9 April 2013 ASX: AOH, FSE: A2O

KYLYLAHTI MINE RESOURCE AND RESERVES UPDATE

- **Ore Reserve grade increased**
- **Mine development to permit extension drilling commenced**

Altona Mining Limited ("Altona" or the "Company") is pleased to announce updated Mineral Resource and Ore Reserve Estimates for the 100% owned Kylylahti underground mine at its Outokumpu Project in Finland.

So far, the copper grade of ore produced at the Kylylahti mine has consistently outperformed predictions. New geological mapping, mining information and underground drilling since the start of production in February 2012 together with prior drilling data demonstrate sufficient geological and grade continuity has permitted the estimation of a new Resource and Reserve Estimate for the upper Wallaby zone, and thus global resources and reserves for the Kylylahti Mine. Resources are reported above a 0.4% copper lower cut-off grade.

Mineral Resources

The December 2012 Resource Estimate for the Kylylahti mine is:

7.9 million tonnes at 1.25% copper, 0.69 g/t gold and 0.56% zinc for 99,050 tonnes of copper, 175,750 ounces of gold and 44,250 tonnes of zinc.

This compares to 8.1 million tonnes at 1.27% copper, 0.67g/t gold and 0.56% zinc for the previous estimate reported in Altona's 2012 Annual Report.

Geological understanding of the upper Wallaby zone has improved resulting in a better defined, structurally controlled semi-massive copper domain at higher grades, and lower tonnages of the lower-grade disseminated copper domain.

Mining depleted the Resource by 0.38 million tonnes at a grade of 1.51% copper. However, infill drilling of a new hangingwall parallel and gold-rich zone successfully defined new disseminated resources which have been incorporated into the model.

The Resource includes new diamond drilling information, face sampling and underground mapping information above the 400 metres level (-300m RL). No new information exists below that level (the Wombat Zone) and the 2010 Feasibility Study Resource model is applied to that zone.

The Resource Estimate is reported inclusive of the Ore Reserves reported below.

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Ore Reserves

The December 2012 Ore Reserves Estimate for the Kylylahti mine is:

3.6 million tonnes at 1.69% copper, 0.66g/t gold and 0.67% zinc for 60,500 tonnes of copper, 76,100 ounces of gold, 24,000 tonnes of zinc.

This estimate compares to 4.2 million tonnes at 1.57% copper, 0.56g/t gold and 0.58% zinc for the previous estimate reported in Altona's 2012 Annual Report. The 0.6 million tonnage reduction comprises of 0.38 million tonnes of mining depletion plus the previously mentioned reduction in disseminated tonnes in the upper Wallaby zone.

The Ore Reserve has been derived from the latest design for the upper part of the mine where the new resource model is available whereas the 2010 Feasibility Study Ore Reserves are used for the deposit below 400 metres below surface (-300m RL).

Ore Reserves for Wallaby have reduced in tonnage but this has been almost completely offset by a significant improvement in copper grade. Overall, copper metal in the Wallaby Ore Reserve after mining depletion has decreased by 9% compared to June 2012 estimates.

