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19 August 2014

To: Australian Securities Exchange
New York Stock Exchange

UNLOCKING SHAREHOLDER VALUE PRESENTATION

Attached are the presentation slides for a presentation that will be given by the Chief Executive Officer and Chief Financial Officer shortly.

The Webcast for this presentation can be accessed at:

http://www.media-server.com/m/p/fz6a4nkm

Nicole Duncan
Company Secretary

Unlocking shareholder value

Andrew Mackenzie Chief Executive Officer
19 August 2014

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resourcing the future

Disclaimer

UK Financial Services and Markets Act 2000 approval

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This presentation contains forward-looking statements, which may include statements regarding: trends in commodity prices and currency exchange rates; demand for commodities; plans, strategies and objectives of management; closure or divestment of certain operations or facilities (including associated costs); anticipated production or construction commencement dates; capital costs and scheduling; operating costs and shortages of materials and skilled employees; anticipated productive lives of projects, mines and facilities; provisions and contingent liabilities; tax and regulatory developments.

Forward-looking statements can be identified by the use of terminology such as 'intend', 'aim', 'project', 'anticipate', 'estimate', 'plan', 'believe', 'expect', 'may', 'should', 'will', 'continue', 'annualised' or similar words. These statements discuss future expectations concerning the results of operations or financial condition, or provide other forward-looking statements.

These forward-looking statements are not guarantees or predictions of future performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this presentation. Readers are cautioned not to put undue reliance on forward-looking statements.

For example, our future revenues from our operations, projects or mines described in this presentation will be based, in part, upon the market price of the minerals, metals or petroleum produced, which may vary significantly from current levels. These variations, if materially adverse, may affect the timing or the feasibility of the development of a particular project, the expansion of certain facilities or mines, or the continuation of existing operations.

Other factors that may affect the actual construction or production commencement dates, costs or production output and anticipated lives of operations, mines or facilities include our ability to profitably produce and transport the minerals, petroleum and/or metals extracted to applicable markets; the impact of foreign currency exchange rates on the market prices of the minerals, petroleum or metals we produce; activities of government authorities in some of the countries where we are exploring or developing these projects, facilities or mines, including increases in taxes, changes in environmental and other regulations and political uncertainty; labour unrest; and other factors identified in the risk factors discussed in BHP Billiton's filings with the US Securities and Exchange Commission (the 'SEC') (including in Annual Reports on Form 20-F) which are available on the SEC's website at www.sec.gov.

Except as required by applicable regulations or by law, the Group does not undertake any obligation to publicly update or review any forward-looking statements, whether as a result of new information or future events.

Disclaimer (continued)

Non-IFRS financial information

BHP Billiton results are reported under International Financial Reporting Standards (IFRS) including Underlying EBIT and Underlying EBITDA which are used to measure segment performance. This presentation also includes certain non-IFRS measures including Underlying EBIT margin, Underlying EBITDA margin, Free cash flow, Net debt and Net operating assets. These measures are used internally by management to assess the performance of our business, make decisions on the allocation of our resources and assess operational management. Non-IFRS measures have not been subject to audit or review and should not be considered as an indication of or alternative to an IFRS measure of profitability, financial performance or liquidity.

UK GAAP financial information

Certain historical financial information for periods prior to FY2005 has been presented on the basis of UK GAAP, which is not comparable to IFRS or US GAAP. Readers are cautioned not to place undue reliance on UK GAAP information.

Basis of preparation

Historical financial and production data for NewCo has been included on the same basis as reported by BHP Billiton. Figures for NewCo represent the sum of NewCo's assets, with no adjustments made to include overhead costs, except to the extent these were charged to the assets within BHP Billiton.

Unless specified otherwise, all references to revenue, Underlying EBITDA and Underlying EBIT exclude third party trading activities.

Unless specified otherwise, production volumes, sales volumes and capital and exploration expenditure from subsidiaries (which include Escondida, Jimblebar, BHP Billiton Mitsui Coal and our manganese operations) are reported on a 100 per cent basis; production volumes, sales volumes and capital and exploration expenditure from equity accounted investments (which include Antamina, Samarco and Cerrejón) and other operations are reported on a proportionate consolidation basis.

No offer of securities

Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell BHP Billiton securities or securities in NewCo in any jurisdiction.

Reliance on third-party information

The views expressed in this presentation contain information that has been derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information. This presentation should not be relied upon as a recommendation or forecast by BHP Billiton.

No financial or investment advice – South Africa

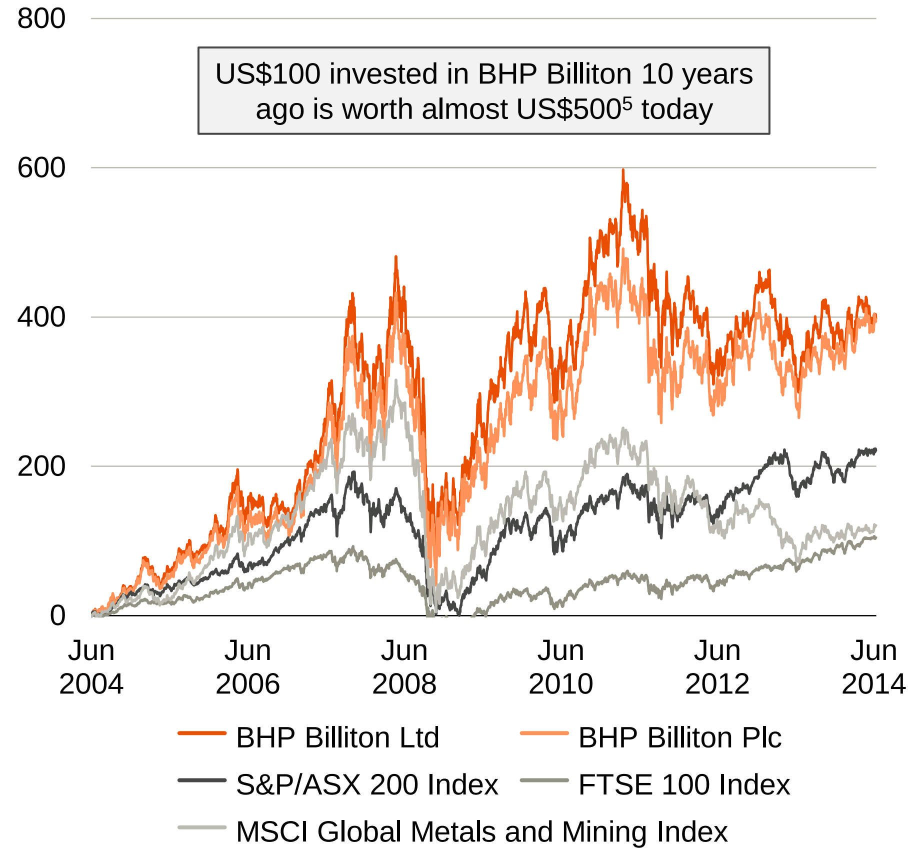
BHP Billiton does not provide any financial or investment 'advice', as that term is defined in the South African Financial Advisory and Intermediary Services Act 37 of 2002, and we strongly recommend that you seek professional advice.


Worsley

A proven strategy and financial discipline

- Our strategy is to own and operate large, long-life, low-cost, expandable, upstream assets diversified by commodity, geography and market
- Over the last 10 years we have maintained financial discipline and delivered exceptional results
  - our earnings increased at a CAGR of 14%[1,2]
  - our progressive base dividend increased at a CAGR of 17%[1]
  - we maintained a strong balance sheet
  - we returned US$64 billion[3] to shareholders for an Underlying payout ratio of ~50%

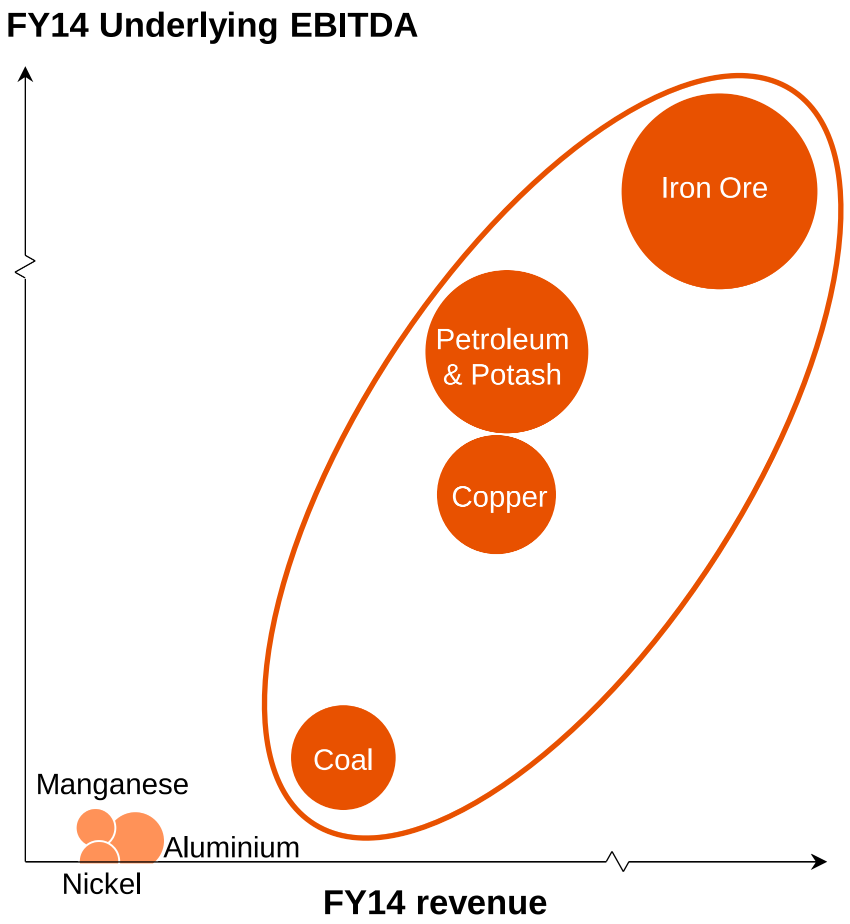
We have delivered strong outperformance
(total shareholder return[4], %)



Source: Datastream.
1. Represents compound annual growth rate from FY04 to FY14.
2. Earnings includes third party trading activities. Calculated on the basis of IFRS 10, IFRS 11 and IFRIC 20 for periods FY13 onwards.
3. Includes dividends and share buy-backs over the period from FY05 to FY14 inclusive.
4. Total shareholder return calculated in US dollar terms.
5. Value as at 30 June 2014; assumes dividends are reinvested.

Our major businesses will define our success

- By investing primarily in our major resource basins where the market fundamentals were supportive we enhanced investment returns
- Our Petroleum and Potash, Copper, Iron Ore and Coal businesses now dominate the portfolio
  - contribute 97% of Underlying EBITDA[1]
  - generate the strongest margins
  - retain the most attractive investment options
- These exceptional businesses will drive future performance for our shareholders



Note: Bubble size represents average analyst NPV in 2014 based on a sample size of up to 16 analysts.
1. Includes third party trading activities.

