

EMED Mining Public Limited

**NI 43-101 Technical Report
on
EMED's Rio Tinto Copper Project
Huelva Province, Spain**

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February 2013

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This Independent Technical Report entitled:

“NI 43-101 Technical Report on the Rio Tinto Copper Project, Huelva Province, Spain”,

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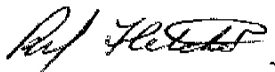
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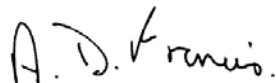


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1.0 SUMMARY

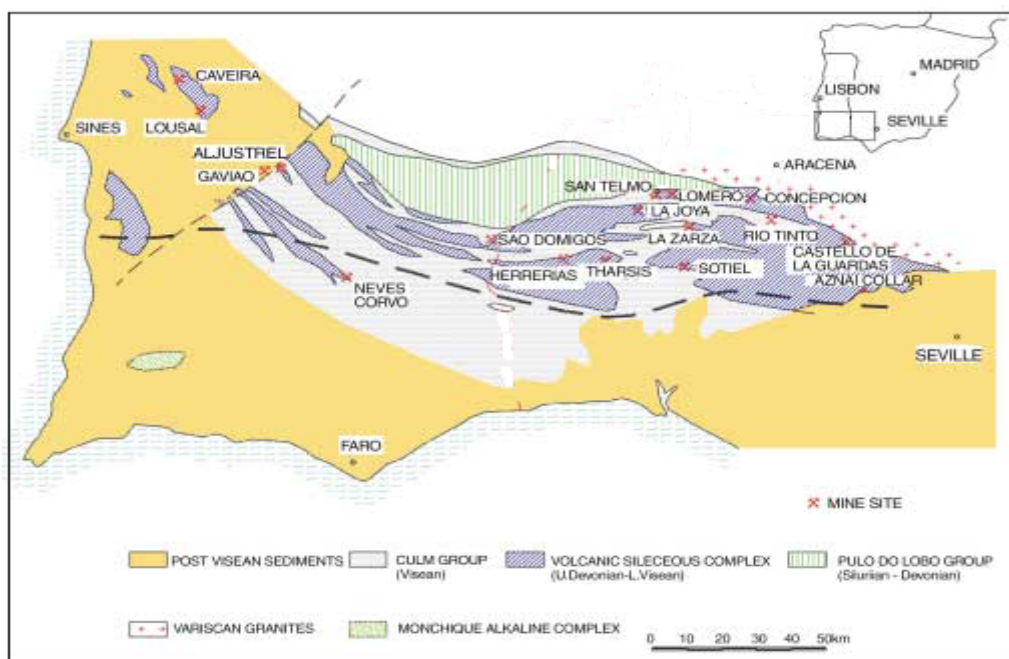
Behre Dolbear International Ltd was engaged by EMED Mining Public Limited (EMED-M) to undertake an Independent Technical Review (ITR) of the project to reopen the old Rio Tinto Copper Mine (The Rio Tinto Copper Project) located near Sevilla in southern Spain, where the assets and rights are held by EMED-M's wholly owned subsidiary EMED Tartessus SLU (EMED-T). The objective of this engagement was to assess the assets of EMED-T in order to update EMED-M's previously filed report entitled "Amended and Restated NI 43-101 Technical Report on the Rio Tinto Copper Project, Huelva Province, Spain, dated November 17, 2010". "EMED" hereafter in this report refers to the group, principally to EMED-T.

All \$ numbers in this report are in reference to United States dollars. Amounts in Euros (€) are converted to United States dollars (\$) at an exchange rate of 1:1.25.

1.1 PROPERTY DESCRIPTION AND LOCATION

The Rio Tinto Copper Project (6°35'W / 37°42'N), is located at the eastern end of the Spanish/Portuguese (Iberian) pyrite belt which extends about 230 km between Sevilla in the east (in southern Spain) and the Atlantic coast near Lisbon in the west (in Portugal). Within the pyrite belt there are eight major mining areas, each thought to contain more than 100 million tonnes of ore. These are from east to west: Aznalcollar-Los Frailes, Rio Tinto, Sotiel-Migollas, La Zarza, Tharsis, Masa Valverde, Neves Corvo and Aljustrel, there are many other smaller deposits. The Rio Tinto Copper Project is the largest of these.

Figure 1.1 Mines in the Iberian pyrite belt (Source: public domain, 2012)



EMED owns the Rio Tinto Copper Project, which includes all of the Cerro Colorado deposit that was, and will continue to be, the primary source of ore to the Rio Tinto processing plant. EMED also owns the old processing facilities and existing and possible future sites for waste dumps and tailings deposit and owns or has options over the land on which they are situated. The Rio Tinto Copper Project area covers approximately 2,224 hectares, as shown in Figure 1.2 below. All land required for the Project has been acquired and options are held on additional land for possible future expansion.

Proven and Probable Mineral Reserves are included in total Mineral Resources. These estimates were prepared and reported in accordance with the JORC Code. There are no material differences between the CIM and JORC definitions of Mineral Reserves or Mineral Resources.

**Table 1.2 Mineral Reserves at 0.20% Cu cut-off grade
(Source: AMC Restart Report 2010)**

Category	Tonnage Mt	Grade Cu %	Contained Cu t	Waste:ore Ratio
Proven	39	0.38	148,000	
Probable	84	0.54	458,000	
Total Reserves	123	0.49	606,000	1.1

Mineral Reserve estimates in the above table are still current at the date of this report. They have been reviewed and accepted by Richard J Fletcher, M.Sc., FAIMM, MIMMM, C.Eng, C.Geol. who is a “qualified person” under NI 43-101.

1.3 MINE AND PROCESSING PLANS

EMED proposes to develop the Cerro Colorado pit in two stages, starting from the current open-pit shell: an interim pit and the ultimate pit. The initial life of mine is estimated to be around 14 years, with a pre-production period of approximately 1 year from the date of draw down on the project financing. The mine production schedule is presented in Table 1.3 below.

Table 1.3 Cerro Colorado mine production schedule

Production	Units	LOM	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Ore Mined	Mt	123	2.5	6.8	9.0	9.0	9.0	9.0	9.0	9.0
Ore grade	%Cu	0.49	0.53	0.54	0.52	0.49	0.47	0.52	0.59	0.60
Waste Mined	Mt	132	4.5	6.9	13.8	18.8	20.1	16.9	11.8	7.9
Waste:ore ratio	Ratio	1.07	1.80	1.01	1.53	2.09	2.23	1.88	1.31	0.88
Ore Milled	Mt	123	2.5	6.8	9.0	9.0	9.0	9.0	9.0	9.0
Concentrate Shipped	kt	2,565	57	157	186	178	182	197	223	231
Contained Cu in Con	kt	515	11	31	37	36	36	40	45	46
Payable Copper	kt	492	11	29	35	34	35	38	43	44
Production	Units	LOM	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	
Ore Mined	Mt	123	9.0	9.0	9.0	9.0	9.0	9.0	9.0	
Ore grade	%Cu	0.49	0.61	0.59	0.45	0.37	0.39	0.38	0.37	
Waste Mined	Mt	132	6.9	7.1	7.2	5.4	2.5	1.2	0.4	
Waste:ore ratio	Ratio	1.07	0.77	0.80	0.81	0.60	0.28	0.13	0.07	
Ore Milled	Mt	123	9.00	9.00	9.00	9.00	9.00	9.00	9.00	
Concentrate Shipped	kt	2,565	229	235	214	132	150	144	140	
Contained Cu in Con	kt	515	46	44	35	29	30	29	19	
Payable Copper	kt	492	43	42	33	28	29	28	19	

The initial plan is based on the mining of 123 Mt of ore averaging 0.49% Cu from the Cerro Colorado open pit, with start-up anticipated during 2014, (Year 1) commercial production commencing in 2015 and termination in 2028 (Year 15). Behre Dolbear endorses this plan and accepts that it is probable that additional resources and reserves will be established allowing production to continue. The maximum mining and milling rate, to be reached 18 months from production start-up is planned to be 9 Mt/y. Total payable copper production in the model is 492,000 tonnes (1,084 Mlb) over the life of mine (LOM) projection.

Mining will be undertaken by contractor, so mine capital requirements will be relatively low.

Having considered three alternative processing methods, of vat-leaching, heap-leaching and concentration by flotation, EMED made the decision to rehabilitate the existing plant and other facilities which operated prior to 2001. The process will be conventional gyratory crushing, rod-mill and ball-mill grinding, multi-stage flotation and filtration of concentrates.

1.4 INFRASTRUCTURE AND CONSTRUCTION

This report includes a detailed review of EMED's refurbishment and related engineering requirements, indicating some items which need to be addressed before start-up, but none that involve major capital expenditure or obstacles to successful operations. From an engineering point of view, the start-up programme timetable appears realistic, providing certain site-preparation activities are commenced ahead of final permitting.

1.5 ACCESSIBILITY

The Rio Tinto deposit is located in the Huelva Province of the Autonomous Community of Andalucía in Southern Spain, about 500 km south of Madrid, 65 km north-west of Sevilla and 70 km north-east of the port of Huelva.

Sevilla (population 700,000) is the administrative centre of the Andalucía region. The Autonomous Community of Andalucía is governed by the Junta de Andalucía, which is one of the historic Autonomous Communities of Spain, with a local parliament and president.

There are many international flights that connect the provincial cities of Sevilla and Malaga with Madrid and other major cities in Europe and North America. There is a high-speed train service linking the regional towns of Cordoba and Sevilla, with the capital Madrid.

The Rio Tinto Copper Project site is well serviced by paved highways to Aracena, Huelva and Sevilla. It is surrounded by the towns of Minas de Riotinto and Nerva as well as several nearby villages which represent potential sources of labour, accommodation and general services.

1.6 HISTORY

The Rio Tinto Copper Project workings date back at least to 1000 B.C. and have been operated by Phoenicians, Romans, British (Rio Tinto Company and Rio Tinto Zinc Corporation "RTZ"), Americans (Freeport McMoran) and finally in the 1990s, the Spanish workers' co-operative Minas de Rio Tinto (MRT). Since Roman times, more than 140 Mt of copper ore has been mined from several open-pit and underground mines.

Since last operated in 2001, the mine has been kept on a care-and-maintenance basis.

Between 1964 and 1967 an exploration campaign resulted in the discovery of the Cerro Colorado copper deposit. In 1969, the copper concentrator started up with a design capacity of 3 Mt/y. This

was later expanded to reach the current nominal capacity of 10 Mt/y. In 1971, a gold leach plant commenced operation at a designed throughput of 1.5 Mt/y of oxidised (gossan) ores and was later expanded in increments to reach a design capacity of 6.0 Mt/y. These plants still exist but are not operational.

Between 1875 and 1976 a total of 128 Mt was mined from the massive sulphide ores. The copper concentrate was transported (70 km by rail) to the Huelva smelter. In the 1980s, there were four working mines, two open-pit mines, Corta Atalaya and Cerro Colorado, and two underground mines, Pozo Alfredo (which together with Corta Atalaya, exploited the San Dionisio deposit) and the Planes - San Antonio mine. Mining continued until 1987 when low copper prices forced the closure of the copper plant and a reduction of mining operations. All production was halted temporarily in 1990.

The Cerro Colorado deposit contained one of the largest known concentrations of sulphides in the world. It has been estimated that there were originally about 500 Mt of massive sulphides (pyrite) of which about 20% were leached to form gossans. Cerro Colorado was opened in 1967 to extract copper, gold and silver from the gossans for treatment through the concentrator's entirely separate copper and gold/silver recovery circuits. The mine was developed as an open pit, with a planned production potential of 39 Mt at 0.8% Cu and 18 Mt of gossan (oxide) ore averaging 2.4 g/t Au and 42 g/t Ag, which formed the top of Cerro Colorado. Production was 13 Mt/y, of which 3 Mt was copper ore, 1.5 Mt was gold-silver ore and 8.5 Mt was waste-rock and marginal ore with < 0.28% Cu.

The Cerro Colorado ore was treated in a copper concentration plant with capacity of 10,000 t/day (3 Mt/y) and a gold-silver concentration plant with a capacity of 4,500 t/day (1.5 Mt/y). Ore from the gossan was crushed in the same plant as the copper ore, in similar units, but separately.

Between 1995 and 2001 MRT mined 25 Mt of ore at an average grade of 0.57% Cu. During this period an annual production of 7.3 Mt was achieved in 1997; and a peak annual throughput of 9 Mt/y was achieved in 1998. The mine was closed again in 2001 due to the low copper price.

In October 2008, EMED-M announced that it had completed the acquisition from Mantenimiento en General del Sur, Mantasur Andevalo S.L. ("MSA"), the owner of the Rio Tinto Copper Project, and, as a result of this acquisition, the Company was the sole owner.

1.7 GEOLOGICAL SETTING

The Rio Tinto massive sulphide (pyrite-chalcopyrite) deposit occurs on the transitional contact between a lower mafic volcanic unit composed of andesitic and spilitic pillow lavas and dolerite sills intercalated with bands of slate and chert of Lower Carboniferous (Tournaisian) age, and the overlying felsic volcanic unit composed of quartz-keratophyre and/or rhyolite lavas and pyroclastic rocks, formed by submarine volcanic activity in the Lower Carboniferous (Visean) period about 320 million years ago.

1.8 DEPOSIT TYPES AND MINERALISATION

Rio Tinto is a large, text-book example of the volcanic-hosted massive-sulphide type of deposit. The volcanic-hosted sulphide mineralisation at Rio Tinto is stratigraphically related to the felsic pyroclastic rocks. The mineralisation is attributed to submarine volcanic activity that resulted in a number of near vertical brecciated feeder pipes forming stockwork mineralisation consisting of a multitude of small veins of sulphide minerals (pyrite and chalcopyrite).

As the Rio Tinto Project is for, essentially, a bulk mineable deposit, there is no relationship between sample length and the true width of the mineralisation.

1.9 EXPLORATION

EMED has not carried out any outside exploration work at Rio Tinto, but has re-mapped the Cerro Colorado open pit and has concentrated on the re-appraisal of existing historical data. Drilling is planned to commence upon the regulatory approval of the restart and drawdown of project finance. Key exploration priorities will be: (i) Pit Expansion and (ii) Appraisal of the known poly-metallic adjacent deposits.

1.10 DRILLING

The Rio Tinto Copper Project site has been subject to multiple phases of drilling, primarily by the Rio Tinto Company. The drilling included: 697 surface diamond drill-holes totalling 143,855 m of drilling; 24,337 reverse circulation (RC) drill holes totalling 264,314 m of drilling; 361 underground diamond holes totalling 14,392 m of drilling; and 4,137 underground channel-samples totalling 19,954 m.

The underground drill holes were all diamond drill holes. The majority of these holes were located in the underground developments at Filón Sur and Filón Norte. The underground drill-hole samples vary in length from 0.5 m to 3.0 m with most of the samples being 2 m in length. Both underground and surface drill holes were used for interpretation of the Filón Sur and Filón Norte domains during the April 2008 resource estimate.

The channel samples were obtained from underground drives and stopes during the 1940 to 1980 period. They varied in length from 0.05 m to 12 m with most samples being 5 m in length. The channel samples were used for interpretation of the Filón Sur and Filón Norte Domains during the April 2008 resource estimation. However, they were not used for geostatistical modelling or resource estimation due to the possibility of a bias towards over-estimation of grades.

In 2008, EMED completed a validation exercise on the surface diamond drill holes, surface investigation holes and underground diamond drill holes. In 2009, AMC reviewed these reports and was satisfied that a thorough validation had been completed and that all material deficiencies in the dataset had been corrected. A small number of discrepancies between the datasets were apparent, but these were not considered to have a material impact on the resource estimations completed using the data.

There are 697 surface diamond drill holes that are relevant to the Rio Tinto Copper Project pit area resource estimate. 95 of the holes (14%) were validated in terms of their assays. No significant issues with the assay database for the surface diamond drill holes were identified.

The underground diamond drill-hole database includes 361 drill holes with 6,983 samples assayed for copper and sulphur only. Sample lengths were validated by EMED and were generally 2m in length. Most were drilled in the 1950s and 1960s.

There are 17,538 investigation RC holes that are relevant to the latest resource estimate for the open-pit area. Holes were drilled on a 20 mE by 25 mN spacing. Hole lengths varied from 10 m to more than 20 m with sample intervals varying from 2.5 m to 12 m. Of these holes, 7,874 (45%) had their assays validated against original assay sheets. With the exception of a few minor issues, the digital database is considered to be accurate.

A selection of drill cores were inspected and cross-checked against the original geological logs. The database and the data were found to be consistent. The quantity and quality of pre-1997 drill core samples is uncertain, as there is no inventory of what drill core is still available. The quality of the

remaining post-1997 drill core was very good with boxes clearly marked and labeled. The remaining core is predominantly half-core of HQ size.

Core recoveries were routinely recorded for the post-1997 drill holes and for some pre-1997 drill holes, but the data was not included in the database. AMC checked the core recovery data on a selection of drill holes as well as reviewing the data recorded on the original geological logs and concluded that core recoveries were generally close to 100%. There were no significant core recovery issues that would impact on the Mineral Resource estimates.

1.11 SAMPLING AND DATA VERIFICATION

Documentation of the sampling protocols provides a means of demonstrating that industry standards have been followed in the data collection process. MSA apparently followed the sampling protocols previously established and implemented by Rio Tinto which had rigorous standards in place for all aspects of its operations, including data collection protocols. Therefore, it is highly likely that documented standards and protocols for sampling methodology were in place at the Rio Tinto Copper Project, but have been lost in subsequent years due to the varied ownership history of the project.

None of the sampling or sample preparation was conducted by any employee, officer, director or associate of the issuer.

In discussions with former MSA personnel, the drill-core sampling procedure was described as all core being marked out by the geologist at standard 2 m intervals from the start to the end of the hole. Core was then cut in half using a core cutting machine, then the half core for each 2 m interval was bagged and dispatched to the mine laboratory for assay. No consideration was given to geological contacts, mineralised zones, or different structural or geotechnical features when marking out the 2 m sample intervals.

The sample preparation process for diamond drill core and investigation of the RC drill-hole samples was sourced from the Rio Tinto Copper Project documentation provided by MSA. Assaying was carried out at the mine-site laboratory using Atomic Absorption Spectrophotometry (AAS) for copper sulphur, lead and zinc and fire assay with an AAS finish for gold and silver. The sample preparation methods and assaying techniques as well as the existing assay procedure documentation are considered to be of an acceptable industry standard and appropriate for the style of deposit.

QA/QC procedures were carried out by MSA in accordance with the protocols previously established by RTZ. No QA/QC data or documentation are available and are presumed lost.

One in every 40 samples from diamond drill holes was duplicated, by the mine geologist, (as renumbered check assays) for internal checks. It is not known whether any assay standards (commercial or deposit specific) were incorporated into the sampling procedures. The laboratory carried out 1 in 40 duplicates, selected by the laboratory manager, as renumbered check assays as part of its internal QA/QC procedure.

The sample QA/QC procedures described are considered to be of an acceptable industry standard and appropriate for the style of deposit. It is likely that QA/QC protocols were in place for all sampling and assaying procedures and it would be useful if this data could be retrieved and the information documented for future technical audits.

For the 2008 resource estimate, the resource modelling consultant (Snowden) applied a bulk-density value calculated for each block based on the estimated sulphur value of the block. The formula used to calculate the bulk density was: Bulk Density = (%S x 0.025) + 2.70. This method of calculating

bulk density was appropriate for this type of deposit, but there is scope for further improvement, such as refining the density of different lithologies and/or alteration types.

The verification work done by EMED and its consultants was both comprehensive and reliable.

1.12 ADJACENT PROPERTIES AND DEPOSITS

There are no significant nearby properties owned by other companies. The EMED licence area covers a considerable area of mineralised and historically mined ground surrounding the Cerro Colorado deposit. This provides scope for further exploration and development by EMED.

1.13 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing was done by EMED, which has relied on the extensive historical production records, but in 2009, AMC completed an evaluation of alternative metallurgical processing methods. This showed that the utilisation of the pre-existing milling and flotation plant and the production of a copper concentrate is the preferred method of treatment for the copper ore, confirming the approach proposed by EMED for the restart of the Project.

The design criteria and equipment specifications for the rehabilitated plant are based on historical performance, previous laboratory and pilot plant testwork and computer simulations using the USIMPAC© software package. Laboratory scale minerals processing testwork has been undertaken using samples from the limited core available with the primary objective of generating material to confirm the suitability of the concentrate generated for pressure filtration and for preliminary concentrate and tailings characterisation. Once the new drilling is carried out, a large representative sample will be prepared to confirm the metallurgical parameters, copper and silver grades and recoveries, particularly of the CCE material, which will be processed first.

1.14 ENVIRONMENTAL CONSIDERATIONS

With more than 3,000 years of mining at Rio Tinto there are substantial legacy issues facing EMED's Project, both with respect to the historical environmental damage and the cultural heritage from antiquity. The natural conditions of the area consist of bare waste materials, acidic water and an antique mining infrastructure in addition to the re-usable infrastructure.

Environmental permitting procedures are complex. EMED has submitted an Autorización Ambiental Unificada (AAU) application to the relevant regulatory authorities for review and public consultation. After any questions or issues that arise from the regulatory review and public consultation have been satisfactorily addressed by EMED the AAU can then be approved. To date, the regulatory review and public consultation process has been completed and EMED has responded to questions or issues that have arisen during the review and consultation phases, none of which are, in EMED's opinion, material.

EMED has established an outstanding environmental group and there is a good relationship with the authorities. Although environmental management of the Rio Tinto Copper Project will continue to be challenging, environmental issues are not likely to impede the acquisition of the Mining Permit or hamper significantly the start-up and subsequent operations. This is the only material aspect of project approval which is under discussion - the conditions attaching to operation and rehabilitation of the existing tailings deposit, the due diligence for which is being completed in accordance with the recommendations of CEDEX, Spain's national civil works review agency. However, EMED believes that this matter can be resolved with reasonable conditions to be applied to the plans which have been proposed.

1.15 MARKET STUDIES AND CONTRACTS

All product sales and marketing are through a wholly-owned EMED subsidiary, which is advised by Astor, the marketing agent, under an exclusive agency services agreement. Under this agreement, which is with a major, indirect, shareholder, the Company pays a base rate of approximately \$14/dmt of copper concentrate with additional fees payable on a sliding scale of copper prices and for cumulative sales in excess of 932,000 dmt. It also has a marketing arrangement for all its copper sales with an affiliated company.

The most economic arrangement for the project's concentrates would be their treatment at Freeport McMoran's copper smelter in Spain, but, in order to avoid reliance on a single smelter, EMED has committed up to approximately 57% of its planned production to Yanggu Xiangguang Copper Co. Ltd of China and RK Mine Finance Fund in the USA. In addition, EMED has preliminary arrangements with Goldman Sachs International for one of its smelter customers to provide it with copper cathode representing 15-20% of planned production of copper concentrates.

Concentrates are expected to contain 21% to 25% copper on a dry basis and a sulphur content which will probably not attract penalties. A silver credit with 65% payable based on historical concentrate composition has been assumed for the concentrate in the financial model. However, penalties for contained zinc, lead, arsenic, antimony mercury and selenium are likely and have been allowed for.

A copper spot price assumption of \$3.50/lb used in the project's economic analysis compares to relative current market copper prices of \$3.70/lb (\$8,200/t) and a trailing 5-year average above \$3.00/lb.

1.16 CAPITAL AND OPERATING COSTS

The total capital cost for commencement of production in Year 1 is \$200M. Thereafter, capital expenditures will be \$52M to expand the project's milling rate from 5Mt/y to 9Mt/y by the beginning of Production Year 3 and \$23M for sustaining capital throughout the life of mine.

Site operating costs, comprising mining, milling, administration and silver credits, have been forecast at an average of \$1.22 per pound of copper sold before targeted cost improvements which reduce this cost to \$1.13/lb. Freight, selling, refining and smelting costs average \$0.43/lb on the assumption that sales of the project's production will be split 40/60 between domestic and overseas smelters.

The total of other operating cash costs during the life of operations is \$319M including: \$73M for capitalised mining costs; \$142M for project acquisition costs paid to the project vendor and marketing agent; \$13M for social security and profit sharing payments; and \$91M for site environmental management which includes rehabilitation of the project's expanded environmental footprint including both past and future disturbances. \$29M of the aforementioned environmental and social security costs, including the project's full closure costs in the last years of its operations, will be funded from escrow accounts established during construction.

1.17 ECONOMIC ANALYSIS

A base case financial forecast prepared by EMED shows that after tax, net cash flows, inclusive of capital expenditures, project acquisition and closure costs, will total \$1,138M over the life of the project for an NPV of \$427M at a 10% discount rate and an IRR of 32%. EBITDA is forecasted at an annual average of about \$136M.

Table 1.4 Financial Forecast
In US\$ Millions

	Total	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Copper Sales	3,776	-	81.1	223.5	271.8	262.3	266.1	292.7	331.0	336.3	333.6	324.6	256.4	214.7	223.9	216.2	142.2
Interest Income & Hedging Gain/Loss	13	-	0.4	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.3
Total Revenue	3,789	-	81.5	224.3	272.7	263.2	267.1	293.7	332.0	337.2	334.6	325.6	257.3	215.7	224.9	217.1	142.5
Site Cash Operating Costs	(1,223)	-	(33.7)	(72.6)	(96.0)	(94.7)	(91.2)	(92.0)	(91.3)	(86.7)	(83.8)	(84.8)	(90.3)	(89.3)	(83.4)	(82.6)	(50.7)
Freight and Selling, Smelting, Refining	(468)	-	(10.4)	(28.2)	(33.1)	(32.5)	(34.6)	(38.9)	(43.5)	(42.4)	(41.5)	(40.0)	(30.5)	(24.8)	(25.8)	(24.9)	(16.4)
Other Operating Costs	(80)	-	(2.4)	(0.6)	(5.5)	(15.6)	(23.7)	(20.4)	(7.9)	(0.6)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.3)
Site Environmental Management and Rehabilitation	(91)	-	(1.3)	(4.0)	(4.8)	(4.7)	(4.7)	(4.0)	(4.0)	(4.5)	(4.6)	(3.9)	(4.0)	(3.7)	(2.7)	(20.5)	(19.5)
Total Operating Costs	(1,862)	-	(47.8)	(105.4)	(139.4)	(147.5)	(154.3)	(155.3)	(146.7)	(134.2)	(130.4)	(129.3)	(125.3)	(118.3)	(112.4)	(128.6)	(86.9)
Working Capital Adjustments	(10)	-	(5.3)	(6.5)	2.5	0.1	0.4	(4.5)	(3.3)	0.3	(0.5)	1.9	8.8	(3.0)	0.6	0.4	(1.8)
Operating Cashflow	1,918	-	28.4	112.4	135.8	115.8	113.2	133.8	182.0	203.2	203.8	198.3	140.9	94.4	113.1	88.9	53.8
Non Operating Costs	(148)	(11.0)	(14.0)	(16.7)	(16.7)	(14.0)	(19.6)	(20.0)	(13.3)	(3.9)	(3.9)	(3.8)	(3.2)	(2.5)	(1.9)	(1.8)	(1.2)
Planning Costs	(11)	(11.3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Restart Construction Capex	(188)	(90.2)	(98.3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental Escrow	(28)	(27.5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Social Escrow	(1)	(1.3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capex to Increase from 5mtpa to 9mtpa: Operations Phase Spend	(52)	-	(6.2)	(45.5)	-	-	-	-	-	-	-	-	-	-	-	-	-
Sustaining Capex	(23)	-	-	(2.3)	(4.6)	(2.8)	(1.3)	(1.3)	(1.3)	(1.5)	(1.4)	(1.3)	(1.2)	(1.2)	(1.2)	(1.2)	(0.6)
	(304)	(130.2)	(104.5)	(47.8)	(4.6)	(2.8)	(1.3)	(1.3)	(1.3)	(1.5)	(1.4)	(1.3)	(1.2)	(1.2)	(1.2)	(1.2)	(0.6)
Environmental Escrow A/c (Progressive Rehab)	3	-	0.1	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0
Environmental Escrow A/c (Final Rehab)	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.6	13.8
Social Escrow A/c	1	1.3	(3.8)	(1.3)	(1.3)	(1.3)	(1.3)	-	-	-	-	-	-	-	-	-	8.8
Net Movements in Escrow Accounts	29	1.3	(3.6)	(1.0)	(1.0)	(1.0)	(1.0)	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	10.6	22.5
Project Cash Flow Before Tax and Financing Costs	1,495	(140.0)	(93.7)	46.8	113.5	97.9	91.3	112.8	167.6	198.1	198.7	193.4	136.7	90.9	110.3	96.5	74.5
Tax Paid	(357)	-	-	-	-	-	(8.1)	(26.7)	(42.9)	(52.6)	(53.3)	(52.1)	(36.0)	(22.9)	(28.8)	(22.5)	(11.5)
Project Cashflow After Tax before Financing	1,138	(140.0)	(93.7)	46.8	113.5	97.9	83.3	86.2	124.7	145.5	145.4	141.3	100.7	68.0	81.5	73.9	63.0

Principal assumptions made for this base case were:

- No debt, no cost inflation and a Euro/US\$ exchange rate of 1:1.25;
- Copper sold at a constant spot price of \$3.50/lb;
- Copper production is from proven and probable reserves only and does not contain any part of inferred resources;
- A standard Spanish income tax rate of 30%.