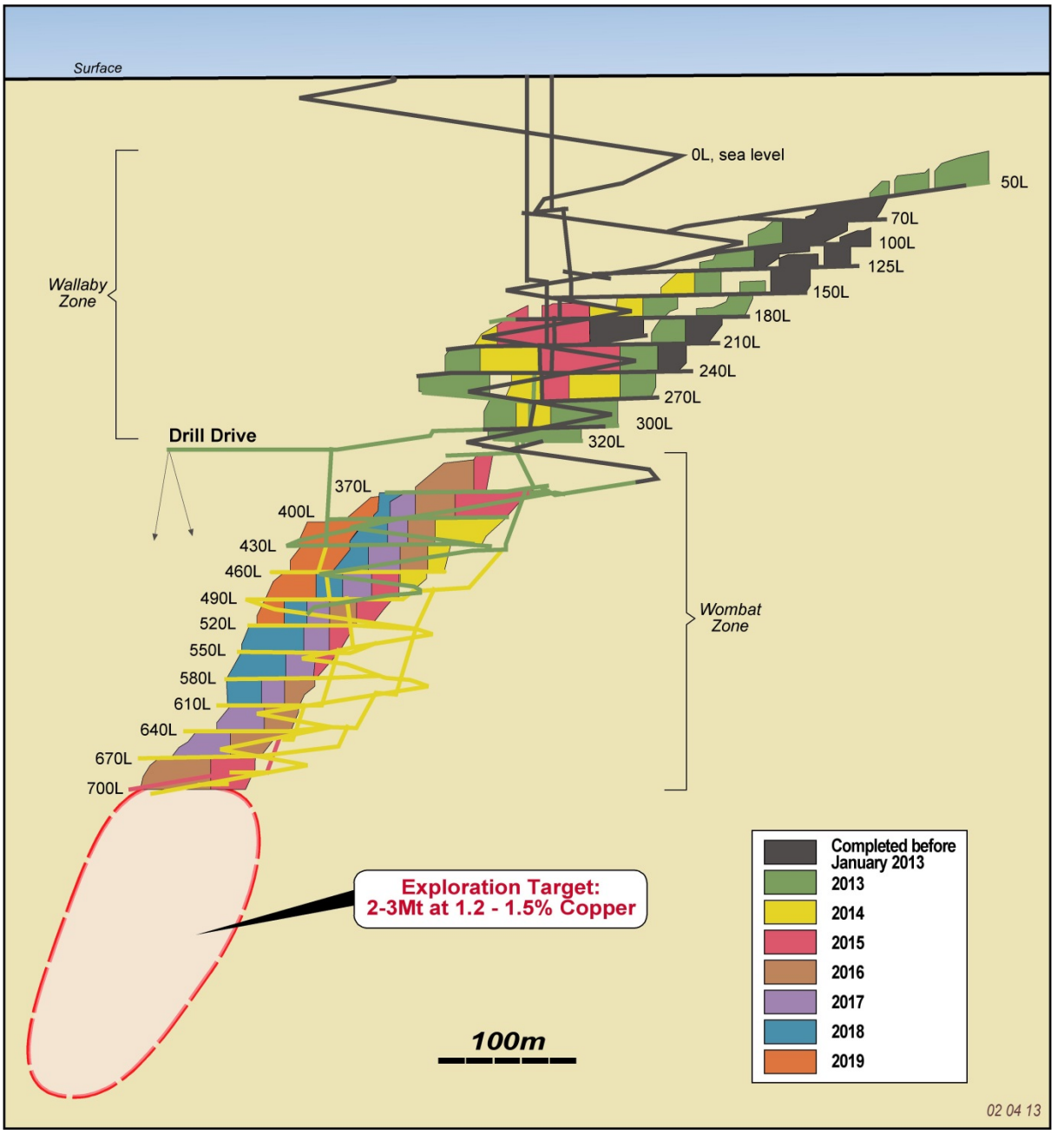
Resource Extension

The lower Wombat Zone is open at depth with the deepest drillhole (OKU-927J) intersecting 72 metres at 1.8% copper of typical Outokumpu style of mineralisation. Altona has commenced underground development to provide a platform to drill test possible extensions of the Kylylahti mine at depth and to infill the upper and central parts of the Wombat orebody. The drive is scheduled to be completed in August 2013 with some 70 metres completed to date. Drilling will commence in August and is scheduled to be completed in March 2014.

Fifteen drillholes with a total length of 8,700 metres will target depth extensions 200-300 metres below current Ore Reserves. Typical Wombat geometry at typical Wombat grades would provide an exploration target of approximately 2-3 million tonnes at 1.3-1.5% copper. The target is inferred from characteristics and continuity demonstrated by other major deposits in the area. The potential quantity and grade is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

JORC 2012

The Company has reported Resources and Reserves according to the 2012 update of the JORC Code and a full 'Table 1' is included at Appendix 2 of this release. A full report has not been included as this release represents an update of prior releases associated with the 2010 Definitive Feasibility Study (Resource; 23/10/2010 and Reserve; 2/8/2010) and the changes are not material.



Longitudinal section of the Kylylahti mine showing the mine plan, drill drive and zone targeted for additional resources.

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About Altona

Altona Mining Limited is a copper producer in Finland and has a major copper development project in Australia.

The Company's Outokumpu Project in south-east Finland commenced production in early 2012. The project comprises the 550,000 tonnes per annum Kylylahti underground decline mine and the recently refurbished Luikonlahti mill. The annual production rate averages 8,000 tonnes of copper, 8,400 ounces of gold and 1,600 tonnes of zinc with a study to expand production up to 12,000 tonnes of copper underway. Regional resources include 9 million tonnes in 2 closed mines and 4 unmined resources within 30 kilometres of the Luikonlahti mill. Finland is a Eurozone country and has a long history of mining, a stable corporate tax regime (24.5%) and no royalties.

Altona's other core asset is the Roseby Copper Project near Mt Isa in Queensland and is one of Australia's largest undeveloped copper projects with a resource containing 1.52 million tonnes of copper and 0.38 million ounces of gold. The first development envisaged is the 7 million tonnes per annum Little Eva open pit copper-gold mine and concentrator. Little Eva's proposed annual production is 38,800 tonnes of copper and 17,000 ounces of gold for a minimum of 11 years. A Definitive Feasibility Study has been completed and the project is fully permitted. Altona is engaged in discussions with potential partners to enable the funding of this major development.
Altona Mining is listed on the Australian Securities Exchange and the Frankfurt Stock Exchange.

