

## Aspire Mining Limited

Date: 16 July 2014

Sector: Materials

Recommendation: Speculative Buy

Price Target: \$0.125 (6-9 months)

ASX Code: AKM

Share Price: \$0.035

52 Week -:

High: \$0.083

Low: \$0.0031

Issued Ordinary Shares: 658.2M

Options and performance rights: 241.3M

Cash: \$4.6M

Debt: \$5.4M

Market Cap: A\$23.0M

Enterprise Value: \$23.8M

### Major Shareholders (fully diluted)

Directors: 31.0%

South Gobi Resources: 13.7%

Noble Group: 10.8%

### Directors

**Non-Executive Chairman:** David McSweeney

**Managing Director:** David Paul

### Non- Executive Directors:

Hannah Badenach

Neil Lithgow

Mark Read

Sado D. Turbat

## Aspire Mining: To benefit from resource & infrastructure deals between Russia, China and Mongolia to trigger revaluation

- **Aspire Mining Ltd** (ASX: AKM) owns the Ovoot Coking Coal Project (Ovoot), and is also progressing the Northern Line Rail Line (NRL) in Mongolia.
- Ovoot is one of the largest undeveloped coking coal projects globally. Its appeal is evidenced by the Aspire / Noble Group alliance.
- Along with Tavan Tolgoi, Ovoot is recognised as one of the key potential coal suppliers to Mongolia's Sainshand Industrial Park.
- Current off take interest in Ovoot coking coal exceeds targeted production.
- The Ovoot project requires a 547km (\$1.3b) rail line linking the project to existing rail infrastructure.
- Request for a Concession from Northern Railways LLC is awaiting approval for construction by the Mongolian government. This would de-risk the entire Ovoot project.
- The NRL could become an important link for Russian/Chinese trade. It is moving from a project specific rail connection to becoming part of a network
- Financing interest (EOI) has already been received for US\$1.3bn to construct NRL. It may also find funding support from Russian institutional investors for both NRL and Ovoot development
- Mongolia has embarked on a massive upgrade of its railway system that should see the development of the NRL, as part of a new and upgraded country wide network
- We believe that downside risk for Aspire is limited while infrastructure risk has been reduced
- Based on a peer company analysis, we consider Aspire Mining to be significantly undervalued. We believe that the rail concession could be granted within the next six months and hence a catalyst for a major re-rating of Aspire's share price. **We forecast a 6 – 9 months share price target of \$0.125 per share** (see analysis and valuation) after rail concession is granted for NRL.

## BACKGROUND

**Aspire Mining** (ASX: AKM) is an ASX listed exploration and development company that is focused on discovering and developing world class premium coking coal deposits that are located in Mongolia, and are geographically close to the world's largest consumers of coking coal.

The Aspire stockholders are made up of a partnership of Australian and Mongolian interests that include the Noble Group, and are intent on developing Mongolian coal assets that can supply coal to consumers in China, Russia, Eastern Europe, and other Asian seaborne markets

The Company has completed two Pre-Feasibility Studies at the Ovoot Coking Coal Project that currently hosts a JORC Compliant Probable Reserve of 255 million tonnes of coking coal, and is classed as the second largest coking coal Reserve in Mongolia. Ovoot has considerable exploration potential to grow into a much larger resource.

Studies indicate that Ovoot has potential to produce up to 10 million tonnes per year of premium quality coking coal. The development of Ovoot requires the construction of a rail link from the existing Trans-Mongolian Railway at the town of Erdenet in northern Mongolia.

Aspire Mining controls Northern Railways LLC which will be responsible for the completion and management of the NRL from Ovoot to Erdenet. The Company is forecasting commissioning of the NRL and the Ovoot mine in 2018.

## OVOOT COKING COAL PROJECT

Aspire Mining owns a 100% interest in the Ovoot Coal Project that includes one mining licence and three contiguous exploration licences that cover 430 square kilometres.

The Ovoot Coal Project is located in north western Mongolia and includes a JORC Compliant Coal Resource and Coal Reserve and includes:

### Ovoot Open Pit Reserve

- Probable Reserve of 247 million tonnes of which 182 million tonnes is marketable coal with 9.5% moisture content.

