19 February 2015

ASX ANNOUNCEMENT

2015 UPDATED GRANDE CÔTE MINERAL RESOURCE AND ORE RESERVES

HIGHLIGHTS

- Grande Côte life-of-mine extended to 2043
- Increase in Mineral Resource estimate to 27.3 million tonnes ('Mt') of heavy minerals ('HM') (Measured and Indicated)
- Increase in Ore Reserve to 21.7 million tonnes of HM (Proven and Probable)
- Update of Mineral Resource estimate and Ore Reserves in accordance with the JORC Code[1]

Mineral Deposits Limited ('MDL', the 'Company') is pleased to announce an update of the Mineral Resource estimate and Ore Reserve in relation to the Grande Côte mineral sands operation ('GCO') in Senegal, West Africa (100% basis). MDL owns 50% of TiZir Limited, which in turn owns 90% of GCO. The Mineral Resource and Ore Reserve estimates were prepared by AMC Consultants Pty Ltd ('AMC') on 11 February 2015. The 2015 Mineral Resource and Ore Reserve estimates provided below replace the previous estimates prepared in accordance with the 2004 edition of the JORC Code, and first disclosed in 2010 (*reference: ASX release, 16 June 2010*). The updated 2015 estimates include:

- extension of the resource model – Yodi deposit (north of the Central area) and Mboro Hotel deposit (south)
- updated mine design, dredge path and schedule
- exclusion of depleted material for mining from March 2014 to December 2014
- reporting in accordance with the JORC Code2012 edition.

MDL is pleased to announce a consequential increase in mine life to 2043 and an increase to previously released resources (*reference: ASX release, 16 June 2010*).

MINERAL RESOURCE ESTIMATE

The updated Mineral Resource includes the 2010 Mineral Resource estimate (depleted for mining from March 2014 to December 2014) and two along strike deposit extensions, which have added to the Indicated Mineral Resource. The main Heavy Mineral deposits identified to date are Diogo, Mboro, Mboro Hotel, Fass Boye, Lompoul and Yodi. Both the dunes and the underlying marine sands contain HMs, principally ilmenite with accessory zircon, rutile and leucoxene. Zircon and ilmenite are the main HMs of interest.

Based on the drilling undertaken, AMC has prepared a Mineral Resource estimate for the identified deposits which is set out below:

Mineral Resource Estimate

100% basis

Resource Category	Tonnes Mt	In Situ HM Mt	HM %	Zircon %	Rutile %	Leucoxene %	Ilmenite %
Measured	1,620	24.2	1.5	10.7	2.5	3.2	74.5
Indicated	210	3.1	1.4	10.7	2.5	3.2	74.5
Measured and Indicated	1,840	27.3	1.5	10.7	2.5	3.2	74.5

Note:

1. Quantities and grades have been derived by accumulating the grades to 6 metres below the natural water table except for the Mboro Hotel and Yodi deposits, where the accumulation is to the natural water table.
2. A cut-off grade of 1.0% HM has been applied to the accumulated grades.
3. Tonnes have been rounded to the nearest 10,000,000 t. Totals may not sum due to rounding.
4. Grades have been rounded to one decimal place.
5. The mineral assemblage (zircon, ilmenite, rutile and leucoxene) is reported as a percentage of HM.
6. All Mineral Resources are inclusive of Ore Reserves.

[1] *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition, sets out minimum standards, recommendations and guidelines for public reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves, authored by the Joint Ore Reserves Committee of The Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia.*

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Information in this report that relates to Mineral Resource estimates is based on information compiled by Mr R L Webster, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy and a full-time employee of the AMC Consultants Pty Ltd. Mr Webster has been engaged as an external independent consultant and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity, being undertaken 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'. Mr R L Webster consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Other deposits have been partially explored within the Mining Concession and there is potential to identify additional deposits beyond the limits of present drilling.

ORE RESERVE ESTIMATE

The mine design, dredge path and schedule have been reviewed and altered to produce a longer mine life. The update includes previously excluded low-grade and Indicated material. The mine life now extends to 2043. Based on the 2015 depleted Mineral Resource and updated life-of-mine plan, the Ore Reserve estimate is as follows:

Ore Reserve Estimate

100% basis	Ore						
	Tonnes	HM	HM	Zircon	Rutile	Leucoxene	Ilmenite
Classification	Mt	Mt	%	%	%	%	%
Proved	1,210	18.3	1.5	10.7	2.5	3.2	74.5
Probable	320	3.4	1.1	10.7	2.5	3.2	74.5
Proved and Probable	1,530	21.7	1.4	10.7	2.5	3.2	74.5

Note:

1. The Ore Reserve estimate is based on Indicated and Measured Mineral Resource contained within the mine design and not defined by optimisation or application of a cut-off grade.
2. The Ore Reserve estimate is the part of the Mineral Resource contained within the dredge path design; it is inclusive of waste dilution and is based on the project's economics.
3. Ore tonnes have been rounded to the nearest 10,000,000 t.
4. Grades have been rounded to one decimal place.
5. The mineral assemblage (zircon, ilmenite, rutile and leucoxene) is reported as a percentage of HM.
6. All Mineral Resources are inclusive of Ore Reserves.

Information in this report that relates to Ore Reserve estimates is based on information compiled by Mr P Federici, a Competent Person who is a Member and Chartered Professional of The Australasian Institute of Mining and Metallurgy and a full-time employee of the AMC Consultants Pty Ltd. Mr Federici has been engaged as an external independent consultant and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity, being undertaken 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'. Mr P Federici consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The deposit continues to the north and south on the Mining Concession beyond these Ore Reserves. Additional mine life will depend on the success of additional drilling and the future economics of GCO.

SUPPORTING STATEMENT MINERAL RESOURCE AND ORE RESERVE REPORTING

In September 2004, MDL was selected by the Government of the Republic of Senegal ("RoS") to explore and develop the Grande Côte Mineral Sands Project. A Presidential Decree was granted in 2007, providing MDL a Mining Concession of 25 years. Ownership of GCO was transferred to TiZir as part of the MDL/ERAMET joint venture in late-2011. The RoS is a valued project partner, holding a 10% interest. Construction of Grande Côte began in 2011 and was completed in March 2014.