Appendix 1

Table 1: Kylylahti Resource Estimate - December 2012

	Tonnes (m)	Cu (%)	Au (g/t)	Zn (%)	Co (%)	Ni (%)
Measured	1.2	1.50	0.71	0.60	0.27	0.20
Indicated	6.4	1.22	0.69	0.55	0.23	0.21
Inferred	0.3	0.97	0.57	0.70	0.24	0.18
TOTAL	**7.9**	**1.25**	**0.69**	**0.56**	**0.23**	**0.20**
Metal Tonnes		99,050	175,750oz	44,250	18,550	16,200

Table 2: Kylylahti Resource Estimate - June 2012 (Superseded, for comparison purposes only)

	Tonnes (m)	Cu (%)	Au (g/t)	Zn (%)	Co (%)	Ni (%)
Measured	0.5	1.50	0.59	0.54	0.27	0.18
Indicated	7.3	1.26	0.68	0.55	0.23	0.21
Inferred	0.3	0.97	0.57	0.70	0.24	0.18
TOTAL	**8.1**	**1.27**	**0.67**	**0.56**	**0.23**	**0.20**
Metal Tonnes		103,100	175,000oz	45,250	19,100	16,500

Table 3: Kylylahti Ore Reserves, December 2012

	Tonnes (m)	Cu (%)	Au (g/t)	Zn (%)	Co (%)	Ni (%)
Probable Ore Reserves	3.6	1.69	0.66	0.67	0.26	0.14
Metal Tonnes		60,500	76,100oz	24,000	9,400	5,000

Table 4: Kylylahti Ore Reserves, June 2012 (Superseded, for comparison purposes only)

	Tonnes (m)	Cu (%)	Au (g/t)	Zn (%)	Co (%)	Ni (%)
Probable Ore Reserves	4.2	1.57	0.65	0.58	0.29	0.17
Metal Tonnes		66,400	88,400oz	24,500	12,250	7,200

Table 5: Outokumpu Resources, December 2012

Deposit	Classification	Tonnes (m)	Cu (%)	Au g/t	Zn (%)	Co (%)	Ni (%)
Kylylahti	Measured	1.19	1.50	0.71	0.60	0.27	0.20
	Indicated	6.40	1.22	0.69	0.55	0.23	0.21
	Inferred	0.31	0.97	0.57	0.70	0.24	0.18
	Total	**7.91**	**1.25**	**0.69**	**0.56**	**0.23**	**0.20**
Saramäki	Inferred	3.40	0.71	-	0.63	0.09	0.05
Vuonos	Inferred	0.76	1.76	-	1.33	0.14	-
Hautalampi	Measured	1.03	0.47	-	0.06	0.13	0.47
	Indicated	1.23	0.30	-	0.07	0.11	0.42
	Inferred	0.90	0.30	-	0.10	0.10	0.40
	Total	**3.16**	**0.36**	**-**	**0.07**	**0.11**	**0.43**
Riihilahti	Indicated	0.14	1.69	-	-	0.04	0.16
Valkeisenranta	Indicated	1.54	0.29	-	-	0.03	0.71
Särkiniemi	Indicated	0.10	0.35	-	-	0.05	0.70
Sarkalahti	Inferred	0.19	0.33	-	-	-	1.02
TOTAL		**17.20**	**0.90**	**0.32**	**0.45**	**0.15**	**0.26**

Appendix 2

JORC Table 1

The table below is a description of the assessment and reporting criteria used in the Kylylahti Resource and Reserve Estimation that reflects those presented in Table 1 of The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012).

Criteria	Commentary
Sampling Techniques and Data	
Sampling techniques	• The deposit is sampled using diamond drillholes and face samples of the underground development. • Diamond drilling before 2011 has been cut or sawn to half core and quarter core, which has been sent for assaying. 25% of the diamond core drilled after 2011 has been cut to half core before submitting to assaying and 75% has been assayed as full core. Sampling in the diamond core is predominantly at 1 metre intervals with sample breaks matching geological contacts. • Face sampling lines have been laid out horizontally and perpendicular to ore contacts. Samples have been collected as chip samples using rock hammers at predominantly 1 metre intervals. Sample breaks match geological contacts. • Diamond holes and face samples are picked up for collar location and downhole surveyed with relevant instrument. Underground diamond drilling is designed in a nominal 20x20 metre grid to intersect mineralisation at the best available angle. Logging and sampling of the diamond holes and face samples are undertaken in accordance with Altona's protocols. QAQC samples are inserted for both diamond sample and face sample batches as Altona's protocols. Protocols follow industry best practice. • Determination of mineralisation and representativeness is based on the visual amounts of sulphides and lithological contrasts • All samples are crushed, split and pulverized to produce a 100-250g subsample for base metal assaying by acid digestion and a 25g subsample for fire assay for gold.
Drilling techniques	• Diamond drilling is used to define the Kylylahti Resources. About 93,000 metres was drilled before production (-2011) and about 28,000 metres have been drilled after that. Drilling after 2011 has been carried out to infill to the required density before development and also for stope grade control. • Face samples are collected using a rock hammer from horizontal lines perpendicular to ore zones. 315 faces with 1,690 metres of sampling have been collected.
Drill sample recovery	• Core losses are recorded as intervals on the core logging sheets. Core recovery is regarded to be high in Kylylahti drilling and exceeds 99%. • Face sample chips are collected and a representative amount is recovered to assaying. The quality of sampling and representivity is systematically monitored using QQ-plot comparisons against diamond core data. • Diamond core samples are used to achieve good recovery data for estimation. Diamond core is reconstructed and oriented to continuous core

