for the raw coal specifications supported by the Scoping Study.

**Table 11: Indicative Stage 1 raw coal specifications**

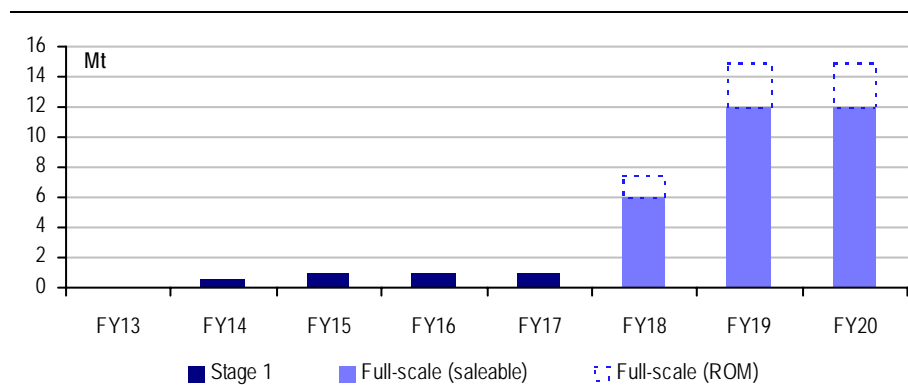
Phos (%)	Ash (%)	Volatiles (%)	Sulphur (%)	CSN	Energy (kcal/kg)
0.05	10	27	1.0	9	6,800-6,900

Source: Aspire Mining Ltd

We have modelled the Stage 1 development going ahead, with first production of 0.5Mt in FY13, increasing to 1.0Mtpa from FY14. For conservatism, we factor an 18-month delay in commissioning of the full-scale mining operation, assuming 7.5Mt (ROM) production in FY18 and nameplate 15Mtpa production from FY19 (see Chart 1).

We note, however, that there is no certainty that Aspire will proceed with the Stage 1 option, with the success of the company's ongoing exploration program across the Ovoot project area to have a major bearing on the nature of the development towards full-scale operations.

**Chart 1: UBSe production profile**



Source: UBS estimates

## Infrastructure & capex

Notwithstanding whether Aspire undertakes the Stage 1 operation or proceeds directly to full-scale mining operations, the company will need to transport its product to the TMR in order to gain access export markets. The Ovoot project is located 550km west of Erdenet, Mongolia's second-largest city and the end-point of a 150km spur line from the main TMR line (see Figure 18).

Figure 18: Outline of proposed rail route, and potential 3<sup>rd</sup>-party users



Source: Aspire Mining Ltd

## Stage 1 requirements

### Road

Stage 1 (if implemented) would involve trucking the Ovoot product via road to Erdenet, where it would be loaded onto trains on the TMR and taken either to customers in China or exported via Russia's far east ports.

The existing gravel road between Erdenet and Moron (390km) requires upgrading to a paved road in order to allow coal haul truck transportation. This upgrade is being progressed as part of a donor project. Aspire expects construction of the new road, to start at Erdenet and work west, to have reached 100km east of Moron by end of 2012, and to be completed by end of 2013.

Aspire will be responsible for the construction and cost of the remaining portion of the road, from Moron to Ovoot (160km). The road would be a 2-lane, paved road, which Aspire estimates would require a 6-month construction timeframe. We estimate capex of US\$80m or US\$0.5m/km, one-quarter of the estimated capital intensity of SouthGobi Resources' approved 4-lane, 45km road from Ovoot Tolgoi to the Ceke border. We view this as achievable as Aspire's road would be only 2 lanes and due to economies of scale given its greater distance.

### Other

Stage 1 would require only a small mine development spend, for items including a mining camp, workshops, simple crush & screen equipment and other owners costs. We estimate US\$25m capex to cover this required spend.

In addition, Aspire is considering building a small 0.5Mtpa mobile wash plant to refine a proportion of the Stage 1 product, and assist in the design for the larger wash plant modules. The company estimates this would add US\$5/t to opex, however it would lower ash content from 10% to 8%. We have not included any provision for the mobile wash plant in our estimates at this stage.

## Full-scale mining requirements

### Rail Link

The 550km Rail Link, from Ovoot to Erdenet, is required to underpin Aspire's full-scale target of 12Mtpa saleable product. The Rail Link would track broadly the same route as the paved road that would underpin the potential Stage 1 operation. The rail corridor is favourable to both track-laying and rail operations, with essentially no vegetation requiring clearing and substantially flat ground conditions. Closer to Erdenet, the topography becomes more pronounced, however there should be negligible requirement for tunnelling or other challenging passes.

Aspire initiated the Rail PFS in September quarter 2011, which is being prepared by Optimal Projects LLC, a Mongolian licensed rail engineering firm. Subject to the findings of the study, we understand Aspire is currently envisaging a 20Mtpa capacity line, with each train likely to consist of approximately 80 wagons on a 30t axle loading. Aspire expects the Rail PFS to complete in March quarter 2012.

We estimate a construction cost for the Rail Link of US\$1.65bn, or US\$3m/km capital intensity. We believe this is achievable given the unchallenging topography and low cost of labour. This is also consistent with MMC's budgeted costing for its planned rail line to the Gants Mod border.

Aspire has established the Northern Mongolian Rail Alliance (NMRA), to drive support for the funding of the Rail Link, and build a critical mass of projects to underpin the link. The other key companies/projects in the NMRA include:

- Crown Phosphate – Burenhaan phosphate project (3-4Mtpa)
- Huren Chuluut iron ore project (2-5Mtpa)
- Xanadu Mines – Nuurstei coal project.

### Wash plant

Aspire is planning for 3 wash plants to process a combined 15Mtpa of ROM production. The company also initiated the Project PFS in September quarter 2011, and is targeting completion within March quarter.

In advance of the results of the Project PFS, we have assumed total capex for the wash plants of US\$450m (US\$150m per plant). This incorporates an allowance for cost inflation, relative to MMC's US\$344m capex for its 3 wash plants (US\$115m per plant). We note that the majority of this capex has already been spent by MMC.



## Power & water

Aspire's exact power and water requirements for a 15Mtpa mining operation are not yet determined, pending the results of the Project PFS.

The planned mining camp will sit adjacent to existing 110kVa capacity power lines originating in Russia (not yet operational). However, Aspire will likely obtain its power source from an independent 60MW power station to be constructed 70km from Ovoot. Aspire expects completion of this power station by end 2012. The company has signed an MOU with the power station's owners to supply middlings to the station.

Aspire has engaged Aquaterra LLC to survey potential subsurface water aquifers that could supply water to the Project. Water monitoring bores have been established and flow rates are being measured. Average yearly rainfall in the region, however, is high at approximately 250mm, in particular relative to the south of the country. Aspire estimates that as much as 40% of its water requirements could come from in-pit dewatering.

## Capex summary

We have summarised in Table 12 below our assumed capex for both Stage 1 and the full-scale mining operation.

**Table 12: Ovoot capex (UBSe)**

	Stage 1	Full-scale mine	Total
Mine development	25	75	100
Road	80		80
Rail		1,650	1,650
Wash plants		450	450
Contingency		250	200
<b>Total</b>	<b>105</b>	<b>2,425</b>	<b>2,530</b>

Source: UBS estimates

## Opex

### Stage 1

The Scoping Study for Stage 1 contemplated overall operating costs of approximately US\$25/t, including US\$20/t for mining costs, US\$3/t for crushing & handling and US\$2/t for owners' costs.

### Full-scale operations

No formal guidance has been given by Aspire regarding opex for the full-scale mining operations ahead of the release of the Project PFS.

We model mining costs (excluding D&A) falling to US\$13/t on economies of scale, and inline with MMC's targeted mining costs at nameplate production. We have allowed US\$5/t for washing costs, also inline with MMC guidance.

Rail costs will vary according to the location of the customer, with the two key options being riling via the TSR to the Russian far east ports, or riling south into China. Our base case modelling assumes 100% exports via the Russian far

east ports, and hence receiving the seaborne price. Practically, however, we note that Aspire's ultimate sales mix will likely involve a combination of these routes.

We have modelled a US2c/km/t rail cost along the 1,000km distance from Ovoot to Naushki on the Mongolia-Russia border; then from Naushki to the far east ports (4,100km to Vostochny) we have modelled US1c/km/t. This is slightly higher than the rates currently offered by Russian Railways on the Naushki to Vostochny route. This leads to rail opex of US\$15/t and US\$40/t respectively along these portions of the route.

### Opex & margin summary

We have summarised in Table 13 below our assumed opex for both Stage 1 and full-scale mining operations.

**Table 13: Ovoot opex (UBSe)**

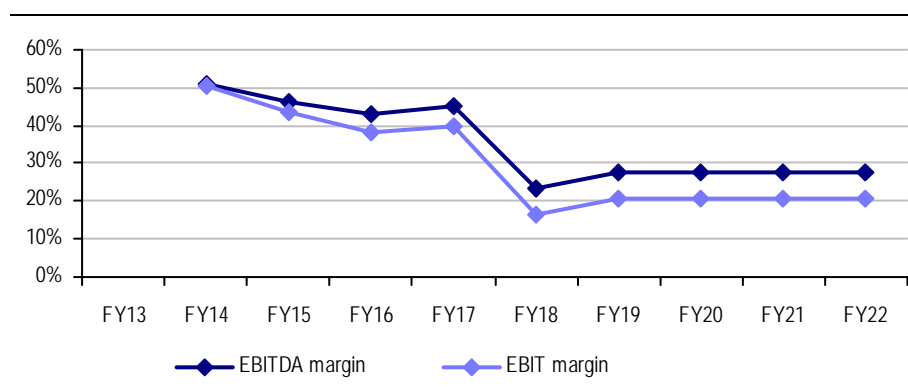
	Stage 1	Full-scale mine
Mining	25	13
Washing	0	5
Trucking	40	0
Rail	0	55
Port	0	10
G&A	1	1
FOB cash costs	66	84

Source: UBS estimates

On UBS' pricing profile, the Stage 1 development achieves robust margins of 50% in FY14, falling to a 43% EBITDA margin and 38% EBIT margin in FY16 on our long-term hard coking coal price of US\$130/t (real).

For the full-scale mining operation, margins fall to 28% (EBITDA) and 21% (EBIT), primarily reflecting the higher transportation costs. While the full-scale operation is high-cost, it is highly leveraged to stronger than expected coal prices. In addition, margins may be boosted by a proportion of direct sales to China, absent a meaningful correction in the China price and given the lower transportation costs of this option.

**Chart 2: Ovoot margin profile (UBSe)**



Source: UBS estimates

## Marketing strategy

Aspire has a number of potential routes to export markets, as shown in Figure 19. These include:

- (1) via the TSR to Russia's far east ports, to obtain the seaborne price
- (2) via the TMR direct to China, to obtain the "China price"
- (3) into NE China, via the TSR and exporting via a Chinese port to obtain the seaborne price
- (4) railing west along the TSR to access European markets.

We view options 3 & 4 as challenging. Option 3, involving only a slightly shorter rail distance than Option 1, would require two border crossings, which could lead to pressure on opex. Option 4 may be uneconomic under long-term pricing scenarios due to the transportation distance involved, notwithstanding that some Russian producers with relative proximity to Ovoot are currently selling into the European market.

For simplicity, we have modelled 100% of Aspire's production being exported via Option 1, which we believe is the company's preferred selling route. However, we note that in practice Aspire would likely seek to utilise both Options 1 & 2, to maximise leverage with infrastructure providers and to reduce reliance on any particular customer base.

### Noble Alliance Agreement

Aspire recently entered into an Alliance Agreement with its substantial shareholder, Noble Group, to assist with marketing and supply-chain logistics. The Agreement granted Noble marketing rights to at least 50% of the first 5Mt of Ovoot production (the likely overall production from Stage 1), subject to the establishment of suitable road, rail and port logistics paths. Noble would manage the logistics chain from Erdenet to the end customer for these marketed tonnages.

Figure 19: Potential routes to markets



Source: Aspire Mining Ltd

## Funding & strategic partners

Aspire has stated its intention to introduce one or more strategic partners, to assist with financing and to generally derisk the Project. The company has not yet determined the preferred structure by which it would bring on such strategic partners. We note that one of the terms of the Alliance Agreement with Noble Group provides that Noble will assist with finding strategic partners to contribute to the funding of the Ovoot mine development and Rail Link.

We have modelled a selldown by Aspire of a 50% interest in the Project to one or more strategic partners for A\$200m consideration, representing for conservatism a small discount to half of our A\$446m full valuation of Ovoot pre-selldown. We assume the company and the strategic partner(s) subsequently contribute to capex in accordance with their ownership interests.

## Timetable & approvals

Aspire is aiming to complete its study work and finalise funding agreements throughout 2012, followed by a 3-year rail construction period from 2013-2015, and a 2-year construction period for its 3 wash plants from 2015-2016 (see Table 14). The company is indicatively targeting first production from the full-scale mining operation in 2016, with a 12-month ramp-up to full production by 2017.

We have allowed for an 18-month delay in first production to the start of FY18, driven by potential delays in the expansion of, or allocation of capacity on, the TMR, TSR and/or Russian far east ports, and in construction of the Rail Link.

The key approval required for the Ovoot project is the conversion from an Exploration Licence to a Mining Licence. The Mining Licence application must include an Environmental Management Plan, which contains all information and planning required to obtain the necessary environmental approvals for the Project. Aspire is planning to submit its Mining Licence application for the potential Stage 1 operation in 1H 2012.

**Table 14: Aspire's development timeline for Ovoot**

	2012				2013				2014				2015				2016			
Full-scale operation key events	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Pre-feasibility study																				
Feasibility study																				
Funding negotiations																				
Rail development																				
Wash plant train development																				

Source: Aspire Mining Ltd



## Valuation

We have valued Aspire based on our forecast discounted free cash flows from the Ovoot Project. Notwithstanding that the full-scale mining operation is several years from first production, we are hesitant to apply alternative valuation metrics, such as EV/t resource, given the wide variation in, and volatility of, current trading of such metrics among the peer group (see Table 16 below).

We have modelled Stage 1 production proceeding, followed by 19 years of full-scale production. We have assumed an 18-month delay to the commencement of full-scale mining operations, to account for the current uncertainty regarding capacity allocation along Aspire's preferred logistics routes. We assume a 50% sell-down of the Project to a strategic partner(s) for A\$200m, with capex to be subsequently funded in accordance with ownership interests. We have allowed US\$250m for contingency and escalation for the Rail Link.

**Table 15: NPV breakdown**

	A\$m	A\$/sh (basic)	A\$/sh (diluted)
Ovoot	422	0.68	0.49
Corporate / exploration	-150	-0.24	-0.17
Exploration upside	100	0.16	0.12
Net (debt) / cash	32	0.05	0.04
<b>Total</b>	<b>403</b>	<b>0.65</b>	<b>0.46</b>
Discount rate	10%		
IRR	12.2%		
Shares on issue (basic)	620.6		
Shares on issue (diluted) <sup>(1)</sup>	867.8		

Source: UBS estimates

(1) We assume full exercise of options on issue, but not SouthGobi Resources' top-up right to retain a 19.9% shareholding in Aspire

**Table 16: Mongolian coal company trading & valuation metrics**

Company	Ticker	Mkt Cap	EV	Resources	Reserves	EV/t		P/E (x)		EV/EBITDA (x)		EV/t production	
		(US\$m)	(US\$m)	(Mt)	(Mt)	Resource	Reserve	2012	2013	2012	2013	2011	Design
Mongolian Mining Corp	975 HK	2,868	3,132	860	468	3.6	6.7	9.2	6.5	7.0	4.8	688	198
SouthGobi Resources	SGQ CN <sup>(1)</sup>	1,048	991	536	107	1.8	9.3	24.7	10.1	7.2	3.9	248	99
Mongolia Energy Corp	276 HK	596	950	149	0	6.4	-	nmf	nmf	nmf	nmf	1,901	162
Prophecy Coal Corp	PCY CN	89	81	1,434	21	0.1	3.9	nmf	nmf	nmf	nmf	-	40
Aspire Mining	AKM AU	229	189	331	0	0.6	-	nmf	nmf	nmf	nmf	-	16
Guildford Coal	GUF AU	344	319	1,320	0	0.2	-	nmf	24.1	nmf	17.8	-	89
Modun Resources	MOU AU	31	30	489	0	0.1	-	nmf	nmf	nmf	nmf	-	-
Xanadu Mines	XAM AU	47	25	497	0	0.1	-	nmf	nmf	nmf	nmf	-	-

Source: Bloomberg, IRESS (as at 17/1/12), company reports, UBS estimates (for AKM and GUF). Excludes Mongolian Stock Exchange (MSE) listed stocks, given lower liquidity

1. SouthGobi Resources' secondary listing on HKSE, code 1878 HK

## Sensitivities

**Table 17: Sensitivity analysis – long-term HCC price vs. opex (diluted basis)**

		LT prices (real, US\$/t)						
		\$100/t	\$110/t	\$120/t	\$130/t	\$140/t	\$150/t	\$160/t
Opex (US\$/t)	\$75/t	-0.46	0.00	0.46	0.92	1.38	1.84	2.29
	\$80/t	-0.71	-0.25	0.21	0.67	1.13	1.58	2.04
	\$84/t	-0.94	-0.45	0.01	0.46	0.92	1.38	1.84
	\$90/t	-1.30	-0.76	-0.30	0.16	0.62	1.08	1.54
	\$95/t	-1.60	-1.05	-0.55	-0.09	0.37	0.83	1.29
	\$100/t	-1.90	-1.35	-0.80	-0.34	0.12	0.58	1.04
	\$105/t	-2.20	-1.65	-1.10	-0.59	-0.13	0.33	0.79

Source: UBS estimates. Shaded cell is base case NPV.