The project's cash flows, as shown below, are most sensitive to the spot price of copper. At a spot price of \$3.00/lb the project's NPV is \$220M and its IRR becomes 26%. However, the project's sensitivity to lower copper prices can be substantially reduced by hedging a portion of its copper production.

Table 1.5 Sensitivity Analysis

Sensitivity Analysis - Base NPV plus and minus 20%

Sensitivity	Copper Price	EUR / USD Exchange	Site Cash Opex	Smelting, Refining, Freight	Total Capital Cost
(20.00%)	150	617	538	461	465
Base	427	427	427	427	427
20.00%	716	237	315	393	389

NPV Sensitivity Analysis to Discount Rate and Copper Price

Disc. Rate	Copper Price (USD / lb)									
	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.50
7.50%	(154.84)	(14.45)	95.91	200.40	303.96	423.38	544.82	666.27	785.62	1,028.51
10.00%	(172.99)	(53.09)	42.52	132.40	220.07	322.55	426.77	530.99	633.25	841.69
12.50%	(186.19)	(82.77)	0.90	79.06	154.09	242.93	333.28	423.63	512.15	692.85

1.18 CONCLUSIONS AND RECOMMENDATIONS

Behre Dolbear concludes that:

- The Rio Tinto Copper Project is viable on the basis of parameters described in this Report, in spite of the substantial increase in the capital cost estimate and environmental costs since the 2010 technical report;
- The financial forecast contains potential operating cost improvements which, although feasible, require verification;
- Production of a representative sample of CCE ore from the drilling program to carry out metallurgical test-work to confirm the metallurgical characteristics and plant design criteria.
- EMED needs to refine its contingency provision as it completes its procurement arrangements, to ensure capital adequacy;
- The Project has been well analysed in geological, engineering and financial terms;
- The EMED/Merit Restart Study has been competently prepared with realistic conclusions;
- A review of the infrastructure and related engineering requirements has identified items which need to be addressed before start-up, but none that involve additional major capital expenditure or obstacles for successful operations;
- The infrastructure and environmental aspects, as discussed in this report, are expected to be manageable;
- The preparatory work on restarting the open-pit mine operation and the plans for contract mining appear to be satisfactory;

- EMED's personnel involved in the project are suitable and competent;
- All aspects of Environment, Health and Safety, together with Social and Community Impact have been addressed by EMED with competent personnel;
- The annual rate of 9.0 Mt/y should be achieved with a recovery of 85% to a concentrate grading 21 to 23% Cu, on a dry basis, containing 10% moisture;
- The timetable for this programme is challenging, but appears to be realistic; and
- There is exploration potential peripheral to the Cerro Colorado deposit which is open to the east and at depth:
 - By exploring the full lateral and vertical extent of the mineralisation within the existing Cerro Colorado open pit area;
 - From CCW to Filon Sur West;
 - At Cerro Colorado, west of the existing highway, notably the San Dionisio deposit under the Corta Atalya open pit;
 - From CCE towards San Antonio; and
 - At the Southern waste dump.

Behre Dolbear Recommendations

On the basis that the Rio Tinto Copper Project is viable and appears to be a robust project, which has been well analysed in geological, engineering and financial terms, Behre Dolbear recommends that EMED proceed with the restart of the project as soon as the requisite project approvals, permits and project financing have been secured.

Behre Dolbear also recommends:

- Additional geological modeling to better understand the controls on mineralization including the silver;
- Further delineation drilling to determine the limits of the orebody, both laterally and at depth;
- Additional drilling to upgrade the Inferred Resource and Indicated Resource material to Measured Resource category including;
- Evaluation of nearby deposits as satellite operations; and
- Evaluation of the retreatment of the historical gossan tailings.

All of these recommendations appear to be achievable within EMED's planned expenditure.

EMED's primary focus will be on the restart of the Rio Tinto Copper Project and efforts and available funds will be directed towards achieving the milestones and capital cost requirements for the restart project. Further exploration and drilling work will be a secondary focus to be undertaken as time and funds permit, once the restart has been achieved.

2.0 INTRODUCTION

The Rio Tinto Copper Project is located at the eastern end of the Iberian pyrite belt. It is a massive sulphide deposit made up of pyrite-chalcopyrite.

EMED Tartessus SLU (EMED-T) owns the Rio Tinto Copper Project, which includes all of the Cerro Colorado deposit that was and will continue to be the source of ore to the Rio Tinto processing plant. EMED-T also owns the old processing facilities and existing and possible future sites for waste dumps and tailings deposit; and also owns or has options over the land on which they are situated. Behre Dolbear has concluded that the project, referred to as the Rio Tinto Copper Project, is viable on

the basis of the parameters described in this Report and that the infrastructure and environmental aspects, reviewed in detail below, will be manageable.

2.1 TERMS OF REFERENCE

Behre Dolbear International Ltd (Behre Dolbear) was engaged by EMED Mining Public Limited (EMED-M) a company listed on the AIM market of the London Stock Exchange and the Toronto Stock Exchange, to undertake an Independent Technical Review (ITR) of the planned restart of the old Rio Tinto Copper Project located near Sevilla in southern Spain where the assets and rights are held by EMED-M's wholly owned subsidiary, EMED-T. The objective of this engagement was to assess these assets in order to update EMED-M's previously filed technical report entitled "Amended and Restated NI 43-101 Technical Report on the Re-opening of the Rio Tinto Copper Project, Huelva Province, Spain", dated November 17, 2010.

EMED-M intends, through its Spanish subsidiary, EMED-T to restart production of copper concentrates at the Rio Tinto Copper Project. This review is based on data, reports and technical studies provided by EMED's management and technical staff in Spain and site visits to the main areas of interest in the Rio Tinto area. "EMED" throughout this report refers principally to EMED-T.

The review covers:

- Previous operational reports;
- The legal title, rights and obligations associated with the properties and mining rights;
- Validity of the stated Mineral Resources and Reserves;
- Viability of the open-pit mine, processing plant and waste storages;
- Proposed mine plan and rehabilitation necessary to obtain a mining license and return to production; and
- Commercial and other risks associated with the proposed mining operations.

All aspects of the project, including Mineral Resource and Reserve estimates, have been assessed by Qualified Persons, who have visited the site and have substantial experience in geology, mineral resources, mining, processing, infrastructure and environmental issues.

Behre Dolbear is acting in an independent capacity as a consultant to EMED-M and is receiving a pre-negotiated fee for its services. Behre Dolbear and the professionals working on this project do not have any ownership, financial or pecuniary interest in EMED-M, EMED-T or the Rio Tinto Copper Project.

2.2 DEFINITIONS

This report has been prepared in accordance with Form 43-101F1 Technical Reports, and the CIM Definition Standards for Mineral Resources and Mineral Reserves adopted by the CIM Council in April, 2011. However, the Rio Tinto Mineral Resource estimates were prepared by Australian Mining Consultants (AMC) whose Qualified Persons, as members of the AusIMM, are required to report Mineral Resources and Reserves in compliance with the Joint Ore Reserves Committee (JORC) Code. Therefore, any persons within Canadian jurisdiction must read "Reserve" as "Mineral Reserve" (CIM definition) and any persons not within Canadian jurisdiction must read "Reserve" as "Ore Reserve" (JORC definition). There are no material differences between the CIM and JORC definitions of Mineral Reserves or Mineral Resources.

The following definitions are from the CIM Definition Standards:

Proven Mineral Reserve – is the economically mineable part of a Measured Mineral Resource demonstrated by at least a preliminary feasibility study. This study must include adequate

information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

Probable Mineral Reserve - is the economically mineable part of an Indicated and in some circumstances, a Measured Mineral Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

Measured Mineral Resource - is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

Indicated Mineral Resource - is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

Inferred Mineral Resource - is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

Due to the uncertainty surrounding Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable the evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

2.3 WORK CARRIED OUT

The Behre Dolbear project team spent 3 days at the Rio Tinto Copper Project between 1st and 4th August 2010 and during this period engaged in the following work:

- Reviewed the project area held by EMED with EMED's geological experts and relevant company officers to provide a historical perspective of previous work on the various mines and mineral deposits; and
- Conducted field visits to the main areas of interest within the Rio Tinto project area, which included the old mining sites, processing facilities and waste disposal areas.

Second and third visits were made to the property in May and November 2012 respectively, by three members of the Behre Dolbear team including Mr Acheson.

2.4 LIST OF PERSONS PROVIDING INFORMATION AND ADVICE

The following EMED personnel provided information to Behre Dolbear:

- Mr Harry Anagnostaras-Adams Group Managing Director
- Mr John Leach Group Finance Director
- Mr William Enrico Group COO and Director General EMED-T
- Mr Rob Williams Group Development Officer
- Mr Ron Cunneen Group Chief Geologist,
- Dr Demetrios Constantinides Group Head of External Relations
- Ms Tara Wales GM Legal, EMED
- Mr Mark Flanagan Mining Engineer (AMC)

Information was also provided by the following people who have subsequently left the project:

- Mr Lakis Katsamas Group Financial Controller.
- Mr Adrian Thirtle Head of Environment, EMED-T
- Mr Derek Guilfoyle Group OH&S Manager
- Mr John Ingram Technical Services Manager, EMED-T

2.5 RELIANCE ON OTHER EXPERTS

Behre Dolbear's review of EMED's Rio Tinto Copper Project area in Spain was conducted on a reasonableness basis and Behre Dolbear has noted herein where information stemming from the review has raised questions. Except where noted, Behre Dolbear has relied upon the information provided by EMED as being accurate, reliable and suitable for use in this assessment.

2.6 LEGAL

In consideration of all legal aspects relating to the Rio Tinto Copper Project, Behre Dolbear has placed reliance on the representations by EMED that, as of January 31, 2013, the legal ownership or option over all of the land required for mining and possible expansion of operations and the physical assets thereon, consisting of processing plant, other equipment and buildings, is secure. Behre Dolbear understands that exploitation rights and a Mining Permit are still in the process of review by the Junta de Andalucía and accepts the probability that these will be granted in due course and that recent land purchase agreements with owners of adjacent lands, required for certain operations, including tailings disposal, will enable unrestricted development of the project, including tailings disposal.

Behre Dolbear has assumed that the process of establishing the exploitation rights and Mining Permit does not affect the likely viability of the mineral assets nor the estimation and classification of the Mineral Resources as reported herein. Behre Dolbear has not carried out any legal due diligence on the validity, legality, ownership or constraints of the mineral licenses or any agreements with related or third parties.

2.7 PREVIOUS STUDIES AND REPORTS

The Rio Tinto Copper Project has been the subject of many studies by its previous owners. Some of these studies were made available, primarily in hard copy. Work on the project by EMED and its appointed consultants commenced in February 2007. This work included:

- Initial internal preliminary due diligence by EMED;

- Independent due diligence and verification by a team of international consultants appointed by EMED comprising AMC (geology, resources and reserves, mining and project economics), GBM Engineering (GBM) (processing and infrastructure) and Golders España (Golders) (tailings and water management and environmental issues);
- The preparation by EMED of the restart plan (EMED-T, 2007) in four volumes including six annexures in Spanish for initial discussion with the Government in late July 2007;
- A detailed review by AMC of EMED's restart plan (AMC, July 2010) and subsequent updates and resubmissions in February 2012 and August – December 2012;
- A recent plant-condition report by Merit International Consultants, leading several subcontractors, which covered the associated capital cost for bringing the plant back into production and the Project Execution Plan; and
- Submission of requisite applications for restart to and approval by the regulatory authorities in Spain.

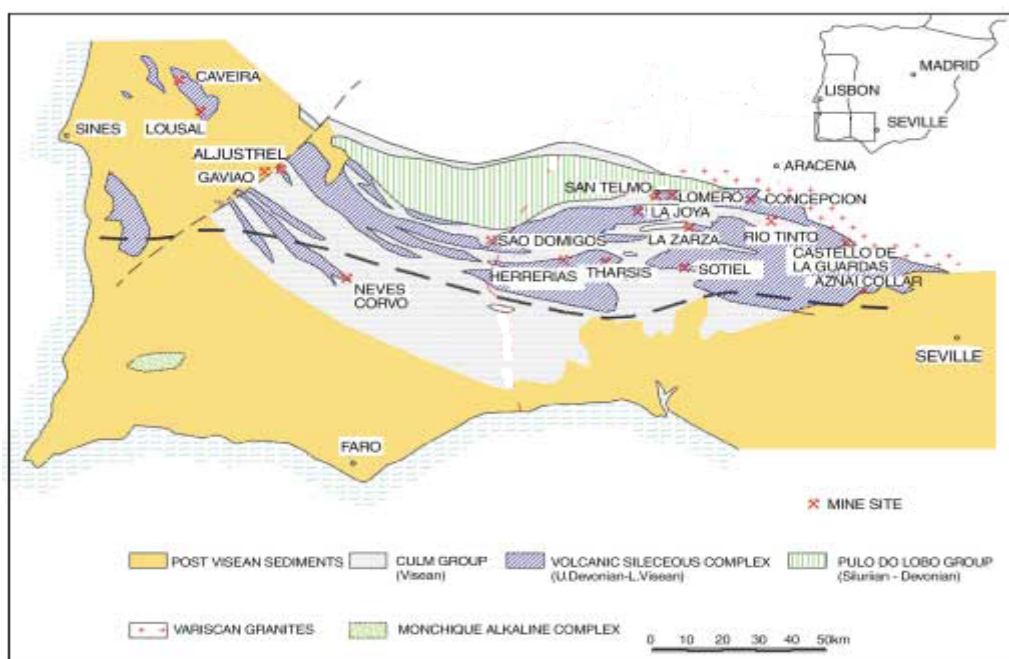
This report, authored by Behre Dolbear, is based on these data contributions from EMED and its consultants. The sources of other data used in this report are listed in Section 24 References.

3.0 PROPERTY DESCRIPTION AND LOCATION

The Rio Tinto Copper Project project (6°35'W / 37°42'N), is located at the eastern end of the Spanish/Portuguese (Iberian) pyrite belt which extends about 230 km between Sevilla in the east (in southern Spain) and the Atlantic coast near Lisbon in the west (in Portugal). Within the pyrite belt there are eight major mining areas, each thought to contain more than 100 million tonnes of ore. These are from east to west: Aznalcollar-Los Frailes, Rio Tinto, Sotiel-Migollas, La Zarza, Tharsis, Masa Valverde, Neves Corvo and Aljustrel; there are many other smaller deposits. The Rio Tinto Copper Project is the largest of these.

Figure 1 below is a map of mines in the Iberian Pyrite Belt.

Figure 1 Mines in the Iberian pyrite belt (Source: public domain, 2012)



In Spain, there are typically three different types of mining permits/concessions:

- Exploration permits (Art. 40.2 Mining Law) granted for a period of 1 year, may be extended for a maximum of one more year.
- Research permits (Art. 45 Mining Law) granted for the period requested, which may not be more than 3 years. May be extended for a further 3 years.
- Operating concessions (Art. 62 Mining Law) also referred to as a Mining Permit, granted for a 30-year period, may be extended for equal periods up to a maximum of 90 years.

3.1 RIO TINTO COPPER PROJECT AREA

The Rio Tinto copper mine was last operated in 2001 and is currently on care and maintenance. Within the Rio Tinto mining district are five main orebodies: the San Dionisio, the South Lode, the Planes-San Antonio, the North Lode and the Cerro Colorado. They are believed to have once been a single, continuous mineralised zone 5 km long by 750 m wide and about 40 m thick, containing about 500 Mt of pyritic ore, but natural erosion and past mining activity has reduced this to about 250 Mt.

In May 2007, EMED-M was granted an option to acquire 51% of the Rio Tinto Copper Project assets located adjacent to the town of Minas de Riotinto, 65 km northwest of Sevilla in Andalucía, Spain. In 2001, the mine had been placed by the previous owners on a care-and-maintenance basis, due to the then-prevailing low copper price of less than \$1.00/lb.

The main assets included the mineral rights within the main tenements covering an area of 20 km². EMED-M established its 51% owned subsidiary company EMED-T to hold these assets. In October 2008, EMED-M acquired the remaining 49% of EMED-T from MSA.

The Rio Tinto Copper Project includes the Cerro Colorado copper-pyrite deposit and open-pit mining area, certain satellite deposits, the waste dumps, and parts of the tailings and water facilities, the beneficiation plant and offices and other maintenance and general infrastructure. The Rio Tinto Copper Project area covers approximately 2,224 hectares as shown in Figure 2.

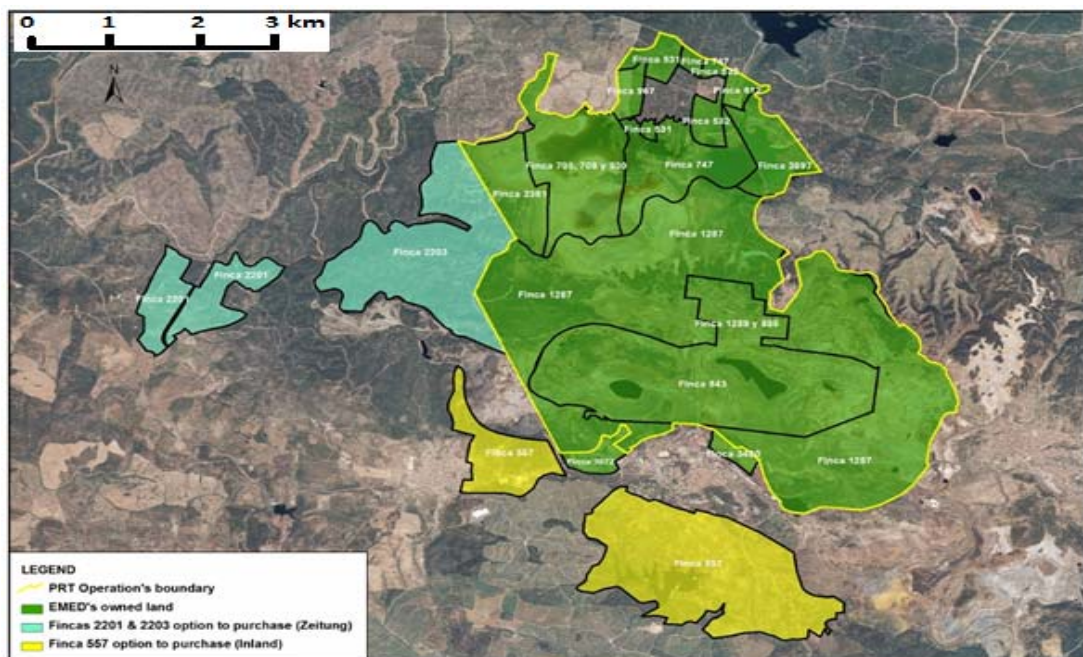
3.2 LAND POSITION AT RIO TINTO

The Rio Tinto mineral rights were sold by the Spanish Government to Rio Tinto Limited Company in perpetuity under the private property regime (Law of June 25, 1870, Act of December 26, 1870, Act of December 26, 1872 and Decree Law of February 14, 1873 to ratify the above, published in the Gaceta de Madrid on February 16, 1873).

These historical mineral rights are attached to land plot 843 covering the whole of the municipality of the town of Minas de Riotinto, where the Rio Tinto Copper Project is located, EMED is now the sole owner of the mining rights.

Figure 2 below shows the Location and ownership of the Rio Tinto project.

Figure 2 Location and ownership of the Rio Tinto Copper Project (Source: EMED, 2012)



Although there are a number of liens on the various land packages, the only one that is critical to the restart project is a lien held by the Tesoreria General de la Seguridad Social. In May 2010, EMED entered into an arrangement whereby Social Security would not exercise their lien in return for EMED repaying the total amount, owed by a former owner of the mine, over a period of 5 years.

In August 2012, EMED acquired ownership of and options over all lands required for operations and potential expansion. This removed the possible need for expropriation of lands required for the restart. All land required for the project or for future expansion has been secured through acquisition or by options to purchase.

In May 2009, EMED submitted a request to the Government for Administrative Standing, (pursuant to the provisions of Articles 95.2, 97.1 and the Second Transitional Provision of the current Mining Act) for the development of the Rio Tinto Copper Project.

This Administrative Standing request was accompanied by supporting documentation (including relevant technical documentation) as well as contracts and title transfer deeds showing that EMED owned the mineral rights including: the registered land plot 843 (which incorporates the area of the Cerro Colorado pit), the facilities and the exclusive rights of operation and beneficiation of minerals from the soil and subsoil of the whole of the municipality of the town of Minas de Riotinto.

In December 2009, EMED received a request for additional information from the Government in order to consider the granting of Administrative Standing and incorporating the other approvals required for the restart of the project. Accompanying this request for information was clarification of the necessary steps that EMED needed to complete in order to gain full authorisation for the commencement of mining activities. These were:

- Submit mining project and final restoration plan;
- Review by local government authorities and corrections by EMED, if required;
- Formal departmental reporting, public hearing and processing of the Unified Environmental Authorisation (AAU);

- Review by IGME (Spain's national geological and mining review agency) and CEDEX (Spain's national civil engineering review agency) and modification by EMED, if required;
- Review by the then Provincial Delegation of CEIC (now Territorial Delegation of CEICE);
- AAU authorised, approval of final restoration plan by then Provincial Delegation of CEIC (now Territorial Delegation of CEICE);
- Application to Provincial Delegation of CEIC (now Territorial Delegation of CEICE) for approval of mining project;
- Grant of Administrative Standing and approval of mining project;
- Processing of other authorizations, use of tailings storage facilities, authorisation of equipment usage, verification of operator permissions, etc;
- Authorisation for blasting;
- Verification of lodgement of bonds, insurances, etc; and
- Commencement of operations.

Permitting of the Restart

In order to ensure compliance with the Government and to expedite the approval of all permits required for the restart (essentially the approval of the AAU, final restoration plan, Administrative Standing and the mining project), EMED commissioned a number of leading Spanish consultancies to complete the various studies required in order meet the above request. The Spanish consultancies were selected based on their professional reputation and historical relationships with various Government authorities.

In August 2012, EMED acquired ownership of and options over all lands required for operations and potential expansion. This removed the possible need for expropriation of lands required for the restart.

In order to incorporate the results of the studies required for the completion of the final restoration plan and the waste facilities projects, as well as other studies completed after the initial document submission to the Government, EMED updated the mining project previously submitted in May 2009, as follows:

- Presentation of a 14-year base-case mine life (previously only 10 years was presented);
- Inclusion of results from geotechnical studies of the waste dumps and the Cerro Colorado open pit;
- Inclusion of detailed mine and waste dump progression plans.
- A revised and updated economic analysis;
- Incorporation of detailed 2-year mine planning based upon a 2-year mine production plan completed by AMC; and
- Inclusion of details on EMED's proposed final restoration plan.

The final restoration plan and waste facilities projects were submitted to the relevant local competent authorities in late July 2010.

EMED submitted a Unified Environmental Authorisation (AAU) application in July 2010. The AAU consolidates all of the required environmental and land-use permits and applications into one document, including, but not limited to:

- An Environmental Impact Study (EIS);
- Urban compatibility assessment;
- Water use;
- Atmospheric emissions;

- Noise emissions;
- Production of waste products;
- Soil use;
- Forestry authorisations and fire prevention; and
- Protection of natural species both flora and fauna.

The mining project final restoration plan, required to complete the AAU, was submitted to the Government in July 2010 for the permitting of the restart, including the grant of Administrative Standing to the Company. As a result of subsequent negotiations with the Government, EMED agreed to enlarge the Rio Tinto project footprint incorporating environmentally degraded areas proximal to the initial project area.

EMED updated the relevant documentation in order to reflect this enlargement and resubmitted the AAU in February 2012. The contents of this AAU application were the same as that for the previous application but also included a site-water discharge application.

EMED-T was also requested to update documentation previously submitted in July 2010 relating to its technical and economic competency, both of which are required for permitting of the restart, including the grant of Administrative Standing. These updates were submitted between August 2012 and December 2012 respectively.

JORC-compliant Mineral Resources and Reserves for Rio Tinto Copper Project have been independently verified by AMC Consultants, as follows:

Mineral Resources totaling 203 Mt at 0.46% copper (0.93 Mt of contained copper), at a cut-off grade of 0.20% copper. The Resources total includes Reserves of 123.0 Mt at 0.49% copper (0.60 Mt of contained copper), at a cut-off grade of 0.20% copper.

The restart of mining operations at Rio Tinto Copper Project can only proceed following receipt of various regulatory approvals and the Company raising the necessary funds. The principal regulatory approvals required from the Junta de Andalucia are:

- The environmental plan (AAU),
- The final restoration plan, reflecting final conditions of AAU approval,
- Administrative Standing, and
- The exploitation permit and final project approval (“Mining Permit”).

Subject to EMED resolving the amounts required for bonding and for contingency provisions for plant refurbishments, it is expected that a total financial commitment of \$252M will be required prior to the Project commencing production to settle outstanding liabilities, provide environmental bonds, carry out repairs and capital expenditure and provide working capital. This amount includes:

- \$170M for repairs and initial plant improvements,
- \$19M towards increasing plant capacity from 5mt/y to 9mt/y,
- \$29M for bonding for environmental and social guarantees,
- \$20M for counterparty settlements (on permitting), and
- \$14M for working capital.

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Rio Tinto deposit is located in the Huelva Province of the Autonomous Community of Andalucía in Southern Spain, about 500 km south of Madrid, 65 km north-west of Sevilla and 70 km north-east of the port of Huelva.

Sevilla (population 700,000) is the administrative centre of the Andalucía region. The Autonomous Community of Andalucía is governed by the Junta de Andalucía, which is one of the historic Autonomous Communities of Spain, with a local parliament and president.

Accessibility

There are many international flights that connect the provincial cities of Sevilla and Malaga with Madrid and other major cities in Europe and North America. There is a high-speed train service linking the regional towns of Cordoba and Sevilla with the capital Madrid.

The Rio Tinto Copper Project site is well serviced by paved highways to Aracena, Huelva and Sevilla. It is near the towns of Minas de Riotinto and Nerva as well as several nearby villages, which represent potential sources of labour, accommodation and general services.

Climate

Due to the geographical location and varied topography, the climate in the Andalucía province is diverse, with a Continental Mediterranean climate in the inland areas and a Mediterranean climate along the coast. The average annual mean temperature is 18.7°C, the daily temperature ranges from 3°C in January to 40°C in July and August. Average annual precipitation is 795 mm. Operations are possible all year round.

Local Resources and Infrastructure

The modern Rio Tinto mining complex dates back to 1873, when a group of British businessmen purchased the Rio Tinto mines from the Spanish Government and established the Rio Tinto Company Ltd. At its peak, there were some 14,000 workers, 150 km of railway track and a dedicated loading facility at the port of Huelva (70 km southwest of Rio Tinto), where copper and pyrite ore were loaded for export. The long-established mining town of Minas de Riotinto (population c 5000) provides most of the facilities required for mineral exploration and mining activity and all other facilities are available nearby.

In 1970, a copper smelter and refinery were built next to the port of Huelva. In 1993 Freeport-McMoRan Copper & Gold Inc acquired Rio Tinto Minera SA and decided to dispose of the mining operation to local interests and concentrate on the metallurgy part of the business (Atlantic Copper S.A) by investing more than €200M (about \$260M at current exchange rates) to double Huelva's smelting and refining capacity.

Physiography

The Rio Tinto area consists of low, sparsely-wooded, E-W trending ridges, separated by wide valleys that support a semi-rural population. The topographic relief is about 500 m from the valley to the highest ridge top.

5.0 HISTORY

The Rio Tinto Copper Project workings date back to at least 1000 BC and have been operated by Phoenicians, Romans, British (Rio Tinto Company and RTZ), Americans (Freeport McMoran) and finally, in the 1990s, the Spanish workers' co-operative Minas de Rio Tinto (MRT). Since Roman

times, more than 140 Mt of copper ore has been mined from several open-pit and underground mines. Before the arrival of the British miners in 1873, mining activity mainly consisted of underground mining in the Filón Sur area.

Underground mining in the Filón Norte zone commenced in 1880 but was abandoned in 1894. From 1900 work focused on the open-pit mining of the Salomón, Lago and Dehesa (Filón Norte) zones. In 1940 open-stopping commenced in the Quebrantahuesos zone and continued until 1970. Mining then switched to the low-grade sulphide stockwork ores of Cerro Colorado and production of gold and silver from the superficial gossan (oxide) cap.

In 1954, the mines were taken over by the Spanish company, Compañía Española de Minas de Río Tinto SA. In 1962 the Río Tinto Company Limited merged with the Zinc Corporation to form the London-based Río Tinto Zinc Corporation (RTZ), which became a minority shareholder in the Río Tinto copper mines. Minas de Río Tinto SA operated the mines, modernised the facilities and improved working conditions. Over the years the operating company changed its name successively to Río Tinto Patiño and then to Río Tinto Minera.