Extending our strong track record

- Having assessed alternatives for our non-core assets we concluded that a demerger will maximise value for our shareholders
- The creation of NewCo, a high-quality global metals and mining company, largely completes our simplification process in a single step and minimises transaction costs
- With dedicated management teams providing a greater level of focus, both BHP Billiton and NewCo will be positioned to optimise performance and improve productivity more quickly
- All investors will have the opportunity to benefit from the value created by both companies

NewCo


GEMCO


Worsley


Cannington

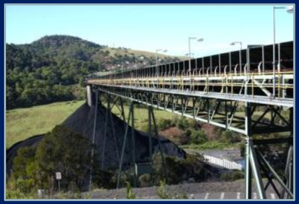

Hotazel


Alumar


Cerro Matoso


TEMCO


Aluminium South Africa


Illawarra Coal


Metalloys


Mozal


Energy Coal South Africa

The proposed demerger

- It is intended that NewCo would be an Australian incorporated company listed on the Australian Securities Exchange (ASX) and have an inward secondary listing on the Johannesburg Stock Exchange (JSE)
- BHP Billiton Ltd and BHP Billiton Plc shareholders will receive a pro-rata distribution of shares in NewCo
- We believe this structure delivers more value than other alternatives and treats all of our shareholders equally
- All investors will retain their current holding in BHP Billiton
- We will seek final Board approval to put the proposal to shareholders following the receipt of third party approvals on satisfactory terms[1]
  - confirmation of demerger tax relief from the Australian Taxation Office
  - government approvals, including FIRB (Australia) and National Treasury/SARB (South Africa)
  - certain third party consents
  - in principle listing approval for NewCo from the ASX and JSE
- We expect to provide an update in November 2014
- Listing of NewCo is planned for mid-CY15

1. This is not an exhaustive list of all approvals required in order for the transaction to proceed.

Pampa Norte

A simpler and more productive BHP Billiton

Sharpening BHP Billiton's focus

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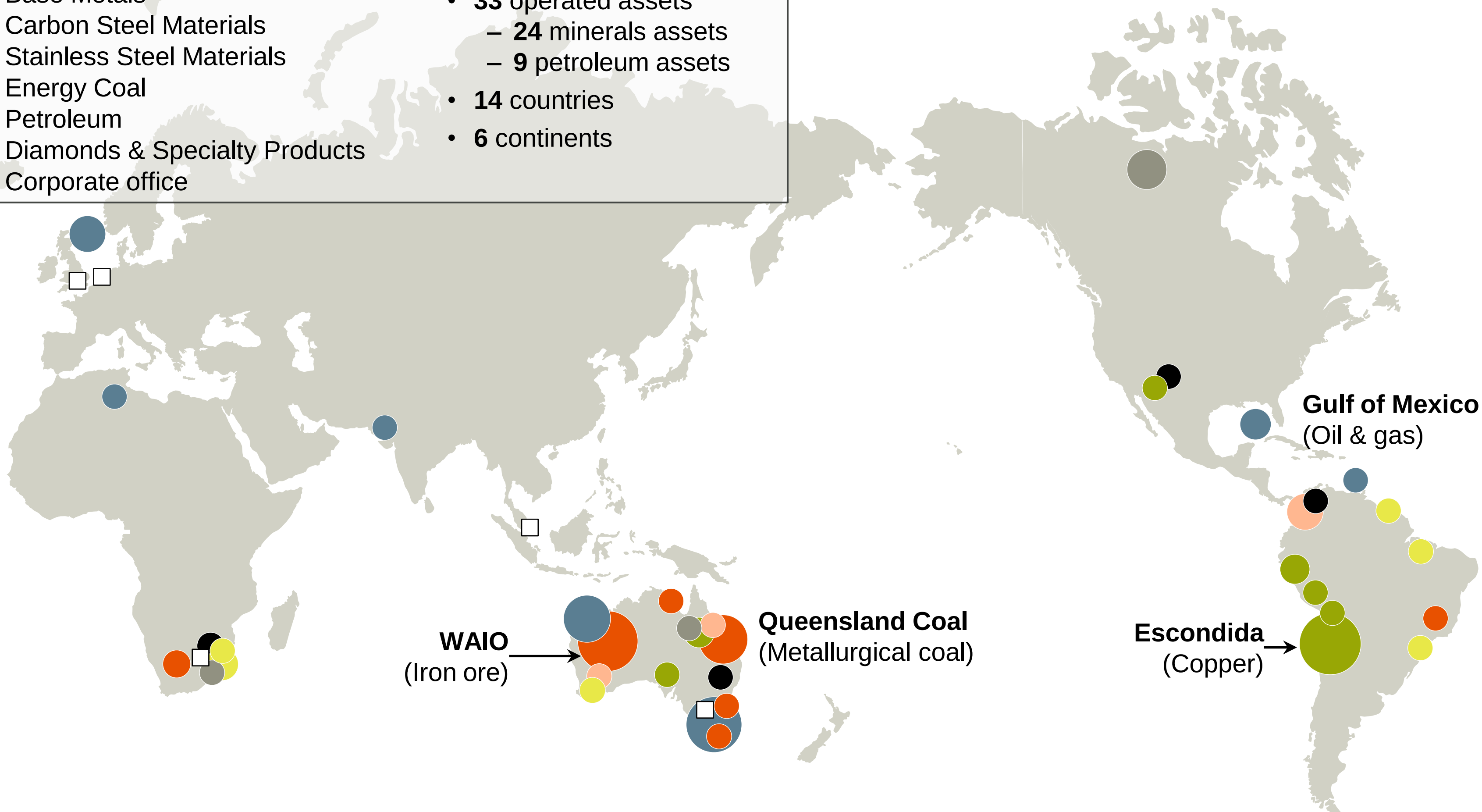
June 2005

- Aluminium
- Base Metals
- Carbon Steel Materials
- Stainless Steel Materials
- Energy Coal
- Petroleum
- Diamonds & Specialty Products
- Corporate office

- **50** assets in total
- **33** operated assets
  - **24** minerals assets
  - **9** petroleum assets
- **14** countries
- **6** continents



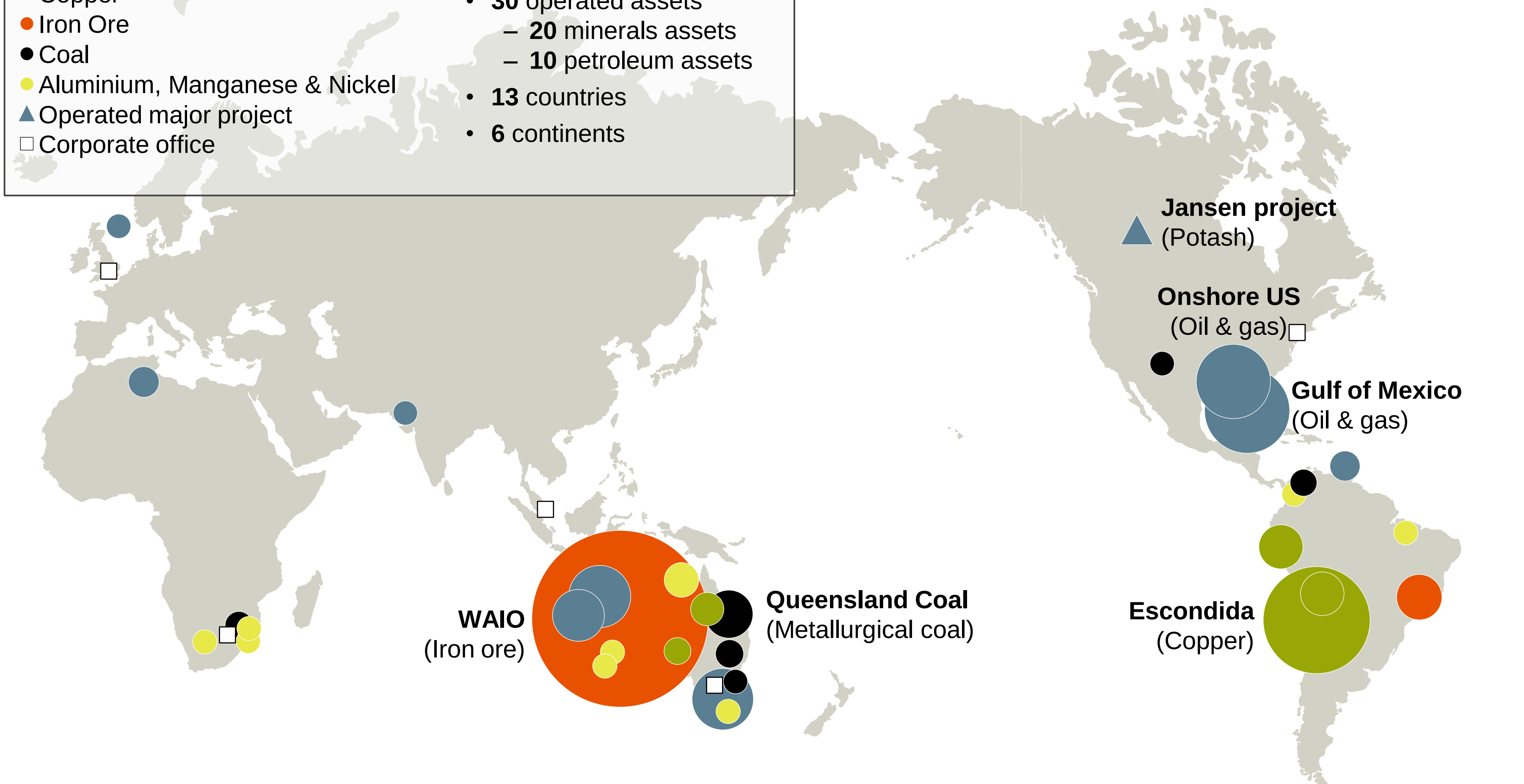
Note: Bubble size represents FY05 Underlying EBITDA. Assets with an Underlying EBITDA of US$250 million or less are represented by the same size. Excludes exploration, appraisal and early stage development assets.

Sharpening BHP Billiton's focus

June 2014

- Petroleum & Potash
- Copper
- Iron Ore
- Coal
- Aluminium, Manganese & Nickel
- ▲ Operated major project
- □ Corporate office

- **41** assets in total
- **30** operated assets
  - **20** minerals assets
  - **10** petroleum assets
- **13** countries
- **6** continents



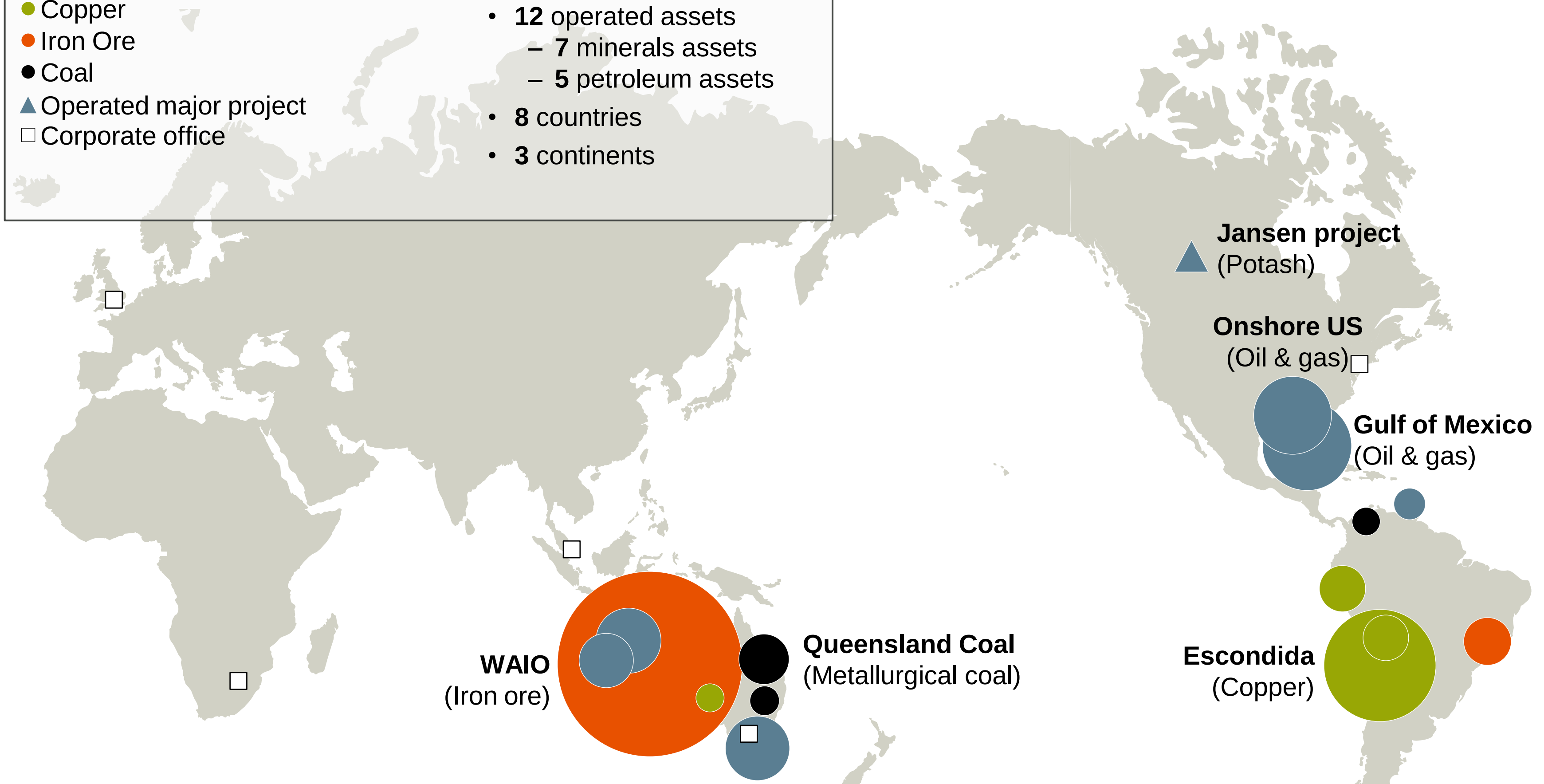
Note: Bubble size represents FY14 Underlying EBITDA. Assets with an Underlying EBITDA of US$250 million or less are represented by the same size.
Excludes exploration, appraisal and early stage development assets.

