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Ferrex plc ('Ferrex' or 'the Company')

Measured Resource and Resource Increase at Nayega Manganese Project Togo

Ferrex plc, the AIM quoted iron ore and manganese development company focused in Africa, is pleased to announce that it has upgraded and increased its JORC Code compliant Resource at its 85% owned 92,390Ha Nayega Manganese Project ('Nayega' or 'the Project') located in northern Togo. The Board believes that the Project, which has direct access to the regionally important deep water port of Lome, has the potential to be developed into a low capital and operating cost open pit manganese mine in the near term.

Overview

- Measured Resource of 2.0Mt @ 17.1% manganese ('Mn') declared to cover first three years of proposed mine life based on results of 39 pits dug in a triangular offset pattern along 50m infill lines
- Nayega total Resource increased to 11.0Mt @ 13.1% Mn in the Indicated and Measured categories representing a 51% increase in tonnage and 44% increase in contained Mn tonnes from the last resource update
- Deposit is amenable to development as a shallow open pit operation with no waste stripping required facilitating low capex and opex costs
- Ore easily beneficiable via low cost process of screening and gravity concentration to produce a markatable 38% Mn product
- Nayega has access to good infrastructure - direct road access to the regionally important deep water port of Lome 600km to the south of the deposit
- Definitive Feasibility Study ('DFS') is progressing well

Ferrex Managing Director Mr. Dave Reeves said, "The publication of a Measured Resource is an essential milestone as we work towards the completion of the DFS at our Nayega Manganese Project in Togo. Not only will it enable us to generate proven reserves over the first three years of production at the Project, but the 44% increase in contained manganese will increase the amount of cashflow generated over Nayega's life and the high grade Measured Resource will assist with rapid project payback in its initial years.

"In addition, the DFS is progressing well with this new resource model currently being optimised to allow initial calculations of reserves and detailed mine schedules to be produced. Tender documents for mining and road haulage are nearing completion with metallurgical flowsheets and equipment lists for the process plant complete and initial enquiries with various engineering and process operating companies submitted. As soon as the Exploitation Right has been awarded, we can finalise these documents and proceed with tenders for the construction of our first production development project in line with our strategy generating early cash flow to aid development of our additional African iron ore portfolio."

Nayega Manganese Project – Togo

Resource Model

Resource modelling was undertaken by Mr L. Widenbar of Widenbar and Associates. A summary of their report follows.

Pitting and Sampling

Work on the Nayega deposit comprised pitting to allow collection of analytical samples for resource estimation, collection of samples for bulk density calculations and collection of bulk samples for metallurgical test work.

Pits were hand dug at the deposit by SGM personnel between November of 2011 and April of 2013. A total of 193 pits were dug in three phases, for 767.49m cumulative total depth. Pits are nominally spaced at 100m by 100m centres (153 pits), with an infill area with 50m offset pitting with an additional 39 pits. All pit locations were surveyed by DGPS.

Sampling of pits was by continuous vertical chip-channel samples from the top to the bottom of each pit, with each channel cut 10cm wide and 10cm deep to a maximum vertical interval of 50cm. A total of 1664 primary samples were collected.

Samples from the first two phases of pitting were prepared by SGS Minerals Services' facility in Ouagadougou, Burkina Faso. Samples from the third phase of pitting were prepared by Intertek at their facility in Tarkwa, Ghana.

Assaying and QAQC

Pulps were assayed by XRF for Fe2O3, SiO2, Al2O3, TiO2, CaO, MnO, P2O5, MgO, K2O, Na2O, Cr2O3, V2O5 and LOI (SGS) or Al2O3, BaO, CaO, Cr2O3, Cu, Fe2O3, K2O, MgO, Mn, Na2O, P2O5, Pb, SO3, SiO2, TiO2, V2O5 and LOI by Intertek.

Blanks, standards and field duplicates were inserted at regular intervals throughout the pitting program and any issues raised with the laboratories promptly and resolved. In addition, the laboratories had programs of in-house QAQC.

Re-sampling of one pit was also carried out to verify initial results.

Database Management and Data Validation

Pit, sample and geology data were captured in the field by SGM geologists and entered in to Excel spreadsheets. Field spreadsheets were emailed to Perth, where data were validated, compiled in to a master Excel spreadsheet and subsequently imported in to an Access database.

All pit and sample data were validated during data entry and data import.

Geological Interpretation and Wireframing

Manganese mineralisation at Nayega is hosted in the upper part of the Bombouaka Supergroup, with the deposit resting on weathered fine to medium grained sandstone (greywacke to arenite) and lesser siltstone.

