9. März 2017 ASX: AOH, FSE: A2O

PROJEKT CLONCURRY: RESSOURCEN-UPGRADE BEDFORD

- **Die Mineralressource der Lagerstätte Bedford erhöhte sich auf 4,8 Mio. Tonnen mit 0,80% Kupfer und 0,21 g/t Gold.**
- **Zunahme des enthaltenen Kupfermetalls um 124% und des enthaltenen Goldes um 191%.**
- **Die gesamte Mineralressource des Projekts Cloncurry beträgt jetzt 1,67 Mio. Tonnen enthaltenes Kupfer und 0,4 Mio. Unzen enthaltenes Gold.**

Altona Mining Limited („Altona" oder „das Unternehmen" - http://www.commodity-tv.net/c/mid,5428,Company_Updates/?v=297328) gibt eine neue Mineralressourcenschätzung für die Lagerstätte Bedford bekannt. Die Lagerstätte befindet sich auf dem sich vollständig in Unternehmensbesitz befindlichen Kupferprojekt Cloncurry in der Nähe des Mt Isa in Quensland. Bedford liegt 6km südöstlich der geplanten Tagebaumine und Aufbereitungsanlage Little Eva und befindet sich auf bewilligten Bergbaupachtgebieten.

Die neue Ressourcenschätzung umfasst: 4,8 Mio. Tonnen mit 0,80% Kupfer und 0,21 g/t Gold für 38.000 Tonnen enthaltenes Kupfer und 32.000 Unzen enthaltenes Gold.

Die Ressource wird zu einem unteren Cut-Off-Gehalt von 0,3% angegeben und ist als angezeigt und geschlussfolgert klassifiziert. Eine vollständige Aufstellung finden Sie in Tabelle 1 und 2. Eine detaillierte Zusammenfassung der Hilfsdaten und Methodik wird in Anhang 1, der Tabelle 1 der 2012 Edition of the JORC Code gegeben.

Die gesamte Mineralressource des Projekts Cloncurry beträgt jetzt:

290 Mio. Tonnen mit 0,58% Kupfer, 0,05 g/t Gold für 1,67 Mio. Tonnen enthaltenes Kupfer und 0,4 Mio. Unzen enthaltenes Gold (Appendix 2).

Die neue Mineralressourcenschätzung für Bradford basiert auf einem neuen geologischen Modell, das durch detaillierte Oberflächengeochemie und geologische Kartierungen gestützt wird. Das neue Modell wurde ebenfalls von zwei zusätzlichen Kernbohrungen gestützt, die für metallurgische Proben und geotechnische Studien niedergebracht wurden.

Für die Mineralressource wird nur sulfidisches Erz angegeben, das sich von 20m bis 140m unter die Oberfläche erstreckt. Eine Oxidationszone, die sich von der Oberfläche bis in Tiefen von 20m bis 30m erstreckt, wurde in die Ressourcenschätzung nicht eingeschlossen.

Die Zunahme gegenüber der Schätzung aus dem Jahr 2012 ist in erster Linie das Ergebnis des besseren Verständnisses der Kontinuität und der Geometrie. Basierend auf Kartierungen der übertägigen Abbaustätten und einer höher auflösenden Beprobung des Kupfers im Boden konnten die vererzten Strukturen besser abgegrenzt werden. Eine Zunahme der Tonnage resultiert aus neuen Dichtedaten, die aus Bohrkernen gewonnen wurden im Gegensatz zu früheren konservativen Schätzungen.

Die Lagerstätte Bedford ist Teil der Minenentwicklung Little Eva und der Produktionsbeginn ist im Jahr 2 des Minenplans vorgesehen. Das neue Modell deutet das Potenzial zur Erweiterung der Erzvorräte Bedford an. Optimierungen der Tagebaugrube sind als Teil der Projektoptimierung geplant.

Geologie

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Die Lagerstätte Bedford ist ein Eisen-Oxid-Kupfer-Gold (IOCG) –Vererzungssystem, das für den Bezirk Cloncurry typisch ist. Die benachbarte Lagerstätte Little Eva ist eine typischere IOCG-Lagerstätte mit Ähnlichkeiten zur großen Lagerstätte Ernest Henry 70km südöstlich.

Die Lagerstätte ist in einer steil nach Westen einfallenden Scherzone beherbergt, die nach Norden bis Nordnordost streicht. Die Scherzone ist zwischen 50 und 120m mächtig. Darin kommen gestaffelte und überlappende vererzte Strukturen vor. Am besten ist die Vererzung über eine Streichlänge von 2,5km in zwei getrennten Zonen entwickelt, „Bedford North“ und „Bedford South“. Individuell vererzte Strukturen in Verbindung mit Erzgehalten (>0,3% Kupfer) besitzen wahre Mächtigkeiten zwischen 5 und 12m.

Die Stratigrafie der Wirtsgesteine umfasst ein Nord- bis Nordnordoststreichen, mäßig bis steil nach Westen einfallende geschichtete Abfolge von Amphibolit- und Biotitschiefer. In diese Gesteinsabfolge drangen konkordant Granit und pegmatitähnliche Intrusions-/Lagergänge ein.

Die vererzten Strukturen in Bedford South sind zum größten Teil schichtungsparallel. Laut Interpretation streichen die vererzten Strukturen in Bedford North von Nord nach Süd und kreuzen die nach Norden bis Nordost streichende Stratigrafie. Sekundäre nach Nord bis Nordost streichende Zwischenstrukturen werden entlang der Schichtung/Schieferung gefunden. Magnetit-Biotit-Alterationsparagenesen mit Quarzgängen kommen konzentriert in den vererzten Strukturen mit einer starken Feldspat-Hämatit-Alteration im Liegenden vor.

Das dominante Erzmineral ist grobkörniger Kupferkies (mit untergeordnet Magnetit, Pyrit, Magnetkies und Gold), der innerhalb von Quarzgängen, Brekzienfüllungen und eingesprengt im Wirtsgestein vorkommt.

Die Lagerstätte ist an der Oberfläche nicht aufgeschlossen. Eine unregelmäßige 20 bis 30m mächtige Verwitterungszone mit sekundärer Kupferoxidvererzung bedeckt die Lagerstätte.