**Table 18: Sensitivity analysis – capex vs. discount rate (diluted basis)**

		Total capex (US\$m)				
		2,000	2,530	3,000	3,500	4,000
Discount rate	8%	1.08	0.83	0.62	0.39	0.16
	9%	0.87	0.63	0.42	0.20	-0.03
	10%	0.70	0.46	0.26	0.04	-0.18
	11%	0.55	0.32	0.12	-0.10	-0.31
	12%	0.43	0.21	0.01	-0.21	-0.42
	13%	0.33	0.11	-0.09	-0.30	-0.50

Source: UBS estimates. Shaded cell is base case NPV.

# Financials

## Income statement

Table 19: Income statement summary

		2012e	2013e	2014e	2015e	2016e	2017e	2018e	2019e
Sales revenue	A\$m	0.0	0.0	42.5	86.0	90.0	92.2	567.1	1,162.6
Other revenue	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total revenue</b>	<b>A\$m</b>	<b>0.0</b>	<b>0.0</b>	<b>42.5</b>	<b>86.0</b>	<b>90.0</b>	<b>92.2</b>	<b>567.1</b>	<b>1,162.6</b>
Operating costs	A\$m	0.0	0.0	18.1	40.3	44.7	47.0	413.0	796.1
Royalty	A\$m	0.0	0.0	2.7	5.8	6.3	3.5	21.3	43.6
Exploration	A\$m	10.0	5.0	5.0	5.0	2.5	2.5	2.5	2.5
Corporate	A\$m	6.0	6.0	6.0	6.0	8.0	12.0	15.0	15.0
Total costs	A\$m	16.0	11.0	31.8	57.2	61.6	64.9	451.7	857.2
<b>EBITDA</b>	<b>A\$m</b>	<b>-16.0</b>	<b>-11.0</b>	<b>10.7</b>	<b>28.8</b>	<b>28.4</b>	<b>27.3</b>	<b>115.4</b>	<b>305.3</b>
Depreciation	A\$m	0.0	0.0	0.3	2.4	4.4	5.2	40.7	82.9
<b>EBIT</b>	<b>A\$m</b>	<b>-16.0</b>	<b>-11.0</b>	<b>10.4</b>	<b>26.4</b>	<b>24.1</b>	<b>22.1</b>	<b>74.7</b>	<b>222.5</b>
Interest income	A\$m	1.3	7.1	9.3	25.8	16.6	10.5	3.2	2.1
Interest expense	A\$m	0.0	0.0	6.3	31.3	20.0	65.0	65.0	62.5
Net interest	A\$m	-1.3	-7.1	-3.0	5.5	3.4	54.5	61.8	60.4
<b>PBT</b>	<b>A\$m</b>	<b>-14.7</b>	<b>-3.9</b>	<b>13.4</b>	<b>20.9</b>	<b>20.7</b>	<b>-32.4</b>	<b>12.8</b>	<b>162.1</b>
Tax expense	A\$m	0.0	0.0	5.0	9.0	8.3	8.8	22.7	59.6
<b>Post tax income</b>	<b>A\$m</b>	<b>-14.7</b>	<b>-3.9</b>	<b>8.4</b>	<b>11.9</b>	<b>12.4</b>	<b>-41.2</b>	<b>-9.8</b>	<b>102.5</b>
Minority interest	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Reported NPAT</b>	<b>A\$m</b>	<b>-14.7</b>	<b>-3.9</b>	<b>8.4</b>	<b>11.9</b>	<b>12.4</b>	<b>-41.2</b>	<b>-9.8</b>	<b>102.5</b>
Significant items (post-tax)	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Underlying NPAT</b>	<b>A\$m</b>	<b>-14.7</b>	<b>-3.9</b>	<b>8.4</b>	<b>11.9</b>	<b>12.4</b>	<b>-41.2</b>	<b>-9.8</b>	<b>102.5</b>
<b>Per share (basic)</b>									
EPS - headline	A\$/sh	-0.02	-0.01	0.01	0.02	0.02	-0.07	-0.02	0.17
EPS - underlying	A\$/sh	-0.02	-0.01	0.01	0.02	0.02	-0.07	-0.02	0.17
DPS	A\$/sh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
CFPS	A\$/sh	-0.01	0.00	0.03	0.04	0.03	-0.05	0.08	0.36

Source: UBS estimates

## Cash flow statement

Table 20: Cash flow statement summary

		2012e	2013e	2014e	2015e	2016e	2017e	2018e	2019e
Receipts from operations	A\$m	0.0	0.0	42.5	86.0	90.0	92.2	567.1	1,162.6
Payments from operations	A\$m	0.0	0.0	-20.8	-46.2	-51.1	-50.4	-434.2	-839.7
Interest received	A\$m	1.3	7.1	9.3	25.8	16.6	10.5	3.2	2.1
Interest paid	A\$m	0.0	0.0	-6.3	-31.3	-20.0	-65.0	-65.0	-62.5
Tax paid	A\$m	0.0	0.0	0.0	-5.0	-9.0	-8.3	-8.8	-22.7
Other	A\$m	-6.0	-6.0	-6.0	-6.0	-8.0	-12.0	-15.0	-15.0
<b>Operating cash flow</b>	<b>A\$m</b>	<b>-4.7</b>	<b>1.1</b>	<b>18.7</b>	<b>23.4</b>	<b>18.6</b>	<b>-33.0</b>	<b>47.2</b>	<b>224.8</b>
Exploration	A\$m	-20.0	-10.0	-10.0	-10.0	-5.0	-5.0	-5.0	-5.0
Payment for PPE	A\$m	0.0	-18.1	-72.8	-254.2	-259.8	-102.5	-38.3	-14.1
Project development	A\$m	0.0	-18.1	-72.8	-254.2	-259.8	-102.5	-38.3	-14.1
Divestments	A\$m	0.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Investing cash flow</b>	<b>A\$m</b>	<b>-20.0</b>	<b>153.8</b>	<b>-155.7</b>	<b>-518.4</b>	<b>-524.7</b>	<b>-210.0</b>	<b>-81.6</b>	<b>-33.1</b>
Proceeds from share issuance	A\$m	45.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from debt	A\$m	0.0	0.0	500.0	500.0	300.0	0.0	0.0	0.0
Repayment of debt	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-100.0
Dividends paid	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	A\$m	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Financing cash flow</b>	<b>A\$m</b>	<b>44.4</b>	<b>0.0</b>	<b>500.0</b>	<b>500.0</b>	<b>300.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-100.0</b>
<b>Net change in cash</b>	<b>A\$m</b>	<b>19.6</b>	<b>154.9</b>	<b>363.0</b>	<b>4.9</b>	<b>-206.1</b>	<b>-243.0</b>	<b>-34.3</b>	<b>91.7</b>
Opening cash	A\$m	12.0	31.7	186.6	549.6	554.5	348.4	105.4	71.0
Exchange rate impact	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Closing cash</b>	<b>A\$m</b>	<b>31.7</b>	<b>186.6</b>	<b>549.6</b>	<b>554.5</b>	<b>348.4</b>	<b>105.4</b>	<b>71.0</b>	<b>162.7</b>

Source: UBS estimates



## Balance sheet

We assume a 10-year, US\$2.6bn project finance facility is executed in FY14 to fund the development of the Project. We model the facility being drawn down over 3 years from FY14-FY16, and accounted for by Aspire and its Project partner(s) in accordance with their ownership interests.

**Table 21: Balance sheet summary**

		2012e	2013e	2014e	2015e	2016e	2017e	2018e	2019e
Cash	A\$m	31.7	186.6	549.6	554.5	348.4	105.4	71.0	162.7
Receivables	A\$m	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Inventories	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	A\$m	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
<b>Total Current Assets</b>	<b>A\$m</b>	<b>32.2</b>	<b>187.1</b>	<b>550.1</b>	<b>555.0</b>	<b>348.9</b>	<b>105.9</b>	<b>71.5</b>	<b>163.2</b>
Receivables	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exploration / evaluation	A\$m	26.4	31.4	36.4	41.4	43.9	46.4	48.9	51.4
PPE	A\$m	0.2	18.3	91.0	344.0	601.7	701.6	719.6	692.2
Mine development	A\$m	0.0	18.1	90.8	343.8	601.5	701.4	719.3	692.0
Other	A\$m	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Total Non-Current Assets</b>	<b>A\$m</b>	<b>26.7</b>	<b>67.9</b>	<b>218.3</b>	<b>729.3</b>	<b>1,247.2</b>	<b>1,449.5</b>	<b>1,487.9</b>	<b>1,435.6</b>
<b>Total Assets</b>	<b>A\$m</b>	<b>58.9</b>	<b>255.0</b>	<b>768.4</b>	<b>1,284.4</b>	<b>1,596.0</b>	<b>1,555.3</b>	<b>1,559.4</b>	<b>1,598.8</b>
Creditors	A\$m	0.9	0.9	5.9	9.9	9.2	9.7	23.6	60.5
Borrowings	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0
Provisions	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Current Liabilities</b>	<b>A\$m</b>	<b>0.9</b>	<b>0.9</b>	<b>5.9</b>	<b>9.9</b>	<b>9.2</b>	<b>9.7</b>	<b>123.6</b>	<b>160.5</b>
Creditors	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Borrowings	A\$m	0.0	0.0	500.0	1,000.0	1,300.0	1,300.0	1,200.0	1,100.0
Provisions	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Non-Current Liabilities</b>	<b>A\$m</b>	<b>0.0</b>	<b>0.0</b>	<b>500.0</b>	<b>1,000.0</b>	<b>1,300.0</b>	<b>1,300.0</b>	<b>1,200.0</b>	<b>1,100.0</b>
<b>Total Liabilities</b>	<b>A\$m</b>	<b>0.9</b>	<b>0.9</b>	<b>505.9</b>	<b>1,009.9</b>	<b>1,309.2</b>	<b>1,309.7</b>	<b>1,323.6</b>	<b>1,260.5</b>
<b>Net Assets</b>	<b>A\$m</b>	<b>58.0</b>	<b>254.1</b>	<b>262.5</b>	<b>274.5</b>	<b>286.9</b>	<b>245.7</b>	<b>235.8</b>	<b>338.3</b>
Issued Capital	A\$m	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
Reserves	A\$m	0.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2
Retained Earnings	A\$m	-25.7	-29.6	-21.2	-9.2	3.2	-38.0	-47.9	54.6
Minority Interests	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Equity</b>	<b>A\$m</b>	<b>58.0</b>	<b>254.1</b>	<b>262.5</b>	<b>274.5</b>	<b>286.9</b>	<b>245.7</b>	<b>235.8</b>	<b>338.3</b>

Source: UBS estimates

## Corporate details

### Board

[Mr David McSweeney \(Chairman, non-executive\)](#)

LLB, MAICD, M.AusIMM

Mr McSweeney is an experienced mining company executive who has worked in the resources sector for over 20 years. His responsibilities have ranged from exploration to project management, project finance, commercial and legal structuring and corporate development. A founder of Gindalbie Metals Ltd, Mr McSweeney was the Managing Director from 1998 to 2006. During this time, he oversaw the discovery and commissioning of two gold production centres and the repositioning of the company as an emerging iron ore producer.

Current Directorships: Avalon Minerals Ltd (Chairman); FeCon Ltd (Chairman); MSP Engineering Pty Ltd (Chairman). Previous Directorships: Bauxite Resources Ltd (2007-2011).

[Mr David Paull \(Managing Director\)](#)

B.Com, FSIA, MBA (Cornell)

Mr Paull has over 20 years' experience in resource business development and industrial minerals marketing. He was previously EGM, Business Development and Marketing at Sons of Gwalia, where he oversaw the sale of half the world's annual tantalum concentrate requirements and two thirds of the world's lithium minerals supply. Over the last 6 years, Mr Paull has been working on private equity and seed capital opportunities in the resources, biofuels, and transport services sectors.

Current Directorships: Pacific Wildcat Resources Corp.

[Mr Neil Lithgow \(non-executive Director\)](#)

MSc, F.Fin, M.AusIMM

Mr Lithgow is a geologist with over 20 years' experience in mineral exploration, economics and mining feasibility studies, covering base metals, coal, iron ore and gold. Mr Lithgow has previously worked for Aquila Resources Ltd, Eagle Mining Corporation NL and De Grey Mining Ltd.

Current Directorships: Bauxite Resources Ltd, Red Island Resources Ltd.

[Mr Gan-Ochir Zunduisuren \(non-executive Director\)](#)

B.Eng, MSGF (Stern)

Mr Zunduisuren has over 10 years' experience in the resource sector in Mongolia and Canada where he worked as an underground mining engineer. Mr Zunduisuren is an Executive Director and co-founder of Altai Gold LLC, a gold miner in Mongolia, and was a key part of the syndicate that made the Ovoot Coking Coal project discovery.

#### Mr Tony Pearson (non-executive Director)

B. Com

Mr Pearson has approximately 15 years' experience in the resources, mining and infrastructure sectors. He is currently VP, Corporate Development at SouthGobi Resources Ltd. He has previously held senior positions with ASIC, Citigroup's Metals & Mining Investment Banking team and Westpac Banking Corporation.

#### Mr Andrew Edwards (non-executive Director)

B. Com, FCA, SF Fin, GAICD

Mr Edwards is a former senior partner of PricewaterhouseCoopers, having served 35 years with PwC in Perth, Auckland and Sydney. He served as Managing Partner of the Perth practice for 5 years and led the Perth Advisory business. Mr Edwards is a past National Vice President of the Financial Services Institute of Australasia and past President of the WA division of that Institute.

Current Directorships: Mermaid Marine Australia Ltd; Nido Petroleum Ltd; MACA Ltd (Chairman).

#### Mr Mark Read (non-executive Director)

B. Eng, FAICD, FIEA, MBA (Harvard)

Mr Read is the immediate past CEO of ASX-listed coal engineering and technology company Sedgman Ltd. As CEO, he was responsible for an overseas expansion strategy that led the company to position itself in emerging high-grade coal regions including Mongolia and Mozambique. Mr Read was previously Global GM, Mining & Metals, at engineering services firm Sinclair Knight Merz, where he was employed for 20 years.

## Management

#### Mr David Paull (Managing Director)

See above.

#### Mr Phil Rundell (Chief Financial Officer)

Dip BS (Accounting) ACA

Over the past 25 years, Mr Rundell has worked at Partner and Director level for Coopers & Lybrand and Ferrier Hodgson, specialising in reconstructions and corporate recovery. He has experience in many industries including mining, earthmoving, construction, manufacturing, technology and financial services.

#### Mr Iestyn Broomfield (Exploration Manager)

Mr Broomfield has had considerable experience in coking coal for the BHP\Mitsubishi (BMA) joint venture in the Bowen Basin, and coal exploration in Indonesia. He also has had a significant background in a broad range of geophysics techniques.

#### Mr Fergus Campbell (Chief Operating Officer)

Mr Campbell is a mining engineer with over 20 years' experience in mine and project management. He has held positions with Straits Resources Ltd and HWE

Mining Pty Ltd, with emphasis on iron ore and new coal mine development. While a project manager with PT Darma Henwa, Mr Campbell managed the development and construction of the Bengalon Coal Project in East Kalimantan, taking it to a 6Mtpa production rate within 22 months of mobilisation.

#### Mr Scott Southwood (GM, Marketing)

A qualified process engineer, Mr Southwood has significant coal industry experience, beginning his career at Kembla Coal & Coke Pty Ltd in Wollongong, NSW, before moving into coal marketing and logistics roles with Shell and Anglo Coal. For the last 8 years, he was employed by Ensham Coal, where he was responsible for coking and thermal coal sales into North Asia.

## Shareholding structure

The current shareholding structure, on a fully-diluted basis, is set out in Table 22.