Sharpening BHP Billiton's focus

The future ~50% reduction in the number of assets

- Petroleum & Potash
- Copper
- Iron Ore
- Coal
- Operated major project
- Corporate office

- **19** assets in total
- **12** operated assets
  - **7** minerals assets
  - **5** petroleum assets
- **8** countries
- **3** continents



Note: Bubble size represents FY14 Underlying EBITDA. Assets with an Underlying EBITDA of US$250 million or less are represented by the same size.
Excludes exploration, appraisal and early stage development assets.
Core assets include: Western Australia Iron Ore; Samarco; Queensland Coal; NSW Energy Coal; Cerrejón; Escondida; Olympic Dam; Pampa Norte; Antamina; Onshore US; Shenzi, Mad Dog, Atlantis (included in Gulf of Mexico bubble); Angostura; North West Shelf; Bass Strait; Pyrenees, Macedon (included in Australian operated bubble); and Jansen project.

A simpler and more productive organisation

BHP Billiton core portfolio[1]

Minerals

Operated


Western Australia Iron Ore


Olympic Dam


Escondida


Pampa Norte


Queensland Coal[2]


NSW Energy Coal


Jansen project

Non-operated


Samarco


Antamina


Cerrejón

Petroleum

Operated


Onshore US


Shenzi


Angostura


Pyrenees


Macedon

Non-operated


Atlantis


Mad Dog


Bass Strait


North West Shelf

Under review


Nickel West


New Mexico Coal

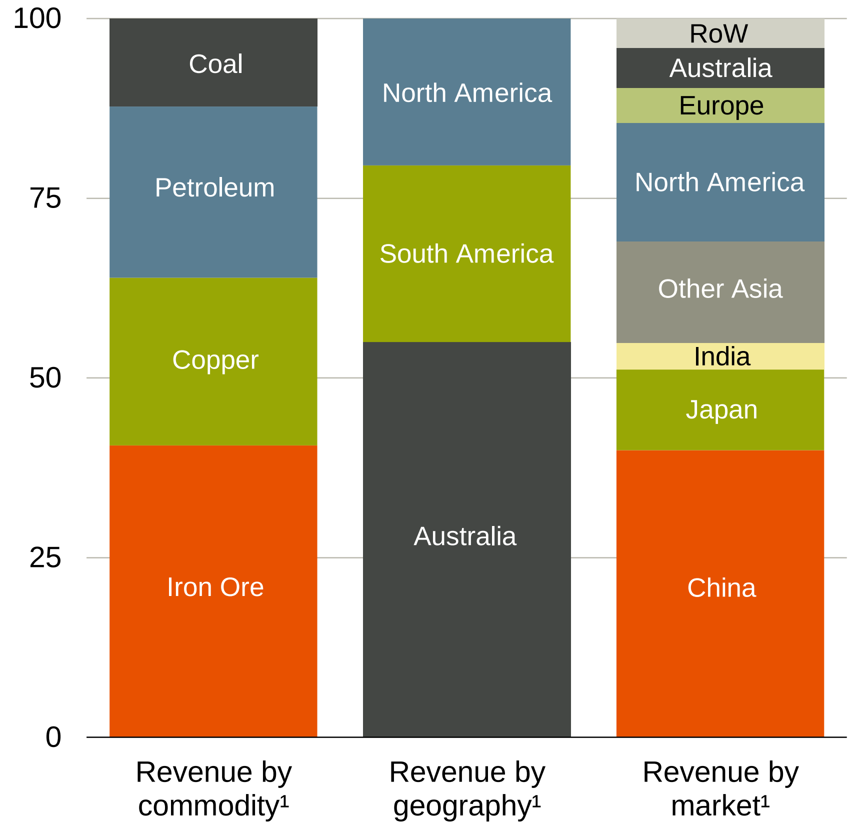

Smaller petroleum assets

1. Excludes exploration, appraisal and early stage development assets.
2. Queensland Coal comprises the BHP Billiton Mitsubishi Alliance (BMA) asset, jointly operated with Mitsubishi, and the BHP Billiton Mitsui Coal (BMC) asset operated by BHP Billiton.

Retaining the benefits of diversification and supplying commodities to the world

- A portfolio consisting of our core assets will be further aligned with our differentiated strategy
  - large, long-life, low-cost, expandable, upstream assets
  - diversified by commodity, geography and market
- We will maintain broad exposure to steelmaking raw materials, copper, energy and potentially agricultural markets
- This unique level of diversification and our OECD oriented footprint affords greater flexibility and choice as we respond to changes in commodities demand

Diversified by commodity, geography and market
(core portfolio, FY14 % contribution)



1. Revenue by market represents location of customer and includes third party trading activities.

Delivering stronger growth and margins

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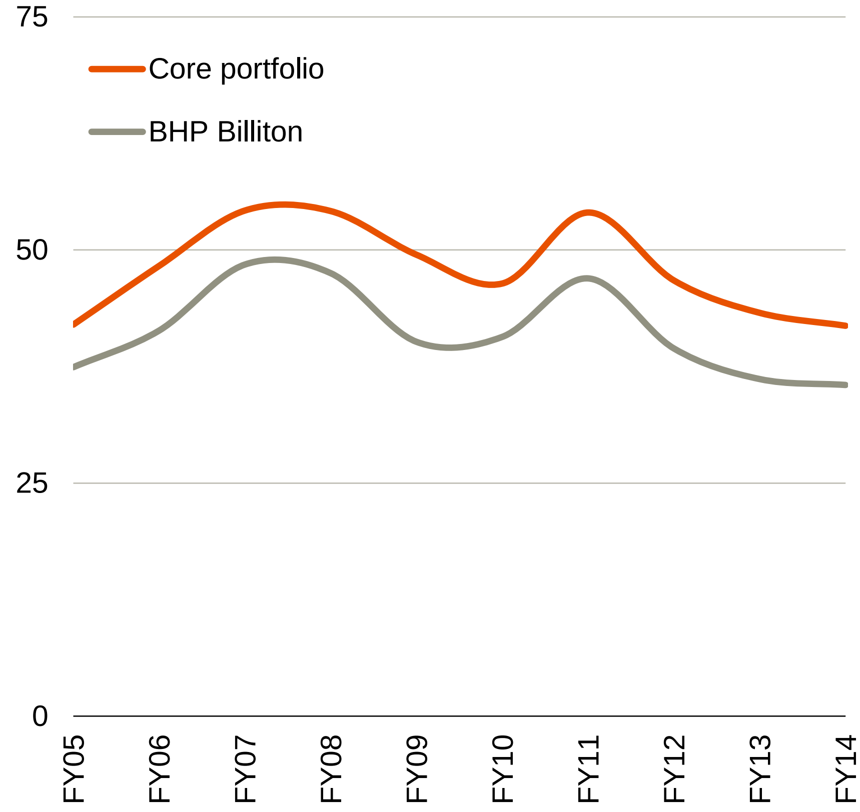
- The core portfolio generated stronger performance compared with the broader portfolio over the last 10 years
  - production CAGR[1] of 7% (versus 4%)
  - Underlying EBIT CAGR[1,2,3] of 21% (versus 15%)
  - an average Underlying EBIT margin[2] of 48% (versus 41%) with no increase in volatility

A higher margin business
(Underlying EBIT margin[2], %)

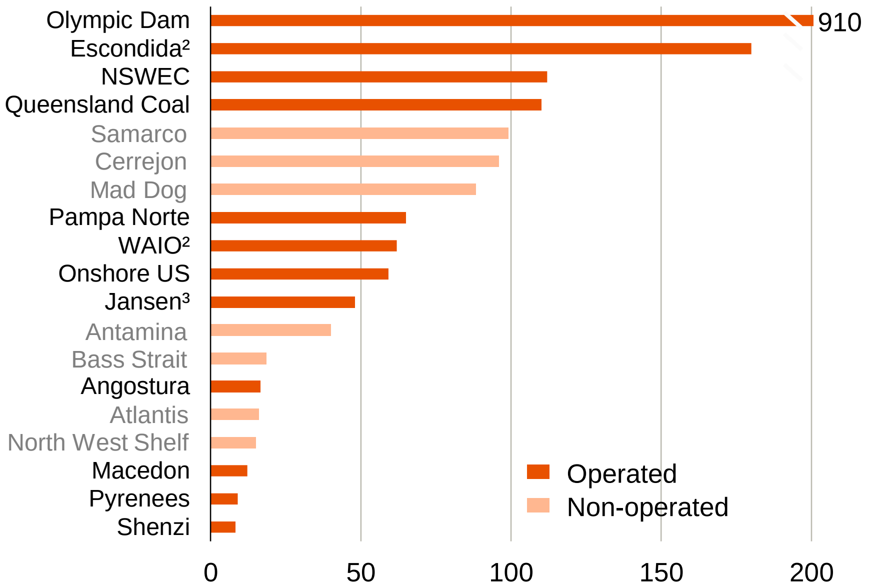


1. Compound annual growth rate (CAGR) from FY04 to FY14. Production CAGR is calculated on a copper equivalent basis.
2. Calculated on the basis of IFRS 10, IFRS 11 and IFRIC 20 for periods FY13 onwards.
3. Includes third party trading activities.

Our unique ore bodies underpin our competitive advantage

- We have more than 100 years of inventory in our major minerals basins
- Our large hydrocarbon reservoirs underpin our high-margin Petroleum business
- The size and quality of these resources ensures we have a leadership position in each of our core commodities and many of the best investment options
- We will maintain an internal focus as we seek to increase free cash flow and maximise shareholder value

The scale of our core assets is a differentiator
(resource life[1], years)



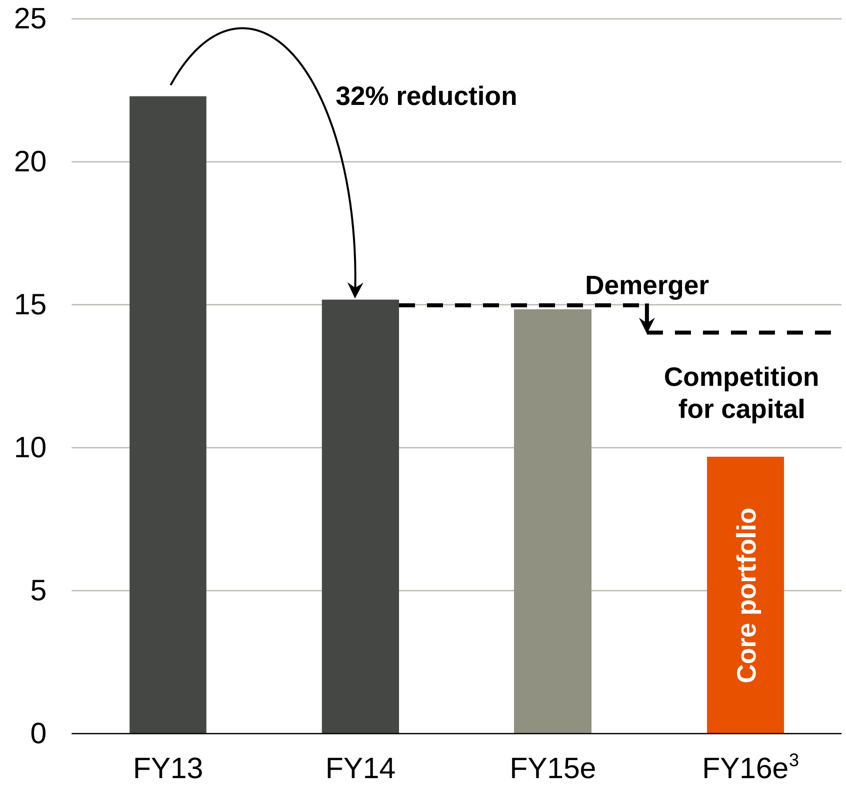
Note: The information in this report that relates to Mineral Resources is based on information compiled by Competent Persons who are Members or Fellows of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists or other Recognised Professional Organisation. All are full time employees of BHP Billiton unless otherwise stated and are listed on slide 37. All information is reported under the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012' (the JORC Code). The Competent Persons consent for Petroleum Reserves and Contingent Resources is provided on slide 37. It is BHP Billiton's opinion that all resources included have potential to be recovered and sold. Refer to detailed tables for Mineral Resources classifications (100% basis) in the Appendix, slides 38 to 39. Petroleum Proved Reserves are defined according to US SEC definitions. Petroleum Probable Reserves and Contingent Resources are defined according to the Society of Petroleum Engineers Petroleum Resource Management System (SPE PRMS).