Criteria	Commentary
	and length of the core is measured and checked against meter marks of the drillers. Face sample quality and recovery is continuously monitored with geostatistical tools against the diamond core data. • Recovery of the diamond core and face samples are regarded as good and there is no indication of bias from the sample losses in the dataset.
Logging	• All diamond core is geologically logged. Geological logging contains all the required detail for defining geological and ore boundaries and is appropriate for resource estimation. • About 25% of the diamond core is geotechnically logged. • All face samples are geologically logged. Geological logging contains all the required detail for defining geological and ore boundaries and is appropriate for resource estimation. • Logging of the diamond core records geological unit, lithology, texture, grain size, sulphides and sulphide textures. All core is photographed. • Logging of the face samples records geological unit and lithology. • All diamond core and face samples are geologically logged. About 25% of the diamond core is geotechnically logged.
Sub-sampling techniques and sample preparation	• Exploration diamond core is sampled by generating half or quarter core. • Underground grade control core is submitted as full core samples (75% of the holes) or half core samples (25% of the holes). • Face sampling comprises rock chip samples. Full samples are sent for assaying. • Diamond core sample preparation is done by crushing the whole sample, splitting the sample by rifle splitter to 1,000g and pulverising the 1,000g subsample. • Face sample preparation is done by crushing the whole sample, splitting by riffle splitter to a subsample size of 150g and then pulverizing the whole subsample. • Industry best practice procedures are followed in the sample preparation for diamond core and face samples. • Core duplicates and check assay repeats are systematically assayed to ensure the quality of sampling and subsampling. • Duplicate face sample lines have been collected to ensure the quality of the face sampling. • Certified reference materials and blank samples are inserted into diamond core and face sample batches. • QAQC samples are inserted on a 1:10 ratio. • Core duplicates and duplicate face sample lines are taken to monitor the representativity of sampling. Underground development has mined several drillholes and intersected drillholes have been used to monitor representativeness of sampling • Sample sizes are considered to be appropriate for the Kylylahti style of ore.
Quality of assay data and laboratory tests	• Underground diamond drilling is assayed using aqua regia digestion for base metals. Exploration drilling from the surface has been assayed using four acid digestion, aqua regia digestion and XRF methods. Face sample are assayed using an aqua regia digestion method. Gold assaying is by fire assay.

Criteria	Commentary
	• Fire assay is a total method for gold assaying and is accepted worldwide as the most appropriate method for gold assay. • Aqua regia digestion is a partial method for nickel and a total method for other base metals. For the style of Kylylahti copper-zinc-gold mineralisation this method is considered to be appropriate. • The four acid digest is a total extraction method. • No geophysical tools were used for any element analysis used in the resource estimate. • Certified Reference Materials, blanks and duplicates are inserted in sample batches as per Altona's QAQC-procedures. Duplicates are inserted in a 1:20 ratio and standards and blanks are inserted in a 1:20 ratio. • QAQC samples are monitored on a batch-by-batch basis and samples in each failed batch are reassayed. QAQC performance is also monitored and reported on a monthly basis; no biases and inaccuracies have been observed.
Verification of sampling and assaying	• Significant intercepts have been visually verified by a Competent Person and Senior Geologist. • A few of the surface exploration holes have been twinned from the underground infill drilling campaigns. Many of the surface exploration drillholes and underground infill holes have been checked by the face sampling. Twinned holes and faces are usually within expected limit of variations. • Primary data is collected on the logging sheets in Excel format. Primary data is stored and archived to Altona's server and imported to an industry-standard SQL database by the database geologist using data entry procedures and database import tools. Data is visually checked and validated prior to import and additional validation is carried out upon entry to the database. • No adjustment has been done for assay data.
Location of data points	• Collar surveys for surface are dominantly done by a DGPS instrument with an accuracy of 10-50cm. Underground collars are picked up by a surveyor using ta tachometer instrument with an accuracy of 10cm. Face samples are located using underground pickup's of the face cuts. The accuracy of face sample collar locations is 50cm. • Gyro, Devico, Maxibor and Dip measurements are used for downhole surveying. All the recent drilling is surveyed using gyro and bulk of the holes used for estimation are gyro, device or maxibor downhole surveyed. Short holes less than 50 metres are surveyd for dip and azimuth at collar point. Competent person considers downhole survey quality to exceed requirements for modelled resource classifications. • The Finnish national grid system with lane 4 (Finnish KKJ-4) is used for all the resource work. • Collar locations points for surface holes are measured using DGPS instrument. Kylylahti is underground mine which does not have surface exposure. Topography DTM accuracy is irrelevant for underground mining purposes.
Data spacing and	• The Wallaby orebody is diamond drilled to a minimum of 20 metres x 20

