

ASX Announcement

1 August 2014

PLUTON RESOURCES LIMITED ORE RESERVE and MINERAL RESOURCES UPDATE

Pluton Resources Ltd (ASX:PLV) ("Pluton" or "the Company") is pleased to announce an updated Mineral Resource and Ore Reserve statement reported in accordance with the JORC Code¹ 2012 at the Company's flagship iron ore mining operation at Cockatoo Island (50% Pluton 50% WEG).

Highlights:

- **Stage 4 Probable Ore Reserve now stands at 1.1 Mt at 68.0% Fe**
- **Total Mineral Resources increase substantially from 14.2Mt to 28.0 Mt comprising;**

Seawall Hematite Indicated Mineral Resource 11.1 Mt @ 66.6 % Fe

Seawall Hematite Inferred Mineral Resource 11.2Mt @ 66.6% Fe

Highwall Inferred Mineral Resource 5.7 Mt @ 40.3 % Fe

Executive Summary

The Stage 5 Expansion drilling program continues to intersect significant intervals of high grade Seawall Hematite below the existing Stage 2 and Stage 3 open pits. This has resulted in a substantial increase in both the Indicated and Inferred Mineral Resource inventory for the Seawall Hematite. In addition, iron mineralisation intersected in the Footwall Sequence in the Stage 2 and Stage 3 Highwall has also resulted in an increase to the Inferred Mineral Resource. The Mineral Resource upgrade will enable Pluton to examine a number of potential development options in more detail at the Cockatoo Island Project.

Stage 4 Probable Ore Reserve

Pluton has compiled an updated open-pit Ore Reserve estimate for Stage 4 reported in accordance with the JORC Code 2012. The updated Ore Reserve estimate takes into account depletion of the previous Stage 4 Probable Ore Reserve estimate as at 31 October 2013 (*refer ASX announcement 16 December 2013*) due to mining activities within the current Stage 4 open pit mine design. There have been no material changes to the methodology or assumptions underlying the Ore Reserve estimate.

The updated Ore Reserve estimate for Stage 4 as at 30 June 2014 is summarised as follows;

- **Total Probable Ore Reserve for the Seawall Hematite of 1.1 Mt @ 68.0% iron** at a minimum 65.5% iron cut-off.

¹ Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition, prepared by the Joint Ore Reserves Committee of the Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia

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The Probable Ore Reserve estimate for Stage 4 is in addition to the Indicated and Inferred Mineral Resources reported below. A more detailed Ore Reserve statement has been prepared and is summarised in **Table 1** at the end of the announcement.

Inferred and Indicated Mineral Resources

An updated Indicated and Inferred Mineral Resource estimate has also been prepared for the high grade Seawall Hematite Unit at the Cockatoo Island Iron Ore Project by Pluton Resources in conjunction with a third party mining industry consultant. The Seawall Hematite Unit is the high grade iron mineralisation that is currently being mined, crushed and exported by the Cockatoo Island Mining Joint Venture as Direct Ship Ore.

A Concept Study was completed by the Company in late August 2013 to assess the potential to expand the existing Stage 1 to Stage 3 seawall further to the south by approximately 100 metres to access additional high grade iron ore mineralisation from the Seawall Hematite which is currently being mined, crushed and exported as a Direct Ship Ore product from Cockatoo Island (*refer to AGM presentation released to the ASX on 9th December 2013*).

A number of seawall construction methods and configurations were examined in the Concept Study which was estimated to contain an Exploration Target² of 15 to 20 Mt in the grade range of 60 to 68% iron in accordance with the JORC Code 2012. Based on the positive outcomes of the Concept Study, a resource definition diamond drilling program was designed to test the along strike and down dip extensions to the Seawall Hematite commencing initially in Stage 2 and Stage 3.

The updated Mineral Resource estimate for the Seawall Hematite Unit that incorporates the latest geological and assay data from the current Stage 5 Seawall Expansion resource definition drilling program (*refer to ASX announcements 4th February, 22nd May, 4th July and 24th July 2014*) has been completed. The current update to the Seawall Hematite Mineral Resource only includes drilling completed from the seawall in Stage 2 and Stage 3. Drill testing of the Seawall Hematite at depth in Stage 1 is yet to commence and is scheduled to occur later in the year.

From the seawall expansion Concept Study, design Option 1 was selected as the base case design for use in the classification of the Seawall Hematite Mineral Resources. Base case Option 1 is an earth/rock fill seawall constructed to an elevation of 13mRL with a sheet pile or slurry trench along the centerline to act as a seepage barrier. This seawall development option is comparable to the seawall construction methods used previously on Stage 3 and currently used on Stage 4.

² In accordance with Clause 17 of the JORC Code 2012, the reference to "Exploration Target" in terms of target size and type should not be taken as an estimate of Mineral Resources or Ore Reserves. The statements referring to the grade range of the "Exploration Target" is based upon extrapolation of historical drilling results and assays from the Stage 1 to Stage 3 area. The statements referring to the tonnage range of the "Exploration Target" is based upon extrapolation of the Seawall Hematite to greater depth. The tonnage range assumes an average Seawall Hematite true width of 40m, a strike length of 1,500m a depth extension of 60m below the base of the existing Stage 1 to Stage 3 open pit resource block model and an average bulk density of 4.7g/cm³. The potential quantity and grade is conceptual in nature. There has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the definition of a Mineral Resource. A diamond drilling program is currently in progress to test the validity of the Exploration Target and it is anticipated by the Company that the exploration program will be completed by the end of 2014. Assay results from the drilling program will be released to the market on a regular basis.

The total Indicated and Inferred Mineral Resources for the Seawall Hematite on Cockatoo Island reported in accordance with the JORC Code 2012 as at 30 June 2014 is summarised as follows:

- Total Indicated Mineral Resource for the Seawall Hematite of 11.1 Mt @ 66.6% iron at a minimum 65.5% iron cut-off grade.
- Total Inferred Mineral Resource for the Seawall Hematite of 11.2 Mt @ 66.6% iron at a minimum 65.5% iron cut-off grade.