1. Resource life is estimated from the FY13 classified Mineral Resources (except Escondida and WAIO which use FY14 figures), converted to a run-of-mine basis using historical Mineral Resources to Ore Reserves conversion divided by the FY14 production rate on a 100% basis. Petroleum asset life is estimated by dividing net interest 2P+2C reserves and resources by net interest FY14 production (except Mad Dog which is based on FY14 production excluding the effects of the extended shutdown). Fuel consumed in operations has been excluded from petroleum reserves, resources and production.
2. The Escondida Mineral Resources information is extracted from the BHP Billiton Operational Review for the nine months ended 31 March 2014, with WAIO Mineral Resources information extracted from the BHP Billiton Operational Review for the year ended 30 June 2014. All other Mineral Resources information is extracted from the BHP Billiton FY13 Annual Report. All reports are available on www.bhpbilliton.com. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and in the case of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.
3. Based on aspirational potash capacity (10 Mtpa KCl) stated on a 100% basis.

We will invest selectively and maintain financial discipline

- Capital and exploration expenditure declined by 32% in FY14 and will be below our US$15 billion investment ceiling next year
- If the demerger is approved BHP Billiton's planned investment ceiling will be adjusted to US$14 billion per annum beyond FY15
- By maintaining strict financial discipline we expect to generate an average investment return of >20%[1] from the high-quality development options in our core portfolio
- As we improve capital productivity we may invest at the same rate to create even more value or invest less and further increase cash returns to shareholders

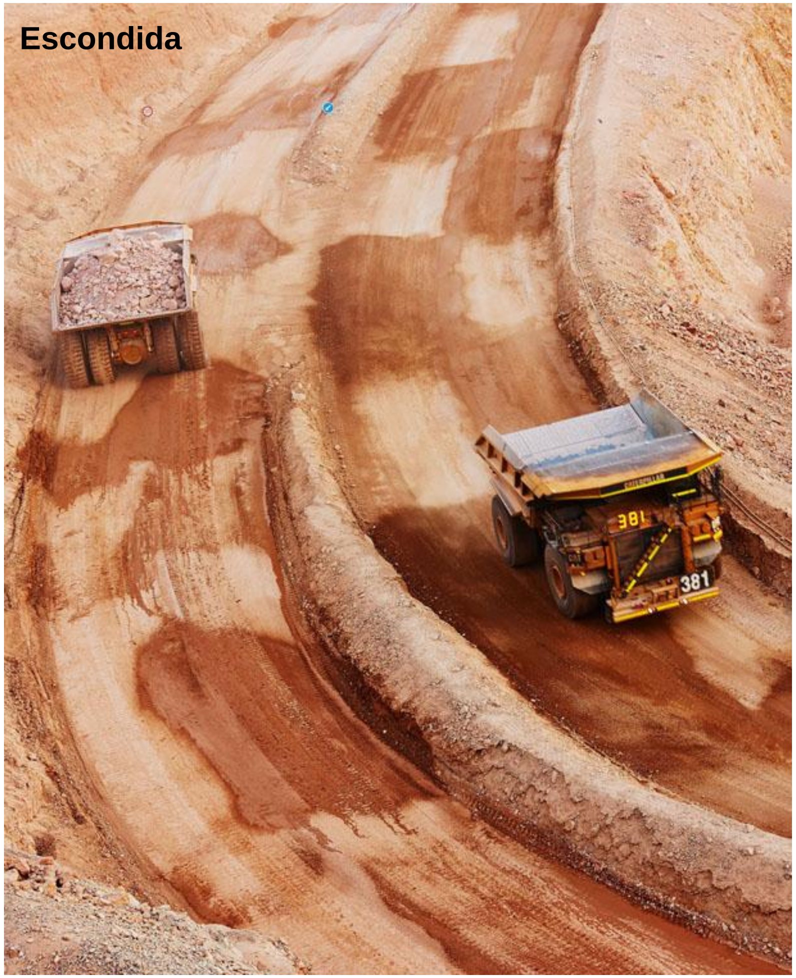
Investing for value over volume
(capital and exploration expenditure[2], US$ billion)



1. Ungeared, post tax, nominal rate of return for our major project options considered in the five year plan.
2. Represents the share of capital and exploration expenditure (on a cash basis) attributable to BHP Billiton shareholders. Includes BHP Billiton's proportionate share of equity accounted investments; excludes non-controlling interests and capitalised deferred stripping.
3. Represents forecast spend on approved major projects, maintenance and exploration.

Simplicity and focus will be the catalyst for greater productivity

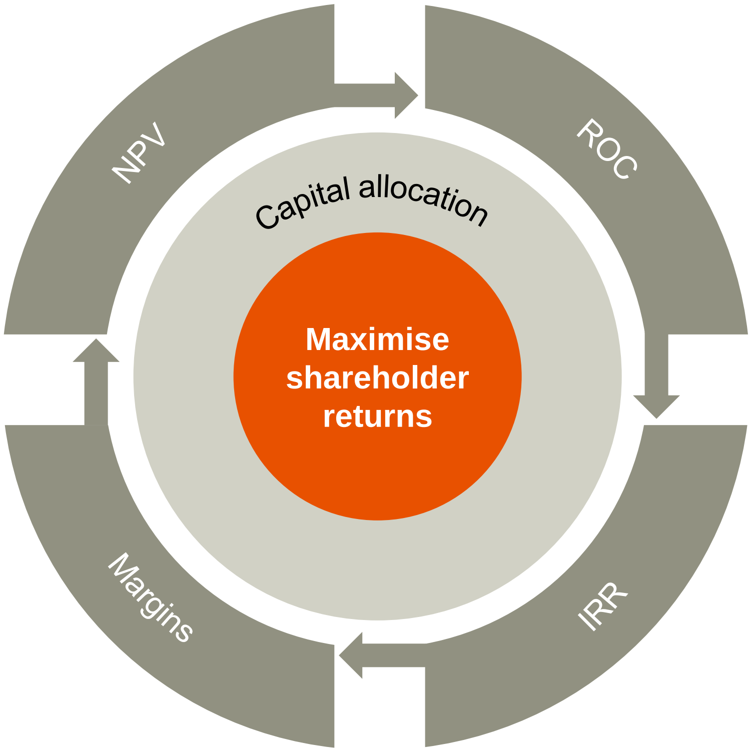
- As we concentrate our effort on 12 operated assets and seven joint ventures in our core portfolio we will be able to improve productivity more quickly
  - focus on our core capabilities without distraction
  - leverage our common systems and processes to deliver continual improvement, akin to an advanced manufacturing process
  - further simplify our management structure, reduce duplication and aggregate functional support
- Within our core portfolio alone we are targeting sustainable, productivity-led gains of at least US$3.5 billion[1] by the end of FY17



1. Represents planned annualised volume and cash cost productivity gains to be delivered from our core assets only, relative to our FY14 baseline. Additional productivity-led gains are expected to be generated by NewCo and our other non-core assets.

Growth in value and shareholder returns

- We see great value in a strong balance sheet and remain committed to our solid A credit rating
- It provides the necessary confidence and flexibility to invest selectively in our diversified portfolio for value
- These investments underpin the future growth of our progressive base dividend
- Following the proposed demerger we will seek to steadily increase or at least maintain our dividend per share, implying a higher payout ratio
- With our rate of capital expenditure declining, we expect future dividends to be funded by free cash flow[1]
- We will also return excess capital to shareholders in a consistent and predictable manner



1. Subject to market volatility and financial performance.

Energy Coal South Africa

A new global metals and mining company

A new global metals and mining company

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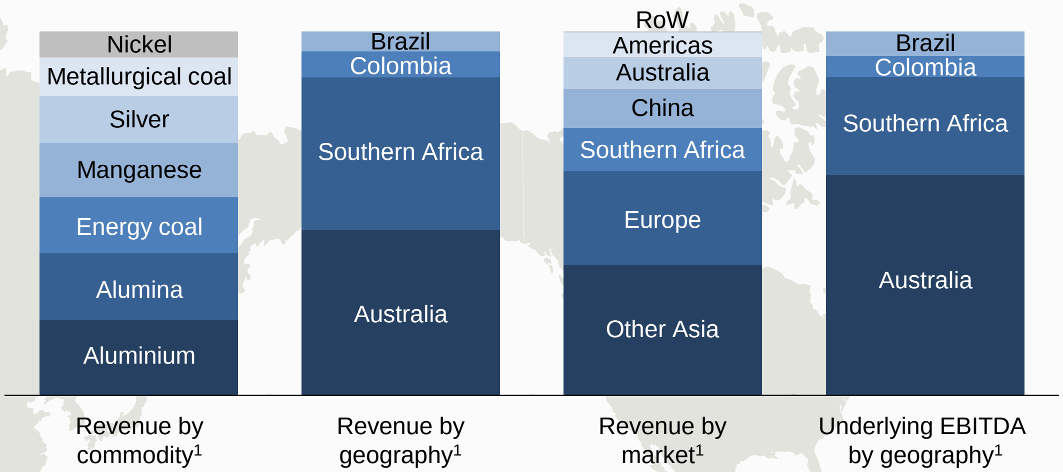
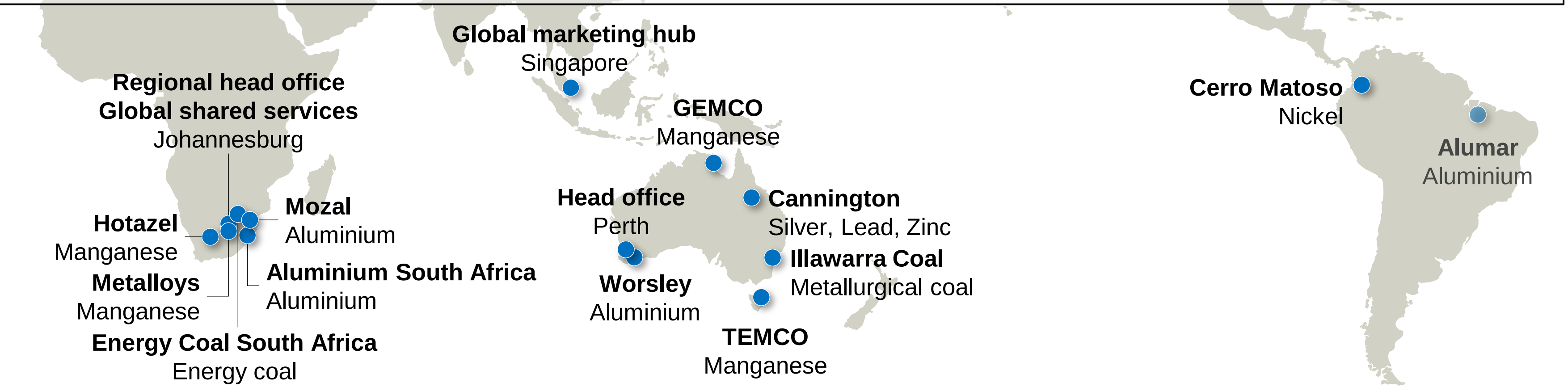
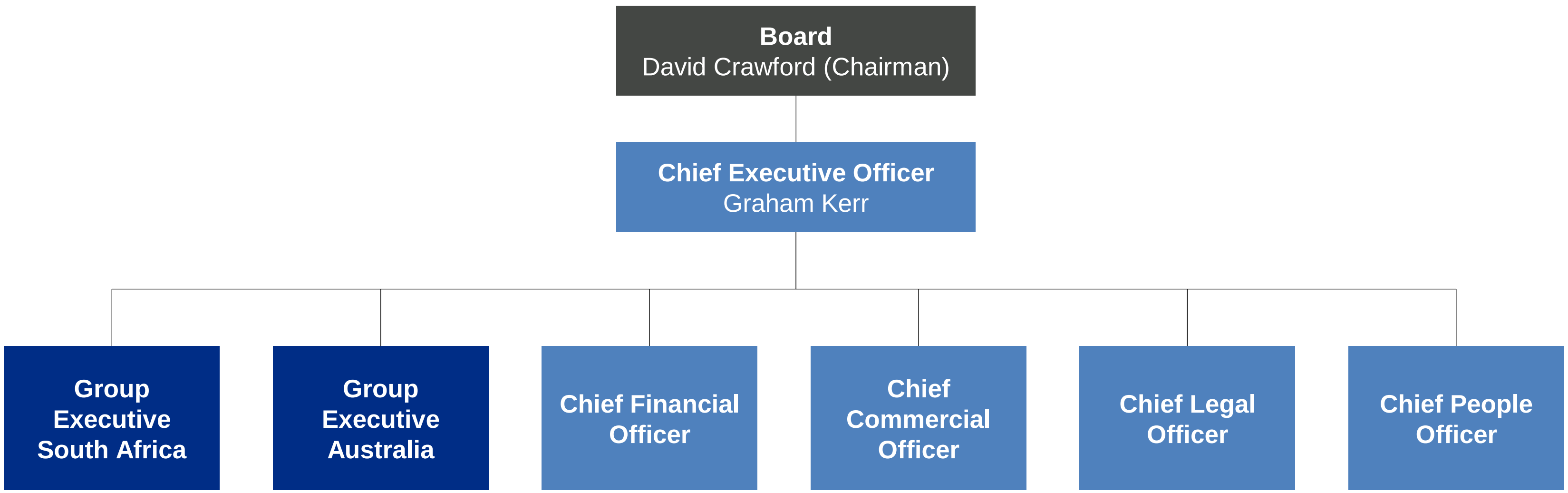
- A global portfolio of significance
- The new company will operate 11 assets primarily in Australia and Southern Africa and hold a joint venture interest in Brazil
- It will have diversified exposure to manganese, precious metals, base metals, metallurgical coal and energy coal





Note: Manganese revenue and Underlying EBITDA is included on a proportional consolidation (60% interest) basis. Statutory reporting has historically been on a full consolidation basis and is expected to change to equity accounting in H1 FY15.
1. Represents FY14. Revenue by market represents location of customer and includes third party trading activities.