Criteria	Commentary
distribution	metres spacing in the plane of the ore and down to 400 metres vertical depth. • Face sampling covers about 70% of available ore faces in the Wallaby orebody down to 400 metres vertical depth. Sampling is done on 4 metres ore cuts on 25-30 metres development levels. • Resources below 400 metres depth are drilled on a 40 metres x 40 metres grid. • Data spacing is considered sufficient to define geological and grade continuity for grade control purposes, Mineral Resources and Ore Reserves (above 400 metres depth) and sufficient for Mineral Resources and Ore Reserves (below 400 metres depth). • Samples are composited downhole to 2 metres for estimation purposes.
Orientation of data in relation to geological structure	• Face samples are collected wherever possible perpendicular to the orebody and are regarded as having the correct orientation to produce a representative sample. • Underground diamond drilling is completed in fans from the drilling positions in the footwall of the orebody. Orebody intersection angles are predominantly orthogonal to mineralisation and are suitable for collecting unbiased samples. • Exploration diamond drilling is collared from surface. Deeper diamond holes from the surface to intersect a subvertical orebody are drilled with moderate to poor drilling angles for the ore contacts. No major biases are seen from the exploration drilling after the upper orebody has been redrilled with better orientation from underground drill cuddies.
Sample security	• A chain of custody is maintained for the Kylylahti samples. • Diamond core is drilled by an underground drilling contractor. The drilling contractor delivers core from underground drilling sites to Altona's logging facilities close to the mine site. Core is logged in Altona's logging facilities by full-time Altona employees and collected samples are delivered by full-time Altona employees to global laboratory. • Face samples are collected by Altona's geologists who are full-time employees. Samplers deliver core from underground drives to Altona's logging facilities close to the mine site. Samples are prepared by full-time Altona employees in the sample preparation room of the logging facility and subsamples are delivered by full-time Altona employees to the onsite laboratory. Assaying is performed by Altona's full-time employees at the laboratory.
Audits or reviews	• The initial estimations for the Definitive Feasibility Study were undertaken by Optiro with subsequent updates by Altona. This estimate was audited by Snowden. No external audits or reviews of the sampling technique or data have been undertaken since the feasibility study. Sampling techniques have not changed since the study. The Competent Person(s) has reviewed both the sampling technique and database and considers both to be at required levels.
Estimation and Reporting of Mineral Resources	
Database integrity	• Primary data is collected in the logging sheets in Excel format. Primary data is stored and archived to Altona's server and imported to an industry-

Criteria	Commentary
	standard SQL database by the database geologist following data entry procedures and database import tools. • Data is visually checked and validated prior to imports and additional validation is done on entry to the database using validation rules.
Site visits	• The Competent Persons work at the mine site and regularly visit underground development drives. The Competent Person has also viewed large amount of the underground diamond core. Mapping of the underground drives and logging of the core has heavily enhanced the geological and structural understanding of the deposit.
Geological interpretation	• Confidence in the geological interpretation is increased by underground mining and mapping. Confidence in the interpretation is considered to be good. • No assumptions are made regarding the data; all geological interpretations are based on observation. • No alternative interpretation has emerged. • Mineralisation contacts are highly visual geological markers. Geological logging and mapping has been used as an indicator of the mineralisation contacts. • Alteration and structure controll grade and geology. Geology is very visual on the underground development and can easily be mapped to assist with interpreting geological and structural features.
Dimensions	• The Kylylahti Mineral Resource is 1,000 metres long (along strike), 3-50 metres wide and extends over 800 vertical metres (70 metres to -800 metres vertical depth).
Estimation and modelling techniques	• Resource model has been updated above the 400 metres level (-300 mRL); information below the 400 level is unchanged and the previous model for the feasibility study is considered to be appropriate. Commentary regarding resource estimation methodology relates to the new update above the 400 level. The 2010 Definitive Feasibility Study resource model used below 400 metres level is intensively audited and was deemed JORC 2004 compliant. Subsequent mining has further verified this model. • Ordinary Krieging was used as a resource estimation method as it was considered to be best estimation method for the Kylylahti style of deposit. Previous Kylylahti estimates have also been completed using Ordinary Krieging. • Estimation was carried out using Surpac 6.3 for the estimation and Supervisor 7.04 for geostatistics. • Drillhole sample data was coded using domain wireframes for ore zones and rock codes for main rock types. • Sample data was composited to two metres downhole lengths using a best fit –method. A minor amount of small composite lengths were created by the process with negligible effects upon estimation. • Composites were declustered using a 20x20x20 cell declustering method. • Extreme outliers of sample population were topcut based on statistical analysis (grade histograms, log probability plots and examination of CV's). Topcuts were applied to copper (6% in the massive copper domain), gold (3.5g/t in the massive copper domain, 7g/t in the disseminated copper and