In addition, an updated Mineral Resource estimate has also been prepared for the Cockatoo Island Highwall that contains Footwall Sequence iron mineralisation which underlays the high grade Seawall Hematite Unit. The updated Mineral Resource estimate for the Cockatoo Island Highwall incorporates the latest geological and assay data from the Stage 5 Seawall Expansion resource definition drilling program and Stage 2 and Stage 3 Highwall drill holes that intersected the Footwall Sequence. The updated resource block model will be used in a Scoping Study to assess the potential Cockatoo Island Highwall mining options.

The total Inferred Mineral Resource for the Cockatoo Island Highwall reported in accordance with the JORC Code 2012 as at 30 June 2014 is summarised as follows:

- Total Inferred Mineral Resource for the Highwall of 5.7 Mt @ 40.3% iron with no cut-off grade applied.

A more detailed Mineral Resource statement has been prepared by Pluton and is summarised in **Tables 2 and Table 3** at the end of the announcement.

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The information in this release that relates to Exploration Results, Exploration Targets, Mineral Resource and Ore Reserve estimates for the Cockatoo Island Iron Ore Deposit – is based on information compiled by Mr. A Griffith, who is a member of The Australasian Institute of Mining and Metallurgy and a full time employees of Pluton Resources Ltd. Mr. Griffith has sufficient experience 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'. Mr. A Griffith consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.

Table 1: Cockatoo Island Seawall Hematite Ore Reserves as at 30 June 2014

Classification		Tonnage (Mt)	COG Fe (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	S (%)	P (%)
Probable	Stg4_des_v12	1.1	65.5	68.0	1.4	0.7	0.004	0.005
Total Probable		1.1	65.5	68.0	1.4	0.7	0.004	0.005

Notes: 1: Ore Reserves are in addition to 2350E to 2950E Mineral Resources.
 2: Tonnage is rounded to nearest 100,000 tonnes.

Table 2: Cockatoo Island Seawall Hematite Mineral Resources as at 30 June 2014

Classification		Tonnage (Mt)	COG Fe (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	S (%)	P (%)
Indicated	1700mE to 1900mE >-70mRI	1.9	67.0	68.0	1.1	0.8	0.008	0.010
Indicated	1900mE to 2600mE >-90mRI	7.2	65.5	65.9	3.6	1.2	0.007	0.013
Indicated	2600mE to 2950mE >-70mRI to base of Stage 4 pit	2.0	65.5	67.6	1.9	0.8	0.004	0.006
Total Indicated		11.1		66.6	2.9	1.1	0.007	0.011
Inferred	1150mE to 1900mE >-70mRI	5.7	65.5	67.4	1.4	1.1	0.008	0.014
Inferred	1900mE to 2600mE -110mRI to -90mRI	2.4	65.5	66.7	3.1	0.9	0.007	0.012
Inferred	2600mE to 2950mE >-90mRI to -70mRI	2.8	65.5	67.5	1.7	1.0	0.005	0.010
Inferred	ROM Stockpiles Pit 2	0.3		41.6				
Total Inferred		11.2		66.6	1.8	1.0	0.007	0.012

Notes: 1: Mineral Resources 2350E to 2950E are exclusive of Stage 4 Probable Ore Reserve.
 2: Tonnage is rounded to the nearest 100,000 tonnes.

Table 3: Cockatoo Island Highwall Mineral Resource as at 30 June 2014

Classification		Tonnage (Mt)	COG Fe (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	S (%)	P (%)
Inferred	1900mE to 2600mE	5.7	-	40.3	37.3	2.3	0.008	0.02
Total Inferred			-					

Notes: 1: Mineral Resources 2350E to 2600E are exclusive of Stage 4 Probable Ore Reserve.
 2: Tonnage is rounded to the nearest 100,000 tonnes.
 3: Mineralisation is composed of Seawall Hematite and Footwall Schist

THE 2012 AUSTRALASIAN CODE FOR REPORTING EXPLORATION RESULTS, MINERAL RESOURCES AND ORE RESERVES (THE JORC CODE)

Table 1 Checklist of Assessment and Reporting Criteria

Table 1 is a checklist or reference for use by those preparing Public Reports on Exploration Results, Mineral Resources and Ore Reserves.

In the context of complying with the Principles of the Code, comment on the relevant sections of Table 1 should be provided on an 'if not, why not' basis within the Competent Person's documentation and must be provided where required according to the specific requirements of Clauses 19, 27 and 35 for significant projects in the Public Report. This is to ensure that it is clear to the investor whether items have been considered and deemed of low consequence or have yet to be addressed or resolved.

As always, relevance and Materiality are overriding principles that determine what information should be publicly reported and the Competent Person must provide sufficient comment on all matters that might materially affect a reader's understanding or interpretation of the results or estimates being reported. This is particularly important where inadequate or uncertain data affect the reliability of, or confidence in, a statement of Exploration Results or an estimate of Mineral Resources or Ore Reserves.

The order and grouping of criteria in Table 1 reflects the normal systematic approach to exploration and evaluation. Criteria in Section 1 'Sampling Techniques and Data' apply to all succeeding sections. In the remainder of the table, criteria listed in preceding sections would often also apply and should be considered when estimating and reporting.

It is the responsibility of the Competent Person to consider all the criteria listed below and any additional criteria that should apply to the study of a particular project or operation. The relative importance of the criteria will vary with the particular project and the legal and economic conditions pertaining at the time of determination.

In some cases it will be appropriate for a Public Report to exclude some commercially sensitive information. A decision to exclude commercially sensitive information would be a decision for the company issuing the Public Report, and such a decision should be made in accordance with any relevant corporations regulations in that jurisdiction. For example, in Australia decisions to exclude commercially sensitive information need to be made in accordance with the Corporations Act 2001 and the ASX listing rules and guidance notes.