**Table 22: Aspire fully-diluted shareholding summary**

Entity	Holding (%)
Directors	29.6
SouthGobi Resources	19.9
Mongolian vendors	16.9
Noble Group	5.6
Free float	28.1

Source: Aspire Mining Ltd. Assumes SouthGobi Resources exercises its top-up right to 19.9% post exercise of current options on issue

## Trading history

**Chart 3: Aspire share price history**



Source: UBS



# Aspire Mining (AKM.AX)

Analyst/s: Ben Wilson/Glyn Lawcock  
Email: ben-g.wilson@ubs.com  
18-Jan-12

## MARKET INFORMATION

<b>Rating:</b>	<b>Neutral (CBE)</b>
Price (as of 17-Jan-12):	0.36
<b>Price Target (12 months):</b>	<b>0.45</b>
Issued Capital:	620.6
Market Capitalisation:	220.3
Avg. daily turnover (US\$m)	0.6
Year end:	Jun 2012
Website:	http://www.aspiremininglimited.com
Major Shareholders:	SouthGobi Resources; Noble Group

## INVESTMENT SUMMARY

(A\$m)	2013E	2014E	2015E	2016E
Net profit [reported] (\$m)	(3.9)	8.4	11.9	12.4
Net profit [adjusted] (\$m)	(3.9)	8.4	11.9	12.4
EPS [reported] (\$)	(0.01)	0.01	0.02	0.02
<b>EPS [adjusted, diluted] (\$)</b>	<b>(0.00)</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>
EPS Growth (%)	73.8	NM	41.9	3.9
<b>PER [adjusted] (x)</b>	<b>&lt;0.0</b>	<b>26.2</b>	<b>18.4</b>	<b>17.7</b>
Dividend (\$)	0.0	0.0	0.0	0.0
Payout ratio (%)	0.0	0.0	0.0	0.0
<b>Dividend Yield (%)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
FCF Yield (%)	(11.4)	(41.2)	(157.5)	(162.7)
Franking (%)	0.0	0.0	0.0	0.0
Shares [period-average, diluted] (m)	867.8	867.8	867.8	867.8

## VALUATION

Valuation per share [NAV @ 10%] (\$)	\$0.46
Share Price Target [12 months] (\$)	\$0.45
Price/NAV (x)	0.8

Assets	A\$m	A\$/sh (basic)	A\$/sh (diluted)
Ovoot	422	0.68	0.49
Corporate / Exploration	(150)	(0.24)	(0.17)
Exploration upside	100	0.16	0.12
Net (Debt) / Cash	32	0.05	0.04
<b>Total</b>	<b>403</b>	<b>0.65</b>	<b>0.46</b>

## ENTERPRISE VALUE

(A\$m)	2013E	2014E	2015E	2016E
Enterprise Value	15	152	647	1,153
EV/EBITDA (x)	<0	14.2	22.4	40.6
EV/Operating Free Cash Flow (x)	<0	<0	<0	<0

## EPS SENSITIVITIES

Commodity	Base Change	2014E	2015E	2016E
			EPS Change	

## CASH FLOW

(A\$m)	2013E	2014E	2015E	2016E
Operating income [EBIT, UBS]	(11)	10	26	24
Depreciation & Amortisation	0	0	2	4
Net change in working capital	0	(5)	(4)	1
Other (operating)	11	16	15	10
<b>Pre-tax op cash flow</b>	<b>0</b>	<b>22</b>	<b>40</b>	<b>39</b>
Interest (paid) / received	7	3	(5)	(3)
Tax paid	0	0	(5)	(9)
Other	(6)	(6)	(6)	(8)
<b>Operating cash flow</b>	<b>1</b>	<b>19</b>	<b>23</b>	<b>19</b>
Capital expenditure	(36)	(146)	(508)	(520)
<b>Free cash flow</b>	<b>(35)</b>	<b>(127)</b>	<b>(485)</b>	<b>(501)</b>
Net (acquisitions) / disposals	200	0	0	0
Dividends paid (Common)	0	0	0	0
Shares issued/(repurchased)	0	0	0	0

Source: UBS estimates

## COMPANY DESCRIPTION

Aspire Mining owns 100% of the Ovoot project in northern Mongolia, which contains a 331Mt high-quality hard coking coal resource. The company is planning for a 15Mtpa (ROM) / 12Mtpa (saleable) open-pit mining operation, targeting first production in 2016. Aspire aims to either export via Russia's far east ports, to achieve the seaborne price, or to sell directly into China. The Project is high-cost, owing to the transportation distance (4,900km from Ovoot to Vostochny port in Russia). However, it achieves reasonable margins at our long-term price assumption, and is leveraged to higher-than-expected prices.

## OPERATIONAL ASSUMPTIONS

	2013E	2014E	2015E	2016E	2017E	2018E
<b>Commodity Prices</b>						
Hard coking coal (nominal)	183.8	163.8	152.5	147.4	147.5	151.2
Thermal coal (nominal)	121.3	107.0	96.7	93.7	96.5	98.9
Exchange rate (AUD:USD)	1.04	0.96	0.89	0.82	0.80	0.80
Inflation	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
<b>Production</b>						
Saleable production [Mt]	0.0	0.5	1.0	1.0	1.0	6.0
<b>Operating Costs</b>						
FOB Costs [US\$/t]	66.0	66.0	66.0	66.0	66.0	88.5

## DIVISIONAL BREAKDOWN (EBIT)

(A\$m)	2013E	2014E	2015E	2016E	2017E	2018E
Ovoot	0	21	37	35	37	92

## PROFIT & LOSS

(A\$m)	2013E	2014E	2015E	2016E	2017E	2018E
Sales Revenue	0	42	86	90	92	567
<b>Operating Cash Profit</b>	<b>0</b>	<b>24</b>	<b>46</b>	<b>45</b>	<b>45</b>	<b>154</b>
Depn & Amortisation	0	(0)	(2)	(4)	(5)	(41)
<b>Operating Profit</b>	<b>0</b>	<b>24</b>	<b>43</b>	<b>41</b>	<b>40</b>	<b>113</b>
Others	(5)	(8)	(11)	(9)	(6)	(24)
SGA	(6)	(6)	(6)	(8)	(12)	(15)
<b>EBIT</b>	<b>(11)</b>	<b>10</b>	<b>26</b>	<b>24</b>	<b>22</b>	<b>75</b>
Net interest	7	3	(5)	(3)	(55)	(62)
<b>Profit before tax</b>	<b>(4)</b>	<b>13</b>	<b>21</b>	<b>21</b>	<b>(32)</b>	<b>13</b>
Tax expense	0	(5)	(9)	(8)	(9)	(23)
Equity Associated NPAT	0	0	0	0	0	0
Minority Interests	0	0	0	0	0	0
Dividends [preferred]	0	0	0	0	0	0
<b>Net Profit [reported]</b>	<b>(4)</b>	<b>8</b>	<b>12</b>	<b>12</b>	<b>(41)</b>	<b>(10)</b>
Abnormal Gain/(Loss) after Tax	0	0	0	0	0	0
<b>Net Profit [adjusted]</b>	<b>(4)</b>	<b>8</b>	<b>12</b>	<b>12</b>	<b>(41)</b>	<b>(10)</b>
EBITDA margin (%)	NM	25.2	33.5	31.6	29.6	20.3
Net Interest Cover [EBIT] (x)	(1.5)	3.4	(4.8)	(7.2)	(0.4)	(1.2)
Tax Rate (%)	NM	37%	43%	40%	NM	177%
EBIT/Total Assets (%)	(4.3)	1.4	2.1	1.5	1.4	4.8
NPAT/Equity (%)	(1.5)	3.2	4.4	4.3	(16.8)	(4.2)

## BALANCE SHEET [Selected Items]

(A\$m)	2013E	2014E	2015E	2016E	2017E	2018E
Net Working capital	(0)	(5)	(9)	(9)	(9)	(23)
Fixed Assets	36	182	688	1203	1403	1439
Net Other	31	36	41	44	46	49
<b>Capital Employed</b>	<b>68</b>	<b>213</b>	<b>720</b>	<b>1238</b>	<b>1440</b>	<b>1465</b>
Net Cash / (Debt)	187	50	(445)	(952)	(1195)	(1229)
<b>Total Equity [incl. minorities]</b>	<b>254</b>	<b>263</b>	<b>274</b>	<b>287</b>	<b>246</b>	<b>236</b>
Minorities	0	0	0	0	0	0
Net Debt / Equity (%)	(73.4)	(18.9)	162.3	331.7	486.3	521.2
Book Value per Share(\$)	0.41	0.42	0.44	0.46	0.40	0.38

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## UBS Investment Research

### Guildford Coal

## Near-term production at China's doorstep

### ■ An emerging coal company with assets in Mongolia and Queensland

We initiate coverage of Guildford Coal with a Buy rating and A\$1.40 price target. Guildford has near-term semi-soft coking coal production from its 70%-owned South Gobi project in southern Mongolia, supported by a 63Mt resource with meaningful exploration upside. The company plans first coal by end June qtr 2012; we estimate overall production of 3.6Mtpa from 2 open pits. Guildford also has medium-term production options from the Middle Gobi project in Mongolia and the Hughenden project in Queensland.

### ■ South Gobi project following a simple and proven development approach

The South Gobi project is located only 60km from the China border and near existing producers, SouthGobi Resources (SGR) and Mongolyn Alt Group (MAK). Guildford plans to adopt the proven model of SGR and MAK, utilising mine-gate sales to traders and other offtakers for ultimate sale within China. The "China price" is significantly lower than the seaborne price (SGR received US\$66.83/t in Sep qtr 2011 for its raw semi-soft product). However, the approach is low-cost, with Guildford confident of total cash costs of ~US\$20/t (UBSe US\$22.50/t).

### ■ A healthy pipeline of further growth options

Guildford has defined a 221Mt resource at the Middle Gobi project. Development is likely subject to an expansion of capacity of the Trans-Mongolian Railway, 200km to the east, which links to China. Guildford has also defined a 1,036Mt resource at the Hughenden project. The company has MOUs with infrastructure providers for a 10Mtpa allocation at Townsville Port.

### ■ Valuation: NPV A\$1.41; price target A\$1.40; 10% discount rate

Highlights (A\$m)	-	06/11	06/12E	06/13E	06/14E
Revenues	-	0	0	57	126
EBIT (UBS)	-	(6)	(8)	18	49
Net Income (UBS)	-	(5)	(7)	15	41
EPS (UBS, A\$)	-	(0.01)	(0.02)	0.03	0.09
Net DPS (UBS, A\$)	-	0.00	0.00	0.00	0.00
Profitability & Valuation	5-yr hist av.	06/11	06/12E	06/13E	06/14E
EBIT margin %	-	<-500	-	31.1	38.9
ROIC (EBIT) %	-	-	(8.4)	14.3	34.7
EV/EBITDA (core) x	-	-15.3	-16.1	7.6	2.2
PE (UBS) x	-	NM	NM	23.2	8.3
Net dividend yield %	-	0.0	0.0	0.0	0.0

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of A\$0.77 on 17 Jan 2012 23:37 EST

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## Global Equity Research

Australia

Mining

12-month rating **Buy**  
*Prior: Not Rated*

12m price target **A\$1.40/US\$1.46**

Price **A\$0.77/US\$0.80**

RIC: GUF.AX BBG: GUF AU

### Trading data (local/US\$)

52-wk range	A\$1.32-0.67/US\$1.42-0.67
Market cap.	A\$0.17bn/US\$0.18bn
Shares o/s	220m (ORD)
Free float	54%
Avg. daily volume ('000)	533
Avg. daily value (m)	A\$0.4

### Balance sheet data 06/12E

Shareholders' equity	A\$0.11bn
P/BV (UBS)	3.0x
Net Cash (debt)	A\$0.02bn

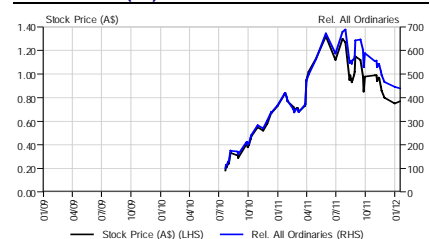
### Forecast returns

Forecast price appreciation	+81.8%
Forecast dividend yield	0.0%
Forecast stock return	+81.8%
Market return assumption	8.7%
Forecast excess return	+73.1%

### EPS (UBS, A\$)

	From	06/12E To	Cons.	06/11 Actual
H1E	-	(0.01)	-	(0.01)
H2E	-	(0.01)	-	(0.01)
06/12E	-	(0.02)	(0.02)	
06/13E	-	0.03	(0.01)	

### Performance (A\$)



Source: UBS

[www.ubs.com/investmentresearch](http://www.ubs.com/investmentresearch)

# Investment thesis

## Overview of Guildford Coal

Guildford Coal is an emerging coal company with assets in Mongolia and Queensland, Australia. The company has near-term production from its 70%-owned South Gobi project in southern Mongolia, with first coal planned by end June quarter 2012. Guildford has medium-term production options from its Middle Gobi project in Mongolia and from its Queensland tenements, principally the Hughenden project in the northern Galilee Basin.

Guildford plans a simple development approach for the South Gobi project, located only 60km from the China border. This involves contract mining of up to 4 conceptual open pits, and mine-gate sales to traders and other offtake providers for transportation to and ultimate sale within China. The company has defined a 63Mt indicated & inferred resource at the North pit, and will drill out its 3 remaining conceptual pits in 2012. We estimate overall production of 3.6Mtpa, comprising 1.8Mtpa from the North pit from FY13, and an incremental 1.8Mtpa from a second pit starting in FY14.

The company has defined a 221Mt resource at its Middle Gobi project, located 200km west of the Trans-Mongolian Railway (TMR). Development of the project, however, is contingent on expansion of capacity of the TMR. Guildford has also defined a 1,036Mt inferred resource at depth at the Hughenden project, and is confident of exploration success up-dip (suitable for open pit). The company has entered into MOUs with Port of Townsville Ltd and ARG for a 10Mtpa export operation via Townsville Port.

## Why we rate GUF a Buy

- **Near-term production:** Guildford is confident of achieving initial production from the South Gobi project by end June quarter 2012 (UBSe Sep qtr). This is a major driver of value, and an advantage over projects with more substantial development lead-times. Production is contingent on receiving the Mining Licence and executing an Alliance Agreement with a mining contractor. We see little risk of substantial delays with these items.
- **Low-risk, proven strategy:** Importantly, Guildford is following the same development approach successfully implemented by nearby producers, SouthGobi Resources (SGR) and Mongolyn Alt Group (MAK). While the direct “China price” is significantly lower than the seaborne price for semi-soft coking coal, SGR has achieved consistent price rises for its comparable product and we see little risk of a major correction in this price. Further, we view the China price as linked to the ongoing steady increase in marginal cost of domestic Chinese production, rather than to the supply and demand dynamics of the seaborne trade.
- **Low cost and minimal capex:** As Guildford is planning to sell a raw product at the mine gate, opex will be limited to direct mining costs and site admin costs. We model total opex of US\$22.50/t over the first 2 years of operation, increasing to US\$27.50/t as mining depths increase. We also estimate minimal capex, as the contract miner will provide the mining fleet

and limited pre-stripping is required. We model US\$25m for camp and workshop facilities, and also to cover contingencies and escalation.

- **Compelling valuation:** Guildford is trading at a deep discount to our valuation, at 0.55x our A\$1.41 NPV. We believe the market is not attributing value to the company's near-term production from the South Gobi project. However, several near-term catalysts (including receiving the Mining Licence and entering into agreements with a mining contractor and offtake providers) should drive a re-rating in the short-term.
- **Corporate / asset appeal:** We believe Guildford will attract interest at both the corporate and asset level from potential acquirers or partners. The South Gobi project is strategically attractive given its proximity to China, and is the only project in the region that is looking to emulate the proven model of SGR and MAK.
- **Upside from Middle Gobi and Queensland projects:** We only include the South Gobi project in our DCF model, given it is Guildford's only project currently with both a mineable resource and certainty of infrastructure. However, we note the potential upside from Guildford's other projects. An expansion in capacity of the TMR would increase the development case for the Middle Gobi project, which has a 221Mt resource with potential upside. The Hughenden project has a likely 10Mtpa rail & port allocation, however currently only has resources suitable for underground development. We are confident the company will define an open-pit suitable resource in 2012.

## Valuation

We have valued Guildford based on our forecast discounted free cash flows from the South Gobi project. The key inputs to our NPV are as follows:

- **Production:** 3.6Mtpa combined from the North Pit and a second pit
- **Received price:** we assume a 2-product stream, at US\$70/t (semi-soft) and US\$40/t (higher-ash) in FY12, inflated nominally at 2.5%p.a. thereafter
- **Opex:** direct mining costs of US\$20/t, increasing to US\$25/t after 2 years
- **Capex:** US\$25m to cover camp & workshop facilities, and for contingencies.

We allocate a combined US\$200m in our NPV for the Hughenden and Middle Gobi projects. We view this as conservative relative to the potential value of the projects should their respective catalysts for development occur.

Our NPV breakdown is shown in Table 23 below. See also pages 53-54 for peer analysis and sensitivities.



Table 23: NPV breakdown

	A\$m	A\$/sh
South Gobi	593	1.35
Corporate / exploration	-191	-0.43
Exploration upside	200	0.45
Net (debt) / cash	19	0.04
<b>Total</b>	<b>622</b>	<b>1.41</b>
Discount rate	10%	
IRR	44.3%	

Source: UBS estimates

(1) Our NPV includes allowance for the issuance of 9.1m shares and \$1.05m cash, which collectively form the bonus payments due to senior management, subject to approval at EGM on 20 January 2012

## Near-term catalysts

- **Mining Licence for South Gobi project:** The key approval remaining for the South Gobi project is obtaining the Mining Licence, which encompasses both the licence to commence mining activities and the environmental approvals for the project. Guildford has submitted Mining Licence applications over 2 exploration licences, covering its conceptual North, Central and East pits. It expects approval in January 2012.
- **Completion of Scoping Study:** Guildford is currently progressing a Scoping Study on the South Gobi project, which it expects to complete by end January 2012. Given the simple nature of the project, the Scoping Study will not be followed by a formal bankable feasibility study. The Study will likely confirm important parameters for the project, including production levels from the initial North Pit and whether the company will target a multi-product stream or a single bulk product.
- **Alliance Agreement with mining contractor:** The company expects to execute an Alliance Agreement for contract mining of the North Pit by end March quarter. As Guildford expects less than 3 months is required for the contractor to mobilise equipment and commence mining, signing of the Alliance Agreement will be a key signpost for Guildford approaching first production and cashflows.
- **Offtake agreement:** Guildford aims to sign an offtake agreement with one or more customers by end March quarter 2012. Any detail disclosed on pricing will be a key valuation input for the South Gobi project.
- **Defining an open cut suitable resource at Hughenden:** Guildford is planning an intensive drilling campaign in Queensland in 2012 with 4 rigs at the Hughenden project and 2 at the Sierra and Kolan projects. The company is aiming to delineate the subcrop of the Betts Creek coal seams constituting its maiden Hughenden resource and define an open cut suitable resource within 1H 2012. Further, Guildford has intersected the same Betts Creek seams at the nearby White Mountain licences at only 80m depth, and with further drilling aims to define a maiden resource within March quarter.

