CULLEN RESOURCES LIMITED

ABN 46 006 045 790

www.cullenresources.com.au **ASX Symbol: CUL** **10 March 2015**

64% INCREASE IN MINERAL RESOURCE ESTIMATE TO 161 Mt @ 54.40% Fe – MT STUART IRON ORE JV

HIGHLIGHTS

- Following completion of 13,070m (502 holes) of infill and extension RC drilling and 139m (5 holes) of diamond drilling in late 2014, the Catho Well Channel Iron Deposit (Catho Well CID) has a revised in situ Mineral Resource estimate of : **161Mt @ 54.40% Fe**
- This revised estimate is **an increase of 63Mt (64% additional tonnage)** over the previous Mineral Resource estimate for the Catho Well deposit in 2010 of 98Mt @ 55% Fe (Cullen ASX announcement of 29 Oct 2010)
- **Cullen's attributable 30% share** of the Mineral Resource has increased from 29.4Mt **to 48.3Mt**

Background

The **Mt Stuart Iron Ore Joint Venture (MSIOJV-** ELs 08/1135, 1292, 1330, 1341) is between Cullen Exploration Pty Ltd - 30% and contributing, and API Management Pty Ltd ("API") - 70%. The shareholders of API are the parties to the unincorporated joint venture known as the Australian Premium Iron Joint Venture (APIJV). The participants in the APIJV are: Aquila Steel Pty Ltd 50% (the ultimate owners of which are Baosteel Resources Australia Pty Ltd (85%) and Aurizon Operations Limited (15%)); and AMCI (IO) Pty Ltd 50% (the ultimate owners of which are AMCI Investments Pty Ltd (51%) and Posco WA Pty Ltd (49%)). Baosteel and Posco are subsidiaries of major steel producers in China and Korea respectively.

API is managing the proposed development of the West Pilbara Iron Ore Project (WPIOP) – Stage 1 (40 Mtpa), and a Feasibility Study (FS) update (to JORC 2012 reporting standards) for the WPIOP – Stage 1, to include the Mt Stuart Iron Ore Joint Venture deposits, is proposed for Nov/Dec 2015.

Reports

The Manager has provided the following reports concerning the updated Mineral Resource estimate for the **Catho Well CID,** which are attached in their entirety:

1. Mt Stuart Iron Ore Joint Venture – Mineral Resource Estimate Update for the Catho well Channel Iron Deposit – March 2015 by API Management Pty Ltd; and,
2. Mineral Resource Statement, 5th March 2015, by Golder Associates.

REGISTERED OFFICE: Unit 4, 7 Hardy Street, South Perth WA 6151
Telephone: 089 474 5511; **FAX**: 089 474 5588 **Contact**: Dr. Chris Ringrose,
Managing Director email: cringrose@cullenresources.com.au

ABOUT CULLEN: Cullen is a Perth-based minerals explorer with a multi-commodity portfolio including projects managed through a number of JVs with key partners (Fortescue, APIJV (Baosteel/Aurizon-AMCI/Posco), Hannans Reward, Northern Star, Matsa and Thundelarra/Lion One Metals), and a number of projects in its own right. The Company's strategy is to identify and build targets based on data compilation, field reconnaissance and early-stage exploration (particularly geochemistry), and to pursue further testing of targets itself or farm-out opportunities to larger companies. Projects are sought for most commodities mainly in Australia but with selected consideration of overseas opportunities.

ATTRIBUTION: ***Competent Person Statement***

The information in this report that relates to exploration activities is based on information compiled by Dr. Chris Ringrose, Managing Director, Cullen Resources Limited who is a Member of the Australasian Institute of Mining and Metallurgy. Dr. Ringrose is a full-time employee of Cullen Resources Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined by the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr. Ringrose consents to the report being issued in the form and context in which it appears.

Chris Ringrose, Managing Director **10 March 2015**

REGISTERED OFFICE: Unit 4, 7 Hardy Street, South Perth WA 6151**Telephone**: 089 474 5511;
FAX: 089 474 5588 **Contact**: Dr. Chris Ringrose, Managing Director: email:
cringrose@cullenresources.com.au

API Management Pty Limited
ABN 66 112 677 595
Level 1 Aquila Centre
1 Preston Street
Como WA 6152

PO Box 1038
South Perth WA 6951

Telephone: (61) 8 9423 0222
Facsimile: (61) 8 9423 0133
mail@apijv.com.au

6 March 2015

Dr Chris Ringrose
Cullen Exploration Pty Ltd
Unit 4, 7 Hardy Street
SOUTH PERTH WA 6151

Mt Stuart Iron Ore Joint Venture - Mineral Resource Estimate Update for the Catho Well Channel Iron Deposit – March 2015

Dear Chris,

API Management Pty Ltd and Golder Associates Pty Ltd (Golder) have completed a Mineral Resource Estimate update for the Catho Well Channel Iron Deposits within the Mt Stuart Joint Venture project area. The updated Mineral Resource estimate incorporates the recently completed infill and extension drilling, revised stratigraphic interpretations and improved density data.

The Mineral Resource estimate is presented in the attached report / letter from Golder dated 5th March 2015. This letter should be read in conjunction with the Golder report. A Competent Person Statement is contained within the report covering work completed by Golder. For public release the following Competent Persons Statement should be attached when referring to the resource detailed in this report.

Competent Person Statement

The information in this report that relates to the Catho Well Mineral Resource was prepared under the supervision of Mr Stuart Tuckey and Mr Richard Gaze who are members of the Australasian Institute of Mining and Metallurgy. Mr Tuckey is full-time employee of the API Management Pty Ltd. Mr Gaze is a full-time employee of Golder Associates Pty Ltd. Mr Tuckey and Mr Gaze 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 Competent Persons as defined in the 2012 Edition of the 'Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

API has reviewed the Mineral Resource estimate and is satisfied the estimate has been completed to industry standard.

The Catho Well Mineral Resource estimate is reported at a 52% Fe cut-off.

The Catho Well Mineral Resource totals 161Mt at 54.4% Fe (Table 2).

The revised Mineral Resource estimate represents an increase of 63Mt (64%) over the previous released (2010) CID resource for the Catho Well deposit. The increase in the total resource and improved resource confidence is attributable to;

- Improved definition to mineralised zones and extension of the previously defined CID as a result of the completion of 13,070m (502 holes) of infill and extension RC drilling and 139m (5 holes) of diamond drilling (Figure 1).
- Reporting of the Mineral Resource at a 52% Fe cut-off (Mineral Resource previously reported at a 53% Fe cut-off).