Criteria	Commentary
	hangingwall gold-lenses) and zinc (3.5% in the massive copper and zinc dissemination domain, 2.5% in the disseminated copper domain and 1.5% in the hangingwall gold lenses). Other elements did not require any topcutting. • Directional variograms were modelled using normal score transformation for the massive and disseminated copper domains for gold, cobalt, copper, nickel, zinc and sulphur. Back-transformed variograms were used in the estimation. Grade continuities showed good agreement with known geology. Modelled variograms had about 100 metres variogram ranges in the principal direction, 20-30 metres ranges in the intermediate direction and about 10 metres ranges in the minor direction, with low nuggets of 10-20%. • The block model was constructed using 10.0 x 2.5 x 2.5 metres parent block sizes with standard subcelling to 2.50 x 0.625 x 0.625 metres. The diamond drilling grid for above the 400 metres level is a minimum of 20 metres x 20 metres and face samples have been collected on 23-30 metres development levels at most 4 metre cuts on ore. Dense grade control data density is considered to allow relatively small block sizes to be used in the grade control areas. • Ordinary kriging (OK) estimation was used to estimate gold, cobalt, copper, nickel, zinc and sulphur grades into parent blocks for all the domains. • One estimation pass was carried out for all the domains. Search distances of 150 metres x 150 metres x 50 metres were used, with minimum of 4 and a maximum of 32 samples in the search. • No check estimate with alternative estimation method was done as reconciliation and production records are far better comparison point. • No assumptions were made regarding recoveries of bi-products. • No deleterious element or other non-grade variables were estimated. • Block size is about half of the nominal sample spacing. • Selective mining units were not used for estimation as Kylylahti is an underground mine not estimated using recoverable resources methods. • No correlations were used between variables. • Kylylahti mineralisation is very visual. Logging information was used as guidance for creating geologically controlled envelopes of mineralisation. • Extreme outliers of sample population were topcut based on statistical analysis (grade histograms, log probability plots and examination of CV's). Topcuts were applied to copper (6% in the massive copper domain), gold (3.5g/t in the massive copper domain, 7g/t in the disseminated copper and hangingwall gold-lenses) and zinc (3.5% in the massive copper and zinc dissemination domain, 2.5% in the disseminated copper domain and 1.5% in the hangingwall gold lenses). Other elements did not require any topcutting. • Resource model validation included the following steps: o 2D and 3D visual checks between sample grades and model grades. o Sample vs domain grade checks inside the domains. o Swathe plots (northing and elevation slices at 25 metres spacing) were completed to check local estimation accuracy.

Criteria	Commentary
	○ Composite vs raw metal and length checks. ○ Kriging metric checks (regression slope and kriging efficiency) for estimation quality. ○ Volume comparisons of the solids versus the block model. ○ Comparison against the previous block model. ○ Reconciliation of data against the grade control model and mill is available and used to validate the resource model. • Previous resource models were used to validate the new resource statement. The new model contains a similar amount of copper metal tonnes, with higher grades and less disseminated tonnes with lower grades. This was expected based on the new data.
Moisture	• Tonnes have been estimated on a dry basis.
Cut-off parametres	• Copper domains have been modelled using a 1.0% copper cut-off for massive copper domains and 0.4% copper cut-off for disseminated copper domains.
Mining factors or assumptions	• Kylylahti ore is mined using the underground mining method of longhole stoping. The mine has been in production about a year. • No internal or external dilution or ore loss are modelled in the resource model.
Metallurgical factors or assumptions	• No metallurgical assumptions have been built into the resources. • The mill has processed Kylylahti ore for about year, with expected recoveries for copper, gold and zinc.
Environmental factors or assumptions	• Both the mine and mill are fully operating as stated in the environmental permit.
Bulk density	• Bulk densities have been measured using the common water immersion method to measure dry densities from diamond core samples. • The bulk density database contains 14,437 density measurements at Kylylahti, covering about 50% of the assay database and representing all domains with adequate density. • Bulk density has been estimated into parent blocks using an ordinary kriging estimation method.
Classification	• Mineral Resources have been classified on the basis of geological and grade continuity confidence using drilling density, geological confidence, modelled grade continuities and conditional bias (slope of the regression and kriging efficiency) as criteria. • Measured Mineral Resources are defined using a minimum of 20 metres x 20 metres drill spacing with proven grade and geological continuity. Measured Mineral Resources contain grade control information from development with high confidence in geological and grade continuity. • Indicated Mineral Resources are defined using a 40 metres x 40 metres drilling spacing. • Inferred Mineral Resources are poorly drilled in deeper extensions to the south. • Mineral Resources have been classified on the basis of geological and grade continuity confidence using drilling density, geological confidence, modelled grade continuities and conditional bias (slope of the regression and kriging efficiency) as criteria.