Between 1964 and 1967 an exploration campaign resulted in the discovery of the Cerro Colorado copper deposit. In 1969, the copper concentrator started up with a design capacity of 3 Mt/y. This was later expanded to reach the current nominal capacity of 10 Mt/y. In 1971, a gold leach plant commenced operation at a designed throughput of 1.5 Mt/y of oxidised (gossan) ores and was later expanded in increments to reach a design capacity of 6.0 Mt/y. These plants still exist but are not operational.

Between 1875 and 1976 a total of 128 Mt was mined from the massive sulphide ores. The copper concentrate was transported (70 km by rail) to the Huelva smelter.

In 1977, Río Tinto Patiño sold its shareholding in the mine to Spanish and English groups and Río Tinto Minera SA (RTM) was founded. The Cerro Colorado workings were then expanded and the Alfredo shaft was modernised.

A new processing plant was built in 1969 and extended in 1982-1985 by the then operating company Río Tinto Minera SA.

Mining continued until 1987 when low copper prices forced the closure of the copper plant and a reduction of mining operations. Work at the Alfredo shaft ceased and the Cerro Colorado operation was restricted to the mining and treatment of gossans for gold and silver, at a rate of 190,000 t/month (2 Mt/y) of gossan material. All production was temporarily halted in 1990.

In 1992 RTZ sold its shares in the mine to Freeport McMoRan Inc and Minas de Río Tinto SAL (MRT) was founded. In 1995, Freeport as the major shareholder in MRT decided to close the mine and focus investment in the smelter at Huelva.

The mine was acquired by MRT and from 1995 MRT operated the mine as a workers' cooperative comprising former senior management and the unions. Between 1995 and 2001 MRT mined 25 Mt of ore at an average grade of 0.57% Cu. During this period an annual production of 7.3 Mt was achieved in 1997; a peak annual throughput of 9 Mt/y was achieved in 1998. The mine was closed again in 2001 due to the low copper price. As a result of closure more than 400 workers were made redundant. Of these, over 300 were retired and 100 were placed by the Government onto temporary social welfare pending re-employment.

In 2004, the mineral rights and properties were acquired by Mantenimiento en General del Sur, Mantetur Andevalo SL (MSA), the management of which included former managers of MRT. MSA

commenced restoration of the primary crushing and ore feed systems in anticipation of a restart but the group failed to secure the necessary approvals and the mine remained on care and maintenance. With no grid electric power available since 2004, work has focused on monitoring the tailings dams, filing statutory reports and maintaining pumping to avoid effluent discharges and to protect the recent capital works from deterioration.

In November 2006, the Australian companies, Oxiana Limited and Minotaur Exploration, entered into a memorandum of understanding with MSA, to invest in MRT. Both companies withdrew from the project in December 2006 and the project was then introduced to EMED-M in which Oxiana is a founding shareholder.

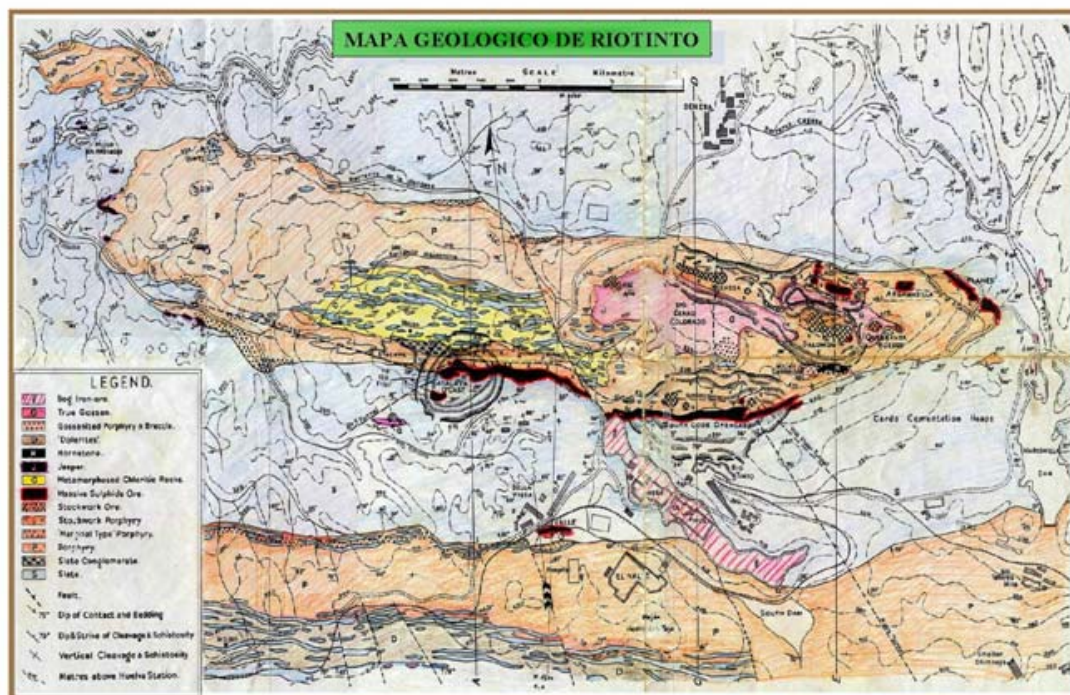
In October 2008, EMED-M announced that it had completed the acquisition of EMED-T, the owner of the Rio Tinto Copper Project, and, as a result of this acquisition, the Company was the sole owner.

Mining Operations

In the 1980s, there were four working mines, two open-pit mines, Corta Atalaya and Cerro Colorado, and two underground mines, Pozo Alfredo (which together with Corta Atalaya, exploited the San Dionisio deposit) and the Planes - San Antonio mine.

Figure 3 illustrates the geology of the Rio Tinto mines

Figure 3 Geology of the Rio Tinto mines (Source: Williams, 1934)



Cerro Colorado Mine

The latest mining operations were focused on the Cerro Colorado - Salomon open pit and the adjacent San Lucas pit located near the treatment plant. The Cerro Colorado deposit contained one of the largest known concentrations of sulphides in the world. It has been estimated that there were originally about 500 Mt of massive sulphides (pyrite) of which about 20% were leached to form

gossans. Cerro Colorado has the potential to increase in size by investigation of the adjacent ancient workings at Filón Sur, Filón Norte (Lago), Cerro Salomon, Planes/San-Antonio and Quebrantahuesos.

In the Cerro Colorado pit, altered, grey, felsic volcanics host a major pyrite-chalcopyrite stockwork, part of which extends below the felsites into mafic volcanics. Alteration closest to the stockworks is chloritic passing to sericitic and silicic further away.

Cerro Colorado was opened in 1967 to extract copper, gold and silver from the gossans for treatment through the concentrator's entirely separate copper and gold/silver recovery circuits. The mine was developed as an open pit, with a planned production potential of 39 Mt at 0.8% Cu and 18 Mt of gossan (oxide) ore averaging 2.4 g/t Au and 42 g/t Ag, that formed the top of Cerro Colorado. The pit is 1,560 m long, 850 m wide and 230 m deep and covers an area of about 200 ha. The benches were 10 m high and the ramps 20 m wide. Production was 13 Mt/y, of which 3 Mt was copper ore, 1.5 Mt was gold-silver ore and 8.5 Mt was waste-rock and marginal ore with < 0.28% Cu.

The Cerro Colorado ore was treated in a copper concentration plant with capacity of 10,000 t/day (3 Mt/y) and a gold-silver concentration plant with a capacity of 4,500 t/day (1.5 Mt/y). Ore from the gossan was crushed in the same plant as the copper ore, in similar units, but separately.

When MRT took over the mine in 1995 they elected to restart copper extraction from Cerro Colorado, starting at 4.5 Mt/y, and reduced the rate of processing the gossans to 2 Mt/y. Mining of the gossan ore ceased in 1998. Between 1995 and 2001, 23.9 Mt at 0.54% Cu was processed. Some 19 Mt was mined from Cerro Colorado West, with the remainder coming from Salomon (now known as Cerro Colorado East).

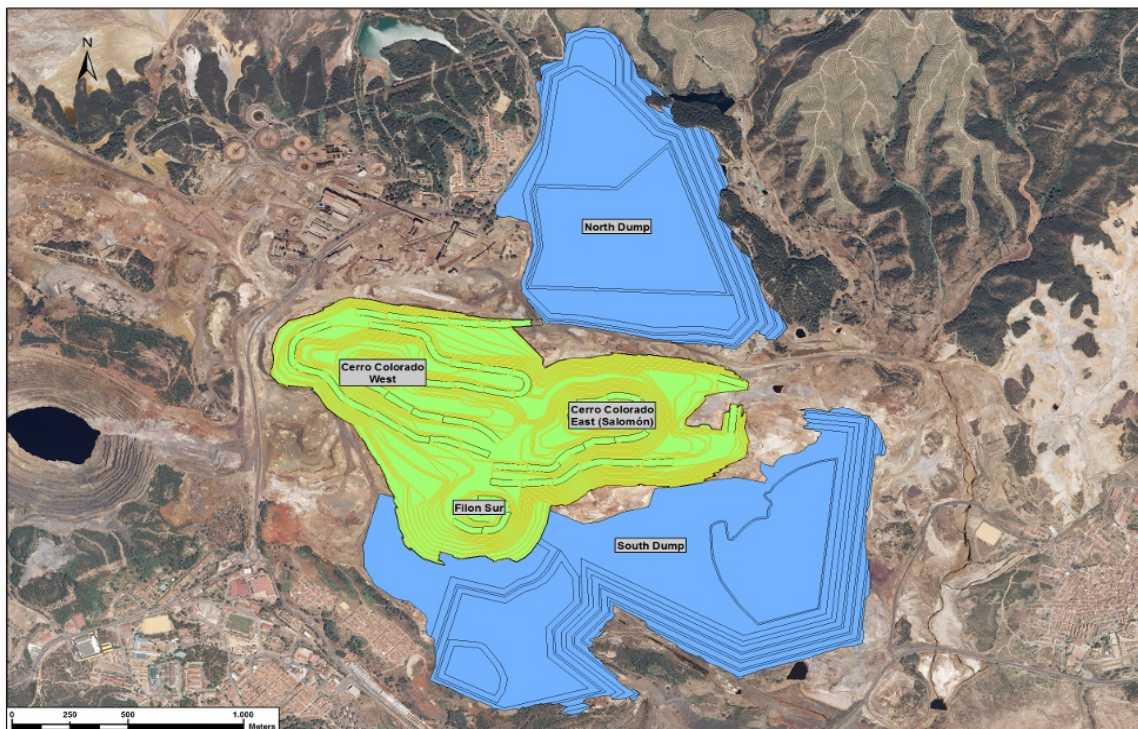
Figure 4 is a photograph of the western part of the Cerro Colorado mine.

Figure 4 Cerro Colorado mine (looking south)



Figure 5 shows the proposed future layout of the Cerro Colorado Open-Pit mine

Figure 5 Proposed future layout of the Cerro Colorado open-pit mine (Source: EMED, 2012)



The Filón Norte & Filón Sur Areas (1874 -1973)

The areas known today as Cerro Colorado West and Cerro Colorado East (or “Salomon”) open pits were previously mined underground by the Rio Tinto Company Limited under the name of Filón Norte (North Lode) and Filón Sur (South Lode).

At Filón Norte, 2.75 Mt of pyrite were mined by underground methods between 1881 and 1895. This was followed by 22.93 Mt mined by open-cast methods between 1892 and 1937.

At Filón Sur 18.22 Mt of pyrite were mined by underground methods between 1873 and 1967. 24.2 Mt were mined by opencast methods between 1874 and 1949.

A further 6.94 Mt of “chloritas” copper ore was mined from Filón Norte and Filón Sur between 1942 and 1973.

Table 1 Historical production - Filón Norte and Filón Sur mines (Source: EMED, 2007)

Mine	From	To	Tonnes mined
Filón Norte (underground)	1881	1895	2,754,064
Filón Norte (open-pit)	1892	1937	22,928,652
Filón Sur (underground)	1873	1967	18,225,642
Filón Sur (open-pit)	1874	1949	24,201,495
Filón Norte / Sur (chloritas underground)	1942	1973	6,937,820
Total	1873	1973	75,047,673

Tunnels were used to transport the ore: one used for transporting ore from the Filón Norte area, referred to as the North Lode Tunnel, and another used to transport ore from the Mal Año or Retamar areas via an extension of Tunnel 11, referred to as the Central Tunnel.

6.0 GEOLOGICAL SETTING AND MINERALIZATION

The Rio Tinto massive sulphide (pyrite-chalcopyrite) deposit occurs on the transitional contact between a lower mafic volcanic unit composed of andesitic and spilitic pillow lavas and dolerite sills intercalated with bands of slate and chert of Lower Carboniferous (Tournaisian) age, and the overlying felsic volcanic unit composed of quartz-keratophyre and/or rhyolite lavas and pyroclastic rocks, formed by submarine volcanic activity in the Lower Carboniferous (Visean) period about 320 million years ago. The felsic volcanics grade upwards into sediments and carbonaceous slates (Culm) of Upper Visean age (Dunning, 1989).

The massive sulphide deposits are located at the eastern end of an anticline, on the flanks of which are the old mine workings of San Dionisio, Filón Sur, Planes-San Antonio, Filón Norte (Dehesa, Lago and Salomon). In the core of the anticline is the Cerro Colorado-Salomon open pit. It is believed that the deposits originally formed an almost continuous layer of sulphides, about 5 km long, 750m wide and about 40m thick, containing more than 500 million tonnes of sulphide mineralisation. Well-developed stockwork mineralization occurs in the volcanic rocks underlying parts of the massive sulphide body.

During the Hercynian orogeny, the rocks were folded into an east-west trending anticline with steep limbs whose axis plunges at an angle of 10° to the east. Subsequent erosion exposed the mineralised volcanic sequence in the core of the anticline and weathering over a long period of time formed a cap of oxidised gossan with a 20 to 30 m thick layer of rich secondary sulphides (gold and silver-bearing chalcocite) over-lying an irregular pyrite and chalcopyrite stockwork. The red gossan cap was aptly named Cerro Colorado.

Figure 6 shows the geology of the Rio Tinto mining district.

Figure 6 Geology of the Rio Tinto mining district (Source: Williams, 1934)

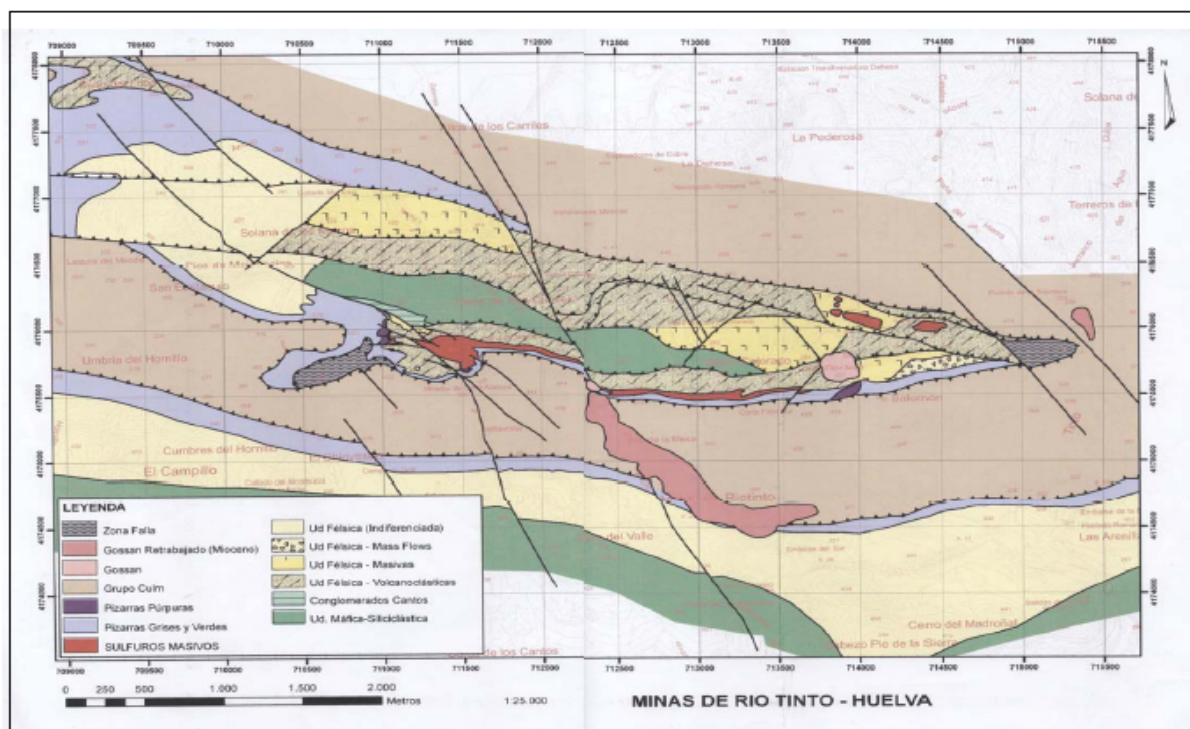
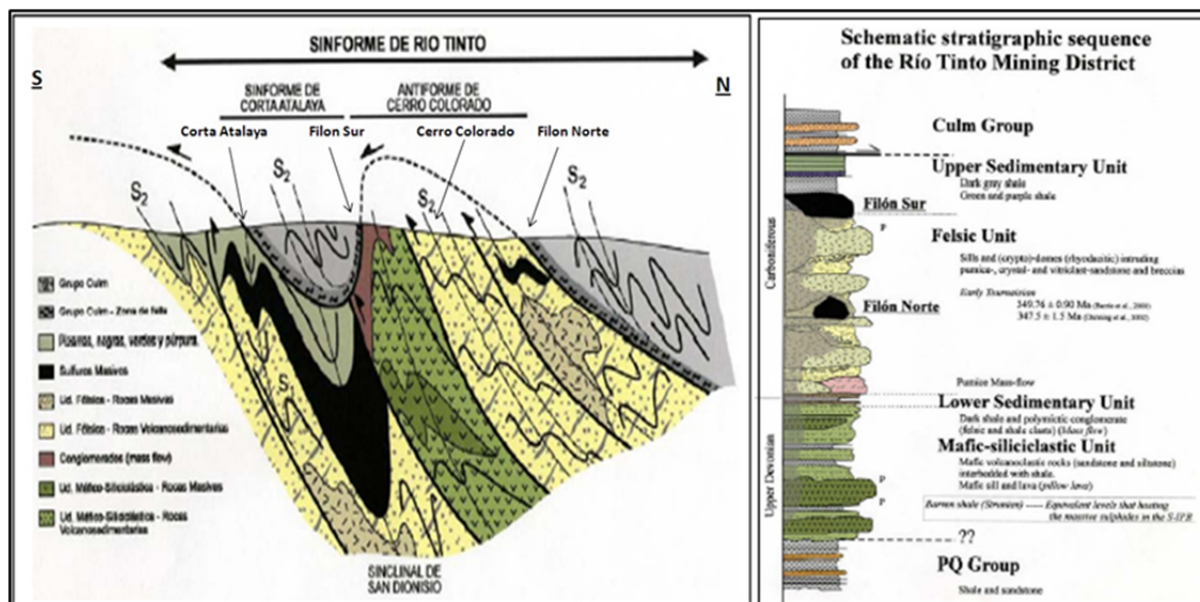


Figure 7 shows the geological stratigraphy and structure of the Rio Tinto Area

Figure 7 Geological stratigraphy and structure of the Rio Tinto area (looking west)



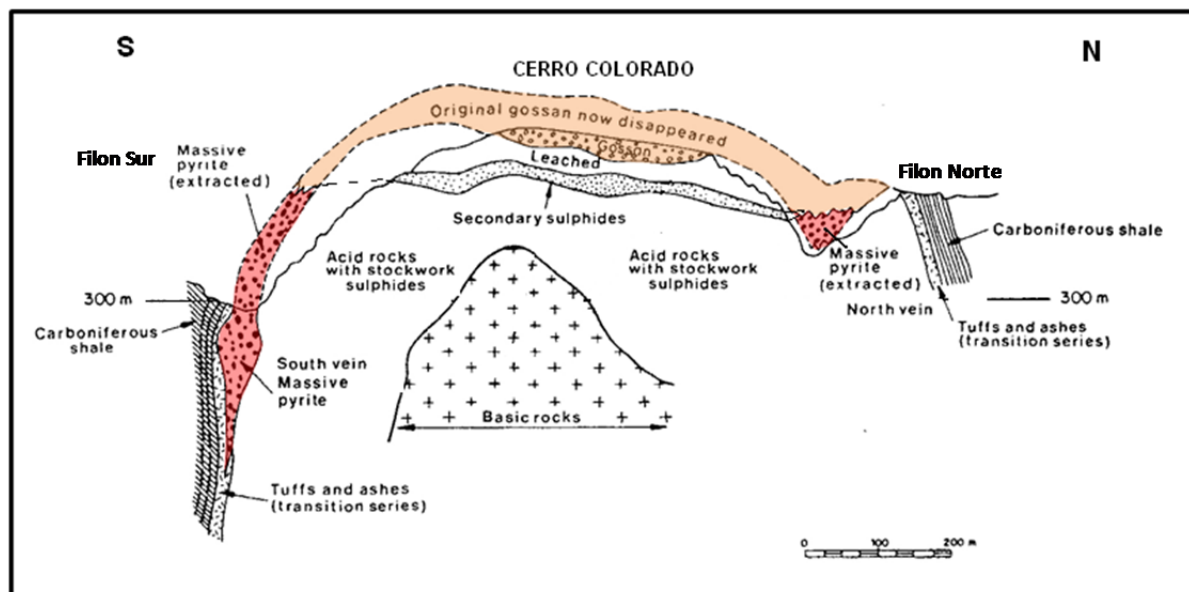
The volcanic-hosted pyrite mineralisation at Rio Tinto is stratigraphically related to the felsic pyroclastic rocks. The sulphide mineralisation is attributed to submarine volcanic activity that resulted in a number of near vertical brecciated feeder pipes forming stockwork mineralisation consisting of a multitude of small veins of sulphides (pyrite and chalcopyrite).

The stockwork mineralisation at Cerro Colorado is overlain by stratiform massive sulphide mineralisation that was worked at the Pozo Alfredo / Corta Atalaya, San Antonio and Filón Sur mines.

There were two distinct periods of primary sulphide mineralisation, the initial pyrite mineralisation and the second phase when the copper minerals appear to have been deposited. An extensive zone of hydrothermal alteration is associated with the stockwork zone, characterised by (i) an inner core of chloritic alteration surrounded by (ii) an envelope of sericitic alteration which is in turn surrounded by (iii) a peripheral zone of silicification, pyritisation and carbonate alteration. The copper-pyrite stringer mineralisation is most closely associated with the chlorite altered zone.

Figure 8 shows a Schematic N-S cross-section through the Cerro Colorado deposit

Figure 8 Schematic N-S cross-section through the Cerro Colorado deposit (looking west)
(Source: EMED, 2012)



The Mineral Resources in the three Cerro Colorado (CC), Salomon (Sal) and Filón Sur (FS) deposits are all part of the same mineral system (and form a single pit) but are divided on the basis of location and contaminant elements.

The section above shows the oxidation gossan and the zone of supergene enrichment characterised by the occurrence of the secondary minerals goethite-limonite and chalcocite-covellite respectively.

Beneath the zone of supergene enrichment, the primary sulphide mineralization consists mostly of pyrite, with minor chalcopyrite, sphalerite, tetrahedrite and sulfosalts of Sb and As. The predominant copper mineral, chalcopyrite, frequently occurs within small fractures in the pyrite, but also occurs in isolation.

In the Cerro Colorado West (CCW) and Cerro Colorado East (CCE) zones, defined by the -1,800 m Easting co-ordinate that relates to a pre-existing lease boundary, different mineralogical characteristics were noted during historical operation of the concentrator.

In the CCW zone, chalcopyrite is the predominant copper mineral. It is associated with pyrite and some covellite. Arsenic is present as arsenopyrite and tennantite. CCW resources are characterised by their lower copper and sulphur grades, higher metallurgical recoveries and concentrate grade, and lower contaminant element grades.

The CCE zone also has chalcopyrite, but with significantly more pyrite and covellite. Contaminants are contained in arsenopyrite, tennantite, sphalerite, galena and stibnite, and there is some mercury in the pyrite. The CCE resources are characterised by their higher copper and sulphur content, lower metallurgical recoveries and concentrate grade, and higher contaminant element grades.

A statistical analysis of the sample assay data was carried out (Snowden, 2008) to identify whether there was any correlation between the various elements. The majority of elements exhibited no correlation, with the exception of the felsic volcanic domain (Domain 1), where there was a strong positive correlation between the silver and arsenic values, and between the silver and antimony values.

Table 2 shows that both the Cu-Zn and the potential penalty elements arsenic, antimony and bismuth in CCW ore are significantly lower than in CCE ore.

Table 2 Historical Plant-feed assay data (Source: AMC, 2010)

Area	Cu %	Zn %	S %	As ppm	Sb ppm	Bi ppm
CCW*	0.46	0.12	5.11	139	42	8
CCE**	0.78	0.17	34.50	711	94	60

* Annual averages of plant feed assays in 1997 when only CCW ore was processed

** Average plant feed assays during June to July 2000 when only CCE ore was processed.

7.0 DEPOSIT TYPES

The volcanic-hosted pyrite-chalcopyrite mineralisation at Rio Tinto is stratigraphically related to the felsic pyroclastic rocks. The mineralisation is attributed to submarine volcanic activity that resulted in a number of near vertical brecciated feeder pipes forming stockwork mineralisation consisting of a multitude of small veins of sulphide minerals (pyrite and chalcopyrite).

The stockwork mineralisation at Cerro Colorado is overlain by stratiform massive sulphide mineralisation that was worked at the Pozo Alfredo / Corta Atalaya, San Antonio and Filón Sur mines. Rio Tinto is a large and text-book example of the volcanic-hosted massive sulphide type of deposit.

8.0 EXPLORATION

EMED has re-mapped the Cerro Colorado open pit and has reappraised the existing historical data. Drilling is planned to commence upon the regulatory approval of Administrative Standing. Key exploration priorities are:

(i) Pit Expansion

To increase Mineral Resources and Reserves in order to expand the mine production beyond the planned 9.0 Mt/y and increase mine life beyond the planned 14 years. Initial priority targets for this will be the:

- drilling of the Filón Sur area (where re-appraisal of historical data indicates a high possibility of extending the size of the planned Filón Sur pit); and
- drilling of the Argamasilla Zone to the east of the planned Cerro Colorado Pit along strike of the known mineralisation where there is no modern drilling, but there are shallow, high-grade historical mines. In this area there is a likelihood that mineralisation will continue east beyond the current drilling and current reserve pit.

The exploration objective over time is to increase open-pit Mineral Reserves from the current 123 Mt to 200 Mt so that production can be steadily increased from 9.0 Mt/y to 15.0 Mt/y.

These exploration targets were estimated following a review of the extensive historical data and geological interpretation. It is uncertain if further exploration will define additional mineral resources as these targets are conceptual in nature and further exploration work is required to define and report additional reserves in accordance with the JORC Code and NI 43-101 Standards.

(ii) Appraisal of the Adjacent Deposits

There are several known zones of poly-metallic (Cu, Pb, Zn) mineralization, in close proximity to the Cerro Colorado deposit, that have been mined in the past. The main priorities for re-appraisal are the San Dionisio, Filon Sur and San Antonio deposits, as well as the Calcine Stockpile and the Gossan tailings dam.

These are all owned by and are located within the EMED-T licence area, but are not included in the Cerro Colorado restart project that is the subject of this report. Therefore, they are described in Section 22 - Adjacent Properties and Deposits.

9.0 DRILLING

The Rio Tinto Copper Project site has been subject to multiple phases of drilling, primarily by the Rio Tinto Company. The drilling included: 697 surface diamond drill-holes totalling 143,855 m of drilling; 24,337 RC drill holes totalling 264,314 m of drilling; 361 underground diamond holes totalling 14,392 m of drilling; and 4,137 underground channel-samples totalling 19,954 m.

Hard copy data for assays, geological logs, plans and cross sections are available for the majority of this historical data and are in reasonable condition. As Rio Tinto is essentially a bulk mineable deposit there is no relationship between sample length and the true width of the mineralisation.

It is considered that the drilling methods and drill-hole density used at the Rio Tinto Copper Project were appropriate for the style of deposit and were of an acceptable industry standard. There are no issues related to drilling methods that are likely to materially impact on the Mineral Resource estimate.

Surface Diamond Drill Holes

The surface diamond drill holes are distributed throughout the deposit on a semi-regular 50m by 50m grid spacing down to about 280m RL and on a semi-regular 100m by 150m grid spacing below 280m RL. About 75% of the holes were drilled vertically, whilst the angled holes were mainly drilled to the north at about 70 degrees. The diamond drill-hole samples vary in length between 0.3m and 3.1m with over 80% of the samples having a sample length of 2m. Assays include copper, gold, sulphur, zinc, lead, silver, arsenic, antimony, selenium, bismuth and mercury. Assay values and the location of surface diamond drill-hole collars have been validated by EMED against original hard copies of the logs. If a discrepancy of greater than 1m was identified in the easting, northing or elevation of the collar location, the appropriate correction was made to the database. No major discrepancies were identified in the assay values.