- **Signing of binding agreements with POTL and ARG:** Guildford currently has memoranda of understanding (MOUs) with Port of Townsville Ltd (POTL) and ARG for a 10Mtpa export operation via the Mt Isa rail line and Townsville Port. The company intends to convert the two MOUs to binding agreements within 1H 2012. This would provide certainty of infrastructure for Guildford, further derisking the Hughenden project.

## Risks

- **Agreements on less favourable terms than expected at South Gobi:** While we are confident of the low-risk and strategic nature of the South Gobi project, many of the agreements that will determine metrics impacting valuation are yet to be signed. Key among these in our view are the Alliance Agreement (mining contractor) and offtake agreement(s), which will determine initial opex and pricing, respectively.
- **Delay to first production:** This could be caused by a number of factors, but most likely a delay in receipt of the Mining Licence or longer than expected timeframe for mobilisation of equipment. We note, however, that this should not have a meaningful impact on valuation, given Guildford's minimal capex requirement. Applying a 1-year delay to first production (to FY14) relative to our forecast (FY13) reduces our NPV from A\$1.41 to A\$1.32.
- **Exploration results at remaining South Gobi project targets:** Our base case valuation assumes Guildford develops 2 of its conceptual pits for overall production of 3.6Mtpa. The existing resource at the North Pit can support approximately 1.8Mtpa from a simple mining fleet. Development of the remaining conceptual pits is dependent on exploration success in 2012.
- **Och-Ziff option in Mongolian assets:** Och-Ziff has an option to acquire new shares in Terra Energy, the holding company for the Mongolian assets, representing 25% of the enlarged issued capital for A\$25m in cash. This compares negatively with our DCF valuation of A\$593m for the South Gobi project alone (A\$148.3m for 25% stake). For conservatism, we have modelled the option being exercised, leaving Guildford with a 52.5% stake in the Mongolian assets. However, we note that Och-Ziff is a substantial shareholder in Guildford (currently 12.1%), and believe there is some likelihood that it will agree an outcome with the company that does not have a major negative impact on the Project's valuation.
- **Inability to define meaningful open pit suitable resources at Hughenden:** We view the Hughenden-White Mountain project ahead of the Middle Gobi project as the likely next asset into production for Guildford. However, this is contingent on the company successfully defining an open cut suitable resource, as we believe the existing resource, which would require an underground mine, is unlikely to be developed.

# Mongolian Projects

## Background

Guildford Coal acquired a 20% interest in Terra Energy, the owner of two coal exploration projects in Mongolia, for A\$7.0m in April 2011. Guildford exercised an option to acquire a further 50% from the local vendors in July 2011, for an additional A\$10.0m, taking its stake to 70%. However, as outlined above, we have modelled Och-Ziff exercising its option to acquire 25% of Terra Energy, leaving Guildford with a 52.5% interest in the enlarged issued capital.

Terra Energy's portfolio includes:

- **South Gobi project**, located in South Gobi province, 60km from the China border and 50km east of SGR's Ovoot Tolgoi mine and MAK's Naryn Sukhait mine; and
- **Middle Gobi project**, located in Dundgovi province, 200km north of Tavan Tolgoi and 200km west of the TMR.

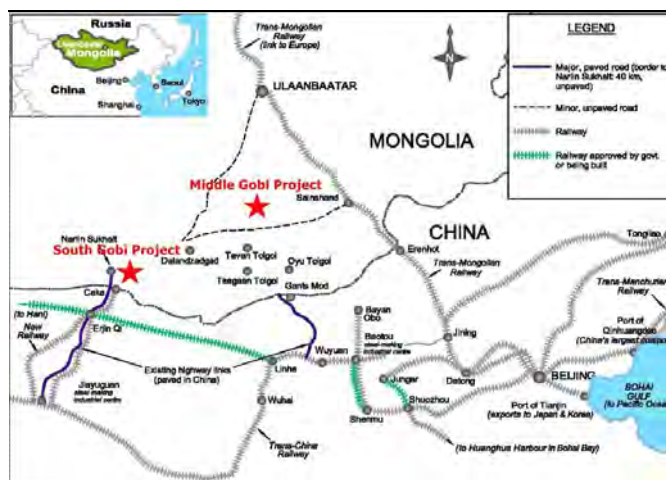
The South Gobi project is the company's primary focus in achieving first production in Mongolia. It consists of 5 exploration licences (ELs) across a combined area of 507km<sup>2</sup>. The Middle Gobi project comprises 2 ELs over a total area of 360km<sup>2</sup>.

Figure 20: Location of Guildford's projects in country



Source: Guildford Coal Ltd

Figure 21: Proximity of South Gobi project to border and key industrial centres in China



Source: Guildford Coal Ltd

## Resources & reserves

Drilling on the Mongolian projects commenced in April 2011, together with extensive field mapping. Guildford has an exploration target of 0-700Mt for the South Gobi project and 30-680Mt for the Middle Gobi project.

### South Gobi resource

In November 2011, Guildford announced its maiden JORC resource for the South Gobi project of 63.1Mt, comprising 38.2Mt of indicated and 24.9Mt of inferred resource. This was located entirely within EL13780X, in the area of the company's conceptual North Pit, the first pit planned to enter into production (see Figure 22 below).

The seams, with average net thickness of 7.4m, outcrop to the north and dip gently to the south. Strike length is approximately 7km, running east-west.

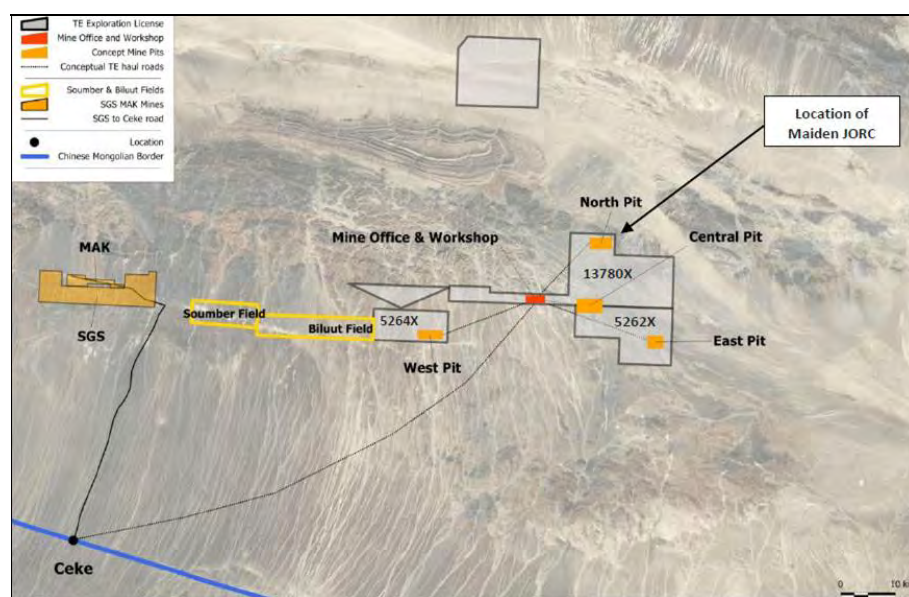
The preliminary raw quality results indicate the presence of high-quality semi soft coking coal, with energy content up to 7,700kcal/kg, CSN up to 6 and total sulphur less than 0.6%. This is similar to SGR's Ovoot Tolgoi semi soft product but with lower sulphur content. Further assessment of the coal quality is currently being conducted over the specific mining sections.

#### 2012 exploration focus & resource upside

Following the current winter season in Mongolia, Guildford will focus drilling efforts in 2012 on proving up a JORC resource on its remaining conceptual pits. The company will deploy 4 rigs to drill out in sequence: the Central Pit (southern EL13780X), followed by the East Pit (EL5262X) and finally the West Pit (EL5264X). See Figure 22 for an outline of the EL and conceptual pit areas.

Following our site visit in November 2011, during which we observed the considerable outcropping at the Central pit area, we are confident that the company will define a further 100-200Mt of resource across the remaining conceptual pit areas. We believe that Guildford has largely drilled out the North pit, however, with upside limited from here.

Figure 22: Location of maiden resource and conceptual pits in South Gobi project



Source: Guildford Coal Ltd

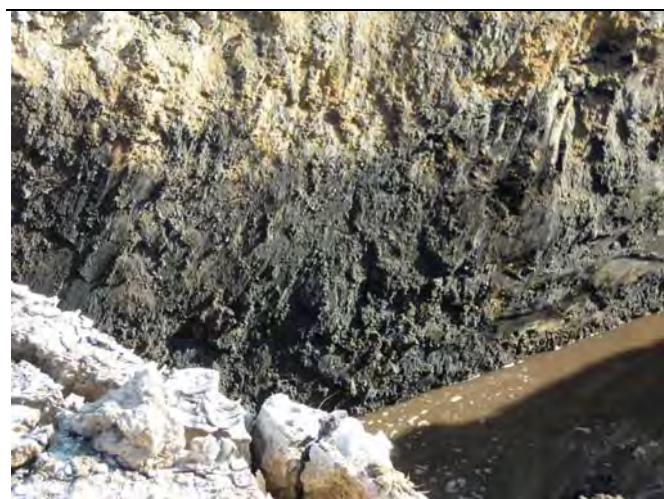


Figure 23: Trench at planned North pit area



Source: UBS

Figure 24: Coal seam exposed in the trench



Source: UBS

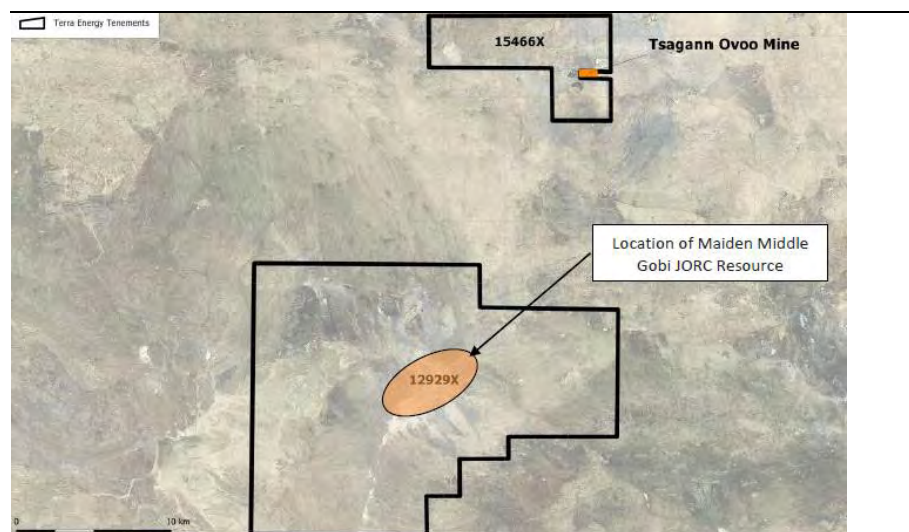
## Middle Gobi resource

Guildford announced in early December a maiden JORC resource on its Middle Gobi project of 221Mt. This comprised an indicated resource of 32Mt and inferred resource of 189Mt, and occurred entirely on EL12929X (see Figure 25 below). The resource consists entirely of thermal coal across a number of seams, with net thickness ranging from 13.5m to 20.4m. The seams are outcropping, dipping to the south-east.

The company has stated that preliminary quality results indicate the potential for a thermal product suitable for domestic or Chinese electricity generators. Detailed quality testing is planned for completion in 1H 2012.

The company is planning to drill a pattern of holes from March through May 2012, with the aim of significantly increasing the current resource. As the 4 drill rigs are remobilised from Ulaanbaatar back to the South Gobi project, 1 will be diverted to the Middle Gobi project to carry out this drill pattern.

Figure 25: Middle Gobi project tenements and maiden resource



Source: Guildford Coal Ltd

## Summary of resources

**Table 24: Mongolian JORC resource inventory**

	South Gobi project	Middle Gobi project
Indicated	38.2	32
Inferred	24.9	189
<b>Total</b>	<b>63.1</b>	<b>221</b>
Exploration Target	0-700	30-680

Source: Guildford Coal Ltd

## Mining & development

### Mining approach

Subject to the results of the Scoping Study due for completion by end January 2012, Guildford plans to conduct mining operations at the South Gobi project via a series of shallow open pits. The company plans to achieve first production at the North Pit. The order of potential development of the remaining conceptual pits is dependent on the results of exploration work in 2012.

Following expected receipt of the Mining Licence for EL13780X and EL5262X in January 2012, Guildford plans to be mining at the North Pit by end June quarter 2012. The company intends to utilise contract miners, similar to the approach at the nearby SGR and MAK mines, and is targeting the signing of an Alliance Agreement with a mining contractor by end of March quarter 2012.

Guildford is planning for a staged approach to production across the South Gobi project. At the North Pit, we understand the company is considering output of approximately 1.8Mt from 1 shovel and a fleet of trucks. Development of 1 additional open pit (Central, East or West) could see production doubled, through a similar sized 2<sup>nd</sup> mining fleet. We model this occurring, and note the further potential upside to production from development of a 3<sup>rd</sup> or all 4 conceptual pits.

### Product & marketing

Guildford has the option to produce either: (i) a semi soft coking coal product and a higher ash coal product (similar to SGR's multi-product approach); or (ii) a blended product through simple bulk mining. A final decision will be made after completion of the Scoping Study.

We have assumed that Guildford opts for a dual-product approach (70% semi soft / 30% high ash), as we believe the higher pricing achieved on the semi soft product leads to the highest-value option. We model prices in FY12 terms of US\$70/t for the semi-soft product and US\$40/t for the higher-ash product. These are inline with the most recent reported (Sep qtr) prices received by SGR for its equivalent products. We inflate these prices at a nominal rate of 2.5% per annum from FY13 onwards.

The company intends to sell its coal to traders and/or offtake partners at the 'mine-gate', also similar to the approach of MAK (solely mine-gate sales) and SGR (combination of mine-gate and China border selling points).



## Capex

Guildford estimates a minimal capex requirement, given the contract miner will provide the mining fleet and limited pre-stripping will be required. Guildford will be responsible for construction of the camp and workshop facilities, which it estimates will require only a modest US\$10m spend. The workshops will likely be built to accommodate a 2<sup>nd</sup> mining fleet, thereby limiting the company's future exposure to incremental capex. Notwithstanding this, we have assumed capex of US\$25m to allow for contingencies and escalation.

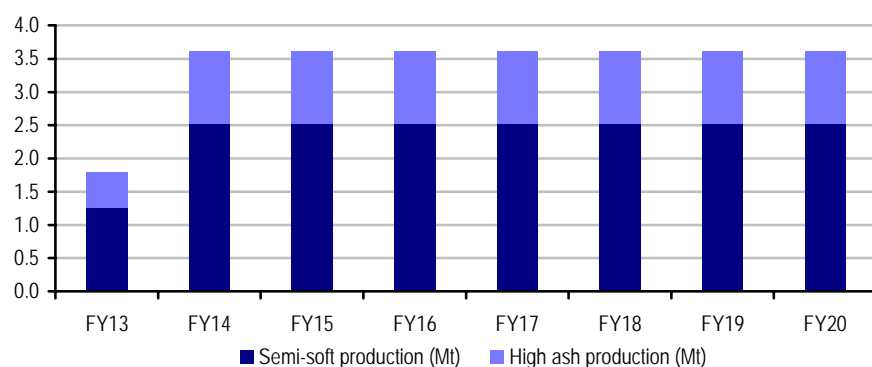
## Opex

As Guildford is planning only to sell a raw product at the mine-gate, opex will be limited to direct mining costs and site admin costs. The company is confident it can keep its ROM cash costs to no more than US\$20/t, slightly below that achieved by SGR. This should be enabled by the low strip ratio of less than 2:1 (bcm/t) estimated by Guildford over the first 10Mt of ore mined, as well as the likely lower screening requirements given the lower sulphur content relative to SGR.

We model mining costs of US\$20/t over the first 2 years of operation at the North and Central pits, increasing to US\$25/t for conservatism thereafter, as greater mining depths lead to increased waste removal. We assume site admin costs of US\$2.50/t, which includes an allowance for customs clearance fees (MNT1,500/t or US\$1.05/t). We also nominally inflate opex at 2.5% per annum, in line with pricing.

## UBS assumptions

Chart 4: Guildford production profile (UBSe)



Source: UBS estimates

Table 25: UBSe pricing, costs and margin

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Semi-soft received price	72	74	75	77	79	81	83	85
High ash received price	41	42	43	44	45	46	48	49
Total cash costs (pre royalties)	23	24	24	28	31	32	33	34
EBITDA margin (post royalties)	47%	47%	47%	43%	39%	39%	39%	39%

Source: UBS estimates

## Timing & approvals

The key approval remaining for the South Gobi project is obtaining the Mining Licence. This encompasses the approval to commence mining activities and also the environmental approvals for the project. Guildford has submitted a Mining Licence application for EL13780X and EL5262X, covering the conceptual North, Central and East pits, and expects approval in January 2012.