Mineralisation is superficial/residual, occurring at (or near) surface within the weathered profile of the protore sedimentary rocks. As there is no evidence of primary manganese-rich horizons underlying the deposit, mineralisation is considered to be superficial, formed by leaching and residual enrichment in a lateritic weathering environment.

Pits were logged as they were dug, with the geologist reviewing the spoil piles and entering the pit to review material in situ if necessary.

Pit sample intervals were coded as detrital, laterite, laterite/saprolite transition, saprolite and basement. The coded geological data was subsequently used to generate DTM wireframes representing the base of each unit. In addition, the barren sandstone outcrops were modelled.

Statistical Analysis and Variography

Statistical analysis was carried out to verify the domain sub-divisions. Variography was carried out for Mn, SiO2 and Al2O3 to provide parameters for an Ordinary Kriging estimation.

A total of 94 bulk density determinations was used to assign density on the basis of the mineralisation domains.

Block Model Estimation

Block model estimation was carried out using Micromine 2013 software. Ordinary kriging was used for Mn, SiO2 and Al2O3 and Inverse Distance Squared for CaO, MgO, Fe2O3, K2O, MnO, Na2O, P2O5, TiO2, Cr2O3, V2O5 and LOI.

Block model validation has been carried out by several methods, including:

- Section Review
- Model versus Data Statistics by Domain
- Swathe Plots by Level and Northing
- Comparison of Kriged versus Inverse Distance Models

Resource Classification

The Nayega Mineral Resource has been classified in the Measured and Indicated categories in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria have been considered in determining this classification including:

- Geological and mineralisation continuity;
- Data quality;
- Pit spacing;
- Modelling technique;
- Estimation properties including kriging variance, search strategy, number of informing data and average distance of data from blocks.

A qualitative risk assessment review has been carried out to indicate in relative terms the level of risk or uncertainty that may exist with respect to resource estimation which have cumulative effects on project outcomes. Overall the risk level is considered Low.

Modifying Factors

Mining is assumed to be by conventional open-pit methods as the deposit averages 4m in depth. A Scoping Study on costings for mining has been undertaken by Coffey Mining (South Africa), and has been used in conjunction with industry standard practice to arrive at a cut-off grade of 5% Mn.

As limited waste will need to be excavated during the mining process, the vast majority of the Mineral Resource is expected to convert to an Ore Reserve.

Full metallurgical testing has been undertaken in Australia by Nagrom in Perth under the supervision of DMS (dense media separation) specialists DRA. The testwork was undertaken to feasibility level. The resulting process flowsheet comprises scrubbing, screening to waste of -1mm material and processing the +1mm material via DMS to produce a 38% Mn product which is a standard grade product. Overall Mn recovery is between 60% and 80% depending on mineralisation type.

Overall, there is confidence that the resource estimate represents material which will prove to be economically mineable.

Resource Estimate

Table 1: Summary of Nayega Resource.

	Tonnes	Mn	Fe_2O_3	SiO_2	LOI
Measured Resource	2,000,000	17.1%	9.5%	41.5%	9.8%
Indicated Resource	9,000,000	12.2%	8.1%	50.4%	8.4%

Measured + Indicated Resource	11,000,000	13.1%	8.4%	48.7%	8.6%

As reported above, after economic reviews, it was decided to alter the cut-off grade from the previously reported 10% Mn to 5% Mn.

The "Checklist of Assessment and Reporting Criteria" as required under the JORC Code,2012, is attached at the end of this release.

Further information

Ferrex has an 85% interest in SGM, a Togolese company that owns the Exploration Permit over the Nayega manganese project in northern Togo. Nayega is a residual manganese deposit, comprising lateritic and saprolitic mineralisation extending up to 10m below surface blanketed by a veneer of detrital material that averages 0.5m thick. Pitting by SGM has revealed that mineralisation occurs over a strike length of 2.2km at widths of up to 500m.

The deposit is situated in northern Togo and has direct access to the regionally important deep water port of Lome located 600km to the south.

The Republic of Togo is a French speaking country that lies adjacent to Ghana (to the west) and Burkina Faso (to the north). Togo is a large scale producer of phosphate and cement that is exported from its two deep water ports. The government of Togo is actively seeking foreign investment and investment in mining and has been very supportive of SGM.

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.

The information in this report that relates to Mineral Resources has been compiled by Mr Lynn Widenbar. 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 2012 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 ongoing 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****

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Notes

Ferrex plc is an AIM quoted, leading iron-ore and manganese exploration and development 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 conducting a Definitive Feasibility Study and expects to be developing Nayega during 2014. 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. The Company anticipates that cash generated from production at Nayega will be used to assist in the future funding of development at its additional projects.