Ressourcendefinition und Modellierung

Die Bohrungen werden zum größten Teil in Abständen von ungefähr 25m im Streichen und 25m in Fallrichtung über den Hauptzonen niedergebracht. Die Abstände zwischen den Bohrlinien nehmen im Streichen von den Hauptzonen auf 100m zu. Die Bohrungen umfassen 99 RC- und 2 Kernbohrungen mit einer Gesamtlänge von 10.139m. Alle Bohrungen wurden von West nach Ost niedergebracht, um die ungefähren wahren Mächtigkeiten der Vererzung zu durchteufen. Die RC-Bohrungen wurden mittels eines Face Sampling Bohrhammers durchgeführt. Eine kleine Anzahl von RAB-Bohrungen (13) wurde verwendet, wo keine anderen Daten zur Verfügung standen und die aus RAB-Daten abgeleiteten Ressourcen werden als geschlussfolgert klassifiziert.

Die Proben wurden routinemäßig in 1m-Abständen für das Protokollieren und Analyse gesammelt. Alle Proben wurden zur Multielement-ICPAES und/oder AAS-Analyse an angesehene Labors geschickt. Qualitätssicherungs-/Qualitätskontrollproben wurden routinemäßig zugegeben und überwacht. Die Qualitätsüberwachung gewährleistete, dass die Genauigkeit und Präzision dieser Analyse akzeptabel ist.

Geologische 3D-Modelle, die aus den Daten der übertägigen Kartierungen, detaillierten Oberflächengeochemie und den Bohrungen erstellt wurden, wurden zum Beleg der Ressourcenschätzung verwendet. Die Ressourcenschätzung wurde mittels Blockmodellmethodologien im Einklang mit geplanten semiselektiven Bergbauparametern durchgeführt. Kupfer- und Goldgehalte wurden mittels herkömmlichen Kriging im Blockmaßstab geschätzt. Eine Nachbereitung der Daten durch gleichmäßiges Konditionieren wurde angewandt, um Blockgehalte mit einem selektiven Bergbaumaßstab zu schätzen.

In situ Dichtewerte basieren auf physikalischen Messungen, die an Bohrkernen durchgeführt wurden, und auf Vergleichsdaten aus den benachbarten Lagerstätten.

Für Fragen wenden Sie sich bitte an:

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Über Altona

Altona Mining Limited ist ein an der ASX notiertes Unternehmen, das sich auf das Projekt Cloncurry in Queensland, Australien, konzentriert. Das Projekt beherbergt Mineralressourcen, die ungefähr 1,65 Mio. Tonnen Kupfer und 0,41 Mio. Unzen Gold enthalten. Es ist vorgesehen, eine Kupfer-Gold-Tagebaumine und Aufbereitungsanlage mit einer Kapazität von 7 Mio. Tonnen pro Jahr zu entwickeln. Die Entwicklung ist genehmigt mit einer geplanten Jahresproduktion[1] von 38.800 t Kupfer und 17.200 Unzen Gold über mindestens 13 Jahre. Eine endgültige Machbarkeitsstudie wurde im März 2014 veröffentlicht. Altona hat eine Rahmenvereinbarung mit Sichuan Railway Investment Group zur vollständigen Finanzierung und Entwicklung des Projekts durch deren Tochtergesellschaft in Hongkong, China Sichuan International Investment Limited, geschlossen. Der Abschluss der Transaktion ist vor dem 31. Juli 2017 geplant.

[1]Bitte beziehen Sie sich auf die ASX-Pressemitteilung „Cost Review Delivers Major Upgrade to Little Eva" vom 13. März 2014, die die Information bezüglich dieses Produktionsziels und die prognostizierte Finanzinformation, die auf diesem Produktionsziel basiert, zusammenfasst. Das Unternehmen bestätigt, dass alle wesentlichen Annahmen, die das Produktionsziel unterstützen und die auf diesem Produktionsziel basierenden Finanzprognosen, die in der oben genannten Pressemitteilung erwähnt werden, weiterhin gültig sind und sich nicht wesentlich geändert haben.

Aussage der kompetenten Person

Die Informationen in diesem Beicht, die sich auf Explorationsziele, Explorationsergebnisse, Mineralressourcen oder Erzvorräte beziehen, basieren auf einem Bericht von Herrn Frank Browning, MSci (Hons), MSc, GAIG. Herr Browning ist ein Vollzeit-Mitarbeiter des Unternehmens und verfügt über fünf Jahre der entsprechenden Erfahrung. Er ist aber kein Vollmitglied der AIG. Der Bericht wurde von Herrn Roland Bartsch, BSc (Hons), MSc, MAusIMM betreut und geprüft und diese Pressemitteilung beruht auf von Herrn Bartsch zusammengestellten Informationen. Herr Bartsch ist ein Vollzeit-Mitarbeiter des Unternehmens und verfügt über ausreichendes Wissen und Erfahrung über diesen hier vorliegenden Vererzungs- und Lagerstättentyp. Seine Tätigkeiten qualifizieren ihn als kompetente Person gemäß den Regeln des 2012 Edition of the „Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Herr Bartsch stimmt den hier eingefügten Informationen, die auf seinen Informationen basieren, in Form und Kontext je nach Erscheinen zu.

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Tabelle 1: Bedford Mineralressource bei 0.3% Kupfer Cut-off

	Tonnen (Mio.)	Kupfer (%)	Gold (g/t)	Enthaltenes Kupfer (Tonnen)	Enthaltenes Gold (Unzen)
erkundet	-	-	-	-	-
angezeigt	2.3	0.95	0.23	22,000	17,000
geschluss folgert	2.5	0.66	0.19	16,000	15,000
Total	**4.8**	**0.80**	**0.21**	**38,000**	**32,000**

Anmerkung: Gesamtsummen könnten augrund Rundens abweichen.

Tabelle 2: Bedford Mineralressource bei verschiedenen Cut-off-Gehalten

Cut-off Gehalt (% Cu)	Tonnen (Mio.)	Kupfer (%)	Enthaltenes Kupfer (Tonnen)	Gold (g/t)	Enthaltenes Gold (Unzen)
0	29.2	0.19	56,000	0.06	51,000
0.15	7.1	0.61	43,000	0.17	39,000
0.2	5.9	0.70	41,000	0.19	36,000
0.3[R]	**4.8**	**0.80**	**38,000**	**0.21**	**32,000**
0.4	4.1	0.88	36,000	0.22	29,000
0.5	3.4	0.97	33,000	0.24	26,000

[R] *Für Mineralressource angegebener Cut-Off-Gehalt.*

Tabelle 3: Vergleich der Bedford Mineralressourcesdchaetzungen ueber Cut-off-Gehalt von 0.3% Kupfer

	Tonnen (Mio.)	Kupfer (%)	Gold (g/t)	Enthaltenes Kupfer (Tonnen)	Enthaltenes Gold (Unzen)
2017 Schätzung	4.8	0.80	0.21	38,000	32,000
2012 Schätzung	1.7	0.99	0.20	17,000	11,000
% Änderung	182%	-19%	5%	124%	191%