### Ovoot Underground Reserve

- Probable Reserve of 8 million tonnes of which 6 million tonnes is marketable coal with 9.5% moisture content.

**The total Probable Reserve is currently at 255 million tonnes of which 188 million tonnes is marketable coking coal.**

### Ovoot Open Pit Resource

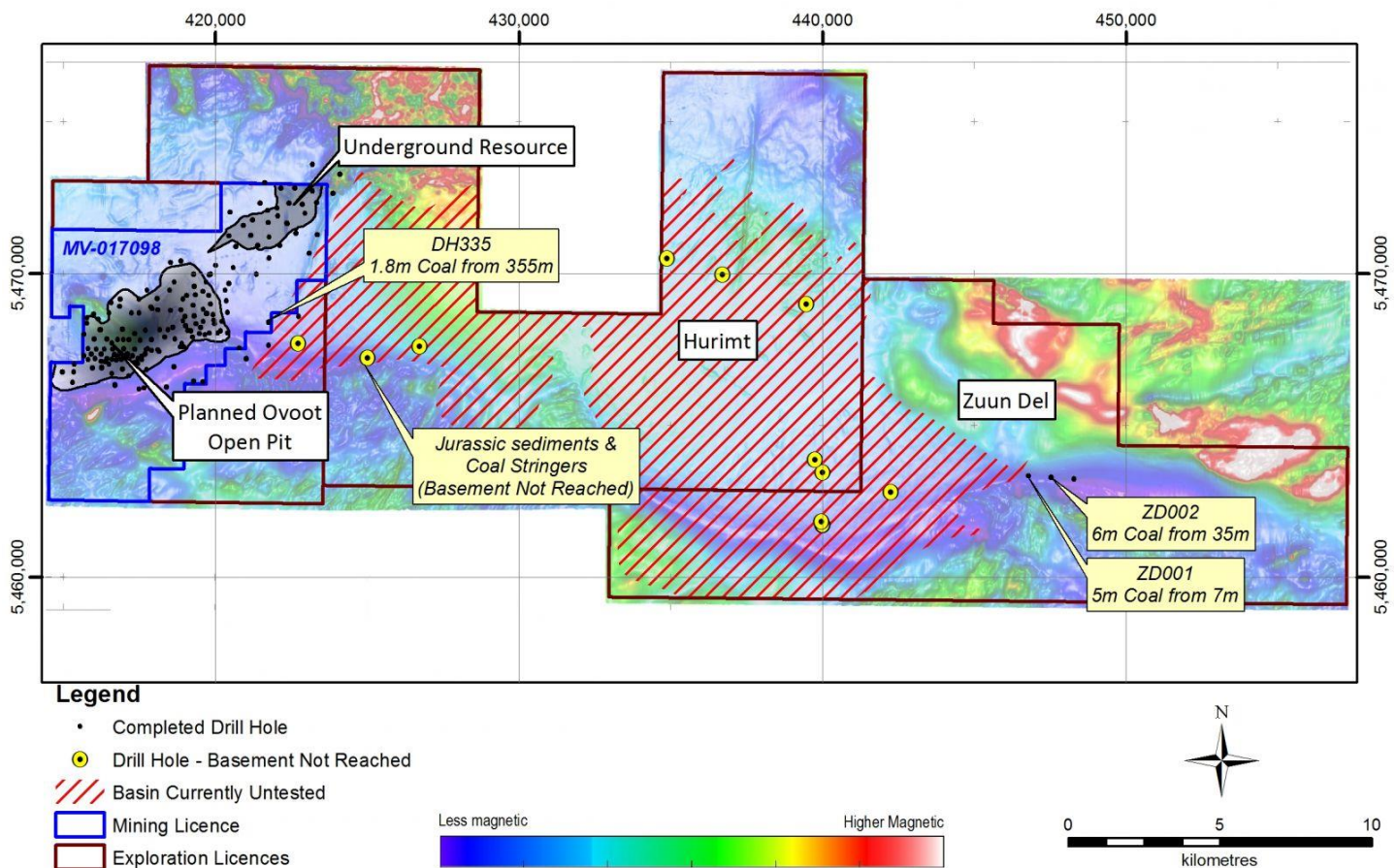
- Measured Resource of 197 million tonnes.

- Indicated Resource of 46.9 million tonnes.
- Inferred Resource of 9.2 million tonnes.
- Total of 253.1 million tonnes.