Following receipt of the Mining Licence, the remaining critical path items to first production include:

- Completion of Scoping Study for South Gobi project by end January 2012
- Execution of Alliance Agreement with a mining contractor before end March quarter 2012
- Negotiation of an offtake agreement before end March quarter 2012
- Mobilisation and commencement of mining within June quarter 2012
- First production by end June quarter 2012.

Guildford has a portfolio of thermal and coking coal exploration projects in Queensland, covering a combined tenement area of 20,000km<sup>2</sup>. The key projects among these include:

- Figure 26: Overview of Guildford's Queensland projects



## Resources & reserves

Hughenden (excl. White Mountain)

Guildford's exploration target for the Hughenden Project (excluding White Mountain) is 0.58-5.72Bt, across 20 EPCs. This target encompasses several coal seams at depths suitable for both open cut and underground mining. GUF owns 100% of the tenements held by FTB (Qld) Pty Ltd, and has an 80% interest in the tenements held by Orion Mining Pty Ltd (see Figure 27 below).

Guildford recently announced its initial inferred resource for the project of 1,036Mt, on the north-east edge of EPC1477, within the Betts Creek seams. The resource comprises of 9 seams commencing at 350m depth, and hence is suitable only for underground mining. However, the company has intersected the same Betts Creek seams 15km further north, within EPC1478, at 200m depth. Guildford aims in 1H 2012 to delineate the subcrop of the Betts Creek sequence, and if successful, define a JORC resource amenable to open cut mining.

Source: Guildford Coal Ltd. (Quality specs taken from the original 926Mt maiden resource release)

The White Mountain project consists of the adjoining EPC1250 and EPC1260 on the north-eastern edge of the Galilee Basin. The overall exploration target for the project is 40-815Mt, consisting of:

- Drilling on EPC1260 has intersected the Betts Creek coal seams at approximately 80m depth. Guildford plans to conduct further drilling in March quarter 2012 to define a JORC resource amenable to open cut mining.

**GUILDFORD COAL LIMITED**

EPC1478 - Betts Creek Coal Seam intersected at 200m depth

EPC1477 / EPC1478 - JORC Inferred Resource of 1.036Bt

EPC1260 - Betts Creek Coal Seam intersected at 80m depth

*These intersections demonstrate the relatively flat dipping nature of the Betts Creek Beds in the area with interpreted apparent dips of less than 2%*

**EPC's**

- Guildford Coal Limited (or Wholly Owned Subsidiaries)
- FTB (Q/LD) Pty Ltd (Guildford 100%)
- Oreum Mining Pty Ltd (Guildford 65%)
- White Mountain Pty Ltd (Guildford 56%)

**Sedimentary Basins**

- Eromanga Basin
- Galilee Basin

**Guildford Coal Limited**

**Hughenden Project**

APR 2011

DATE: January 2011 | SHEET: 01/01

0 25 50 Kilometers

## Resource potential at other projects

Based on drilling to the south by Newlands Resources on its Comet Ridge project, Guildford has interpreted 20km of strike of the Fair Hill formation subcrop running north-south across EPC1822 (Sierra tenement). The company plans to commence drilling at Sierra in March quarter 2012, with 2 rigs to complete a 25-hole program covering the entire tenement.

Drilling to date at Kolan has intersected thin sections of Burrum Coal measures, which indicates extension of the seams onto the Kolan project. Further holes are

planned in 2H 2012 with the aim of intersecting thicker extensions of the Burrum Coal measures, to confirm an exploration target for the project.

### Resource success fee

As disclosed in its IPO prospectus in June 2010, The Chairmen1 Pty Ltd (“Chairmen1”, the external manager of Guildford) is entitled to a fee of \$20m for each 100Mt of JORC indicated coal resource defined by Guildford within the 5 year period commencing from 1 July 2010. All tenements vended by Chairmen1 to Guildford prior to the IPO qualify for the success fee. This includes all of Guildford’s current projects in Queensland, except for the White Mountain tenements. The fee will not exceed \$100m in aggregate, and may be satisfied by cash, fully paid ordinary Guildford shares, or a combination.

### Rail & port infrastructure

Hughenden is located in close proximity to existing infrastructure with the Mt Isa to Townsville rail line running across the south of the project area. Guildford has entered into memoranda of understanding (MOUs) with ARG and Port of Townsville Ltd (POTL) for a 10Mtpa rail and port allocation for the Hughenden Project. ARG, a QR National subsidiary, is the primary rail operator on the Mt Isa to Townsville rail line.

Guildford is progressing separate feasibility studies with ARG, regarding rail capacity, and POTL, regarding the design and construction of necessary export infrastructure at Townsville Port. The company aims to convert the MOUs with ARG and POTL to binding contracts within 1H 2012.

Notwithstanding the potential 10Mtpa allocation through Townsville Port, Guildford is exploring the ability to ultimately produce up to 20Mtpa from the Hughenden project. As a result, the company has lodged an expression of interest (EOI) with North Queensland Bulk Port Corporation for the development of stages 4 to 7 of Abbot Point Coal Terminal. The EOI relates to the potential tonnage produced over and above the initial estimated 10Mtpa potentially transported through Townsville Port.

## Valuation

We have valued Guildford based on our forecast discounted free cash flows from the South Gobi project. Given the asset is close to first production, we believe an NPV methodology is the most appropriate valuation benchmark.

The key inputs to our NPV are as follows:

- Production: 3.6Mtpa combined from the North Pit and a second pit
- Received price: we assume a 2-product stream, at US\$70/t (semi-soft) and US\$40/t (higher-ash) in FY12, inflated nominally at 2.5%p.a. thereafter
- Opex: direct mining costs of US\$20/t, increasing to US\$25/t after 2 years
- Capex: US\$25m to cover camp & workshop facilities, and for contingencies.

We allocate a combined US\$200m in our NPV for the Hughenden and Middle Gobi projects. We view this as conservative, relative to the potential value of the projects should their respective catalysts for development occur.

**Table 27: NPV breakdown**

	A\$m	A\$/sh
South Gobi	593	1.35
Corporate / exploration	-191	-0.43
Exploration upside	200	0.45
Net (debt) / cash	19	0.04
<b>Total</b>	<b>622</b>	<b>1.41</b>
Discount rate	10%	
IRR	44.3%	

Source: UBS estimates

(1) Our NPV includes allowance for the issuance of 9.1m shares and \$1.05m cash, which collectively form the bonus payments due to senior management, subject to approval at EGM on 20 January 2012

**Table 28: Mongolian coal company trading & valuation metrics**

Company	Ticker	Mkt Cap	EV	Resources	Reserves	EV/t		P/E (x)		EV/EBITDA (x)		EV/t production	
		(US\$m)	(US\$m)	(Mt)	(Mt)	Resource	Reserve	2012	2013	2012	2013	2011	Design
Mongolian Mining Corp	975 HK	2,868	3,132	860	468	3.6	6.7	9.2	6.5	7.0	4.8	688	198
SouthGobi Resources	SGO CN <sup>(1)</sup>	1,048	991	536	107	1.8	9.3	24.7	10.1	7.2	3.9	248	99
Mongolia Energy Corp	276 HK	596	950	149	0	6.4	-	nmf	nmf	nmf	nmf	1,901	162
Prophecy Coal Corp	PCY CN	89	81	1,434	21	0.1	3.9	nmf	nmf	nmf	nmf	-	40
Aspire Mining	AKM AU	229	189	331	0	0.6	-	nmf	nmf	nmf	nmf	-	16
Guildford Coal	GUF AU	344	319	1,320	0	0.2	-	nmf	24.1	nmf	17.8	-	89
Modun Resources	MOU AU	31	30	489	0	0.1	-	nmf	nmf	nmf	nmf	-	-
Xanadu Mines	XAM AU	47	25	497	0	0.1	-	nmf	nmf	nmf	nmf	-	-

Source: Bloomberg, IRESS (as at 17/1/12), company reports, UBS estimates (for AKM and GUF). Excludes Mongolian Stock Exchange (MSE) listed stocks, given lower liquidity

1. SouthGobi Resources' secondary listing on HKSE, code 1878 HK



## Sensitivities

Table 29: Sensitivity analysis – semi-soft coking coal 'China price' vs. opex

		UBSe raw semi-soft coking coal 'China price' (US\$/t)						
		\$55/t	\$60/t	\$65/t	\$70/t	\$75/t	\$80/t	\$85/t
Opex (US\$/t)	\$20/t	1.08	1.33	1.58	1.83	2.08	2.33	2.58
	\$25/t	0.81	1.06	1.30	1.55	1.80	2.05	2.30
	\$28/t	0.67	0.92	1.17	1.41	1.66	1.91	2.16
	\$30/t	0.53	0.78	1.03	1.27	1.52	1.77	2.02
	\$35/t	0.25	0.50	0.75	1.00	1.25	1.49	1.74
	\$40/t	-0.03	0.22	0.47	0.72	0.97	1.22	1.47
	\$45/t	-0.30	-0.06	0.19	0.44	0.69	0.94	1.19

Source: UBS estimates. Shaded cell is base case NPV.

Table 30: Sensitivity analysis – capex vs. discount rate

		Total capex (US\$m)				
		10	25	50	75	100
Discount rate	8%	1.74	1.72	1.69	1.66	1.62
	9%	1.57	1.55	1.52	1.49	1.45
	10%	1.43	1.41	1.38	1.35	1.32
	11%	1.32	1.30	1.27	1.24	1.21
	12%	1.23	1.21	1.18	1.15	1.11
	13%	1.15	1.14	1.10	1.07	1.04

Source: UBS estimates. Shaded cell is base case NPV.

# Financials

## Income statement

Table 31: Income statement summary

		2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E
Sales revenue	A\$m	0.0	57.1	125.7	140.0	155.3	163.1	167.1	171.3
Other revenue	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total revenue</b>	<b>A\$m</b>	<b>0.0</b>	<b>57.1</b>	<b>125.7</b>	<b>140.0</b>	<b>155.3</b>	<b>163.1</b>	<b>167.1</b>	<b>171.3</b>
Operating costs	A\$m	0.0	21.2	46.7	52.0	64.1	74.0	75.8	77.7
Royalty	A\$m	0.0	9.0	19.8	22.0	24.4	25.6	26.3	26.9
Corporate	A\$m	7.0	9.0	10.0	10.0	15.0	15.0	15.0	15.0
<b>Total costs</b>	<b>A\$m</b>	<b>7.0</b>	<b>39.1</b>	<b>76.4</b>	<b>84.0</b>	<b>103.5</b>	<b>114.6</b>	<b>117.1</b>	<b>119.6</b>
<b>EBITDA</b>	<b>A\$m</b>	<b>-8.1</b>	<b>17.9</b>	<b>49.3</b>	<b>56.1</b>	<b>51.9</b>	<b>48.5</b>	<b>50.1</b>	<b>51.7</b>
Depreciation	A\$m	0.0	0.2	0.5	0.5	0.6	0.7	0.8	0.9
<b>EBIT</b>	<b>A\$m</b>	<b>-8.1</b>	<b>17.7</b>	<b>48.9</b>	<b>55.5</b>	<b>51.2</b>	<b>47.7</b>	<b>49.3</b>	<b>50.8</b>
Interest income	A\$m	1.4	0.9	1.0	2.5	2.0	2.9	3.5	4.1
Interest expense	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net interest</b>	<b>A\$m</b>	<b>-1.4</b>	<b>-0.9</b>	<b>-1.0</b>	<b>-2.5</b>	<b>-2.0</b>	<b>-2.9</b>	<b>-3.5</b>	<b>-4.1</b>
<b>PBT</b>	<b>A\$m</b>	<b>-6.7</b>	<b>18.6</b>	<b>49.8</b>	<b>58.0</b>	<b>53.2</b>	<b>50.6</b>	<b>52.7</b>	<b>55.0</b>
Tax expense	A\$m	0.0	4.0	8.8	9.8	9.9	9.4	9.6	9.9
<b>Post tax income</b>	<b>A\$m</b>	<b>-6.7</b>	<b>14.6</b>	<b>41.0</b>	<b>48.2</b>	<b>43.3</b>	<b>41.2</b>	<b>43.1</b>	<b>45.1</b>
Minority interest	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Reported NPAT</b>	<b>A\$m</b>	<b>-6.7</b>	<b>14.6</b>	<b>41.0</b>	<b>48.2</b>	<b>43.3</b>	<b>41.2</b>	<b>43.1</b>	<b>45.1</b>
Significant items (post-tax)	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Underlying NPAT</b>	<b>A\$m</b>	<b>-6.7</b>	<b>14.6</b>	<b>41.0</b>	<b>48.2</b>	<b>43.3</b>	<b>41.2</b>	<b>43.1</b>	<b>45.1</b>
<b>Per share (basic)</b>									
EPS - headline	A\$/sh	-0.02	0.03	0.09	0.11	0.10	0.09	0.10	0.10
EPS - underlying	A\$/sh	-0.02	0.03	0.09	0.11	0.10	0.09	0.10	0.10
DPS	A\$/sh	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.03
CFPS	A\$/sh	-0.02	0.04	0.11	0.11	0.10	0.09	0.10	0.11

Source: UBS estimates

(1) We proportionately consolidate our assumed Guildford interest of 52.5% in the South Gobi project, as we understand this is the company's current intention.

## Cash flow statement

Table 32: Cash flow statement summary

		2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E
Receipts from operations	A\$m	0	57	126	140	155	163	167	171
Payments from operations	A\$m	0	-30	-66	-74	-88	-100	-102	-105
Interest received	A\$m	1	1	1	3	2	3	3	4
Interest paid	A\$m	0	0	0	0	0	0	0	0
Tax paid	A\$m	-1	0	-4	-9	-10	-10	-9	-10
Other	A\$m	-8	-9	-10	-10	-15	-15	-15	-15
<b>Operating cash flow</b>	<b>A\$m</b>	<b>-8</b>	<b>19</b>	<b>46</b>	<b>50</b>	<b>44</b>	<b>41</b>	<b>44</b>	<b>46</b>
Exploration	A\$m	-24	-20	-15	-10	-5	-5	-5	-5
Payment for PPE	A\$m	-5	-3	-1	-1	-1	-1	-1	-1
Project development	A\$m	-5	-3	-1	-1	-1	-1	-1	-1
Other	A\$m	18	0	0	0	0	0	0	0
<b>Investing cash flow</b>	<b>A\$m</b>	<b>-17</b>	<b>-26</b>	<b>-17</b>	<b>-12</b>	<b>-7</b>	<b>-7</b>	<b>-7</b>	<b>-7</b>
Proceeds from share issuance	A\$m	10	0	0	0	0	0	0	0
Proceeds from debt	A\$m	0	0	0	0	0	0	0	0
Repayment of debt	A\$m	0	0	0	0	0	0	0	0
Dividends paid	A\$m	0	0	0	0	0	-11	-10	-11
Other	A\$m	0	0	0	0	0	0	0	0
<b>Financing cash flow</b>	<b>A\$m</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-11</b>	<b>-10</b>	<b>-11</b>
<b>Net change in cash</b>	<b>A\$m</b>	<b>-15</b>	<b>-7</b>	<b>29</b>	<b>38</b>	<b>37</b>	<b>23</b>	<b>26</b>	<b>28</b>
Opening cash	A\$m	34	19	12	41	79	116	139	165
Exchange rate impact	A\$m	0	0	0	0	0	0	0	0
<b>Closing cash</b>	<b>A\$m</b>	<b>19</b>	<b>12</b>	<b>41</b>	<b>79</b>	<b>116</b>	<b>139</b>	<b>165</b>	<b>193</b>

Source: UBS estimates

## Balance sheet

Table 33: Balance sheet summary

		2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E
Cash	A\$m	19	12	41	79	116	139	165	193
Receivables	A\$m	1	1	1	1	1	1	1	1
Inventories	A\$m	0	0	0	0	0	0	0	0
Other	A\$m	0	0	0	0	0	0	0	0
<b>Total Current Assets</b>	<b>A\$m</b>	<b>20</b>	<b>13</b>	<b>42</b>	<b>80</b>	<b>117</b>	<b>140</b>	<b>166</b>	<b>194</b>
Receivables	A\$m	0	0	0	0	0	0	0	0
Exploration / evaluation	A\$m	113	133	148	158	163	168	173	178
PPE	A\$m	5	8	9	10	10	11	12	13
Mine development	A\$m	5	8	9	9	10	11	12	13
Other	A\$m	0	0	0	0	0	0	0	0
<b>Total Non-Current Assets</b>	<b>A\$m</b>	<b>123</b>	<b>149</b>	<b>165</b>	<b>177</b>	<b>184</b>	<b>190</b>	<b>197</b>	<b>203</b>
<b>Total Assets</b>	<b>A\$m</b>	<b>143</b>	<b>162</b>	<b>208</b>	<b>257</b>	<b>300</b>	<b>330</b>	<b>363</b>	<b>398</b>
Creditors	A\$m	11	15	20	21	21	20	21	21
Borrowings	A\$m	0	0	0	0	0	0	0	0
Provisions	A\$m	0	0	0	0	0	0	0	0
Other	A\$m	0	0	0	0	0	0	0	0
<b>Current Liabilities</b>	<b>A\$m</b>	<b>11</b>	<b>15</b>	<b>20</b>	<b>21</b>	<b>21</b>	<b>20</b>	<b>21</b>	<b>21</b>
Creditors	A\$m	0	0	0	0	0	0	0	0
Borrowings	A\$m	0	0	0	0	0	0	0	0
Provisions	A\$m	0	0	0	0	0	0	0	0
Other	A\$m	0	0	0	0	0	0	0	0
<b>Non-Current Liabilities</b>	<b>A\$m</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Liabilities</b>	<b>A\$m</b>	<b>11</b>	<b>15</b>	<b>20</b>	<b>21</b>	<b>21</b>	<b>20</b>	<b>21</b>	<b>21</b>
<b>Net Assets</b>	<b>A\$m</b>	<b>132</b>	<b>147</b>	<b>188</b>	<b>236</b>	<b>279</b>	<b>310</b>	<b>343</b>	<b>377</b>
Issued Capital	A\$m	106	106	106	106	106	106	106	106
Reserves	A\$m	17	17	17	17	17	17	17	17
Retained Earnings	A\$m	-11	3	44	92	136	166	199	233
Minority Interests	A\$m	21	21	21	21	21	21	21	21
<b>Total Equity</b>	<b>A\$m</b>	<b>132</b>	<b>147</b>	<b>188</b>	<b>236</b>	<b>279</b>	<b>310</b>	<b>343</b>	<b>377</b>

Source: UBS estimates

# Corporate details

## Board of Directors

[Mr Craig Ransley \(Chairman, non-executive\)](#)

Fitter and Machinist (Trade Qualified)

Mr Ransley has a broad entrepreneurial background, having built a number of companies across several industries. He has extensive experience in the labour hire and service industries, having founded TESA Group Pty Ltd and Res Co Services. He was the founder of both Doyles Creek Mining (NuCoal Resources NL) and Guildford Coal Ltd. Mr Ransley is currently non-executive chairman of The Chairmen1 Pty Ltd, a major shareholder in Guildford Coal Ltd.