GCO is the biggest single-dredge mineral sands operation in the world with operations managed by an experienced team focussed on ramping-up production to reach nameplate capacity during the third quarter of 2015. Grande Côte is located on a coastal, mobile dune system starting approximately 50 kilometres north-east of Dakar, and extends northwards along the coast for more than 100 kilometres. The mineralised dune system averages four kilometres in width and contains largely unvegetated sand masses. The project area is 445.7 square kilometres. Dredging operations commenced in March 2014, with processing operations shortly thereafter in June. Since that time, GCO has gradually increased production.

Geological description

The extensive Senegal Mauritanian Basin covers most of Senegal and is composed of Mid-Jurassic to Recent, poorly cemented marine sands, marls, limestones and shales overlain by continental lacustrine and marine sediments.

The GCO project is within the belt of coastal dunes that lie along the current shoreline. The dunes, recent in age, are mobile or semi-fixed, pale yellow in colour and overlie older Late Quaternary white marine sands. The dunes range between 5 m and 35 m in height and the mineralised zones, which are essentially flat-lying, average around 15 m in thickness.

The GCO deposit comprises a linear series of Aeolian sand dunes containing a HM assemblage concentrated by wind action. The aeolian or mobile dunes overlie a substratum of former beach sands representing a recessive littoral environment. These sands also contain a lesser HM concentration. The natural water table generally occurs close to the interface between the mobile dune and littoral sand together with occasional peaty materials preferentially located at the dune-littoral sand interface.

Geological figures, including drillhole location plan, cross section of dune type and heavy mineral deposits and schematic cross section of drillholes and block model are included as Appendix A.

Resource Estimation

Geological data was used to define the top and bottom of the mineralized unit. A wireframe of the water table from piezometer readings was constructed. Parent block sizes were 20 mE x 100 mN x 1 mRL, based on a general drillhole spacing of 40 mE x 200 mN.

Hand auger and reverse circulation drilling were used in the estimation. All samples were either sampled or composited to 1m. No by-products or deleterious elements were considered.

The deposit was divided into three zones with top-capping applied to two of the zones. No assumptions on correlation between variables were used as only HM % was estimated. All input data was rotated 35° toward north so the deposit is orthogonal. Ordinary Kriging was used to estimate block grades. The maximum search distance was 750 m north, 300 m east and 9 m RL.

Tonnages are estimated using dry bulk density, 1.7 t/m^3. The high grade mineral resource is reported above 1.25% HM cut-off grade, the low grade mineral resource is reported above a 0.9% HM cut-off grade. The cut-off grades are based on low cost dredge mining.

Swath plots and visual comparisons between the block model and drillhole data was used to check the block grade estimates. The area is currently being mined and a previous Mineral Resource estimate by AMC in 2010 gave similar results.

The resource was classified mainly on the drillhole spacing due to the uncomplicated geology, continuity of mineralization and confidence in the drillhole data. Blocks where the drilling was spaced 80 mN x 40 mE were classified as Measured and the remaining areas Indicated.

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ABOUT MDL

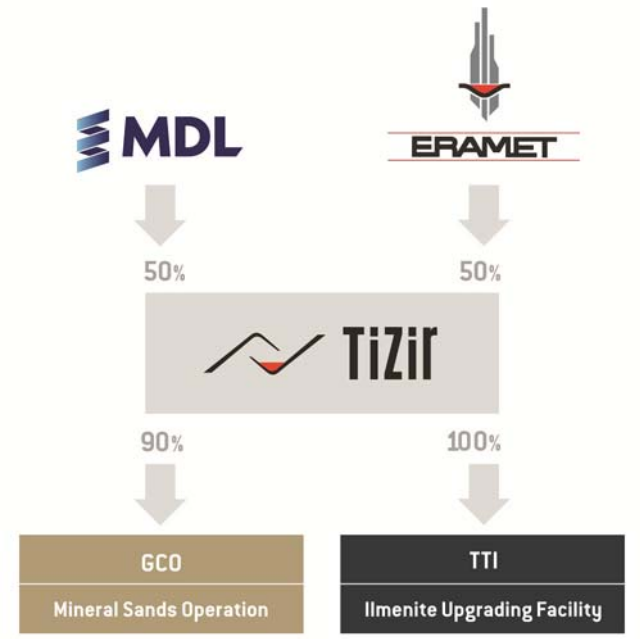
Mineral Deposits Limited (ASX: MDL) is an Australian based mining company in the business of mining, integrating and transforming mineral sands resources.

MDL owns 50% of TiZir Limited, with ERAMET of France also owning 50%. TiZir owns Grande Côte Operations SA, which operates the Grande Côte mineral sands operation ('GCO') in Senegal, West Africa, and TiZir Titanium and Iron AS ('TTI'), which operates the ilmenite upgrading facility in Tyssedal, Norway.

GCO is anticipated to produce on average approximately 85ktpa of zircon and 575ktpa of ilmenite (and small amounts of rutile and leucoxene) when in full production over an expected mine life of at least 25 years.

TTI smelts ilmenite to produce a high TiO_2 titanium slag which is sold to pigment producers and a high purity pig iron which is sold to ductile iron foundries as a valuable co-product. The facility currently produces approximately 200ktpa of titanium slag and 110ktpa of high purity pig iron.

Once GCO completes ramp-up and reaches nameplate capacity, TiZir will be producing approximately 7% of both global zircon and titanium feedstock supply.



Forward looking statements

Certain information contained in this report, including any information on MDL's plans or future financial or operating performance and other statements that express management's expectations or estimates of future performance, constitute forward-looking statements.

Such statements are based on a number of estimates and assumptions that, while considered reasonable by management at the time, are subject to significant business, economic and competitive uncertainties. MDL cautions that such statements involve known and unknown risks, uncertainties and other factors that may cause the actual financial results, performance or achievements of MDL to be materially different from the company's estimated future results, performance or achievements expressed or implied by those forward-looking statements. These factors include the inherent risks involved in exploration and development of mineral properties, changes in economic conditions, changes in the worldwide price of zircon, ilmenite and other key inputs, changes in the regulatory environment and other government actions, changes in mine plans and other factors, such as business and operational risk management, many of which are beyond the control of MDL.

Except as required by applicable regulations or by law, MDL does not undertake any obligation to publicly update, review or release any revisions to any forward looking statements to reflect new information, future events or circumstances after the date of this report.

Nothing in this report should be construed as either an offer to sell or a solicitation to buy or sell MDL securities.