#### Ovoot Underground Resource

- Indicated Resource of 25.4 million tonnes.
- Inferred Resource of 2.6 million tonnes.
- Total of 27.9 million tonnes.

**The total JORC Compliant Open Pit and Underground Resource is currently at 281 million tonnes of coal.**



MAP ONE: OVOOT MINING LICENCE AND SURROUNDING EXPLORATION LICENCES

#### ADDITIONAL RESOURCE POTENTIAL IS VERY SIGNIFICANT

The Ovoot Project area also includes a 25 kilometre long extension to the east that includes the Hurimt and Zuun Del prospects that are highly prospective for additional coal resources in the Ovoot Lower Seam that sits just above basement rock. The Ovoot lower seam represents the largest of the three seam packages that have been identified within the project area.

This area is marked in red stripes on Map One. Several holes were drilled in this area but failed to reach their targets due to difficult drilling conditions.

Two drill holes drilled at the most easterly extension of this zone, and are 25 kilometres from the Ovoot Open Pit. Drill hole ZD001 intersected 5 metres of coal at a depth of 7 metres, and ZD002 intersected 6 metres of coal at a depth of 35 metres.

### **POSITIVE TESTWORK CONFIRMS HIGH GRADE NATURE OF OVOOT COKING COAL SAMPLES**

Aspire Mining completed testwork in early 2013 on Ovoot Project coking coal that confirmed Ovoot is capable of producing a premium blending coking coal that is classified by Chinese customers as “FM Premium Fat Coal”, and by Russian customers as “Zh Fat Coking Coal”.

Indicative washed coking coal specification include a moisture content of 9%, ash 9%, volatiles 25 – 28%, sulphur 1.2%, Crucible Swelling Number 9 (highly desirable 9 being maximum rating), Maximum Fluidity Log 3.60, Maximum Dilation +300%, Gray King G11, G Caking Index +26, and RoMax 1.2.

The high quality of Ovoot coking coal makes it ideal as a blending coal with lower quality or non-caking coals to produce a high quality end coke product. Successful trials have been completed that used a variety of low coking, thermal and oxidised coals derived from Australia, Mongolia and Russia on both a 50% and 25% blend basis.

### **MARKETING STUDIES HAVE ALREADY GENERATED MEMORANDA OF UNDERSTANDING FOR SALES**

Aspire Mining holds Non-binding Memoranda of Understanding for the supply of up to 6.9 million tonnes per annum of coking coal to four Chinese and two Russian customers. This covers 138% of initial annualised production rate of 5 million tonnes.

### **FEASIBILITY STUDIES CONTINUE TO REDUCE COSTS – OVOOT COKING COAL PROJECT**

The Company completed two Pre-Feasibility Studies in 2012, with the second being a revised PFS completed in December 2012. The revised PFS was done to include updated JORC Resources and Reserves completed subsequent to the original PFS report, and assumed an owner-operator model. In August 2013, the Company revised its development plan moving away from the owner-miner model reducing the initial capital expenditure required for the minesite development. The Company also completed additional studies that minimised waste removal and optimised extraction of low wash “by pass coal” during the early years of operation, which resulted in lower operating costs.

The current Ovoot Development Plan (ODP) has estimated a CAPEX of US\$144 million including contingencies for initial production of 5 million tonnes per annum of premium grade coking coal, with potential to increase output to up to 10 million tonnes per annum in subsequent years.

Aspire was awarded a Mining licence in August 2012 and received approval from the Minerals Resource Authority of Mongolia for its Feasibility Study.