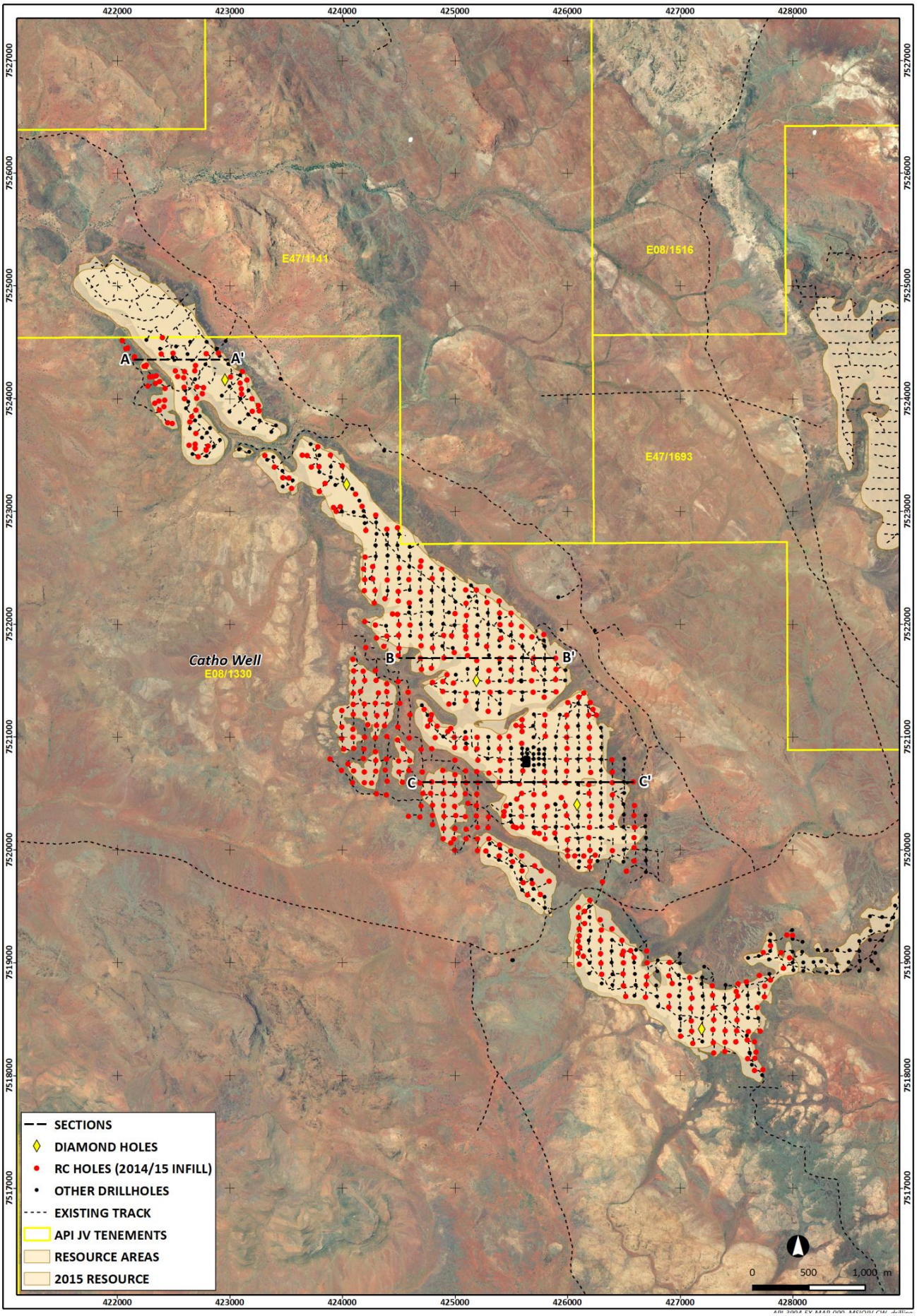

Figure 1 – Drill hole location plan – 2014/15 drilling highlighted.

Estimation Process

Geological and mineralisation interpretations (3D models) were completed by API and provided to Golder for resource estimation.

The geological and mineralisation models are based on a total of 1,014 RC (25,058m) and 21 diamond (602m) drill holes.

Geological Interpretation

A 3D geological interpretation was completed for the Catho Well deposit. The improved interpretation is based on increased drilling data, improved surface and mineralisation mapping.

The Catho Well deposit is a tertiary alluvial channel iron deposit. The CID occurs as a partially degraded topographically inverted (mesa) palaeochannel deposit preserved along major drainage lines.

The Catho Well CID extends over a channel length of approximately 9 km and a maximum width of approximately 1.5 km. The deposit strikes in a north-north-westerly direction. Figures 3 shows the CID stratigraphy and mineralisation modelled for the Catho Well deposit.

Solid 3D geological models for each of the eight stratigraphic units identified were created based on drill hole and mapping data (Figure 2). The typical stratigraphy observed at Catho Well is described below:

- Hardcap Zone (Zpw) is extensive both laterally and vertically at the Catho Well deposit. The hardcap zone is massive to vuggy (minor) with remnant ooid to conglomeratic textures where clasts are totally replaced by vitreous to earthy goethite and cemented by vitreous goethite. Clay and silica are present as gangue minerals in this zone. The Catho Well deposit has undergone extensive hardpanisation resulting in a well developed pervasive and extensive hardcap zone averaging ~15 m, though locally can range from 5 m to 30 m thick.
- Goethite Dominant Zone (Zpg) occurs extensively throughout the deposit area; it varies in thickness from 5m to 15m.
- Mixed CID (Zpm) makes up the majority of the remainder of the channel; it varies in thickness from 10 m to 40 m and consists of mixed pisolitic CID and clay. Mineralisation is mostly ochreous goethite.
- A minor component of Hard Zone (Zph) occurs in the centre and north of the deposit, usually ~10 m thick, it is absent in the south.
- Basal clay (Zpb) unit is present consistently at the base of the deposit, it is thin (2-5 m) and discontinuous in places.
- Basal conglomerate (Zpk) is rarely encountered at Catho Well, with the only intercepts recorded in the central and south eastern periphery of the mesa.
- Basement stratigraphy is composed of the Wyloo Group comprising fluvial and coastal sedimentary units (dolomites and quartzites) and volcanic units (volcanoclastics, mafic lavas and tuffs).