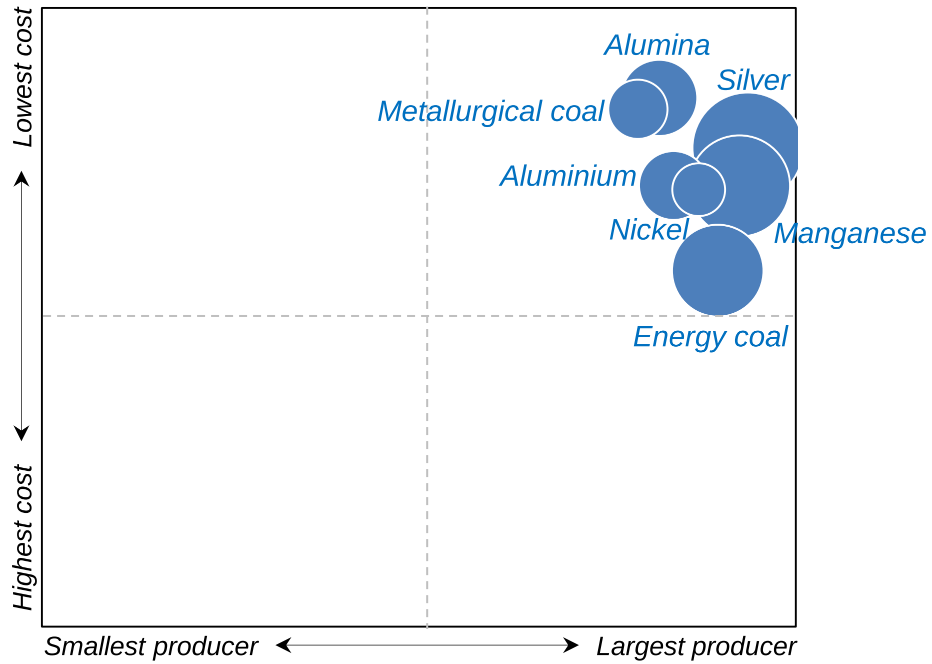
A dedicated board and management team will bring renewed focus to this portfolio



A high-quality portfolio with a competitive position in each of its commodities

- NewCo’s commodity exposure is high-quality, competitively positioned in the first or second quartile of industry cost curves
- Individually its assets are large, well capitalised and engineered to BHP Billiton standards
- Collectively they form a robust portfolio which will be fully integrated with common systems and processes from day one
- By tailoring its approach to optimise this portfolio, NewCo will seek to reduce overheads and increase productivity to ensure it operates at the lowest possible cost

A complementary portfolio of high-quality assets
(company position on the cash cost curve, CY13)



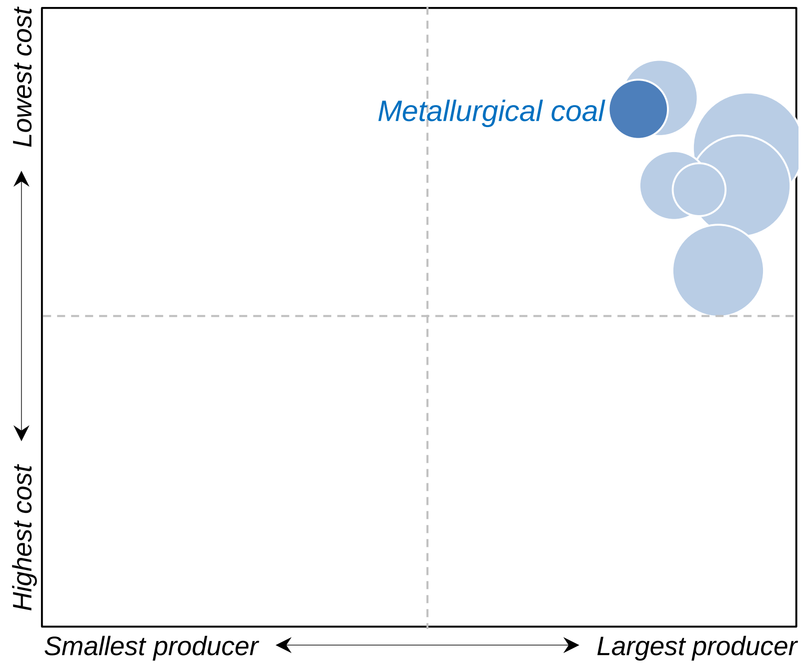
Production rank
(company production rank, CY13)

Source: Wood Mackenzie, AME, CRU, BHP Billiton (for EBITDA only).
Note: Bubble size represents FY14 Underlying EBITDA. Manganese Underlying EBITDA is reported on a proportional consolidation (60% interest) basis. Statutory reporting has historically been on a full consolidation basis and is expected to change to equity accounting in H1 FY15. Metallurgical coal (Illawarra) shown on margin curve position to account for coal quality differentials. Silver cost position based on mining cost by commodity rather than by-product credits. Energy coal export tonnage rank and cash cost curve position for the export thermal coal market.

A high-quality portfolio with a competitive position in each of its commodities

- Illawarra Coal produces high-quality, hard coking coal with installed capacity of 9 Mtpa
  - first quartile margin curve position
  - 10-year average EBITDA[1] US$426 million
    - FY14 US$131 million
  - 10-year average EBITDA[1] margin 39%
    - FY14 15%

A complementary portfolio of high-quality assets
(company position on the cash cost curve, CY13)



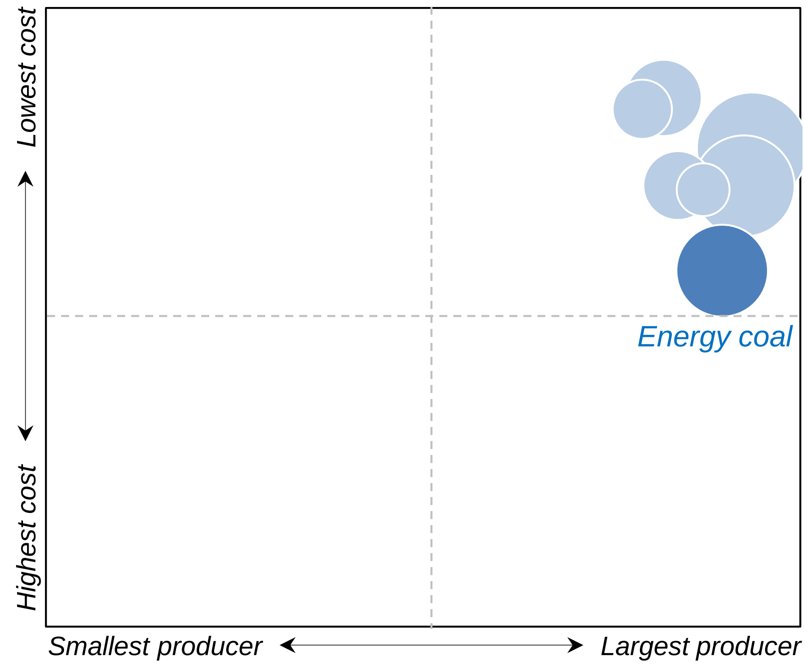
Production rank
(company production rank, CY13)

Source: Wood Mackenzie, AME, CRU, BHP Billiton (for EBITDA only).
Note: Bubble size represents FY14 Underlying EBITDA. Metallurgical coal (Illawarra) shown on margin curve position to account for coal quality differentials. Ranks NewCo's CY13 metallurgical coal export tonnage against the exports of the 100 companies in the Wood Mackenzie seaborne export metallurgical curve 2013, February 2014.
1. 10-year average Underlying EBITDA from FY05 to FY14.

A high-quality portfolio with a competitive position in each of its commodities

- Energy Coal South Africa is the third largest energy coal exporter in the region with sales of 13.3 Mt[1] in FY14
  - second quartile cost curve position
  - 10-year average EBITDA[2] US$325 million
    - FY14 US$315 million
  - 10-year average EBITDA[2] margin 21%
    - FY14 25%

A complementary portfolio of high-quality assets
(company position on the cash cost curve, CY13)



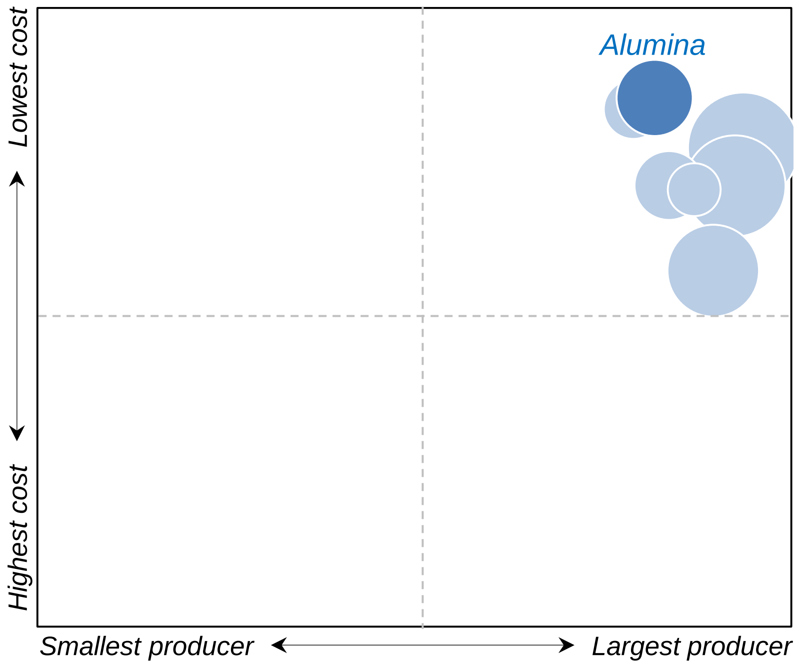
Production rank
(company production rank, CY13)

Source: Wood Mackenzie, AME, CRU, BHP Billiton (for EBITDA only).
Note: Bubble size represents FY14 Underlying EBITDA. Ranks NewCo's CY13 thermal coal export tonnage against the exports of the 221 companies in the Wood Mackenzie seaborne export thermal, energy adjusted curve 2013, February 2104. Cash cost curve position also based on the export thermal coal market.
1. 100% of annualised FY14 sales, NewCo share is 90%.
2. 10-year average Underlying EBITDA from FY05 to FY14.

A high-quality portfolio with a competitive position in each of its commodities

- Worsley and Alumar are large, modern integrated alumina refineries with combined capacity of 8.1 Mtpa (5.2 Mtpa NewCo share)
  - first quartile cost curve position
  - 10-year average EBITDA[1] US$304 million
    - FY14 US$217 million
  - 10-year average EBITDA[1] margin 23%
    - FY14 16%

A complementary portfolio of high-quality assets
(company position on the cash cost curve, CY13)



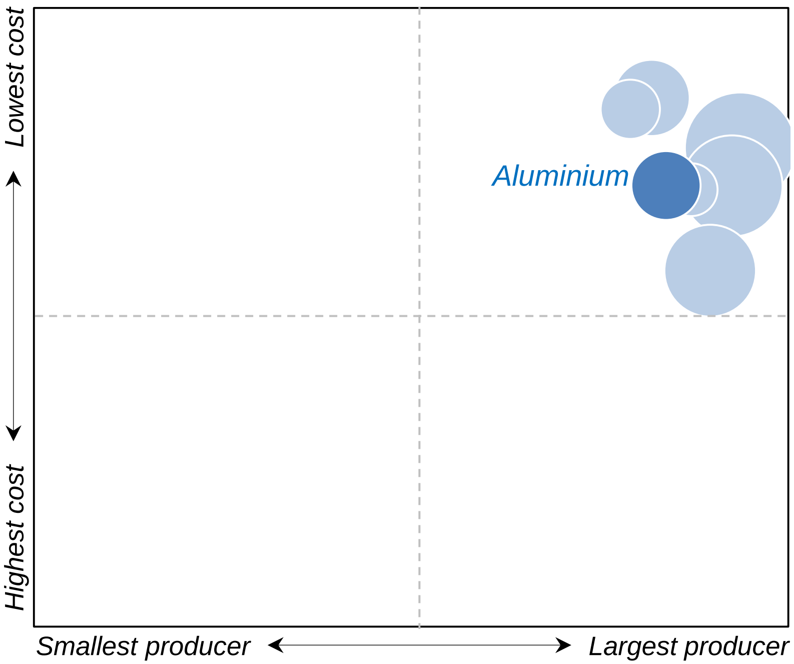
Production rank
(company production rank, CY13)

Source: Wood Mackenzie, AME, CRU, BHP Billiton (for EBITDA only).
Note: Bubble size represents FY14 Underlying EBITDA. Ranks NewCo's CY13 alumina production against the 57 companies in the Wood Mackenzie cost curve, alumina refinery costs league, 2014 Q1.
1. 10-year average Underlying EBITDA from FY05 to FY14.