Current Directorships: Humanis Group Ltd (non-exec Chairman).

[Mr Anthony Bellas \(Deputy Chairman, non-executive\)](#)

Bachelor of Economics; Diploma of Education; MBA

Mr Bellas is an experienced company director who is currently chairman of CTM Travel Ltd and a non-executive director of ERM Power Ltd and Australian Water (Qld) Pty Ltd. Mr Bellas held past positions as chief executive at each of the Seymour Group, CS Energy and Ergon Energy, following a career in public service which culminated in the position of Queensland Deputy Under Treasurer.

Current Directorships: Corporate Travel Management Ltd (Chairman); ERM Power Ltd. Previous Directorships: Watpac Ltd (2007-2010).

[Mr Michael Avery \(Managing Director\)](#)

NSW Open Cut Coal Mine Manager's Certificate; B Min. Eng. (UNSW) (First Class Hon.); MAusIMM; MBA, Mt Eliza Business School

Mr Avery has been involved in the coal industry for over 25 years. He has performed senior management and technical roles for a number of blue-chip mining companies at operations in NSW, throughout Australia and globally. His experience spans the full life cycle of coal assets from resource exploration and evaluation to conceptual design, pre-feasibility, feasibility, construction and operation. Mr Avery is a shareholder in The Chairmen1 Pty Ltd.

[Mr Michael Chester \(non-executive Director\)](#)

Bachelor of Commerce; ACA; PS 146

Mr Chester has over 26 years' experience in the resources sector in the fields of investment banking, company research and analysis and funds management. He is currently a non-executive director of NuCoal Resources NL and Black Fire Minerals Ltd. Mr Chester is a director and former shareholder in The Chairmen1 Pty Ltd.

Current Directorships: NuCoal Resources NL; Black Fire Minerals Ltd. Previous Directorships: Carpentaria Exploration Ltd (2008-2011).

#### [The Hon. Alan Griffiths \(non-executive Director\)](#)

The Hon. Alan Griffiths has achieved business success as an IT entrepreneur, hotelier, developer and investor. He established and was the principal of Quantm Ltd in 2001. He served five terms in the Australian House of Representatives and held various Ministerial and Cabinet positions including Minister responsible for the resources and energy sector.

#### [Ms Norah St. George \(Chief Financial Officer\)](#)

BA (Syd. Uni.); Master of Commerce (UNSW); CPA Aust.; MBA (Deakin)

Ms St George has 15 years' experience in the Australian black coal industry. She has held senior financial and commercial management positions with international blue chip mining companies, a full service mining contractor, professional firms and heavy industry. Her business background includes experience in the commercial and financial aspects of mine construction and operation.

## Management

#### [Mr Michael Avery \(Managing Director\)](#)

See above.

#### [Ms Norah St. George \(Chief Financial Officer\)](#)

See above.

#### [Mr Mark Turner \(Chief Operating Officer\)](#)

B Min. Eng. (WA School of Mines); Diploma, Fin. Mgmt (Central Qld Uni).

Mr Turner has been involved in the management and operation of mines for nearly 20 years with experience from exploration and project development to operational and executive management. His former roles include: COO, Northern Energy Corp, where he was responsible for progressing the development of coking and thermal coal assets; GM, Mining Operations, Tarong Energy Corp; and GM, Operations and Site Senior Executive, Coppabella Mine (Macarthur Coal); and several roles in iron ore and base metals operations.

#### [Mr Tony Mooney AM \(GM – Stakeholder Relations\)](#)

B Ed / BA (James Cook); FAICD

Mr Mooney has a wealth of experience in local government, having served as Mayor of Townsville and President of the Urban Local Government Association of Queensland. He was a long term Director of Townsville Enterprise, and has been a strong supporter of MITEZ - the Mt Isa to Townsville Economic Zone and the Copper String Project, which will boost power transmission between Townsville and Mt Isa. Tony has also worked as engagement specialist for national recruitment firm IPA Personnel.

Previous Directorships: Ergon Energy; Port of Townsville Corporation.



## External management entity

The Chairmen1 Pty Ltd (Chairmen1), pursuant to a Management Agreement entered into with Guildford, acts as the exclusive manager of Guildford, and provides infrastructure and support for the management of the company's operations. The Management Agreement has a term of 5 years commencing from 1 July 2010. Chairmen1 is entitled to a payment of \$2.5m per annum in return for the provision of the management services. Chairmen1 is owned by several shareholders, including Craig Ransley and Michael Avery.

## Shareholding structure

Chairmen1 owns 200m (or 46.5%) of the 431m shares currently on issue. These shares are restricted until 22 July 2012 (2 years after IPO). Other substantial shareholders include Och-Ziff (12.1%) and Regal Funds Mgmt (11.2%).

## Trading history

Chart 5: Guildford share price history (since July 2010 IPO)



Source: UBS

# Guildford Coal (GUF.AX)

Analyst/s: Ben Wilson/Glyn Lawcock  
Email: ben-g.wilson@ubs.com  
18-Jan-12

## MARKET INFORMATION

<b>Rating:</b>	<b>Buy</b>
Price (as of 17-Jan-12):	0.77
<b>Price Target (12 months):</b>	<b>1.40</b>
Issued Capital:	219.6
Market Capitalisation:	169.1
Avg. daily turnover (US\$m)	0.4
Year end:	Jun 2012
Website:	http://www.guildfordcoal.com.au/
Major Shareholders:	The Chairmen1 Pty Ltd

## INVESTMENT SUMMARY

(A\$m)	2013E	2014E	2015E	2016E
Net profit [reported] (\$m)	14.6	41.0	48.2	43.3
Net profit [adjusted] (\$m)	14.6	41.0	48.2	43.3
EPS [reported] (\$)	0.03	0.09	0.11	0.10
<b>EPS [adjusted, diluted] (\$)</b>	<b>0.03</b>	<b>0.09</b>	<b>0.11</b>	<b>0.10</b>
EPS Growth (%)	NM	180.7	17.6	(10.3)
<b>PER [adjusted] (x)</b>	<b>23.2</b>	<b>8.3</b>	<b>7.0</b>	<b>7.8</b>
Dividend (\$)	0.0	0.0	0.0	0.0
Payout ratio (%)	0.0	0.0	0.0	25.0
<b>Dividend Yield (%)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3.2</b>
FCF Yield (%)	3.8	13.1	14.1	12.3
Franking (%)	0.0	0.0	0.0	0.0
Shares [period-average, diluted] (m)	439.6	439.6	439.6	439.6

## VALUATION

Valuation per share [NAV @ 10%] (\$)	\$1.41
Share Price Target [12 months] (\$)	\$1.40
Price/NAV (x)	0.5

Assets	A\$m	A\$/sh
South Gobi	593	1.35
Corporate / exploration	-191	-0.43
Exploration upside	200	0.45
Net (debt) / cash	19	0.04
<b>Total</b>	<b>622</b>	<b>\$1.41</b>

## ENTERPRISE VALUE

(A\$m)	2013E	2014E	2015E	2016E
<b>Enterprise Value</b>	<b>142</b>	<b>113</b>	<b>75</b>	<b>38</b>
EV/EBITDA (x)	7.9	2.3	1.3	0.7
EV/Operating Free Cash Flow (x)	34.6	3.3	1.7	1.0

## EPS SENSITIVITIES

Commodity	Base Change	2014E	2015E	2016E
			EPS Change	

## CASH FLOW

(A\$m)	2013E	2014E	2015E	2016E
Operating income [EBIT, UBS]	18	49	56	51
Depreciation & Amortisation	0	0	1	1
Net change in working capital	(4)	(5)	(1)	(0)
Other (operating)	4	5	1	0
<b>Pre-tax op cash flow</b>	<b>18</b>	<b>49</b>	<b>56</b>	<b>52</b>
Interest (paid) / received	1	1	3	2
Tax paid	0	(4)	(9)	(10)
Other	0	0	0	0
<b>Operating cash flow</b>	<b>19</b>	<b>46</b>	<b>50</b>	<b>44</b>
Capital expenditure	(6)	(2)	(2)	(2)
<b>Free cash flow</b>	<b>13</b>	<b>44</b>	<b>48</b>	<b>42</b>
Net (acquisitions) / disposals	0	0	0	0
Dividends paid (Common)	0	0	0	0
Shares issued/(repurchased)	0	0	0	0

Source: UBS estimates

## COMPANY DESCRIPTION

Guildford Coal has near-term semi-soft coking coal production from its South Gobi project in Mongolia, supported by a 63mt resource with meaningful exploration upside. The company plans first coal by end-June quarter 2012; we estimate production of 3.6mtpa from two open pits. Guildford plans to use a simple model for the project, located only 60km from the China border, by employing contract miners and utilising mine-gate sales to offtake providers for ultimate sale in China. The company also has medium-term production options from the Middle Gobi project in Mongolia and the Hughenden project in Queensland.

## OPERATIONAL ASSUMPTIONS

	2013E	2014E	2015E	2016E	2017E	2018E
<b>Commodity Prices</b>						
Semi soft (UBS forecast)	147.5	121.0	115.0	113.2	113.5	116.3
Semi soft (applied 'China price')	71.8	73.5	75.4	77.3	79.2	81.2
Exchange rate (AUD:USD)	1.04	0.96	0.89	0.82	0.80	0.80
<b>Production</b>						
Semi soft [Mt]	1.3	2.5	2.5	2.5	2.5	2.5
Higher ash [Mt]	0.5	1.1	1.1	1.1	1.1	1.1
<b>Operating Costs</b>						
Total FOB cash costs [US\$/t]	22.5	22.5	22.5	25.0	27.5	27.5

## DIVISIONAL BREAKDOWN (EBIT)

(A\$m)	2013E	2014E	2015E	2016E	2017E	2018E
South Gobi	26.7	58.9	65.5	66.2	62.7	64.3

## PROFIT & LOSS

(A\$m)	2013E	2014E	2015E	2016E	2017E	2018E
Sales Revenue	57	126	140	155	163	167
<b>Operating Cash Profit</b>	<b>36</b>	<b>79</b>	<b>88</b>	<b>91</b>	<b>89</b>	<b>91</b>
Depn & Amortisation	(0)	(0)	(1)	(1)	(1)	(1)
<b>Operating Profit</b>	<b>36</b>	<b>79</b>	<b>88</b>	<b>91</b>	<b>88</b>	<b>91</b>
Others	(9)	(20)	(22)	(24)	(26)	(26)
SGA	(9)	(10)	(10)	(15)	(15)	(15)
<b>EBIT</b>	<b>18</b>	<b>49</b>	<b>56</b>	<b>51</b>	<b>48</b>	<b>49</b>
Net interest	1	1	3	2	3	3
<b>Profit before tax</b>	<b>19</b>	<b>50</b>	<b>58</b>	<b>53</b>	<b>51</b>	<b>53</b>
Tax expense	(4)	(9)	(10)	(10)	(9)	(10)
Equity Associated NPAT	0	0	0	0	0	0
Minority Interests	0	0	0	0	0	0
Dividends [preferred]	0	0	0	0	0	0
<b>Net Profit [reported]</b>	<b>15</b>	<b>41</b>	<b>48</b>	<b>43</b>	<b>41</b>	<b>43</b>
Abnormal Gain/(Loss) after Tax	0	0	0	0	0	0
<b>Net Profit [adjusted]</b>	<b>15</b>	<b>41</b>	<b>48</b>	<b>43</b>	<b>41</b>	<b>43</b>
EBITDA margin (%)	31.4	39.2	40.0	33.4	29.7	30.0
Net Interest Cover [EBIT] (x)	20.1	50.8	22.0	26.0	16.5	14.2
Tax Rate (%)	0.2	0.2	17%	19%	19%	18%
EBIT/Total Assets (%)	10.9	23.5	21.6	17.0	14.5	13.6
NPAT/Equity (%)	9.9	21.8	20.4	15.5	13.3	12.6

## BALANCE SHEET [Selected Items]

(A\$m)	2013E	2014E	2015E	2016E	2017E	2018E
Net Working capital	(14)	(19)	(20)	(20)	(19)	(20)
Fixed Assets	16	18	19	21	22	24
Net Other	133	148	158	163	168	173
<b>Capital Employed</b>	<b>135</b>	<b>147</b>	<b>157</b>	<b>164</b>	<b>171</b>	<b>177</b>
Net Cash / (Debt)	12	41	79	116	139	165
<b>Total Equity [incl. minorities]</b>	<b>147</b>	<b>188</b>	<b>236</b>	<b>279</b>	<b>310</b>	<b>343</b>
Minorities	21	21	21	21	21	21
Net Debt / Equity (%)	(8.2)	(22.0)	(33.4)	(41.4)	(44.8)	(48.2)
Book Value per Share(\$)	0.3	0.43	0.54	0.64	0.70	0.78

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## Appendix: Coal market view

The following commentary is extracted from UBS' commodity price review, "Pain before gain", published 14 December 2011.

### Metallurgical coal

'Oh no, it's raining again...'

Queensland's wet season has arrived (Dec-Mar), and is probably now the only substantial short-term support for metallurgical coal prices. For throughout 2011, these prices have been sliding lower on generally uninterrupted supply, as well as weakness in global steel markets. Hard- and semi-soft, PCI coal spot prices – are now down 75% since mid-2011.

While the labour dispute at the BHP Billiton-Mitsubishi Alliance mines of the Bowen Basin remains unresolved (since Jun-11), the importance of the supply risk around these 7 mines (+20% seaborne's total met-coal supply) seems to be lost on the market. That is because the event has only created an export shortfall in 2011 of 3-5Mt 2011 (<1%). With a deteriorating global macroeconomic outlook, the world's steel industry is less concerned about met-coal supply than at the start of 2011, focusing instead on cost-cutting and trade survival.

Hard coking coal's 2012Q1 contract prices were settled in November by both Teck Resources and AngloAmerican: US\$235/t fob. Foxleigh is not a trade price-setter, but its US\$171/t fob for LV-PCI deal (28-Nov) is likely to be accepted as benchmark, as it is consistent with the \$235/t HCC (using historical price ratios). No deal has been reported for semi-soft, although the HCC/PCI transaction implies US\$165/t fob (again, using historical price ratios).

Clearly, these quarterly price deals are being set in line with the daily reported spot price, within 4-6 weeks of the next quarter. Since annual benchmark talks were terminated (Apr-10), the players involved in top-grade met-coal quarterly price talks have been Anglo, Teck, Nippon Steel, Posco, ArcelorMittal and ThyssenKrupp. BHP Billiton is only interested in setting monthly contract prices.

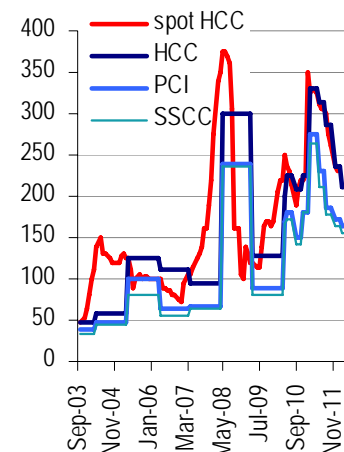
Until now, the mills have avoided monthlies, because they are unable to manage the volatility associated with shorter-term contracts (there are no forward markets for this trade). In recent weeks, though – BHP Billiton has reported that the mills are interested in shorter-term contracts. This may be attributed to the fact that spot prices are now falling.

### Meanwhile, back in Shanxi

The primary basis for our bearish long-term met-coal outlook relates to a strong lift in coal production, in response to persistently high (albeit falling) met-coal prices – particularly in China's Shanxi Province, as well as Mozambique and Mongolia. China's Shanxi Province mined 76Mt of raw coal in October, +11.9%yoy (Shanxi Coal Industry Bureau, 17-Nov).