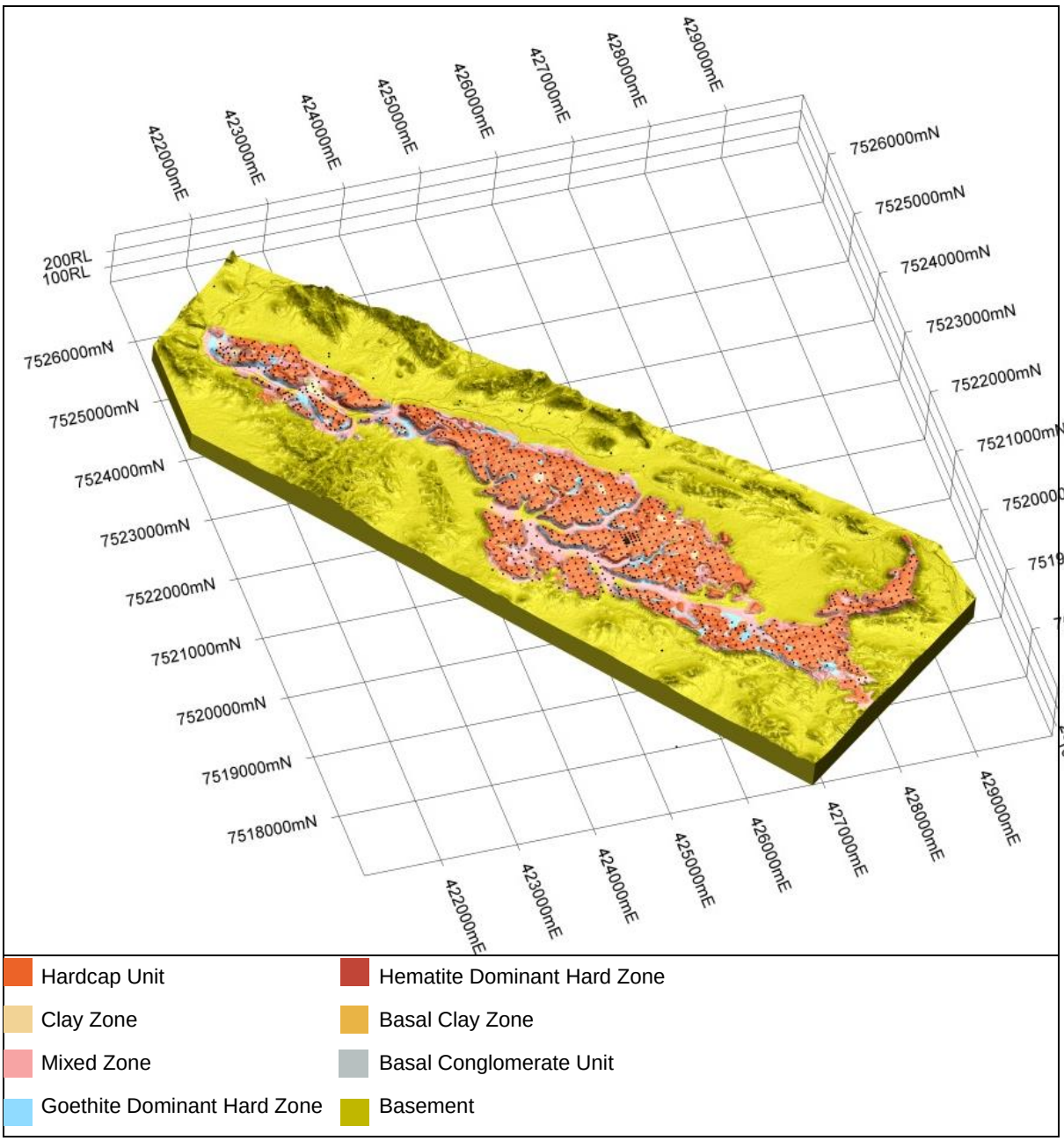

Figure 2 – 3D Geological / Stratigraphic Model – Catho Well.

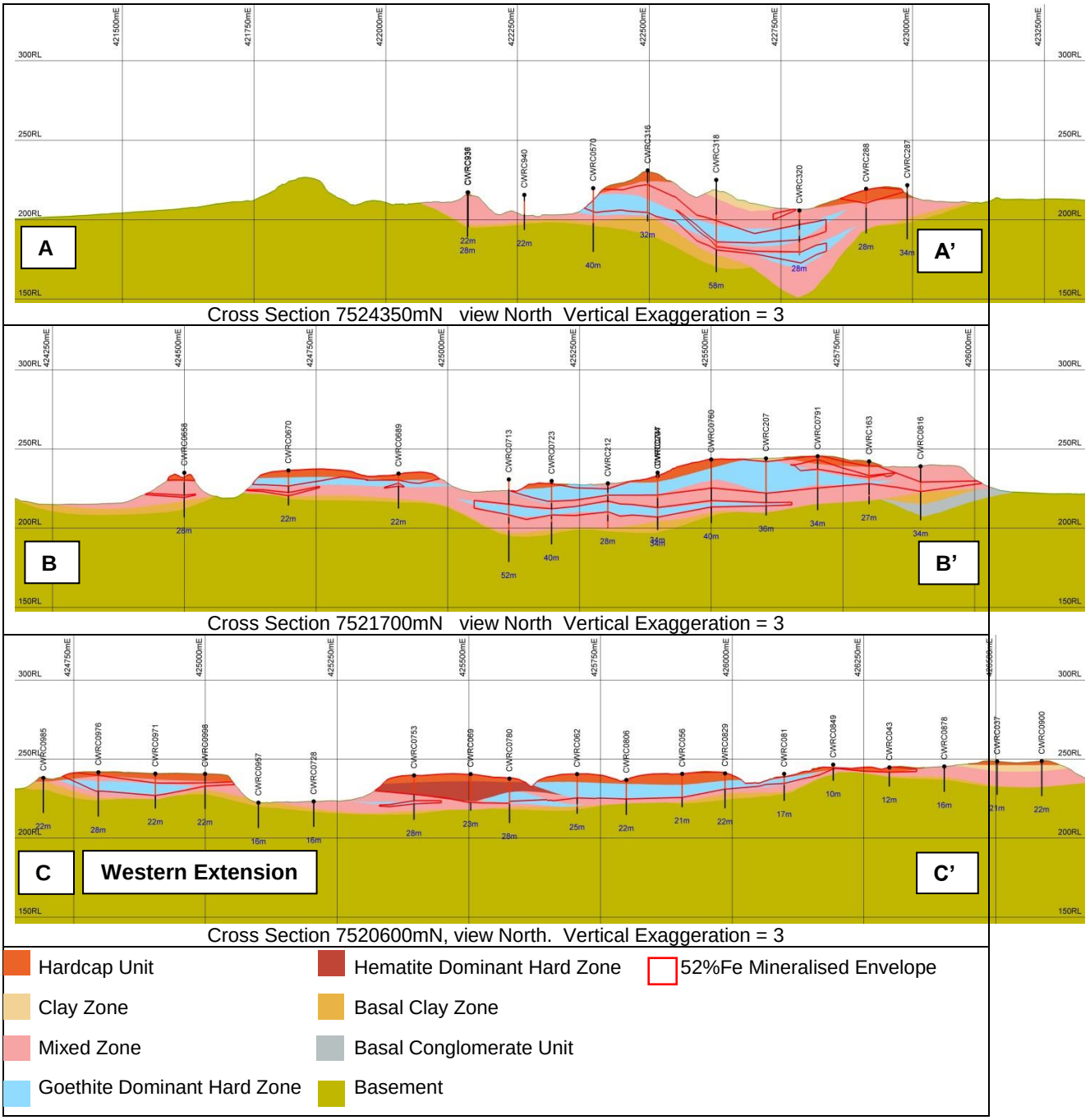

Figure 3 – Geological and Mineralisation Cross-Sections – Catho Well.

Mineralisation Interpretation

Mineralised envelopes (Figure 3) were created using a combination of lithological and grade data. Hard boundaries were defined based on the following guidelines:

- 52% Fe% lower cut-off
- A minimum intercept width of 2m across two sections
- A maximum consecutive waste intercept of 2m across two sections

It should be noted that the criteria set out above acted as a guideline only, cut-offs were relaxed in situations where geological continuity would be maintained. Mineralisation was domained by stratigraphic unit.

Internal dilution has been kept to a minimum provided continuity of the mineralised envelopes could be maintained. Zones of lower grade ranging 50-52% Fe were incorporated into the mineralised envelopes if geological continuity could not be maintained.

Mineralised envelopes were constrained by topography and the CID stratigraphy – geological model.

