



28 October 2015

Manager Companies  
Companies Announcements Office  
Australian Stock Exchange Limited

## **LEIGH CREEK ENERGY LIMITED**

### **ASX ANNOUNCEMENT**

# **Significant Additional Historic Drill Data Located**

#### **Background and Summary**

Leigh Creek Energy Limited (“**LCK**”) is pleased to announce that it has located and has in its possession significant volumes of historic drill data in addition to that previously acquired. This additional data includes coal quality, geophysical and coal sample data, and coal retention samples.

This data brings forward gasification testing of coal samples (which have been appropriately stored) and likely permits an initial coal resource estimate to be performed ahead of the planned drilling program.

The intended drill program will be optimised following assessment of the new data.

#### **Detail of Data and its Assessment**

The data acquired pertains to drilling and associated geological investigations by ETSA (the Electricity Trust of South Australia) in the 1970’s. ETSA was owned by the South Australian government at this time, with ETSA owning and operating the Leigh Creek Coal Field and the associated and captive coal fired power stations at Port Augusta 255 km to the South.

The data includes;

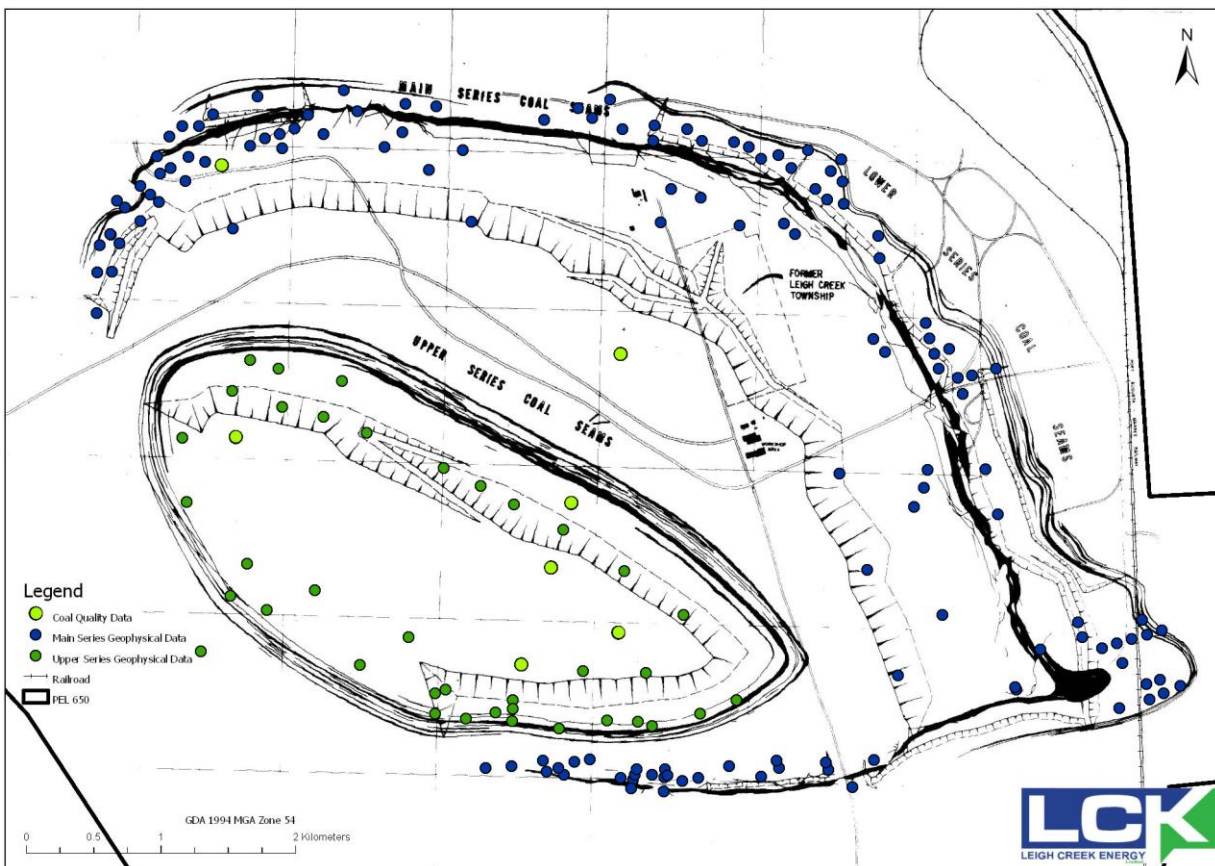
- Detailed maps;
- Location of resource definition drill holes and deep drilling (stratigraphic holes – designed to identify deep geology), with holes surveyed to pin point locations;
- Extensive geophysical logs which identify clearly such things as coal density and thickness. Such logs are still used today to identify coal, shale, sandstone and other rock;
- Coal sample data detailing coal quality including proximate and ultimate analyses; and,

- Coal samples, which have been securely sealed and numbered – which can be sent to laboratories for additional testing.

The assessment of this data is relatively simple and involves the input of data into modern systems and the analysis of this data. We anticipate the evaluation of data will take approximately 2 weeks.

Once the data has been collated and evaluated we will provide it to our independent resource estimation consultant who has been engaged to construct JORC compliant coal resource modelling and other geological services to LCK.

The following map identifies the location of holes pertaining to the newly acquired historic data.



