

**LOCHINVAR COKING COAL PROJECT**  
*Attractive low ash coking coal project ideally located to supply domestic UK and Western European steel mills*

**Geology and Resource**

- 13 historic drill holes plus 4 NAE holes and over 100km of seismic lines
- 112Mt Inferred Resource
  - Nine Foot Seam (2.2 ave thickness)
  - Six Foot Seam (1.5 ave thickness)
  - 7° average dip
- Phase 1a drilling program complete

**Secure Tenure**

- 100% NAE owned Exploration Licence and Conditional Underground Mining Licence from The Coal Authority

**Infrastructure**

- Immediate access to existing rail and port infrastructure

Strong support from local, regional and national government and community



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ASX Code: NAE  
ACN: 004 749 508

Resource Sector  
**Coking Coal**

Countries of Focus  
**UK**  
**Colombia**

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**LOCHINVAR INITIAL INFERRED RESOURCE DEFINED**

- **Initial JORC Inferred Resource of 112 million tonnes defined for the Lochinvar Project**
- **Exploration Target of 28 – 47 million tonnes defined in addition to the Inferred Resource**

Coal Seam	Inferred Resource	Exploration Target
	Million Tonnes	Million Tonnes
<b>Nine Foot Seam</b>	78	6 - 10
<b>Six Foot Seam</b>	34	7 - 13
<b>Five Foot Seam</b>	-	15 -24
<b>Total</b>	<b>112</b>	<b>28 - 47</b>

- **Favourable parameters for underground mining:**
  - **Majority of resource is at shallow mining depths (66Mt Inferred Resource from 200m to 500m depth)**
  - **Nine Foot Seam average thickness of 2.2m (2.0m Coal)**
  - **Six Foot Seam average thickness of 1.5m (1.5m Coal)**
  - **7° average dip**
- **Clean coal analysis results to date from hole LCL-004 further demonstrate the potential to produce a low ash high volatile coking coal at high yields**

**NAE Managing Director, Gary Fietz, commented:** “The initial Lochinvar Inferred Resource marks a major milestone for NAE. The substantial resource is expected to support a significant underground mine which will provide long term coking coal supply to UK and Western European steel mills.

*The immediate access to existing rail and port infrastructure is a huge advantage as it reduces capital investment and delivery time for the project.*

*We are now focused on delivering the next phase of drilling, upgrading to an Indicated Resource and completing the Lochinvar Scoping Study. This is an exciting time for the project and NAE.”*

## LOCHINVAR INFERRED RESOURCE STATEMENT

Following completion of Phase 1a drilling by NAE in the first half of 2013, an initial Inferred Resource and an additional Exploration Target have been defined for the Lochinvar Project.

An **Inferred Resource of 112 million tonnes** has been defined for the Nine Foot and Six Foot Seams as shown in Table 1.

*Table 1 Lochinvar Inferred Resource – Average Raw Coal Analysis (Air Dried Basis)*

Seam	Inferred Resource	Inherent Moisture	Ash	Volatile Matter	Sulphur	CSN
	Million Tonnes	%	%	%	%	
<b>Nine Foot</b>	78	2.4	10.4	32.6	2.1	6.5
<b>Six Foot</b>	34	3.0	11.0	32.0	3.5	6.5
<b>Total</b>	<b>112</b>					

An additional **Exploration Target of 28 – 47 million tonnes** has been defined in areas where there is insufficient information to define a resource. A breakdown of the Exploration Target is shown in Table 2.

*Table 2 Lochinvar Exploration Target*

Coal Seam	Exploration Target
	Million Tonnes
<b>Nine Foot Seam</b>	6 - 10
<b>Six Foot Seam</b>	7 - 13
<b>Five Foot Seam</b>	15 – 24
<b>Total</b>	<b>28 - 47</b>