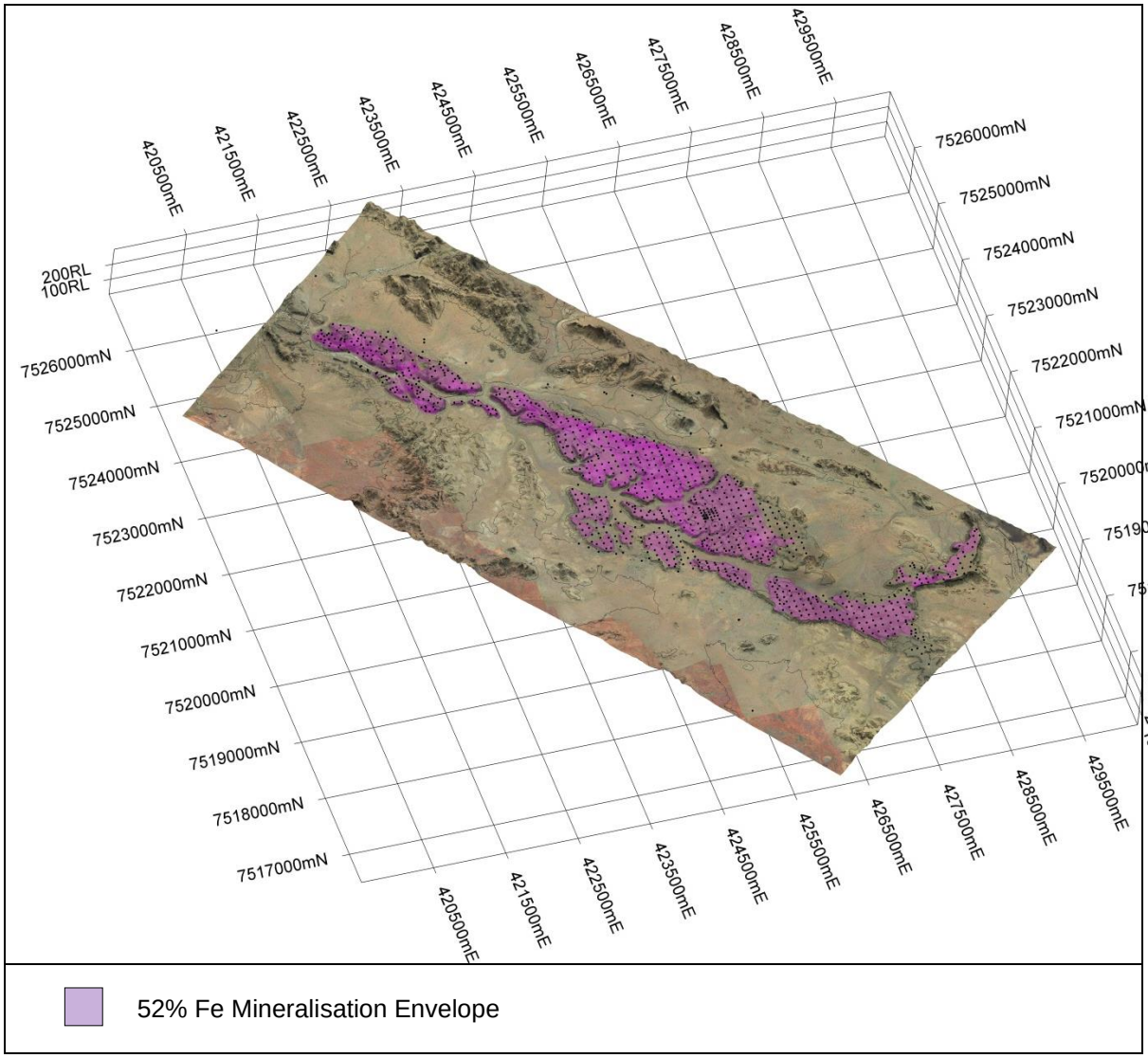

Figure 3 – Mineralisation Model – Catho Well.

Statistical and geostatistical analysis was carried out on drilling data that was constrained to the mineralisation and modelled stratigraphic units.

For statistical data analysis, drilling data was composited to 2m downhole lengths. Analysis was based on eight assay variables: Fe, SiO_2, Al_2O_3, P, S, Mn, MgO and LOI (LOI 1000^oC).

Directional grade variography was completed for all domains in all the deposits, to provide parameters for the Ordinary Kriging method used for resource estimation.

Density

Density determinations have been completed by AMMTEC, SGS and API on PQ diamond core and by API on samples retrieved from bulk sample shafts. A total of 1,335 wet and

dry (non-waxed) density measurements have been recorded for the stratigraphic units modelled from channel iron deposits within API's West Pilbara area including samples from the Catho Well CID

The accuracy and representativeness of wet and dry (non-waxed) densities were checked with a total of 185 waxed sample pairs after sealing with wax at Ammtec (Laboratory) and ALS Laboratories, (ie. 14% of the non-waxed population was validated with a waxed duplicate pair).

Varying densities were applied to respective stratigraphic units for the deposit based on dry bulk density determinations, weathering intensity, ore type and the variability of deposit mineralogy. The densities applied to the Catho Well deposit for Mineral Resource estimation are shown in Table .

Deposit	Density by Stratigraphic Unit					
	Ore				Waste	
	Zpw	Zph	Zpg	Zpm	Zpw	Other
Catho Well	2.85	2.85	2.75	2.65	2.80	2.60

Table 1. Densities applied to the Catho Well stratigraphy Model.

Classification

The Mineral Resource estimate has been classified by Golder Associates in accordance with the JORC Code, 2012.

The classification approach was both quantitative and qualitative. Quantitatively, the classification is based on estimation performance. Qualitatively, the approach used adjustments based on geological confidence taking into consideration the drill hole spacing, confidence in the geological interpretation / continuity and representativeness of the available assay data.

Measured, Indicated and Inferred categories have been defined.

Cut-off Grades

The Mineral Resource estimate is reported using a 52% Fe block cut-off grade.

Reporting

The resource estimates have been compiled in accordance with the guidelines defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition).

Resource Estimates

West Pilbara Iron Ore Project – Stage 1.

Mineral Resource estimates for the Catho Well CID within the Mt Stuart Iron Ore Joint Venture totals 161Mt at 54.4% Fe.

Deposit	Classification	Mt	Fe	SiO_2	Al_2O_3	Mn	LOI	MgO	P	S
Catho Well	Measured	3	55.31	6.45	3.56	0.06	9.98	0.19	0.042	0.022
	Indicated	139	54.37	7.60	3.42	0.08	10.36	0.19	0.036	0.016
	Inferred	19	54.47	7.70	3.18	0.10	10.28	0.20	0.039	0.016
TOTAL		**161**	***54.40***	***7.59***	***3.40***	***0.08***	***10.35***	***0.19***	***0.037***	***0.016***

Table 2. Mineral Resource estimate for the Catho Well Channel Iron Deposit.

The Catho Well Mineral Resource estimate has increased by 63 Mt primarily attributable to increased drill definition of mineralised zones and extension of the defined mineralised CID to the west. The change in reporting to the lower 52% Fe cut-off represents 18 Mt or 18% difference when compared to the 2010 resource reported at a 53% Fe cut-off. Improvements to the geological model, bulk density assignment and detailed mapping, has also led to an increased confidence in resource definition and classification criteria (JORC) and resulted in an increase in the Indicated and Measured resource categories.

Stuart Tuckey

Exploration Manager
Australian Premium Iron Joint Venture

5 March 2015 Document No. 1416167-003-L-Rev0

Mr Stuart Tuckey
API Management Pty Ltd
Level 2, Aquila Centre
1 Preston Street
COMO WA 6152

MINERAL RESOURCE STATEMENT FOR CATHO WELL

Dear Stuart

Golder Associates Pty Ltd (Golder) has updated the resource estimate for the Catho Well Deposit. The update was based on a 52% Fe cut-off mineralisation envelope as well as new infill drill holes provided by API Management Pty Ltd (API). The Mineral Resource is classified in accordance with "the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition)". Classification was completed by Golder, based principally on geological confidence, data density and estimation performance. The *in situ* Mineral Resources are constrained to the mineralisation domain boundaries.

The Mineral Resource was prepared under the supervision of Mr Richard Gaze, of Golder Associates Pty Ltd (Golder). Mr Richard Gaze is a member of the Australasian Institute of Mining and Metallurgy 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 JORC Code.

