

# Lochinvar Coking Coal Project

*“A New Age of coking coal for the UK”*

Investor Presentation  
September 2014

ASX : NAE

**NEW AGE** Exploration Limited

# Lochinvar – A Unique Coking Coal Project

**A major undeveloped resource, with low capital intensity, in a prime location...**

## **Position**

- 100% ownership
- UK advantage

## **Platform**

- 111Mt total Resource
- Potential long life underground mining project

## **Product**

- Attractive low ash coking coal

## **Proximity**

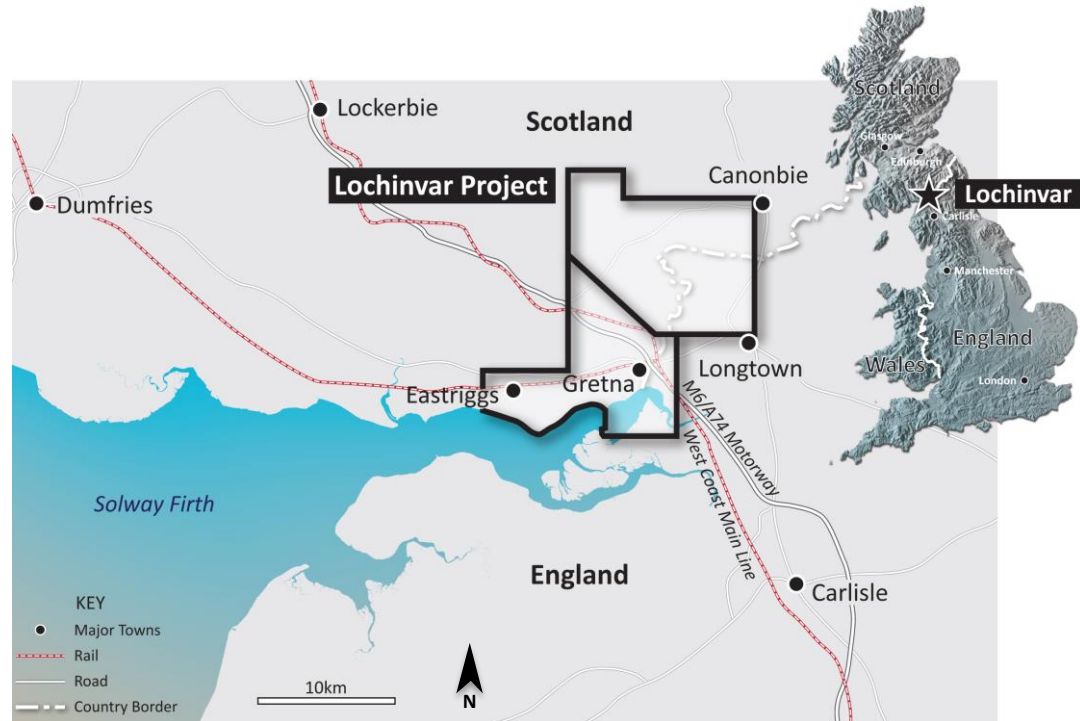
- Immediate access to existing rail and port infrastructure
- Local supplier to UK and European steel mills





# Position – United Kingdom

- Undeveloped coalfield
- Original Licence granted 2012, Lochinvar South Licence granted 2014 (both 100% NAE)
- Attractive investment destination:
  - ✓ Low risk
  - ✓ Low cost structure
- Supportive landowners, local and national (Scottish) government
- Aiming to be first major new underground coking coal project in UK for over 30 years



	United Kingdom	Australia
<b>Sovereign Risk Rating</b> <sup>1</sup>	AAA	AAA
<b>Royalty</b> <sup>2</sup>	~0.2%	7 – 15%
<b>Corporate Tax Rate</b>	20%	30%
<b>U/G Coal Operator Salary</b> <sup>3</sup>	US\$ 52k / yr	US\$ 88-153k / yr