In cases where commercially sensitive information is excluded from a Public Report, the report should provide summary information (for example the methodology used to determine economic assumptions where the numerical value of those assumptions are commercially sensitive) and context for the purpose of informing investors or potential investors and their advisers.

1 JORC CODE, 2012 EDITION – TABLE 1 REPORT TEMPLATE

1.1 Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> Reverse circulation drilling was used to obtain consecutive one metre samples in Phase 1 and Phase 2 drilling programs. Samples were run through a riffle splitter from which a 2kg to 5kg sample was collected using a PVC spear. Phase 1 and Phase 2 diamond drilling hard copy logging data was not available to determine if whole or half core was sampled for assay. <p>In the Stage 5 Expansion drilling program the following points apply:</p> <ul style="list-style-type: none"> All drilling was completed as diamond core. Sample intervals were determined by the geologist logging the core. Samples were cut at 1m intervals while honouring geological contacts. Drill core was cut in half length wise using a diamond core saw. Half core samples were submitted for analysis, to a registered laboratory in Perth. All sample preparation was undertaken at the laboratory. Core was crushed to -6 mm, 1.5 to 2.4 kg was riffle split, and pulverized to 90% passing 75 micron, 200g sent for analysis. There are documented procedures for data collection and collation.
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</i> 	<ul style="list-style-type: none"> Reverse circulation drilling was used. Phase 1 reverse circulation campaign mid-April 2003 to early June 2003. Rig type Ingersoll Rand T4H. Hammer type and size not reported. Phase 2 reverse circulation drilling campaign late May to mid-June 2006 Rig type Hydco 500E, 51/2” face sampling hammer. All reverse circulation holes were vertical. Phase 2 diamond drilling adjacent to Ore Handling Plant was conducted in the February to March 2005. All holes were inclined to the north and drilled HQ diameter.

Criteria	JORC Code explanation	Commentary
		<p>In the Stage 5 Expansion drilling program the following points apply:</p> <ul style="list-style-type: none"> • Diamond core drilling only. • Drill core size was PQ³ or HQ³ • All holes were completed as triple tube. • Rig type track mounted HD900. • Core orientated down hole using a Reflex orientation tool.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Reverse circulation drilling chip sample recoveries recorded as qualitative estimates on logging spreadsheets for both Phase 1 and Phase 2 drilling programs. Recovery results not assessed. • Unknown if relationship exists between sample recovery and iron grade or whether sample bias may have occurred due to preferential loss/gain of fine/coarse material for Phase 1 and Phase 2 reverse circulation drilling programs. • Diamond drill core sample recovery not recorded in database for the Phase 1 and Phase 2 drilling programs. <p>In the Stage 5 Expansion drilling program the following points apply:</p> <ul style="list-style-type: none"> • Diamond drill core sample recoveries were recorded as quantitative measurements on each core run and entered onto digital logging sheets/database. • All diamond coring was completed as triple tube to maximize sample recovery. • All diamond holes were drilled as inclined holes and were designed to intersect the target Seawall Hematite and Footwall Schist mineralisation at an angle close as possible to perpendicular to ensure the samples are representative. • No relationship is known to exist between sample recovery and iron grade or sampling bias due to preferential loss/gain of fine/coarse material for diamond drilling program.
<i>Logging</i>	<ul style="list-style-type: none"> • <i>Whether core and chip samples have been geologically and</i> 	<ul style="list-style-type: none"> • All Phase 1 and Phase 2 reverse circulation drill holes and diamond

Criteria	JORC Code explanation	Commentary
	<p><i>geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> 	<p>holes were logged by qualified geologists.</p> <ul style="list-style-type: none"> Logging was at one metre intervals. All intervals were logged. Logging is quantitative, data recorded included interval from, to, strat code, colour, lith min1, lith min 2, lith min 3 and percentage mineralisation for all 3 lith types. All samples that intersected mineralisation were assayed. <p>In the Stage 5 Expansion drilling program the following points apply:</p> <ul style="list-style-type: none"> All diamond drill core has been logged for geology, geotechnical point data and geotechnical intervals data. Logging is at a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Drill holes are logged by both a qualified geologist and geotechnical engineer sourced from independent third party consultants. All core is photographed wet and dry, orientated and logged. Logging is quantitative, data recorded included interval from, to, strat code, colour, lith min1, lith min 2, lith min 3, texture percentage mineralization, magnetic susceptibility, core recovery, RQD, rock strength, fabric for all lithology types. All samples that intersected mineralization were assayed.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> In both Phase 1 and Phase 2 reverse circulation drilling programs, dry samples were collected beneath rig mounted cyclone then run through a standalone 3 tier riffle splitter to produce a sample of between 2kg and 5kg weight. PVC spear was pushed diagonally through the sample to collect a sample for assaying. Wet samples were collected in a plastic lined bucket. PVC spear used to collect sample for assay. The nature, quality and sample preparation technique is considered appropriate for the reverse circulation drilling program. Diamond drilling records for Phase 1 and Phase 2 do not indicate if either half core or whole core was used for assaying. No records available to determine if the measures taken to ensure sampling of the in-situ material is representative or if the sample size is appropriate to the grain size of the material.