GEOLOGY

In the Western Pilbara Iron Ore Project (WPIOP) area, the principal type of iron ore occurs as secondary channel iron deposits (CIDs), also known as Robe Pisolite. The CIDs occur as partly dismembered, topographically inverted palaeochannel deposits preserved along major palaeodrainage lines.

A plan view map of the deposit location is provided in Figure 1. Figure 2 shows the interpreted mineralisation envelopes, drill hole collar locations and lease boundaries.

The Catho Well deposit is divided in two different joint ventures; Mt Stuart Joint Venture (Cullen Resources Limited 30%,API earning 70%) , Red Hill Joint Venture (Red Hill Iron Limited 20%,API earning 80%).

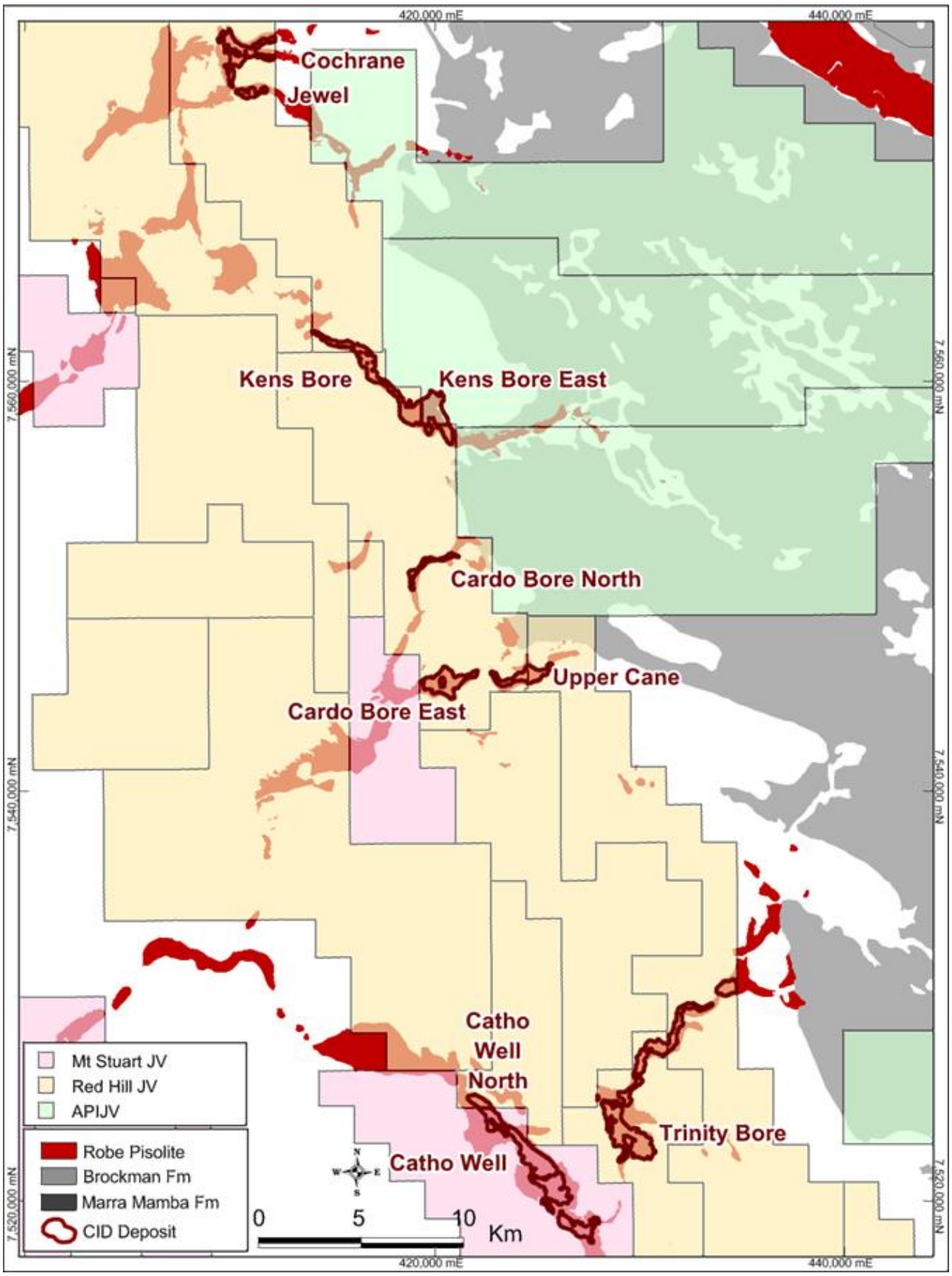

Figure 1: Plan of deposit locations displaying CID Mineral Resources and tenement boundaries (after API)