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APPENDIX A: GEOLOGICAL DIAGRAMS

Figure 1: Grade Côte drillhole location plan

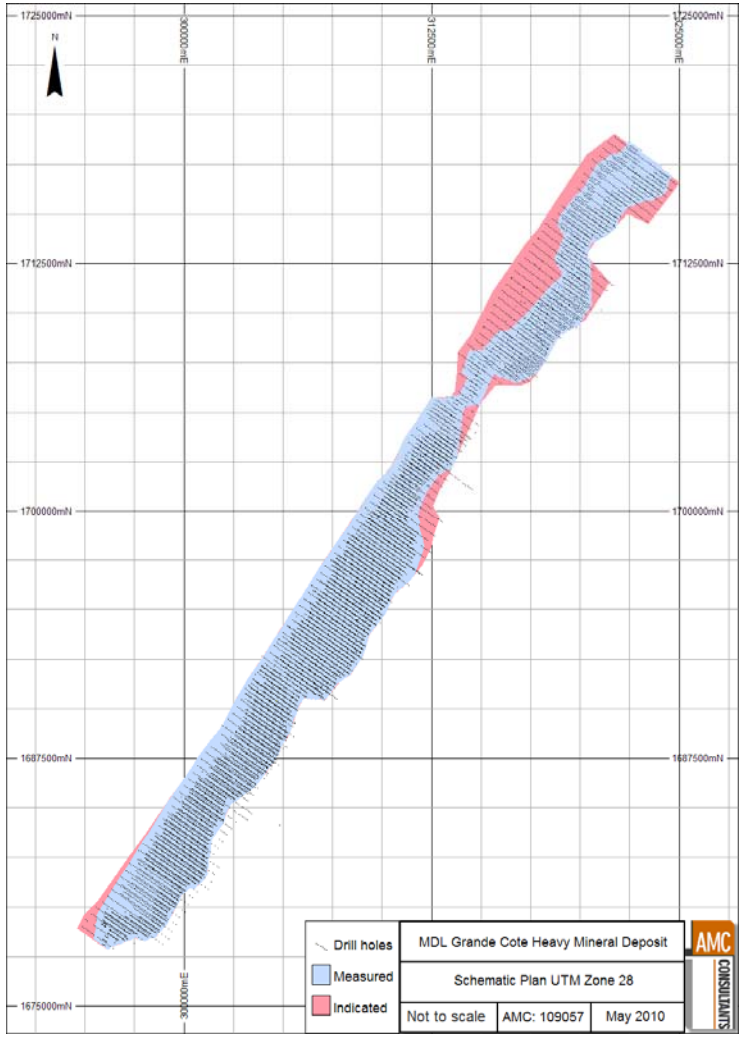


Figure 2: Cross section of dune type heavy mineral deposits

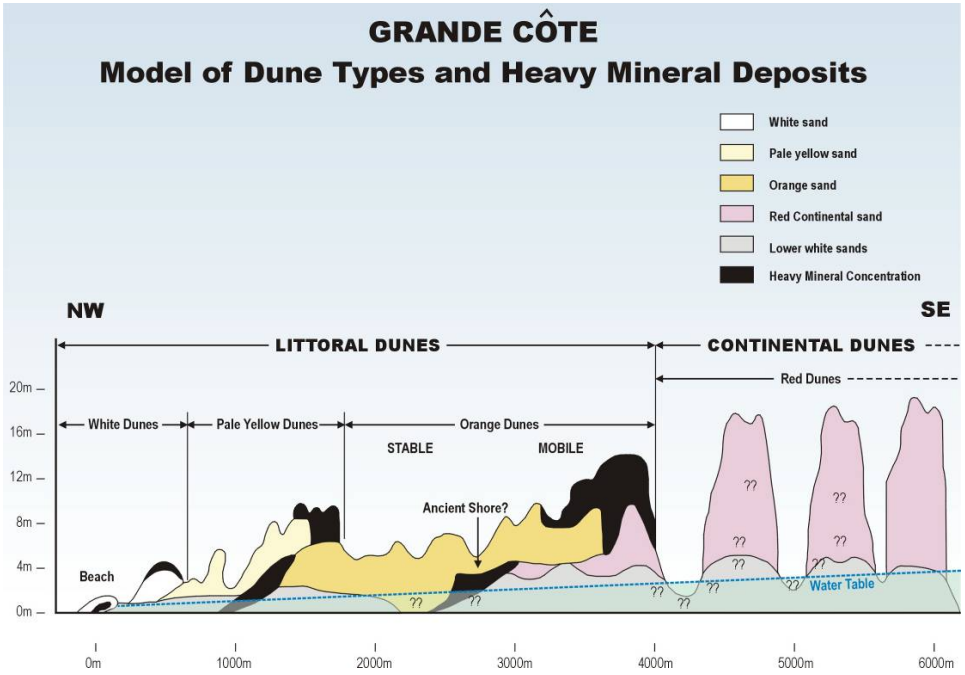
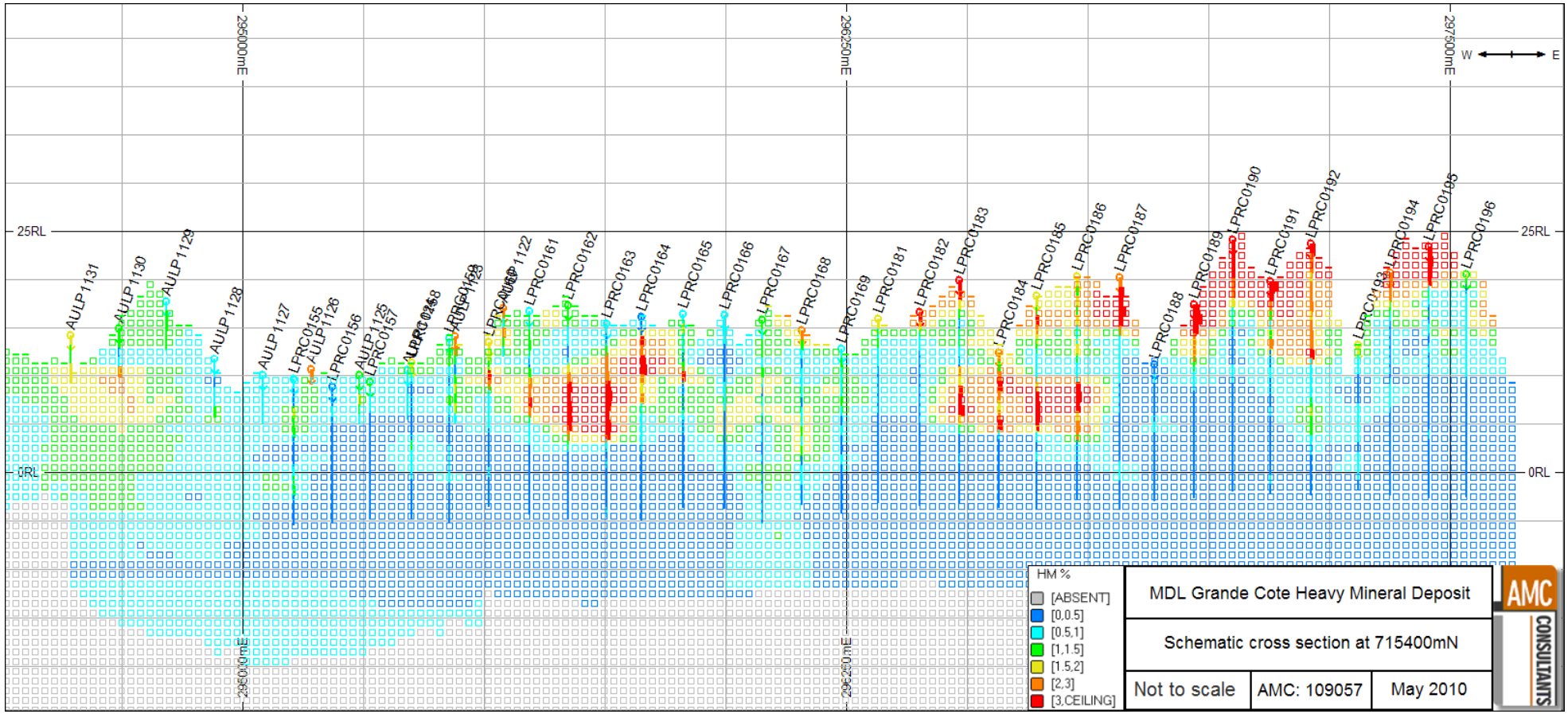
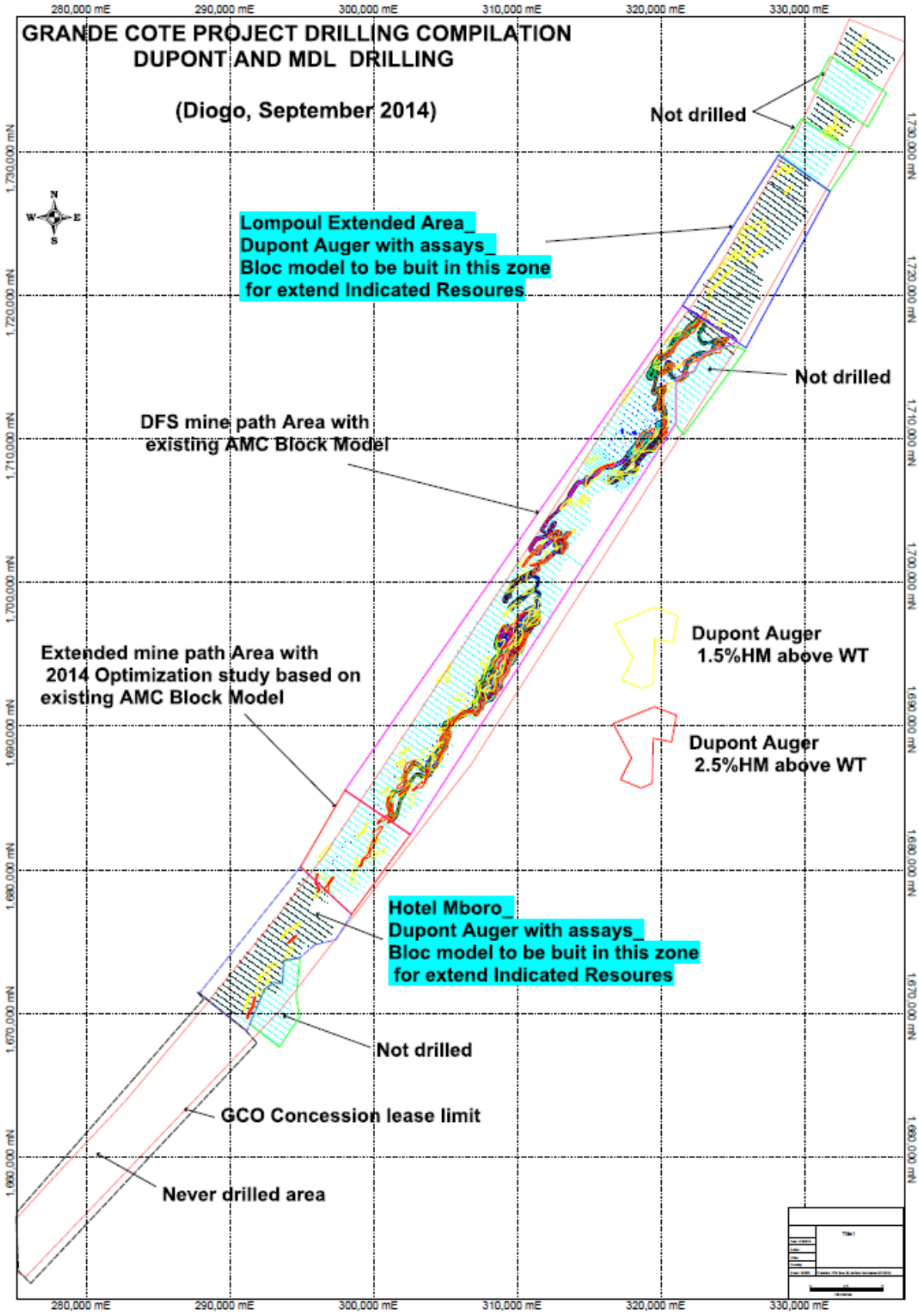


Figure 3: Schematic cross section of drillholes and block model



Note: Vertical exaggeration x 20

Figure 4: Plan of Mineral Resource and Extensions



APPENDIX B: THE JORC CODE, 2012 EDITION, TABLE 1 SECTIONS 1 TO 4

SECTION 1 SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• All holes were drilled vertically. • All holes were sampled in 1 m intervals honouring lithological contacts. • EI du Pont de Nemours and Company Inc. (DuPont)'s sample collection procedure was virtually identical to that of Mineral Deposits Limited (MDL). The only material difference was DuPont used water injection in its reverse circulation (RC) drilling whereas MDL used air. • DuPont: - Hand auger drilling stopped at the water table or earlier. - RC drilling was undertaken by Victor Drilling of Florida, USA. - RC samples were collected by use of a pressure pump to force water down the inside of the inner rod and back up though the gap between the two rods, raising the suspended cuttings which were recovered as the sample. • MDL: - The RC rigs were setup to collect the complete sample with a basic cyclone separation by means of a swivel outlet feeding two alternate sample bags. There is no sample splitting on site. - For hand auger samples the sand is wetted to provide for a collar. Auger shell will fill with sample within two to three rotations. The auger is then withdrawn from the hole and the sample poured/pushed directly into a labelled sample bag. A 75 mm PVC collar is placed by hand and the hole re-entered. This procedure is repeated until a 1 m representative sample is collected per sample bag. - In 2007, shaft samples were collected to gather accurate geological information down the sand profile and to perform a comparative analysis of HM percentages from RC and hand auger drilling results. - The shaft samples were generally taken at 0.20 m intervals and the sample location was surveyed.