Surface Investigation Drill Holes

The surface investigation drill holes include both RC and percussion drill holes although it is not possible to identify from the database which holes were drilled by which method. EMED believes that the surface investigation drill holes were predominately RC drilling. The drilling was distributed throughout the site but with a concentration in the CCW area. All holes were vertical with drilling based on a 20 mE by 25mN spacing. The drill holes were typically about 20 to 25 m in length, equivalent to the height of two mine benches and were used primarily for in-pit grade control. The drill-hole database indicated sample lengths of either 10 m or 12 m depending on the bench height at the drill-hole location. During further investigation by EMED, it was determined that the bench height was not always the true sample length and that commonly the samples were rounded to the bench height for convenience during short-term production calculations. Assays include copper, gold, sulphur, zinc, lead, silver, arsenic, antimony, selenium, bismuth and mercury. Assay values and the location of the drill-hole collars have been checked by EMED against original hard copies of the logs in a similar manner to the surface diamond drill-holes. The surface investigation drill holes located

within each resource estimation domain were re-examined (by Snowden) to ensure no major sample length discrepancies existed between the database and the actual recorded sample lengths from the drill-hole logs.

Underground Drill Holes

The underground drill holes were all diamond drill holes. The majority of these holes were located in the underground developments at Filón Sur and Filón Norte. The underground drill-hole samples vary in length from 0.5 m to 3.0 m with most of the samples being 2 m in length. Both underground and surface drill holes were used for interpretation of the Filón Sur and Filón Norte domains during the April 2008 resource estimate.

Underground Channel Samples

The channel samples were obtained from underground drives and stopes during the 1940 to 1980 period. QA/QC data on the sampling technique was limited and validation of the channel sample grades has not been possible. The channel samples varied in length from 0.05 m to 12 m with most of the samples being 5 m in length. The channel samples were used for interpretation of the Filón Sur and Filón Norte Domains during the April 2008 resource estimation. However, they were not used for geostatistical modelling or resource estimation due to the possibility of a bias towards over-estimation of grades.

Validation

In 2008, EMED completed a validation exercise on the surface diamond drill holes, surface investigation holes and underground diamond drill holes. All of the collar co-ordinates of the surface diamond drill hole used in the latest resource estimate were validated against one or more of the following datasets:

- The original drill-hole and/or assay logs (where available);
- The Libro de Sondeos (Book of drill holes);
- The Rio Tinto Copper Project database; and
- The RTZ digital database.

In 2009, AMC reviewed these reports and was satisfied that a thorough validation had been completed and that all material deficiencies in the dataset had been corrected. A small number of discrepancies between the datasets were apparent, but these were not considered to have a material impact on the resource estimations completed using the data.

Surface Diamond Drill Holes

There are 697 surface diamond drill holes that are relevant to the Rio Tinto Copper Project pit area resource estimate. Of these, 609 were drilled before 1980 (mostly in the 1970s) and 88 were drilled between 1997 and 2000 by MSA. Data relating to these holes is available in digital format as a Datamine file that includes the hole ID, coordinates (of the sample mid-point), hole orientation, assays, geology and alteration.

Of the 609 surface drill holes validated in the Libro de Sondeos, X and Y co-ordinates were available for 591 drill holes. The remaining holes had either missing co-ordinates or the co-ordinates were on a different grid system and the transformation was not clear. Full Z co-ordinates were only available for 42 holes. A comparison of the X, Y and Z co-ordinates between the MSA database and Libro de Sondeos showed that most of the holes were entered into the database from the Libro de Sondeos correctly. Of the seven erroneous Y co-ordinates with a greater than 50 m error, five appeared to be due to typing errors. Comparisons of X and Y co-ordinates between RTZ data and the Libro de Sondeos data also showed no systematic errors between the two. Z co-ordinates were not compared due to the lack of full Z co-ordinate data in the Libro de Sondeos.

Of the 697 surface diamond drill holes, 586 have been renumbered at some time, but it is not known when, as there is no clear record showing the original hole numbers and what they were renumbered to. A new table showing the original and renumbered hole IDs has been created by EMED. This was compiled using a combination of original logs and original assay sheets that have both the original and renumbered drill-hole IDs. Of the 586 renumbered holes, the original hole ID could be determined for 385 holes from the original logs and 289 from the assay sheets. There are no records available for 23 holes.

Of the 697 surface holes, 95 (14%) were validated in terms of their assays. No significant issues with the assay database for the surface diamond drill holes were identified. When the holes were renumbered the corresponding assays appear to have been transcribed across correctly. A few minor issues were noted such as the assays for some elements (usually gold and silver) being omitted.

Underground Diamond Drill Holes

The underground diamond drill-hole database includes 361 drill holes with 6,983 samples assayed for copper and sulphur only. Sample lengths were validated by EMED and were generally 2m in length. Most were drilled in the 1950s and 1960s.

In the MSA database there was no digital collar co-ordinate file for the underground drill holes, although one must have been available at some point in time. The original collar file was based on co-ordinates recorded in the 'Libro de Sondeos' hardcopy file of collar co-ordinates.

Co-ordinate data had been assigned to sample midpoints. To validate these co-ordinates, a new collar file was created in Datamine to back calculate the hole collar co-ordinates and reconstruct the collar file. This file was then converted to an Excel file for validation purposes. In view of these issues, all assays were validated against the original assay sheets, but no significant errors were noted. A new digital assay data table was created and was used in the latest resource estimates.

Investigation RC Holes

There are 17,538 investigation RC holes that are relevant to the latest resource estimate for the Rio Tinto Copper Project pit area. Holes were drilled on a 20 mE by 25 mN spacing. Hole lengths varied from 10 m to more than 20 m with sample intervals varying from 2.5 m to 12 m. In the MSA database there was no separate digital collar file. Co-ordinate data had been assigned to the sample or composite sample midpoint with associated assay fields. In terms of X co-ordinates, the existing database is a valid record of the original data. In the Y co-ordinates, a number of major discrepancies were discovered requiring a more detailed level of validation. Of the holes validated, just over half were correct for the Z co-ordinate. The remainder were either incorrectly entered or changed at some later point in time to reflect bench RLs. This appeared to be an issue mainly affecting holes numbered from 11,830 onwards. Although not all logs are available for the first 11,829 holes, what is considered to be a representative sample is available and validation of these showed no significant errors. All records that were available for the relevant post-11,830 holes were used to validate the digital database and changes were recorded digitally. 1,159 (14%) of the post-11,830 records could not be validated as the original logs were unavailable. Of the 17,538 relevant holes, 7,874 (45%) were validated in terms of collar positions. The digital database was validated against the original log/assay sheets on to which the co-ordinates were recorded. In terms of X and Y co-ordinates, the existing database is a valid record of the original data. The only identified issue was that the X and Y co-ordinates had often been rounded to the nearest metre. Out of the collar co-ordinates validated, seven holes were found to be inaccurate by more than 1m on the X co-ordinate and six on the Y co-ordinate. These hole positions have been corrected. Of the 17,538 investigation holes that are relevant to the Rio Tinto Copper Project pit area and used in the latest resource estimate, 7,874 (45%) had their assays validated against the original assay sheets. With the exception of a few minor issues the digital database is considered to be accurate.

Down-Hole Surveys

Down-hole survey data discs (Eastman camera) are available for surface diamond drilling conducted since 1997. Discs were found for 55% of the holes drilled during 1997 and 1998, and all the holes drilled between 2000 and 2001. Generally, they were surveyed at 25m intervals down the hole. It is unknown what down-hole survey protocols were in place for drilling carried out prior to 1997, but 50% of those holes were vertical.

Drill Core

A selection of drill cores were inspected and cross-checked against the original geological logs. The database and the data were found to be consistent.

The quantity and quality of pre-1997 drill-core samples is uncertain, as there is no inventory of what drill core is still available. Some of the old drill core is stored partially under cover in a fenced-off area at the old Rio Tinto Company exploration office near the Corta Atalaya pit. The quality of the pre-1997 drill core varies from good to poor, due to the age of the core and the storage conditions. A significant amount of the core stored in this facility was from other deposits and exploration projects in the mine area, including Corta Atalaya, Alfredo, and San Antonio. The remaining core is of various sizes including PQ, HQ, NQ and BQ. A number of CCW drill holes were located and these were predominantly half core of NQ size. The quality of the core examined was poor to reasonable.

MSA staff conducted an inventory of the post-1997 drill core available during AMC's initial site visit. For the 1997-1998 drill campaigns, only five out of 18 holes drilled at CCW and 17 out of 41 holes drilled at CCE were located. It appears that most of the CCW core that remains is waste material category, as MSA informed AMC that the missing core from the post-1997 drilling was used for metallurgical test-work. The quality of the remaining post-1997 drill core was very good with boxes clearly marked and labelled. The remaining core is predominantly half-core of HQ size. A selection of drill cores were inspected and the geological logs and assay certificates cross-checked against both the core itself and against the database. No obvious inconsistencies in the data were observed.

For the 2000 - 2001 drilling campaigns, all the drilling (30 holes) was within the CCE area and almost all of this drill core is stored under cover in a large vehicle maintenance shed near the mine offices.

Core Recovery

Core recoveries were routinely recorded for the post-1997 drill holes and for some pre-1997 drill holes, but the data was not included in the database. AMC checked the core recovery data on a selection of drill holes as well as reviewing the data recorded on the original geological logs and concluded that core recoveries were generally close to 100%. There were no significant core recovery issues that would impact on the Mineral Resource estimates.

Geological and Geotechnical Logging

Geological logging of all surface drill-core was routinely carried out, but no differentiation was made between stockwork and massive sulphide mineralisation styles. No routine structural or geotechnical logging of drill cores was carried out, with the exception of core recovery.

Geological pit mapping was not routinely carried out, although this had previously been recommended.

10.0 SAMPLE PREPARATION ANALYSES AND SECURITY

Descriptions of the sampling methods are included in the relevant paragraphs of Section 9 above.

Documentation of the sampling protocols provides a means of demonstrating that industry standards have been followed in the data collection process. MSA apparently followed the sampling protocols previously established and implemented by Rio Tinto, which had rigorous standards in place for all aspects of its operations, including data collection protocols. Therefore, it is highly likely that documented standards and protocols for sampling methodology were in place at the Rio Tinto Copper Project, but have been lost in subsequent years due to the varied ownership history of the project.

None of the sampling or sample preparation was conducted by any employee, officer, director or associate of the issuer.

Documentation was sighted for blast-sampling practice, exploration drill core and investigation RC sample preparation and assaying procedures (AMC, 2009) as follows:

Sample Preparation

In discussions with former MSA personnel, the drill-core sampling procedure was described as all core being marked out by the geologist at standard 2m intervals from the start to the end of the hole. Core was then cut in half using a core-cutting machine, then the half core for each 2m interval was bagged and dispatched to the mine laboratory for assay. No consideration was given to geological contacts, mineralised zones, or different structural or geotechnical features when marking out the 2m sample intervals.

The sample preparation process for diamond drill core was sourced from the Rio Tinto Copper Project documentation PROCE-19, provided by MSA, as follows:

- i) Jaw crush to minus 8-10 mm (sample size received 5-10 kg);
- ii) Hammer mill to < 1,650 microns;
- iii) Riffle split to obtain a 300-350 g sub-sample;
- iv) Dry the sub-sample at 80-90°C;
- v) Samples to be analysed for copper, sulphur, lead and zinc pulverised to < 250 microns;
- vi) Samples to be analysed for gold and silver further pulverised to < 175 microns;
- vii) 125 g of the pulverised sub-sample sent for analysis for copper, sulphur, lead and zinc; or gold and silver; and
- viii) The remainder of the pulped sample archived.

The sample preparation process for the investigation of the RC drill-hole samples was sourced from the Rio Tinto Copper Project documentation PM-06, provided by MSA:

- i) Entire sample crushed by hammer mill to < 1,650 microns;
- ii) Riffle split to obtain a 400 g sub-sample;
- iii) Half the sub-sample pulverised to < 250 microns and half the sample archived;
- iv) The pulped sub-sample sent for analysis for copper, sulphur, lead and zinc; and
- v) It was understood from the laboratory staff that all samples were dried prior to crushing.

Sample assaying

Assaying was carried out at the mine-site laboratory using Atomic Absorption Spectrophotometry (AAS) for copper, sulphur, lead and zinc, and Fire Assay with an AAS finish for gold and silver. Other elements that were selectively analysed by AAS included arsenic, antimony, bismuth, selenium and mercury. XRD or XRF analytical techniques were apparently also used for some analytical work, but it was uncertain which samples this methodology was applied to.

The mine-site laboratory facilities were found to be of a very high standard. The laboratory was well equipped and well maintained and the laboratory staff were able to produce assay methodology documentation. No laboratory certification data or documentation are available and are presumed lost.

The sample preparation methods and assaying techniques as well as the existing assay procedure documentation are considered to be of an acceptable industry standard and appropriate for the style of deposit.

Sample and Assay QA/QC

QA/QC procedures were carried out by MSA in accordance with the protocols previously established by RTZ. No QA/QC data or documentation are available and are presumed lost, but the methodology is described below.

One in every 40 samples from diamond drill holes were duplicated, by the mine geologist, (as renumbered check assays) for internal checks. It is not known whether any assay standards (commercial or deposit specific) were incorporated into the sampling procedures. In addition, the laboratory carried out 1 in 40 duplicates, selected by the laboratory manager, as renumbered check assays as part of its internal QA/QC procedure. The assay results were stored on a computer disc which is no longer available. AMC was able to examine sample despatch sheets and assay certificates for some external check samples sent to Alex Stewart (Assayers) Ltd (UK) for concentrate samples, which AMC considered were part of the external QA/QC protocols of the mine laboratory. Because of the non-availability of readable data, Behre Dolbear is unable to provide an opinion on the results of these tests.

The sample QA/QC procedures described are considered to be of an acceptable industry standard and appropriate for the style of deposit. It is likely that QA/QC protocols were in place for all sampling and assaying procedures and it would be useful if this data could be retrieved and the information documented for future technical audits.

Bulk Density

Bulk density data has been collated over a period of time and was routinely collected on samples in the mine laboratory. The bulk density data was not included in the mine database.

Data was also collected from production blast-holes (mainly in 2000) and the correlation between the density and sulphur content of the material was calculated. An adjustment for fissures in the rock was accounted for in the equation. A density of 2.8 g/cc was calculated based on test work, then reduced to 2.7 g/cc to accommodate the rock condition.

For the 2008 resource estimate, the resource modelling consultant (Snowden) applied a bulk-density value calculated for each block based on the estimated sulphur value of the block. The formula used to calculate the bulk density was: Bulk Density = (%S x 0.025) + 2.70.

Copper mining in the CCW area yielded an average ore grade of less than 4%S and mostly less than 9%S. Consequently, the density ranged between 2.75 and 2.80. Copper mining in the CCE area yielded ore with a higher sulphur content. In the Filón Sur and Filón Norte domains, not all blocks had an estimate for sulphur. In these blocks, density was applied using a mean sulphur grade for the domain (19.17% S for Filón Sur and 11.62% S for Filón Norte).

This method of calculating bulk density was appropriate for this type of deposit, but there is scope for further improvement, such as refining the density of different lithologies and/or alteration types.

11.0 DATA VERIFICATION

Details of the verification work carried out by EMED and its consultants (AMC and Snowden) are noted in the relevant sections above.

Behre Dolbear carried out sufficient independent verification of:

- the historical production records – by comparison of the production data available in the public domain relating to the historical Rio Tinto mine operations;
- the mineralisation exposed in the Cerro Colorado pit - by visual inspection and discussions with relevant staff;
- the existing drill-core - by visual inspection of all the remaining drill core and comparison with the relevant drill-logs and assay logs;
- the assay data - by comparison with the relevant drill-core where available;
- the mine laboratory - by review of the operating procedures and by inspection of the laboratory and discussion with the relevant staff; and
- the processing plant and other facilities – by visual inspection and discussions with relevant staff;

in order to confirm that the verification work done by EMED and its consultants was both comprehensive and reliable.

12.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing was done by EMED, which has essentially relied on the extensive historical production records, but in 2009, AMC completed an evaluation of alternative metallurgical processing methods. This showed that the utilisation of the pre-existing milling and flotation plant and a continuation of the historical production of a copper concentrate is the preferred method of treatment for the copper ore, confirming the approach proposed by EMED for the restart of the Project.

The design criteria and equipment specifications for the rehabilitated plant are based on historical performance, previous laboratory and pilot plant test-work and computer simulations using the USIMPAC© software package. Laboratory minerals processing test-work has been undertaken using samples from the limited core available with the primary objective of generating material to confirm the suitability of the concentrate for pressure filtration and for concentrate and tailings characterisation. Once the necessary permissions are in place to undertake new drilling, a large representative sample will be prepared to confirm the metallurgical parameters, copper and silver grades and recoveries, particularly of the CCE material, which will be processed first.

13.0 MINERAL RESOURCE ESTIMATES

The Mineral Resources remaining in the area of the Cerro Colorado open-pit have been under review for the past five years and during this time the Resource estimates have been subjected to an increasing level of complexity and sophistication.

In March 2008, EMED commissioned a recognised resource-modeling consultant (Eric Chapman, BSc (Hons), MSc, of Snowden Mining Industry Consultants Inc.) to prepare a revised resource model which was provided to, and reviewed by AMC and accepted as the basis for a new resource estimate (AMC, 2008 and 2010). AMC carried out several site visits, reviewed the data collection and validation procedures, resource estimation procedures and compliance of the resource estimate with the guidelines of the JORC Code 2004; also a review of the geological model, geostatistics, and the resource classification, which resulted in a revised Mineral Resources and Reserves estimate. The

revised Mineral Resource estimate was constrained within an open-pit shell based on a copper price of \$3.00 per pound. Only the copper was considered in the Resource estimate. Silver was known to occur in potentially economic quantities within the deposit, but further work was required to determine what contribution silver might add to the Resources and Reserves.

Behre Dolbear has derived the following section of this report from the resource modelling consultant's report (Snowden, 2008) and AMC's 2010 report.

Sample Data

Four primary sources of sample data were used for the resource estimation:

- surface diamond drill holes;
- surface Investigation Reverse Circulation (RC) and percussion drill holes;
- underground diamond drill holes; and
- underground channel samples.

The surface diamond drilling was on a semi-regular 50 m x 50 m spacing down to about 280 RL, and on a semi-regular 100 m x 150 m spacing below 280 RL. About 75% of the holes were vertical. The angled holes were predominantly inclined to the north at about 70 degrees. The drill density of the Investigation RC drilling was on a regular 20 m x 25 m spacing. All Investigation RC holes were vertical.

Table 3 Summary of Resource Drilling

Data Type	Metres drilled	Metres Sampled
Surface Diamond Drilling	143,855	2,696
Surface Investigation RC and Percussion Drilling	264,314	224,337
Underground Diamond Drilling	14,392	2,361
Underground Channel Samples	19,954	4,137

RC gossan drill holes were not used by AMC or Snowden for resource estimation purposes as all the material related to these drill holes has been mined or is classed as waste material on the periphery of the deposit.

Resource Estimation Data

Technical data and information were made available by EMED in the following formats:

- Digital Datamine (DM) drill-hole database files containing collar, survey, assay and geology data;
- Digital database files in various formats (Excel and Informix) of collar, survey, assay and geology data;
- 3D digital DM wireframe files of topography, geology constraints, underground workings (excluding development), and waste-filled areas;
- 3D digital DM interpolated resource model;
- Down-hole survey discs (where available);
- Hard-copy original assay certificates and geological logs;
- Hard-copy and digital geological reports, maps, technical reviews and audits;
- Hard-copy and digital reports on resources, reserves and reconciliation studies; and
- Drill core (where available).

Geological Domains and Constraints

AMC reviewed the geological model consisting of a single mineralised stockwork zone and modified it, using lithology data from the drill-hole logs, to identify six major lithological alteration domains that were then used as the basis for the statistical and geostatistical analysis. These were:

- A felsic volcanic domain;
- A mafic volcanic domain;
- The Filón Sur high-grade domain;
- The Filón Norte high-grade domain;
- The oxide domain; and
- An un-mineralised Culm shale domain.

Statistical and variogram modelling was carried out for each data type within each lithological alteration domain. Three infrastructure domains were also built into the block model prior to resource estimation to constrain the interpolation process, as follows:

Domain 1 Felsic volcanic rocks: Viséan-aged felsic volcanic rocks inter-layered with sediments. Copper grades are elevated in this the primary zone of mineralisation. Domain 1 was further sub-divided (at -1,800 mE) into the CCE and CCW domains for variography and resource estimation purposes.

Domain 2 Mafic volcanic rocks: Viséan-aged mafic volcanic rocks containing slightly elevated copper grades, but not as high as in the felsic volcanics. These rocks provide a potential source of ore-grade mineralisation.

Domain 3 Filón Sur: A high-grade copper domain within the felsic volcanics, located on the southern limb of the plunging anticline. This domain contains extensive underground workings on massive sulphides in the CCW region.

Domain 4 Filón Norte: A high-grade copper domain within the felsic volcanics, located on the northern limb of the plunging anticline. This domain also contains extensive underground workings in the CCE region.

Domain 5 Oxide zone: An undulating, sub-horizontal zone, identified through drill-hole, core and sample data, containing material rich in secondary copper oxides. Most of this oxide material has been mined out.

Domain 6 Culm Slate: Un-mineralised material regarded as waste and excluded from the Mineral Resource estimate.

Domain 7 Filón Sur open-pit backfill: A closed-volume domain that represents the open-cut portion of Filón Sur that was backfilled with waste material. This zone was excluded from the Resource estimate.

Domain 8 Underground workings: A series of closed volume wireframes representing the mined out areas of the underground workings within the deposit. This zone was excluded from the resource estimate.

Domain 9 Topography: A DTM surface representing the July 2006 topographic surface. This geological model is considered to be appropriate for this type of deposit and for resource estimation purposes.

Resource Estimation Procedures and Parameters

The resource estimation domains are located within an asymmetrical anticline that plunges to the east at approximately 10°. The southern limb of the anticline dips steeply to the south at 70° to 90°, while the northern limb dips about 35° to 80°. The continuity of mineralisation is likely to reflect the stratigraphic orientation of the anticline and therefore the sample search ellipse and anisotropy weighting for grade estimation was modified to follow the trend direction of the mineralisation by

applying dynamic anisotropy rather than a fixed search ellipse. The search distances for all elements in all domains were set to 75 m in the east direction, 60 m in the north direction and 25 m in the elevation direction. The maximum number of samples used for estimation was 20.

The resource block size (25 m by 25 m by 12 m) for the model was determined by reference to the drill-hole spacing, the proposed selective mining unit (SMU), and the bench height. Splitting of parent cells into sub-cells was allowed to provide a better volume resolution within the domain wireframes. The block model was coded according to the domain and validated by visual and volumetric comparisons to the domain wireframes. The block model limits are summarised in Table 4.

Table 4 Resource Block Model Limits

Direction	Minimum (m)	Maximum (m)	Block Size (m)	No of Blocks
Easting	-3,700	0	25	148
Northing	700	2,200	25	60
Elevation	-20	700	12	60

Data from mined-out areas was included for interpolation purposes, but these mined-out areas were then excised from the reported resource estimate.

Resource Classification

Several factors were considered in determining the Resource classification:

- Geological understanding, including geological continuity and complexity;
- Data density and orientation;
- Data accuracy and precision;
- Grade continuity; and
- Estimation quality

The Mineral Resource models were coded for Inferred, Indicated and Measured Resource categories using a combination of two methods:

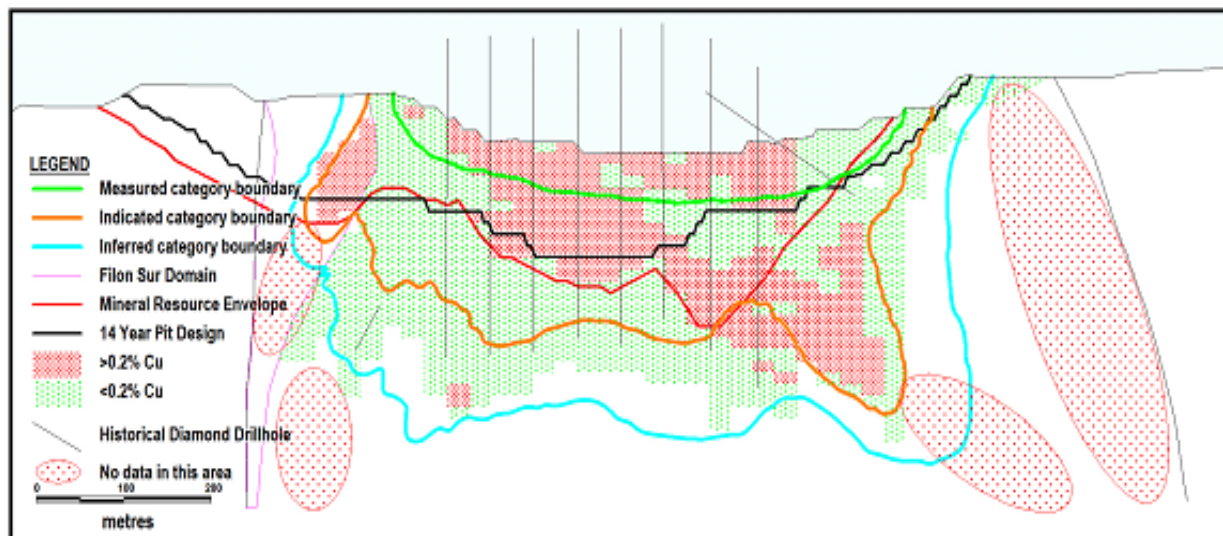
The first was to use the kriging variance (KV) of copper to provide an indicative classification reflecting the number of samples, their clustering, variable anisotropy and variogram parameters, for the purpose of measuring of the confidence in the grade estimate. However, a 'spotted dog' effect could occur around single drill holes, which might result in blocks of Measured Resource material occurring within Indicated and/or Inferred Resource material (Stephenson P R. et al, 2006). Therefore, to improve the classification, a series of envelopes representing Measured, Indicated and Inferred Resources were generated on cross-sections throughout the deposit at 100 m intervals, based on a combination of Cu KV, drill-hole density and confidence in the interpreted mineralised zone.

The Measured Resource category was based on the 20 m x 25 m spaced surface investigation drill holes that had not yet been mined out. Therefore, the Measured Resources are confined to a depth of about 10 to 12 m below the existing pit floor.

The Indicated and Inferred Resource categories were based on the surface diamond drill holes of varying length. The Indicated Resource category was based on the more numerous shallow drill holes that form a 50 m by 50 m grid spacing down to about 280 mRL. The Inferred Resource category was based on the less numerous deep drill-holes that form a semi-regular 100 m by 150 m grid spacing below 280 mRL.

Figure 9 is a cross-section showing Mineral Resources boundaries and proposed open-pit.

Figure 9 Cross-section showing Mineral Resource boundaries and proposed open-pit



AMC reviewed the resource classification criteria with the resource-modelling consultant and after the application of additional smoothing of the Indicated/Inferred boundaries, accepted the resource classification as appropriate.

Bulk Density

The bulk-density value was calculated for each block based on the estimated sulphur value of the block, and was applied after the estimation process. The formula used was: Bulk Density = (S% x 0.025) + 2.70. The sulphur-density correlation formula was derived empirically by previous workers at Rio Tinto Copper Project from laboratory results (EMED, 2008).

Cut Off Grade

Previous operators of the Rio Tinto mines have used a range of cut-off values for the estimation of Mineral Resources and the delineation of ore reserves, as shown in Table 5.

Table 5 Historic Cut-off Grades Used at Rio Tinto

Year	Cu cut-off grade (%)
1995	0.25
1996 – 1997	0.28
1998 – 1999	0.30
2000 – 2001	0.35

As part of the 2008 resource estimation, the Measured or Indicated Resource categories were combined and their sensitivity to a range of cut-off grades were investigated by means of grade tonnage curves (Figure 10 and Table 6).