<sup>1</sup> Standard and Poors

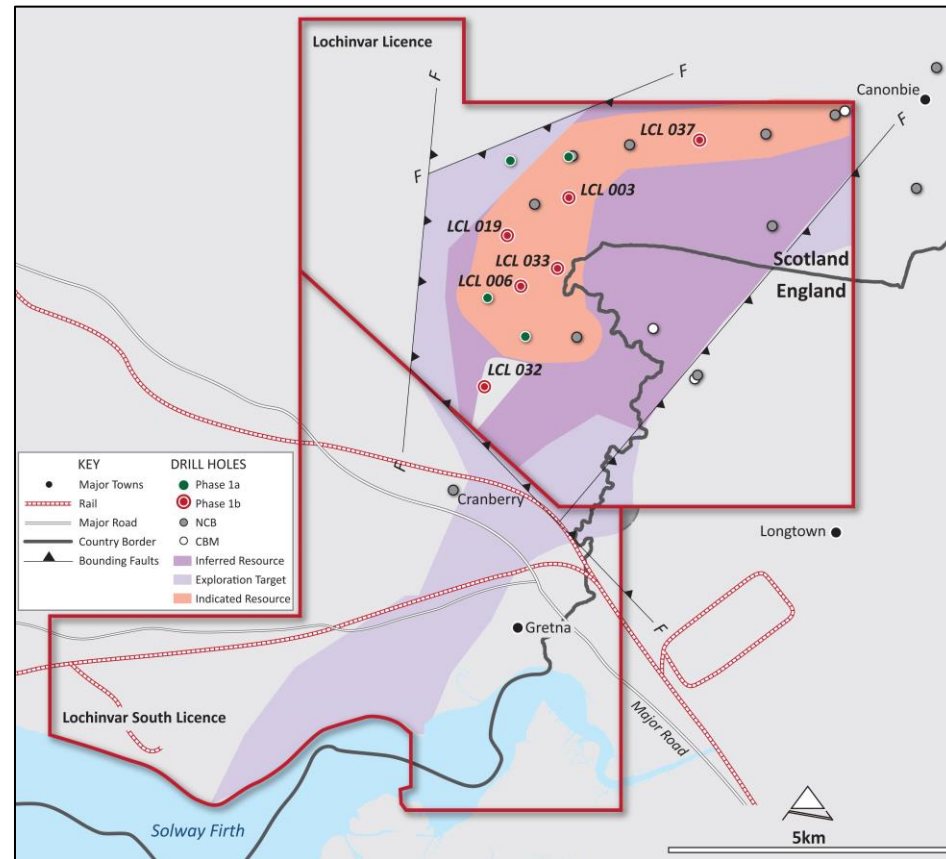
<sup>2</sup> UK Royalty 18 pence / tonne, Queensland Royalty 7% to \$100/t then escalates to 12.5%, and 15%

<sup>3</sup> UK Salary HMS Revenue, Au Salary Jobs in Mining Website

# Platform – Initial Inferred Resource 112Mt

Coal Seam	Indicated Resource (Mt) <sup>1</sup>	Inferred Resource (Mt) <sup>1</sup>	Total Resource (Mt)
Nine Foot	37	49	86
Six Foot	13	13	26
<b>Total</b>	<b>49</b>	<b>62</b>	<b>111</b>

- Additional Exploration Target of 31 – 64Mt<sup>2</sup>
- Based on 9 historic NCB holes and 10 holes drilled by NAE
- Two adjacent Licences
- Over 100km seismic lines for structure
- Within accepted underground mining depths and minable thicknesses
- Independent estimate - Palaris (internationally recognised coal consultant)