Criteria	JORC Code explanation	Commentary
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core 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.).*	• All drillholes are vertical. • DuPont used water injection RC and hand auger drilling methods. • MDL used in-house aircore / RC rigs mounted on Bombardier Muskeg tracked carriers. • RC drillhole diameter is AQWL 44.6 mm diameter, fitted with a proprietary inner tube with a face discharge drill bit, using 3 m long rods. • Hand auger is a conventional 50 mm diameter Dormer brand shell auger, with 1.5m long extension aluminium coarse thread drill rods. • DuPont's sample collection procedure was virtually identical to that of MDL. The only material difference was DuPont used water injection in its RC drilling whereas MDL used air.
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.*	• RC rig theoretical sample weight is 1.8 kg/m. • RC rigs used face discharge drill bits and low air pressure (15 - 20 psi) together with low rotation speed (50 - 60 rpm) that provided the most representative sample return. • For hand augur holes the depth downhole is marked on the rod every time the rod is withdrawn from the hole. When the rod is returned down the hole if it sits high the equivalent volume of material is discarded from the top of the sample prior to it being placed in the sample bag. This material is assumed to be over break. • There is no correlation between sample recovery and grade resulting in no sample bias.
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 the samples were weighed and geologically logged by site geologists for colour, lithotype, grain size, clays, humic / peat content and slimes content. • A handful of the RC sample is taken and manually panned by hand to estimate the HM content for inclusion in the logging sheet. • Depth of the standing water table is estimated.

Criteria	JORC Code explanation	Commentary
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.*	• All samples were sent to the MDL laboratory at Tivaouane, which is the same laboratory used by DuPont. • DuPont HM determinations were undertaken by Magstream, which uses ferro-fluids and, magnetic and centrifugal forces to produce precise split points over a range of specific gravities. Once separation was completed the ferro-fluids were re-claimed by filtration. • MDL used heavy liquid separation utilizing aqueous, non-toxic lithium sodium tri-polytungstate (LST). • All samples are: - Dried, weighted. - Screen at 2 mm – oversize - if clay or peat is present it is attritioned filtered at 45 micron and weighted. - Sample < 2 mm is riffle split, - 50g and duplicated 50g samples are collected. - Washed and screened to 45 micron – attrition all samples filtered and dried and record slimes. - Screen to 1 mm – discard oversize. - LST for heavy media separation - HM %. - Peat / humus content is removed for a 24 hr treatment with 10% sodium hydroxide. - Weight of slimes and peat is recorded. • Quality control procedures include assaying of a random duplicate from each drill-hole by an Australian umpire laboratory.

Criteria	JORC Code explanation	Commentary
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 applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• The assaying method was AS 4350.2 - 999 Australian Standard "Heavy mineral sand concentrates - Physical testing Part 2: Determination of heavy minerals and free quartz - Heavy liquid separation method" was used for particle heavy mineral separation by heavy liquid (LST). • Quality control procedures include: - Standards. - Replicate testing by individual laboratories. - Checks between different laboratories. - External analyses of one sample from each drill hole or as requested by the Chief Geologist or Senior Geologist. • During 2007, MDL assessed RC and auger sampling accuracy using shaft bulk sampling. A comparison with 1 m sample assays shows that the RC drilling underestimates the HM grade by an average of 7% and the auger results are more accurate and comparable to the shafts samples results. • In May 2009 AMC conducted a study to assess the impact the DuPont drilling and MDL drilling was having on the resource estimate. The review showed the MDL RC drilling has lower HM% grades than the DuPont drilling but the hand auger results are comparable. • During 2011 the ERAMET due diligence program mineralogical analyses was conducted on heavy mineral composited samples (composited by sand types and levels). The samples were obtained from drill holes and shafts and assayed using MLA, X-ray microanalysis system, XRF, grain counting techniques.
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.*	• Validation and updating of the main Access database was conducted on a weekly basis by GIS and Database specialist at the MDL Melbourne office. • DuPont tested the reliability of their sampling by randomly re-drilling a hole at or very near to the location of a previous hole. The difference between the geological description and the HM determination of the samples from the two holes was generally found statistically negligible. • The DuPont data were provided during 2004 as hardcopy map and report, electronic word document and excel and Access databases. All the data has being analysed and audited by AMC.

Criteria	JORC Code explanation	Commentary
		• The assay data was compared on a daily basis with the geology log of panned HM grades for out of range assays, gaps and overlapping intervals by the site geologists. Replicate assaying was also carried out. • MDL also conducted a twin drilling program during 2007 of 55 RC holes and 55 auger holes. • During 2011 ERAMET undertook a resource and reserve due diligence program as a part of a joint venture with MDL by twinning some GCO drill holes. ERAMET auditors concluded that "*We consider that drilling operations are well conducted. The work carried out during due diligence confirm the seriousness of the drilling campaigns done by MDL".*
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.*	• Drillhole collars for drilling by DuPont were surveyed based on a local grid. A number of key points from the DuPont grid were preserved in concrete. Based on these key points the collar locations were translated to the international Universal Transverse Mercator (UTM) grid. • All MDL drill collars were surveyed by Topcon Differential GPS using the UTM WGS84 Zone 28 northern hemisphere grid. • A detailed digital terrain model was produced by MAPS Geosystems of Dubai, a division of Fugro. This DTM was based on detailed aerial photography flown by MAPS in early 2008. • The aerial photography was taken at 1:12,000 with GPS location bases, surveyed on ground as control points.
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.*	• DuPont hand auger drilling was conducted on a grid spacing of 400m north-south by 80m east-west, generally stopping at the water table. The RC drilling did not follow a regular grid. • MDL auger infill drilling was undertaken on lines at 200m spacing north-south and with holes at 40m interval east-west. • There were no samples composited, more than 98% of the drill hole intervals were sampled on 1m intervals.