A high-quality portfolio with a competitive position in each of its commodities

- Hillside and Mozal have combined AP30 processing capacity of 1.3 Mtpa (1.0 Mtpa NewCo share) and NewCo's share of Alumar capacity is 179 ktpa
  - second quartile cost curve position
  - 10-year average EBITDA[1] US$584 million
    - FY14 US$178 million
  - 10-year average EBITDA[1] margin 24%
    - FY14 9%

A complementary portfolio of high-quality assets
(company position on the cash cost curve, CY13)



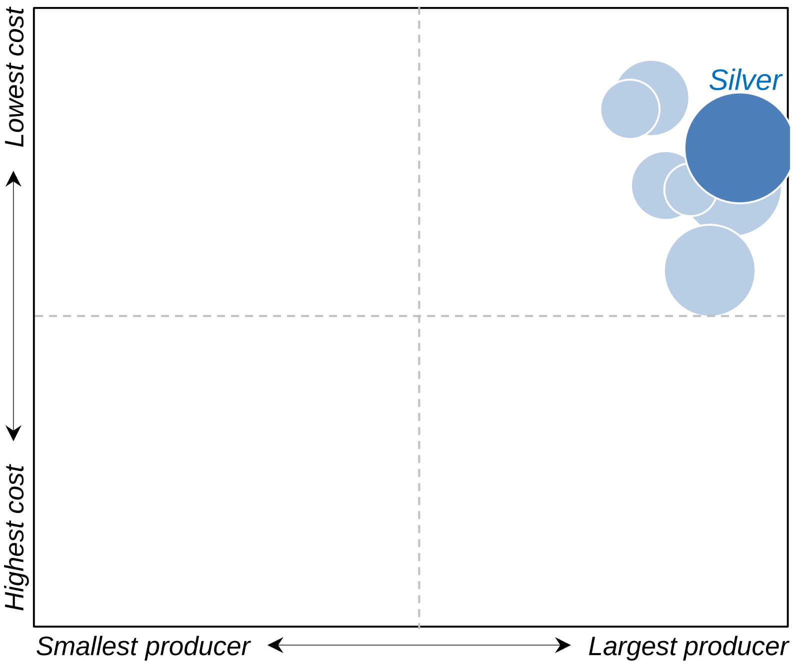
Production rank
(company production rank, CY13)

Source: Wood Mackenzie, AME, CRU, BHP Billiton (for EBITDA only).
Note: Bubble size represents FY14 Underlying EBITDA. Ranks NewCo's CY13 aluminium production against the 108 companies in the Wood Mackenzie cost curve, aluminium smelter costs league, 2014 Q1.
1. 10-year average Underlying EBITDA from FY05 to FY14.

A high-quality portfolio with a competitive position in each of its commodities

- Cannington is the world's largest silver mine with production of 25.2 Moz in FY14
  - first quartile cost curve position
  - 10-year average EBITDA[1] US$672 million
    - FY14 US$459 million
  - 10-year average EBITDA[1] margin 55%
    - FY14 43%

A complementary portfolio of high-quality assets
(company position on the cash cost curve, CY13)



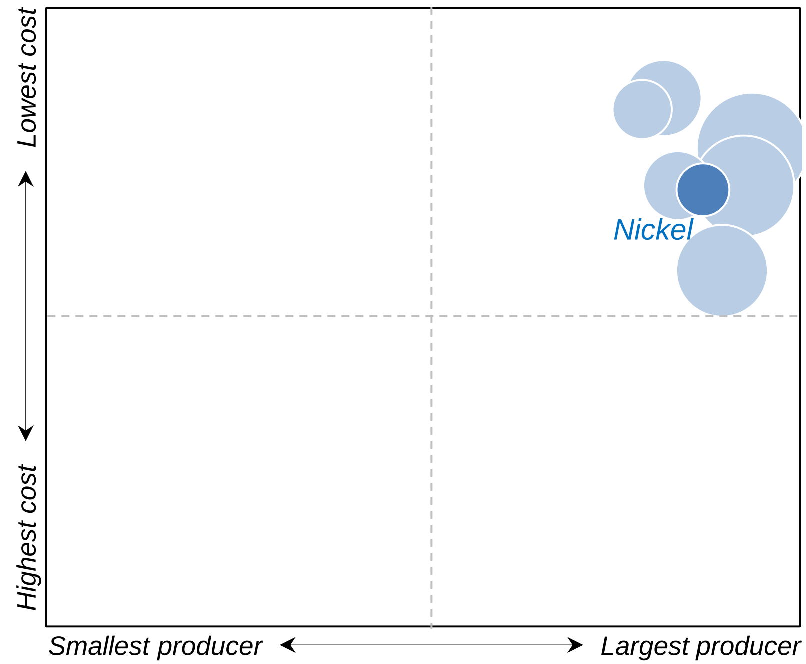
Production rank
(company production rank, CY13)

Source: Wood Mackenzie, AME, CRU, BHP Billiton (for EBITDA only).
Note: Bubble size represents FY14 Underlying EBITDA. Silver cost position based on mining cost by commodity rather than by-product credits. Ranks NewCo's CY13 silver production against the 117 companies in the AME cost curve.
1. 10-year average Underlying EBITDA from FY05 to FY14.

A high-quality portfolio with a competitive position in each of its commodities

- Cerro Matoso is one of the world's leading ferro-nickel assets with production of 44 kt in FY14
  - second quartile cost curve position
  - 10-year average EBITDA[1] US$513 million
    - FY14 US$104 million
  - 10-year average EBITDA[1] margin 49%
    - FY14 17%

A complementary portfolio of high-quality assets
(company position on the cash cost curve, CY13)



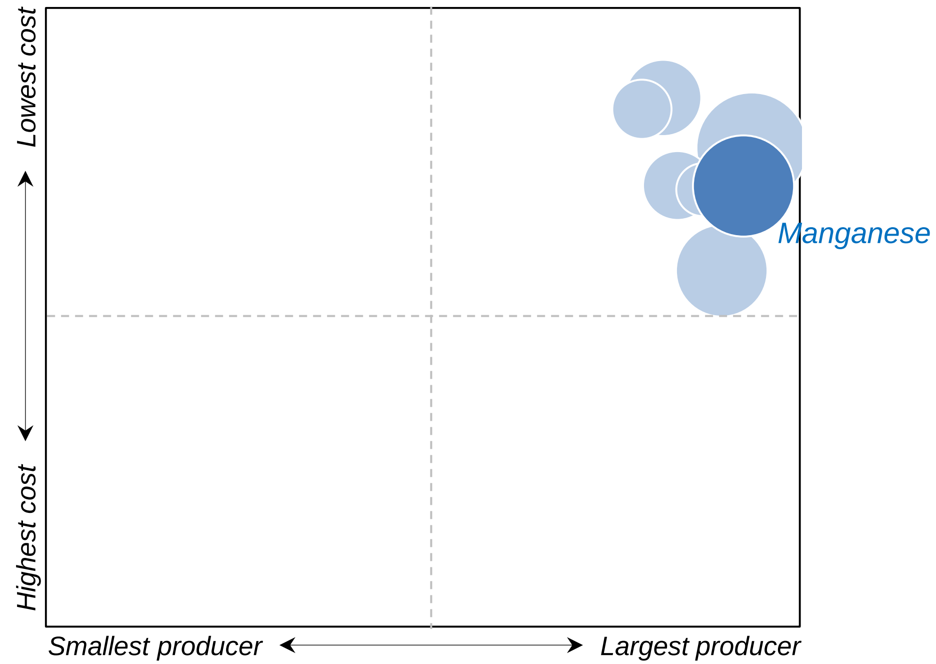
Production rank
(company production rank, CY13)

Source: Wood Mackenzie, AME, CRU, BHP Billiton (for EBITDA only).
Note: Bubble size represents FY14 Underlying EBITDA. Ranks NewCo's CY13 nickel production against the 82 companies in the Wood Mackenzie cost curve, nickel industry costs league, 2014 Q1.
1. 10-year average Underlying EBITDA from FY05 to FY14.

A high-quality portfolio with a competitive position in each of its commodities

- NewCo would be the world's largest producer of manganese ore with an interest in mines at GEMCO in Australia and Hotazel in South Africa
  - extends across the first and second quartiles of the cost curve
  - FY14 production of 4.4 Mt (NewCo share)
- It would also be a top global producer of manganese alloy with an interest in smelters at TEMCO in Australia and Metalloys in South Africa
- For the combined manganese business
  - 10-year average EBITDA[1] US$439 million
    - › FY14 US$383 million
  - 10-year average EBITDA[1] margin 35%
    - › FY14 30%

A complementary portfolio of high-quality assets
(company position on the cash cost curve, CY13)



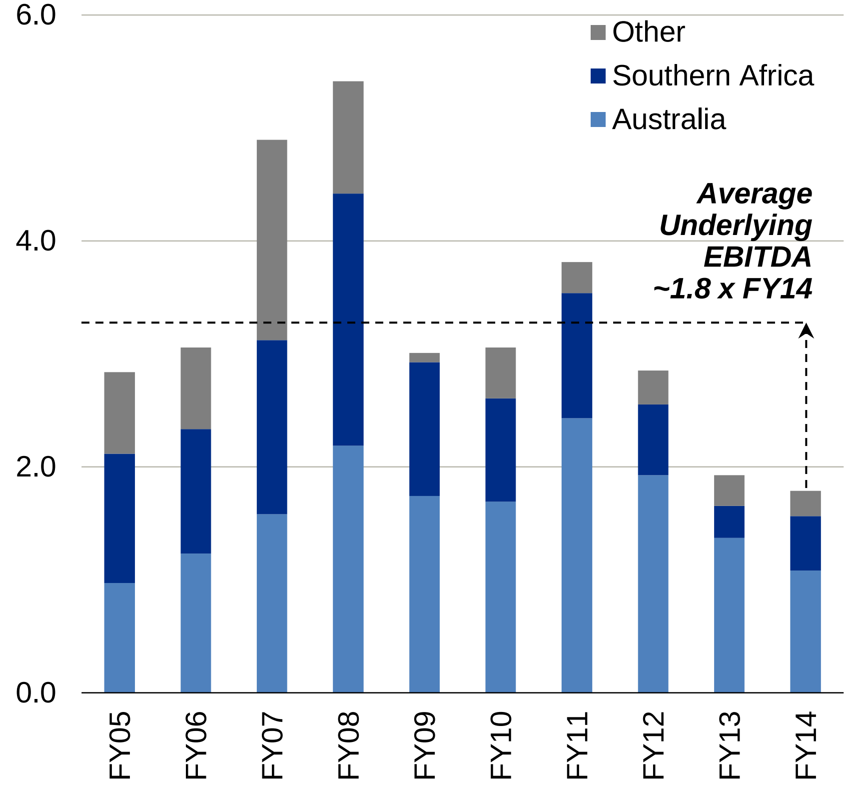
Production rank
(company production rank, CY13)

Source: Wood Mackenzie, AME, CRU, BHP Billiton (for EBITDA only).
Note: Bubble size represents FY14 Underlying EBITDA. Ranks NewCo's CY13 manganese ore production against the 35 companies in the CRU Manganese Ferroalloy Market Outlook, this excludes small Chinese and Indian producers. Given the volume of manganese ore that NewCo produces its position extends across the first and second quartiles of the CRU cost curve. Manganese Underlying EBITDA is reported on a proportional consolidation (60% interest) basis. Statutory reporting has historically been on a full consolidation basis and is expected to change to equity accounting in H1 FY15.
1. 10-year average Underlying EBITDA from FY05 to FY14.