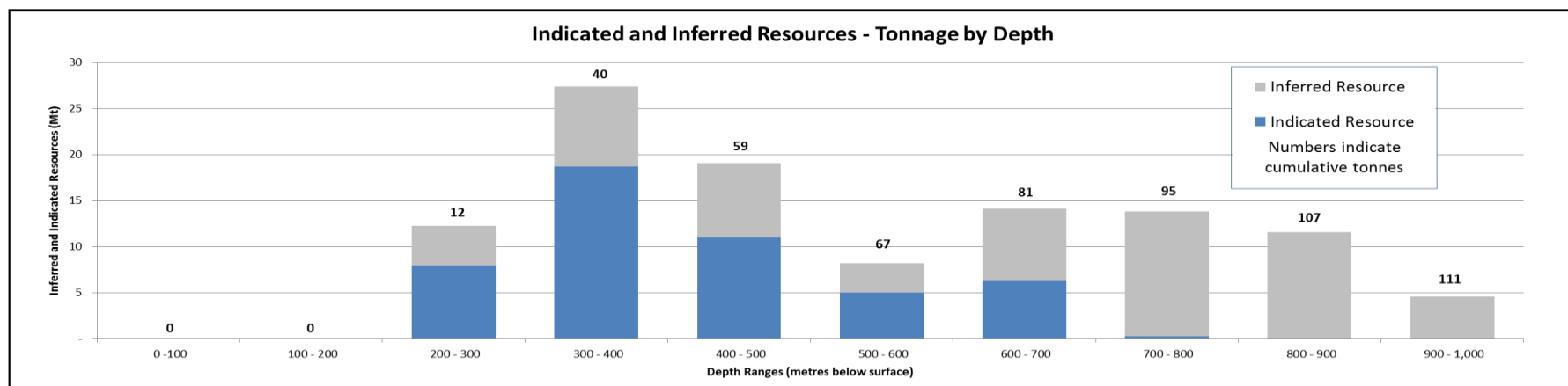
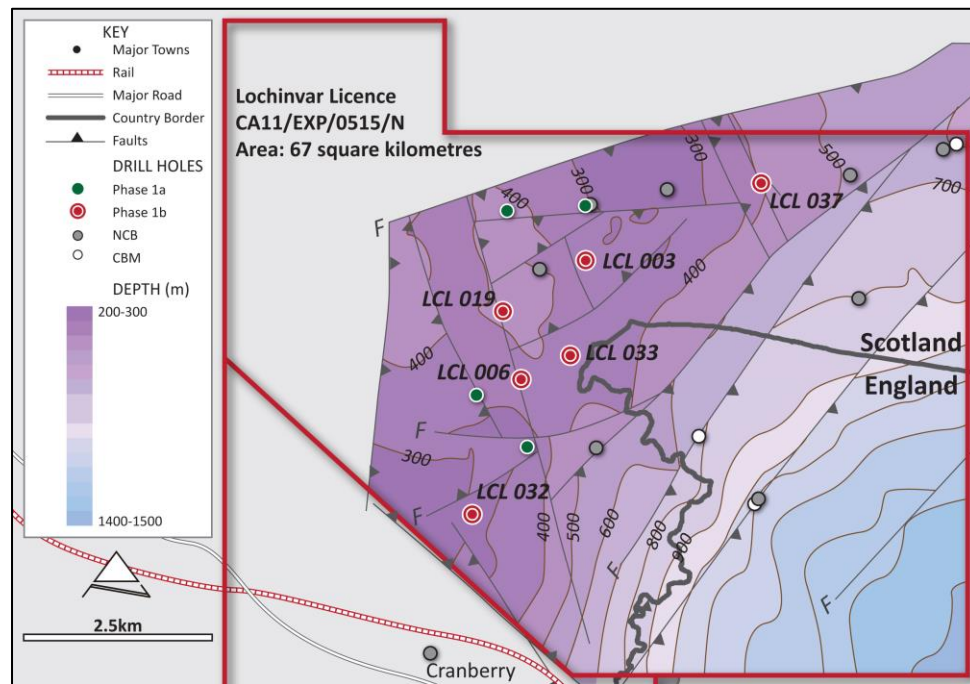