Figure 10 Grade-Tonnage Curve at Cerro Colorado

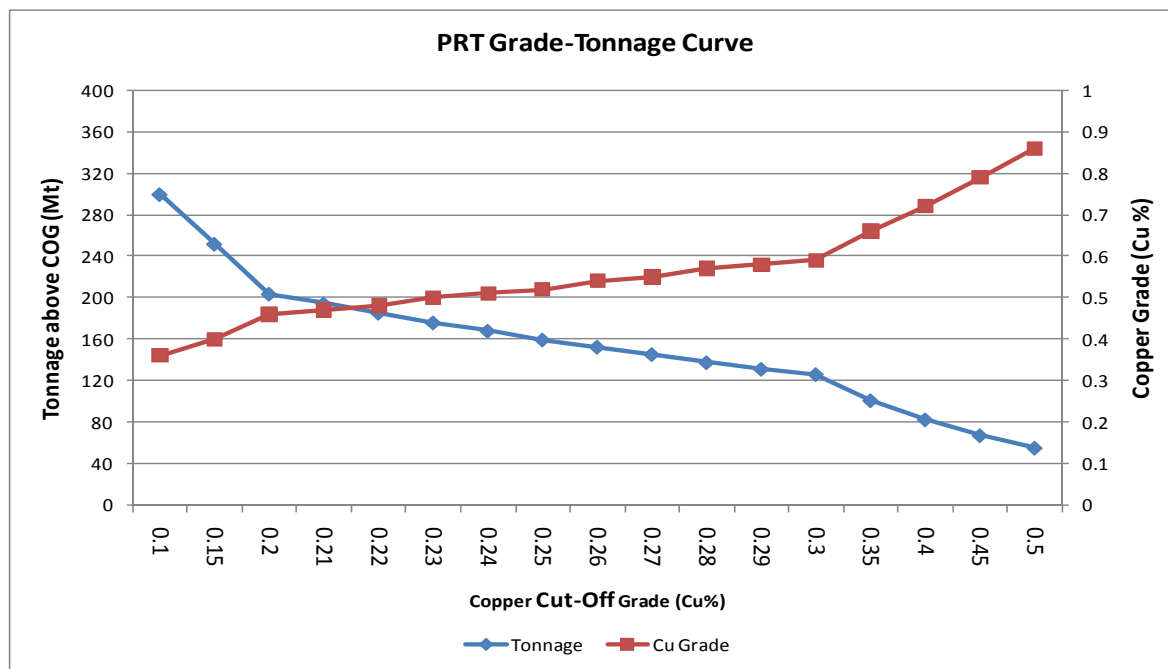


Table 6 Measured and Indicated Resources at Various Cut-off Grades (Source: AMC, 2008)

Cut-off grade (Cu %)	Tonnes	Grade above COG (Cu %)
0.10	299,570,000	0.36
0.15	251,750,000	0.40
0.20	203,064,000	0.46
0.21	194,230,000	0.47
0.22	185,320,000	0.48
0.23	175,930,000	0.50
0.24	167,910,000	0.51
0.25	159,470,000	0.52
0.26	152,540,000	0.54
0.27	145,380,000	0.55
0.28	137,620,000	0.57
0.29	131,200,000	0.58
0.30	126,110,000	0.59
0.35	100,920,000	0.66
0.40	82,460,000	0.72
0.45	67,180,000	0.79
0.50	55,140,000	0.86

These grade-tonnage results demonstrate the sensitivity of the deposit to changes in the cut-off-grade with an almost 50% decrease in tonnage between a cut-off-grade of 0.20% Cu and 0.30% Cu.

The cut-off grade applied to the April 2008 estimate was 0.20% Cu, reduced from the 0.25% Cu cut-off used previously. A cut-off-grade of 0.20% Cu is considered reasonable at the current copper price, but should be reviewed as economic conditions change and technical parameters are better defined.

Resource Estimation Results

The resource was estimated (AMC, 2008) by Ordinary Kriging (OK) methodology, using a 25 m by 25 m by 12 m block cell size and a cut-off grade (COG) of 0.20 % Cu, within an ultimate open-pit shell generated by AMC based on a long term copper price of \$3.00 per pound. The measured and indicated resource totals 203 Mt at 0.46%Cu as shown in Table 7 with mineral tonnages rounded to the nearest 100,000.

There are no material differences between the CIM and JORC definitions of Mineral Reserves or Mineral Resources.

**Table 7 Mineral Resources above a 0.20% Cu Cut-off Grade.
(Adapted from AMC 2008)**

Domain	Category	Mineral (Mt)	Grade (Cu%)	Contained Cu (kt)
1	Measured	41.4	0.38	156
	Indicated	80.2	0.37	300
	Inferred	1.5	0.46	7
2	Measured	5.9	0.36	21
	Indicated	40.8	0.33	133
	Inferred	0.3	0.31	1
3	Measured	0	-	-
	Indicated	9.6	1.11	107
	Inferred	0.3	0.87	3
4	Measured	0	-	-
	Indicated	24.7	0.87	214
	Inferred	0	-	-
5	Measured	0.3	0.32	1
	Indicated	0.0	0.28	0
	Inferred	0.0	0.21	0
All	Measured	47.6	0.38	180
	Indicated	155.4	0.49	760
	Inferred	2.1	0.50	10
Total	Measured and Indicated	203.1	0.46	930

Note: Totals may not add precisely, due to rounding

This Mineral Resource estimate (AMC, 2008) was prepared and reported in accordance with the JORC Code (Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, prepared by the Australian Institute of Mining and Metallurgy, 2004). Behre Dolbear consider that this estimate is current at the date of this report. It has been reviewed and accepted by Richard J Fletcher M. Sc. FAusIMM, MIMMM, C. Geol, C.Eng in terms of NI 43-101.

Proven and probable mineral reserve estimates are included in the total measured and indicated mineral resource estimates.

The optimum cut-off grade for this project was not known at the time of this estimate and needed to be confirmed by the appropriate economic studies. The estimated metal content does not include any provisions for mining, mineral processing or metallurgical recovery losses.

In Behre Dolbear's opinion, the April 2008 resource estimate was reasonable and appropriate for the following reasons:

- The April 2008 Mineral Resource recognised the need to take into account 'reasonable prospects for eventual economic extraction' (JORC, 2004). This involved the generation of an 'open-pit shell' based on a long-term copper price of \$3.00/lb;
- Domaining of geological horizons, higher-grade zones of mineralisation and oxidised ore to reduce the smearing of high assay values into low-grade domains during estimation;
- Utilisation of a dynamic anisotropic search ellipse to ensure grade estimation was structurally controlled by the plunging anticline. This improved the continuity of grade estimates around, rather than across, the anticline; and
- Application of a 0.20% Cu cut-off grade instead of the 0.25% Cu cut-off grade used previously.

Based on the data and information provided by AMC and EMED, Behre Dolbear maintains that there are no issues that would have a material effect on the Mineral Resource estimate and that the Mineral Resource estimate represents a reliable basis for Mineral Reserve estimation.

14.0 MINERAL RESERVE ESTIMATES

The Mineral Reserve estimates for the Cerro Colorado base case were based on a Selective Mining Unit of 12.5 m by 12.5 m by 12 m consistent with the proposed mining method and equipment selection. The base-case reserve estimate is summarised in Table 8.

Table 8 Mineral Reserve estimate at 0.20% Cu Cut-off grade
(Source AMC Restart Report 2010)

Category	Tonnage Mt	Grade Cu %	Contained Cu t	Waste: Ore Ratio
Proven	39	0.38	148,000	
Probable	84	0.54	458,000	
Total Reserve	123	0.49	606,000	1.1

These Mineral Reserves are included in the Mineral Resource estimate described in Section 13 and Table 7 above. There are no material differences between the CIM and JORC definitions of Mineral Reserves or Mineral Resources. The numbers in the Table do not add up precisely because of rounding.

Further information relating to the Mineral Reserve estimation is included in Section 15 of this report: Mining Methods.

15.0 MINING METHODS

Introduction

There are no current mining operations taking place at the Rio Tinto site, although operations have been conducted at the site since Roman times and possibly earlier. The Cerro Colorado open pit, the basis of the EMED's Rio Tinto Project, started operating in 1968. The British Rio Tinto Company had already, since 1954, begun divesting themselves of their interests in Rio Tinto Minera, and by the end of the 1990s, the mining properties at Rio Tinto were owned by a local co-operative. Due to economic conditions, mining ceased at Cerro Colorado and other smaller operations in 2001. The Cerro Colorado pit today is fully open and, except for pond water at the lower levels of the pit, is in remarkably good condition.

Mineral Resources and Reserves

The information in this section is taken from the AMC report no AMC410017 dated July 2010 entitled Report Update on the restart of the Proyecto de Rio Tinto. The report takes as its starting point the Cerro Colorado Mineral Resource model dated April 2008. From this model, only blocks containing more than 0.20% Cu were used. A diluted Mineral Resource model was devolved from this model using an ore loss of 1.4% of the material in the ultimate pit, and a dilution of 2.1%. Although no full feasibility study has been conducted, Behre Dolbear accepts that the deposit can be described as containing Mineral Reserves in the light of the operations up to 2001 and the AMC Restart Study (see Section 16). The results are summarised in the table below.

Table 9 Dilution and ore loss in the ultimate Cerro Colorado pit

	Material type			Variance %		
	Ore kt	Cu%	Cu metal kt	Ore	Cu	Cu metal
Undiluted	123,234	0.50	620			
Ore loss	1,747	0.43	8	-1.4%	-14.3%	-1.2%
Dilution	2,649	0.03	1	2.1%	-94.2%	0.1%
Diluted	124,135	0.49	614	0.7%	-1.8%	-1.1%

A series of optimisations were run on this model using the input parameters in the table below.

Table 10 Optimisation inputs

Input	Units	Base
Copper price	\$/tonne	4,409
Exchange rate	\$/€	1.40
Costs		
Mining base rate	\$/tonne rock	1.88
MCAF per 12 m	\$/tonne rock	0.02
Process and admin	\$/t ore	6.10
Concentrate transport	\$/wet tonne	18.2
Smelting	\$/t dry con	85.4
Refining	\$/lb Cu metal	0.085
Physicals		
Slopes CCW	Degree	37
Slopes CCE	Degree	37
Slopes Filón Sur	Degree	33
Cu recovery CCW	%	87.0
Cu recovery CCE	%	81.5
Concentrate grade CCW/Filón Sur	Cu %	23.0
Concentrate grade CCE	Cu %	21.0
Concentrate transport loss	%	0.25
Concentrate moisture	%	8.0

Using Whittle 4X software, a number of pit shells were generated and the optimum chosen as a basis for the report. The results for the base case are summarised in the table below.

Table 11 Summary of optimisation results

Ore	Cu%	Waste	Undiscounted cash flow	Best DCF
Mt		Mt	\$M	\$M
125	0.5	139	686	461

Behre Dolbear comments that the input data used in this preliminary assessment is reasonable and appropriate.

Pit design

These base-case results were used for a preliminary pit design. The design parameters are summarised as follows:

- Ramp width – 30 m
- Ramp gradient – 9%
- Minimum mining width – 40 m
- Bench height – 12 m
- Batter angle – 70 °

Behre Dolbear agrees that these design parameters are reasonable and appropriate.

After the pit design, the following pit reserves are stated. There are no material differences between the CIM and JORC definitions of Mineral Reserves or Mineral Resources.

Table 12 Reserves in design pit

(Source: AMC 2010 Restart Report)

Category	Mt	%Cu	Cont Cu 000 t	Waste: ore ratio
Proven	39	0.38	148	1.0
Probable	84	0.52	458	2.0
Total	123	0.49	606	1.1

Operations

It is proposed to develop the Cerro Colorado pit in two stages, starting from the current open-pit shell: an interim pit and the ultimate pit. The mining rate of ore will build up over an 18-month period to an annual rate of 9 Mt/y.

The initial life of mine is estimated to be around 14 years, with a pre-production period of about 1 year from the date of draw-down on the project financing to prepare the mine for production. The mine schedule is presented in Table 13 below.

Table 13 Cerro Colorado mine production schedule

Production	Units	LOM	Year 1	Year2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Ore Mined	Mt	123	2.5	6.8	9.0	9.0	9.0	9.0	9.0	9.0
Ore grade	%Cu	0.49	0.53	0.54	0.52	0.49	0.47	0.0.52	0.59	0.60
Waste Mined	Mt	132	4.5	6.9	13.8	18.8	20.1	16.9	11.8	7.9
Waste:ore ratio	Ratio	1.07	1.80	1.01	1.53	2.09	2.23	1.88	1.31	0.88
Ore Milled	Mt	123	2.5	6.8	9.0	9.0	9.0	9.0	9.0	9.0
Concentrate Shipped	kt	2,565	57	157	186	178	182	197	223	231
Contained Cu in Con	kt	515	11	31	37	36	36	40	45	46
Payable Copper	kt	492	11	29	35	34	35	38	43	44
Production	Units	LOM	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	
Ore Mined	Mt	123	9.0	9.0	9.0	9.0	9.0	9.0	9.0	
Ore grade	%Cu	0.49	0.61	0.59	0.45	0.37	0.39	0.38	0.37	
Waste Mined	Mt	132	6.9	7.1	7.2	5.4	2.5	1.2	0.4	
Waste:ore ratio	Ratio	1.07	0.77	0.80	0.81	0.60	0.28	0.13	0.07	
Ore Milled	Mt	123	9.00	9.00	9.00	9.00	9.00	9.00	9.00	
Concentrate Shipped	kt	2,565	229	235	214	132	150	144	140	
Contained Cu in Con	kt	515	46	44	35	29	30	29	19	
Payable Copper	kt	492	43	42	33	28	29	28	19	

EMED proposes to use a mining contractor for all excavation work, including drilling and blasting. It is probable that the drill-and-blast contract will be separate from the load-and-haul contract, so that grade control will be under closer EMED management control. Indicative pricing has been presented by EPSA and Grupo PEAL. Both are large, well-established mining contractors in Spain, and both have major mining contracts in the immediate area.

While the mine schedule is technically feasible, Behre Dolbear comments that there is a large peak of waste development from years 2016 -2019 (years 3 to 6). This is a point that will need detailed discussion at the time of contract award.

Mining operations will not be difficult to restart. The roadways around the pit are in good condition, particularly bearing in mind the amount of time they have remained unused and with minimum maintenance. The pit benches are mostly in good condition, devoid of slumps and fully traversable in their current state. The pit walls are in good condition and there are no significant failures of the pit walls visible. There will be a certain minimum amount of work necessary to put the pit into operation, but this will not be technically or operationally difficult.

Operations will be conventional, with bench drilling of blast-holes, and standard blasting patterns using standard blasting agents. Both ammonium-nitrate/fuel-oil explosives and emulsion products will be used according to the amount of water present in the area to be blasted. Ore and waste will be loaded and hauled using conventional hydraulic excavators and diesel haul trucks.

All ancillary mine fleet, for road construction and maintenance, dump construction and maintenance, equipment servicing and maintenance, and all mine associated activities, will be provided by the mine contractor.

Personnel employed in the mining sector by the owner will be limited to management, contract management, some safety and supervision and most technical functions; employees are expected to total around 50 persons. Contractor personnel will cover supervision, equipment maintenance and operational personnel. The former is expected to total 48 persons, and the latter up to 133 persons depending on the phase of operations.

Parallel with the re-commencement of mining operations, the flooded area at the base of the present open pit will need to be pumped dry. The ponded water is acidic and the method of drainage will address this issue. Some 3.2 Mm³ of water are in place at present, and future steady-state pumping is estimated at 0.5 Mm³ per year. This water will either be pumped to a high density sludge plant constructed, where possible, from equipment from the former gold recovery circuit for treatment and used in the process, or alternatively will be discharged after appropriate treatment and upon the receipt of the relevant regulatory discharge approvals. The water cycle is discussed further in Section 19.

Underground voids are known to exist within the final pit volume. While the positions of many of these are known, a procedure will be developed to drill from the operating pit benches and map any voids encountered. This will be filled prior to operations taking place in the vicinity of such voids.

Behre Dolbear agrees that the mining technology proposed for the mining of the Cerro Colorado open pit is feasible and appropriate. However, it should be noted that at the time of this report, neither mine contractor approached had contracted or committed to provide the required services. It is reasonable to expect that one or other of the two contractors, or even others, will submit compliant proposals in due course. The commercial terms of these proposals will be those pertaining at the time of contract and are difficult to predict at this stage.

Waste dumps

The Cerro Colorado open pit configured in the AMC study contains some 132 Mt of waste rock. This will be deposited at the site of the two existing waste dumps from previous operations. The existing north and south dumps are stable and are in good condition. The roads to the dumps are generally good, but there are some wash-aways that will need to be dealt with. This is not a demanding task. Both dumps will be developed from their current positions by a combination of end dumping from the top of the existing dumps and bottom-up dumping by developing extensions to the dumps starting from the current ground level. The concept is to encapsulate the final surfaces of the waste dumps with a layer of slate in order to reduce the permeability of the waste dumps and to minimise the inflow of water. A drain system is to be built in the foundations of the new sections of the waste dumps and at the final toe of the dumps and all drainage from the dumps will be conducted to a settlement and treatment pond. Behre Dolbear accepts that there is sufficient volume available at the dump-site for the waste material generated in the first 15 years of operations.

Conclusion on Mining Methods

Behre Dolbear regards the preparatory work on restarting the open-pit mine operation, the plans for contract mining and EMED's personnel involved in the planning to be suitable and competent.

16.0 RECOVERY METHODS

Behre Dolbear has reviewed the reports by AMC and GBM on the processing options and plans and has visited the currently inactive processing plant with EMED personnel in August 2010 and in May and November 2012.

Behre Dolbear has reviewed work in progress by EMED and its project and construction management consultants (Merit Consultants International Incorporated of Vancouver, and their other specialist contractors), which has resulted in the production of updated and more detailed equipment engineering audit reports. This has led to the preparation of a comprehensive and more accurate capital expenditure estimate, which is being finalised, to return the plant and associated infrastructure to production. The strategy is in two phases, the first to commission sections of the plant to achieve a production level of 5 Mt/y of ore and secondly after 18 months to increase this to 9 Mt/y. The engineering studies include a draft Pre Feasibility Study being prepared by EMED and Sener Engineering & Construction, a Project Execution Plan and a schedule of works.

The AMC Rio Tinto Copper Project Reports of March 2009 and May 2011, considered three alternative processing methods: heap-leach, vat-leach and flotation. The method providing the best economic return was rehabilitation of the plant constructed in the 1980s, which was a conventional crush, grind, float and filter system.

The plant has been idle since 2001, but the major items of equipment have not suffered serious deterioration.

EMED and Merit Consultants, in conjunction with their engineering subcontractors, have developed a working "Equipment List" which is being used to audit the condition and capacity assessment of the mechanical, electrical and structural elements of the plant and infrastructure. This audit has resulted in a detailed condition assessment, costing, schedule and work breakdown structure to return the plant to operation. Having inspected the plant and reviewed the documentation, Behre Dolbear considers the work comprehensive and prepared to Industry standards.

Although a new plant design might be different, especially in the grinding section, the capital cost of a green-field concentrator may have made the project uneconomic. There will be significant cost elements associated with rehabilitation and refurbishing including the roofing and siding (largely corrugated asbestos sheeting which will have to be replaced) and the overhead cranes. The field instrumentation will have to be replaced and a new plant process control system installed. A significant amount of the electrical transformation, reticulation and switchgear will need extensive repair and some replacement. The concentrate dewatering system will be completely modernized with pressure filters replacing the disc filters and thermal drier; a test-work programme has been undertaken, which confirms their suitability. A review of the historical plant performance and computer simulations (using the well known proprietary software package USIMPAC©) of Phase 2 of the Project concluded that additional equipment will be required in order for the rehabilitated Concentrator to reliably and efficiently treat 9 Mt/y particularly in the flotation and tailings sections. These factors together with a more reliable cost basis have led to the significant increase in the plant capital expenditure requirement from the earlier 2010 estimate of \$36.2M to \$81.5M, which includes an overall project contingency of 13.4%. The estimate has been prepared using industry standard practice to a targeted accuracy of +/-15%.

The plant includes an impressive pilot plant, which appears to have had little use.

The current Restart Report Project Execution Plan has estimated that it will take approximately 15 months from the receipt of all necessary permits to the start of first production. Assuming the receipt of all project approvals and permits, it is noted that the revised execution schedule now

assumes a nine-month window between drawdown of project financing and the commencement of production, with first production anticipated in the second half of year 1. Provided that the pre-construction activities are completed and the long-lead items are pre-ordered, this schedule, though challenging, is achievable with suitable personnel and contractors on site.

The business plan is based on processing a life-of-mine (LOM) total of 123 Mt of ore, grading 0.49% copper using a cut-off grade of 0.20%. At the start of production, according to the EMED schedule, the annualised monthly production rate is 5.0 Mt/y, which increases over the next 18 months to the Phase 2 rate of 9 Mt/y during which time the uprating of the plant and installation of new equipment has to be completed. The total payable copper production in the model is 1,084 Mlb (492,000 tonnes) over the LOM. However, it is likely that Ore Reserves will be increased and the life of the mine extended by the conversion of a substantial proportion of the Measured and Indicated Resources to Ore Reserves and from exploration conducted in the eastern area of the open-pit mine and in neighbouring targets.

The ore feed to the Rio Tinto Copper Project concentrator will be drawn primarily from two distinct ore sources, CCW and CCE, which have different mineralogical characteristics. CCE ore has higher copper content, historically 0.63% compared to 0.4% for the CCW; it also has a much higher sulphur content, 12% against 4%, and higher contents of the penalty elements of arsenic, antimony and bismuth. CCE ore gave lower copper recoveries than CCW ore during previous operations. Extensive mineralogical data is available from the operation of the processing facilities during that period, when the facilities were equipped with mineralogical analysis infrastructure including image analysis and corresponding software.

For metallurgical processing purposes, the most significant mineral type is pyrite, due to its being the hardest material, and commonly occurring as having the largest mineral grain size. The copper-bearing mineral is predominantly chalcopyrite, which is distributed with the pyrite grains. Therefore a relatively coarse primary grind is required to collect the chalcopyrite-bearing minerals with the pyrite and a relatively fine regrind of the rougher concentrate is needed to maximize the copper concentrate grade. The CCE requires a finer primary grind than the CCW to achieve the required performance on the plant. Counteracting this, in terms of the required milling power, the CCE has a lower Bond work index. Both ore types contain silver values some of which reports to the copper concentrate, although little assay data is available from the existing core logs. The silver grades given for the concentrates are derived from the historical concentrate shipping data, both from the dispatcher and the receiving smelter. This is a reasonable approach and EMED's opinion is that there is no reason to expect the geology of the ore mined to change significantly over the mine life. The silver head grades provided in Table 14 are not consistent with the estimated concentrate grades and will need determining as part of the proposed new drilling and sampling campaign planned by EMED and due to start as soon as the necessary permissions are in place.

The different ore properties are summarised in Table 14 below. This data has been provided by EMED and is based on the historical plant operating records.

Table 14 Summary of CCW and CCE Ore Characteristics

Cerro Colorado Pit, Summary of Ores		
Parameter	CCW	CCE
<i>Mineralogy</i>	6.5% FeS ₂ , Pyrite	21% FeS ₂ , Pyrite
	1.2% CuFeS ₂ , Chalcopyrite	1.8% CuFeS ₂ , Chalcopyrite
	0.2% ZnS, Sphalerite	0.3% ZnS, Sphalerite
	91.9% Gangue	76% Gangue
<i>Composition</i>	4% S	12% S
	0.4% Cu	0.63% Cu
	0.13% Zn	0.19% Zn
	0.4gpt Ag	0.8gpt Ag
	205ppm As	500ppm As
	20ppm Sb	61ppm Sb
	11ppm Bi	29ppm Bi
<i>Design data</i>		
Bond Work Hardness	16 kWh/t	14kWh/t
SG, dry ore	3	3.5
Flotation Feed target F80	210 microns	160 microns
Con Regrind P80	~45 microns	~ 40 microns
Rougher Residence time for Phase 1	~23mins	~24mins
Rougher Residence time for Phase 2	~19mins	~19mins
Cu Recovery	87.0%	81.00%
Copper Con Grade	~ 23% Cu, (58g/t Ag)	~ 21% Cu, (132 g/t Ag)

The Filon Sur (FSUR) zone in the pit is considered analogous to and requiring the same process parameters as the CCW material.

There will be limited access to CCW ore in the first stages of open-pit mining and the higher copper grade CCE ore will make up the majority of the plant feed in the first two years of the operation. Due to the different ore properties, EMED intends to process the two ore types in separate campaigns, which is the logical treatment strategy.

The minerals processing plant is conventional and a detailed design was developed in the 1990s after extensive pilot-plant work. Subsequent operating experience and computer simulation has confirmed that the following system is appropriate:

- Three-stage crushing to reduce run-of-mine ore to a final crushed product of minus 19 mm, a suitable size for rod-mill feed. The primary crusher is a 60" x 89" gyratory crusher, which discharges -165 mm material to the coarse crushed-ore stockpile. Secondary and tertiary crushing circuits, comprising 7 ft standard and shorthead cone

crushers and associated screening systems will reduce the particle size to minus 19 mm. The crushed material will be delivered to the fine-ore stockpile. This section will undergo extensive uprating in stages to meet the required production throughput rates.

- Three milling trains will be employed, the first to meet the Stage 1 throughput of 5 Mt/y and comprises a 14' x 20' rod mill driven by a 1840 kW electric motor in open circuit with 3 parallel 15.5' x 21' ball mills each installed with 2473 kW motors which operate in closed circuit with hydrocyclones. The second and third trains, which will be added after rehabilitation to treat 9 Mt/y, each comprise a 12.5' x 16' rod mill fitted with a 920 kW motor operating in open circuit with two 12.5' x 16' ball mills driven by 920 kW motors operating in closed circuit with hydrocyclones. The mills in each train discharge into common sumps from which the slurry is pumped to parallel clusters of 26" diameter hydrocyclones. The underflow from each of these cyclone clusters gravitates to its associated ball mills while the overflow (the final milled product) passes to the rougher-flotation-cell slurry distributor.
- Rougher flotation will use 3 banks of 11 and one bank of 13 500 cubic-foot Wemco cells. The rougher concentrate is reground in two 12.5' x 15', 920 kW regrind ball mills, which operate in closed circuit with hydrocyclone clusters. The overflow passes to the first-stage cleaner cells. It is expected that one of the regrind mills will be sufficient during processing CCW ore. The first-stage cleaners will comprise four banks of eight 300 cubic foot Wemco cells. The first stage cleaner tailings are directed to the cleaner scavenger bank, consisting of ten 500 cubic foot Wemco cells. The second and third stages of cleaning comprise 2 banks of 8 and 2 banks of 7 500 cubic foot Wemcos. It is expected that one of these banks will be required for the CCW ore while both will be needed for the CCE material due the higher pyrite content. Cleaner tailings from the second and third stages are returned to the preceding cleaner stage. The scavenger cleaner concentrate is combined with the rougher concentrate and is reground, while the cleaner scavenger tailings gravitate with the rougher tailings to a channel which carries them to the tailings sump from where the final plant residue is pumped to the tailings dam via a high capacity thickener. The second stage expansion, increasing throughput from 5Mt/y to 9Mt/y, will require additional flotation capacity, to maintain adequate residence time, which will consist of modern tank cells. The fourth rougher bank of thirteen 500 cubic foot cells will be replaced by four 100 cubic meter capacity tank cells. The first and second stage cleaners will comprise 2 banks of 8 cells and 2 banks of 3 cells respectively. The third cleaner stage will be a single bank of 5 tank cells and the first-stage cleaner tailings scavengers will consist of 2 banks of 5 cells. All these will be 30 cubic meter capacity tank units. A third regrinding mill will be added to the circuit. Operations will be optimised according to the ore characteristics, which will be effected by mean of the plant process monitoring and Distributed Control System. A second 40m diameter tailings thickener will be installed.
- After the 3 cleaner stages, concentrates will flow to the concentrate thickeners; the thickener underflow will be further dewatered by two pressure filters; and the filter cake will be conveyed to the final concentrate Storage shed. The existing bunker-oil-fired dryer will not be required. The final filter cake moisture content is expected to be 9 to 10% by weight. One thickener and pressure filter is sufficient for processing 5Mt/y, which will be increased to two when the plant throughput is increased to 9Mt/y.

In summary, the process-plant refurbishment will be completed in two stages. Initially the process plant will be refurbished to accommodate a throughput rate of 5.0 Mt/y, with the second stage being completed to provide an annual throughput rate of 9.0 Mt/y. Historically, the highest year's previous throughput was 7.2 Mt, but, according to records, a rate of more than 9Mt/y was achieved from

January to September 1998. Based on the past experience and USIMPAC® computer simulations, EMED and their consultants have concluded that the annual rate of 9.0 Mt/y could be achieved with a LOM copper recovery of 85% to a concentrate grading 21 to 23% Cu, on a dry basis, containing 10% moisture. The anticipated gold content of the concentrates is expected to be below 0.5 g/t, too low for any credit. The silver content of the concentrate produced has been estimated from historical records to average 58 g/t and 132 g/t for the CCE and CCW ore types respectively, for which a credit will be expected. The deportment of silver throughout the deposit has not been detailed and the resource and reserve models estimation are based on copper. The silver composition of the concentrates that will be produced is based on the historic production data from treating the CCE and CCW ore types. The overall silver contents assumed in the financial model vary from 63 g/t in 2018/19 up to 140 g/t in 2022/23. Penalty elements are likely to include Zn + Pb at ~ 5%, As at ~ 0.2%, Sb at ~ 0.09%, Hg at ~46ppm and Se at ~ 113 ppm.

