

9 February 2015

**Ferrex PLC ('Ferrex' or 'the Company')**  
**Nayega Manganese – Northern Togo Update**

Ferrex PLC, an AIM quoted manganese development and iron-ore exploration-company focused in Africa, announces the completion of the modelling for Phase 1 of the Definitive Feasibility Study (DFS) at its Nayega manganese project in Togo, subject to confirmation of the final fiscal terms of the Togo Mining Convention. Ferrex's Phase 1 objective is to export 250,000 tonnes per annum of manganese ore, generating early cashflow, followed by developing low-cost high value ferromanganese production facility (Phase 2). The Company's target is now to finalise the Mining Convention before end Q1, 2015, with the granting of the Mining Permit expected shortly thereafter.

**Nayega DFS Model Highlights**

- **Strong Economics Phase 1**
  - Low capex of US\$14.5 million, opex for years 1 to 4 of USD1.93/dmtu FOB Lome  
Lower capital and operating costs than forecast in Scoping Study
- **Low Cost 'Starter' Option**
  - Additional studies initiated to assess viability of accelerated 'starter' operation using a simplified scrubbing and screening processing plant
  - High grade assay results of 41.6% and 42.1% Mn from a 3 tonne bulk sample collected by scrubbing and screening for blast furnace testwork support near-term 'starter option'
  - Production could commence within six months of the mining permit being granted at a potentially significant lower initial capital cost
- **Exploration upside**
  - The current resource of 11.0Mt @ 13.1% Mn expected to be increased
  - Pitting, aimed at defining a maiden resources for targets T27 and T48 is complete (exploration targets are in excess of 1mt at 8 – 12 % Mn and 100kt to 200kt of 15-20% Mn respectively).
  - Assay results expected February 2015
- **Financing**
  - In advanced discussions with four parties to secure financing for the development of Nayega, including proposals for funding of the accelerated starter option

**Ferrex Managing Director Mr. Dave Reeves said,** "I am delighted to report that the Nayega DFS components are complete with modelling demonstrating favourable economics with lower capex and opex costs than originally forecast for Phase 1 as we develop a 250,000 tonne per annum high grade manganese product mining operation. Furthermore, I believe we can target more cost reductions, as recent significant exchange rate moves and falling oil prices are not reflected in these numbers. In terms of financing Nayega through to near-term production, on-going discussions with a number of

parties to finance development serve to reinforce our positive views about the potential of Nayega; indicative term sheets are being reviewed to determine which offer will be best for shareholders.

“In addition, high-grade assay results from recent bulk sampling are extremely encouraging where manganese levels of over 42% markedly exceeded our previous 38% manganese product expectations. This in tandem with the financing constraint currently being experienced by junior mining companies has prompted us to investigate an accelerated ‘starter’ operation at a significantly reduced capex, which could see production and early cashflow commence within six months of the mining permit being awarded.

“All of these developments are extremely encouraging for Nayega. I look forward to reporting further positive news once we receive assay results for the pits dug and sampled at targets T27 and T48 and the updated resource is compiled. Expanding the current resource base of 11.0Mt @ 13.1% Mn will further improve the project’s economics and make it an even more compelling investment.”

## **Further information**

### **DFS**

The individual components of the DFS are now complete and have been combined into one financial model. The model shows a reduction in both capital and operating costs from the Scoping Study and does not capture the recent 10% fall in the Rand (main capital currency) and the 20% fall in the West African Franc (main operating currency). In addition, the recent collapse in oil prices is not fully captured in reduced transportation costs. This combined with extremely competitive tender prices by contractors should lead to further cost reductions.

#### Main Points included in the DFS

- Owner operated mining
- Process plant costed by DRA uses crushing, scrubbing, screening and DMS circuit as proposed in Scoping Study
- Road haulage of product to port
- Shipping in either bulk or containers is currently cost neutral
- Bulk power now available for project from regional grid
- Road upgrades to site by Government now complete
- Community and environment allowances made in costing

Capital Costs are summarised in Table 1 and Operating Costs in Table 2.