<sup>1</sup> Resource and Exploration Target constrained by 1,000m depth and 1.2m min thickness

<sup>2</sup> Exploration targets are conceptual in nature, and it is uncertain whether the targets will be converted to Mineral Resources

# Platform – Nine Foot Seam Depth Profile

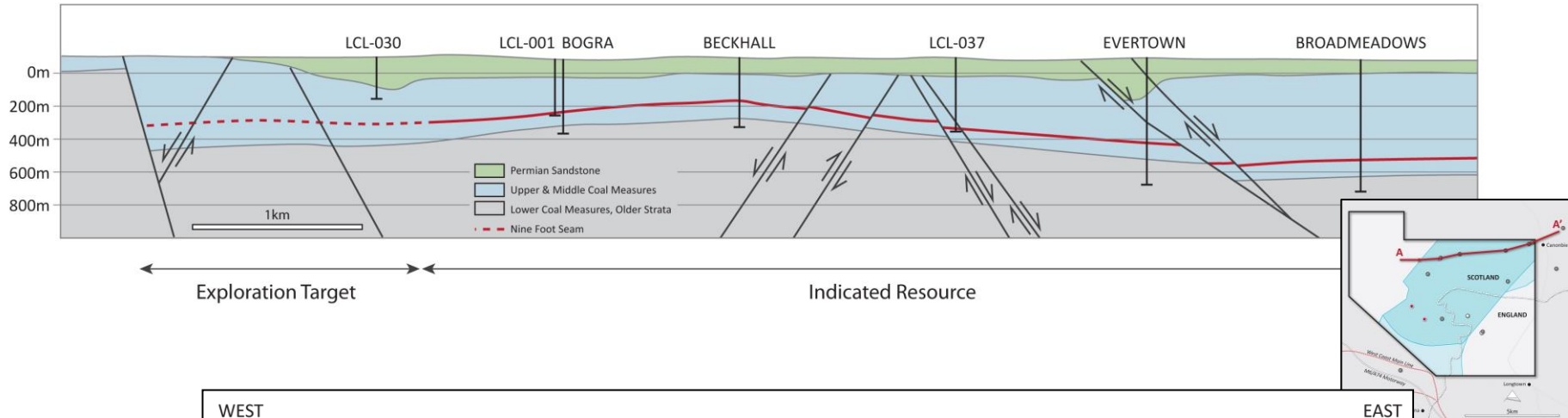
- Attractive depth, dip and seam thickness for underground mining
- Increased understanding of structural interpretation
- Initial planning indicates workable mining panels between known faults
- Shallow coal:
  - 67Mt of total resource from 200m - 600m
  - 100% Indicated Resource < 800m depth