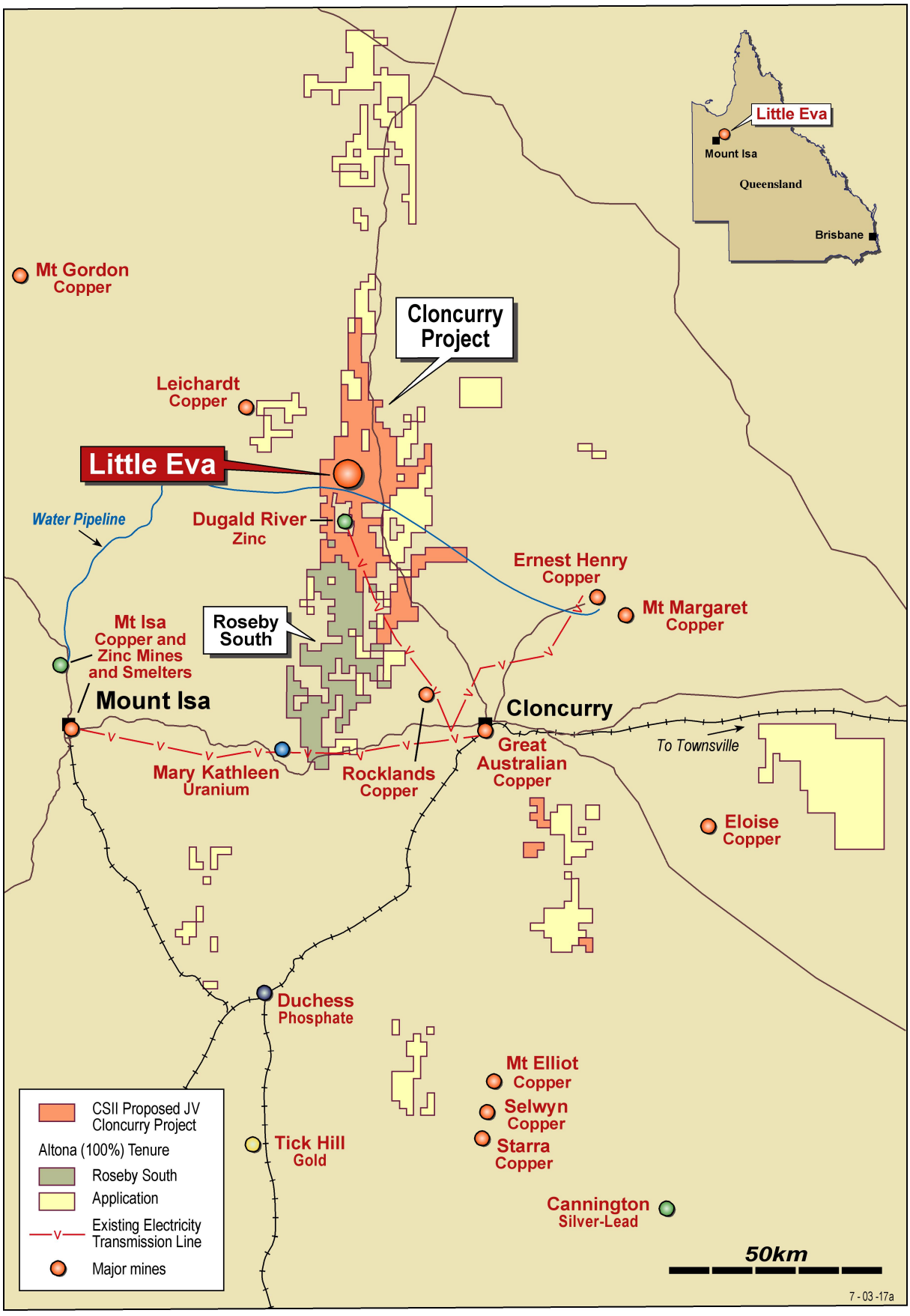

Figure 1: Cloncurry Project location map

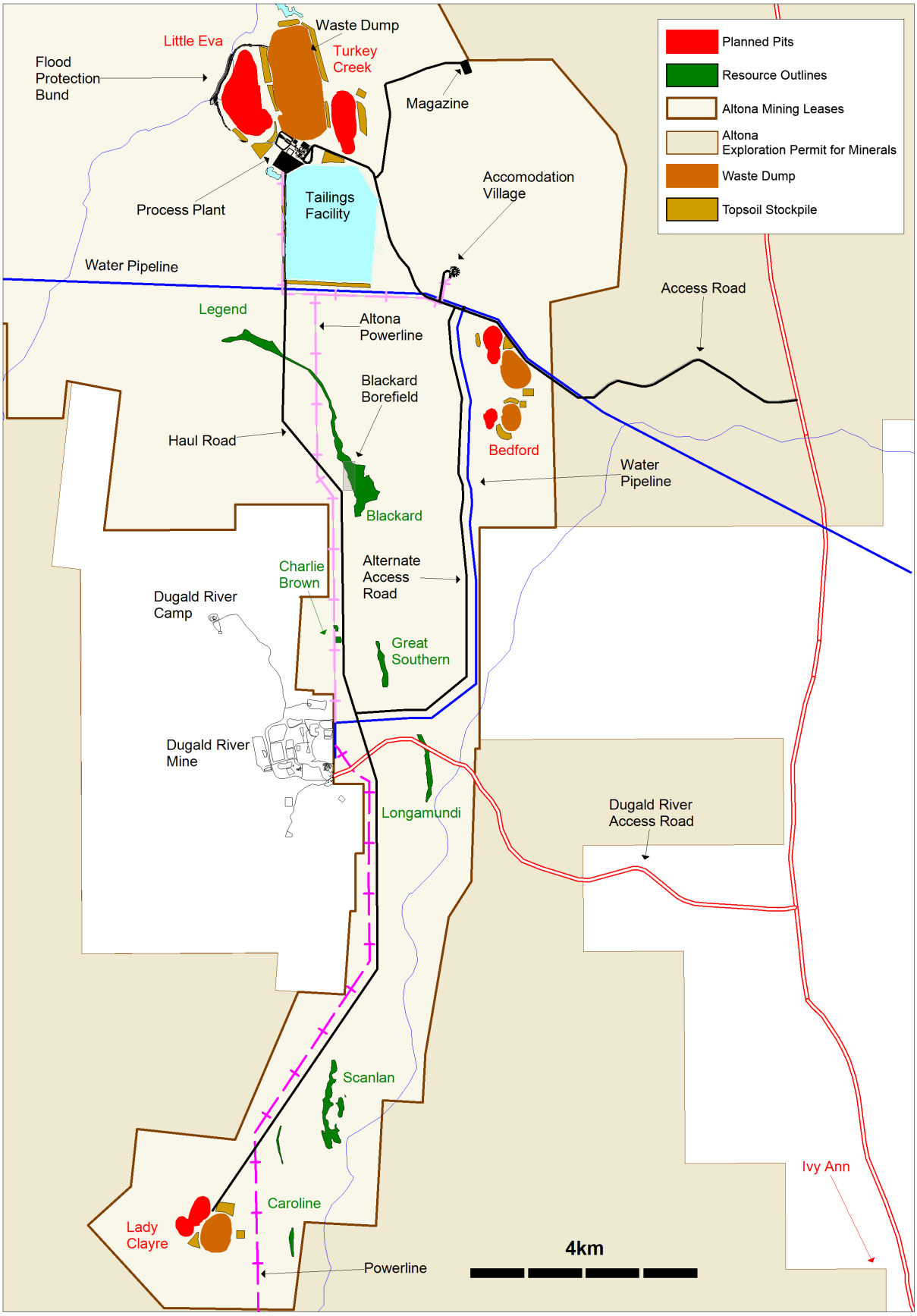

Figure 2: Little Eva Project layout including Bedford

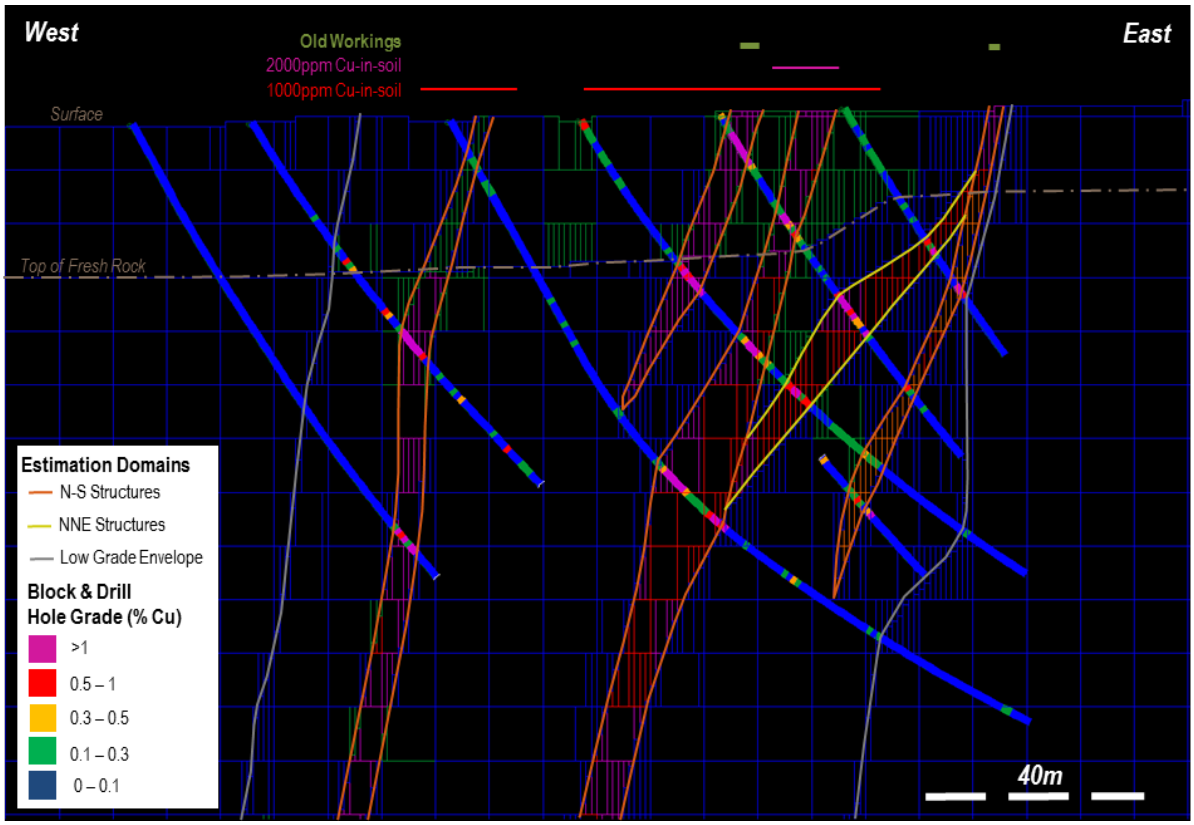

Figure 3: Bedford North block model cross section N7767750. Block colour represents ordinary kriging derived copper grade. Estimation domains and surface datasets utilised in modelling are also labelled