Criteria	JORC Code explanation	Commentary
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 mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• All drill holes are vertical. • Drill lines are perpendicular to sand dune trends.
Sample security	• *The measures taken to ensure sample security.*	• All samples were placed in calico bags and grouped in rice bags by drillhole. • The samples bags were labelled by both marker and aluminium tags for drillhole number and sample depth. • The samples were delivered to the laboratory on daily basis with a shipment form.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Drilling methods validation programs were conducted by MDL in 2007 and reviewed by AMC. • A Mineral Resource and Ore Reserve due diligence program was undertaken by ERAMET in 2011. • These programs showed the sampling techniques and resulting data to be appropriate.

SECTION 2 REPORTING OF EXPLORATION RESULTS

(Criteria listed in the preceding section also apply to this section.)

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.*	• A mining concession was granted to MDL on 24 September 2007 for a period of 25 years. The concession is renewable. • In July 2008 the concession and operation was transferred to Grande Côte Operations SA (GCO), which is comprised of 90% MDL and 10% Senegalese Government. • On the 1 October 2011 the GCO 90% holding, thus MDL's holding, was transferred to UK based TiZir Limited (TiZir). TiZir is a 50/50 joint venture between MDL and UK based French company ERAMET Group. • The concession allows for development, extraction, processing, transport and marketing of zircon, ilmenite, rutile, leucoxene and related minerals.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The deposit was first recognized in 1945 by the Direction Federale des Mines de L'AOF (DFMG). • Subsequently undocumented work was undertaken by the DFMG. • The DFMG completed photogeological, geomorphological and a geological survey in 1957, classifying the dunes. • The DFMG also completed 20 drill sections 5 km apart for 666 holes a total of 3,138 m. There was no sampling below the water table. • The lease was acquired by DuPont in 1989, and relinquished 1992 in favour of other potentially more prospective ground. • DuPont drilled 39,062.7 m along the 50 km of strike length during this time. • MDL acquired the Exploration Permit in 2004. • MDL drilled a total of 198,868 m from 2005 to 16 April 2010.

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralization.*	• The extensive Senegal Mauritanian Basin covers most of Senegal and is composed of Mid-Jurassic to Recent (Holocene, 4,000 to 2,000 years before present), poorly cemented marine sands, marls, limestones and shales overlain by continental lacustrine and marine sediments. • The project is within the belt of coastal dunes that lie along the current shoreline. The dunes are Recent in age, are mobile or semi-fixed, pale yellow in colour and overlie older Late Quaternary white marine sands. The dunes range between 5 m and 35 m in height and the mineralised zones, which are essentially flat-lying, average around 15 m in thickness. • The deposits include: Mboro, Lompoul, Diogo, Fass Boye, Yodi and Mboro Hotel. The deposits extend over a length of about 50 km. There is potential for additional deposits beyond the limits of present drilling, both to the south-west and north-east for a total strike length drilled of 70 km. • The deposit comprises a linear series of aeolian sand dunes containing a HM assemblage concentrated by wind action. The Aeolian or mobile dunes overlie a substratum of former beach sands representing a recessive littoral environment. These sands also contain a lesser HM concentration. The natural water table generally occurs close to the interface between the mobile dune and littoral sand together with occasional peaty materials preferentially located at the dune-littoral sand interface.
Drillhole 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.*	• DuPont drilled: - 535 RC holes for 10,210.5 m. - 7,893handaugerholesfor28,852.2 m. • Up to 16 April 2010, MDL has drilled: - 7,750 RC holes for 150,665 m. - 4,569hand auger holesfor45,203 m. • All holes were drilled vertically. • RC holes average 19.6 m long and hand auger holes averaged 5.6 m long. • See drillhole location plan at Appendix A, Figure 1. • Exploration results are not being reported at this time.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• Exploration results are not being reported at this time. • No metal equivalent values were used. • No aggregating of short length samples was required as samples were consistently assayed on 1 m intervals.
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 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 (e.g. 'down hole length, true width not known').*	• The deposit is flat and intersected by vertical drill holes. • The mineralised zones average 15 m thickness.
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.*	• Plan of Mineral Resource and Extensions see Appendix A, Figure 4. • Geological cross sections see Appendix A, Figures 2 and 3
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.*	• Exploration results are not being reported at this time.
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.*	• Exploration results are not being reported at this time. • Bulk samples have been collected see Section 1 of Appendix B.

Criteria	JORC Code explanation	Commentary
Further work	• *The nature and scale of planned further work (e.g. 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.*	• Further work will consist of hand auger and RC infill drilling on a 200 m by 40 m grid with the aim of upgrading the classification of the Inferred and Indicated Mineral Resource. • Future exploration is proposed for immediately south and north of the drilled area.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

(Criteria listed in Appendix B – Section 1, and where relevant in Appendix B – Section 2, also apply to this section.)

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.*	• MDL have validated the DuPont data using both automated and manual methods. MDL have access to the original DuPont drill logs, survey records, sample and assay sheets, and plans. Data review included: - Automatic testing of hole-spacing consistency for adjacent line-hole numbers. Observed potential errors were validated using hardcopy original data. - Assay from/to sequences and HM% calculations from Magstream feed and product weights were checked and found to be mostly free from errors. Errors detected were corrected. - Validation of the location of early RC holes drilled on an irregular pattern was difficult. Some location errors were found and corrected; however, there are instances where collar RLs of RC holes appear incompatible with those of proximal hand auger holes. - A number of key points from the DuPont grid were located and preserved in concrete and relocated by MDL. Registered surveyor BetPlus located these tie points enabling the DuPont grid to be reconfigured in the UTM grid. • An access database is updated and maintained by MDL. It has been reviewed by site geologists and the project geologist. • The checks and validation of MDL data include: - Comparison assays for out of range values - Samples gaps - Overlapping samples - Collar coordinate verification including collar elevations comparison to the digital terrain model