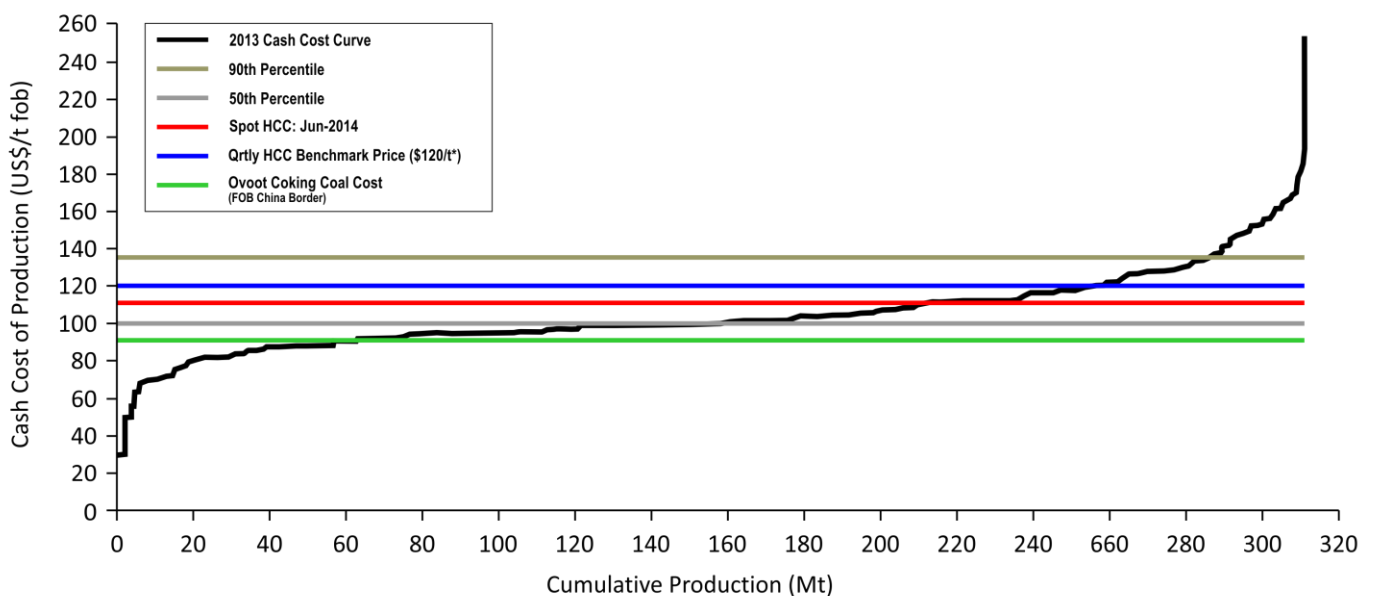
Ovoot has an average life of mine strip ratio of 7.8 to 1 (BCM:waste) and will require the pre-strip of 23 million bulk cubic metres of barren overburden which overlies the top of the coal resource. Initial mining will preferentially target the Upper Seam which hosts a relatively high proportion of low ash coal.

This will require the mining of 5.2 million tonnes of raw ROM coal, of which 60% is by pass coal (does not require washing), and 40% will be washed in a 300 tonne per hour wash plant, to produce 5 million tonnes of saleable coking coal.

The overall product yield is estimated at 90%, and 9% moisture content, and less than 10% ash content.

Operating costs on a "Fixed on Rail" basis into China are estimated at US\$76 to US\$86 per tonne for washed coking coal for the first two years of operation.

Costs for the first five years of mining are estimated at US\$82 to US\$92 per tonne on a "Fixed on Rail" basis into China, the range depending on the rail tariff charged along the Trans-Mongolian Railway.



Source: Credit Suisse, Wood Mackenzie; spot & quarterly prices updated by Aspire

GRAPH ONE: CURRENT "FOR" INTO CHINA FOR OVOOT COKING COAL HAS MAJOR COMEPTITIVE ADVANTAGE

Ovoot coking coal to be shipped to China via the proposed Northern Rail Line to the Chinese border at Erenhot (distance of 1,589 kilometres) includes a mine gate cost of US\$39 per tonne, rail, marketing and port costs of US\$53 per tonne for a total of US\$92 per tonne; and confirms the significant cost advantage inherent in Ovoot coal delivered by rail.

## RECENT DEVELOPMENTS AT OVOOT

The Mongolian Government has signed a Non-binding Memorandum of Understanding with Aspire Mining for the future supply of Ovoot coking coal to the Sainshand Industrial Park, which is Mongolia's largest industrial development complex, due for completion in 2018. Ovoot and Tavan Tolgoi coal projects are identified as key suppliers of the proposed coke and steel plants that will be built at Sainshand.



The Mongolian Government will need to enter into agreements for the construction and operation of the Northern Rail line to allow Ovoot to supply coking coal for the proposed Sainshand complex.