## Platform – Seam Thickness

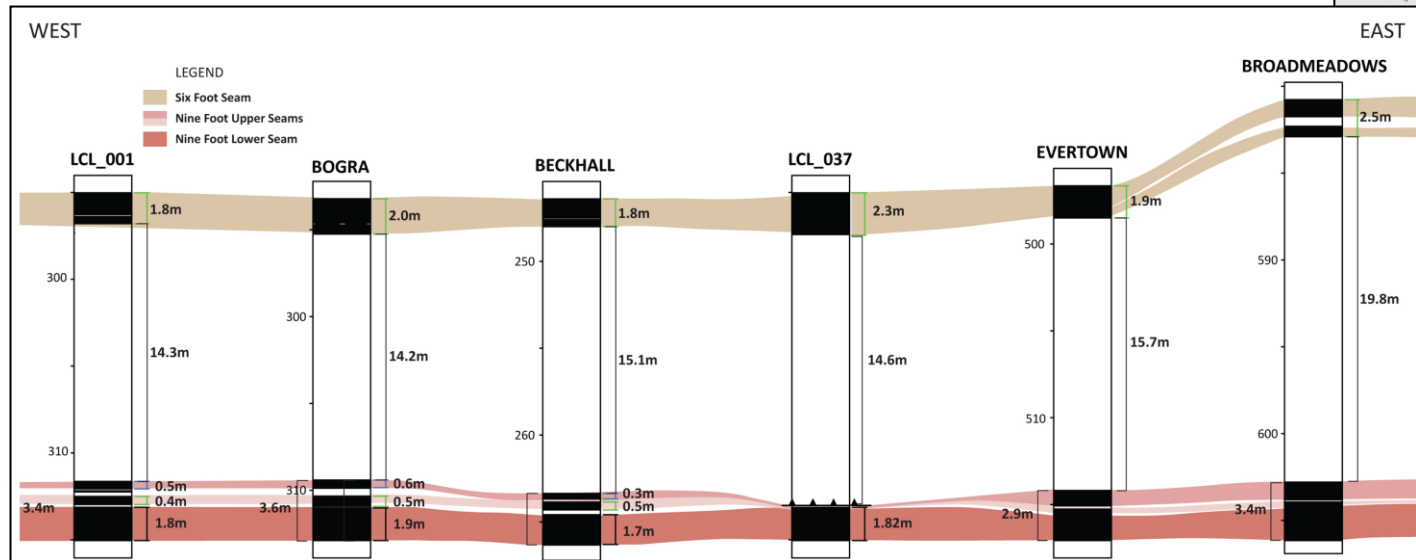
(West)

**(East)**



**Six Foot Seam  
Ave 1.5m  
(1.5m coal)**

**Nine Foot Seam<sup>1</sup>**  
**Ave 2.2m**  
**(2.0m coal)**



<sup>1</sup> The Indicated and Inferred Resource for the Nine Foot Seam includes upper plies of the Nine Foot Seam in the north part of the deposit. In the south part of the deposit the upper plies of the Nine Foot Seam are excluded from the Resource estimation

# Product – Low Ash Coking Coal

## Raw Coal Analysis – Total Resource Average (Air Dried Basis)

Seam	Resource Tonnage	Inherent Moisture	Ash	Volatile Matter	Sulphur	CSN
	Million Tonnes	%	%	%	%	
Nine Foot	86	2.5	13.4	31.9	2.2	6.0
Six Foot	26	3.0	11.0	32.0	3.5	6.5

## Indicative Lochinvar Coal Product Quality (Air Dried Basis)

	Clean Coal Yield	Moisture	Ash	Volatile Matter	Sulphur	CSN	Gray- King Type	Phos.	Calorific Value	Vitrinite Content	Vitrinite Reflectance
	%	%	%	%	%			%	Kcal/kg		% RoMax
Indicative Target Specification	75	3.0	5.0	34.0	1.4	7	G6	0.007	7775	70	0.84

Results indicate potential to produce attractive **low ash coking coal** at a **high yield**

# Proximity – UK Infrastructure and Domestic Market

- West Coast Main Line adjacent to licence (300m)
- Direct rail links to potential domestic customers:
  - ✓ Minimises project capital expenditure
  - ✓ Minimises project build time
- No indigenous coking coal supply in UK
- Opportunity to become a project of national importance – supplying UK steel industry
- Rail network with sufficient capacity

## Steel Production - UK Steelmakers <sup>1</sup>

- 12 months to Nov. 2012                      9.5Mt steel
  - 12 months to Nov. 2013                      11.7Mt steel
- (23% increase in production)*





# Proximity – Logistics Options

## 2012 Coking Coal Imports:

- UK 4.8Mt
- West Europe 22.9Mt
- **Total 27.7Mt**

## 2012 Suppliers to UK and Western Europe:

- Australia 40%
- USA 38%
- Other 22%

## Export Options

- **Ports** – Reviewing port options including; Hunterston, Ayr, Workington, Blyth, Teesside, Hull, Immingham
- **Rail** – Commencing discussions with rail operators for rail freight to domestic mills and export ports