**Table 1: Capital Costs for Nayega**

Area	USDm
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Mining	1.7
Process Plant	10.8
Tailings Dam	0.2
Infrastructure	0.7
Administration	1.3
<b>Total</b>	<b>14.7</b>

**Table 2: Operating Costs for Nayega**

Area	USD/t con
Mining	3.69
Process Plant	23.33
Land Logistics	25.12
Port	11.30
Administration	3.59
Labour	3.73
Royalties	2.69
<b>Total</b>	<b>73.45*</b>

\*Equates to USD1.93/dmtu FOB assuming 38% Mn

## Financing

The Company is in on-going discussions with four parties regarding the potential financing of Nayega. Three parties have tendered indicative proposals to the Company. The Company has progressed negotiations with one party to a level where the next step would be to sign a non-binding terms sheet if the Company chooses to pursue this opportunity. This proposal would see an equity investment into the Company at a significant premium to the current prevailing share price in return for a substantial stake in the Company and would see Nayega fully funded into production. Negotiations will continue in the coming month with the aim of concluding a package slightly ahead of, or simultaneous with, the award of the mining permit. However, there can be no guarantee that any financing negotiations will be concluded or, if they are, that they will be on the terms expressed above.

The Company is also pursuing a project debt facility for the accelerated starter option.

## Mining Permit

Prior to issuing the mining permit, the Mining Convention must be concluded. The Convention is a comprehensive document that covers operating and fiscal conditions for the project. Meetings

between the Company and the Government of Togo have taken place and drafts have been negotiated between the parties. The Company believes the majority of outstanding issues will be resolved rapidly. On approval of the final negotiated convention, the mining permit can be awarded. Based on the progress of documentation, conclusion of this process is expected in Q1 2015.

### **Bulk Sample for Ferromanganese**

A 3t bulk sample was collected in preparation for sinter test work for the pre-feasibility study that will investigate the ferromanganese plant.

The sample of beneficiated ore was derived from detrital and lateritic material in spoil piles around pits dug in the NW part of the Nayega deposit. Processing of the material was as follows:

- Dry screen and retain +25mm fraction
- Wet agitation in a rotating drum to liberate gangue
- Wet screen and retain +20mm fraction
- Hand sort to remove obvious low grade material

Two 20kg sub-samples were split off the larger sample for assay. To obtain the splits, the 3t sample was manually quartered, 2 of the 4 resulting piles were manually quartered, 2 of the 8 resulting piles were manually quartered and one pile from each of these was split in two. The 2 resulting samples were submitted to Intertek's preparation facility in Ghana, where they were crushed and 2 splits (designated A and B) from each sample milled and shipped to Maddington, Australia for assay by lithium borate fusion with an XRF finish. Assay results for all 4 splits are listed in table 3.

**Table 3: Assay results for bulk sample splits**

Sample	Mn %	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %
113740A	42.07	6.48	8.5	6.12	0.15
113740B	42.1	6.44	8.46	6.11	0.15
113741A	41.62	6.97	8.39	6.11	0.16
113741B	41.62	7.03	8.42	6.1	0.16



**Figure 1: High grade manganese produced by screening on site at Nayega**

### **Potential Accelerated Start-up**

Based on the assay results of splits off the bulk sample, observations during its preparation and bearing in mind prior test work, the Company is now investigating a small scale, low capex, accelerated start-up option for Nayega as an alternative to entering into a finance package for the full plant.

Planning for this option sees the larger plant built in stages, using cashflow generated from mining operations to fund incremental expansion. The first stage would see a simple scrubbing and screening operation that would produce up to 60,000tpa (tonnes per annum) of +38% Mn product from the plus 25mm size fraction. The second stage would see the remaining lump material (6mm to 25mm) processed in a DMS to produce 180,000tpa of 38% Mn product. The final stage would see the introduction of a final DMS system to treat 1mm to 6mm material (fines) resulting in an operation producing 250,000tpa (tonnes per annum) of 38% Mn.