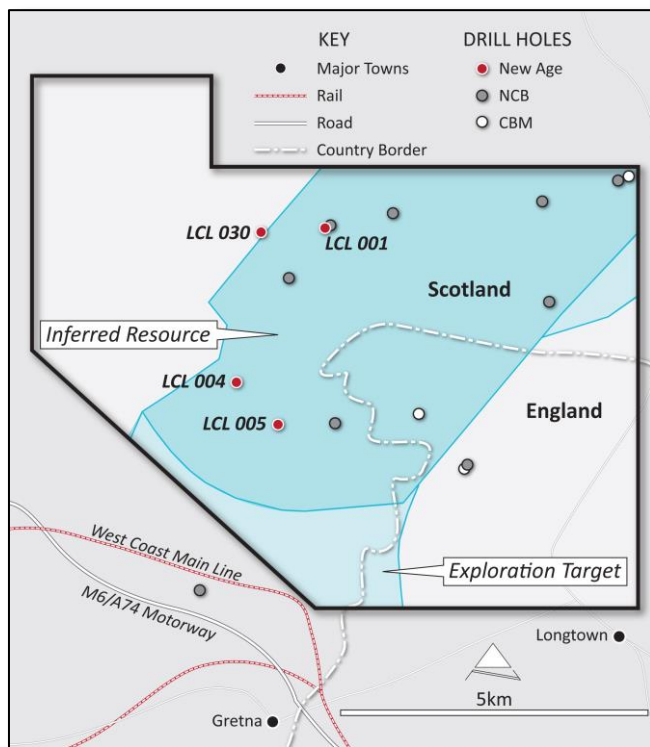
The Inferred Resource and the Exploration Target have been reported in accordance with the JORC Code (2012) and have been independently estimated by Palaris Mining Pty Ltd, an internationally recognised mining consultancy specialising in coal exploration and mining.

The Inferred Resource estimate is based on 8 holes drilled by the National Coal Board (NCB) from 1979 through to 1983 and 4 holes completed by NAE in the first half of 2013. Over 100km of seismic data was also incorporated in the resource estimate providing interpretative evidence for the lateral continuity of coal seams.

Both the Inferred Resource and Exploration Target are constrained by:

- A minimum seam thickness of 1.2 metres
- A maximum depth of cover of 1,000 metres
- A maximum parting distance of 0.8m between coal plies of the Nine Foot Seam where the upper plies are split from the lower ply of the seam in the south of the deposit
- The area within NAE's Coal Exploration Licence CA11/EXP/0515/N.

The extent of the Inferred Resource and Exploration Target are shown in Figure 1.

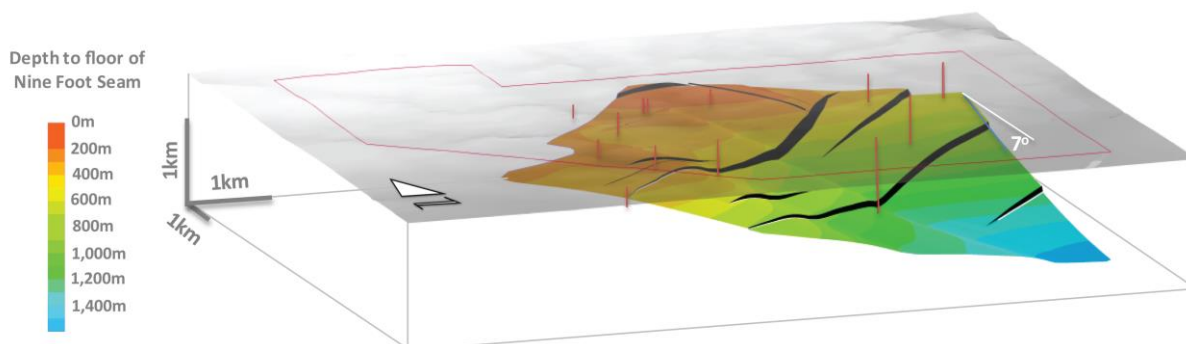


**Figure 1 Inferred Resource Location - Lochinvar Project**

The Nine Foot Seam has an estimated average dip of 7 degrees to the south east. The resource model produced by Palaris has estimated an average thickness for the Nine Foot Seam of 2.2m (2.0m coal) and 1.5m for the Six Foot Seam (1.5m coal). These characteristics are favourable for underground mining.