A Non-binding Letter of Intent has been executed with the Zavkhan Power Plant for supply of 30 – 35 megawatts per annum of electric power. The plant is located 70 kilometres south of Ovoot and is expected to be completed at the end of 2015.

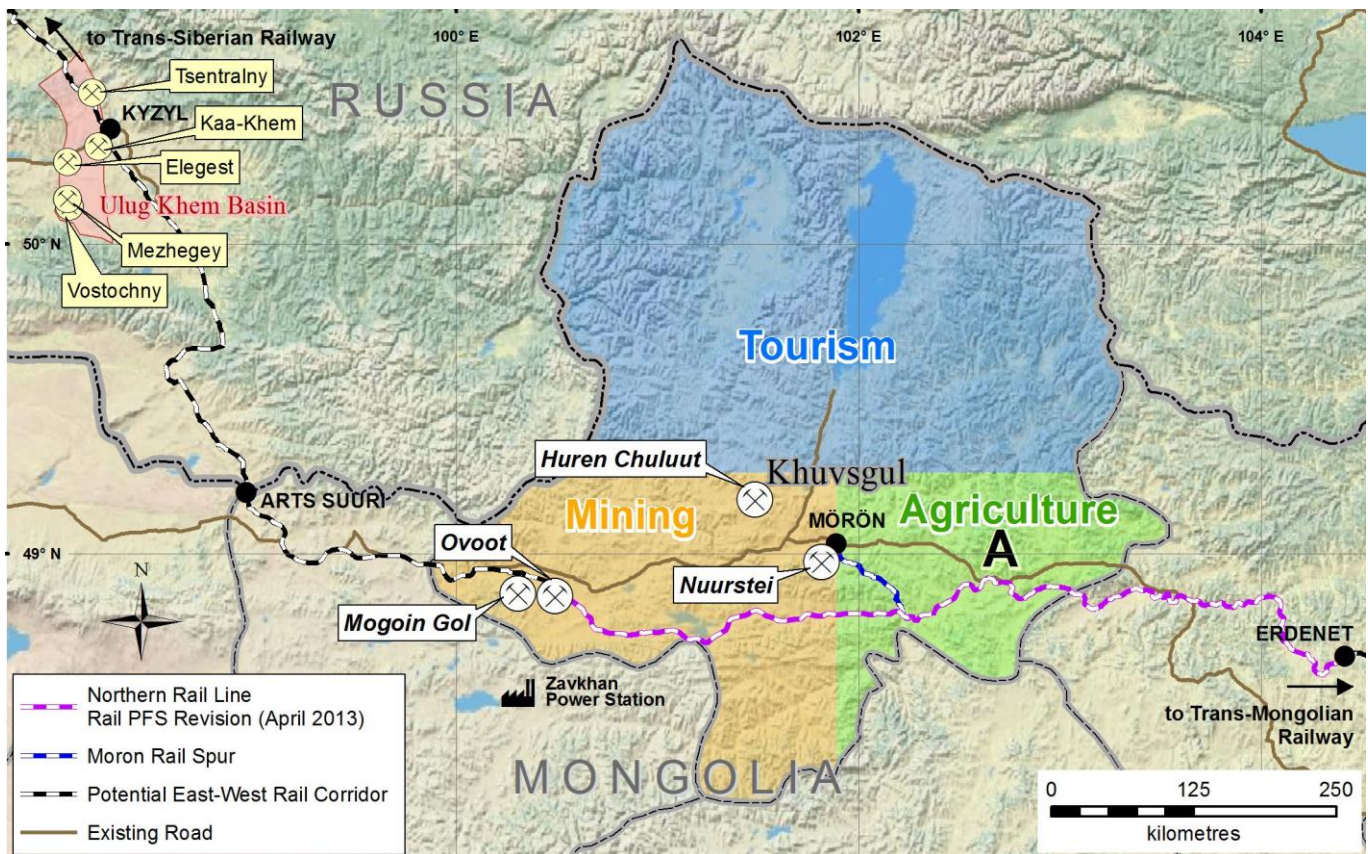
There is abundant water in the region. The water table was constantly intersected during exploration drilling. Additional water drilling is required before a water license can be granted.