In parallel with this, Ferrex is focussed on proving up resources at its Mebaga concession in Gabon. A recent review has calculated an exploration target of 90 to 150mt @ 35 to 65% Fe (Oxide target) and 550mt to 900mt @ 25% to 40% Fe (Primary target) for Mebaga. The Oxide target will comprise both DSO* and bBSO** material. Ferrex has full access to the BRGM records and plans to produce a JORC resource and Scoping Study before the end of 2013 at which time it will apply for a Mining Licence. A 3,000m drill program is currently underway.

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. Conceptually, cash generation from Nayega and Mebaga will be utilised to obtain finance for Malelane once again limiting share dilution.

Ferrex has 805m shares on a fully diluted basis. The Directors have subscribed for and purchased approximately 32% of the issued share capital of the Company and thus aligned with shareholders interests.

*Direct Shipping Ore is ore which is high enough grade that the iron does not need capital intensive processing into concentrate at the mine. Conceptually it can simply be dug up, crushed to a uniform size, transported and sold.

**bBSO - Beneficiate Before Shipping Ore is ore that can be crushed and using screening and gravity techniques, can produce a saleable product. The material requires no grinding.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Channel sampling of pits followed a procedure devised by independent consultants Coffey Mining based on the standard for collecting channel samples from coal seams. • Continuous vertical channel samples were collected from the top to the bottom of each pit, with each channel cut 10cm wide and 10cm deep to a maximum vertical interval of 50cm. • Sample weights ranged up to 10-15kg.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core*	• No drilling, samples were collected from hand-dug pits.

Criteria	JORC Code explanation	Commentary
	diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Not applicable.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All pits were geologically logged. On-site geologists mapped each pit and recorded lithological contact depths. • Photographs were taken from the top of each pit showing the upper part of the sample channel. •
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Channel samples were collected as pits were dug. A tarpaulin was placed on the pit floor to collect all of the sample from each channel. • One field duplicate sample was collected from each pit at a level in the profile that varied from pit to pit. For field duplicates, a second channel was cut adjacent to the first with the sample collected in the same way. Field duplicate samples were inserted in to the sample stream and hence impossible for the commercial laboratory to detect. • Sample sizes are considered appropriate for the grain size of mineralised material.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors*	• For the first two phases of work, samples were transported to the SGS preparation facility in Ouagadougou, Burkina Faso. Prepared pulps were transported to the SGS facility in Johannesburg, South Africa and analysed by lithium borate fusion with an XRF (X-Ray Fluorescence

Criteria	JORC Code explanation	Commentary
	applied and their derivation, etc. • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Spectrometry) finish for Fe2O3, SiO2, Al2O3, TiO2, CaO, MnO, P2O5, MgO, K2O, Na2O, Cr2O3 and V2O5. LOI (loss on ignition) was determined by TGA (Thermo Gravimetric Analysis). • For the third phase of work, samples were transported to the Intertek preparation facility in Tarkwa, Ghana. Prepared pulps were transported to the Intertek facility in Maddington, Australia and analysed by lithium borate fusion with an XRF finish for Al2O3, BaO, CaO, Cr2O3, Cu, Fe2O3, K2O, MgO, Mn, Na2O, P2O5, Pb, SO3, SiO2, TiO2 and V2O5 with LOI determined by TGA. • In each case, all of the sample was crushed prior to splitting and the largest split possible was milled by the laboratory to minimize issues with heterogeneity caused by grain size. • For the first batch of 35 samples, three splits were collected from each crushed parent sample with all three prepared and analysed to check the repeatability of results. For the remainder of the program, duplicate splits were collected by the laboratory at a rate of 1 every 10 samples to check on repeatability. • Blanks and manganese-specific CRMs (Certified Reference Material) supplied by Geostats Pty Ltd were inserted in to the sample stream at a nominal rate of 1 in 20 for each. • A total of 194 pulps (9.8% of all pulps) and 180 coarse reject samples (10.2% of all rejects) from phases 1 and 2 (preparation and assay by SGS) were transported to Intertek facilities to check the original results. The pulps were transported to Maddington and assayed by lithium borate fusion with an XRF finish for the suite listed above. The rejects were transported to Tarkwa in Ghana where a split was collected and a pulp prepared and shipped to Maddington for assay by lithium borate fusion with an XRF finish. • Any issues with results of the QA/QC