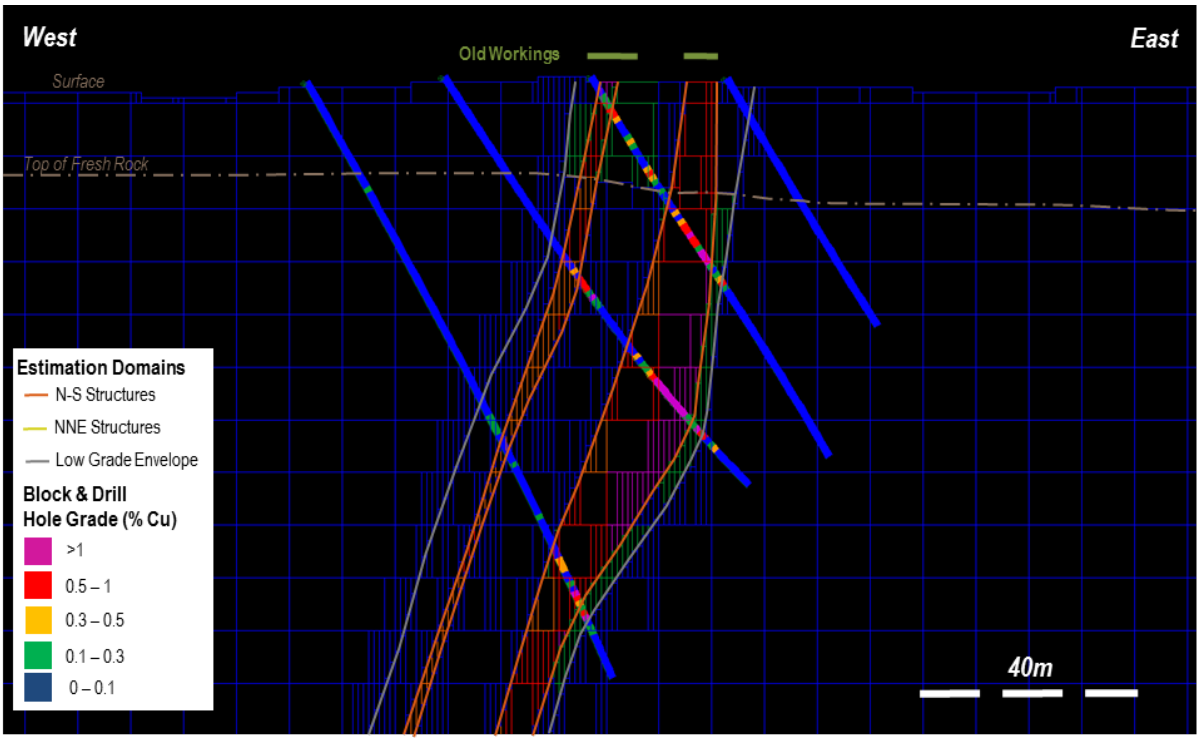

Figure 4: Bedford South block model cross section N7766425. Block colour represents ordinary kriging derived copper grade. Estimation domains and surface datasets utilised in modelling are also labelled

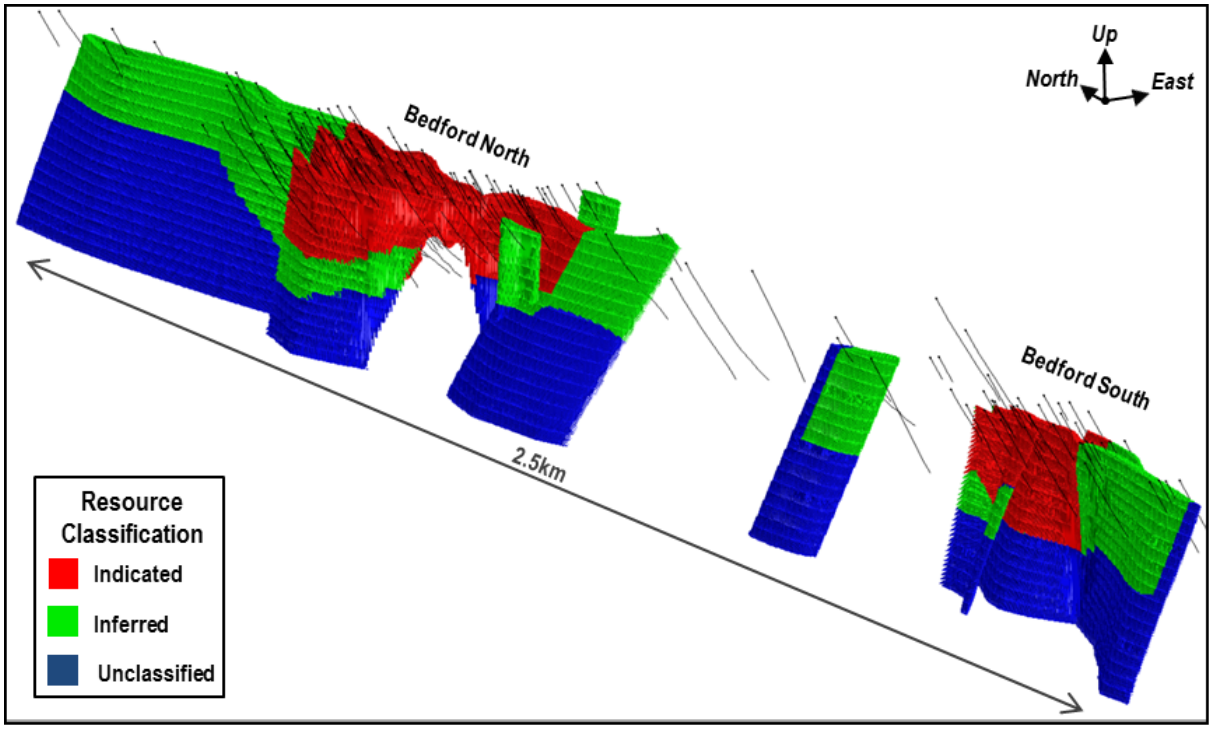

Figure 5: Oblique three dimensional view (looking northeast) of the classified resource model excluding oxide (Unclassified) and low grade envelope domains (Inferred)

APPENDIX 1: TABLE 1 OF THE 2012 EDITION OF THE JORC CODE

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

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	• The drilling dataset incorporates 24 Rotary Air Blast (RAB), 99 Reverse Circulation (RC) and 2 diamond drill holes for a total of 11,061m. • RAB accounts for 8% of drilled metres and was only utilised in the absence of RC or DD sampling (13 holes within resource area), where the tenor and thickness of mineralisation is consistent with results from adjacent drill sections and overlying Cu-in-soil geochemistry. All mineralisation delineated by RAB drilling is classified as Inferred Resources. • 84% of samples were collected at 1m intervals. The remainder were collected at 2m intervals, with a small quantity of partial metre sample lengths (<1%). • Approximately 2-3kg sample weights were obtained from each interval for geochemical analysis. • 2 RC drillholes were completed by CRAE in 1990 (1.6% of drilling dataset). All remaining drilling was conducted by Altona Mining (or precursor company Universal Resources) between 2003 and 2015. • CRAE RC and Universal RAB sampling procedures are not available. • Altona RC samples were collected directly using a trailer mounted cyclone and cone (35%) or triple deck riffle splitter (65%). A small number of wet intervals were sub-sampled with a scoop (<1%). • Altona diamond core sampling was guided by geology, with quarter or half core submitted for analysis. • All samples were collected into pre-numbered calico bags, packed by Altona staff into polyweave or bulka bags and shipped by truck to laboratories in Townsville.
Drilling techniques	• RAB drilling specifications are not available. • RC holes were drilled using 5.375”, 5.5”, or 6” face sampling hammers. • HQ3 and NQ3 core sizes were used in diamond drilling. • Holes were drilled at a dip angle of ~-60^{o} to intersect mineralisation at optimal true width angles.
Drill sample recovery	• Core recovery was measured and RC sample recovery visually estimated. • Recoveries are considered to be excellent averaging > 90%, and typically 100%. Lower recoveries were occasionally observed in the hole collars (top few metres). • The majority of samples were dry. • Every individual RC sample was collected into the cyclone prior to cone splitting. • RC sample bias due to preferential loss/gain of fine/coarse material is considered well within acceptable limits. • Best practice methods were used for diamond coring to ensure the return of high quality core samples.
Logging	• All Altona drill holes were logged by geologists at the rig using Altona standard logging procedures. • Altona logging was qualitative and quantitative including, colour, lithology, mineralisation, alteration, sulphide and oxide mineralogy, sulphide and oxide