EMED has planned an owner's staff complement for the mine and processing plant including administration and management at the full production rate of 9 Mt/y with 187 people, of which 88 are attached to the plant. In addition, EMED has budgeted for maintenance to be contracted out which will entail up to 110 personnel of which 93 will be plant-based. Behre Dolbear considers that the manpower levels and jobs make-up to be adequate for the Project. The Life of Mine average plant operating cost is estimated at \$5.56/t of ore milled, which compares to the 2010 AMC Restart study report estimate of \$5.35/t milled.

Behre Dolbear concludes that the Restart Study by EMED, Merit/Sener et al and associated documentation have been competently prepared with realistic conclusions and that the preparations being made for starting up the plant are appropriate. It has also been concluded that the current work in progress to finalise the Capital and Operating Cost estimates and the Project Execution Plan appear to be competently undertaken by EMED, Merit personnel and the other contractors.

17.0 PROJECT INFRASTRUCTURE

Road Access

The EMED property in Minas de Riotinto and La Dehesa is well served by the network of national roads, which have been upgraded in recent times and are of a high standard. The site is 75 km from the port and industrial city of Huelva and 88 km from the regional capital of Seville. Huelva is the location of the smelter which will receive at least part of the concentrate output from the mine and is also the port which will probably be used to ship the balance of concentrate overseas depending on marketing decisions. Based on this distance and the good road system, trucks can be expected to make two round trips per truck per day and it has been estimated that a fleet of up to 30 trucks, with a 25-tonne payload, will be able to handle the mine output with numbers varying as the output ramps up to peak output. Local transport companies have been consulted and appear to have the necessary capacity and equipment. Local regulations do not permit truck traffic on the weekends, so product transport will be based on a five-day cycle.

Power Supply

When the mine closed in 2001, power was disconnected at the supplier's (ENDESA) substation, which is located about one km from the plant substation. The plant substation received power at 132 kV and is equipped with 3 transformers which reduce the voltage to 6.3 kV for primary distribution throughout the plant. The feeder panel at the ENDESA substation was subsequently reassigned to another customer and, although it is believed that a new feeder panel capable of restoring power to Rio Tinto Copper Project has been provided, this had not been confirmed by inspection at the time of Behre Dolbear's recent visit.

Detailed discussions have taken place with ENDESA, which have given positive indications that power can be restored within two months of the finalization of regulatory approvals. Work being carried out currently is to assess the condition of the transmission towers carrying the HT cabling from the ENDESA substation to the EMED substation to ensure conformity with the latest codes as regards wind loadings and insulators.

The mine substation appears to be in good physical condition and is in a clean and tidy state. The EMED electrical engineer on site advised that the various control cabinets had been inspected and mechanically tested for functionality. Two of the three main transformers show some evidence of minor oil leakage and some rusting on the oil reservoir and radiators, which should be attended to prior to re-energizing. A second-hand transformer has been purchased which will be installed in the spare bay of the substation which will permit sequential removal or upgrade of existing leaking units. It is expected that the above work will be completed during the period leading up to the final regulatory approval and will permit re-energizing the mine substation with the minimum of additional work. The power assigned to the mine at the time of closure was 31MVA and the current assessment of the needs for the new facility indicates that this is compatible with the projections based on the latest single-line diagrams developed in-house for the EMED facility, which were presented during the site visit. As part of the Stage I planning, EMED intends to acquire 3 MVA of backup diesel power generators, delivering power at 6.3 kV, which can feed directly into the mine substation switchgear and can thus be used in the testing of power distribution and running of individual items of equipment as part of the ongoing rehabilitation programme.

At present, all power on site comes from portable diesel generators. This system includes feeds to the various remote water pumping units distributed around the tailings and clear-water deposits and to the fire pump. This situation is clearly inefficient and requires labour to move and monitor the different power inputs. The fire-protection aspect is dealt with separately below.

During the period since the mine was shut down, there has been some theft of and damage to distribution cables. As a precursor to reinstating power distribution, all known damage is being repaired and all cable routes are being located (there is a general lack of as-built drawings for the routing of underground services) and all cables “meggered” to establish their integrity prior to restoring power distribution.

While the main transformers are oil-filled to current standards it is understood that other distribution transformers contain a PCB (Polychlorinated Bi-Phenyl) cooling medium which is no longer acceptable, for environmental reasons. PCBs are synthetic, persistent, non-biodegradable chemicals, which are now recognized as potential carcinogens. They were used as a cooling medium in power transformers due to their properties of good fire resistance and insulating capability. Three levels of PCB concentration are recognized as follows:

- Low level – permitted
- Intermediate level – transformer can be drained, flushed and recharged with non-PCB medium
- High level – transformer to be replaced

All transformers have now been assessed and recognized companies, which can deal with the contaminated oil or entire units, have been identified and the relevant authorisation for proper disposal, where appropriate, has been granted. Corresponding costs are included in current estimates.

Some work will be required to regulate the power factor of the various equipment configurations on the reorganized plant. Some capacitance adjusting equipment is currently installed and the estimates provide for any required additions. While not finalized, a target power factor of the order of 0.85 is envisaged.

Water Systems

Process water supply is brought from the appropriate dams to three welded-steel tanks located on high ground adjacent to the current office block from where water is distributed around the mine site through welded-steel piping systems. These appear to have been designed and installed over a period without a well-controlled system and are in poor condition. Where required, replacement tanks from elsewhere on the site have been identified to replace the existing tanks and piping and valves will be renewed.

The piping is not identified as to its function or flow direction and there are a number of control valves which are probably inoperative. New piping associated with the pit dewatering will be required. Where piping goes underground, there is evidence that surface protection is damaged and there is no evidence that cathodic protection systems are in place. It is intended to replace the existing piping with HDPE (High Density Polyethylene), which will avoid corrosion and the need for cathodic protection.

Potable water is supplied from the municipality to an elevated tank system outside the office gate and then fed to local dwellings at La Dehesa and the mine offices through a plastic pipe-line. This system will require future development when mine operation resumes.

Fire Protection

New fire-protection systems will be designed to NFPA (National Fire Protection Association) standards with a new fire tank and pump station with electric fire pump, back-up diesel and jockey pump and the appropriate hydrants, hose cabinets and alarms. Underground piping will be HDPE.

Electrical switchgear rooms will be protected with local inert gas systems.

Other Environmental Aspects

Many of the existing industrial buildings and offices are covered with corrugated asbestos cement sheeting and these have to be removed and replaced prior to returning the units to production. These units have been surveyed and qualified contractors identified for the eventual execution of the work.

In some areas, particularly the large fine-concentrate store, some product remains at ground level from the previous production, and this must be removed before the work on the roof panels begins, to avoid contamination. Costs for this work have been included in current estimates.

Warehousing

Two large enclosed warehouses are on site plus an outside storage area. The warehouses have an extensive area of racks for larger items and cabinets for small items. The spares, which were on site when EMED took over, have been catalogued, but a large number of motors have yet to be identified and tested. One of the warehouses has corrugated steel roofing and siding; the other has asbestos cement. Both buildings appear weatherproof.

Maintenance Facilities

The large workshop area has a 20 t overhead crane with a 5 t auxiliary and various cleaning bays. A number of lathes and other small equipment items have been removed.

Rehabilitation Programme

A rapid visual overview of the plant shows evidence of its having been run down and left without any programme of controlled shutdown. The facilities are in a fairly clean condition, but major equipment such as crushers, ball mills and flotation cells contain some process material and it is understood that piping systems were not flushed prior to shutdown so can be assumed to contain solidified material.

Work is currently proceeding on the cleanup and inspection of equipment in the grinding and flotation areas including removal, inspection and servicing of mill bearings and synchronous motors. A company in Huelva has been identified who can service large motors of this type.

18.0 MARKET STUDIES AND CONTRACTS

EMED has an agreement with Astor Management AG ('Astor' - formerly MRI), a substantial shareholder in EMED, to provide agency services. The Astor agency agreement sets a base agency fee of €1.25 (about \$14) per dry metric ton "dmt". As part of the acquisition cost of Astor's interest in the Rio Tinto Project, there are further fees payable under the agency agreement contingent upon copper sales volumes and the copper price at the time of such sales.

In respect of the first 932,000 dmt of sales, Astor is entitled to additional fees of between €3.00/dmt and €9.00/dmt on a sliding scale of copper prices from \$2.20/lb to \$4.60/lb depending upon the price achieved for copper sales at the relevant time. In respect of sales after the first 932,000/dmt and up to 2,370,000/dmt the extra payment is €1.25/dmt irrespective of sales price.

EMED-T and EMED Marketing (a wholly owned subsidiary of EMED-M) have entered into an agreement whereby EMED Marketing will purchase 100% of the copper concentrate and other copper-bearing products of certain quality produced at the Rio Tinto Copper Project.

Behre Dolbear discussed marketing strategy with senior EMED personnel and accepts that the most economical arrangement would be for EMED to sell all its concentrate output to Freeport McMoran's Atlantic smelter in Huelva, Spain, but that this would be too risky a policy for EMED. It will be important for concentrate sales to have at least one other outlet. EMED now has arrangements with Yanggu Xiangguang Copper Co. Ltd of China and Red Kite covering approximately 57% of planned production of copper concentrates. In addition EMED has preliminary arrangements with Goldman Sachs International for one of its smelter-customers to provide it with copper cathode representing 15 to 20% of planned production of copper concentrates.

Concentrate will be dispatched with about 10% moisture containing 21 to 23% copper on a dry basis. Sulphur content will be about 35%, which will probably not incur penalties. Penalties will be expected from the content of zinc & lead, arsenic, antimony, mercury and selenium which have been budgeted. A credit for the silver contained in the concentrate based on historical levels with 65% payable has been assumed in the financial model.

A base-case price assumption for copper of \$3.50/lb (\$7,700/t) has been used for the economic analysis discussed in Section 21. This compares to copper's current market price of about \$3.70/lb (\$8,200/t), and a trailing five-year price average of more than \$3.00/lb.

19.0 ENVIRONMENTAL STUDIES, PERMITTING, SOCIAL AND COMMUNITY IMPACT

Context

With more than 3,000 years of mining at Rio Tinto there are many legacy issues facing the EMED Project. Environmental damage has resulted from the long history of mining including extensive waste-rock dumps, large tailings deposition and pervasive acidic conditions. Secondly, 5,000 years of cultural heritage have left the region scattered with historic and archaeological artefacts and infrastructure. The "natural" conditions of the area thus consist of bare waste materials, antique mining infrastructure and acidic water resulting in some unusual challenges and constraints. The obvious need to improve the environment inherited from past operations is a focus of state authorities

but there is also an imperative requirement to preserve much of the cultural heritage in the area. Moreover, the unique acidophilic ecosystem that has evolved locally with low pH conditions, is now seen to have significant value that also needs to be protected. There are consequently conflicting requirements for the regulators, making environmental management of the Rio Tinto Copper Project particularly challenging.

Permitting

The overall permitting process of the Junta de Andalucía is co-ordinated by the Ministry of Economy, Innovation, Science and Employment (previously the Ministry of Economy, Innovation and Science), together with the Ministry of Agriculture, Fishing and Environment (previously the Ministry of Environment), including all environmental permits. The first step of mine permitting is approval of the Autorización Ambiental Unificada (AAU), essentially the Spanish ESIA, which is required before the other restart permits, including Administrative Standing, can be obtained and prior to any mining activity.

In preparation for AAU application, a preliminary environmental review was submitted to the Ministry of Environment in 2009, followed by several site inspections and reviews with EMED management. The resulting comprehensive AAU was then submitted in July 2010. Subsequent changes to the applicable legislation required more work and resubmission of the restoration and waste storage plans, together with re-classification of the tailings deposit, supported by appropriate reports. Tailings dam classification affects the level of consequential third-party insurance that has to be provided by EMED. Furthermore, as a result of subsequent negotiations with the Government, EMED agreed to enlarge the project footprint incorporating environmentally degraded areas outside the previously proposed project area. EMED updated the relevant documentation in order to reflect this enlargement and resubmitted the AAU in February 2012. The authorities responded with further queries, asking for more technical details and additional studies. Final updates to the EMED AAU were submitted in December 2012 following compilation of these various additional requirements.

The few complaints registered during the 2012 public consultation were easily repudiated, either technically or legally, and were addressed with responses submitted; none of the complaints is likely to be upheld. The majority of respondents were positive, from local people and councillors in support of the mine operation for employment and revenue.

The authorities required a greater level of detail on pit-water test-work, the proposed water treatment system, and further sampling and testing of water seepage from the waste-rock dumps. All these amendments were compiled together for the mid-December submission. Authority representatives were also taken for a visit to the successfully operating water plant at Las Cruces.

An additional ecological requirement for the AAU was a request for a bat study – especially investigating bat populations in the old mine workings. The study scope and reporting requirements were drawn up and submitted with the amended AAU application in December 2012. The study itself can be undertaken after approval and while completion is a likely condition of the AAU, it should not delay the final decision.

While the timing for the approval decision, following submission, is not defined in law, EMED is expecting to hear the results of deliberations in the near term.

The approval of the AAU will allow the regulatory authorities to progress the Final Restoration Plan (FRP). The approvals of Administrative Standing (AS) and the processing of the approval of the Mining Project (“MP”) and the associated exploitation permit should also follow approval of the AAU. The AS requires a demonstration of “technical competence; legal standing; and financial capacity” which EMED believes it has accomplished. The only material aspect of project approval which is under discussion is the conditions attaching to operation and rehabilitation of the tailings

deposit, the due diligence for which is being completed in accordance with the recommendations of CEDEX.

While largely covered within the restoration section of the AAU, the FRP document also needs to be signed off by the Mining department. This FRP includes the planned budget for restoration which will form the basis for bonding requirements. A decision should be made within 6 weeks of submission which will follow immediately after granting of the AS. Calculation and posting of the bond for restoration is required before commencement of operations approved in the MP.

Approval of the MP is effectively the permission to start work. The EMED Rio Tinto Project has already been reviewed, assessed and ‘approved’ technically by IGME – the technical ‘watchdog’ for the Junta. The Project documents need to be updated for any environmental conditions imposed and then finally approved by the Junta.

The Rio Tinto Copper Project requires a further 48 additional specific operational permits, some of which are needed before - and some after – refurbishment; some will require further studies and reporting. These include, for example, permits for the power supply lines, a Health & Safety Plan and the Water Concession for mine water supply. A temporary water permit can be obtained in 6 months – which will allow use of water while application is made for the permanent water concession, which could take 18 months. Although the Rio Tinto Copper Project affects a land area of over 50 hectares, for which a ‘change in use’ permit (“Plan Especial”) would normally be required, all the land affected by the Project is already classified as ‘mining use’ and so, after discussions with the relevant authorities, it was concluded that no Plan Especial would therefore be required. EMED has, nevertheless, proactively started to prepare the documents and paperwork necessary for a Plan Especial application, so that they are ready in the unlikely event that the situation arises. This would require approval by authorities in Huelva with input from the local councils.

Many of the additional permits are certification for the refurbishing work and there is a complex scheduling required to correctly time-table the activities and permit applications, some of which can be made just prior to the works needed.

Updated Mine Operation Plans need to be submitted annually.

EMED now has a dedicated permitting coordinator, with 3 people reporting to him, and has also contracted Spanish permitting consultants AYESA, to advise and help with permit applications (including the AAU, water concession and logistics).

Environmental Management System

EMED has developed environmental and community policies, incorporating: an environmental ethic and reporting process throughout the company; fulfillment of all regulations; and open community communications. The policies aim to continually improve environmental conditions at the Rio Tinto Copper Project before, during and after the start of operations. Environmental management will be implemented via specific plans and procedures aimed at prevention or minimizing environmental impacts and hazards. A set of 17 comprehensive Environmental Management Plans (EMP), based on the ISO14001 system, and reflecting global “Best Industry Practice”, has already been developed.

Organisation Structure

While environmental protection was initially to be under the purview of the Manager for Occupational Health, Safety, and Environment, both environmental and H&S personnel will now report to the Human Resources Manager, on account of the close association with both Public and Industrial Relations. An Environment Technician, already engaged, will be responsible for environmental activities and reporting, assisted by 2 samplers from the laboratory. The structure is heavily dependent upon stringent and intensive environmental training for all mine employees, so that

basic site monitoring and awareness is undertaken by everyone working at the mine. However, EMED has recently increased the proposed staffing levels and budget for Occupational HSE, with an extra €50k (\$66k) earmarked for consultants (primarily for auditing) and a slight increase in the water sampling budget to €60k. These are timely changes to bolster the environmental and H&S remits.

Monitoring Plan

EMED has already developed a comprehensive monitoring programme involving a combination of routine visual observation, physical inspections, sampling and analyses of air and water quality, and measurements of noise and vibration. The limited environmental staffing structure means that much of the continual observation will be the responsibility of the entire mine workforce, and dependent upon the proposed universal company environmental training. A regular sampling programme has been in place since 2008 to assess baseline conditions and monitor seepage from the tailings dam and existing waste dumps. The monitoring programme is considered to be adequate for this stage of the project, but will be continually developed as operations proceed.

Restart

There are particular environmental issues associated with the required refurbishment of the mill and mine infrastructure to be resolved, in order to obtain operating permits. Most restart refurbishment work is to be undertaken by contractors with EMED supervision; this includes removal of asbestos, polychlorinated biphenyls (PCBs) and other remnant chemical and oils. These activities are covered by the appropriate EMPs. Some of these refurbishment activities were scheduled to be undertaken in 2012, including the removal of PCBs associated with old transformers, but were delayed by land-ownership issues. Removal of asbestos, PCBs, chemicals and oils will be a priority following permitting. Some of the additional restart permits will take 6 to 8 months, some potentially 10 months. There is a planned pre-production period of approximately 1 year during which these matters will be completed.

Waste Dumps

As well as the waste dumps to be re-activated as part of the EMED Project there is old waste-rock material deposited in several areas inside and outside the EMED lease areas. Some are specifically designated waste dumps, while others have been 'temporarily' stockpiled adjacent to excavations. Studies have been undertaken to determine the stability and the most appropriate final restoration of the old dumps, and the proposed EMED mining schedule incorporates removal and relocation of temporary waste stockpiles. Although some waste-rock faces have been listed by Culture and Heritage as protected, in order to meet environmental requirements they will be covered as part of the final restoration plan. Current sampling and analysis show that drainage from these old dumps, is acidic and that ponded seepage water discharges during high rainfall to the Rio Tinto river. A study to investigate the geochemical stability of the waste dumps analysed waste-rock grab samples to determine which areas of the existing dumps were responsible for acid seepage. Surprisingly, all samples had <2% S and some produced neutral paste pH.

The EMED mining plan incorporates the design of two new waste dumps, North and South, as extensions to existing waste dumps, to reduce the required footprint. The proposed North Dump is constrained by the pit, roads and a fresh-water dam to the north-east. It will be an extension of the existing Filón Norte Dump and has a capacity of approximately 21 Mm³ (41 Mt). The South Dump will be much larger, at some 42 Mm³ (84 Mt) capacity and is an extension of the existing Salomon Dump. The footprint of this dump is constrained by a designated historic area, decant ponds and the public road to Nerva. The combined capacity of the designed waste dumps provides enough storage space for planned operations.

Both the new dumps are to be constructed using a bottom-up method. An outer bund will contain the first 20 m lift that will be tipped progressively towards the bund. Subsequent lifts will be stepped back to give final berm widths of 10 m and each lift will be covered with compacted slate after final

contouring. In this way, each lift can be progressively rehabilitated. The final landform will have shale and whatever topsoil is available spread to cover the slope to aid revegetation with mixed local species, reduce infiltration and prevent erosion.

The original waste-dump studies and design proposals required separation of waste materials by sulphur content - higher acid-generating wastes being encapsulated with lower-S-content material to reduce acid mine drainage (AMD) impacts. The geochemical stability study included sampling the various geological units contributing to waste materials at the Rio Tinto Copper Project. The S content and the acid-base accounting (ABA) analysis were used to identify rock types suitable for encapsulating material to aid mine waste scheduling. Sulphur content was therefore to be part of the pit grade-control system. The design required a final cover of shale and progressive revegetation.

However, some changes have been required by the Spanish regulators, who preferred complete and continuous covering of the waste rock with shale rather than separation of waste rock by sulphur content and encapsulation. Subsequently, availability and volumes of suitable shale material have been identified and the costs factored in, including possible processing requirements for the shale capping. Some characterisation studies and material testing have also been undertaken on the shale. Waste rock plans are still to be finalised and EMED may still incorporate segregation of high and low sulphide content waste material with selective deposition to encapsulate potentially acid producing waste rock. This is not a requirement, and EMED is not committed to this in the mining plan; however, this combination of segregation, encapsulation and rapid covering and seeding would undoubtedly improve the mitigation for ARD.

Drainage channels are incorporated into the WRD designs to reduce the amount of water that can infiltrate the dumps and minimize AMD. The EMED operational and end-of-mine plan for waste-dump drainage and toe seepage is for collection, filtration and settlement, an anoxic drain system and wetland remediation to raise water quality above that of the receiving waters, prior to discharge to the Rio Tinto. However, this is subject to on-going debate (see below). Studies have looked at the long-term stability of the waste-dump facilities and developed suitable emergency management plans.

EMED has committed to taking over responsibility for rehabilitation of other old waste-rock dumps at Rio Tinto, including those not covered by the mining rights area. This restoration commitment does not include any liabilities. The proposed restoration work will largely compose re-contouring, covering with shale and revegetation and requires a slight modification to the overall restoration design and increase of the project footprint. However, this approach will result in an improved outcome after final site restoration at closure.

Tailings Storage Facility

The Tailings Storage Facility (TSF) at the mine, when last operated, consisted of one facility with three impoundments, the Cobre, Aguzadera and Gossan sections, constructed consecutively and adjacent to each other, but tailings deposition has effectively formed a single storage facility. Previously, the 28% to 30% solids tailings slurry was deposited from the dam walls creating a reverse beach, with water accumulating away from the wall for evaporation. Walls were raised with an up-stream method using cycloned tailings sand.

The existing tailings deposit was inspected as part of a due-diligence process for EMED in 2007, and found to be in a stable and safe condition. Detailed geotechnical studies, including drilling of 20 holes along the dam walls, were then undertaken for legislative compliance. Some of the representative core from this drilling was inspected during the initial Behre Dolbear visit, and the logs and sample analyses reviewed. Most holes were between 20 and 30 m depth, but, according to the logs, only one intercepted the bedrock shale. Analyses on the core clearly demonstrated that the pH increases with depth through the tailings, from pH2 or 3, to around pH7 at 20m. This is consistent with reduced oxygen infiltration.

Sampling, assessment and maintenance of the dam walls were hampered in the past by issues of ownership, and restricted access rights. However, two areas on the northern part of the Aguzadera western wall were identified as requiring rock armouring prior to restart, and the amount and possible source of waste rock required for this work determined. Observations during the first Behre Dolbear visit confirmed that this remediation work was a priority. There were subsequent delays due to the problems of land ownership and access, but during the most recent site visit, contracted remedial work was being undertaken. This appeared to be thorough and effective, using mechanical contouring, geomembrane placement and rock cladding and has addressed most of the erosion and gullying. Any remaining non-urgent works have been scheduled for the refurbishment stage prior to restart.

Seepage from the TSF collects in filtration ponds and is pumped back onto the tailings. These ponds are periodically cleared of accumulated silt to maintain capacity, and the water sampled on a regular basis. All seepage water was field-tested at less than pH4.5.

The 2010 rainy season saw a 1 in 40 years rainfall event which was a real test of the dam capacity, wall integrity, pumping capabilities, and EMED emergency procedures. Professional management of the TSF by the EMED personnel team during extreme rainfall events ensured that the dams were kept within safe parameters despite the challenging circumstances.

A study by EPTISA (the original dam design company) estimated a maximum remaining storage capacity of over 150 Mt within required factors of safety, and subsequently completed detailed design engineering for wall strengthening and raising in order to accommodate the calculated total EMED tailings production plus 10% (134 Mt). This requires continued up-stream construction of the Aguzadera, Cobre, Aguzadera/Cobre and Cobre/Gossan walls, using sand from cycloned tailings as part of the deposition method, raising the walls by 7 m for Aguzadera, and up to 32 m for expansion of Cobre capacity. All raised walls will be hydro-seeded to maintain structural integrity. The Cobre/Gossan wall raising will require pre-placement of rock foundations on the existing tailings, and both quantity and source of suitable waste rock have been identified. These TSF designs were developed for the proposed tailings production schedule, with the Aguzadera section providing storage for the first 4 years of production, and the extended Cobre section for the remaining c 100 Mt.

The AMC study in 2009 assessed 4 alternative methods of tailings deposition, all based on thickening the tailings – respectively to 55%, 70% and 80% - and two methods using ‘dry cake’. These alternatives were evaluated on economic feasibility, and the logistical, technical, environmental, and social outcomes of each method. The study concluded that the most appropriate method was deposition of 50% solids thickened slurry into the existing tailings dam facility, with efficient water recycling, improved flood prevention and increased dam monitoring. More testing and modelling for the percentage of solids for tailings disposal is, however, required, which has cost implications, not only from tailings thickening, but also management of the increased dewatering output.

All tailings water and catchment rainfall accumulating on the surface of the TSF, will be recycled back to the processing plant to reduce site water requirements, and keep water levels at the TSF to a minimum. Any seepage from the dam walls will be collected in the filtration ponds and pumped back to the tailings dam. A 50 m minimum beach distance from the walls will be maintained during production. Manual breach points in the Cobre and Aguzadera walls will be maintained for use, upon receipt of the appropriate authorisation, in the event of extreme emergency conditions, to prevent unplanned breaching of the TSF wall.

URS España was commissioned to complete a detailed risk assessment of the TSF including Failure Mode and Consequence Analyses, Dam Risk Classification, and a Dam Emergency Plan, as part of the requirements for the Administrative Standing application. The URS Dam Break and Inundation Study concluded that the risk of downstream consequential damage to people, property and

environment was low. This analysis was conservative, modelling the breach and flow for a water-dam failure. The study has been used to develop the TSF emergency plans.

The latest AAU response from the regulatory authorities required additional investigation of the tailings dams, particularly more geotechnical drilling and test-work, to be reviewed by CEDEX, the national organisation for civil works. Results of this additional drilling and test-work may lead to some operational and rehabilitation design modifications. This is the only material aspect of project approval which is under discussion - the conditions attaching to operation and closure of the tailings deposit, the due diligence for which is being completed in accordance with the recommendations of CEDEX. However, EMED believes that this matter can be resolved with reasonable conditions to be applied to the plans which have been proposed.

Other Wastes

The EMED Environmental Management system incorporates suitable procedures and facilities for collecting, segregating, handling and disposing or recycling all industrial and domestic waste materials. The system includes non-hazardous waste such as paper, glass, aluminium, timber and other construction materials. Specific bunded areas will be designated for the storage of recyclables. Procedures are also in place for tyres, scrap metal and electrical equipment. There are also procedures for hazardous materials such as oils and grease, laboratory reagents and solvents, and all are covered by the appropriate EMP. Potential contractors for the different waste materials removal and disposal have been investigated and can be readily initiated once refurbishment work and restart are approved.

Water Cycle

The Rio Tinto Copper Project site is bounded to the east by the Rio Tinto river, which has been impacted by the long history of mining in the area, and the Rio Odiel to the west, where water quality is higher. Water demand will largely be supplied from within the minesite reticulation system, which, once the appropriate water concession is granted, will be supplemented with fresh water from the Campofrio reservoir, and the nearby Aguas Limpias water dam for a potential shortfall of water for the operation during the summer. The site has a small positive water balance, but various civil works are planned, to allow rainwater run-off to be diverted and to increase storage on the site.

The Administrative Standing application also includes water authority requirements. Substantial documentation of the planned mine water system and management of water levels in the dams was submitted in 2009. EMED was then advised of additional requirements and subsequently refined and extended those plans with more detailed maps and flow sheets, detailed analyses and plans required for the protection of the landscape of Rio Tinto around waste dumps and the public domain waters during normal operations and excessive rainfall events. These covered industrial waters used in the mining process, waters used or discharged from the processing plant, tailings deposit and filtration ponds, and run-off rain waters from waste dumps and elsewhere on the site; also the introduction of evaporation ponds. These studies were submitted as supporting documentation for the AAU.

The operational plans are to maximise water recycling throughout the mine site, returning all decanted tailings water and accumulated catchment rainwater to the processing plant. Fresh surface water that has not contacted exposed mine workings or waste materials will be diverted away from the site to either of the river systems, and there is a perimeter channel surrounding the TSF to collect all fresh surface run-off. Excess rainwater during extreme weather in the wet season, as was experienced early in 2010, is a challenging water management issue. Emergency plans have been implemented and tested to divert as much water away from the TSF and other ponds as possible, with adequate pumping and alternative storage capacity, and, upon receipt of the appropriate authorisation, an emergency discharge policy if the dam walls are threatened.