Criteria	JORC Code explanation	Commentary
		<p>In the Stage 5 Expansion drilling program the following points apply:</p> <ul style="list-style-type: none"> • Diamond drill core to be submitted for assay was cut in half length wise using a diamond saw. • One half of the core was bagged and assigned a unique sample number. • The remaining half of the core has been retained for reference in the core tray. • The measures taken to ensure sampling of the in-situ material is considered representative and the sample size is considered appropriate to the grain size of the material.
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>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.</i> • <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> • Phase 1 reverse circulation drilling –. All samples were dispatched to independent laboratory Ultra Trace based in Perth, WA. Multi-element assaying completed for the following elements by XRF: Fe, SiO₂, Al₂O₃, P, S, CaO, MgO, TiO₂, Mn, V, Cr, Co, Ni, Cu, Zn, As, Pb, K₂O. LOI (950C) was determined gravimetrically. • In Phase 1 duplicate samples and standards were introduced into sample stream. Standard used was produced by the site lab from material sourced on site. The standard was independently certified. Standard and duplicate samples were inserted into the sample stream every 6 metres in mineralization. This resulted in 80 standard samples being sent for assay and 113 pairs of duplicates. • In Phase 2, all samples dispatched to Ultra Trace Perth, WA. Multi-element assaying completed for the following elements by XRF: Fe, SiO₂, Al₂O₃, P, S, CaO, MgO, TiO₂, Mn, V, Cr, Co, Ni, Cu, Zn, As, Pb, K₂O. LOI (950C) was determined gravimetrically. • In Phase 2, standards and duplicates were inserted approximately every 20 metres when the hole was in mineralisation. Three batch reference samples were included with each sample submission. Standards used were purchased commercially and certified. Duplicate samples were taken in the mineralisation and submitted as blind samples to the assay laboratory. A comparison of original vs. duplicate assays for Fe, Al₂O₃ and SiO₂ show acceptable repeatability.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The use of standards, blanks and duplicates is not documented for the Phase 1 and Phase 2 diamond drilling program. <p>In the Stage 5 Expansion drilling program the following points apply:</p> <ul style="list-style-type: none"> All sample intervals selected for assaying were individually bagged and assigned a unique sample number prior to dispatch for assaying. Sample preparation and assaying was conducted by independent laboratory SGS based in Perth, WA. Multi-element assaying completed for the following elements by XRF: Fe, SiO₂, Al₂O₃, P, S, CaO, MgO, TiO₂, Mn, V, Cr, Co, Ni, Cu, Zn, As, Pb, K₂O. LOI (1000°C) was determined gravimetrically. FeO was determined volumetrically. Density measurements were completed on all assayed samples using non-wax Archimedes method. A QA/QC program was implemented as part of the Stage 5 drilling program. The QA/QC program includes the use of Certified Reference Material (CRM), blanks (local beach sand), pulp duplicates, and prep duplicates at the -3mm crushing stage. Duplicate samples and standards were introduced into sample stream. Standard used was produced from material sourced on site and independently prepared and certified by Geostats Pty Ltd. The standards used were GIOP-18, GIOP-24, GIOP-26, GIOP-27, GIOP-32 and GIOP 116 Standard and duplicate samples were inserted into the sample stream approximately every 30 metres. The use of standards, blanks and duplicates is documented for the diamond drilling hole in the geological logs. The results of the QA/QC program are yet to be independently reviewed. This is scheduled to be completed as part of the next Mineral Resource update. Independent checks by a second laboratory are yet to be completed on the Stage 5 drilling program. This is scheduled to be completed as part of the next Mineral Resource update.

Criteria	JORC Code explanation	Commentary
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> Independent verification was not undertaken at the time of the Phase 1 and Phase 2 drilling programs as it was not implemented by the previous project owners Portman Mining and HWE/Cliffs Asia Pacific Iron Ore. <p>In the Stage 5 Expansion drilling program the following points apply:</p> <ul style="list-style-type: none"> Verification by independent or alternative company personnel was not undertaken at the time of the drilling. No twinned holes have been drilled and it is not considered material. There is a version controlled data collection and collation procedure for drilling, logging, sample submission and data collation. There has been no adjustment to assay data.
<i>Location of data points</i>	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<p>In the Phase 1, Phase 2 and Stage 5 drilling programs the following points apply:</p> <ul style="list-style-type: none"> Collar positions (X,Y,Z) surveyed by licensed mine surveyor after hole completion using Leica DGPS accurate to within +/- 10cm. A small number of holes (not specified) were sighted by tape and compass from a known surveyed point. All holes were picked up using the local Cockatoo Island mine grid. Survey coordinates have also been transformed into MGA94 for X, Y and Z coordinates. Quality and accuracy of the topographic control is considered adequate.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> Phase 1 reverse circulation drilling 2003 – the program totalled 2,057.5m drilled in 61 vertical holes (CDRC001 to CDRC061). Section spacing varied from 50 metres to 100 metres depending on location, access and ground conditions. Phase 2 reverse circulation drilling 2006 – the program totalled 1,596m drilled in 37 vertical holes (CDRC062 to CDRC106). Drill section spacing averaged 50 metres depending on location, access and ground conditions.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Low Grade Resource diamond drilling – the program totalled 372.7m in 10 short length angled diamond holes (LGR01 to LGR10). <p>In the Stage 5 Expansion drilling program the following points apply;</p> <ul style="list-style-type: none"> The data spacing and distribution between drill holes is considered sufficient to establish the required degree of geological and grade continuity required to enable an updated Mineral Resource and/or Ore Reserve estimation to be completed. The drill hole spacing varies between approximately 50m and up to 200m between drill hole sections. No sample compositing has been applied when the samples were submitted for assaying.
<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i> 	<p>In the Phase 1 and Phase 2 drilling programs the following points apply;</p> <ul style="list-style-type: none"> Drill sections are orientated mine grid north-south and perpendicular to the strike of the deposit. Most holes are drilled on section. Phase 1 and Phase 2 reverse circulation drill holes were drilled vertically. The Seawall Hematite (mineralisation) dips at an average of 56 degrees to mine grid south. The orientation of drilling is considered adequate for an unbiased assessment of the deposit with respect to interpreted structures and interpreted controls on mineralisation. The diamond drill holes were inclined to the north at -60 degrees in order to intersect the lithologies perpendicularly. <p>In the Stage 5 Expansion drilling program the following points apply:</p> <ul style="list-style-type: none"> Drill sections are orientated mine grid north-south and perpendicular to the strike of the deposit. Drill holes are inclined to the north in order to intersect the lithologies as close as possible at a perpendicular angle.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The Seawall Hematite (mineralization) dips at an average of 56 degrees to mine grid south. The Highwall mineralization dips at an average angle of 56 degrees to mine grid south. The orientation of drilling is considered adequate for an unbiased assessment of the deposit with respect to interpreted structures and interpreted controls on mineralization.
<i>Sample security</i>	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> For the Phase 1 and Phase 2 drilling programs, samples bagged on site and dispatched by air/road freight to Ultra Trace, Perth WA. All sample preparation and assaying was completed under the supervision of the independent laboratory. For the Stage 5 drilling program, all samples were bagged on site and dispatched by air/road freight to SGS, Newburn, Perth, WA. All sample preparation and assaying was completed under the supervision of the independent laboratory.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> A review of the sampling techniques and data by SRK in July 2003 for the Phase 1 and Phase 2 drilling program did not record any material issues. No audits or reviews of sampling techniques and data have been completed on the Stage 5 expansion drilling program. This will be completed as part of the next resource model update scheduled for completion at the end of the current drilling program at December 2014.