Criteria	JORC Code explanation	Commentary
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.*	• A site visit was undertaken by Mr Pier Federici in 2009 and again in December 2014, the Competent Person for the Ore Reserve. Mr Federici visited site on behalf of Mr Rod Webster Competent Person for the Mineral Resource. Both Competent Persons have a long history with the Grand Côte deposit having undertaken technical work periodically since 2007 and 2005 respectively.
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.*	• There is a high confidence in the geological interpretation of the sand units (Aeolian sand dunes and basement sand). • It was not considered necessary to subdivide the sand into different domains to control the grade estimation. This is based on a study of dividing the sand into the upper sand dunes unit and lower beach sand. • There is no alternative geological interpretation.
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 resource extends for 70 km north-east and averages 2 km wide. • The average depth of mineralisation is 15 m.
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 (e.g. 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.*	• Datamine software was used. • All input data was rotated 35° toward north so the deposit is orthogonal. • Geological data was used to define the top and bottom of the mineralized unit. • A wireframe of the water table from piezometer readings was constructed. • All samples were either sampled or composited to 1m. • No assumptions on correlation between variables were used as only HM % was estimated. • Augur and RC drilling where used in the estimation. • The deposit was divided into three zones with top-capping applied to two of the zones. • Parent block sizes were 20 mE x 100 mN x 1 mRL, based on a general drillhole spacing of 40 mE x 200 mN. • Ordinary Kriging was used to estimate block grades. • The maximum search distance was 750 m north, 300 m east and 9 m Rl.

Criteria	JORC Code explanation	Commentary
	• *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.*	• The area is currently being mined and a previous Mineral Resource estimate by AMC (2009) gave similar results. • No by-products are involved in the deposit. • No deleterious elements were considered. • Swath plots and visual comparisons between the block model and drillhole data was used to check the block grade estimates.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The tonnages are estimated using dry bulk density • The moisture content was not determined
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The high grade mineral resource is reported above 1.25% HM cut-off grade, the low grade mineral resource is reported above a 0.9% HM cut-off grade • The cut-off grades are based on low cost dredge mining.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) 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.*	• Project definitive feasibility study (DFS) completed on 2010 on the basis of bulk dredge mining. • Mining started in March 2014.
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.*	• Test work completed by Roche mining (2002 to 2006) and Downer EDI mining as part of the DFS (2008 – 2010) for mineral recoveries determination and process design • The heavy mineral has a consistent assemblage of 10.5% zircon, 74.5% ilmenite, 2.5% rutile and 3.5% leucoxene.

Criteria	JORC Code explanation	Commentary
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.*	• As part of the DFS Earth Systems and Umwelt Consultants conducted a social and environmental study.
Bulk density	• *Whether assumed or determined. 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.*	• For bulk density determination MDL collected over 600 samples covering all the deposit. • Selective sampling by material type was applied. • A tube driven into the sand and sealed at both ends was used to deliver an in-situ undisturbed sample. The sample was dried and weighted for bulk density determination. • At each sampling location five samples were collected and their average was used as the bulk density for that location. • AMC and ERAMET confirmed the reliability of the method and results. • Samples range in bulk density from 1.67 t/m^{3}to 1.8 t/m^3. • An average bulk density of 1.7 t/m^{3}was applied for the mineral resource tonnage estimation.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. 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 resource was classified mainly on the drillhole spacing due to the uncomplicated geology, continuity of mineralization and confidence in the drillhole data. Blocks where the drilling was spaced 80 mN x 40 mE were classified as Measured and the remaining areas Indicated.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• A review by S Rodriques and P Castex of Comilog concluded the Mineral Resource estimate is reasonable.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and 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.*	• The estimation is a global estimate.

SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

(Criteria listed in Appendix B – Section 1, and where relevant in Appendix B – Sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The CGO mineral sand deposit is located north of Dakar on the Western coast of Senegal. The deposit is free flowing dunal sands sitting above the water table. • The Mineral Resource remaining January 2015 is used as the basis for the conversion to Ore Reserves. • The Mineral Resources are inclusive of the Ore Reserves.
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.*	• AMC Principal Mining Engineer Mr Pier Federici visited the GCO site prior to production, in September 2009, as part of the GCO definitive feasibility study and again in December 2014 to observe the operating mine and collect information required to report the Ore Reserve.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• GCO is an operating mine, a detailed life of mine plan has been prepared and is based on forecast inputs that exceed the level of accuracy generated in a pre-feasibility study. Mining commenced March 2014. Reconciliation of costs, recoveries and production rates have been used to modify the parameters used in the detailed feasibility study.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The ore selection criteria are controlled by the mining method not a cut-off grade. Mine production is a floating cutter suction dredge, which are well suited to the GCO deposit. Processing is constrained by ore feed tonnes. The annual production rate of 55 Mt of mined material is based on the estimated average production rate and the estimated operating hours per year. Selectively mining based on cut-off grade is not possible. Dredging is a bulk mining method, unable to selectively mine the higher grade ore and leave lower grade material. The depth of the mine is adjusted in the design process to control the average feed grade. At depth there is a drop off in grade. The designs are adjusted to minimize the inclusion of this low grade material, where practical and economic to do so. The mine design and schedule provide an average feed grade that is economically viable.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• The Mineral Resource has been converted to Ore Reserve by the application of detailed mine design. The design consists of mining three-dimensional designs defined by digitizing. The shape and sequence of mining are controlled by the dredge constraints. • Dredges are well suited to large, free flowing sand deposits, where a pond can be maintained. Dredges typically have lower mining costs than alternative mining methods. As the orebody consists of extensive dunal sands that sit above the water table, the choice of using a dredge feeding the floating concentrator is appropriate for this deposit. In addition it would be inappropriate to consider replacing the dredge infrastructure, to use alternative equipment, at additional expense. • No pre-strip is required. All material, within the design, is mined as ore. • The mine design is suited to the equipment used. • The geotechnical parameters were defined by investigation and have been confirmed during operation. Slopes are 35° above water and 15° below. • Drill hole assays are used for grade control. The assays are incorporated into the mineral resource model. In addition samples are taken to monitor the mined grade for grade blending and production reconciliation. No additional grade control drilling is done prior to mining. • Reconciliation of production compares well with the Mineral Resource block model. There is no need to apply additional ore loss or dilution in addition to that inherent in the Mineral Resource block model. • The current minimum mine width is 300m. The minimum used in the design is 120m. • No Inferred Mineral Resource was included in the Ore Reserves. There is sufficient information in the areas included in the Mineral Resource, to support Indicated and Measured Mineral Resources. • No additional infrastructure is required to achieve the planned mining although a program of sustaining capital is included in the cost forecast which includes extending the infrastructure to the advancing mining face.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• A floating concentrator, following the dredge, produces concentrate through gravity concentration. The concentrate is transported to the mineral separation plant. This is appropriate for this style of mineralisation. • The processing method is well tested and not novel in nature. • The processing recoveries reconcile well with samples routinely taken of the produced concentrate. • The previously mined and processed material can be considered an adequate representative bulk sample of the orebody. The previously mined material is representative of the remainder of the Ore Reserve. • The ore reserve estimation is based on the appropriate mineralogy to meet the product specifications.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• All relevant environmental approvals were obtained prior to operations commencing in March 2014.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• Sufficient land is available to accommodate the existing and planned plant development. • Adequate power and potable water is available to site. Power is provided by GCO generators. • Labour is sourced from within Senegal with the number of expatriate workers being reduced as the Senegalese workforce is trained. • Labour is accommodated on site and surrounding towns. • Transportation of product is by rail to Dakar where it is housed at the port prior to shipment. There is a highway that passes the mine site for the delivery of fuel and other supplies.

