

20 May 2010

#### SITE UPDATE - PROOF OF CONCEPT PROJECTS

#### **HIGHLIGHTS**

- > Confirmation of NSL ownership of both Kuja and Mangal Mines
- Modified mining plan application for the Kuja mine takes another step through the approvals process
- ➤ NSL receives Mineral Dealer's Licence
- Central stock yard and processing facilities well progressed
- > NSL transition to its own local management team progressing
- NSL has commenced a second phase of resource definition work for both the Mangal and Kuja operations
- Logistics of material to port continues to work well
- > Third site identification process continues

NSL Consolidated Ltd (ASX: NSL) (**NSL**) wishes to provide an update on operations at its proof of concept iron ore projects at Mangal and Kuja in southern India.

On 21 April 2010, NSL successfully lodged the necessary documentation and completed all commercial transactions associated with the transfer of Mining Lease for both the Mangal and Kuja leases into the name of NSL Mining Resources India Pvt Ltd (a wholly owned subsidiary of NSL). The final stage of this process requires approvals of the lease transfer documentation from the respective Government bodies.

In the past two weeks, NSL has continued to review the two proof of concept sites (Mangal and Kuja) together with its other operations and notes the following outcomes:

## Kuja

The modified mining plan approvals to allow an increase in the proposed production rates are progressing, with some delays experienced through a change in both the Regional Controller of Mines and the case supervisor. The case file has been progressed up to the Regional Controller of Mines, the final signatory in the applications process.

Engagement with local communities and stakeholders has progressed well and, although not a requirement of any approvals process, the discussions with local farmers have been completed, and community engagement is expected to be fully completed prior to commencement of mining.

Contractor negotiations and preparation for mobilisation have all been completed, with rapid deployment plans ready for the commencement of mining after the granting of the Modified Mining Plan and subsequent associated approvals.

In addition, NSL is taking the opportunity prior to the commencement of mining to conduct bulk crushing and screening trials from material on site. This work is expected to quantify the potential crusher performance of the ores, and to provide indications of any contamination and likely ROM head grades.

# **Stockyard**

In line with NSL's regional strategy in the Kurnool district, plans for the establishment of the central stock yard and processing facilities have been continuing. The central stockyard provides an important opportunity to leverage on learning's derived from the proof of concept, allowing the company to supplement future production from Kuja and Mangal with purchasing and trading third party supplied iron ore.

In support of this important regional infrastructure, NSL has recently received the "Consent for Establishment" for the stock yard and the Andhra Pradesh Mineral Dealer's Licence (MDL) has been granted.

The MDL allows NSL to pursue additional parts of the regional strategy, such as the purchase of third party iron ore for trading and supplementation of NSL's own production and use of existing export licence.

Laboratory facilities, weighbridge, and crushing and screening capacity are currently being mobilised to the yard which lies between the two existing operations.

A proposed bore well approximately 50m from an existing high flow rate bore well to supply water to the stock yard is planned for drilling in the coming weeks, with a final environmental approval for crushing outstanding and expected in the coming months.

## <u>Mangal</u>

As previously released to the market, NSL with the assistance of its local partner NRC, has resolved a number of the operational issues being faced on site at Mangal.

Contractual issues with the mining contractor have necessitated a change in scope and commercial terms of the existing contractor agreement for Mangal.

The recruitment process of the expanded local NSL team is well underway and will capture and leverage the learning from NSL's proof of concept projects, in line with the strategy of focusing on using the smaller, initial projects at Kuja and Mangal to establish proof of concept for future projects.

Access to water continues to be one of the biggest significant unresolved issues at Mangal, with water being sourced from off site for all processes related to dust suppression activities. The existing attempt to drill a water bore well did not result in a sufficient recharge rate to deliver site requirements. A Government of India Geophysicist has visited site to determine the most suitable location for a second well. Final approvals and mobilisation of contractors for the establishment of the second bore well on site are expected in the coming weeks.

During the initial proof of concept mining phase on site at Mangal the degree of insitu contamination in the ROM ores being presented to the screening plant is not consistent with initial assessments completed as part of the decision to commence "bulk" mining at Mangal.

Hematite grades continue to be very strong, however insitu contamination from the quartzite capping and chert associated with the hematite reefs are impacting significantly on the final product grades.

Detailed testing and ongoing geological mapping during excavation is providing more information about the mineralisation and geology of the site. While the presence of contaminants is certainly not a positive, the degree of silica contamination from both the quartz capping and the chert material has enabled NSL to consider process related options for low cost gravity separation of insitu contaminants on site. With a strong density differential between the insitu contaminants and the hematite, and established use of such applications in India, a gravity separation solution is being investigated alongside the mining related process improvements.

Current activities on site are focused on addressing these issues, with a particular emphasis on the following:

- movement of the mining fleet to areas of the lease with greater confidence in the geological model (based on the initial drilling data and historic trenching);
- increased supervision and quality control from site based consulting geologists; and
- evaluation of gravity separation technology to assist with contaminant removal.

It is expected that a detailed business case (incorporating mineralogical assessments, ROM characterisation and density separation amenability) will be presented to the NSL Board before the end of June 2010.

# Offtake Agreement

Positive discussions continue with the Chinese off take partner as to the status of operations and the subsequent impact on first shipment timing. Subject to the rampup of operational improvements at Mangal, obtaining the Kuja modified mining plan, identifying appropriate third party product and the ability to implement gravity separation NSL is targeting first shipment no later than fourth quarter of 2010.

## **Resource definition**

NSL has commenced a second phase of resource definition work for both the Mangal and Kuja operations. The resource definition is expected to be completed in the last quarter of 2010.

A combination of ground geophysics, surface mapping, trenching and core drilling has been proposed for both sites. The diamond core drilling team has mobilised on site at Mangal, and the first hole is expected to commence within the week.

In addition, a detailed mineralogical assessment is being undertaken in support of the gravity separation assessment being undertaken for the Mangal project.

# Port

Logistics to port continue to operate smoothly as approximately 6,000 tonnes of material have now made its way through the logistics stream.

In addition, NSL has now taken leases under the existing port agreement over two plots at the Krishnapatnam Port. Each plot has been taken to allow storage and shipment of lumps and fines. As part of the process in preparing new plots at the port, the approximate 6,000 tonnes of lower grade material that has already been shipped to the port has been used as sheeting material to create the initial base of the plot. This initial material is typically expected to be counted as carpet losses in the handling agreement with the port.

#### Third site

NSL continues to progress further opportunities from the established "basket" of potential acquisitions as part of the Company's strategy of building a portfolio of low cost, ready to operate iron ore projects.

An important part of the proof of concept strategy is to leverage the learnings derived thus far and apply these moving forward. For example, to improve terms of acquisitions, identify tasks requiring completion prior to committing financial outlay, allowing appropriate time and resourcing for approval processes and ensuring the appropriate operational support is in place to mitigate start up risks.

Six sites are under further consideration as opportunities in some of India's most established and productive iron ore precincts.