Criteria	JORC Code explanation	Commentary
		samples (or any samples for that matter) were raised with the laboratory and resolved promptly.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Additional channel samples were collected from pit NYPT021 to check the veracity of results. Intervals for the second set of channels were different from intervals for the first, but assay results were in line with expectations. • All data were entered into Excel spreadsheets and then uploaded to an Access database. • No adjustments are or have been made to assay data.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All pit locations were surveyed by Leofred Ventures Surveying Services. The job was completed using a Trimble R8 DGPS (differential global positioning system) with RTK (Real Time Kinetic) capabilities. • Grid system for the project is UTM WGS84 Zone 31N. • Additional topographic control was provided by capture of high resolution GeoEye-1 satellite imagery. Data were processed and 1m topographic contours generated over the capture area by Geoimage.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• A total of 193 pits were dug for 767.49m on a 100m by 100m spacing with offset infill pits dug on 50m spaced infill lines over part of the deposit. In all, 1654 primary samples were submitted for assay. • No sample compositing has been applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Mineralisation is residual, with approximately horizontal contacts between ore types and underlying sandstone. Vertical channel samples are roughly orthogonal to contacts. • No bias is considered to have been introduced in the orientation of sample channels.

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected in individually numbered plastic bags and stapled closed. • Up to 10 contiguously numbered samples were placed into polyweave sacks and then sealed with sturdy twine. • Polyweave sacks full of samples were stored in a secure location at the company's field camp before being transported to the selected commercial laboratory by company representatives.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of sampling techniques or data have been completed. However, as mentioned above, the sampling technique was devised by independent consultants Coffey Mining.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Currently held under Research Permit: O50/MME/CAB/SG/DGMG/2010; application for an Exploitation Permit in progress. • Ferrex owns 82% of SGM (Togo), the company that was granted the licence. • There are no known impediments to obtaining an Exploitation Permit for the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been no acknowledgment or appraisal of exploration by other parties.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Nayega is a residual manganese deposit, with mineralisation formed by supergene enrichment of a manganese-poor protore. • The host sequence is medium grained sandstone (arkose, arenite, quartzite), lesser siltstone and minor conglomerate located near the top

Criteria	JORC Code explanation	Commentary
		of the Meso- to Neoproterozoic Bombouaka Supergroup, which forms part of the Volta Basin.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  o *easting and northing of the drill hole collar*
	  o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  o *dip and azimuth of the hole*
	  o *down hole length and interception depth*
	  o *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• Pit and sample information is tabulated separately

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Reporting of exploration results has not and will not include aggregate intercepts. • Metal equivalent values are not applicable to the project.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its*	• Intercept widths are approximate true widths. • Pits are at right angles to the mineralisation layers.

Criteria	JORC Code explanation	Commentary
	nature should be reported. • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Appropriate maps and sections are included in the main report.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Pit and sample information is tabulated separately
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• 94 samples were collected from the first phase pits as they were being dug for bulk density determinations – both wet and dry bulk density was calculated for these samples. • 4 +200kg bulk samples (one of each primary ore type) were created as composited channel samples collected from pits spread throughout the deposit. • Comprehensive metallurgical testing was completed by Nagrom in Perth to devise a suitable process flowsheet. Additional information is provided in Section 3.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The deposit is closed off. However, indications of additional mineralisation have been found in the district and exploration will continue in an effort to identify satellite deposits.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Ferrex's Exploration Manager, based in Perth, is responsible for collection and compilation of all the sample and assay data. • Sample data are entered in to Excel spreadsheets by field staff, with validation in Perth. • Assay data (csv format from the laboratory) are merged in to the Excel worksheets with no need for data entry. • Final data are uploaded to an Access database.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• No site visits have been undertaken by the Competent Person. • As there is no drill core or RC chips to view, it was deemed that photographic evidence of pitting, channel sampling and mineralisation (clearly visible in many of the photographs) was adequate.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The overall geology of the deposit is relatively simple and well understood and gross ore type contacts correlate well between pits. • The primary geological control on the Mineral Resource estimate is in distinguishing between the main ore types and reporting them separately. • Geological continuity is good; grade continuity is also good but grade does vary throughout the deposit with better grades (this is easily confirmed visually) in the northwestern portion of the deposit.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Nayega deposit strikes north-northwest, is 2.2km long and up to 500m wide. Lateritic and saprolitic manganese mineralisation extends from surface up to 10m below surface (average of 3.3m across the deposit) and is covered by mineralised detrital material that is

Criteria	JORC Code explanation	Commentary
		up to 2m thick (averages 0.5m thick across the entire deposit).

Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modelling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		• Ordinary Kriging (OK) interpolation was selected as the estimation method.
		• OK allows the measured spatial continuity to be incorporated into the estimate and is appropriate for the nature of the mineralisation.
		• Four separate sub-horizontal geological/mineralisation domains were used to control estimation. From the surface down these were
		  o Detritals
		  o Laterite
		  o Laterite/saprolite transition
		  o Saprolite
		• Underlying the saprolite was undifferentiated basement.
		• Analysis of sample lengths indicated that non-regular samples were generally in basement material at the base of pits. As such no compositing was carried out in order to preserve geological interfaces.
		• Variography was carried out for each domain to determine kriging interpolation parameters.
		• Search ellipse sizes for the estimation were based on a combination of pit spacing and variogram ranges.
		• The primary search ellipse was 150m along strike, 150m across strike and 3m down dip with a dip of 1° towards 150°. A minimum of 2 samples and a maximum of 8 samples were required in the search pass; a minimum of two pits was required. A maximum of 4 samples per pit was used. Where blocks were not informed in the first pass , a second search was used with radius of 350m and a vertical search of 4m. A minimum of 2 samples and a maximum of 8 samples were required in this search pass.

Criteria	JORC Code explanation	Commentary
		• These directions are specified in Micromine format and have been verified by 3D visualisation. • Mn, SIO2 and Al2O3 were estimated by Ordinary Kriging. • An Inverse Distance Squared estimate was carried out as a check for Mn, SiO2 and Al2O3. • Check estimates produced confirmation of primary OK results. • An Inverse Distance Squared estimation was used for minor elements : CaO, MgO, Fe, K2O, Na2O, Na2O, P2O5, TiO2, V2O5, LOI. • Block size was 25m (E-W) by 25m (N-S) by 0.5m (Vertical) with sub-cells to 2.5m x 2.5m x 0.1m. This corresponds to one-quarter of the pit spacing in the infill area. • A previous estimate was carried out in April 2013, and compares well with the current estimate. • Validation of the final resource has been carried out in a number of ways, including: • Section Comparison • Comparison by Mineralisation Zone • Swathe Plot Validation • Model versus Declustered Composites by Domain • All modes of validation have produced acceptable results. • As there has been no mining to date, no reconciliation data is available.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• A 5% Cut-off grade is used, which is industry standard.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external)*	• Mining is assumed to be by conventional open-pit methods as the deposit averages 4m in depth. A Scoping Study on costings for mining

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	mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	has been undertaken by Coffey Mining (South Africa). • As limited waste will need to be excavated during the mining process, the vast majority of the Mineral Resource is expected to convert to an Ore Reserve.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Full metallurgical testing has been undertaken in Australia by Nagrom in Perth under the supervision of DMS (dense media separation) specialists DRA. The testwork was undertaken to feasibility level. The resulting process flowsheet comprises scrubbing, screening to waste of -1mm material and processing the +1mm material via DMS to produce a 38% Mn product which is an standard grade product. Overall Mn recovery is between 60% and 80% depending on mineralisation type.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• The deposit is located in an area of low population density with grazing and subsistence cropping nearby. There is space available for tailings, however it is the intention to backfill the pit with coarse rejects and after 5 years to use the pit for tails deposition as well. As such, only a small tails dam will be required. Local environmental consultants have been appointed to conduct an EIA (environmental impact assessment) of the area.
Bulk density	• *Whether assumed or determined.*	• 94 samples were collected from the

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	If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	first phase pits as they were being dug for bulk density determinations – both wet and dry bulk density was calculated for these samples. • As a result, an average bulk density was calculated and applied for each of the 4 mineralisation types (detrital, lateritic, laterite-saprolite transition and saprolitic) and applied.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Nayega Mineral Resource has been classified in the Measured and Indicated categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including: ○ Geological continuity. ○ Data quality. ○ Pit spacing. ○ Modelling technique. ○ Estimation properties including search strategy, number of informing data , average distance of data from blocks and kriging variance. • The above parameters were used in combination to guide the manual digitising of an area to confine the measured material. • The Competent Person endorses the final results and classification.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No external audits have been carried out. • The resource estimate has been reviewed internally by Ferrex staff.
Discussion of relative	• *Where appropriate a statement of the relative accuracy and*	• Relative accuracy and confidence

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accuracy/ confidence	*confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	has been assessed by review of block kriging variance and variability statistics of individual block estimates, but has not been numerically assigned locally. • The resource estimate includes material in the Measured and Indicated categories and is considered to reflect local estimation of grade. • Accuracy is considered reasonable and confidence in continuity of grade and geology is considered good. This was confirmed by the results of infill pitting agreeing well with the previous resource model (constructed without the infill pits). • No production data is yet available for comparison.