The EMED plan was for drainage from the South waste dump to be collected in ponds for settlement, passive- and wetlands-treatment to raise the water quality level above that of natural river water,

before permitted discharge to the Rio Tinto. However, because of potential impacts on the existing, acidophilic Rio Tinto ecosystem, there is some debate about the quality of water to be allowed into the Rio Tinto. Consequently EMED has assumed that all waste-dump seepage and in-pit water is to be treated and recycled (despite the possibility that some of such water may be discharged to the Rio Tinto) upon receipt of the appropriate authorisation. The mine discharge requirements will be defined in the final operating permits, but EMED has taken a pragmatic approach to this problem, with plans and budget for the full water-treatment system, including dams, pumping and piping infrastructure and a High Density Sludge (HDS) plant.

Air, Noise and Vibration

Areas and activities of noise generation have been identified and monitoring and noise reduction methods proposed in the AAU submitted in February 2012. Blasting, particular milling operations and haulage, have a strict timing schedule to reduce the impact on residential neighbours. Areas of dust generation have also been identified and optimum monitoring locations and suppressant methods adopted in the relevant EMPs. These include strictly enforced speed limits for all unmetalled haul- and access roads; and dust collars, spraying and tree screen planting for suppression management. Blast vibration monitoring is included in the EMP and timing and operational practices recommended to reduce the impacts on close communities and residents. There is a recommendation that monitoring and mitigation of blasting impacts should be incorporated into the mine operations contracts.

Ecology

A study of the local fauna, flora and habitats was undertaken as part of the EMED environmental audit in 2008 and has been updated and included in the AAU application in February 2012. This described the current situation and listed species occurring in the area, but recognised that it was impossible to determine what the original ecosystem was like, having been impacted by mining and human activity for millennia. It also acknowledged that the area is naturally acidic due to the underlying geology and mineralogy, and that the local ecosystem has evolved to suit the conditions that have been amplified by mining activities.

The study identified regional protected ecosystems and species, and developed management plans for them, as well as summarising general conservation and rehabilitation procedures and actions for the site. Issues of feral and introduced species were also addressed, with eucalyptus, Scandinavian pine and feral cats being the focus of study. Although introduced eucalyptus grows very well and rapidly in the area, and is an easy and often effective revegetation species for erosion control and visual, noise and dust screening, it often out-competes indigenous trees and shrubs. Similarly, an aggressive and robust grass naturally colonises inhospitable locations on the site, including the surface of mine tailings and on waste rock material, not only out-competing local species, but also potentially restricting diversity. Choice of species and rehabilitation methods will therefore require careful management, and the study included recommendations for revegetation trials.

There may be additional ecological mitigations necessary following completion of the authority-required bat study.

Cultural Heritage

Cultural heritage of the Rio Tinto site was also addressed as part of the AAU. Any activity on site must be approved by the Department of Culture and Heritage and in December 2010 they reviewed the EMED submissions for the preservation of mining history favourably. The Department holds a pragmatic view of the proposed restart, understanding the balance between the sometimes conflicting heritage, environmental and operational requirements and have raised no significant issues. General requirements for the preservation of cultural heritage in the area have been set out, and include:

- restriction of re-vegetation of the old waste dumps to preserve certain historic vistas;

- prior inspection and documentation of heritage items and authorisation by the Department before any extension of the open-pit and waste dumps;
- preservation of the Roman ruins outside the planned mining area and next to the pit;
- reassembly of the dismantled “Alfredo Mine” head frame; and
- building of a large-scale model of the disused and currently dangerous gold processing plant prior to dismantling.

There is an understanding with the Rio Tinto Mining Museum regarding the donation of any artefacts encountered during restart, refurbishment and operations.

Given the historical and archaeological value of the area, with important examples of industrial and Victorian infrastructure, evidence of medieval occupation, going back through Roman and Carthaginian and Phoenician times, EMED recognises a responsibility and duty of care operating at the Rio Tinto Copper Project. Comprehensive management plans for the protection of cultural heritage on and around the site have been drawn up, with any activities affecting items listed in the Heritage Register requiring detailed documentation as well as prior authorisation of the Department of Culture and Heritage, and a 100 m fenced exclusion zone around all conservation sites.

Concentrate Haulage and Export

The proposed road haulage of concentrate from the plant to Huelva will be sub-contracted to a haulage company already experienced in taking ore from this mining area to the port. The trucks (around 20 to 30t capacity) will be appropriately covered to prevent dust becoming airborne during haulage. With production expected to reach a maximum of 250,000t in year 9, this could amount to around 30 loads per day at the height of operations. The road to Huelva has been upgraded and is in good condition. Although it passes through several towns, this is already a busy road and road safety precautions are in place. It may be necessary to restrict times and/or days of the week for haulage, to reduce impact of noise, vibration and light-pollution for residents close to the road.

Although no specific study was undertaken for utilisation of public roads for haulage, a ‘noise impact’ study for the haulage route was completed as part of the AAU. The permitting consultants, AYESA, do not believe that any special permits are needed for the road haulage. For the storage, transfer and ship-loading activities at Huelva port, any permits required will be the responsibility of the specific contractors selected to undertake these activities. EMED has already had meetings with handling contractors and there is no indication that there are any permitting issues. Concentrate storage, transfer and handling at Huelva is not new (previous MRT, Aguas Tenidas and the Atlantic Copper Smelter), so these are familiar operations and there are appropriate facilities and significant experience.

Social

There are 7 towns and villages in the immediate vicinity of the mine site and a scattered, low-density rural population. The main economic activities in the area have traditionally revolved around the mining industry, although agriculture, especially the raising and marketing of pigs, and harvesting of cork, has also been important. Unemployment is high and outward migration since the previous mine closure has been significant. Historic mining-induced environmental impacts have been significant, but there is considerable empathy towards the industry and proposed EMED operations. Past complaints were largely concerned with dust occurrences. Baseline socio-economic studies have concluded that there are many positive benefits for the local communities from the restart of mining at Rio Tinto, including direct and indirect employment, increased skill levels, and improved environmental quality from site clean-up prior to and during operations and rehabilitation at mine closure. However, although the project will provide economic and social benefits to the region, there is likely to be a decline in the local economy at the end of mining. As part of its Community Development Plan, EMED is working to identify opportunities for long-term sustainable businesses, but, currently, opportunities appear limited other than tourism and heritage-based activities which have already gained some local importance.

Final Restoration Plan

New statutory mine closure requirements have been included in the detailed Final Restoration Plan (FRP), designed with local specialist consultant Estudio y Gestión del Medio Ambiente (EYGEMA) who are also able to sign-off the FRP as a Junta-approved third party. This was initially submitted in July 2010 and subsequently updated in order to reflect the enlarged project footprint and resubmitted in September 2011. A review of the key environmental issues associated with the eventual closure of the mine within the current regulatory framework in Spain was undertaken, including an estimate of closure costs. This and other studies, refined through discussions with local communities and regulatory authorities dealing with water, mining, culture and environment, were used to prepare the EMED FRP, which complies with the European Pollutant, Release and Transfer Register environmental requirements. The key areas covered by the plan are the Cerro Colorado and Corta Atalaya open pits, the two waste dumps, the Corta Atalaya waste dumps, the TSF, the plant area and all associated infrastructure.

EMED operations will leave the Cerro Colorado open pit in a geotechnically stable condition and no further measures are required post-closure. The sealed pit will be allowed to become inundated through rainfall and run-off, and will also take excess surface water and treated seepage from the tailings dam. Perimeter drains will divert unnecessary surface runoff. Water balances for the pit post-closure have been modelled.

The waste dumps will be constructed to ensure physical and geochemical stability and minimize the effects of AMD. Progressive rehabilitation and revegetation during mining operations will reduce post-closure requirements.

Operational design and closure plans for the TSF ensure their physical stability, capacity to withstand extreme flood events, and prevent the escape of seepage from site, and include capping and revegetation of the surface. Stormwater diversion channels will prevent clean water from entering the TSF, and the only water entering the tailings dam post-closure will be directly from rainwater. With natural evaporation rates, this will maintain sufficient freeboard on the walls. Rock armouring of the outer dam walls will increase strength and reduce erosion.

Wherever possible, the FRP separates 'fresh' water from contaminated water, allowing the former to discharge off-site, while any potentially contaminated run-off will be redirected to the open pit. Seepage from both the TSF and waste dumps will be treated through appropriate systems to increase pH and reduce entrained metals before discharge to the river systems (upon receipt of the appropriate authorisations and subject to the authority decision on discharge water quality). Drill holes, monitoring bores, seepage ponds and filtration pumps are all considered in the FRP.

Monitoring of the site post-closure will concentrate on the tailings dams and general site water management and maintenance. Dust monitoring below the tailings dams will continue until a suitable vegetation cover has been established. The progress of site revegetation will be monitored and maintenance continued until vegetation has been established. Provisions for this are included in the closure budget.

With the exception of buildings and structures which have cultural or heritage values, all other buildings, structures and general infrastructure will be removed and disposed of appropriately. Structures remaining on site will be decontaminated and left in a physically stable condition. The plan also provides for the dismantling, removal or preservation of roads, foundations, structures and fittings as required, as well as industrial waste and rubbish dumps.

Social and labour impacts have only been superficially addressed in the FRP, and work is still required to develop robust post-mining sustainability for the area. On-going studies and discussions with local communities will be undertaken throughout the operating life of the mine to investigate

various possibilities in preparation for final closure. These include expanding tourism through mining history and archaeology, and diversification recycling enterprises. EMED is considering a 'seed-capital' fund for new local entrepreneurial enterprises.

In Andalucía, there is a strong emphasis on maintaining the perceived historical and cultural aspects of the landscape post-closure, with access to education and tourism. Management and responsibility of neighbouring restored mine sites has been previously undertaken by the Rio Tinto Foundation (RTF), funded by the Government, other mining operations and tourism income. In compliance with requirements of the Ministry of Culture and Heritage, post-closure land-use will be used primarily to maintain the areas of mining heritage for developing the tourism potential of the site. The plan provides for the physical and chemical stability of all land surfaces and structures remaining after closure, to protect visitors and adjacent communities. Geochemical stability is considered within the contexts of the legacy of past mining operations, the current and required water quality of the receiving environment, and current official regulations. The unique aquatic fauna and flora that have evolved in the low-pH and high-dissolved-metal content of local rivers due to the mining history, are now protected by Ministry of Environment legislation.

The EMED mine-closure policy will comply with the full regulatory requirements in force at the time of eventual closure and include progressive rehabilitation, regular review of closure plans and consultation with local communities and regulatory authorities. It includes ongoing rehabilitation work and a financial commitment for sufficient funds to cover the estimated cost of remaining closure and rehabilitation costs. The original restoration budget has been increased from €20 million to €80 million to reflect the increase in civil works required for the expanded waste rock dump rehabilitation commitment. This budget includes the anticipated 'bond', but there is an assumption that the whole budget will eventually be spent on actual restoration work, given that annual bonds should be released once completed work is approved.

Environmental Performance Audit

There have been many reviews, audits and stand-alone studies undertaken on a wide range of aspects of the project prior to the compilation of documents for the Mineral Rights application. In June 2008, an ISO14001 environmental audit of the site and the operational areas was undertaken. That report produced 80 recommendations for the implementation of procedures and practices, and direct action improvements to existing infrastructure and site conditions, to reflect European and World Best Available Practices. EMED immediately commenced implementing some of these recommendations, while others formed the basis of the proposed Environmental Management System. As part of the Behre Dolbear assessment, the original auditor was requested to review the list of recommendations and comment on the progress of implementation. Results of this exercise were a measure of the EMED environmental performance to-date, prior to restart. Most of the recommendations had either been completed or were scheduled to be implemented with the refurbishment or commencement of operations after permitting approval. This is a significant achievement and demonstrates the level of environmental commitment.

Environmental Conclusions

Undoubtedly, the only realistic way to "clean up" the current Rio Tinto site, improve the natural environment and water quality, ensure the long-term safety and integrity of the open-pits, dams, dumps and surface infrastructure, and preserve the remnant cultural heritage, is the reintroduction of a responsible mining operation. The proposed EMED Project, with associated environmental management and final restoration plans, will leave the Rio Tinto Project area in a much better state than it is at present.

In Behre Dolbear's opinion the socio-environmental issues associated with the EMED Project have been assessed in great detail and to a high standard. All critical impacts of the mining and processing operations have been identified and appropriate mitigation and management plans have been

documented. Review of documentation, together with information gained during discussions with EMED personnel indicate that the project and the management plans are in general compliance with the requirements of the Equator Principles and IFC Performance Standards.

The AAU studies address the major environmental issues and impacts associated with the mining operation and associated waste facilities. The design and operation plans for the waste rock dumps and tailings storage facilities comply with best available techniques and incorporate monitoring and control functions.

Adequate budgets have been allocated to environmental management at this stage of project, and personnel resources are now sufficient to ensure effective on-going improvements. Environmental monitoring and management plans are already documented in detail and some are in operation already. These include procedures for dealing with high-risk incidents such as dam breach or overspill, and waste-dump failure. A high level of environmental awareness and management at EMED was observed during site visits.

The EMED closure and rehabilitation plans are sufficiently detailed for this phase of the project, following good practice and international guidelines whilst taking site specific requirements into account. Environmental management personnel and a rehabilitation unit will be retained for two to three years at the end of mining until rehabilitation work is of an acceptable quality and signed-off by the authorities.

Public disclosure and community relations appear to be robust and well advanced. Informative and public participation meetings have been held and positively attended by local residents and consultation will continue throughout all phases of the project.

Health and Safety

Operational Health and Safety (OH&S) procedures and an implementation plan are being updated in preparation for restart. These procedures have to be signed-off by a Junta-approved third party. Final completion is dependent upon final approval of tailings deposit and waste-dump assessments and selection of the mining contractor. Environmental health and safety issues, including those of noise, dust, water quality, dam and dump stability and public exclusion from unsafe mining areas are all deemed to be adequately addressed. The 'Health & Safety Plan' for the project must be approved prior to restart. Development and submission of the 'Plan' will be sub-contracted to H&S consultants who are very familiar with the requirements, and it will be submitted as soon as the Administrative Standing is granted, at the same time as the FRP. The H&S Plan will need to be up-dated, re-presented and approved annually.

Human Resources

Employment is one of the biggest drivers behind the support and promotion of a mine restart at Rio Tinto. Unemployment is around 27% in Huelva, and over 45% in the mine vicinity. When rumours first circulated that the mine might be restarting, 4,500 people turned up seeking work.

The proposed workforce for the project is approximately 450 total staff, of which around 200 will be EMED employees and the remainder contractors. Contractors include mining, security, field assistants for grade control and geology, maintenance and IT, all under EMED management.

The proposed EMED staffing breakdown for start-up and operation at 9Mt/y is:

General and Administration	47	46
Mine Planning & Supervision	21	24
Mill Planning & Supervision	83	88
Technical	29	29
TOTAL	180	187

Recruitment and Training

EMED has policies, plans, procedures and recording practices developed for recruitment, training and performance review of staff. The 7 towns and villages adjacent to the Project area will provide an immediate employment pool and there is a plan to try to recruit evenly from these. The goal is to have over 60% and potentially potentially 95% locally employed staff to ensure that the local communities gain maximum benefit from the Rio Tinto restart. However, there is a significant shortage of skilled labour, with outward migration of mining workforce following previous mine closure. EMED has good collaboration with the neighbouring mines at Aguas Teñidas and Las Cruces. Recruitment of around 17 additional technical/professional staff is required, but this will be triggered by granting of the AS. Three external Human Resources consultancies have been identified to search for these technical staff, but EMED has already drawn up the job descriptions and conditions. The biggest anticipated problem is finding Spanish geological staff with sufficient mining field experience, but there are no restrictions for employing expatriate staff where it can be demonstrated that there are no suitable Spanish applicants. Agreements have been made with ‘head-hunters’ in the UK and Spanish recruitment agencies for identifying specialist technical staff. While it is anticipated that expatriates in the current EMED management team and initial operating staff will be necessary, a rapid localisation programme is planned.

The existing shortage of specialist skills will be addressed through direct training in accredited courses. Collaboration on this issue has been discussed with the two other mines operating in the area. There are existing tripartite frameworks for developing specific, accredited training courses between the mines, Junta and HE institutions, on the understanding that the mines will employ at least 60% of student output. Site training plans are still being finalised but the intention is to have every employee and contractor on site take a compulsory basic mine safety course. Every department is to have at least one first-aid qualified person. Further, area- and activity-specific training courses have been identified and mapped out for every department. All contractors will have to demonstrate and provide evidence of appropriate training.

Scheduling for recruitment and training needs to tie-in with restart, and is likely to take around 9 months. EMED has a database with details of over 9000 people who have submitted CVs to the project, and a further 800 CVs have been received since the database was completed in August 2012. This includes education level, experience, where they come from, and employment status.

Industrial Relations.

The Labour Statute is the starting point of any Collective Agreement. The Spanish mining sector is a highly unionised environment which is governed by a Collective Agreement system. The ‘Workers Council’ legally represents all workers in Spain, and while union membership is not compulsory, most of the workers are likely to be unionised. Only around 20% of the administrative and office staff are expected to be affiliated to a union. EMED has been engaged in negotiations with the unions about the Rio Tinto restart, including workers contracts and conditions, shift hours, holiday and sickness benefits and schedules, and draft proposals have been tabled. However, formal negotiations for final terms and conditions will not begin until the Administrative Standing has been received. These negotiations are likely to take 2 to 3 months and while based on existing agreements with other mining operations in the area (including Aguas Tenidas, Cobres las Cruces and Aquablanca) will

depend on site specific-mining activities and project productivity. It is recognised that getting these negotiations completed early, and satisfactory union/worker contracts agreed will go a long way to prevent industrial action shut-downs once operational.

Public Relations

EMED has a corporate philosophy of openness and transparency and this is reflected in a comprehensive policy of community consultation, open and reciprocal communication, and public awareness raising and liaison. There has been a significant effort in this area of the project development from the start, as EMED has had to counter a substantial negative public relations legacy from the previous owners. This proactive approach has been very successful and the great majority of the newspaper articles about the proposed EMED project have been positive.

The EMED external relations campaign started printing regular newsletters very early in the life of the Rio Tinto Copper Project with a wide distribution list, including the mayor and all municipal councillors of each of the local 7 town halls, schools, libraries, public notice-boards, targeted members of the public and those requesting copies. There is an on-going campaign to promote the project at conferences, TV shows, in both scientific/technical journals and more popular magazines and through meetings with government officials and politicians.

In August 2012, EMED created the EMED Tartessus Foundation to promote and develop diversification and other social and economic interests in the area.

Conclusions

Although there are some outstanding environmental issues that still require additional studies and resolution, EMED has a pragmatic and pro-active approach to these and is well prepared for any further requirements or stipulations by the authorities. There is appropriate scheduling for all of the required permitting and staff recruitment in preparation for restart. While there is always a risk of further permitting delays in Andalucia, there are no obvious problems that have not already been either addressed or anticipated.

Behre Dolbear has determined that all aspects of Environment, Health and Safety, together with Social and Community impact are seriously addressed by EMED with competent personnel.

20.0 CAPITAL AND OPERATING COSTS

The capital and operating costs given in the following Table 15 and Table 16, respectively, were extracted from the financial analysis prepared by EMED-M which is referenced in Section 21. All Euro-based costs have been converted to US Dollars at an exchange rate of 1:1.25. All costs are before inflation.

Table 15 Capital Costs

	\$M
Direct Capital:	
Plant Refurbishment	62.7
Plant Expansion	18.8
Water Dam & Tailings	35.4
Mine Mobilisation & Start-Up	14.3
Subtotal	131.1
Indirect Capital:	
Planning Costs	11.3
Owner Costs	20.9
Social Security Payments	9.0
Remaining Land Acquisition Costs	1.9
Working Capital & Other Indirects	25.6
Subtotal	68.7
Total Pre-Production Capital	199.8
Pre-Production Escrows:	
Environmental Fund	27.5
Social Security Fund	1.3
Total Funds Escrowed	28.8
Post Start-Up Capital	
Plant Expansion (in years 1 & 2)	51.7
Sustaining Capital (in years 2-15)	23.4
Total Post Start-Up Capital	75.1

Pre-Production Capital is for the period from Year 0 through to the commencement of copper production in Year 1 at an initial milling rate of 5Mt/y. Further expansion of the plant is budgeted to achieve a milling rate of 9Mt/y in Year 3.

Pre-Production Escrows are the balance of funds placed in reserve for paying a portion of the Project's social security costs and environmental cost during operations, including all of its final rehabilitation.

Table 16 Life of Mine Operating Costs

	\$M
Site Operating Costs:	
Mining	612.5
Milling	684.3
Silver By-Product Credits	(102.6)
Administration	129.3
Cost Improvements (2015 and beyond)	(100.4)
Subtotal	1223.1
Freight, Selling, Refining and Smelting Costs:	
Freight & Selling	190.4
Smelting	199.8
Refining	77.5
Subtotal	467.7
Other Cash Operating Costs:	
Mining Costs Capitalised	73.0
Environmental Expenditures	90.8
Profit Share Bonuses	7.2
Subtotal	171.0
Total Operating Costs	1861.8
Non Operating Costs:	
Agency Payments	142.3
Social Security Payments	5.6
Total Non Operating Costs	147.9

Mining costs, inclusive of those capitalised, are equivalent to an average unit cost of \$2.69 per tonne of ore and waste. The average unit milling cost is \$5.56 per tonne of ore. Administration costs are an average of \$9.24M per year. Silver by-product credits assume 4.1M oz sold at \$25/oz which compares to an average of \$31/oz for 2012. Site Operating Costs average the equivalent of \$1.13 per pound of copper sold. However, this cost includes savings averaging \$0.07/lb from possible reductions in mining and maintenance contractor charges, lower lime costs and a steepening of pit wall angles to reduce waste mining none of which are assured at this time.

Freight, Selling, Refining and Smelting Costs average \$0.43/lb on the assumption that 40% of the project's copper concentrates will be sold to the Atlantic smelter in Spain, 30% will be shipped elsewhere in Europe, and 30% will be shipped to China. Freight costs are assumed to be \$7.94 per wet tonne for deliveries to Atlantic, \$50/t for shipment elsewhere in Europe, and \$100/t for shipment to China. Further warehouse handling and loading costs of \$7.69 per wet tonne apply to the concentrate planned to be handled via the port for overseas transportation. Copper refinery costs are assumed at \$0.07/lb. Smelter charges and smelter penalties per dry tonne of concentrate are \$70.0 and \$16.5, respectively. Selling costs include an agency fee of \$14.06 per dry tonne of concentrate sold payable to Astor.

Agency Payments include: \$66M owed to Astor for the acquisition of its interest in the Project repayable over 7 years commencing in year 0; related fees as described in Section 18; and \$10M for future land acquisitions during years 2 to 12.

Environmental Costs are for ongoing site environmental management and rehabilitation of the Project's expanded environmental footprint including both past and future disturbances.

21.0 ECONOMIC ANALYSIS

Behre Dolbear has reviewed the financial analysis developed by EMED in conjunction with AMC. It is a highly detailed and complex analysis from which the cash flow forecast, shown in Table 17 below, is derived. Key assumptions used for this base case forecast are detailed below.

Principal Forecast Assumptions

All amounts are in constant 2012 US Dollars. Amounts in Euros are converted to US Dollars at an exchange rate of 1:1.25 which compares to a current exchange rate of 1:1.33. The average exchange rates for the past one and five years have been 1:1.37 and 1:1.29, respectively.

The period covered commences in Year 0 and ends in Year 15 which is the last year of copper production. Copper production is scheduled to commence in the middle of Year 1 and is as forecasted in the Cerro Colorado Mine Production Schedule (Table 13). All copper production is from proven and probable reserves only, which do not contain any part of inferred resources.

Copper production is sold at a spot copper price of \$3.50/lb. Average annual LME cash prices for copper over the past 7 years have ranged from a low of \$1.75/lb in 2005 to a high of \$4.00/lb in 2011. Recent LME cash prices have been about \$3.70/lb. Therefore, Behre Dolbear considers the forecast's copper price assumptions to be reasonable for a base case forecast, especially considering the significant increases in production costs experienced by copper producers since 2005. Revenues also include interest income at the rate of 3% per year on the balances of escrowed environmental and social security funds.

Capital and operating costs are as outlined in Tables 15 & 16.

The forecast assumes no debt for the Project's development. As announced by EMED, Goldman Sachs has been mandated to provide a senior, secured, \$175M loan for funding the mine's capital costs which would be repayable from approximately 15% of the mine's copper sales over the first 7 years of production. However, the terms of this loan are indicative and non-binding and are conditional on a number of matters including completion of the mine's permitting. Additional contingent loans of \$15M from Yanggu Xiangguang Copper Co. Ltd. of China and \$35M from Red Kite have also been offered. These would be subordinated to the Goldman Sachs' loan and are intended as a source for funding any cost overruns.

As well as the indicated social security payment obligations, income tax at the standard Spanish rate of 30% has been applied.

Table 17 Base Case Cash Flow Forecast (\$M)

	Total	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Copper Sales	3,776	-	81.1	223.5	271.8	262.3	266.1	292.7	331.0	336.3	333.6	324.6	256.4	214.7	223.9	216.2	142.2
Interest Income & Hedging Gain/Loss	13	-	0.4	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.3
Total Revenue	3,789	-	81.5	224.3	272.7	263.2	267.1	293.7	332.0	337.2	334.6	325.6	257.3	215.7	224.9	217.1	142.5
Site Cash Operating Costs	(1,223)	-	(33.7)	(72.6)	(96.0)	(94.7)	(91.2)	(92.0)	(91.3)	(86.7)	(83.8)	(84.8)	(90.3)	(89.3)	(83.4)	(82.6)	(50.7)
Freight and Selling, Smelting, Refining	(468)	-	(10.4)	(28.2)	(33.1)	(32.5)	(34.6)	(38.9)	(43.5)	(42.4)	(41.5)	(40.0)	(30.5)	(24.8)	(25.8)	(24.9)	(16.4)
Other Operating Costs	(80)	-	(2.4)	(0.6)	(5.5)	(15.6)	(23.7)	(20.4)	(7.9)	(0.6)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.3)
Site Environmental Management and Rehabilitation	(91)	-	(1.3)	(4.0)	(4.8)	(4.7)	(4.7)	(4.0)	(4.0)	(4.5)	(4.6)	(3.9)	(4.0)	(3.7)	(2.7)	(20.5)	(19.5)
Total Operating Costs	(1,862)	-	(47.8)	(105.4)	(139.4)	(147.5)	(154.3)	(155.3)	(146.7)	(134.2)	(130.4)	(129.3)	(125.3)	(118.3)	(112.4)	(128.6)	(86.9)
Working Capital Adjustments	(10)	-	(5.3)	(6.5)	2.5	0.1	0.4	(4.5)	(3.3)	0.3	(0.5)	1.9	8.8	(3.0)	0.6	0.4	(1.8)
Operating Cashflow	1,918	-	28.4	112.4	135.8	115.8	113.2	133.8	182.0	203.2	203.8	198.3	140.9	94.4	113.1	88.9	53.8
Non Operating Costs	(148)	(11.0)	(14.0)	(16.7)	(16.7)	(14.0)	(19.6)	(20.0)	(13.3)	(3.9)	(3.9)	(3.8)	(3.2)	(2.5)	(1.9)	(1.8)	(1.2)
Planning Costs	(11)	(11.3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Restart Construction Capex	(188)	(90.2)	(98.3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental Escrow	(28)	(27.5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Social Escrow	(1)	(1.3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capex to Increase from 5mtpa to 9mtpa: Operations Phase Spend	(52)	-	(6.2)	(45.5)	-	-	-	-	-	-	-	-	-	-	-	-	-
Sustaining Capex	(23)	-	-	(2.3)	(4.6)	(2.8)	(1.3)	(1.3)	(1.3)	(1.5)	(1.4)	(1.3)	(1.2)	(1.2)	(1.2)	(1.2)	(0.6)
	(304)	(130.2)	(104.5)	(47.8)	(4.6)	(2.8)	(1.3)	(1.3)	(1.3)	(1.5)	(1.4)	(1.3)	(1.2)	(1.2)	(1.2)	(1.2)	(0.6)
Environmental Escrow A/c (Progressive Rehab)	3	-	0.1	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0
Environmental Escrow A/c (Final Rehab)	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.6	13.8
Social Escrow A/c	1	1.3	(3.8)	(1.3)	(1.3)	(1.3)	(1.3)	-	-	-	-	-	-	-	-	-	8.8
Net Movements in Escrow Accounts	29	1.3	(3.6)	(1.0)	(1.0)	(1.0)	(1.0)	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	10.6	22.5
Project Cash Flow Before Tax and Financing Costs	1,495	(140.0)	(93.7)	46.8	113.5	97.9	91.3	112.8	167.6	198.1	198.7	193.4	136.7	90.9	110.3	96.5	74.5
Tax Paid	(357)	-	-	-	-	-	(8.1)	(26.7)	(42.9)	(52.6)	(53.3)	(52.1)	(36.0)	(22.9)	(28.8)	(22.5)	(11.5)
Project Cashflow After Tax before Financing	1,138	(140.0)	(93.7)	46.8	113.5	97.9	83.3	86.2	124.7	145.5	145.4	141.3	100.7	68.0	81.5	73.9	63.0

Cash Flow Forecast & Sensitivities

Table 17 shows that the base case, net cash flows for the life of the project total \$1,495M, before taxes and financing costs. Pre-tax cash flows would pay back the Project's capital costs by the end of Year 4. With taxes, net cash flows total \$1,138M and generate an NPV (at a 10% discount rate) of \$427M and an IRR of 32%. Average annual EBITDA (earnings before interest, tax, depreciation and amortisation) is about \$136M.