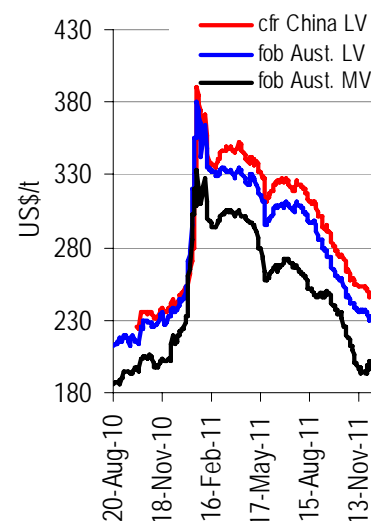
The province has produced 709Mt during Jan-Oct; +19.7%yoy; annualize at 851Mt (741Mt, 2010). This spectacular lift in production is partly in response to the record-high seaborne prices, and the lack of credit in China's market.

Chart 6: Met-coal prices (US\$/t fob)



Source: CRU, UBS

Chart 7: Hard coking coal price indices (US\$/t)



Source: Platts

We estimate that about 70% of this production is met-coal; assuming a 75% yield as well, then Shanxi is producing about 420Mt of met-coal products, sufficient to meet China's total demand in 2011 (met-coal demand = 700Mt of crude steel  $\times$  0.7 = 490Mt; 445Mt from Shanxi + 40Mt of imports = 485Mt).

### Demand-supply outlook

Internationally-traded met-coal demand is now forecast to shrink 1% in 2011 to 268Mt, predominantly reflecting a decline in net trade by China (-12%yoy to 42Mt) and Japan (-10%yoy to 55Mt). We see demand recovering in 2012, +8%yoy to 288Mt, expanding 4-5%/year out to 2015, when it totals 336Mt.

Key drivers of this outlook include China's net imports (moves from 2% to 20% of total trade by 2015, >60Mtpa) and India (19-23%/year out to 2015 to over 70Mtpa; offers greatest upside risk to our numbers), while Europe's demand is to expand at 1%/year over the same period.

A longer-term factor that may undermine the value of the seaborne met-coal trade is the trend-withdrawal of China, as it turns increasingly to Mongolian coal exports (i.e. but total imports lift), and as domestic production continues to lift, following the 2009-11 overhaul of its production capability (industry consolidation).

Australia's production capability this year was first impaired by flooding rains that began late-2010, and then – to a lesser extent – by the on-going labour dispute at BHP Billiton-Mitsubishi JV (BMA) coal mines in the Bowen Basin.

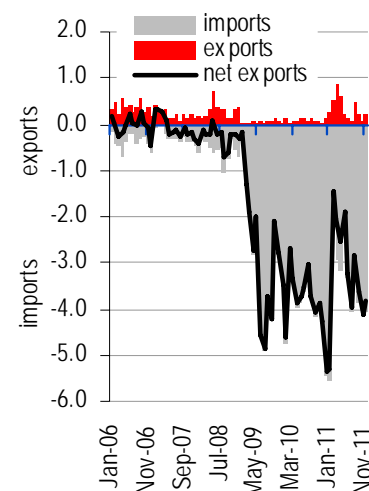
We forecast a rain-related loss of 10Mt for Australian met-coal supply in 2011 (*Coal price forecasts flood-buoyed*, Jan-11; *Signaling improvement*, Oct-11), and a further loss of 3Mt, attributable to the unresolved BMA labour dispute. These alone should only reduce Australia's exports to around 140Mt.

However, Australia's exports are now running at only 127Mt, -20%yoy (Jan-Sep data), because there are negative demand-side factors too. These include Japan's quake-hit trade (-8Mt; 21% of total trade; now reporting 5% below-normal monthly trade flows) and China's reduced import demand (-9Mt; lack of credit finance; seaborne prices too high; domestic production lifting anyway).

Australia's 127Mt of met-coal supply this year represent 48% of the world's internationally-traded met-coal supply, down from 56% in 2010. With the BMA strike action still in play, and the next Queensland wet season upon us, our supply forecast carries downside risk. At this stage, we forecast Australia's production capability only returning to 'normal' in 2013 (i.e. 2010-levels), delivering a total of 158Mt (includes all hard to semi-soft coking coals; PCI).

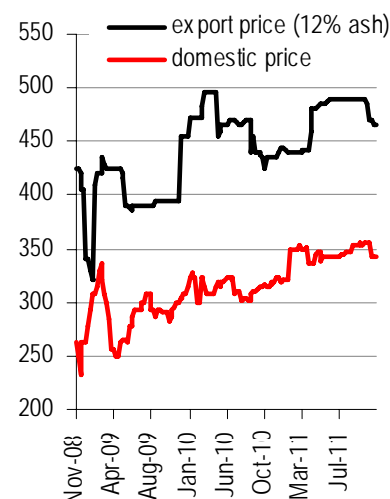
Our total met-coal total supply in 2011 will be flat, reflecting supply impairments by Queensland's floods and BMA strike, offset by a remarkable lift in US exports (+20% to 62Mt; doubled in 2-years). Beyond Australia, key risks to our supply outlook relate to expansion plans for Mongolia and Mozambique. Mongolia is set to export 18Mt this year, lifting towards 50Mt by 2015 – with the main constraint on growth being rail infrastructure. Total supply lifts 8% in 2012 to 292Mt, expanding 4-5%/year out to 2015, when it totals 338Mt.

Chart 8: China's met-coal trade (Mt/mth)



Source: Tex Report, Bloomberg

Chart 9: China's coke prices (US\$/t)



Source: CRU, Bloomberg

Given our supply-demand outlook, we now forecast a surplus of 2-5Mtpa (1-2% of forecast demand) in the international metallurgical coal trade, out to 2015. The surpluses largely reflect a strong supply-side response in Mozambique, Mongolia and in China's Shanxi Province – to recent, record-high product prices.

## UBS price forecasts

Since the price mechanism for the met-coal trade was revised in Apr-10, eight quarterly deals have been reported. 2011-12's deals are discussed below:

**2011Q2** – this is the price-spike quarter, fully reflecting the impact of floods on the trade's important Queensland coal mining industry. AngloAmerican was the first miner to agree with the mills, at US\$330/t for HCC (7-Mar; trade's price-setter BHP Billiton was instead focused on securing monthly contracts); US\$275/t fob low vol-PCI (Foxleigh; Jellinbah; Macarthur; Curragh, 25-Mar-11); US\$265/t fob for semi-soft coking coal (unconfirmed Rio Tinto and Xstrata deals again).

**2011Q3** – AngloAmerican steeped again for these talks; secured a relatively high US\$315/t fob for HCC (-5%qoq); again, BHP Billiton pursued monthly contracts in India and Japan, reporting no deals; US\$230-265/t fob deals reported for low vol-PCI; unconfirmed deals of US\$245/t fob for semi-soft coking coal.

**2011Q4** – with spot prices falling through Jul-Aug, the market was expecting the Q4 deal to be set below US\$315/t agreed for Q3 (rate of fall mitigated by ongoing BMA labour dispute). AngloAmerican again set the HCC terms: US\$280/t HCC (24-Aug). Xstrata then agreed to US\$179/t fob for semi-soft coking coal (7-Oct), covering both 2011Q4 and 2012Q1. In the absence of a conventional quarterly deal, we accept this as SSCC's benchmark for 2011Q4. No deal has been reported for LV-PCI; the HCC and SSCC deals imply a LV-PCI price of US\$185/t fob (using historical price ratios).

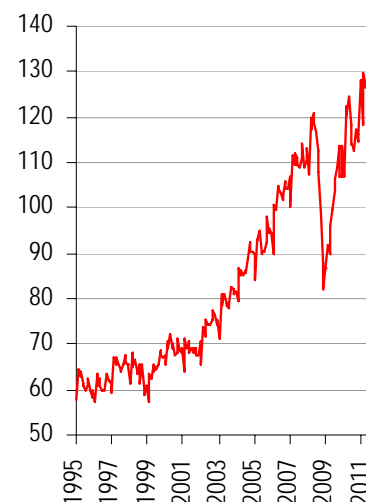
**2012Q1** – spot prices continued to decline throughout Q4, prompting another downward revision of quarterly prices for 2012Q1. Both Teck Resources and AngloAmerican set the HCC terms: US\$235/t HCC (15-Nov). Foxleigh is not a trade price-setter, but its US\$171/t fob for LV-PCI deal (28-Nov) is likely to be accepted as benchmark, as it is consistent with the \$235/t HCC (using historical price ratios). No deal has been reported for semi-soft, although the HCC/PCI transaction implies US\$165/t fob (again, using historical price ratios).

For the remainder of 2012, we expect all met-coal prices to ease further from these levels, reflecting the impact of a small surplus in trade. HCC will average US\$204/t fob; LV-PCI US\$160/t fob; SSCC US\$154/t fob.

Beyond 2012, we expect hard coking coal's price to remain above US\$150/t fob nom. until 2015 (LT real price US\$130/t fob); low-vol PCI to decline to US\$125/t fob until 2015 (LT real price US\$110/t fob) price; semi-soft coking down to US\$115/t fob (LT real price US\$100/t fob).

For key spot prices, we now have HCC Peak Downs US\$232/t fob; LV-PCI US\$153/t fob; semi-soft US\$144/t fob (7-Dec-11).

Chart 10: World crude steel production (Mt/mth)



Source: Bloomberg



## Key risks to met-coal price forecasts

- strike action at BMA's Queensland operations extended: BULLISH (for the commodity; selectively bullish for non-BMA equities)
- Queensland's wet season (Dec-Mar) worse-than-forecast: BULLISH
- recovery in USD undermines quantity demanded of US-dollar denominated coal: BEARISH
- termination of constraints on economic activity by China's central government (lifting bank reserve ratios, restricting credit market liquidity): BULLISH
- China ramps up domestic coal production capacity, undermining demand for coal imports (partially realized, with recovery in Shanxi Province's production rates): BEARISH
- met-coal supply expansion from Mongolia and Mozambique greater than forecast: BEARISH

Table 34: Global Metallurgical Coal Market

		2008	2009	2010	2011e	2012e	2013e	2014e	2015e
Global crude steel production	Mt	1,329	1,211	1,414	1,523	1,587	1,662	1,727	1,779
growth	%	-1.6%	-8.9%	16.7%	7.7%	4.2%	6.0%	5.1%	5.5%
Total traded met-coal demand	Mt	238	225	271	268	288	309	324	336
YoY growth	%	3.2%	-5.2%	20.1%	-0.8%	7.4%	7.1%	5.0%	3.7%
Japan imports	Mt	61	50	61	56	52	52	52	52
YoY growth	%	0.5%	-18.3%	21.1%	-8.5%	-6.3%	-0.5%	0.2%	-0.6%
Europe net imports	Mt	67	44	64	58	58	56	57	58
YoY growth	%	-1.8%	-34.1%	46.1%	-9.8%	-0.3%	-2.0%	1.0%	2.5%
India imports	Mt	24	28	27	34	42	51	61	73
YoY growth	%	15.2%	15.9%	-3.3%	22.7%	23.8%	21.5%	20.8%	18.6%
Brazil net import trend	Mt	17	17	17	18	19	19	20	20
YoY growth	%	14.1%	-2.9%	2.4%	7.0%	3.0%	3.0%	3.0%	3.0%
China net import trend	Mt	3	34	46	40	54	59	61	59
growth	%	-8%	896%	36%	-13%	33%	10%	4%	-3%
Total traded met-coal supply	Mt	238	226	271	272	292	314	328	338
YoY growth	%	3.1%	-5.1%	20.2%	0.3%	7.5%	7.3%	4.4%	3.2%
Australia exports	Mt	135	135	151	128	148	158	166	173
Canada exports	Mt	27	22	27	28	25	24	25	25
US exports	Mt	35	32	48	62	48	46	44	42
Balance	Mt	0.1	0.3	0.6	3.6	4.1	5.1	3.3	1.8
Market's product split: HCC	%	62%	61%	67%	66%	68%	69%	69%	69%
Market's product split: LV-PCI	%	15%	16%	13%	14%	13%	13%	13%	13%
Market's product split: SSCC	%	23%	23%	19%	20%	19%	18%	18%	18%
Hard coking coal price (CY, JBM)	US\$/t	248.8	171.8	190.8	288.8	203.8	173.8	158.8	150.0
LV_PCI price (CY, JBM)	US\$/t	196.9	127.5	147.5	217.5	160.3	143.3	125.8	125.0
premium HCC vs. PCI	%	26%	35%	29%	33%	27%	21%	26%	20%
Semi-soft coking coal price (CY, JBM)	US\$/t	192.3	118.8	140.5	209.0	153.8	136.3	116.0	115.0
premium HCC vs. SSCC	%	29%	45%	36%	38%	33%	28%	37%	30%

## China's Metallurgical Coal Market

Steel Production									
China	Mt	499	569	623	696	726	752	752	752
Global ex-China	Mt	830	643	790	827	861	910	975	1,027
China's trade									
Imports	Mt	7	34	47	41	55	60	63	61
Exports	Mt	3	1	1	1	1	2	2	2
Net imports	Mt	3	34	46	40	54	59	61	59
Global trade, ex-China									
Supply	Mt	234	192	225	232	239	255	267	279
Demand	Mt	234	191	224	228	235	250	263	277
Balance	Mt	0.1	0.3	0.6	3.6	4.1	5.1	3.3	1.8
Net export growth									
China	Mt	-3	-34	-46	-40	-54	-59	-61	-59
Global ex-China	Mt	143	126	142	152	158	173	183	193
YoY growth	%	7%	-12%	13%	7%	4%	9%	6%	6%

Source: UBS estimates

## Thermal coal

### Buying deferred

Until recently, the last bastion in 2011's deep, global commodity price correction event was thermal coal. But trade weakness is now being reported in this trade too. Power utilities of China and India reportedly have insufficient finance to fully engage the seaborne trade – a function of capped electricity prices in these countries. Of course, the deteriorating global macroeconomic outlook is not helping either. India's thermal coal consumers and traders have the added issue of dealing with a weakening domestic currency.

It is unusual to see seaborne thermal coal prices wilting in what is typically a strong trading period: Nov-Dec's pre-winter restock. Since Sep-11, thermal coal prices have fallen 5-15%: Newcastle is US\$111/t fob; Richard's Bay US\$101/t fob; Kalimantan US\$98/t fob (9-Dec-11).

But as winter unfolds, we should expect the trade to tighten across Asia and Europe. For other positive price drivers exist too, including the on-going (albeit slow) recovery of Japan's quake-hit trade, the declining public support for nuclear power, and the latest coal price-cap announcement by China's 'economic think-tank', the National Development & Reform Commission (NDRC; caps active 1-Jan-12; RMB800/t or US\$125.6/t; also applies to all subordinate coal grades).

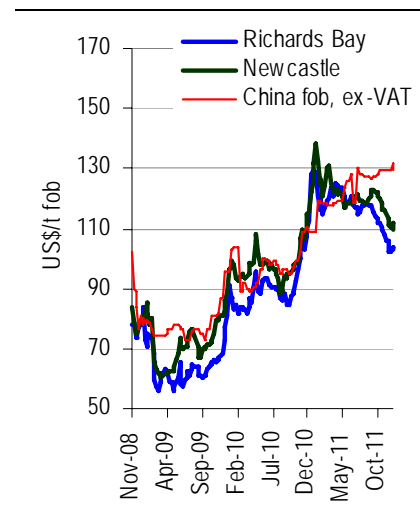
While we do not believe that the NDRC can actually enforce the caps (i.e. it has failed on all previous attempts), the policy does tend to create price tension in the seaborne trade. The reason for this is that price caps discourage the expansion of China's domestic supply, and places at risk the country's high-cost production capability (if its cost > price cap), requiring a marginal lift in imports (assuming no change in demand). China's major coal producers, Shenhua & China Coal, both recently highlighted this trade dynamic, given the industry's pricing structure.

Longer-term, resource nationalization is an important price-supporting theme for thermal coal. The perennial decline in South Africa's once-key export trade has begun. In the short-term, the country's rail infrastructure is failing to deliver sufficient material to the newly expanded Richards Bay port. Longer-term, Eskom will have imposed itself on the export trade, diverting these tonnes to its under-supplied domestic market.

Similarly in urbanizing, industrializing Indonesia, the government there is concerned with emerging competition with China and India for its own low-grade thermal coal resources, and so is considering a formal limit to Indonesia's massive export flows.

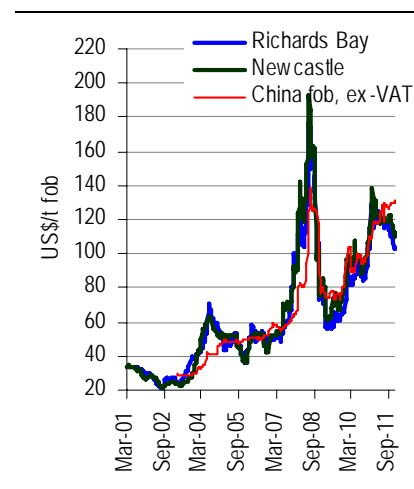
Beyond the trade's current price weakness, we continue to expect stable seaborne thermal coal prices for 12-18 months, given our forecast robust demand growth for China and India, as well as the post-quake recovery of Japan's trade. By 2013, we see India's coal and asset buying program to be offset by strong supply growth from Indonesia and Australia. Our forecast thermal coal market balance is overwhelmingly leveraged to India's demand growth, and Indonesia's politically-constrained supply growth.