Criteria	JORC Code explanation	Commentary
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Initial and sustaining capital costs have been included in the costs used in the analysis. • As there will be no additional capital expenditure required to achieve the current mine plan (other than sustaining capital), no allowance for new capital costs has been included in the economic analysis. • Operating costs have been derived from those incurred in the 2014 financial year. Operating costs were converted to unit costs and assigned to separate tasks. • Current market prices were used to derive forecast sales and are comparable to prices from previous sales. • US dollars have been in the analysis and used for all costs and product prices. • All product prices used are FOB from the port in Dakar. The concentrate and final product haulage costs have been derived from 2014 operating costs. • All product prices used are FOB. The heavy mineral, mineral proportions and quality is consistent throughout the deposit. The final products can be controlled to meet product specifications. • A state royalty of 5% has been applied to all revenues. In addition a company tax rate of 25% after 2022 has been applied in the evaluation. • The royalty and taxation arrangements for the GCO are detailed in Mining Convention and Supplementary Deed No.1.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• The product prices used in the analysis are based on current market forecasts. The forecasted product prices have been generated by GCO for the use of forward planning. They are based on market information and prices received in 2014 and industry prices forecasts • The commodity prices are considered commercially sensitive and will not be published in the Ore Reserves. Mr Pier Federici reviewed the commodity prices and found them suitable for the project evaluation.

Criteria	JORC Code explanation	Commentary
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• After processing, zircon will be shipped to customers worldwide as will the rutile and leucoxene. The ilmenite will be sold in the market and/or shipped for further processing at the Tyssedal Titanium upgrading facility in Norway, producing titanium slag (Upgraded ilmenite) for consumption by TiO2-producers and the Ti-metal industry. • The Tyssedal Titanium upgrading facility is owned and operated by TiZir Limited, a vertically integrated zircon and titanium business which owns the Grande Côte Mineral Sands Project in Senegal and the Tyssedal Ilmenite Upgrading Facility in Norway. The company is jointly owned 50/50 by Mineral Deposits of Australia and ERAMET. • The price and volume forecasts are considered commercially sensitive and will not be published in the Ore Reserves. Mr Pier Federici reviewed the supporting information and found it suitable for the project evaluation. • GCO are constantly monitoring the market and making adjustments to the forecast product prices based on demand on supply.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• AMC has been provided with costs and the mine production schedule. GCO generated a cost model by applying the forecast inputs to the production schedule to determine the economics of the project. AMC adjusted the model to test a range of product prices, recoveries, and costs to determine the economic robustness of the operation. An 8% discount rate produces a positive after tax NPV. The NPV at an 8% discount rate has been assessed for variations in the key value drivers of product prices, heavy mineral recoveries and operating costs. The NPV is highly sensitive to changes in product prices, heavy mineral recoveries and operating costs.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• There are no outstanding issues relating to social licence to operate in the planned mining areas. GCO has ongoing negotiations with the key stakeholders.

Criteria	JORC Code explanation	Commentary
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• No material naturally occurring risks were identified that will impact on the Ore Reserve estimation or classification. • There are no material legal agreements and marketing arrangements that will impact on the Ore Reserve estimation or classification. • All necessary Government approvals critical to the viability of the project have been obtained for the project. • GCO SA has a mining concession 445.7 km² for the operation of zircon, ilmenite, rutile, leucoxene and other associated minerals and notified by Decree No. 2007-1326 of 2 November 2007. • Prior to this decree, the State of Senegal had granted MDL an exploration license in the same area by Order No. 007474 dated September 10, 2004 published in the Official Gazette of 30 October 2004. An agreement for Mining was signed between the State of Senegal and MDL on the same area. The Mining Convention was amended by amendments 1, 2, 3 and 4 respectively dated 20 September 2007, July 9, 2008, December 08, 2010 and December 19, 2013. • The mining concession covers part of Thiess and Louga and has a 25-year renewable term. Under the provisions of the Mining Code, the holder of a mining title must conduct site rehabilitation at the expiration of each security and subject to regulations on mining rehabilitation background. The nature of the exploitation of heavy mineral forces GCO to undertake continuously rehabilitation. • An environmental and social impact study was approved in 2008 and updated in 2014. The Environmental and Social Management Plan takes into account the impacts of the project. Rehabilitation measures, social and economic development and resettlement and compensation of people affected by the project include consideration. • This possibility of mining in the reserved forest area, prior to the concession decree, does not exclude the notion of conservation forestry potential and socio-economic balance is at the centre of the forest policy vision of Senegal. • The Water Management, Forestry, Hunting and Soil Conservation and GCO have come together to define the conditions under which it will contribute financially to the conservation and restoration forest heritage.

Criteria	JORC Code explanation	Commentary
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• Measured and Indicated Mineral Resource material, that fall within the mine design, have been converted to the Proved and Probable Ore Reserve. • The confidence assigned to the Ore Reserves is appropriate and is representative of the confidence of the Mineral Resource. • The Probable Ore Reserve has been derived from Indicated Mineral Resource only.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• AMC has reviewed the GCO produced mining schedule and designs. The review found that the designs and documentation were adequate for the generation of an Ore Reserve.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The GCO Ore Reserve is for an operating mine. The economic analysis is based on recent inputs, derived from actual accounts, is of an accuracy and confidence appropriate for Ore Reserve classification. The economic analysis is based on local estimates of costs and prices. • There is sufficient record keeping and reconciliation of the mining and separation processes. There are no significant changes planned for mining and processing. • The material included in the Ore Reserve is similar in nature to previously mined and treated material (geotechnically and in terms of mineralogy and geology). The mine plan is technically achievable and that the material Modifying Factors have been considered and applied. • The project is economically viable at the forecast prices.