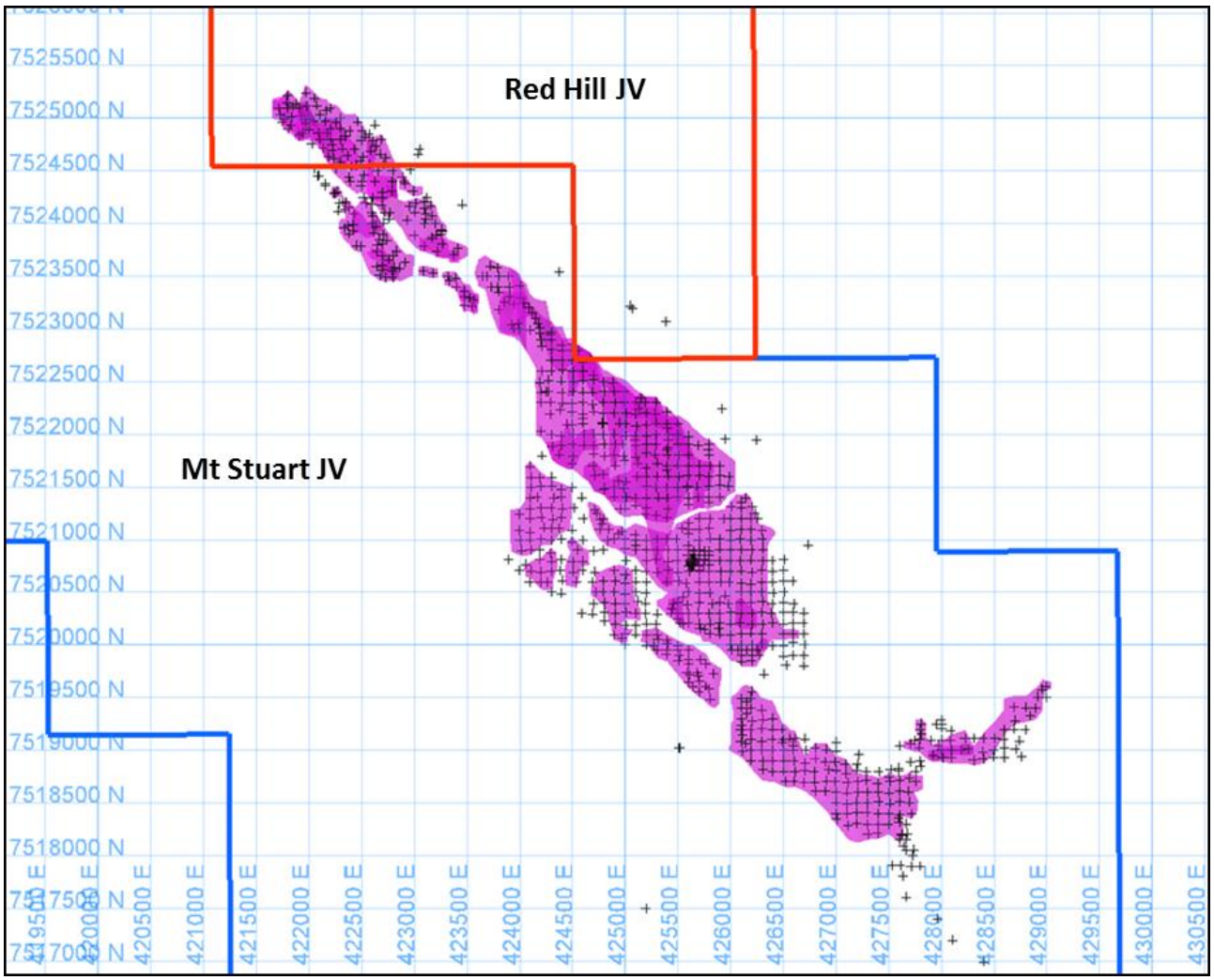

Figure 2: Plan view of the mineralised envelope, drill hole location and lease boundary showing the Mount Stuart JV in blue and the Red Hill JV in Red

ASSUMPTIONS AND METHODOLOGY

The Mineral Resource is based on a number of factors and assumptions:

- The Mineral Resources reported in this resource statement are strictly within the limits of the Mt Stuart Joint Venture (Cullen Resources Limited 30%, API 70%) as shown in Figure 2.
- Stratigraphy domains were interpreted and modelled by API and reviewed by Golder. API geologists completed the sectional string interpretation and generated the mineralisation wireframes based on the sectional strings. Golder reviewed the mineralisation wireframes prior to the resource estimation.
- A 52% Fe mineralisation cut-off grade was used to define the mineralised domains. “Sub-grade” material (below 52% Fe) was also incorporated in certain areas to maintain continuity. Both stratigraphy and mineralisation domains were used to flag the sample data for statistical analysis and constrain the grade estimation. A summary of the geological domains which typically applies to all deposits is provided in Table 1.
- The most recent topographical surface (dated 2010) provided by API was used to define the surface topography. The mineralisation domains were extended to the edge of the mesa defined by the topographic surface where considered appropriate.
- The Mineral Resource estimates are based on all available information as at 20 January 2015.
- Golder previously completed a review of the QA/QC report by Geostats Pty Ltd, dated 6 April 2010 and found no significant issues with the QA/QC aspects of sampling and assaying.

- The survey control for collar positions was considered by Golder to be adequate for the purposes of resource estimation and accepted with no further modifications, apart from some unsurveyed holes which required registering of their collars to the topography.
- Statistical and geostatistical analysis was carried out on drilling data that was composited to 2 m downhole and constrained to the mineralisation and stratigraphy domains.
- *In situ* bulk density values were assigned to the model based on stratigraphy and mineralisation type. The bulk density assignment are summarised in Table 2. Density values were provided by API and were derived from 1 335 density determinations, across all the deposits managed by API (excluding Buckland Hills), from winze stockpile and PQ diamond core samples completed by API, AMMTEC and SGS Laboratories.
- Using parameters derived from modelled variograms, the interpolation method of Ordinary Kriging (OK) was used to estimate Fe, Al_2O_3, SiO_2, P, S, Mn, MgO and LOI.
- The Mineral Resource is reported using *in situ* tonnes and estimated grades at the 52% Fe cu-off grade, with no dilution/ore loss factors applied or any specific selectivity assumptions other than that implied by the block model parent cell size.

Table 1: Geological Domains for Catho Well

Variable	Code	Description
MINSTR (stratigraphy)	10	Zpw – Hardcap
	20	Zph – Hard Zone
	30	Zpm – Mixed Zone
	40	Zpb – Basal Clay Zone
	50	Zpc – clay >2 m
	60	Zpk – Basal Conglomerate or Gravel
	70	Bsm – Any basement lithology
	90	Zpg – Goethite Hard Zone
DOMAIN (Fe mineralisation)	1	HG (>52% Fe) mineralisation
	0	Waste

Table 2: *In Situ* Bulk Density Assignment

Mineralisation	Strat	Catho Well
Mineralised	Zpw	2.85
	Zph	2.85
	Zpm	2.65
	Zpg	2.75
Waste	Zpw	2.80
	Zph	2.60
	Zpm	2.60
	Zpb	2.60
	Zpc	2.60
	Zpg	2.60
	Bsm	2.60

MINERAL RESOURCE STATEMENT

The Mineral Resource estimate was classified in accordance with guidelines provided in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). The classification was based principally on geological confidence, drill hole spacing and grade continuity from available drilling data. Table 3 shows the Mineral Resources at the 52% cut-off grade for Catho Well under the MSJV.

Table 3: *In Situ* Mineral Resources at a 52% Fe Cut-Off Grade for Catho Well under MSJV

Deposit	Joint Venture	Class	Mt	Fe	SiO_2	Al_2O_3	Mn	LOI	MgO	P	S
Catho Well	Mount Stuart	Measured	3.2	55.31	6.45	3.56	0.06	9.98	0.19	0.042	0.022
		Indicated	139.5	54.37	7.60	3.42	0.08	10.36	0.19	0.036	0.016
		Inferred	18.8	54.47	7.70	3.18	0.10	10.28	0.20	0.039	0.016
		Total	**161.5**	***54.40***	***7.59***	***3.40***	***0.08***	***10.35***	***0.19***	***0.037***	***0.016***

The revised Mineral Resource estimate represents an increase of 63 Mt (64% additional tonnes) over the previous Mineral Resource estimate for the Catho Well deposit in 2010. The increase in the total resource and improved resource confidence is attributable to;

- Improved definition to mineralised zones and extension of the previously defined CID as a result of the completion of 13 070 m (502 holes) of infill and extension RC drilling and 139 m (5 holes) of diamond drilling.
- Reporting of the Mineral Resource at a 52% Fe cut-off grade (the 2010 Mineral Resource was previously reported at a 53% Fe cut-off grade).

The JORC Code Assessment Criteria

The JORC Code, 2012 Edition describes a number of criteria, which must be addressed in the Public Reporting of Mineral Resource estimates. These criteria provide a means of assessing whether or not parts of or the entire data inventory used in the estimate are adequate for that purpose. The Mineral Resource estimate stated in this document was based on the criteria set out in Table 1 of that Code. These criteria are discussed in Table 4 as follows.