#### **NORTHERN RAILWAYS LLC – DEVELOPMENT OF OVOOT TO ERDENET RAIL LINK**

Northern Railways LLC, is a Mongolian registered subsidiary of Aspire Mining that will be responsible for the construction and operation of the Ovoot to Erdenet rail line over a distance of 547 kilometres. The Company completed a revised rail prefeasibility study over the alignment which extends current railway infrastructure at Erdenet through to the Ovoot Coking Coal Project. Estimated CAPEX for the link is US\$1,300 million. Definitive financing and commencement of construction is subject to the provision of an agreement and other approvals from the Government of Mongolia.

The Company has sourced Non-binding Expressions of Interest from a number of financial institutions that include the Noble Group for provision of a total US\$1.3 billion to construct the Northern Rail Line. These capital expenditure requirements were identified and estimated in the Rail Pre-feasibility Study completed by SMEC International in April 2013. Aspire Mining via Northern Railways LLC has established a working group with UBTZ which is the Mongolian Government owned rail operator. The group is evaluating the appropriate tie-in between the proposed Northern Rail Line and the existing Trans-Mongolian Railway at Erdenet.

The Company is currently forecasting that the line will be completed in 2018 and will have a capacity to carry up to 22 million tonnes per annum of multi-user capacity that includes commodities, goods, and passengers.



MAP TWO: NORTHERN RAIL LINE ALIGNMENT

Aspire has also recently conducted preliminary modeling of an extension of the Northern Rail Line that would see it extend further to the northwest of Ovoot and connecting to the Russian town of Kyzyl. The early stage modeling identifies a potentially viable and cost efficient rail path that connects Russia to Mongolia, becoming a significant link that continues into China.

This assessment covers a 214 kilometre path over relatively flat terrain from Ovoot to Arts Suuri (at the Russian border), which will serve as a major rail junction for a proposed rail network connecting Russia and China through Mongolia. A further 267km link has also been identified between Arts Suuri to connect with the Russian railway terminus at Kyzyl (population 311,000). The Kyzyl rail line is currently under construction and will link up to the Trans-Siberian Railway at Kuragino. Completion is scheduled for 2018.



MAP THREE: PROPOSED OVOOT TO ERDENET RAIL LINK TO BECOME PART OF MAJOR RAIL LINK BETWEEN RUSSIA, MONGOLIA, AND CHINA

The Northern Line then becomes part of a new and major international rail network that will allow development of the Ulug Khem (aka Elegest coking coal basin). This basin hosts 2,499 million tonnes of coking coal reserves with projects such as Elegest, Kaa Khem, Mezhegey, and Tsentralny controlled by some of Russia's largest coking coal and steel producers.

Current studies indicate that these four projects could produce up to 47 million tonnes per annum of coking coal, and that the Northern Line has potential to provide a significantly shorter delivery path from Kyzyl into China.

Kyzyl is the capital of the Tuva Republic which is located in southern central Siberia, and shares a southern border with northwest Mongolia. Tuva is abundant in natural resources and hosts a number of deposits that are ripe for development that include coking and thermal coal, phosphate, silver and cobalt, arsenic, gold, copper, molybdenum, rare earths, aluminium, and chromium.

Internal estimates generated by Aspire Mining indicate that utilisation of the proposed Northern Line will reduce rail shipment kilometres from Kyzyl to Far East Russian ports by 445 kilometres, and by ~1,250 kilometres into China, as compared to using the existing Trans-Siberian Railway.





MAP FOUR: ROUTE OF TRANS-MONGOLIAN RAILWAY, PROPOSED NORTHERN LINE, RUSSIAN RAIL ROUTES AND MAJOR EXPORT LOCATIONS

The new rail connections would link the Northern Rail Line and Ovoot with the Trans-Siberian Railway that provides an export link into Russia and Europe to the west. The Chinese market will be served via the existing Trans-Mongolian Railway eventually being upgraded to be dual track between Ulan-Ude (Russia), to Jining (China), and other international export markets.

Current rail policy work being progressed in Mongolia at the moment includes the completion of a 240 kilometre rail link into China from the mines around Tavan Tolgoi in late 2015. Engineering work is also half completed for the link-up between Tavan Tolgoi and the southern end of the Trans-Mongolian Railway (at Sainshand). The main Trans-Mongolian line will also be upgraded in several stages to handle 34 million tonnes per annum in the first stage and up to 100 million tonnes per annum of traffic.