1.2 Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Cockatoo Island is covered by numerous Exploration, Mining, and General Purpose tenements which support an on-going iron ore mining operation. The Cockatoo Island iron ore mining operation is operated under a 50:50 Joint Venture between Pluton Resources Limited and Wise Energy Group. Mining Lease 04/235 is held by Pelican Resources Ltd, and

Pluton Resources Limited
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PO Box 1622, West Perth WA 6872
Ph: (08) 6145 1800
ABN: 12 114 561 732



Criteria	JORC Code explanation	Commentary
		subleased to Pluton Resources Limited.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Cockatoo Island has a long history of exploration commencing in 1918 when three leases, each of 48 acres, were granted to Mr J Thompson of Claremont W.A. The island has been the subject of numerous exploration, feasibility and mining programs. These programs included mapping, drilling, sampling, research, photogrammetry and geophysical surveys, along with environmental and ethnographic studies. The bulk of this work was completed post 1935, during which time the island was mined and explored by (then) BHP. Much of the data generated by this work is no longer accessible or has been lost. Only a small proportion was retained by the previous JV Cliffs Asia Pacific Iron Ore Pty Ltd (Previously Portman Iron Ore Pty Ltd prior to 2009) and supplied to Pluton Resources during the Due Diligence and completion of the Asset Sales Agreement. The primary focus of resource definition activity on the island was the high grade hematite mineralisation. Two campaigns of RC drilling were completed over the strike length of the high grade hematite in 2003 and 2006 in order to estimate a Mineral Resource reportable in accordance with the JORC Code. The 2003 campaign focused on Stage's 1 & 2 while 2006 focused on Stage 3 and Stage 4 area. The Stage 4 of the project is currently in development. Over the life of the project various exploration work programmes have been completed over the island to assess the potential of hematite resources outside the areas covered by Mining Leases.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The iron mineralisation at Cockatoo Island occurs within the Cockatoo Formation (Unit 2) where it forms a normal part of the clastic sedimentary assemblage. The study of heavy mineral abundances suggests that the ores have formed through the concentration of detrital hematite by reworking and winnowing on an ancient beach or sand bar (Gellatly 1972). The historic main ore body being mined on Cockatoo Island comprises a single hematite arenite bed out cropping along the southern side of the island. This bed extends for 2,130m along strike, originally reached 140mRL (averaging 80m ASL), and has been intersected by drilling at over 210m below sea level. The hematite arenite is interbedded with, and along strike grades into, hematite

Criteria	JORC Code explanation	Commentary
		<p>poor clastic sediments. The ore occurs in an overturned limb of a second order syncline, dipping at 50° to 60° to the southwest.</p> <ul style="list-style-type: none"> A number of friable mineralised units form the footwall to the main ore body being mined on Cockatoo Island and is referred to as the Quarry Schist Unit. The composition of these units range from hematite, hematite quartzites, hematite schists, schists, sandstones and quartzites.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Not reporting exploration results at this time. For drill hole information relating to the Stage 5 Expansion drilling program refer to ASX releases dated 4th February 2014, 22nd May 2014, 4th July 2014 and 24th July 2014.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Not reporting exploration results at this time. For information relating to the Stage 5 Expansion drilling program refer to ASX releases dated 4th February 2014, 22nd May 2014, 4th July 2014 and 24th July 2014.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> Not reporting exploration results at this time. For information relating to the Stage 5 Expansion drilling program refer to ASX releases dated 4th February 2014, 22nd May 2014, 4th July 2014 and 24th July 2014.

Criteria	JORC Code explanation	Commentary
<i>Diagrams</i>	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Not reporting exploration results at this time. For drill hole collar plans and sections relating to the Stage 5 Expansion drilling program refer to ASX releases dated 4th February 2014, 22nd May 2014, 4th July 2014 and 24th July 2014.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> Not reporting exploration results at this time. For representative reporting of results relating to the Stage 5 Expansion drilling program refer to ASX releases dated 4th February 2014, 22nd May 2014, 4th July 2014 and 24th July 2014.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> No other exploration data is considered meaningful and material to this announcement.
<i>Further work</i>	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Additional resource definition drilling is both continuing and planned along the existing Stage 1 to Stage 3 seawall. The drilling program is scheduled for completion by the end of December 2014.