Table 4: JORC Code Table 1.
Section 1 Sampling Techniques and Data

JORC Code Assessment Criteria	Comment
Sampling Techniques	■ Samples for analysis were collected every 2 m down hole directly from the cyclone after passing through a three-tier riffle splitter mounted on the RC drilling rig. Each sample represents approximately 12% (by volume) of the drilling interval with an average weight of 4 kg for a 2 m interval. ■ Sample analysis was completed by SGS Laboratories in Welshpool, WA. Samples were sent direct to the laboratory, sorted, dried and pulverised using a ring mill. ■ All drilling was sampled in accordance with API sampling procedures.
Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or*	

JORC Code Assessment Criteria	Comment
mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling Techniques *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.), and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	■ The majority of the downhole samples were collected from RC drilling utilised a 5 ¼" face sampling hammer. ■ HQ3 and PQ diamond drilling has been completed for QA/QC, geotechnical and material handling and beneficiation purposes. ■ All diamond drilling was completed using triple tube methods.
Drill Sample Recovery *Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	■ Sample recoveries and quality were recorded for each sampling interval by the geologist. Samples were classified as dry, damp or wet. Sample recoveries were based on estimates of the size of drill spoil piles and were recorded as a percentage of the expected total sample volume. The majority of drilling was completed above the water table and sample recovery estimates of 100% were the norm. ■ The cyclone was cleaned in between drill holes to minimise sample contamination. Previous twinned hole studies (diamond vs RC) at API project areas indicate minimal sample bias using RC drilling techniques. ■ Diamond core recoveries were recorded for every run.
Logging *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.), photography.* *The total length and percentage of the relevant intersections logged.*	■ All geological logging was conducted using API procedures and standardised coding. Data is entered directly into ruggedised laptops at the drill site using software that validates data as the geologist logs. ■ Logging data is then emailed to Perth where it undergoes further validation as it is uploaded and stored into the API SQL-based geological database. ■ All diamond core has been photographed.
Sub-Sampling Techniques and Sample Preparation *If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc., and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *Measures taken to ensure that the sampling is*	■ RC samples were collected in pre-labelled bags via a cone splitter mounted directly below the cyclone on the rig. ■ Wet and dry samples were collected via the same technique. ■ Samples were stored on-site prior to being transported to the laboratory. Wet samples were allowed to dry before being processed. ■ Samples were sorted, dried and weighed at the laboratory where they were then crushed and riffle split to obtain a sub-fraction for pulverisation. The pulverised sample was reduced further and

JORC Code Assessment Criteria	Comment
representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. *Whether sample sizes are appropriate to the grain size of the material being sampled.*	combined with various reagents prior to oven fusion to create a fused disc for analysis.
Quality of Assay Data and Laboratory Tests *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	■ Sample analysis was completed by SGS Laboratories in Welshpool, WA. Standards and duplicates were inserted into the sample sequence at the rate of 1 in 50 samples, i.e. every 25th sample was a standard or a duplicate. These samples were used to test the precision and accuracy of the sampling method and laboratory analysis. API conducts monthly checks of all QA/QC data. ■ API has previously conducted external reviews (undertaken by Optiro and Geostats) of the geological database. Audits results show an acceptable level of accuracy and precision.
Verification of Sampling and Assaying *The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	■ Comparison of RC and twinned diamond hole assay data distributions show that the drilling methods have similar grade distributions, verifying the suitability of RC samples in the Mineral Resource estimate. ■ API conducts round robin studies on assay results to verify sample analysis. No concerns were highlighted and no adjustments to data have been made. ■ API retain sample laboratory sample pulps for all samples since 2005.
Location of Data Points *Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	■ All drill holes are initially surveyed by handheld GPS and later surveyed by differential GPS utilising an independent contractor. ■ Drill hole collar coordinates were verified in ArcGIS and/or MapInfo software utilising aerial photography as part of API's monthly QA/QC procedures. ■ Topographic coverage of all API projects has been established by aerial survey (LIDAR) with a vertical accuracy of ±0.15 m. ■ API projects fall within the MGA Zone 50 or 51 (GDA 1994 based) for horizontal data and AHD for vertical data.
Data Spacing and Distribution *Data spacing for reporting of Exploration Results.* *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*	■ Drill hole spacing is typically at 100 m by 100 m (maximum spacing) across the entire deposit area. ■ Drilling and sample density is sufficient to establish both geological and mineralisation continuity for resource estimation purposes. ■ Short scale trial with 50 m by 50 m and

JORC Code Assessment Criteria	Comment
Whether sample compositing has been applied.	grade control trial drilling has also been conducted at Catho Well on 5 m by 5 m spacing. ■ No sample compositing has been undertaken for RC samples. ■ Diamond hole samples were composited for metallurgical testwork however these samples were not included in the Mineral Resource estimate. ■ Resource drilling was designed along grid lines dominantly striking 360°-180° (N-S).
Orientation of Data in Relation to Geological Structure	■ All drill holes were drilled vertically.
Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	■ Due to the shallow depth of drill holes and the horizontal stratigraphy of the CID it was not considered a requirement to complete downhole orientation surveys. To support this assumption downhole surveys were conducted on 38 drill holes at the Catho Well and Cardo Bore deposits. The average absolute deflection recorded in all drill holes was 0.5 degrees. The maximum depth of the holes tested was 76 m resulting in an average deflection of approximately 0.6 m. The majority of drill holes completed within the resource areas have depths less than 60 m and as such drill hole deflection is considered negligible. ■ The orientation of sampling achieves unbiased sampling of stratigraphic domains.
Sample Security	■ API and SGS communicate on a regular basis and standard chain of custody paperwork is used. Samples are despatched and transported to the laboratory on a regular basis.
The measures taken to ensure sample security.	
Audits and Reviews	■ QA/QC procedures and rigorous database validation rules ensures sampling and logging data is validated prior to being used by API Geologists. ■ API conducts monthly QA/QC data checks on reference standards and field duplicates. ■ Independent audits of API's sampling techniques and QA/QC assay data have been undertaken. Sampling procedures and the drill hole database is consistent with industry standards.
The results of any audits or reviews of sampling techniques and data.	

Section 2 Reporting of Exploration Results

JORC Code Assessment Criteria	Comment
Mineral Tenement and Land Tenure Status	■ The Australian Premium Iron Joint Venture (APIJV – between Aquila Steel
Type, reference name/number, location and ownership	

JORC Code Assessment Criteria	Comment
including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	Pty Ltd and AMCI (IO) Pty Ltd), the Red Hill Iron Ore Joint Venture (RHIOJV – between API and Red Hill Iron Limited) and the Mt Stuart Iron Ore Joint Venture (MSIOJV – between API and Cullen Exploration Pty Ltd) and the Yalleen Project (Helix Resources – royalty) collectively comprise the broader West Pilbara Iron Ore Project (WPIOP), with each joint venture managed by API Management Pty Ltd (API). ■ There are no known environmental or cultural heritage matters that would impact on the development of the resource areas (subject to relevant approvals).
Exploration Done by Other Parties *Acknowledgment and appraisal of exploration by other parties.*	■ Exploration work completed by API or other parties prior to this report has been summarised in previous ASX releases (Cullen Resources Ltd) or are publically available via the Department of Mines and Petroleum online systems.
Geology *Deposit type, geological setting and style of mineralisation.*	■ The Mineral Resource is from Channel Iron Deposits (CID) with mineralisation present as Tertiary Robe Pisolite. CIDs have been formed by the alluvial and chemical deposition of iron rich sediments in palaeo-river channels after erosion and weathering of lateratised Hamersley Group sediments. ■ Basement comprises the Wyloo Group units and varies from shales to dolomites, mafic lavas, tuffs and volcanoclastic of the Wittenoom Formation, Mount McRae Shale, and Mt Sylvia Formation.
Drill hole information	■ API completed an infill RC drill programme in December 2014. All work completed by API has been has been summarised in ASX releases by Cullen Resources Ltd.
Data aggregation methods	■ No maximum or minimum grade truncations were performed.
Relationship between mineralisation widths and intercept lengths	■ Mineralisation in the area reported is flat lying and only true mineralisation widths are reported.
Diagrams	■ A plan view map showing the deposit locations are included in the body of the report.
Balance reporting	■ Not applicable. Exploration results have previously been reported. This Table relates to the reporting of the Mineral Resource estimate.
Other substantive exploration data	■ Not applicable. Exploration results have previously been reported. This Table relates to the reporting of the Mineral

JORC Code Assessment Criteria	Comment
	Resource estimate.
Further work	■ Exploration work will continue as required, and as a minimum, to maintain the Exploration Licences in good standing.