The new data has highlighted the upper coal seams as a possible source of additional ISG (in-situ gasification) suitable coal at the deeper parts of the upper coal seam. Previously we have discounted the upper seam in any of our planning. We will now include testing of the upper coal seam within the relocated planned appraisal drilling.

## **Planned Drill Program**

The new data allows LCK to re-evaluate the optimal location of the impending drilling program, which is aimed at maximising coal resource data obtained.

If, as we suspect, the new data is worthy of immediate inclusion within coal resource modelling then we will likely shift the location of some of the planned drill holes.

## **Coal Gasification Testing – Brought Forward**

The existence of historic coal samples from deep coal allows us to immediately send coal samples to coal gasification laboratories for testwork.

Data recovered feeds into our internal engineering efforts but also will feed into calculations pertaining to gas reserves in place.

Coal gasification data was originally to be sourced solely from new coal drilling.

## **LCK Commentary**

Commenting on the location of historic drill data which was formally missing, Mr Peters, Chair of LCK noted that:

*“The LCK team is very pleased to have located valuable historic drill data which likely has the impact of bringing forward the first pass coal resource model. The availability of coal samples for immediate gas quality testing is a major benefit as it is a necessary part of the eventual gas in place calculations known as PRMS certification.*

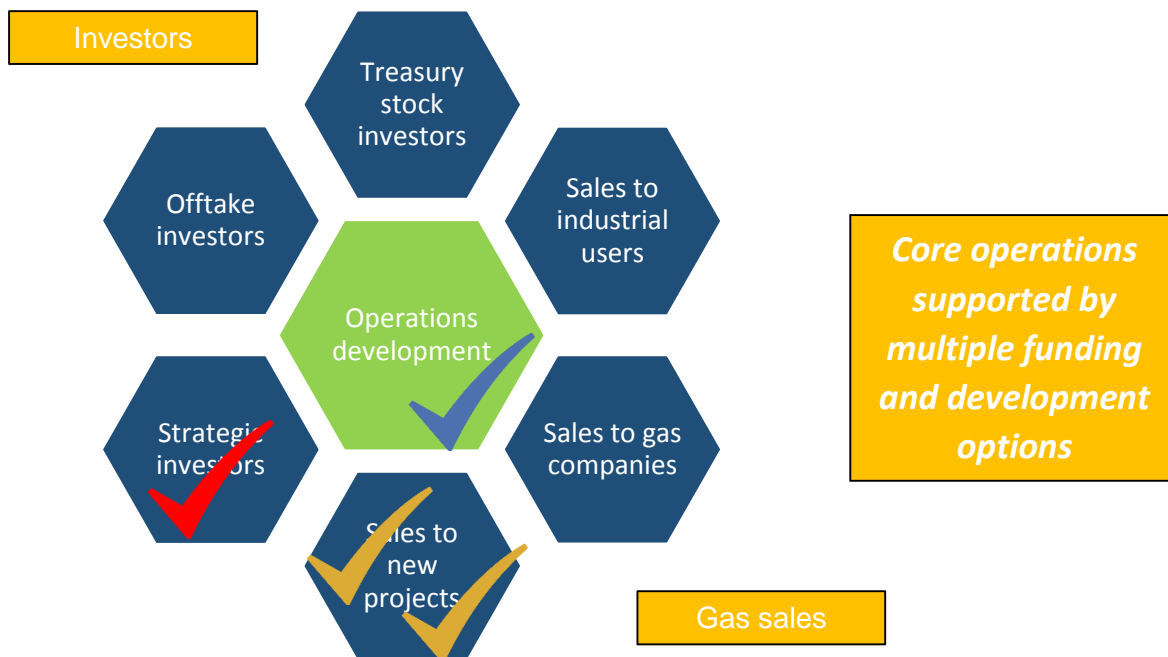
*We now expect coal gasification test results and a first pass coal resource modelling ahead of Xmas 2015.*

*With the assessment of this data LCK will look to relocate planned drilling to increase the quantum and quality of final data available for coal resource modelling and gas resource calculations.*

*The vast amount of historical information at the Leigh Creek Coal Field, including extensive seismic and deep coal drilling, adds weight to our assessment of the forthcoming drill program as appraisal drilling.”*

## **Strategic Fit**

The location of historic data marks another milestone in the achievement of our strategic objectives as first illustrated in the LCK quarterly from June 2015.



*The two gold ticks represent the heads of agreement with AET Investments and Archer Exploration to develop a chemical/fertilizer facility and a magnesia project respectively.*

*The red tick represents the recent announcement of the strategic advisory agreement with EAS Advisors LLC.*

*The blue tick represents the locating of significant historic drill data, originally believed to be lost.*

For further information contact:

Justyn Peters  
Executive Chairman  
Leigh Creek Energy  
Ph: (08) 8132 9100

Media

Adam Jarvis  
Six Degrees Investor Relations  
Ph: 0424 297 736  
Email: adam.jarvis@sdir.com.au

#### **About Leigh Creek Energy**

*Leigh Creek Energy Limited (LCK) is an emerging gas company focused on developing its Leigh Creek Energy Project (LCEP), located in South Australia. The LCEP will produce high value products such as methane and fertiliser from the remnant coal resources at Leigh Creek utilising In Situ Gasification technologies, and will provide long term growth and opportunities to the communities of the northern Flinders Ranges and South Australia.*

*The Company is committed to developing the LCEP using a best practice approach to mitigate the technical, environmental and financial project risks to as low as can be reasonably achieved.*