Criteria	Commentary
	amount, texture, grain size and structure. • Representative drill core and RC chips have been retained.
Sub-sampling techniques and sample preparation	• CRAE RC and Universal RAB sampling procedures are not available. • Altona RC samples were split at an 87.5% : 12.5% ratio using cyclone and cone or riffle splitter to obtain a ~2-3kg sub-sample for analysis. Occasional wet intervals were sub-sampled using a scoop. • Diamond core intervals were halved or quartered to produce sub-samples. • Samples were sent to ALS or SGS Analabs Laboratories in Townsville for sample preparation and analysis. Both are independent commercial certified laboratories that use industry standard preparation including drying, crushing and pulverisation. • Typical sub-sample sizes are considered representative for typical copper mineralisation in the Cloncurry Project area.
Quality of assay data and laboratory tests	• The majority of samples (98%) were analysed at SGS Analabs in Townsville as outlined below. • Copper was analysed using a mixed acid digestion (hydrochloric, perchloric, hydrofluoric) followed by inductively coupled plasma atomic emission spectrometry (ICPAES) with a re-assay of ore grade (>1% Cu) samples by AAS. • From 2003 to 2006 Gold was analysed using a 50g fusion followed by aqua regia digestion of the Au/Ag prill with a AAS determination. In 2009 Gold was analysed by fire assay with AAS finish. • Quality Control comprised standards (certified reference materials for gold, copper and blanks) inserted into the sampling sequence at a ~1:20 ratio, to test the accuracy of laboratory analysis for each sample batch. Field duplicates were also collected at a ~1 : 20 ratio to control sampling precision, involving the riffle splitting of bulk RC samples or splitting of diamond core sub-samples. • Duplicate data display acceptable accuracy and precision. Results for standard reference materials do not exhibit positive bias beyond Altona's two standard deviation benchmark. • Field duplicate 2nd split were submitted to an umpire laboratory on a 1:20 basis and compared well. • No geophysical tools were used to determine the results reported here.
Verification of sampling and assaying	• Results were checked by several Altona personnel. • No twinned holes. • Field logging data was primarily collected using a laptop and uploaded into the company Datashed database and validated by company database personnel. • All assay files were received in digital format from SGS Analabs Laboratory. Data was uploaded into the Altona Datashed database and validated by company database personnel. No manual data inserts took place. • No adjustments have been applied to the results.
Location of data points	• CRAE collar locations were measured using a hand-held GPS. • Altona RC and diamond collar locations have been surveyed by licensed surveyors using a DGPS with approximately 0.1m or better horizontal accuracy. Elevation accuracy is considered to be less than 0.5m. RAB holes have reported accuracies from 0.005 to 3m. • 25% of Altona RC and diamond drill holes have been down-hole surveyed with professional gyro systems, 69% have down-hole camera surveys and the remaining 6% have collar orientations only.

Criteria	Commentary
	• The Grid is GDA94 MGA Zone 54.
Data spacing and distribution	• Drilling has typically been completed at 25m intervals along 25m spaced east-west sections. Section line spacing increases to 50-100m outside the main mineralised zones. • The majority of samples were collected at 1m downhole intervals. Other sample lengths do not exceed 2m.
Orientation of data in relation to geological structure	• Mineralisation in Bedford South strikes NNE-SSW, changing to a N-S orientation in Bedford North. Both zones exhibit steep westerly dips. • Drilling was completed to the east at -60 degree dip, such that with changing mineralisation dip, true widths are estimated to vary from 80-100% of down hole intercepts. • No bias is considered to result from drilling direction.
Sample security	• Samples from RC and diamond drilling were collected and bagged into pre-numbered calico bags at the drill site during the drilling operation. Unique sample numbers were retained during the whole process. • Samples were collected and delivered to SGS Analabs as they were collected. • Samples were stored in Altona facilities in Cloncurry prior to transport to Townsville. • All samples were then catalogued and sealed prior to dispatch to laboratory by Altona staff.
Audits or reviews	• QA/QC samples were routinely monitored by the database manager and geologist on a batch and campaign basis. The accuracy of key elements such Cu and Au, was acceptable and the field duplicate assay data was unbiased and shows an acceptable level of precision. • No external audits or reviews have been undertaken.

Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	• Bedford is within Mining Lease 90164; 100% owned by Altona Mining. • No joint ventures apply. • There are agreements in place with the native title holders, the Kalkadoon people and with landholders. • No significant historic sites or national parks are located within the reported exploration site. • The Mining Lease was granted in late 2012 and is in good standing.
Exploration done by other parties	• CRAE completed mapping (Bedford South) and ground magnetics, followed by 5 reconnaissance RC drill holes in 1990. • Universal Resources completed RAB (43 holes), followed by RC (97 holes) and diamond drilling (3 holes) from 2003 to 2009. • Altona Mining completed an additional diamond drill hole in 2015, as well as assaying a previously unsampled geotechnical diamond hole. • In 2015 Altona also completed detailed mapping and high resolution soil sampling over Bedford North on a 20 x 10m spacing.
Geology	• Bedford deposit is interpreted to be part of the broader Iron-Oxide-Copper Gold (IOCG) style mineral system common to the Cloncurry district. • Bedford host lithology is characterised by a north to north northeast striking, steep west dipping interlayered sequence of amphibolite and biotite schist, underlain by

Criteria	Commentary
	psammite and intruded concordantly by planar granite and pegmatite intrusions. • Alteration appears to be zoned, with magnetite-biotite alteration and quartz veining concentrated in ore zones, above a strongly feldspar-hematite altered foot wall. • Sulphide mineralisation is associated with a steep west dipping shear zone and comprises chalcopyrite and pyrite in planar bodies that can be parallel or slightly oblique to bedding. Copper oxide species occur above top of fresh rock, in a ~20 to 30m zone of variably weathered bedrock. • Ore formation is interpreted to be structurally controlled, with brittle fracturing facilitating hydrothermal fluid flow and accommodation of metal sulphide precipitation. Structural development at interfaces between rocks of contrasting competency is evident. Moderate to shallow northerly plunging ore shoots are interpreted to be the result of the low angle intersection of transgressive mineralised structures and more competent stratigraphy.
Drill hole Information	• Exploration results are not being reported for the Mineral Resource area. Drill hole information is provided in the Mineral Resource estimation section.
Data aggregation methods	• Exploration results are not being reported for the Mineral Resource area.
Relationship between mineralisation widths and intercept lengths	• Exploration results are not being reported for the Mineral Resource area. • Drilling azimuths are considered to be approximately perpendicular to the strike and dip of the mineralisation resulting in unbiased true widths.
Diagrams	• Refer to the Figures 1 to 5.
Balanced reporting	• Exploration results are not being reported for the Mineral Resource area.
Other substantive exploration data	• Exploration results are not being reported for the Mineral Resource area.
Further work	• Additional work in the future will consist of diamond core drilling for metallurgical and/or geotechnical testwork sampling, as well as infill and exploration step-out RC drilling for resource definition purposes.