Chart 11: Thermal coal prices (fob only)



Source: globalCOAL, Bloomberg

Chart 12: Thermal coal prices (fob only)



Source: globalCOAL, Bloomberg

## Demand-supply outlook

Global thermal coal (traded) demand is forecast to lift 8.4%yoy all up this year to 770Mt (we have adopted alternative Indonesian trade data), and 4-5%/year out to 2015, to top 881Mt. Key drivers of this outlook include China's net imports (+171%yoy in 2009 to 92Mt; 120Mt in 2010; >110Mtpa to 2015) and India, increasing 22%/year out to 2015, to 170Mtpa. Growth in Europe and the US is expected to remain subdued over the medium term: 1-3% per year.

Japan's trade data indicate that the power sector has recovered from the earthquake, with import flows back at normal levels of 9-10Mt/month (vs. 8Mt/month lows post-quake).

But Japan's trade recovery is partially offset by an underperforming India trade. In recent months, concerns have emerged about the ability of India's power sector to finance an expanding import trade. India's monthly imports averaged 7Mt until August, then they collapsed to just 1.9Mt in Sep.

This is reportedly a function of a government constraint on electricity pricing, as well as deteriorating economic activity – paring utilities' cash flows. Furthermore, insufficient investment in India's rail infrastructure physically limits the amount of coal the country can actually import.

Elsewhere, China's import flows have moderated in 2011: up a relatively modest 7.5% to 126Mt (includes anthracite products) – with trade in recent weeks indicating a further easing in trade flows: unusual shift in this trade, just before the northern winter. Europe is reporting an on-going post-GFC recovery-lift, up 6.8% this year to 131Mt – but still well below the greater-than-150Mtpa, pre-GFC-highs.

Global thermal coal's 2011 supply is forecast to lift 8.6%yoy to 772Mt, lifting a further 5%/year over the next five years – dominated by exports from Indonesia and Australia (together, 55% of the seaborne total).

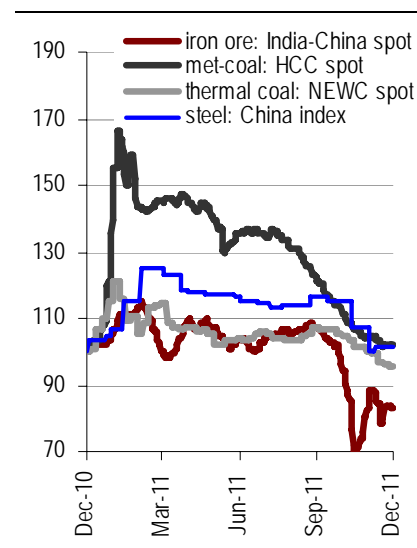
Indonesia reported relatively low rainfall for its May-Sep wet season, delivering close to 30Mtpa through the middle of the year. At this early stage (+3-mth lag on data), we forecast a 6%yoy lift in 2011 to 310Mt (40% of seaborne supply).

Like its metallurgical coal trade, Australia's thermal production capability has been undermined by high rainfall since mid-2010, in both Queensland and New South Wales (i.e. Queensland is a predominantly met-coal state; NSW is a thermal coal state). Furthermore, unusually high rainfall has returned to the important coal-producing Hunter Valley of NSW in recent months.

For 2011, Australia's production is on track for no-growth, remaining at around 140Mt (i.e. a record-high). Its production is expected to expand at 2%/year out to 2015, to 155Mt. Port loading capacity is no longer the constraint on Australia's growth potential (as it was in 2005-08), but rail services may be.

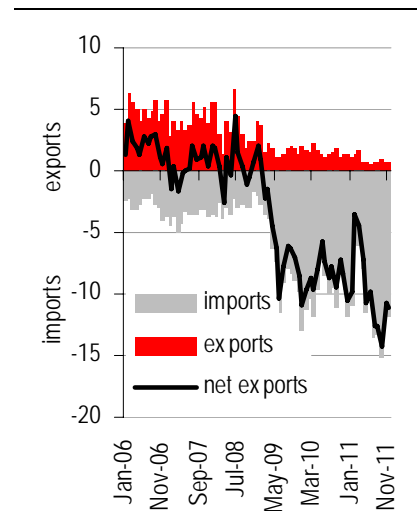
US exports have lifted sharply in 2011, up 59%yoy to 29Mt (Jan-Sep data). This trade has lifted strongly, in line with the country's met-coal exports – capitalizing on the strong coal demand growth in Asia. Industry discussions are taking place now, suggesting that Powder River Basin coal could also be delivered into the Asian market, via the North America's west coast terminals.

Chart 13: Bulk price indices



Source: Bloomberg

Chart 14: China's thermal coal imports



Source: Tex Report, Bloomberg

But because of the relatively high rail + freight costs of US coal, it remains the marginal (or 'swing') supplier of Asia's thermal coal trade – and must be vulnerable to recent spot price weakness, and a subdued global economic growth outlook.

We forecast a deficit of 5Mtpa (1% of forecast demand) over the next 12-18 months in thermal coal's international global markets. The deficits largely reflect weak supply growth out of Australia (floods + under-performing infrastructure) and South Africa (infrastructure).

Beyond this, we have substantial market surpluses forming (2-8%) out to 2015, reflecting a strong +10%/year lift in Indonesian coal exports. In fact, thermal coal's outlook depends heavily on the sustainability of Indonesia's mining and exporting growth story. Conversely, this trade is also highly leveraged to India's capacity to buy and physically import coal from seaborne markets.

### UBS price forecasts

Tokyo Electric (Tepco) representatives arrived in Australia early December to begin talks on annual thermal coal price contracts, covering CY12 contract supply. Tepco, Japan power utilities' primary price-setter (replaced Chubu in 2010) typically discusses these contracts with Xstrata, Rio Tinto and Anglo Coal.

Negotiations will cover the general fundamental outlook for the trade, and be guided by the prevailing spot prices, and the succession of recent contract price settlements (CY11 US\$115/t fob; JFY11 US\$129.85/t; Jul-11 US\$127.50/t fob; Oct-11 US\$126.5/t).

Most of the Japanese trade uses annual contract pricing. The dominant contract is the JFY contracts (two-thirds; for which we forecast); calendar contracts are 25%; the interim annual contracts (Jul, Oct) and semi-annuals, together represent about 10%. Almost without exception, all of these contracts are struck off the prevailing spot price.

We have not changed our existing forecast (*Signaling improvement*, 13-Oct-11): JFY12 at US\$125/t fob; JFY13 US\$110/t fob. Beyond JFY13, our thermal's contract price forecast remains above US\$90/t fob indefinitely. We believe that it would probably require more than this (>US\$100/t fob) to preserve most of the existing North American and Colombian trade.

Where are the key spot prices? Newcastle (6,300 kcal/kg GAR) US\$111/t fob; Richards Bay (5,800 kcal/kg GAR); US\$102/t fob; Kalimantan (5,900 kcal/kg GAR) US\$98/t fob. Our long-term price is unchanged at US\$85/t fob real (US\$98/t fob nominal).

## Risks to thermal coal price forecasts

- Indonesia and South Africa redirect exports to domestic markets to supply growing domestic demand: BULLISH
- year-end lift in rain in Indonesia, Colombia and Australia: BULLISH
- recovery in USD undermines quantity demanded of US-dollar denominated coal: BEARISH
- China ramps up domestic coal production capacity, undermining demand for coal imports: BEARISH
- India also expands domestic coal production capacity, undermining demand for coal imports: BEARISH
- India is unable to preserve/expand import flows from seaborne (inadequate receiving port/rail infrastructure; lack of credit): BEARISH
- Colombian/US deliveries into Asia lift at >US\$100/t fob prices: BEARISH



Table 35: Global Thermal Coal Market

		2008	2009	2010	2011e	2012e	2013e	2014e	2015e
Global Power Generation	TWhr	19,187	20,064	20,940	21,455	21,970	22,484	22,999	23,514
YoY growth	%	2%	5%	4%	2%	2%	2%	2%	2%
Coal-fired power (major economies)	%	48%	48%	49%	48%	48%	48%	48%	48%
Weighted average efficiency	t/MWhr	0.480	0.479	0.480	0.480	0.481	0.481	0.481	0.481
Total traded thermal coal demand	Mt	660	682	711	772	803	822	847	883
YoY growth	%	0.8%	3.2%	4.3%	8.6%	4.1%	2.3%	3.1%	4.2%
Japan imports	Mt	128.1	110.9	125.4	120.0	121.8	123.6	124.9	126.7
India imports	Mt	36.3	60.1	63.5	92.3	113.3	123.5	139.9	170.2
EU net imports	Mt	86.1	52.7	22.9	46.0	49.2	52.9	55.6	58.3
US net imports	Mt	11.5	8.1	3.4	-18.3	-17.2	-9.1	-9.0	-8.9
Total traded thermal coal supply	Mt	661	682	711	774	799	838	913	941
YoY growth	%	0.8%	3.1%	4.4%	8.8%	3.1%	5.0%	8.9%	3.0%
Indonesia exports	Mt	206.3	235.8	248.1	300.7	318.7	354.7	419.6	437.2
Australia exports	Mt	126.0	127.6	141.3	143.6	144.2	148.6	151.5	154.6
South Africa	Mt	64.9	66.9	70.1	64.3	64.6	71.0	74.6	78.3
Colombia	Mt	68.7	63.4	65.0	73.5	73.1	74.4	75.5	76.7
China net exports	Mt	2	-74	-104	-119	-109	-106	-103	-97
Balance	Mt	0.9	0.0	0.6	2.3	-4.9	16.3	65.6	57.9
US total utility year-end inventories	Mt	163	207	163	163	153	158	156	157
Export thermal coal JFY contract price	US\$/t	125.0	71.0	98.0	130.0	125.0	110.0	98.0	93.2
Newcastle spot (CY avg)	US\$/t	129.5	68.7	98.7	121.2	123.8	113.8	101.0	94.4
Richards Bay spot (CY avg)	US\$/t	120.5	62.8	91.5	116.8	121.8	111.8	99.0	92.4
<b>China Thermal Coal Market</b>									
<b>Power Production</b>									
China	TWhr	3,222	3,712	4,201	4,432	4,663	4,894	5,124	5,355
Global ex-China	TWhr	15,965.5	16,352.0	16,738.5	17,022.6	17,306.6	17,590.7	17,874.7	18,158.8
<b>China's trade</b>									
Imports	Mt	34.0	92.9	117.2	126.0	123.5	121.1	118.6	112.7
Exports	Mt	35.8	18.5	13.6	7.0	15.0	15.3	15.4	15.5
Net imports	Mt	-1.8	74.4	103.7	119.1	108.5	105.8	103.3	97.3
<b>Global trade, ex-China</b>									
Supply	Mt	625.6	663.2	697.8	767.2	783.6	823.1	897.7	925.3
Demand	Mt	626.5	588.7	593.5	645.8	679.9	701.0	728.9	770.2
Balance	Mt	-0.9	74.4	104.3	121.4	103.7	122.1	168.8	155.2
<b>Net export growth</b>									
China	Mt	1.8	-74.4	-103.7	-119.1	-108.5	-105.8	-103.3	-97.3
Global ex-China	Mt	418.8	400.8	428.8	468.5	497.7	534.3	606.5	635.1
YoY growth	%	2%	-4%	7%	9%	6%	7%	14%	5%

Source: UBS estimates

## ■ **Aspire Mining Limited Investment Case**

Aspire Mining is targeting a 15Mtpa (ROM) mining operation at Ovoot in northern Mongolia. The project is backed by a 331Mt premium hard coking coal resource. However, distance to markets is a constraint: rail costs along the ~4,900km route to Vostochny port in Russia account for US\$55/t of our total opex of US\$84/t. Securing rail & port capacity along this route also remains to be achieved. However, at UBS' US\$130/t long-term price, the project achieves a 28% EBITDA margin and a 12% IRR. We see the introduction of a strategic partner and/or securing access along its logistics routes as key catalysts that should drive a rerating of the stock.

## ■ **Guildford Coal Investment Case**

We are positive on Guildford Coal as we believe the market is not attributing value to its near-term production from the South Gobi project in southern Mongolia. We assume first coal in FY13, ramping up to 3.6Mtpa from FY14. We model a dual-product stream, comprising 70% raw semi-soft coal & 30% raw higher-ash coal. Guildford's simple development approach (proven by nearby miners), of mine-gate sales to customers for ultimate sale into China, yields a lower price than the seaborne price (UBSe, FY12 terms: US\$70/t for semi-soft; US\$40/t for higher-ash). However, it is also low-cost (UBSe US\$22.50/t pre-royalties), leading to 47% EBITDA margins in the early years of production.

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UBS 12-Month Rating	Rating Category	Coverage <sup>1</sup>	IB Services <sup>2</sup>
Buy	Buy	57%	36%
Neutral	Hold/Neutral	37%	35%
Sell	Sell	7%	17%
UBS Short-Term Rating	Rating Category	Coverage <sup>3</sup>	IB Services <sup>4</sup>
Buy	Buy	less than 1%	0%
Sell	Sell	less than 1%	12%

1:Percentage of companies under coverage globally within the 12-month rating category.

2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3:Percentage of companies under coverage globally within the Short-Term rating category.

4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Rating allocations are as of 31 December 2011.

### UBS Investment Research: Global Equity Rating Definitions

UBS 12-Month Rating	Definition
Buy	FSR is > 6% above the MRA.
Neutral	FSR is between -6% and 6% of the MRA.
Sell	FSR is > 6% below the MRA.
UBS Short-Term Rating	Definition
Buy	Buy: Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.
Sell	Sell: Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.

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**UBS Securities Australia Ltd:** Ben Wilson; Glyn Lawcock; Daniel Morgan.

## Company Disclosures

Company Name	Reuters	12-mo rating	Short-term rating	Price	Price date
<b>Aspire Mining Limited</b> <sup>2, 4, 5, 20</sup>	AKM.AX	Not Rated	N/A	A\$0.35	18 Jan 2012
<b>Guildford Coal</b> <sup>4, 5, 13</sup>	GUF.AX	Not Rated	N/A	A\$0.82	18 Jan 2012

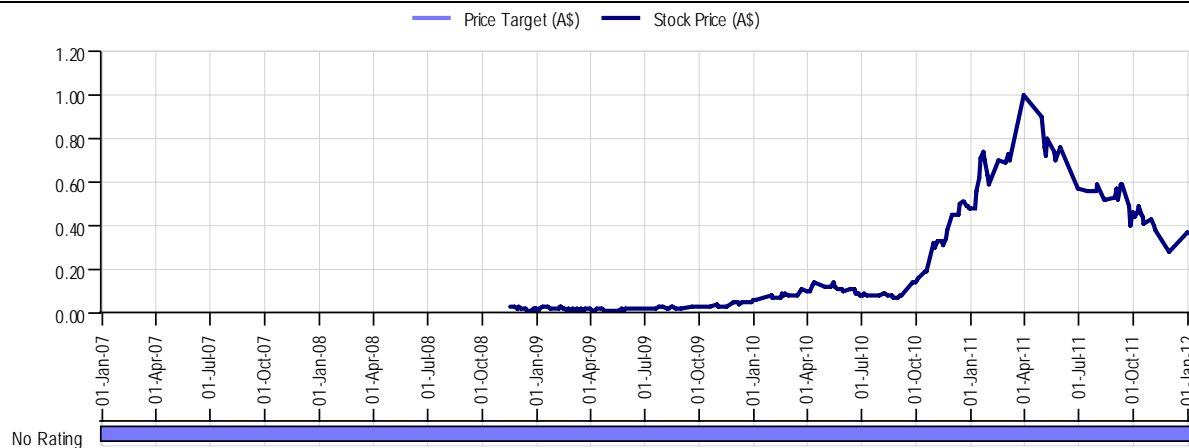
Source: UBS. All prices as of local market close.

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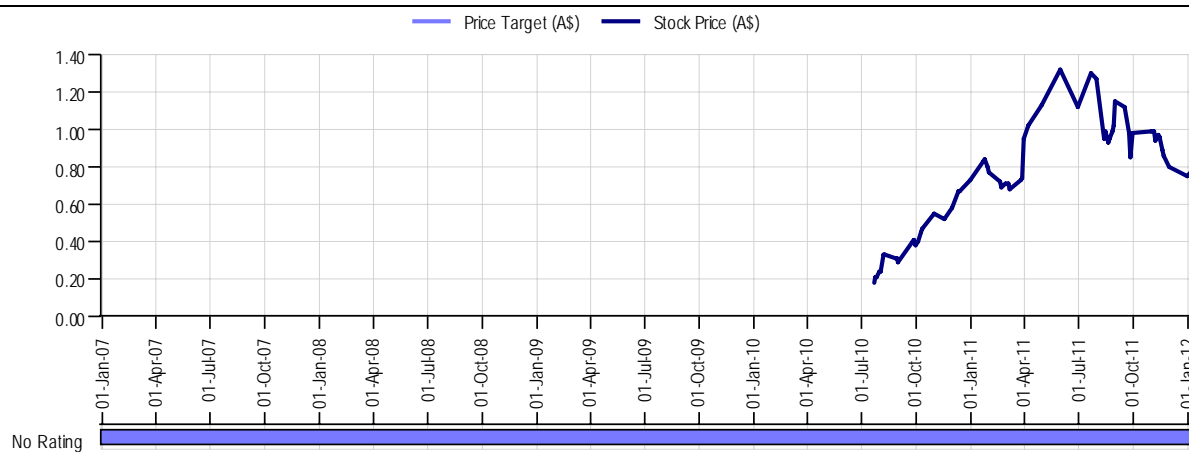
Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

## Aspire Mining Limited (A\$)



Source: UBS; as of 18 Jan 2012

## Guildford Coal (A\$)



Source: UBS; as of 18 Jan 2012



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