A proven performer with significant upside

- NewCo is cash flow positive today despite weakness in many of its commodity markets and major expansions have been completed
- Over the past 10 years[1] this portfolio generated
  - 50% of Underlying EBITDA in Australia
  - 33% of Underlying EBITDA in Southern Africa
  - average Underlying EBITDA margin of 34%
- As NewCo seeks to reduce overheads and increase productivity a 5% reduction in operating costs would, for example, equate to ~20% of current Underlying EBITDA[2]
- An expected improvement in NewCo's major markets, as reflected in consensus estimates, also offers significant upside

Australian assets dominate the earnings mix
(Underlying EBITDA, US$ billion)



Note: Underlying EBITDA and Underlying EBITDA margin includes Manganese on a proportional consolidation (60% interest) basis. Statutory reporting has historically been on a full consolidation basis and is expected to change to equity accounting in H1 FY15.
1. 10-year average from FY05 to FY14.
2. Refers to FY14 financial performance.

Shareholders would be rewarded as margins expand

- On formation, NewCo will target an investment grade credit rating and have a strong balance sheet with minimal net debt before finance leases
- This structure will provide NewCo with the flexibility to consider a dividend policy that reflects its cash generating capacity so that shareholders would be rewarded as margins expand
- Low-risk brownfield investment opportunities will become even more compelling as operational performance improves
  - Energy Coal South Africa Klipspruit open-cut life extension
  - Cannington open-cut life extension

Key messages

Unlocking shareholder value

- Having assessed alternatives for our non-core assets we concluded that a demerger will maximise value for our shareholders
- The creation of a new high-quality global metals and mining company largely completes our simplification process in a single step and minimises transaction costs
- With fewer assets BHP Billiton will be able to improve productivity more quickly and is targeting at least US$3.5 billion of sustainable, productivity-led gains by the end of FY17
- NewCo will have a competitive position across a broad range of commodities
- With a dedicated team and tailored approach NewCo will seek to reduce overheads and increase productivity to ensure it operates at the lowest possible cost
- In addition to BHP Billiton's progressive base dividend, NewCo will have the flexibility to consider a dividend policy that reflects its cash generating capacity

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Our unique ore bodies underpin our competitive advantage

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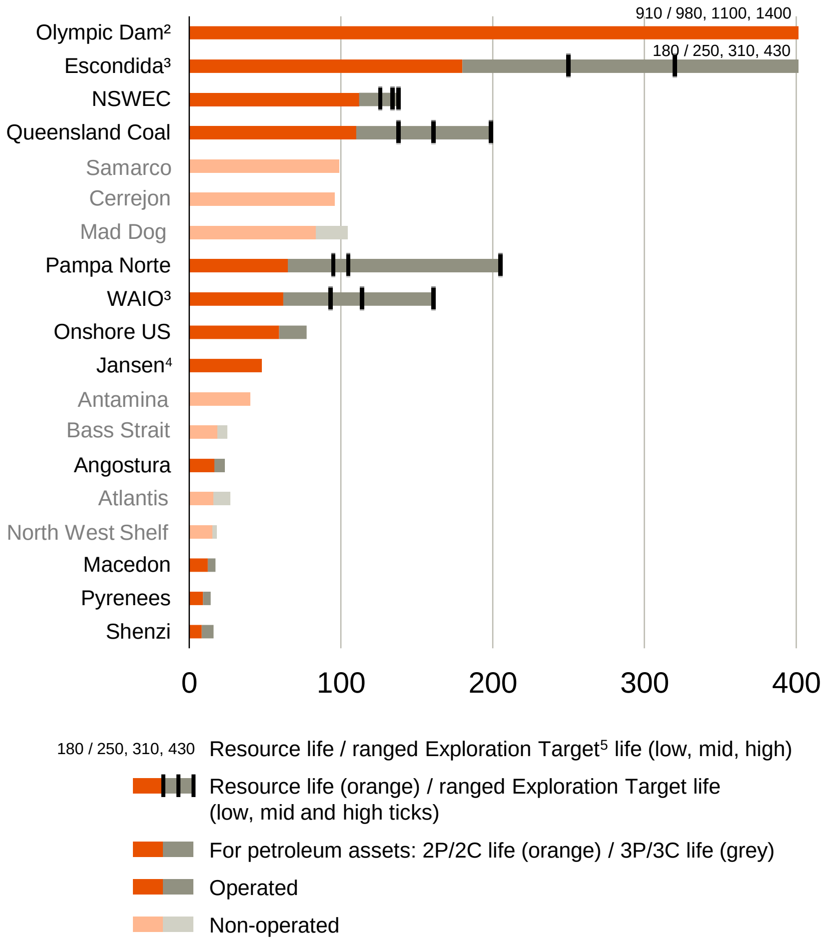
The scale of our core assets is a differentiator

(inventory life[1], years)



Note: The information in this report that relates to Mineral Resources and Exploration Targets is based on information compiled by Competent Persons who are Members or Fellows of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists or other Recognised Professional Organisation. All are full time employees of BHP Billiton unless otherwise stated and are listed on slide 37. All information is reported under the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012' (the JORC Code). The Competent Persons' consent for Petroleum Reserves and Contingent Resources and minerals Exploration Targets are provided on slide 37. It is BHP Billiton's opinion that all resources included have potential to be recovered and sold. Refer to detailed tables for Mineral Resources classifications (100% basis) in the Appendix, slides 38 to 39. Petroleum Proved Reserves are defined according to US SEC definitions. Petroleum Probable and Possible Reserves and Contingent Resources are defined according to the Society of Petroleum Engineers Petroleum Resource Management System (SPE PRMS). The aggregate of 3P reserves and 3C contingent resources may be optimistic due to the portfolio effects of arithmetic summation.

1. Mineral inventory is equal to the sum of Mineral Resources and ranged Exploration Targets. Inventory life is estimated from the mineral inventory (classified Mineral Resources converted to a run-of-mine basis using historical Mineral Resources to Ore Reserves conversion and Exploration Targets converted using conceptual conversion) divided by the FY14 production rate on a 100% basis. Petroleum asset life is estimated by dividing net interest 2P+2C and 3P+3C reserves and resources by net interest FY14 production (except Mad Dog which is based on FY14 production excluding the effects of the extended shutdown). Fuel consumed in operations has been excluded from Petroleum reserves, resources and production.
2. Olympic Dam Mineral Resources and Exploration Targets off-scale.
3. The Escondida Mineral Resources information is extracted from the BHP Billiton Operational Review for the nine months ended 31 March 2014, with WAIO Mineral Resources information extracted from the BHP Billiton Operational review for the year ended 30 June 2014. All other Mineral Resources information is extracted from the BHP Billiton FY13 Annual Report. All reports are available on www.bhpbilliton.com. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and in the case of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.
4. Based on aspirational potash capacity (10 Mtpa KCl) stated on a 100% basis.
5. Exploration Targets potential quantity 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 determination of a Mineral Resource. It should not be expected that the quality of the Exploration Targets is equivalent to that of the Mineral Resource. Exploration Targets have been generated using resultant data from exploration activities including drilling, sampling, geophysical and geochemical surveys. Deterministic target ranges are generated by multidisciplinary teams using a formal company procedure. Exploration Targets will be tested with future exploration activities in alignment with Business strategy.

Disclaimer

Mineral Resources and Exploration Targets

This presentation includes information on:

Mineral or Coal Resources as reported by: S. O'Connell (MAusIMM) – Olympic Dam, L. Soto (MAusIMM), M Cortes (MAusIMM, both employed at Minera Escondida Limitada) – Escondida, Pampa Escondida, Pinta Verde, R. Turner (MAusIMM, employed by Golders Associates) – Chimborazo, M. Tapia (MAusIMM) - Cerro Colorado and Spence – combined as Pampa Norte, L. Canchis (MAusIMM, employed by Minera Antamina SA) - Antamina, S. Martinez (MAusIMM) - Goonyella Riverside Broadmeadow, Saraji, Red Hill and Saraji East, J. Centofanti (MAusIMM) - Peak Downs and Peak Downs East, G. Lawson (MAusIMM) - Norwich Park, R. Macpherson (MAIG) - Blackwater, Daunia, Gregory Crinum and Liskeard, P. Handley (MAusIMM) - South Walker Creek, Poitrel-Winchester, Nebo West and Bee Creek, S. Groenland (MAusIMM) - Wards Well, P. Wakeling (MAusIMM) - Mt Arthur Coal, D. Lawrence (SACNASP, self employed) – Cerrejón, P. Whitehouse (MAusIMM), M. Lowry (MAusIMM), M. Smith (MAusIMM), D. Stephens (MAIG) – WAIO, L. Bonfioli (MAusIMM), J. P. da Silva (MAusIMM), L. Goncalves de Rezende (MAusIMM, all employed by Samarco Mineração SA) - Samarco JV, J. McElroy (MAusIMM), B. Nemeth (MAusIMM) – Jansen.

Exploration Targets, as reported by: S. O'Connell (MAusIMM) – Olympic Dam mineral district, M. Ipinza (MAusIMM, employed by Minera Escondida Ltda) – Escondida mineral district, J. des Rivieres (IGI) - Cerro Colorado as Pampa Norte, N. Pranoto (MAusIMM) – BMA and N. Cox (MAusIMM) – BMC ,as Queensland Coal, P. Wakeling (MAusIMM) – Mt Arthur Coal (NSWEC), J. Knight (MAIG) – Western Australia Iron Ore (WAIO).

Coal figures have been compiled by: R. MacPherson (MAIG) – BMA, N. Cox (MAusIMM) – BMC, P. Wakeling (MAusIMM) – NSWEC and J. Field (MAusIMM) – Cerrejón.

All Competent Person's have the required qualifications and experience to qualify as Competent Persons for Mineral or Coal Resources or Exploration Results under the JORC Code. The compilers verify that this report is based on and fairly reflects the Exploration Targets and Mineral Resources information and agree with the form and context of the information presented. Mineral Resources and Exploration Targets classifications (100% basis) for each province, where relevant, are contained in Table 1. All tonnes and grade information has been rounded, hence small differences may be present in the totals.

Exploration Targets have been generated using resultant data from exploration activities including drilling, sampling, geophysical and geochemical data. Deterministic target ranges are generated by multi-disciplinary teams using a formal company procedure. Exploration Targets will be tested with future exploration activities in alignment with business strategy.

JORC Table 1, sections 1 and 2 have been provided as an appendix to the ASX release titled "Unlocking shareholder value" and is available on www.bhpbilliton.com for Exploration Results that have informed Exploration Target estimates for material projects included in this presentation.

Petroleum resources

The estimates of petroleum reserves and contingent resources used to create the resource life graphic contained in this presentation are based on, and fairly represent, information and supporting documentation prepared under the supervision of Mr. A. G. Gadgil, who is employed by BHP Billiton. Mr. Gadgil is a member of the Society of Petroleum Engineers and has the required experience and qualifications to be a qualified petroleum reserves and resources evaluator under the ASX Listing Rules. This presentation is issued with the prior written consent of Mr. Gadgil who agrees with the form and context in which the petroleum reserves and contingent resources are presented. Aggregates of reserves and contingent resources estimates utilized in this presentation have been calculated by arithmetic summation of field/project estimates by category. The aggregate 1P reserves and 1C contingent resources may be conservative due to the portfolio effects of arithmetic summation. The aggregate of 3P reserves and 3C contingent resources may be optimistic due to the portfolio effects of arithmetic summation.

Reserves and contingent resources estimates utilised in this presentation have been estimated using deterministic methodology with the exception of the North West Shelf gas asset in Australia where probabilistic methodology has been utilized to estimate and aggregate reserves and contingent resources for the reservoirs dedicated to the gas project only. The reserves and contingent resources contained in this presentation exclude fuel required for operations. The custody transfer point(s)/point(s) of sale applicable for each field or project are the reference point for reserves and contingent resources. The barrel of oil equivalent conversion is based on 6,000 scf of natural gas equals 1 boe. Unless noted otherwise, reserves and contingent resources are as at 30 June 2013 and are on a net revenue interest basis. Where used in this presentation, the term resources represents the sum of 3P reserves and 3C contingent resources.

BHP Billiton estimates proved reserve volumes according to SEC disclosure regulations and files these in our annual 20F report with the SEC. All unproved volumes are estimated using SPE-PRMS guidelines which allow escalations to prices and costs, and as such, would be on a different basis than that prescribed by the SEC, and are therefore excluded from our SEC filings. Non-proved estimates are inherently more uncertain than proved. The split of Reserves and Contingent Resources for each asset are contained in Table 2.