Section 3: Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	• Data used for estimation is stored within a SQL Server database and is managed using DataShed software. The structure of the drilling and sampling data is based on the Maxwell Data Model. • Drill data is logged directly into digital logging systems and uploaded to the database by the database administrator (Altona standard procedures since 2005). • Laboratory data has been received in digital format and uploaded directly to the database. (Altona standard procedures since 2002). • In both cases the data was validated on entry to the database, by a variety of means, including the enforcement of coding standards, constraints and triggers. These are features built into the data model that ensure that the data meets

Criteria	Commentary
	essential standards of validity and consistency. • Original data sheets and files have been retained and are used to validate the contents of the database against the original logging. • Validation of existing collar, downhole survey and assay data was completed. Validation steps included: • Drillhole collar locations were compared to the topographic surface. • Downhole deviations of all drillhole traces were examined and problematic surveys were excluded. • All data (e.g. assay, bulk density, RQDs, core recovery) was checked for incorrect values by deriving minimum and maximum values. • Lithology data was checked to ensure standard rock type codes were used. • Meta-data fields were checked to ensure they were populated and that the data recorded was consistent.
Site visits	• Numerous site visits have been undertaken by Mr Bartsch and Mr Browning.
Geological interpretation	• Confidence in the geological interpretation of the deposit is moderate to high. Good local constraints exist on the spatial extent and geometry of separate lithological and structural components through the integrated analysis of surface mapping, surface geochemistry, surface geophysics, drill hole logging, downhole geochemistry, magnetic susceptibility and radiometrics. Drilling and high resolution soil sampling (10mE by 25mN) provide good deposit scale constraints on the geometry and continuity of mineralisation. • Bedford deposit is interpreted to be part of the broader Iron-Oxide-Copper Gold (IOCG) style mineral system common to the Cloncurry district. • Mineralisation occurs at surface, is exposed in sub-crop, and is confirmed through drilling in the main zones down dip to ~140m vertical depth below surface. • The deposit is hosted within a steep west dipping shear zone striking north to north northeast. The shear zone varies from 50 to 120m wide with internal arrays of mineralised structures. • Mineralisation has been defined in two separate zones, 'Bedford North' and 'Bedford South', the shear zone is however through going. The overall deposit extends over a strike length of 2.5km; the northern zone 1.15km and southern zone 850m long. Within the shear zone individual mineralised structures associated with ore grade mineralisation (>0.3% copper) are planar and have true widths ranging from 5 to 12m. • Host stratigraphy comprises a north to north northeast striking, moderate to steep west dipping interlayered sequence of amphibolite and biotite schist, underlain by psammite and intruded concordantly by narrow planar granite and pegmatoidal dykes/sills. • In Bedford South mineralised structures are interpreted to be bedding/foliation parallel. In Bedford North the main mineralised structures are interpreted to trend north-south stepping across north northeast striking stratigraphy, with the development of a set of secondary north northeast linking structures along bedding/foliation. Moderate to shallow northerly plunging ore shoots are interpreted to be the result of the low angle intersection of transgressive mineralised structures and more competent stratigraphy. • Magnetite-biotite alteration and quartz veining are concentrated in the ore zones, above a strongly feldspar-hematite altered foot wall. • The dominant ore mineral is coarse grained chalcopyrite (with minor magnetite,

Criteria	Commentary
	pyrite, pyrrhotite and gold) which occurs within quartz veins, breccia fill and disseminations within the host shear zone. • An irregular 20 to 30m thick zone of weathering with oxide mineralisation blankets the deposit. Although the top of fresh rock is well defined variability of copper mineral species within the weathering profile is not well understood. • Geological interpretation was completed on a sectional basis; from which polylines were interpolated to create 3D solid wireframes for mineralisation and surfaces for weathering interfaces. • The main mineralisation domains were defined using grade constraints. A nominal cut-off grade of 0.3% Cu was used to define boundaries between strongly mineralised structures and a weakly-mineralised low grade envelope, which was itself separated from unmineralised rock by a 0.1% Cu grade shell. • Three main geological domains were defined based on observed internal consistency in geological characteristics: north-south trending mineralised structures, north-northeast trending linking mineralised structures and low grade envelopes. • Statistical and geostatistical analysis verified the domain definition by confirming statistical homogeneity and the presence of distinct continuity characteristics. • Contact analysis informed the selection of hard domain boundaries for estimation. • All domains were further subdivided using a top of fresh rock surface to separate oxide mineralisation and primary sulphide mineralisation.
Dimensions	• The main zone of mineralisation extends over a strike length of 2.5km, including a distinct 1.15km long northern zone ‘Bedford North’ and 850m long southern zone ‘Bedford South’. • Mineralisation dips broadly west at 70-80°. • Mineralisation occurs at surface, is exposed in sub-crop, and is confirmed through drilling in the main zones down dip to ~140m vertical depth below surface. • The deposit remains open to north and south along strike, down dip and between the two zones.
Estimation and modelling techniques	• Drillhole sample data was flagged from estimation domain wireframes. • Sample data was composited to a 1m downhole length. • The influence of extreme outliers was reduced by top-cutting, with top-cut levels determined by a combination of qualitative (grade histograms, lognormal probabilty plots) and quantitative analysis (decile analysis). Top-cuts were applied to nine gold and two copper samples, less than 1.5% of samples in affected domains. • Variography was completed to characterise copper and gold continuity in each sulphide domain. Nugget varies greatly as a proportion of overall variance in different domains, recording changes in the degree of small scale variability and/or errors. High influence is modelled in the north-south mineralised structures, accounting for ~30% of copper and 13% of gold variability. Geometric anisotropy is consistent with the geological model, with variogram reference planes striking north to north-northeast and dipping steeply west (70-80°). A shallow (20-25°) northerly plunge is also evident on this plane. Directional variogram model ranges include: North-south mineralised structures - 54m along strike, 90m down dip, 3.8m across plane. North-northeast linking mineralised structures - 52m along strike, 30m down dip, 4m across plane. Low grade envelope - 55m along strike, 40m down dip, 6m across plane.