The sensitivities in Table 18 below show that the project's NPVs are most susceptible to changes in copper prices and least susceptible to capital cost changes. At a \$3.00/lb copper price, which is 23% below current prices, the Project's NPV is just under half that for the base case forecast and its IRR decreases to 26%. The Project is breakeven at a copper price of about \$2.10/lb.

Table 18 NPV Sensitivities

Sensitivity Analysis - Base NPV plus and minus 20%

Sensitivity	Copper Price	EUR / USD Exchange	Site Cash Opex	Smelting, Refining, Freight	Total Capital Cost
(20.00%)	150	617	538	461	465
Base	427	427	427	427	427
20.00%	716	237	315	393	389

NPV Sensitivity Analysis to Discount Rate and Copper Price

Disc. Rate	Copper Price (USD / lb)									
	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.50
7.50%	(154.84)	(14.45)	95.91	200.40	303.96	423.38	544.82	666.27	785.62	1,028.51
10.00%	(172.99)	(53.09)	42.52	132.40	220.07	322.55	426.77	530.99	633.25	841.69
12.50%	(186.19)	(82.77)	0.90	79.06	154.09	242.93	333.28	423.63	512.15	692.85

Economic Analysis Conclusions

Inclusive of the Project's full liability for acquisition and closure costs, the Project displays reasonably robust economics at a below-market copper price of \$3.00/lb. With the ability to hedge a substantial portion of copper production at prevailing copper prices, especially in the early years, the Project should attract the necessary project financing at current copper prices.

22.0 ADJACENT PROPERTIES AND DEPOSITS

There are no significant nearby properties owned by other companies.

EMED has not carried out any outside exploration work at Rio Tinto, but has concentrated on the re-appraisal of existing historical data relating to the area held under Licence.

Exploration Potential Peripheral to Cerro Colorado

The Cerro Colorado deposit is open to the east and at depth. The known limit of the eastern extension of the orebody is at -350 m easting. The known vertical extent of the orebody, as defined by the drill-hole data, is about 250 m.

Most of the gold mineralisation appears to be associated with gossans occurring exclusively in the oxide portion of the deposits. However, silver mineralisation occurs in primary mineralisation at CCE and may occur in primary mineralisation at other locations.

EMED-T has completed a thorough review of the Rio Tinto Copper Project local and regional geology and identified further exploration potential, recoverable by open-pit mining methods, in five locations:

- By exploring the full lateral and vertical extent of the mineralisation within the existing Cerro Colorado open pit area;
- From CCW to Filón Sur West;
- At Cerro Colorado, west of the existing highway;
- From CCE to San Antonio; and
- At the Southern waste dump.

A 60,000 m drilling program has been proposed to investigate these exploration targets, but there are several constraints that require further assessment prior to this exploration being extended, including the highway, the Roman cemetery, the Roman village and the northern boundary of the Minas de Rio Tinto townsite. The drilling programme and associated costs have been included in EMED's economic model.

This report has only considered the proposed re-development of the Cerro Colorado deposit by open-pit mining. The EMED licence area covers an area of mineralised and historically mined ground surrounding the Cerro Colorado deposit. This provides scope for further exploration and development by EMED.

Table 19 Historical pyrite production by the Rio Tinto Company
(Source: Salkfield, 1987)

LOCATION	UNDERGROUND (Tons)	OPEN-PIT (Tons)	TOTAL (Tons)
South Lode	18,192,713	24,201,493	42,394,206
North Lode	2,754,064	22,928,632	25,682,696
San Dionisio	26,780,834	11,350,589	38,131,423
Planes Lode	2,123,798	-	2,123,798
Valle Lode	193,037	-	193,037
Mal Ano	8,260	-	
TOTAL	50,052,706	58,480,714	108,531,420

San Dionisio Deposit (Western) Area

The San Dionisio deposit, located about 1 km west of the Cerro Colorado pit, was exploited by the Corta Atalaya open-pit and the Pozo Alfredo underground mine, which worked two different types of mineralisation.

The San Dionisio deposit occurs as a massive sulphide lens within the core of a syncline with a copper-rich stockwork zone along the eastern (footwall) portion of the syncline (the Alfredo Cloritas Zone). The San Dionisio massive sulphide was mined for sulphur by underground and open-pit methods from the late 1800s until 1992; and of the Alfredo Cloritas was mined for copper by underground methods until 1986. From 1977 until 1986, Rio Tinto Minas SA (RTMSA) undertook considerable exploration drilling (1,080 underground drill holes) and feasibility studies for bulk mining both the massive sulphide and the Alfredo Cloritas by underground methods at a combined rate of 1.2 Mt/y. That work was discontinued in 1986 due to the prevailing low metal prices.

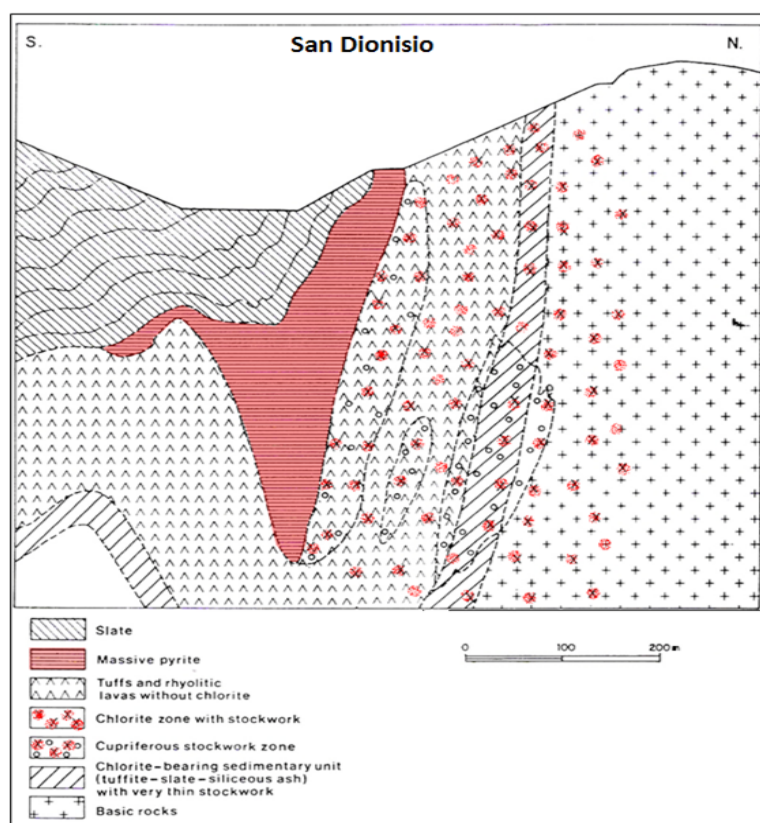
Corta Atalaya was one of the largest open-pit mines in Europe at 1,200 m long, 906 m wide and 330 m deep. The Corta Atalaya open-pit was started in 1907 to mine the upper stratiform massive sulphide (pyrite) part of the San Dionisio orebody, which is 1200 m long and 50 to 60 m thick. As mined, the ore contained 48% S and 0.8% Cu. Marginal grade material averaging 0.15 to 0.25% Cu

was leached to produce some 1,500 to 2,500 t/y Cu, as well as 4 t/y Au and 50 t/y Ag from dump material and the gossans, with the latter containing about 90 Mt at 0.85g/t Au and 45 to 50 g/t Ag.

At the deepest level of the pit, a connecting tunnel and access ramp led to the workings of the **Pozo Alfredo underground mine**, which mined the underlying stockwork part of the San Dionisio deposit that extends for a distance of 600 to 700 m in an east-west direction, is 200 m thick and 600 m deep. Annual production from Pozo Alfredo was about 250,000 t of ore material at an average grade of 1.35% Cu. Primary crushing, to less than 200 mm, was carried out in the same crushing plant as the ore from Corta Atalaya, but was processed by a separate circuit in the plant. Both open-pit and underground copper ore were treated in a single concentrator. The underground mine was closed in 1987.

Figure 11 shows a Geological cross-section of the San Dionisio Deposit (looking west).

Figure 11 Geological cross-section of the San Dionisio deposit (looking west)
Source: Dunning, 1989



In 1993, F.G. Palomero, Chief Geologist of Rio Tinto Minera SA (“RTMSA”), reviewed the San Dionisio deposit and estimated that there remained an Exploration Target (historical resource) of:

- Alfredo Stockwork. 17.2 Mt @ 1.45% Cu;
- Massive Sulphide. 45 Mt @ 0.88% Cu, 2.2% Zn, 26g/t Ag and 0.40 g/t Au.

These exploration targets are historical estimates made by RTMSA, presumably in accordance with the RTZ Mining company protocols and procedures, based on a review of the historical data and geological interpretations available at that time. The terminology used is not compliant with the JORC Code or CIM definitions and so is not NI 43-101 compliant. These estimates are not considered to be current mineral resources or mineral reserves and further exploration work by a Qualified Person is required to define these mineral resources and mineral reserves in compliance

with the JORC Code and NI 43-101. It is uncertain if further exploration will define additional mineral resources.

EMED-T is currently collating and documenting all of the historical data relating to the San Dionisio deposit in order to reappraise this deposit in light of higher base and precious metal prices and determine what will be required to establish an NI-43-101 compliant resource estimate.

Planes-San Antonio Mine (Eastern) Area

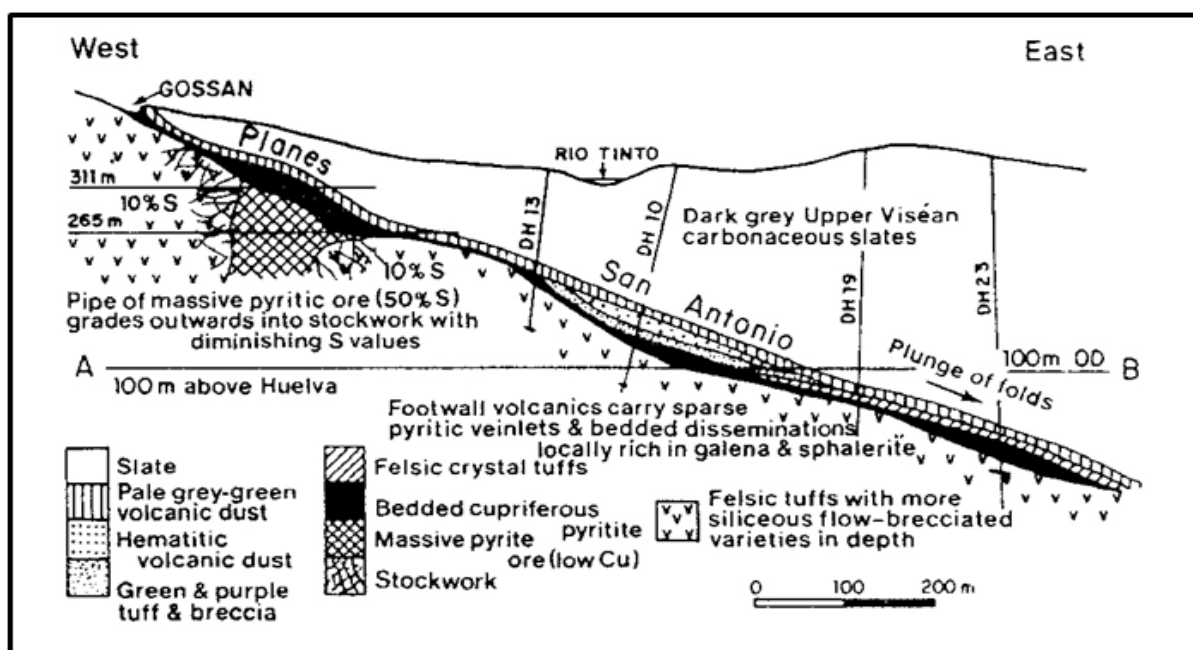
The Planes-San Antonio mine is located at the eastern end of Cerro Salomon (now CCE). The Planes mine was worked intermittently from Roman times up to 1950, when mining became uneconomic. In 1962, a geophysical survey and exploratory drilling located an extension of the mineralization 600 m to the east of Planes, which was named San Antonio.

The Planes vein-stockwork mineralisation appears to have been a feeder pipe underlying the layered (stratiform) pyrite of the San Antonio deposit that was precipitated on the sea-bed. The brecciation of the colloform pyrite, the presence of slumping structures and the re-deposited pyrite material in the San Antonio deposit, all point to intra-formational erosion and transport of a large part of the massive stratiform sulphides for several hundred metres from the top of the source feeder pipe at Planes down the side of the volcano into a depression on the sea-bed.

The San Antonio massive sulphide deposit is shallow (150m to 300m below surface) lenticular in shape, dipping to the east at 30 degrees and is 250m in length and 20m thick. Exploration of this deposit was undertaken in the mid 1960s to mid 1970s by the sinking of a shaft, the development of 2 levels from this shaft and the drilling of 183 underground drill holes. Other than exploratory development no mining has been carried out on this deposit.

Figure 12 is an E-W cross-section through the Planes-San-Antonio deposit.

Figure 12 E-W Cross-section through the Planes-San-Antonio deposit (looking north)
(Source: Dunning, 1989)



In 1987, F.G. Palomero (Chief Geologist of RTMSA) reviewed this deposit and estimated the remaining mineral resource to be: 9.1 Mt @ 1.67 % Cu, 1.07% Pb, 2.13% Zn, 0.60 g/t Au and 64.3 g/t Ag.

This exploration target is an historical estimate made by RTMSA, presumably in accordance with the RTZ protocols and procedures, based on a review of the historical data and geological interpretations available at that time. The terminology used is not compliant with the JORC Code or CIM definitions and therefore is not NI 43-101 compliant. These estimates are not considered to be current mineral resources or mineral reserves and further exploration work by a Qualified Person is required to define these mineral resources and mineral reserves in compliance with the JORC Code and NI 43-101. It is uncertain if further exploration will define additional mineral resources.

EMED-T is currently collating and documenting all the available historical data from the San Antonio deposit in order to appraise and determine what will be required to establish an NI-43-101 compliant resource estimate.

Filón Sur Massive Sulphide (Source: Salkfield, 1987)

The Filón Sur massive sulphide was mined for sulphur by both underground and open-cut methods. Underground production from 1873 to 1967 was 18.2 Mt of ore and open-cut production between 1874 and 1949 was 24.2 Mt of ore. As all of this material was mined for sulphur, the base-metal and precious-metal contents were not systematically recorded. As the Filón Sur pit is developed, unmined portions of the Filón Sur Massive sulphide will become exposed. EMED propose to carry out investigation of the Filón Sur massive sulphide deposit in conjunction with the proposed Cerro Colorado pit expansion in the Filón Sur Area.

Gossan Tailings Reprocessing (Source: EMED, 2012)

Production of precious metals (Au and Ag) from the Gossan plant occurred from 1970 through to 2001. In that time a total of 93.6 Mt of gossan (oxide) material was processed producing 3.4 million ounces of gold and 55.8 million ounces of silver at an average recovered grade of 1.1 g/t Au and 18.5 g/t Ag. Recoveries were 84% for gold and 34% for silver. This made Rio Tinto the biggest precious metal producer in Europe since the Middle Ages.

Tailings from the gossan treatment plant were deposited from 1971 to 1987 in the Gossan dam (31.6 Mt) and from 1988 to 2001 were mixed with copper tailings in the Aguzadera section of the TMF (60.0 Mt). For this reason the Gossan section of the TMF has a better potential for retreatment of the precious metal tailings than the Aguzadera section.

Retreatment of the Gossan tailings section was investigated by RTMSA in 1992, by drilling 17 holes into the Gossan tailings dam that returned average grades (from 325 samples) of 0.3 g/t Au and 31.0 g/t Ag which supports the historical production data. Standard cyanide testing of the samples recovered 40% of the Au and 11% of the Ag. In view of the projected recoveries and the prevailing precious metal prices at that time (Au \$364/oz and Ag \$4.00/oz), re-treatment was not deemed to be economically viable. EMED carried out documentation from archived material in the EMED library covering the years 1971-1987 except 1971, 1972, 1973 1983 and 1984 confirming about 24.2 Mt of the 31.6 Mt deposited in the Gossan dam.

At current (2013) precious metal prices the tailings in the Gossan section constitute a potential mineral resource and EMED intends to continue evaluation of the tailings in the Gossan section with the objective of establishing an NI-43-101 compliant mineral resource.

Based on records held by the Riotinto Fundación and historical production reports held by EMED, the Gossan section of the TMF contains an Exploration Target of about 31 Mt at an average grade of 0.3 g/t Au and 31 g/t Ag. This data is considered to be reliable.

The terminology used is not compliant with the JORC Code or CIM definitions and therefore is not NI 43-101 compliant. These estimates are not considered to be current mineral resources or mineral reserves and further exploration work by a Qualified Person is required to define these mineral

resources and mineral reserves in compliance with the JORC Code and NI 43-101. It is uncertain if further exploration will define additional mineral resources.

As part of the land-purchases agreements executed between Rumbo 5-Cero SL and EMED in August 2012, the companies agreed that “certain non-natural resources”, defined in Spain as “Class B Resources” located on properties owned by the Company and/or previously owned by Rumbo 5-Cero SL would be developed pursuant to a Joint Venture.

A joint-venture agreement was executed on August 31, 2012, by which each of the parties was granted a 50% interest in the obligations, liabilities and benefits to be derived from the Class B Resources. The parties agreed that if the activities of the joint venture should not be compatible with the Rio Tinto Copper Project, the latter should take precedence

The Calcine Stockpile

The calcine stockpile is material mined from the Corta Atalaya pit that was too low in sulphur grade to warrant transportation to the coast, but was separately stockpiled as it contained base metals (copper, lead and zinc) and precious metals (gold and silver) that were considered to be potentially economic in the future. EMED has yet to determine the tonnage and grades of the respective metals in this stockpile.

23.0 CONCLUSIONS AND RECOMMENDATIONS

Behre Dolbear concludes that:

- The Rio Tinto Copper Project is viable on the basis of parameters described in this Report, in spite of the substantial increase in the capital cost estimate and environmental costs since the 2010 technical report;
- The financial forecast contains potential operating cost improvements which, although feasible, require verification;
- The Project has been well analysed in geological, engineering and financial terms;
- The EMED/Merit Restart Study has been competently prepared with realistic conclusions;
- The preparations being made for starting up the plant are appropriate;
- EMED will need to refine its contingency provision as it completes its procurement arrangements to ensure capital adequacy;
- The annual rate of 9.0 Mt/y should be achieved with a LOM average copper recovery of 85% to a concentrate grading 21 to 23% Cu, on a dry basis, containing 10% moisture;
- The timetable for this programme is challenging, but appears realistic;
- A review of the infrastructure and related engineering requirements has identified items which need to be addressed before start-up, but none that involve additional major capital expenditure or obstacles for successful operations;
- The preparatory work on restarting the open-pit mine operation and the plans for contract mining appear to be satisfactory;
- EMED-T’s personnel involved in the project are suitable and competent;
- The infrastructure and environmental aspects, as discussed in this report, are expected to be manageable;
- All aspects of Environment, Health and Safety, together with Social and Community Impact have been addressed by EMED-T with competent personnel; and
- There is exploration potential peripheral to the Cerro Colorado deposit which is open to the east and at depth:

- By exploring the full lateral and vertical extent of the mineralisation within the existing Cerro Colorado open pit area;
- From CCW to Filon Sur West;
- At Cerro Colorado, west of the existing highway;
- From CCE to San Antonio; and
- At the Southern waste dump.

Behre Dolbear Recommendations:

On the basis that the Rio Tinto Copper Project is viable and appears to be a robust project, which has been well analysed in geological, engineering and financial terms, Behre Dolbear recommends that EMED should proceed with the restart of the project as soon as the requisite project approvals, permits and project financing have been secured.

Behre Dolbear also recommends:

- Additional geological modeling to better understand the controls on mineralization, including the silver;
- Further delineation drilling to determine the limits of the orebody, both laterally and at depth;
- Additional drilling to upgrade the Inferred Resource and Indicated Resource material to Measured Resource category;
- Production of a representative sample of CCE ore from the drilling program to carry out metallurgical test-work to confirm the metallurgical characteristics and plant design criteria.
- Evaluation of nearby deposits as satellite operations; and
- Evaluation of the retreatment of the historical gossan tailings.

All of these recommendations are achievable within EMED's planned expenditure.

EMED's primary focus will be on the restart of the Rio Tinto Copper Project and efforts and available funds will be directed towards achieving the milestones and capital lost requirements for the restart project. Further exploration and drilling work will be a secondary focus to be undertaken as time and funds permit, once the restart has been achieved.

24.0 REFERENCES

Palomero, F.G. 1993 Geological report on Masa San Dionisio (Alfredo and Corta Atalaya), Internal report, Rio Tinto Minera S.A. November 1993.

Palomero, F.G. 1987 Copper Bearing Cobrizo Ore Deposits (San Antonio)

Salkfield, L. U. 1987 A Technical History of the Rio Tinto Mines: Some notes on exploitation from pre-Phoenician times to the 1950's. The Institute of Mining and Metallurgy, London, 1987.

Alfredo Moreno Bolanos. Mineral Extraido en Minas de Riotinto 1725-2002. Report for Rio Tinto Historia, Patrimonio Minero y Turismo Cultural.

EMED Feasibility Study and Appendices dated October 2012

EMED and Merit PRT Project Execution Plan dated November 2012

CERTIFICATE

To accompany the Report Entitled “NI 43-101 Technical Report on Reopening the Rio Tinto Mine, Huelva Province, Spain”, dated 15th February 2013.

I, Denis Acheson, do hereby certify that,

1. I am a Senior Associate with and Chairman of the firm of Behre Dolbear International Limited with an office at: 3rd Floor, International House, Dover Place, Ashford, Kent, TN23 1HU. and do hereby certify that:-
2. I am a graduate of the University of Cape Town with a Bachelor of Science degree in Chemical Engineering and have practiced my profession continuously since 1956. I am a graduate of the University of Oxford with a BA(Hons) PPE.
3. I am a Qualified Professional Member of the Mining and Metallurgical Society of America, with special expertise in metallurgy.
4. As of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all the scientific and technical information required to be disclosed to make this technical report not misleading.
5. I am a qualified person for the purposes of National Instrument 43-101 and am independent of the issuer as defined in Section 1.4 of National Instrument 43-101 and I have not received, nor do I expect to receive, any interest, directly or indirectly, in any of the Property or securities of EMED Mining.
6. I have made three visits to the Rio Tinto properties for 3 days in August 2010, 2 days in May 2012 and 2 days in November 2012. I have also reviewed technical data made available by EMED Mining and am responsible for Sections 1 to 6 and 16 to 24 of this report and have reviewed the whole report as Project Manager.
7. I have read National Instrument 43-101 and Form 43-101F1 and the technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.
8. I had prior involvement with the Rio Tinto Copper Project as a qualified person for the previously filed technical report entitled “Amended and Restated NI 43-101 Technical Report on Reopening the Rio Tinto Copper Project, Huelva Province, Spain” dated November 17, 2010.

Signed



Date 15th February 2013

Denis Acheson, B.Sc. Eng., B.A. (Hons), MMMSA

at London, UK.

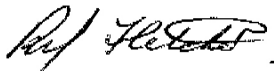
CERTIFICATE

To accompany the Report Entitled “NI 43-101 Technical Report on Reopening the Rio Tinto Copper Project, Huelva Province, Spain”, dated 15th February 2013.

I, Richard James Fletcher, do hereby certify that:

- vi) I am a Senior Associate with the firm of Behre Dolbear International Limited with an office at: 3rd Floor, International House, Dover Place, Ashford, Kent, TN23 1HU. and do hereby certify that:-
- vii) I am a graduate of the University of Leicester with a Bachelor of Science Honours degree in Geology and an MSc. in Exploration Geology from the University of North Queensland, Australia, and have practiced my profession continuously since 1966.
- viii) I am a Fellow in good standing of the Australasian Institute of Mining and Metallurgy and a Chartered Geologist, and a Member in good standing of the Institute of Materials, Minerals and Mining and a Chartered Engineer.
- ix) As of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all the scientific and technical information required to be disclosed to make this technical report not misleading.
- x) I am a qualified person for the purposes of National Instrument 43-101 and am independent of the issuer as defined in Section 1.4 of National Instrument 43-101 and I have not received, nor do I expect to receive, any interest, directly or indirectly, in any of the Property or securities of EMED Mining.
- xi) I have made a visit to the Rio Tinto properties for 3 days in August 2010 and I have also reviewed technical data made available by EMED Mining and am responsible for sections 7 to 15 of this report.
- xii) I have read National Instrument 43-101 and Form 43-101F1 and the technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.
- xiii) I had prior involvement with the Rio Tinto Copper Project as a qualified person for the previously filed technical report entitled “Amended and Restated NI 43-101 Technical Report on Reopening the Rio Tinto Copper Project, Huelva Province, Spain” dated November 17, 2010.

Signed



Date 15th February 2013

R. J. Fletcher M.Sc., B.Sc. FAusIMM, MIMMM, C.Geol, C.Eng.

at Conwy, UK.

CERTIFICATE

To accompany the Report Entitled “NI 43-101 Technical Report on Reopening the Rio Tinto Copper Project, Huelva Province, Spain,”, dated 15th February 2013

I, Julian Bennett, do hereby certify that:

- i) I am a Senior Associate with the firm of Behre Dolbear International Limited with offices at International House, Dover Place, Ashford, Kent TN23 1HU, UK
- ii) I am a graduate of the Royal School of Mines, Imperial College and have practiced my profession continuously since 1964.
- iii) I am a Fellow in good standing of the Institute of Materials, Minerals and Mining and a Chartered Engineer.
- iv) As of the date of the certificate, to the best of my knowledge information and belief, this technical report contains all scientific and technical information required to be disclosed to make this technical report not misleading.
- v) I am a qualified person for the purposes of National Instrument 43-101 and am independent of the issuer as defined in Section 1.4 of National Instrument 43-101. I have not received, nor do I expect to receive, any interest, directly or indirectly, in any of the Property or securities of EMED Mining.
- vi) I have made two visits to the Rio Tinto properties for 3 days in August 2010 and 2 days in November 2013, I have reviewed technical data made available by EMED Mining and am responsible for Section 16 of the technical report.
- vii) I have read National Instrument 43-101 and Form 43-101F1 and the technical report has been prepared in compliance with this Instrument and Form 43-101F1.
- viii) I had prior involvement with the Rio Tinto Copper Project as a qualified person for the previously filed technical report entitled “Amended and Restated NI 43-101 Technical Report on Reopening the Rio Tinto Copper Project, Huelva Province, Spain” dated November 17, 2010.

Signed



Date 15th February 2013

Julian Bennett B.Sc.Eng., ARSM, FIMMM, C.Eng.

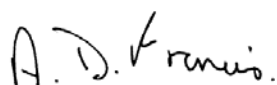
at Ashford, UK.

CERTIFICATE

To accompany the Report Entitled “NI 43-101 Technical Report on Reopening the Rio Tinto Copper Project, Huelva Province, Spain”, dated 15th February 2013

I, Antony D Francis, do hereby certify that:-

- i) I am an Associate with the firm of Behre Dolbear International Limited with offices at International House, Dover Place, Ashford, Kent TN23 1HU, UK
- ii) I am a graduate of the Royal School of Mines, Imperial College of Science Technology & Medicine, London University and have practiced my profession continuously since 1971.
- iii) I am a Fellow in good standing of the Institute of Materials, Minerals and Mining and a Chartered Engineer.
- iv) As of the date of the certificate, to the best of my knowledge information and belief, this technical report contains all scientific and technical information required to be disclosed to make this technical report not misleading.
- v) I am a qualified person for the purposes of National Instrument 43-101 and am independent of the issuer as defined in Section 1.4 of National Instrument 43-101. I have not received, nor do I expect to receive, any interest, directly or indirectly, in any of the Property or securities of EMED Mining.
- vi) I have made 2 visits to the Rio Tinto properties for a total of 4 days in May and November 2012, I have reviewed technical data made available by EMED Mining and am responsible for Sections 13 & 17 of the technical report.
- vii) I have read National Instrument 43-101 and Form 43-101F1 and the technical report has been prepared in compliance with this Instrument and Form 43-101F1.
- viii) I have had no previous involvement with the Rio Tinto Copper Project.

Signed 

Date 15th February 2013

Antony D Francis, B.Sc.Eng. (Met.), ARSM, FIMMM, C. Eng.

At Ashford, Kent, UK.