Initial studies have been conducted and show a capital cost of approximately \$2m for stage 1 with a FOB cost of \$1.85/dmtu, producing 100% lump material.

### **Pitting for resource calculations**

Pitting of the T27 and T48 targets is complete ([refer RNS 16 October 2014](#)) and assay results are expected in February. This will allow a maiden resource to be calculated on these areas. Current exploration targets are in excess of 1mt at 8 – 12 % Mn for T27 and 100kt to 200kt of 15-20% Mn. Any incremental increase in resources should lead to a similar increase in mineable material due to the shallow nature of the deposits and proximity to the planned process plant.

### **Competent Person Statement**

Information in this release that relates to exploration results is based on information compiled by Ferrex Exploration Manager Mr Mark Styles. Mr Styles is a qualified geologist, a member of the Australian Institute of Geoscientists and is a Competent Person as defined in the Australasian Code for Reporting of Exploration Results. Mr Styles consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.

Mr Lynn Widenbar has compiled the information in this report that relates to Mineral Resources. Mr Widenbar, who is a Member of the Australasian Institute of Mining and Metallurgy, is a full time employee of Widenbar and Associates and produced the Mineral Resource Estimate based on data and geological information supplied by Ferrex. Mr Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Widenbar consents to the inclusion in this report of the matters based on his information in the form and context that the information appears.

Caution Regarding Forward Looking Statements: Information included in this release constitutes forward-looking statements. There can be no assurance that on-going exploration will identify mineralisation that will prove to be economic, that anticipated metallurgical recoveries will be achieved, that future evaluation work will confirm the viability of deposits that may be identified or that required regulatory approvals will be obtained.

**\*\*ENDS\*\***

For further information and the full Admission document visit [www.ferrexplc.com](http://www.ferrexplc.com) or contact the following:

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## Notes

Ferrex PLC is an AIM quoted, leading manganese development and iron-ore exploration-company in Africa. The Company is focussed on advancing low capex deposits, which benefit from proximal established infrastructure, up the development curve and into production. Ferrex has a solid portfolio of assets including three primary projects: Nayega Manganese Project in Togo ('Nayega'), Mebaga Iron Ore Project in Gabon ('Mebaga'), and Malelane Iron Ore Project in South Africa ('Malelane').

At Nayega, Ferrex is currently concluding a Bankable Feasibility Study and expects award of the mining permit in early 2015. A Scoping Study indicates that Nayega could produce 250,000 tonnes

per year of manganese concentrate at 38% with an initial capital expenditure of under \$15m. A Scoping Study on a ferromanganese plant in Togo has also been concluded and shows a lowest quartile operation with robust economics. The company is focussed on bringing the mine into production on grant of the mining permit whilst advancing the ferromanganese studies.

In parallel with this, Ferrex is focussed on proving up resources at its Mebaga concession in Gabon. An exploration target comprising 90 to 150Mt @ 35 to 65% Fe (oxide material) and 550 to 900Mt @ 25% to 40% Fe (primary material) has been estimated for Mebaga. The oxide target will incorporate both DSO\* and bBSO\* material. Ferrex completed a preliminary drill programme at Mebaga that intersected significant widths of both DSO and bBSO mineralisation.

The Company also holds the Malelane Iron Ore concession in eastern South Africa. A Scoping Study on Malelane has demonstrated its potential to produce 1.8Mtpa of beneficiated ore per year, with initial capital expenditure of \$139m, a payback of 1.9 years, a Net Present Value of US\$523m (10% discount rate) and a 16.6 year life-of-mine.

Ferrex has 934M shares on issue. The Directors have subscribed for and purchased approximately 28% of the issued share capital of the Company and are thus aligned with shareholders' interests.