#### ACQUISITION OF INTEREST IN NUURSTEI COKING COAL PROJECT

Aspire has acquired a 50% interest in the Ekhgoviin Chuluu Joint Venture, which holds a 60% interest in the Nuurstei Coking Coal Project, from Xanadu Mines (ASX:XAM) and has the right to increase its interest to 90% in Nuurstei. The project is held in joint venture with the Noble Group, and is located to the east of Ovoot, and along the proposed track of the Northern Line.

Aspire will issue Xanadu 10 million Aspire shares upon the ECJV entering into an agreement to undertake feasibility studies in the Nuurstei Project area, or, upon the Mineral Resource Authority of Mongolia granting a mining license over all or part of the Nuurstei Project area.

Nuurstei contains a low volatile bituminous coal with moderate to high ash levels and low sulphur. There may be operational and marketing synergies with Aspire's Ovoot Coking Coal Project.

#### **CATALYSTS FOR DEVELOPMENT OF THE NORTHERN LINE AND COAL PRODUCTION AT OVOOT**

- Completion of upgrade of Trans-Mongolian Railway to 34 million tonnes per annum by end of 2015.
- Rail link from Tavan Tolgoi to Trans-Mongolian Railway at Sainshand to be completed by 2017.
- Rail link from mines at Ukhaa Khudag, Tavan Tolgoi and Oyu Tolgoi in Southern Mongolia to China completed in 2015/16.
- Aspire awaits grant of an agreement from the Mongolian Government for the Northern Rail Line linking into Trans-Mongolian Railway in northern Mongolia. Completion of the line is forecast for 2018.
- Grant of rail agreement opens up funding and development of Northern Rail Line.
- Ovoot then is no longer a stranded coal resource, rail development opens up pathway for completion of Bankable Feasibility Study at Ovoot, funding and mine development.
- Development of Nuurstei Coking Coal Project, potentially a starter project independent of rail.

#### **MONGOLIA**

Mongolia is governed by a parliamentary system that includes judicial, legislative and executive divisions and is subject to a popular vote every four years. The legal system is a mixture of Soviet, Romano, and Germanic laws.

Growth in Gross Domestic Product in 2013 was 11.8% and is the sixth fastest growing global economy. Current growth is driven by development of large scale mining projects and is further supported by a rich resource base that is located next to fast growing markets in China, Asia, and Siberia.

Per capita GDP was US\$5,900, and the unemployment rate was 9%, and 29.8% of the population is below the poverty line (all data for 2011 and from CIA factbook).

The richest province in Mongolia is known as Orkhon and includes the city of Erdenet that straddles the Trans-Mongolian Railway. Per capita GDP for Orkhon Province is at US\$10,000 due to significant rail links that have allowed for the development of a strong manufacturing base that includes food, beverages, carpet and metal manufacture. Development of rail links such as the Northern Rail Line will "spread the wealth" and allow for the growth of sustainable development.

In October 2013 the Mongolian Parliament repealed its onerous Strategic Foreign Investment Legislation which was implemented in min-2012. A new Investment Law came into effect on 1 November 2013.

The new law allows foreign entities to acquire 100% ownership of a project, provided that an investor is not 50% (or more) owned by a foreign government, which is considered a Sovereign Owned Entity.

Tax stabilisation is granted to eligible investors via a Stabilisation Certificate that freezes current rates for corporate tax, income tax, customs duties, Value Added Tax, and royalties over a specified period of time.

Aspire Mining management believe that both the Ovoot Coal Mining Project and Northern Rail Line Project will be granted Stabilisation Certificates for up to 20 years.

The law also relaxes the percentage of foreign workers that can be employed, and places no restrictions on the movement of assets in and out of the country.

The Mongolian Government has also recently agreed changes to the 2006 Minerals Law which now allows applications for new Exploration Licences, ending a 4 year moratorium.

In the December quarter of 2013 the Australian Government Chief of Mission to Mongolia presented the Mongolian Government with a Position Paper and Petition. This Paper outlines the benefits that will accrue to the Mongolian economy and local communities from the development of Ovoot and the Northern Rail Line.