1.3 Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Access drill database was loaded into CAE Datamine Studio and Visor and reviewed for The same number of records contained in the database was in the Datamine files, after the data was imported. All collar co-ordinates were within the permit area. Duplicate drill holes. Overlapping FROM and TO intervals values in the lithological, stratigraphic, assay, and magnetic susceptibility tables. Downhole survey dip and bearing angles appear reasonable. Duplicate records.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Any anomalous assay values. To review alpha data field's lists of unique values were made for: <ul style="list-style-type: none"> Lithology. All holes have local mine grid and MGS94 Zone51 co-ordinates. All mine production and thus estimation work is in local mine grid. Minor errors were detected with overlaps in some geology log data. Holes CPRC001 to CPRC0032 were omitted from the database as these holes contained collar co-ordinates in MGA94 Zone51 only. It is understood that these holes were drilled outside the main zone of mineralisation and were exploratory in nature. A selection of 2013 drill assays were reviewed against pdf assay results certificates provided by laboratory.
<i>Site visits</i>	<ul style="list-style-type: none"> <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> The Competent Person visits site regularly as part of his role as Technical Services Manager.
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i> <i>Nature of the data used and of any assumptions made.</i> <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i> <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> <i>The factors affecting continuity both of grade and geology.</i> 	<ul style="list-style-type: none"> All geological data (pit mapping and drilling) available has been used to update the geological interpretation. The geological interpretation includes interpreted contacts for the: <ul style="list-style-type: none"> Main mineralised domain the Seawall Hematite. Hematite weathered Seawall Hematite scree on the hanging wall of the Seawall Hematite. Interbedded mineralised Seawall Hematite and Quarry Schist on the footwall of the Seawall Hematite. The interpretation has been undertaken on 50m spaced cross sections. This has been converted to digital strings which have been snapped to the drill holes and pit mapping of hangingwall and footwall contacts. The sectional strings were wireframed to make a three-dimensional (3D) solid. Care was taken to not expand mineralisation beyond the known data points and thus increase tonnage without data support. There is no other geological interpretation. The interpretation at depth is a based on little widely spaced data and is a direct continuation of the interpretation from the mineralisation area supported by densely populated data. It is not anticipated that

Criteria	JORC Code explanation	Commentary
		planned confirmatory resource infill drilling will encounter any unexpected structural features which may interrupt mineralisation.
<i>Dimensions</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The interpretation along strike is from 1,150 mE to 3,400 mE (2,250 m) and from 50 m RL to -150 m RL (200 m) vertical and varies from 25 m to 50 m in width.
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> 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 (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. 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. 	<ul style="list-style-type: none"> Estimated into the model is Fe %, SiO₂ %, Al₂O₃ % S % P % and LOI950°C. Samples were composited to 1m the mean sampling length. Top-cap was applied to the composted samples, at 70% Fe which is the 99.9th percentile. The wireframe solid has been filled with cells. The block model has been cut to the mined out surface after the completion of the estimation. Drill spacing is from 25 to 50m x 10 to 30m to an average depth of 50m to 80m below topographic surface. The block model parent cells are 25m x 5m x 1m in X x Y x Z. Sub celling to 5m x 2.5m x 1m Semi –variograms were generated for all data inside the 3D wireframe solid. The footwall mineralisation was not separated out due to the small amount of data. A single structure spherical model was fitted to the variograms. The other elements either strongly positively or strongly negatively correlated with iron. As such they were modelled using the same parameters as the iron. The search first search pass is 50m x 150m by 15m to encompass the drilling, this is the same ratio as the variogram ranges, with a rotation of -38.1,41.6,-30.8 in Z, Y and X directions. The second search pass is double and third search pass triple the original search. The minimum samples 5 and maximum 20 with a minimum of 3 drill holes needing to be sourced to inform the grade. Ordinary kriging was used with parent cell estimation. Discretisation of 3 x 3 x 1 points.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> An inverse distance squared estimation was also undertaken, the global grades are within less than +/-3% of the ordinary kriged estimation. The volume of the solid was calculated and the volume of the block model was calculated, there is a difference of 1%. Swath plots (moving average plots) have been calculated in the vertical direction. These show reasonable correlation between the block model grades and the composite samples.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Dry bulk density has been used to calculate tonnage.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> No cut-off grade has been applied to the Seawall Hematite which is of direct shipping ore grade for the whole geological unit. Cut-off grades for the interbedded mineralised Seawall Hematite and Quarry Schist on the footwall are based on the expected minimum values allowed to allow blending of feed grades.
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> Open-pit mining is ongoing in the Seawall Hematite. It is assumed that the lower grade interbedded mineralised Seawall Hematite and Quarry Schist on the footwall will be mined using the same methods as the main the Seawall Hematite. The use of a seawall is required for the all of strike length to access mineralisation below sea level. A concept study reviewing larger scale mining by building new sea walls have been completed. A concept study looking at underground mining options has been completed. Development of the project beyond the immediate reported Ore Reserve (Stage 4) requires additional geological, geotechnical drilling, and all studies related to building new sea walls to be completed.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Seawall Hematite is a direct shipping product (DSO), mining is ongoing. Footwall mineralization does contain bands of DSO material but is on average between 40% and 55% iron and as such requires beneficiation to be a standalone product. Studies have commenced and are ongoing.
Environmental	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue 	<ul style="list-style-type: none"> At this time all material included in the Indicated Mineral Resource is

Criteria	JORC Code explanation	Commentary
<i>factors or assumptions</i>	<i>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 green fields 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.</i>	<p>understood to be able to be mined under the current environmental permitting.</p> <ul style="list-style-type: none"> The Inferred Mineral Resource material will require additional concept mining and feasibility studies which will address the potential environmental impact of mining.
<i>Bulk density</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Bulk density is assumed to be dry. For the Seawall Hematite an historic value of 4.7 t/m³ has been used. The 2013 drilling allowed the collection of 172 samples for bulk density measurement results are 4.8 t/m³. As these samples represent a geologically small area the historic value of 4.7 t/m³ has been used. An additional 567 samples from footwall mineralisation were measured. Correlation coefficients of between 0.75 and 0.95 were established between the density and the total iron grade for the different interpreted units. Footwall density values were calculated by regression formula using the total iron grade.
<i>Classification</i>	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie 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. 	<p>The classification criteria is based on:</p> <ul style="list-style-type: none"> Drill hole spacing across and along strike. Continuity of grade outside the main Seawall Hematite. Historic and recent past mining.