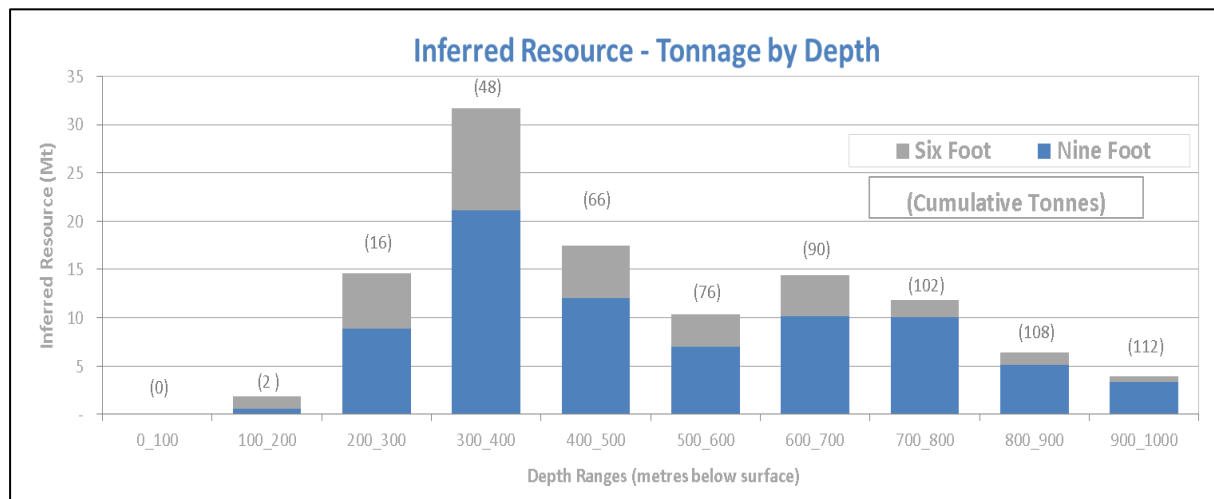
The Inferred Resource for the Nine Foot seam includes the upper plies of the seam in the northern part of the deposit. In the south the upper plies of the Nine Foot seam are excluded.

A 3D representation of the Nine Foot Seam is shown in Figure 2.



**Figure 2 3D Representation of Nine Foot Seam Geology**

The majority of the Inferred Resource is at shallow underground mining depths as can be seen in Figure 3. 76Mt of the Inferred Resource is at less than 600m depth and 48Mt is at less than 400m depth. The shallower coal will be the focus of the upcoming Phase 1b/2 drilling program.



**Figure 3 Inferred Resource Tonnage by Depth**

The Six Foot Seam lies stratigraphically above the Nine Foot Seam with a vertical separation of between 13m and 30m. The vertical separation between these seams is considered by Palaris to be sufficient to enable both seams to potentially be mined using continuous miners. A number of underground mines successfully extract seams with similar vertical spacings; however, geotechnical conditions will ultimately determine the optimum mine design for safe economic recovery of both seams at Lochinvar.

There is currently insufficient drilling data in the Five Foot Seam, which lies below the Nine Foot Seam, to enable its inclusion in the Inferred Resource.

### Lochinvar Clean Coal Analysis Results

Washability tests and clean coal analysis results received to date from two NAE holes drilled this year are shown in Table 3.

These results indicate the potential to produce **an attractive low ash coking coal at a high yield.**

Initial discussions with UK steelmakers have indicated that these results are in line with specification ranges used by UK steel mills for high volatile coking coal, most of which is currently imported from the USA.

**Table 3 Clean Coal Analysis (Air Dried Basis)**

Hole	Clean Coal Yield <sup>1</sup>	Inherent Moisture	Ash	Volatile Matter	Sulphur	CSN	Phos.	Gieseler Max Fluidity	Calorific Value	RoMax
	%	%	%	%	%		%	DDPM	Kcal/kg	%
LCL-004 Nine Foot	89	3.2	3.1	33.8	1.26	7.0	0.003	TBA	7,951	TBA
LCL-001 Nine Foot <sup>2</sup>	84	3.6	3.5	34.5	1.36	7.5	0.008	3,400	7,850	0.83
LCL-001 Six Foot	77	3.9	4.0	34.7	1.82	7.0	0.034	1,400	7,750	0.83

<sup>1</sup> Clean coal composite results from LCL-001 are 1.4 Floats and LCL-004 are 1.35 floats