Section 3 Estimation and Reporting of Mineral Resources

JORC Code Assessment Criteria	Comment
Database Integrity *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	■ All geological data and drilling information is stored in a SQL database in the API Perth office and is managed by API with support from external consultants. ■ API uses Ocris to import data into its SQL database. Custom built configured imports are used to further validate the data on import. Despatching of samples, receipting of assays, and QA/QC is also undertaken in Ocris. ■ API has previously had external consultants review the drill hole database. The database was found to be above industry standard.
Site Visits *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	■ Mr Stuart Tuckey (API Competent Person) visited the Mineral Resource deposits on a regular basis as infill drilling was completed. ■ Golder has not undertaken any site visits for this estimation or previously.
Geological Interpretation *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	■ 3D geological and mineralisation modelling is undertaken by API using Micromine software. The method involves interpretation of downhole stratigraphy using surface geologic mapping, lithological logging and downhole assay data. Working field sections are updated at the drill rig by the geologist and these comments are taken into account when creating or editing geological and mineralisation models. ■ Golder reviewed the mineralisation sectional interpretation and the wireframe construction at a 52% cut-off grade completed by API personnel.
Dimensions *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	■ The dimensions of the block model are adequate to cover the extent and variability the Catho Well deposit.

Deposit	Direction	Min. (m)	Max. (m)	Extent (m)
CW	Easting (X)	421500	428200	6700
	Northing (Y)	7517800	7525400	7600
	RL (Z)	124	300	176

JORC Code Assessment Criteria	Comment
Estimation and Modelling Techniques *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters, and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.* *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulfur for acid mine drainage characterisation).* *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	■ The estimation technique used for the Mineral Resource estimation is the geostatistical method of Ordinary Kriging. Parameters were derived from variograms to estimate the average grade for Fe, P, SiO2, Al2O3, LOI, Mn, MgO and S for each block. ■ Block sizes were selected with respect to the nominal drilling densities to ensure acceptable local estimation quality. ■ The block size selected is 25 m (X) by 25 m (Y) by 2 m (Z). The sub-block size is 5 m (X) by 5 m (Y) by 2 m (Z). ■ All samples were composited to 2 m for estimation purposes. ■ The estimation was conducted in three passes with the search size increasing for each pass. In some domains, where the blocks were not fully estimated after three passes, blocks were assigned default grades. The default grades were based on the mean of the estimated block grades in the same domain. ■ Individual variables between each stratigraphy domain were compared for similarity to decide if grouping of MINSTR during Mineral Resource estimation was appropriate. ■ The model was validated visually and statistically using comparisons to composite data statistics, swath plots and smoothing effect assessments.
Moisture *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	■ All Mineral Resource tonnages are reported on a dry basis.
Cut-off Parameters *The basis of the adopted cut-off grade(s) or quality parameters applied.*	■ The resource model is constrained by assumptions about economic cut-off grades. The mineralisation is confined by a 52% Fe cut-off grade. The resource is reported using cut-off grade of 52% Fe which was applied on a block by block basis.
Mining Factors or Assumptions *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution.* *It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to*	■ It has been assumed that the traditional open cut mining method of drill, blast, load and haul will be used. This is consistent with current practices at similar deposits in the Pilbara.

JORC Code Assessment Criteria	Comment
consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical Factors or Assumptions *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	■ Multiple phases of metallurgical test work have been undertaken. Results indicate a saleable product can be achieved via a simple crush and screen process. Higher clay zones may require beneficiation by wet process to remove clay.
Environmental Factors or Assumptions *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	■ All key Commonwealth and WA government on-tenement approvals for the development of the project have been obtained. More detailed studies regarding possible waste and process residue disposals options are ongoing.
Bulk Density *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	■ Density determinations were completed by AMMTEC and SGS on PQ diamond core and by API field staff on Winze stockpiles. A total of 1 335 density determinations, across all the deposits managed by API (excluding Buckland Hills), were recorded using several methods including the waxed, unwaxed and the wet-dry method. ■ 14% of the Wet and Dry (non-waxed) samples were re-tested at the lab for quality control (185 pairs). The difference between the mean of the waxed and the non–waxed samples is -3.5%. ■ A correction factor of -3.5% has been applied to the Wet and Dry (non-waxed) measurements ■ The regional average density across all the deposits managed by API (excluding Buckland Hills) was applied by stratigraphic units for mineralised and waste domains.
Classification *The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant*	■ The Mineral Resource is were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

JORC Code Assessment Criteria	Comment
factors, i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data. *Whether the result appropriately reflects the Competent Person(s)' view of the deposit.*	■ Continuous zones meeting the following criteria were used to define the resource classes: ■ <u>Measured Resource</u> ▪ Strong evidence of geological continuity ▪ Strong evidence of grade continuity ▪ High levels of kriging performance quality ▪ Drill spacing of less than 100 m by 100 m ■ <u>Indicated Resource</u> ▪ Evidence of geological continuity ▪ Evidence of grade continuity ▪ Moderate levels of kriging performance quality ▪ Drill spacing of 100 m by 100 m ■ <u>Inferred Resource</u> ▪ Drill spacing wider than 100 m by 100 m ▪ Greater geological uncertainty. ▪ Limited grade continuity ▪ Relatively low kriging performance quality
Audits or Reviews *The results of any audits or reviews of Mineral Resource estimates.*	■ This Mineral Resource estimate is an update to the previous estimate completed by Golder in 2010. Optiro conducted a review of the 2010 Mineral Resource. ■ Golder conducted a number of basic and geological interpretation reviews during the compilation of the updated (2015) Mineral Resource estimate. All practices and methods observed are considered to be consistent with the resource classification applied to the deposits.
Discussion of Relative Accuracy/Confidence *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of*	■ Additional infill drilling data has been added to the drill hole database supporting the Mineral Resource estimates since they were previously reported in 2010. Due to the increased drilling density, there is a higher degree of confidence in the Mineral Resource estimates. ■ The revised Mineral Resource estimate represents an increase of 63 Mt (64%) over the previous Mineral Resource estimate for the Catho Well deposit in 2010. The increase in the total resource and improved resource confidence is attributable to improved definition to mineralised zones and extension of the previously defined CID as a result of the completion of 13 070 m (502 holes) of

JORC Code Assessment Criteria	Comment
the estimate should be compared with production data, where available.	infill and extension RC drilling and 139 m (5 holes) of diamond drilling. Additionally, the revised Mineral Resource estimate is reported at a 52% Fe cut-off grade (the 2010 Mineral Resource was previously reported at a 53% Fe cut-off grade).

COMPETENT PERSON'S STATEMENTS

The information in this statement which relates to the Mineral Resource is based on information compiled by Mr Richard Gaze who is a full-time employee of Golder Associates Pty Ltd, and Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Richard Gaze has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012 Edition).

The Competent Person responsible for the geological interpretation and the drill hole data used for the resource estimation is Stuart Tuckey. Mr Tuckey is a full-time employee of API Management Pty Ltd, is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012 Edition). Mr Tuckey consents to the inclusion in this report of the matters based on his information in the form and content in which it appears.

Yours faithfully

GOLDER ASSOCIATES PTY LTD

Richard Gaze
Principal

Sia Khosrowshahi
Principal

RG/SK/hsl

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