Criteria	JORC Code explanation	Commentary																																																															
		<table><tr><th rowspan="2">Lithology</th><th colspan="3">Area</th><th rowspan="2">Mineral Resource Classification</th></tr><tr><th>Easting (m)</th><th>Northing (M)</th><th>RI (m)</th></tr><tr><td>Hematite Scree (D_LITH=8)</td><td>1,150 to 3,400</td><td>Full width</td><td>All</td><td>Inferred</td></tr><tr><td>PKys (D_LITH=7)</td><td>All</td><td>Full width</td><td>All</td><td>Exploration Target</td></tr><tr><td>PKys (D_LITH=7)</td><td>1,150 to 1,700</td><td>Full width</td><td>> -40</td><td>Inferred</td></tr><tr><td>PKys (D_LITH=7)</td><td>1,700 to 2,950</td><td>Full width</td><td>> -70</td><td>Inferred</td></tr><tr><td>PKys (D_LITH=7)</td><td>1,900 to 2,250</td><td>> -270</td><td>> -70</td><td>Indicated</td></tr><tr><td>PKys (D_LITH=7)</td><td>2,250 to 2,850</td><td>> -260</td><td>> -70</td><td>Indicated</td></tr><tr><td>PKys (D_LITH=7)</td><td>2,850 to 2,950</td><td>> -270</td><td>> -70</td><td>Indicated</td></tr><tr><td>All interbedded PKys and PKqs (D_LITH = 1 to 8)</td><td>2,150 to 2,850</td><td>Full width</td><td>> -50</td><td>Inferred</td></tr><tr><td>All Interbedded PKys only (D_LITH = 1 to 8)</td><td>2,725 to 2,900</td><td>Full width</td><td>> -50</td><td>Inferred</td></tr><tr><td>All Interbedded PKys only (D_LITH = 1 to 8)</td><td>3,175 to 3,250</td><td>Full width</td><td>> -50</td><td>Inferred</td></tr><tr><td>All remaining interbedded PKqs along strike (D_LITH = 1 to 8)</td><td>1,150 to 2,150, 2,850 to 2,725, 2,900 to 3,175, 3,250 to 3,400</td><td>Full width</td><td>> -50</td><td>Exploration Target</td></tr></table>	Lithology	Area			Mineral Resource Classification	Easting (m)	Northing (M)	RI (m)	Hematite Scree (D_LITH=8)	1,150 to 3,400	Full width	All	Inferred	PKys (D_LITH=7)	All	Full width	All	Exploration Target	PKys (D_LITH=7)	1,150 to 1,700	Full width	> -40	Inferred	PKys (D_LITH=7)	1,700 to 2,950	Full width	> -70	Inferred	PKys (D_LITH=7)	1,900 to 2,250	> -270	> -70	Indicated	PKys (D_LITH=7)	2,250 to 2,850	> -260	> -70	Indicated	PKys (D_LITH=7)	2,850 to 2,950	> -270	> -70	Indicated	All interbedded PKys and PKqs (D_LITH = 1 to 8)	2,150 to 2,850	Full width	> -50	Inferred	All Interbedded PKys only (D_LITH = 1 to 8)	2,725 to 2,900	Full width	> -50	Inferred	All Interbedded PKys only (D_LITH = 1 to 8)	3,175 to 3,250	Full width	> -50	Inferred	All remaining interbedded PKqs along strike (D_LITH = 1 to 8)	1,150 to 2,150, 2,850 to 2,725, 2,900 to 3,175, 3,250 to 3,400	Full width	> -50	Exploration Target
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Audits or reviews	<ul style="list-style-type: none">The results of any audits or reviews of Mineral Resource estimates.	<ul style="list-style-type: none">No independent reviews or audits have been completed on the Mineral Resource estimate as current mining production data will be used to reconcile the performance of the Mineral Resource estimate																																																															
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none">Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	<ul style="list-style-type: none">The estimation is a local estimation suitable for use in mining.Analysis of the open pit production against the Indicated Mineral Resource from the 1st October 2013 indicates a neutral reconciliation for tonnes and grade for the predominantly Seawall Hematite mineralization.In 2013 there have been reconciliation difficulties with the footwall mineralisation tonnages. The 2013 drilling has allowed for collection of bulk density samples. Many units now have a lower average bulk density than that assigned during 2013 resource estimation. There may still be potential problems with the bulk density in areas of highly friable material.																																																															

1.4 Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<ul style="list-style-type: none"> <i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i> <i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i> 	<ul style="list-style-type: none"> Details of the development of the Mineral Resource estimate are contained in Section 3 – Estimation and Reporting of Mineral Resources in Table 1. The Mineral Resources are additional to the Ore Reserves.
<i>Site visits</i>	<ul style="list-style-type: none"> <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> The Competent Person for the Ore Reserves is a full time employee of Pluton Resources and visits site on a regular basis.
<i>Study status</i>	<ul style="list-style-type: none"> <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i> <i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i> 	<ul style="list-style-type: none"> A detailed Feasibility Study was completed by Pluton's predecessors HWE Mining and Cliffs Asia Pacific Iron Ore. The Feasibility Study was subsequently reviewed and base case seawall and open pit designs further adjusted by Pluton Resources after the completion of the Asset Sale Agreement.
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <i>The basis of the cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> The cut-off grade parameters are derived and based on similar arrangements for the sale of final product that were previously used by HWE Mining and Cliffs Asia Pacific Iron Ore.
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i> <i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i> <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i> <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> <i>The mining dilution factors used.</i> <i>The mining recovery factors used.</i> <i>Any minimum mining widths used.</i> <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i> 	<ul style="list-style-type: none"> The Ore Reserve estimate was based on a conventional open pit mining operation using drilling and blasting and hydraulic excavators loading off-highway trucks. This is the same operating method currently employed at Cockatoo Island by Pluton Resources Limited and the previous JV operators HWE Mining and Cliffs Asia Pacific Iron Ore. A minimum mining width of 8m was assumed which is appropriate for the size of equipment currently used at Cockatoo Island. The final open pit design was based on the latest seawall design and slope parameters both reviewed and approved by Coffey Mining geotechnical consultants. Overall slope angles are approximately 36 degrees for the southern open pit wall, 41 degrees for the northern open pit wall and 37 degrees for the eastern wall. There is no western wall as the open pit daylight into the existing Stage 3 open pit. Detailed geotechnical batter angles are dependent upon geological