Criteria	Commentary
	• Drillhole spacing ranges from 25m to 100m along strike; 25m on-section spacing is typical. • Grade estimation was into parent blocks of 10mE by 20mN on 10mRL via ordinary kriging. • Three estimation passes were completed with search ellipse orientations derived from principal directions of continuity in the variogram. Search distances in the first search were optimised by domain type using quantitative kriging neighbourhood analysis. These distances were doubled and subsequently trippled in the second and third estimation passes. • Search parameters in the second and third estimation passes for the north-south trending mineralised structures were further optimised, with reduced minimum and optimum sample numbers improving local accuracy at the transitions between dense and sparse sample data. • Post-processing of the ordinary kriged panel data by uniform conditioning was used to estimate copper grades at the selective mining unit (SMU) scale of 5mE by 5mN by 5mRL. • The ordinary kriged copper and gold panel model grades were visually validated against the input drillhole data. Comparisons were also carried out between domain wireframe and domain block model volumes, average domain sample and domain block grades, as well as grade-tonnage curves for different estimation methods.
Moisture	• Tonnes have been estimated on a dry basis. • Moisture content has not been tested.
Cut-off parameters	• The Mineral Resource is reported above a 0.3% copper cut-off grade and within 140m of the surface, to reflect current commodity prices and open pit mining.
Mining factors or assumptions	• Planned extraction is by open pit mining. • Mining factors such as dilution and ore loss have not been applied.
Metallurgical factors or assumptions	• No metallurgical assumptions have been built into the resource models. • Preliminary metallurgical and mineralogical testing on samples from sulphide mineralisation support recovery and indicate that economic concentrate grades can be achieved.
Environmental factors or assumptions	• The Bedford resource is included as a component of the Little Eva Project covered by a granted Environmental Authority (EA). • Baseline and ongoing studies form part of EA requirements. • Analysis of simulated tailings fluids and solids prepared through laboratory scale test work indicates favourable environmental results for the neighbouring Little Eva deposit. Simulated sulphide and oxide tailings were found to be benign in terms of potential for formation of acidic, saline or metalliferous drainage. • By nature of similar setting to Little Eva, in-part shared host rocks and low sulphide content, no adverse environmental considerations have been built into the resource model.
Bulk density	• 23 in-situ bulk density measurements were collected by Altona personel from BFD163 in 2015. Values are based on physical measurements conducted on core samples using the weight in air / weight in water method. • Samples were primarily collected from partially weathered rock. Excluding two outliers an average density of 2.78 was returned. • In-situ bulk densities applied to the resource estimate are: oxidised rock 2.4 t/m^3,

Criteria	Commentary
	and, fresh rock 2.8 t/m^3. These values are considered conservative.
Classification	• Bedford Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model, modelled grade continuity, estimation passes and conditional bias measures (slope of the regression and kriging efficiency) as criteria. • Measured Mineral Resources - none defined • Indicated Mineral Resources - have been defined in areas where drill spacing is 25m by 25m or less, extending to a down dip extent of up to 25m below drilling. Block grades were primarily calculated in the first estimation pass. Further drilling is percieved unlikely to result in material change. • Inferred Mineral Resources have been defined in areas where extension of mineralisation is supported by sparse drill data (50-100m spacing along strike) and good continuity in Cu-in-soil anomalism. A significant proportion of block grades have been calculated in later estimation passes. • The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposit.
Audits or reviews	• The geological interpretation, estimation parameters and validation of the resource models has been internally reviewed by Altona staff.
Discussion or relative accuracy / confidence	• The assigned classification of Indicated and Inferred reflects the Competent Person's assessment of the accuracy and confidence levels in the Mineral Resource estimate.

APPENDIX 2: SUMMARY OF MINERAL RESOURCE ESTIMATES FOR THE CLONCURRY PROJECT

DEPOSIT	TOTAL			CONTAINED METAL		MEASURED			INDICATED			INFERRED		
	Tonnes	Grade		Copper	Gold	Tonnes	Grade		Tonne	Grade		Tonnes	Grade	
	million	Cu %	Au g/t	tonnes	ounces	million	Cu %	Au g/t	million	Cu %	Au g/t	million	Cu %	Au g/t
LITTLE EVA PROJECT														
Little Eva	105.9	0.52	0.09	546,000	295,000	37.1	0.60	0.09	45.0	0.46	0.08	23.9	0.50	0.10
Turkey Creek	21.0	0.59		123,000	-	-	-		17.7	0.59		3.4	0.58	-
Ivy Ann[A]	7.5	0.57	0.07	43,000	17,000	-	-	-	5.4	0.60	0.08	2.1	0.49	0.06
Lady Clayre[A]	14.0	0.56	0.20	78,000	85,000	-	-	-	3.6	0.60	0.24	10.4	0.54	0.18
Bedford	4.8	0.80	0.21	38,000	32,000	-	-	-	2.3	0.95	0.23	2.5	0.66	0.19
Sub-total	153.3	0.54	0.09	829,000	430,000	37.1	0.60	0.09	74.0	0.52	0.07	42.2	0.53	0.11
OTHER DEPOSITS														
Blackard[A]	76.4	0.62	-	475,000	-	27.0	0.68	-	6.6	0.60	-	42.7	0.59	-
Scanlan[A]	22.2	0.65	-	143,000	-	-	-	-	18.4	0.65	-	3.8	0.60	-
Longamundi[A]	10.4	0.66	-	69,000	-	-	-	-	-	-	-	10.4	0.66	-
Legend[A]	17.4	0.54	-	94,000	-	-	-	-	-	-	-	17.4	0.54	-
Great Southern[A]	6.0	0.61	-	37,000	-	-	-	-	-	-	-	6.0	0.61	-
Caroline[A]	3.6	0.53	-	19,000	-	-	-	-	-	-	-	3.6	0.53	-
Charlie Brown[A]	0.7	0.40	-	3,000	-	-	-	-	-	-	-	0.7	0.40	-
Sub-total	136.7	0.61	-	840,000	-	27.0	0.68	-	25.0	0.64		84.7	0.59	-
TOTAL	290.0	0.58	0.05	1,668,000	430,000	64.1	0.63	0.05	99.0	0.55	0.05	126.9	0.57	0.04

[A] This information was prepared and first disclosed under the JORC Code 2004 Edition. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. All other resources classified and reported in accordance with JORC Code 2012 edition.

Note: Tonnages are dry metric tonnes and have been rounded, hence small differences may be present in the totals.

See ASX release of 23 October 2007 and 26 July 2011 (Longamundi, Great Southern, Caroline and Charlie Brown), 23 April 2012 (Ivy Ann and Lady Clayre), 03 July 2012 (Blackard and Scanlan) and 22 August 2012 (Legend) for full details of resource estimation methodology and attributions.

Little Eva is reported above a 0.2% copper lower cut-off grade, all other deposits are above 0.3% lower copper cut-off.