Criteria	Commentary
	• Results appropriately reflect the Competent Person`s view of the deposit.
Audits or reviews	• No audits have been completed on the current resource estimate above 400m depth. • Resource estimation has seen intensive audits and reviews at the feasibility level in 2010 by SRK / Optiro and was found to be JORC 2004 compliant. This auditing is considered applicable to all resources as there has been no material change of methodology and mining has validated the 2010 model..
Discussion of relative accuracy / confidence	• Relative accuracy and confidence levels were not determined in this estimation. Kylylahti mine has been in the production over the year and grade control data and mill reconciliation data is available to investigate accuracy of the resource model which is considered to be more accurate than the geostatistical approaches. Grade control information and mill reconciliation data shows that resource model estimates metal of the resources accurately with commonly lower tonnes and higher grade.
Estimation and Reporting of Ore Reserves	
Mineral Resource Estimate for conversion to Ore Reserves	• The Kylylahti resource model (December 2012) was used for conversion to Ore Reserves above level 400 (-300mRL). Information is unchanged below level 400 and Ore Reserves have not been updated. • Mineral Resource is inclusive of Ore Reserves.
Site visits	• The Competent Person works at the mine.
Study status	• The Ore Reserves update above level 400 reflects an operating underground mine. The Ore Reserve has been updated for current underground development areas.
Cut-off parametres	• The ore cut-off grade is based upon a Net Smelter Return (NSR) value, which is derived from copper, gold and zinc grades. Three different NSR values have been used for different purposes in the ore reserve update for mining areas above level 400: 1. NSR of 20€/t for ore drives. This equals approximately a copper grade of 0.4%. 2. NSR of 30€/t for stope boundaries where the ore can be extracted without additional preparation works. This equals a copper grade of approximately 0.55%. 3. NSR of 41€/t for the minimum grade of an entire stoping panel. This equals approximately a copper grade of 0.7%. • Ore reserves below level 400 remain unchanged.
Mining factors or assumptions	The following is relevant only for the reserve update above level 400: • The mining method used is longitudinal open stoping with cemented rock fill (CRF) and/or waste rock fill. Parts of the orebody, however, will be mined using upwards bench stoping without backfill. The stope height varies between 15 metres and 30 metres, length between 20 metres and 50 metres and width between 3 metres and 25 metres. • Decline tunnel is used for ore transportation and access to development drives. Sublevel height is 30 metres, and development drives are connected to the decline with access tunnels. In the upper parts of the Wallaby ore zone (levels 150 to 250) access tunnels are located at the southern end of the orebody, in lower parts (levels 280 to 400) access

Criteria	Commentary
	tunnels enter the orebody in the middle, and development drives are built north and south. • Stoping will start from the northern and southern ends of the orebody, and it proceeds upwards from the bottom. Due to the orebody plunging ~25° to SW, the northern most stopes on each level can be mined as a bottom level stope. Only one horizontal pillar is planned, at the southern end below level 340. • On areas where stope can be accessed from above, front end of the stopes will be filled with CRF. The next stope opening will then be blasted against the CRF wall maximizing ore recovery. • Planned stopes include some dilution to ensure, that the stopes are minable. This is included in stope tonnes and grades as planned dilution. In addition, overbreak is assumed to cause unplanned dilution. The dilution factor is dependent on the stope width. It is assumed, that approximately 0.5 metres of overbreak will occur on both sidewalls of the stope. Therefore dilution varies between 5% in wide stopes (>20 metres) and 30% in narrow stopes (3 metres). Additionally, in areas where the orebody is complex and varies a lot in small scale, geological dilution (5 to 10%) is added on top of the overbreak dilution. • Unplanned dilution is expected to come from footwall and hanging wall with a 50/50 ratio. The footwall dilution contains no metal, and it is only assumed to carry grade of 10% sulphur. The hanging wall dilution does carry metal grades. They are calculated from the ore block model and included in stope grades. • The definition for dilution here is assumed to be the ratio dilution tonnes / ore tonnes. • The recovery from planned stopes is assumed to be 95% for open stoping and 90% for upwards benching. The unrecovered ore is assumed to result from failed blasts that fail to loosen the ore. This can especially be a problem in narrow, upwards stopes, where there is little space for blasted rocks to be released into, and therefore only a 90% recovery is used for them. • The mine has not yet used a cavity measurement surveying (CMS) device for measuring the actual stope volumes. Therefore, accurate analysis of stope dilution and recovery cannot be made. The actual dilution and recovery is estimated by comparing loaded ore tonnes to planned ones and by visual inspection of the stope. A CMS will be acquired in the near future, and then recovery and dilution can be analysed more accurately. • The minimum stope width used is 3 metres. • The infrastructure for mining above level 400 is largely completed. Development drives on levels 370 and 400, however, are still under construction. Infrastructure includes the decline, access tunnels, development drives, ventilation headings/rises and support headings (such as water sumps). Electricity, water, ventilation and water discharge systems are also in place. • Reserves are derived only from Measured and Indicated Resource categories.
Metallurgical factors	• The Kylylahti mine and Luikonlahti mill have been operating for over a year