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The infrastructure requirements of the selected mining methods.</i> 	<p>lithologies and wall orientations.</p> <ul style="list-style-type: none"> There is a program of monitoring and control for both the seawall and open pit slopes. Mining dilution factors not applied due to width of the Seawall Hematite. Mining recovery factors not applied to high DSO (direct shipping ore) Seawall Hematite. The Ore Reserve is based on Indicated Mineral Resources. Inferred Mineral Resources are not included in the analysis. Ore mining from the Stage 4 open pit commenced in October 2012. Ore processing commenced in November 2012 and the first Handymax vessel shipment of iron ore of 39,140WmT @ 58.8% Fe occurred in December 2012. Seawall construction in Stage 4 is required to enable mining of the Ore Reserve.
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> <i>Whether the metallurgical process is well-tested technology or novel in nature.</i> <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i> <i>Any assumptions or allowances made for deleterious elements.</i> <i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i> <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i> 	<ul style="list-style-type: none"> The production of Cockatoo Island Iron Ore Fines employs a conventional three stage crushing and screening circuit. Run of Mine ore is processed to produce a product specification of 90% passing -10mm and a maximum 47% below 0.150mm. The specifications have remained similar over the +60 years of operation of the mine, however crushing plant components changed out as they become obsolete. The only deleterious element known to exist and of importance is silica. The Ore Reserve estimation has been based on the appropriate mineralogy to meet the product specifications.
<i>Environmental</i>	<ul style="list-style-type: none"> <i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i> 	<ul style="list-style-type: none"> The Stage 4 Mining Proposal detailing all potential environmental impacts was approved by the Department of Minerals and Petroleum (DMP) in 2012. The proposal was referred to the Environmental Protection Authority (EPA) for assessment of environmental impact and the EPA decided not to assess based on the limited impact the mining would cause the environment. An additional mining proposal is being drafted for waste deposition inside the Stage 4 mining void.

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		<ul style="list-style-type: none"> There are no sulphides in the ore and therefore no risk of acid mine drainage.
<i>Infrastructure</i>	<ul style="list-style-type: none"> <i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i> 	<ul style="list-style-type: none"> Existing infrastructure of adequate size and condition to support mining, processing and shipping of the Ore Reserve.
<i>Costs</i>	<ul style="list-style-type: none"> <i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i> <i>The methodology used to estimate operating costs.</i> <i>Allowances made for the content of deleterious elements.</i> <i>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</i> <i>The source of exchange rates used in the study.</i> <i>Derivation of transportation charges.</i> <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i> <i>The allowances made for royalties payable, both Government and private.</i> 	<ul style="list-style-type: none"> Cockatoo Island is an operating mine. Capital estimates and formal quotes were used in conjunction with similar historical costs as estimates of capital and operating costs. AME and consensus pricing used, in conjunction with forward sales contracts to support pricing assumptions. Publicly available bank published rates (HSBC) used as basis of exchange rate. Transportation (Freight) charges based on past history of cyclical nature for Handymax vessels, supported by Braemar provided estimate of future pricing. Contractual penalty rates used. Past and current Royalty rates applied to future.
<i>Revenue factors</i>	<ul style="list-style-type: none"> <i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i> <i>the derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i> 	<ul style="list-style-type: none"> AME and consensus pricing used, in conjunction with forward sales contracts to support pricing assumptions. Publicly available bank published rates (HSBC) used as basis of exchange rate. Transportation (Freight) charges based on past history of cyclical nature for Handymax vessels, supported by Braemar provided estimate of future pricing. Contractual penalty rates used. Past and current Royalty rates applied to future.
<i>Market assessment</i>	<ul style="list-style-type: none"> <i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i> <i>A customer and competitor analysis along with the identification of likely market windows for the product.</i> <i>Price and volume forecasts and the basis for these forecasts.</i> <i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i> 	<ul style="list-style-type: none"> Existing sales contracts are in place for the future production of Cockatoo Island Iron Ore Fines from the Stage 4 Ore Reserve.

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<i>Economic</i>	<ul style="list-style-type: none"> The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> Due to the relatively short mine life of the Stage 4 Ore Reserve, the project is insensitive to economic fluctuations.
<i>Social</i>	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> All agreements are in place and of good standing with current stakeholders. These agreements have remained in place with previous operators and are expected to continue for the life of the Ore Reserve.
<i>Other</i>	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	<ul style="list-style-type: none"> Pluton has advised that Cockatoo Island operation is in compliance with all legal and regulatory requirements.
<i>Classification</i>	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<ul style="list-style-type: none"> The Ore Reserve estimate is based on the Mineral Resource contained within the final open pit design for Stage 4 classified as "Indicated" after consideration of all mining, metallurgical, social, environmental and financial aspects of the Project. All Probable Ore Reserves were derived from the Indicated Mineral Resources. The Ore Reserve classification results appropriately reflect the Competent Persons view of the deposit.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> No external independent audits or reviews have been conducted on the Ore Reserve estimate. The monthly open pit production reconciliation results compiled by Pluton Resources are utilised to measure the performance of the Ore Reserve against actual production.
<i>Discussion of relative accuracy/</i>	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For 	<ul style="list-style-type: none"> Analysis of the open pit production against the Ore Reserve from 1st October 2013 indicates a neutral reconciliation for tonnes and grade. The accuracy of the estimates will be subject to regular reconciliation

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<i>confidence</i>	<p><i>example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <i>• 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.</i> <i>• Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i> <i>• It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	and monitoring and will be adjusted based on the results.