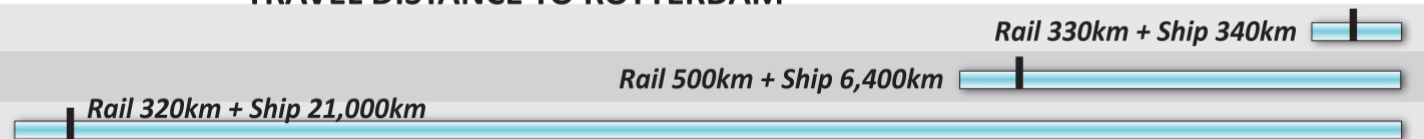


## TRAVEL DISTANCE TO ROTTERDAM

Lochinvar Coal

US Coal

Australian Coal



# Scoping Study

- Scoping Study progressing to completion in October
- Indicated Resource forms strong foundation for study
- Encouraging results to date

## Lochinvar Scoping Study - Priority Development Case

### Coal Mining

- Main coal production via a single bi-directional miniwall shearer mining up to 200m panels
- Gas drainage via in seam drilling in advance of development

### Coal Access

- 6m diameter single drift, 1:8 gradient to a depth of ~225m developed using Tunnel Boring Machine
- Conveyor suspended from roof of drift
- Vertical shaft for ventilation and as second means of egress
- Coal development by 3 x continuous miner units

### Coal Processing

- Wash Plant - single stage dense media separators with teeter bed separator and flotation
- 70% - 80% yield to produce clean saleable coal
- Pasting of fine rejects and co-disposal with coarse rejects

### Logistics and Infrastructure

- Short connection from coal processing and stockpile area to main rail line

### Marketing

- Sales to UK domestic steel mills (Teesside, Scunthorpe and Port Talbot) and coke plants via existing rail
- Remainder sold to European markets via rail and ship loading at Hunterston or Blyth ports

# Indicative Schedule

## Short Term Schedule - 2014 Second Half

	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14
Phase 1b Drilling Program (4 holes)	Completed: 16 May			★					
Extended Phase 1b Drilling Program				Completed: 2 July	★				
Clean Coal Analysis					Completed: 29 August	★			
Phase 1b JORC Indicated Resources					Completed: 29 August	★			
Scoping Study									

## Indicative Long Term Schedule

<b>2015</b>	<ul style="list-style-type: none"> <li>Indicated &amp; Measured Resource Drilling</li> <li>Seismic Program</li> <li>Probable Reserve Statement</li> <li>Pre- Feasibility Study</li> <li>Commence planning and regulatory approvals</li> </ul>
<b>2016</b>	<ul style="list-style-type: none"> <li>Pre-Production close space drilling (First 5 Years mining)</li> <li>Complete Planning and regulatory approvals</li> <li>Proved Reserve Statement</li> <li>Feasibility Study</li> <li>Construction Funding</li> </ul>
<b>2017</b>	Construction
<b>2018</b>	Commence production

# Peer Comparison

	<b>New Age Exploration</b>  (ASX: NAE)	<b>Attila Resources</b>  (ASX: AYA)	<b>Jameson Resources</b>  (ASX: JAL)	<b>Cokal</b>  (ASX: CKA)	<b>Atrum Coal</b>  (ASX: ATU)
<b>Project</b>	Lochinvar	Kodiak	Crown Mountain	Bumi Barito	Groundhog
<b>Country</b>	UK	USA	Canada	Indonesia	Canada
<b>Ownership</b>	100%	70%	90%	60%	100%
<b>Stage</b>	Scoping	PFS	PFS	FS	Scoping
<b>Total Resource</b>	111Mt (66% Inferred)	78Mt (3% Inferred)	90Mt (27% Inferred)	55Mt (J Seam) (56% Inferred)	1,567Mt (64% Inferred)
<b>Coal Type</b>	Coking	Coking	Coking	Coking	Met. Anthracite
<b>Avg. Seam Thickness</b>	~2.2m	~1.2m	Multiple Seams	~1.3m	Multiple Seams
<b>Transport</b>	Adjacent to existing heavy haul rail to UK mills and ports	350km rail to existing port of Mobile	14km connection to rail, then ~1,000km rail to existing port of Ridley	55km haul road to Barito River, 500km by river barge, then 200km by ocean barge to trans ship	150km by road to existing port of Stewart
<b>Enterprise Value (01/09/14)</b>	<b>A\$5m</b>	<b>A\$34m</b>	<b>A\$27m</b>	<b>A\$78m</b>	<b>A\$253m</b>