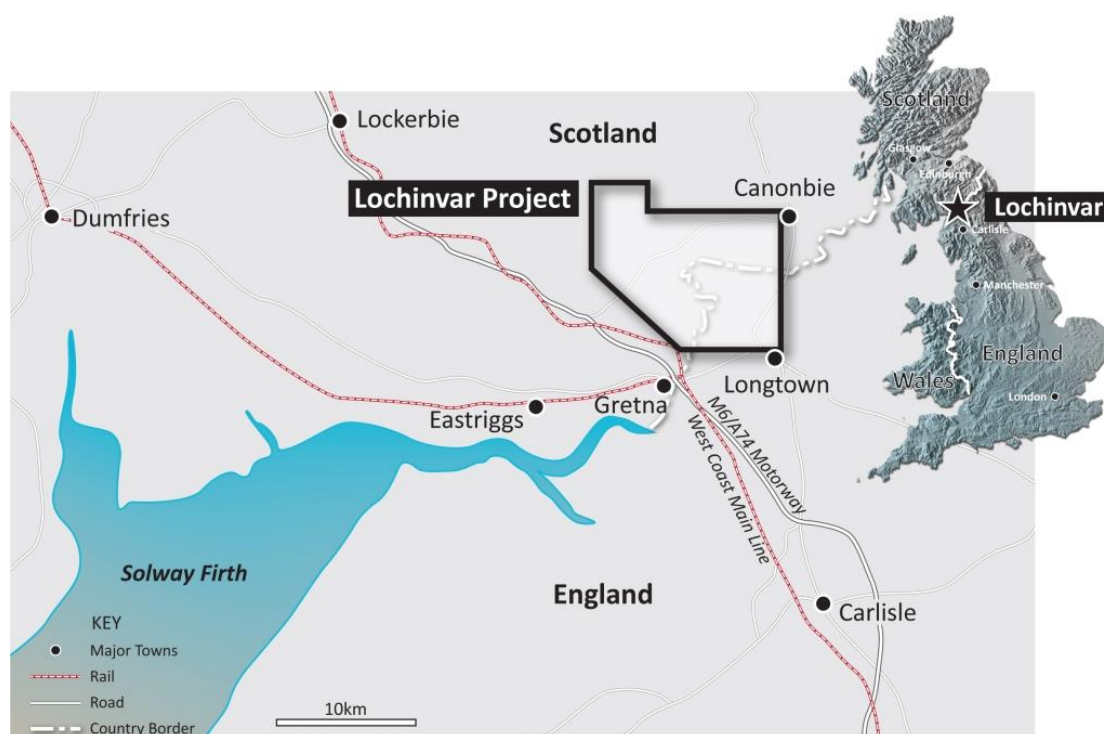
<sup>2</sup> Includes coal only, i.e. stone inter-bands excluded

## BACKGROUND - LOCHINVAR COKING COAL PROJECT

The Lochinvar Project is located 21km north of Carlisle and 120km southeast of Glasgow. NAE holds a 100% interest in the licence and there are no vendor payments.

NAE was granted the Exploration Licence and Conditional Underground Mining Licence (excluding rights to coal bed methane) over the Lochinvar Project covering 67.5km<sup>2</sup> (6,752 hectares) by the UK Coal Authority in June 2012.

The Underground Mining Licence is conditional on granting of necessary planning consents prior to commencement of production.



Historic exploration at Lochinvar was commenced in the 1950's by the National Coal Board ("NCB") which drilled four boreholes in the Canonbie coalfield. This work proved the existence of a sequence of thick coals within the Middle Coal Measures. In the late 1970's and early 1980's, the NCB drilled a further nine boreholes and shot 55 kilometres of seismic line within the Canonbie coalfield which proved the existence of a large concealed coking coal field. The key target seams are the Nine Foot and Six Foot Seams.

Lochinvar benefits considerably from being located close to all major infrastructure required for the project. Most significantly, Lochinvar is within 300 metres of a major dual track railway with direct rail connections to UK steel mills, coke plants and export ports.

The Lochinvar project is ideally located to supply both UK and Western European steel mills which in 2012 imported a total of 27.7 million tonnes of coking coal, including 4.8Mt into the UK.

**Competent Persons Statement**

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.

Neither Dr Bamberry nor Palaris have a direct or indirect financial interest in, or association with New Age Exploration Ltd, the properties and tenements reviewed in this report, apart from standard contractual arrangements for the preparation of this report and other previous independent consulting work. In preparing this report, Palaris has been paid a fee for time expended based on standard hourly rates. The present and past arrangements for services rendered to New Age Exploration Ltd do not in any way compromise the independence of Palaris with respect to this review.