### **COKING COAL PRICE AND GLOBAL MARKET FOR COKING COAL**

Recent pricing (first week of June, 2014) for spot premium coking coal "Free On Board" in Australia priced at \$117 - \$118 per metric tonne.

The international seaborne supply of coking coal has led to an oversupply of product that is compounded by new production from BHP's Caval Ridge mine, Whitehaven's Grosvenor mine, and the Rio Tinto Kestrel Mine. China is the world's largest consumer of coking coal, and has taken steps to increase domestic consumption of coking coal which has cut into the need for additional imports.

Chinese imports of metallurgical/coking coal stood at 75.4 million tonnes in 2013.. Chinese imports in 2014 are expected to be around 85 million tonnes, according to a Standard Chartered Equity Research note which would be a 13% increase on the import rate for 2013.

The Queensland Government is forecasting "Free On Board" pricing of premium coking coal of \$142 per metric tonne in 2015, \$160 in 2016, and \$170 in 2017. Other analysts are forecasting a nominal long term coking coal price of \$186 per tonne.

Development of Ovoot is not tied to currently depressed coking coal pricing as demand will be driven by very long term demand trends emanating out of China and the rest of Asia.

### **ANALYSIS & VALUATION**

**Aspire Mining Ltd** is currently capitalised at \$22.4 million, of which \$4.6 million is cash and places an Enterprise Value "EV" of \$23.2 million on total JORC Compliant Resources of 281 million tonnes of coking coal, or an EV of US\$0.08 (8c) per tonne. Aspire's Ovoot Project has a JORC Probable Reserve of 255Mt, or EV/t Reserve of \$US0.09 (9c).

A relevant peer group comparison can be made with Tigers Realm Ltd (ASX: TIG) which is an ASX listed coking coal developer in Eastern Russia, owing an 80% interest in its Amaam and Amaam North Projects. TIG has an EV of \$75.7 million for an attributable JORC Resource of 392 million tonnes of high grade coking coal, and an EV of \$0.193 per tonne (it currently does not have a Reserves estimate). This EV/t Resource is 241% greater than the EV accorded to Aspire, and may be underpinned by the presence of local institutional investors that are financing the next stage of development for TIG.

TIG recently received a capital injection of \$61 million from Russian institutional investors and is progressing to a Bankable Feasibility Study for Stage One mining at a rate of 1 million tonnes per annum, Stage Two of 3 – 4 million tonnes, and Stage Three of 6.5 million tonnes per annum.

Of note, TIG do not currently have a Reserve estimate while Aspire Mining's Reserves estimate does provide a guide to the portion of the resources that are economically mineable.

We believe that Aspire Mining is significantly undervalued, and that the market is not paying attention to the development plans that are proposed by Russia, China and Mongolia. The development of trans-shipment infrastructure through Mongolia will eventually lead to construction of the Northern Rail Line and construction of the Ovoot Coking Coal mine.

Nor is the market paying attention to the fact that the Mongolian Government has changed its stance towards investors and recently enacted laws that are meant to attract more foreign investment.

We believe that Aspire Mining should carry a similar EV to TIG subject to (1) grant of rail agreement, and (2) confirmation of \$1.3 billion in funding to develop the Northern Rail Line. This would de-risk the coal resources at Ovoot, and allow the market to also add an estimate of valuation for the interest that is retained by Aspire in the Northern Rail Line.

This places a valuation of \$0.293 per tonne on Ovoot Resources of 281 million tonnes, and equates to an EV of \$82.5 million or \$0.125 per Aspire share (undiluted).

The granting of the rail agreement appears to be a near term (next six months?) catalyst that will have a major impact on the EV of the Ovoot coal resource.

Infrastructure projects are viewed very favoured by institutional investors as they provide a steady and inflation adjusted income from assets that have an extremely long life, in this case the life of the rail link could easily exceed 100 years. The Mongolian economy is expanding from a very low base and has multiple resource assets that have potential to generate long term revenues from fast growing Asian markets.

We believe that funding for the Northern Line will have an additional and very major impact on the market perception and valuation of Aspire. The Company retains the Noble Group as a major investor and project development facilitator. The Noble Group is a bulk global commodity supply manager with annual sales of US\$98 billion in 2013, and has the necessary financial heft and contacts to assist with funding both Ovoot and the Northern Rail Line.