Criteria	Commentary
or assumptions	processing Kylylahti ore as designed in the 2010 Definitive Feasibility Study and extensive detail is given in the ASX release dated 23/10/2010. • The metallurgical process is well established; 3 stage crushing, rod mill and pebble mill followed by flotation to produce copper-gold concentrate and a zinc concentrate for sale, together with a low-grade cobalt-nickel concentrate for storage and a sulphur concentrate for disposal. The flow sheet is virtually identical to that employed at the plant in the past for 15 years of treating similar ore. • Extensive metallurgical testwork representative of the ore body has been completed over the 20 years between discovery and production. Metallurgical domaining reflected geological domaining into massive and disseminated sulphides. • There are no deleterious elements. • Bulk sampling is not applicable, as the mine is in production. • The saleable product is a concentrate, not a mineral.
Environmental	• Mined waste rock will is being used in stope backfill. Before stoping and backfilling commenced, development waste rock has been stored in a waste rock pile on the surface. When mining advances, the waste rock pile will be transported underground into stope fill. • Both Mine and Mill operate under granted Environmental Permits.
Infrastructure	• All required infrastructure is in place and has been used for a year. • The processing plant is located 43 kilometres away from the mine. • Power, water and transportation is available and already in use. • The centre of the municipality of Polvijärvi (~5000 inhabitants) is located only 2 kilometres from the mine. Additionally the town of Outokumpu and the city of Joensuu are located 20 kilometres and 40 kilometres away from the mine respectively. Accommodation is readily available in all these places. The mine has currently all the workforce needed for full operation.
Costs	• The Kylylahti mine and Luikonlahti mill have been operating over a year processing Kylylahti ore as designed in the feasibility study. The gained experiences are used for estimating capital and operating costs. • The Kylylahti mine and Luikonlahti mill have been operating over a year processing Kylylahti ore as designed in the feasibility study. The gained experiences are used for estimating capital and operating costs. • Allowances made for the content of deleterious elements in concentrate are based on the agreements made with the current customer. • The metal prices used are based on LME prices as applied in confidential agreements made with the current customer. • The exchange rates used in the study are based on the corporate analysis for the rates. • The transportation charges used are based on the current contracts. • The treatment and refining charges and also penalties are based on the agreements made with the current customer. • The allowances made for royalties payable (government/private) are based on Finnish mining legislation.
Revenue factors	• Kylylahti mine and Luikonlahti mill have been operating over a year processing Kylylahti ore as designed in the feasibility study. The gained experiences and current agreements with customers are used to estimate

Criteria	Commentary
	the revenue factors. • The metal prices used are based on the agreements made with the current customer.
Market assessment	• Altona regularly reviews supply and demand characteristics for copper metal. At the forward prices assumed, Altona believes resources are economic. • Copper is a freely traded commodity on world markets. • Regular copper supply and demand analysis is available from a variety of sources (eg. Merchant banks, trading houses, brokers etc). • Copper is not an industrial mineral.
Economic	• The Outokumpu Project is an operating mine. Operating costs are based on actual data, not assumptions. • Reserves are calculated on the basis of the net smelter return using long term copper prices and actual operating cost data.
Social	• Kylylahti mine and Luikonlahti Mill are fully permitted and operating according to those permits.
Other	• Risks are those typical of underground copper mines. • All necessary material legal agreements are in place and in order. • All necessary governmental agreements and licencing requirements are in place and in order.
Classification	• All reserves have been classified as Probable Ore Reserves. • Results appropriately reflect the Competent Person`s view of the deposit. • About 20% of the Probable Ore Reserves are derived from Measured Mineral Resources.
Audits or reviews	• No reviews and audits undertaken in the reserves. Below 400m has been audited during DFS and still valid. Above 400m level mining reconciliation information is available which is constantly internally reviewed.
Discussion of relative accuracy/ confidence	• No relative accuracy and confidence level work has been done. Underground mining information with grade control data and mill reconciliation data exists and have been used which increases the confidence of the reserves.

Competent Persons Statement

1. *Mineral Resources and Ore Reserves*: The Kylylahti Mineral Resource and Ore Reserve Estimates that are reported in this ASX Release is based on information compiled by Mr Jari Juurela, MSc, MAusIMM and Mr Jarmo Vesanto, MSc, MAusIMM, Competent Persons, who are full time employees of the Company and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Messrs Juurela and Vesanto consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

2. *Responsibility for entire release*: Information in this ASX Release that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Alistair Cowden BSc (Hons), PhD, MAusIMM, MAIG who is a full time employee of the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Alistair Cowden consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

3. *Ore Reserves*: The Kylylahti Ore Reserve Estimates that are reported in this ASX Release were undertaken by Mr Esko Pystenen MSc, Mining Manager Finland and Mr Antti Sorsa MSc, Mine Planning Manager, who are full time employees of the Company and, in the opinion of the Company have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. However as Finnish professionals, neither are yet a member of a relevant Australian Professional body so do not formally qualify. Messrs Juurela and Vesanto have assumed the role of Competent Person for the purpose of this ASX disclosure.