# Company Summary

ASX Code :	NAE	
Share Price :	A\$0.021 (8 September 2014)	
Ordinary Shares :	313.3m	
Market Cap. :	A\$6.6m	
Options :	22.9m (exercise price mostly ≥ A\$0.10)	
Cash :	A\$2.4m (30 June 2014)	
Shareholders :	Resource Capital Funds	28%
	Chee Siew Yaw	11%
	Geared Investments	5%
Projects :	<b>Lochinvar Coking Coal (UK)</b>	
	Redmoor Tin Tungsten (UK)	
	Terranova Coking Coal (Colombia)	



## **Gary Fietz** - Managing Director

Geologist with 25+ years experience in exploration, business development and project evaluation. Previously VP Iron Ore Business Development with BHP Billiton.



## **Alan Broome AM** - Chairman

Metallurgist with 40+ years in mining with major and junior companies. In depth experience in coal mining, processing, services and technology in Australia and internationally.



## **Gavan Rice** – Non Exec Director

Practising barrister of the Supreme Court of Victoria for the past 25 years with considerable previous experience as a director of ASX listed companies.



## **Mike Amundsen** – Non Exec Director

Corporate advisor with 30+ years experience in resources with BHP Billiton (business development, coal marketing, finance) and as Managing Director of FerrAus Ltd.



## **Jon Reynolds** – Bus. Dev. Manager

Geologist and business development professional with 25+ years industry experience including mining, mergers and acquisitions and consulting.

# Disclaimer

## Competent Persons Statement - Lochinvar

**Resources:** *The Resources estimate is based on information compiled by Dr John Bamberry, who is a Member of the Australasian Institute of Geoscientists (Member No. 4090). Dr Bamberry is General Manager of Geological Services of Palaris. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Bamberry has over 25 years' experience in exploration and mining of coal deposits.*

**Exploration Target:** *The potential quantity and quality of the exploration targets identified in this presentation are conceptual in nature, and there has been insufficient exploration to date to define a mineral resource in accordance with the Australian Code for Reporting of Mineral Resources and Ore Reserves published by the Joint Ore Reserve Committee ("JORC Code"). Furthermore, it is uncertain if further exploration at its exploration targets will result in the determination of a mineral resource.*

## Forward Looking Statements

*This report contains "forward-looking information" that is based on the Company's expectations, estimates and forecasts as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, objectives, performance, outlook, growth, cash flow, earnings per share and shareholder value, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses, property acquisitions, mine development, mine operations, drilling activity, sampling and other data, grade and recovery levels, future production, capital costs, expenditures for environmental matters, life of mine, completion dates, commodity prices and demand, and currency exchange rates. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as "outlook", "anticipate", "project", "target", "likely", "believe", "estimate", "expect", "intend", "may", "would", "could", "should", "scheduled", "will", "plan", "forecast" and similar expressions. The forward looking information is not factual but rather represents only expectations, estimates and/or forecasts about the future and therefore need to be read bearing in mind the risks and uncertainties concerning future events generally.*

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*This list is not exhaustive of the factors that may affect our forward-looking information. The Company disclaims any intent or obligations to update or revise any forward-looking statements whether as a result of new information, estimates or options, future events or results or otherwise, unless required to do so by law.*

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