Mineral Inventory classifications

Mineral Resources and Exploration Targets

Table 1

Deposit	FY13 Mineral Resources (Mt)			Range of FY14 Exploration Targets (Mt)			ROM conversion factors (%)		FY14 ROM production (Mt)	Mineral inventory life (Mid) (Years)	BHP Billiton interest (%)[1]
	Measured	Indicated	Inferred	Low	Mid	High	Resource	Exploration Targets			
Iron ore											
WAIO[2]	2,600 @ 60.0% Fe	4,200 @ 59.8% Fe	15,000 @ 59.0% Fe	18,000 @ 56–60% Fe	31,000 @ 56–60% Fe	58,000 @ 56-60% Fe	66	43	250	114	88
Samarco	3,000 @ 39.4% Fe	3,000 @ 37.1% Fe	2,000 @ 36.0% Fe	-	-	-	50	–	41	99	50
Potash											
Jansen	5,328 @ 25.7% K2O	–	1,288 @ 25.7% K2O	–	–	–	22	–	30[3]	48	100
Copper											
Escondida[4]	5,800 @ 0.65% Cu	4,080 @ 0.53% Cu	16,400 @ 0.48% Cu	11,000 @ 0.4–0.6% Cu	20,000 @ 0.4–0.6% Cu	37,000 @ 0.4–0.6% Cu	100	100	148	310	57.5
Pampa Norte[5]	593 @ 0.63% Cu	1,390 @ 0.49% Cu	1,280 @ 0.40% Cu	1,600 @ 0.43% Cu	2,200 @ 0.41% Cu	7,400 @ 0.40% Cu	100	100	52	110	100
Olympic Dam	1,470 @ 1.02% Cu, 2g/t Ag, 0.35g/t Au, 0.30kg/t U3O8	4,840 @ 0.84% Cu, 1g/t Ag, 0.34g/t Au, 0.27kg/t U3O8	3,260 @ 0.70% Cu, 1g/t Ag, 0.25g/t Au, 0.23kg/t U3O8	750 @ 1.08% Cu	2,400 @ 1.08% Cu	4,800 @ 1.08% Cu	100	100	11	1,100	100
Antamina	183 @ 0.77% Cu, 10g/t Ag, 0.6% Zn	943 @ 0.92% Cu, 11g/t Ag, 0.7% Zn	860 @ 0.82% Cu, 11g/t Ag, 0.4% Zn	-	-	-	100	100	45	40	33.8

1. Interest represents the weighted average of BHP Billiton’s ownership in the individual mines comprising the deposit.
2. WAIO resources as at 30 June 2014. Interest represents weighted average of Ore Reserves.
3. Jansen based on aspirational potash capacity (10 Mtpa KCl) stated on a 100% basis.
4. Escondida includes Escondida as at 31 March 2014 and the Pampa Escondida, Pinta Verde, and Chimborazo resources as at 30 June 2013.
5. Pampa Norte consists of Spence and Cerro Colorado resources.

Mineral Inventory classifications

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Coal Resources, Exploration Targets and Quality Data[1]

Table 1 continued

Deposit	Parameter	FY13 Mineral Resources			Range of FY14 Exploration Targets			ROM conversion factors (%)		FY14 ROM production (Mt)	Mineral inventory life (Mid) (Years)	BHP Billiton interest (%)[2]
		Measured	Indicated	Inferred	Low	Mid	High	Resource	Exploration Targets			
Energy Coal												
NSWEC – Australia	Quantity (Bt)	0.9	2.2	0.7	1.8	2.5	3.1	77	22	26	133	100
	Coal Type	Th			Th							
	Ash (%)	20.9	21.4	23.4	10.5 - 40.0							
	Volatile Matter (%)	30.0	29.0	28.0	15.6 - 35.0							
	Sulphur (%)	0.65	0.53	0.83	-							
	Calorific Value (kCal/kg)	6,100	6,100	6,000	4300 - 6700							
	Vitrinite Reflectance (%)	-	-	-	0.6 - 0.9							
Colombia	Quantity (Bt)	2.9	1.0	0.7	-	-	-	77	–	37	96	33.33
	Coal Type	Th			-							
	Ash (%)	3.7	3.6	3.8	-							
	Volatile Matter (%)	35.1	34.5	34.4	-							
	Sulphur (%)	0.50	0.50	0.50	-							
	Calorific Value (kCal/kg)	6,600	6,500	6,500	-							
Metallurgical coal												
Queensland Coal	Quantity (Bt)	3.1	6.3	4.1	13.6	23.5	29.7	76	20	93	161	55[3]
	Coal Type	Met / Th / Anth			Met / Th / Anth							
	Ash (%)	6.0 - 11.2	5.7 - 12.4	7.1 - 15.2	5.1 - 19.0							
	Volatile Matter (%)	13.3 - 34.6	7.5 - 32.9	13.0 - 31.5	6.1 - 39.1							
	Sulphur (%)	0.31 - 2.30	0.29 - 0.79	0.29 - 0.76	-							
	Calorific Value (kCal/kg)	-	-	-	5600 - 7820							
	Vitrinite Reflectance (%)	-	-	-	0.5 - 3.1							

1. Indicative coal quality ranges are based on classified Coal Resources, exploration data and regional coal quality trends.
2. Interest represents the weighted average of BHP Billiton's ownership in the individual mines comprising the deposit.
3. Queensland Coal BHP Billiton interest represents weighted average of total Mineral Inventory (Total FY13 Resources + FY14 mid-case Exploration Target).

Petroleum Inventory classifications

Petroleum Reserves and Contingent Resources split per category

Table 2

	Reserves			Contingent Resources		
Location	**P1 (%)**	**P2 (%)**	**P3 (%)**	**C1 (%)**	**C2 (%)**	**C3 (%)**
Macedon	49	2	17	2	21	9
Pyrenees	30	3	24	7	26	10
Bass Strait	43	10	15	7	17	8
North West Shelf	62	14	3	6	8	7
Trinidad & Tobago	22	28	5	16	4	25
Shenzi	36	3	11	2	37	11
Atlantis	28	5	17	9	30	11
Mad Dog	17	26	5	32	7	13
Onshore US	16	3	42	15	11	13

Image references

Location	BHP Billiton interest (%)	Slide reference
Petroleum & Potash		
Onshore US	<1–100	13
Shenzi	44	13
Atlantis	44	13
Mad Dog	23.9	13
Bass Strait	50	13
North West Shelf	8.33–16.67	13
Pyrenees	40–71.43	13
Macedon	71.43	13
Angostura	45	13
Jansen Project	100	13
Copper		
Escondida	57.5	1, 13, 18
Pampa Norte	100	9, 13
Olympic Dam	100	13
Antamina	33.75	13
Cannington	100	7
Iron Ore		
Western Australia Iron Ore	85[1]	13
Samarco	50	13

Location	BHP Billiton interest (%)	Slide reference
Coal		
Queensland Coal	50–80	13, 33
NSW Energy Coal	100	13
Illawarra Coal	100	7
Energy Coal South Africa	50–90	7, 20
Cerrejón	33.33	13
New Mexico Coal[2]	100	13
Aluminium, Manganese & Nickel		
Worsley	86	4, 7, 32
Mozal	47.1	7
Aluminium South Africa	100	7
Alumar	36–40	7
Nickel West	100	13
Cerro Matoso	99.94	7
GEMCO	60	7
TEMCO	60	7
Hotazel	44.4	7
Metalloys	60	7

1. BHP Billiton has an effective economic interest of 85% in Western Australia Iron Ore.
2. New Mexico Coal includes the San Juan and Navajo mines. BHP Billiton sold the Navajo mine on 30 December 2013 however will retain control until full consideration is received.

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APPENDIX 1

Supporting document to the BHP Billiton presentation “Unlocking shareholder value”.

Table of contents

1 Escondida

1.1 Executive summary

Escondida District

Exploration Targets as at 30 June 2014 in 100 per cent terms – reported in compliance with the 2012 JORC Code.

Project	Date	Low Case		Mid Case		High Case	
		Ton (Mt)	**%Cu**	**Ton (Mt)**	**%Cu**	**Ton (Mt)**	**%Cu**
Escondida Este*	Feb 2013	5,200	0.44	10,000	0.48	15,000	0.47
Escondida (Deep)	Mar 2011	2,000	0.55	3,600	0.55	7,500	0.62
Escondida Norte (Deep)	Oct 2012	1,800	0.33	2,800	0.30	5,000	0.35
Chimborazo (Deep)	Oct 2011	1,000	0.50	2,000	0.35	6,600	0.32
Baker Hypogene	Feb 2012	600	0.31	800	0.31	1,100	0.31
Baker Supergene	Feb 2012	50	0.43	80	0.45	150	0.38
Hamburgo	Oct 2012	200	0.48	400	0.53	800	0.56
Rincones	Mar 2009	100	0.47	200	0.47	700	0.47
Pamela Oxide	Nov 2011	30	0.70	30	0.72	50	0.73
Total		**11,000**	**0.47**	**20,000**	**0.46**	**37,000**	**0.47**

* Updated to be consistent with additional data reported as Escondida Mineral Resources as of 31 March 2014.

- Exploration Targets potential quantity 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 determination of a Mineral Resource. It should not be expected that the quality of the Exploration Targets is equivalent to that of the Mineral Resource.
- The estimates are based on exploration results of projects in and around the Escondida and Escondida Norte mineral deposits, are all of porphyry copper style of mineralisation, and are currently developed at varying degrees of project maturity and therefore exploration drilling density.
- Estimations were performed within a facilitated process called Resource Range Analysis (RRA), in which deterministic estimates of potential volumes and grades are made over a range of assumptions on continuity and extension that are consistent with available data and genetic models of porphyry copper style of mineralisation.

1.2 Competent Person acknowledgement

This Competent Persons Report, which provides supporting documentation for the Exploration Targets estimate for the Escondida mining district as at 31 March 2014 was prepared under the direction of the Competent Person listed below (Table 1.1).

The Competent Person verify that:

- he has full knowledge of information contained in this report relating to the estimation of the Exploration Targets of the said deposits;
- the Exploration Targets are estimated in accordance with the relevant assessment criteria contained in Table 1 of the JORC Code;
- he is a member of the AusIMM, and has the relevant experience and competency required by the JORC Code; and
- material issues are transparently disclosed on an 'if not, why not' basis.

Table 1.1: Escondida Exploration Targets Competent Persons

Name	Professional Membership	Title
Marco Ipinza	Member of the Australasian Institute of Mining and Metallurgy (#316626)	Superintendent, Cluster Exploration, employee of Minera Escondida, Ltda

1.3 Introduction

Escondida is one of the largest open-pit porphyry copper operations in the world, owned by BHP Billiton (57.5 per cent), Rio Tinto (30 per cent), JECO Corporation consortium comprising Mitsubishi, Nippon Mining and Metals (10 per cent) and JECO 2 Ltd (2.5 per cent). The Mining Exploitation right is granted from the Chilean Government and is valid indefinitely (subject to payment of annual fees).

Escondida is located in the Atacama Desert, Chile, 170 km southeast of the city of Antofagasta and produces copper cathode and copper concentrate. The cathodes are transported by privately owned rail to ports at Antofagasta and Mejillones and concentrate is transported by the Escondida owned pipeline to its Coloso port facilities.

The district is anchored by two mineral deposits, Escondida and Escondida Norte, that comprise the mining component of the Escondida operations that is reported as a singular operating entity. Exploration activities began in 2000 to better establish the complete metal endowment of the Minera Escondida Ltda. (MEL) tenement. Major successes include the discovery of the concealed Pampa Escondida porphyry Cu-Au deposit in late 2006, followed by the discovery of Escondida Este deposit in 2009. However, exploration activities have identified a number of smaller deposits and are investigating extensions of the Escondida and Escondida Norte deposits where these continue to be open at depth. These projects are currently at different stages of development and study. This report describes results of the early and advanced exploration projects and is issued in support of the BHP Billiton declaration of Exploration Targets in the Escondida mining tenement as part of the "Unlocking Shareholder value" publication.

1.4 Tenure

Escondida has a Mining Exploitation right for mining the ore bodies of the Escondida and Escondida Norte deposits as well as Exploration Lease rights for select properties surrounding the existing operation. A Mining Exploitation concession permits the concession holder to mine the area indefinitely with an annual payment of corresponding license fees.

The Mining Exploitation and Exploration Lease rights have been obtained according to the Political Constitution and current mining laws of Chile and are administered in-house by the Escondida Mining Concessions Department. The infrastructure and the pipeline corridor to the coast are administered under an 'Easement', Right of Way permits and maritime concessions. There are no impediments (environmental, legal, socioeconomic or infrastructure permits or factors) which can obstruct the current mining operation.

Figure 1.1 shows the Mining Property boundaries of Escondida.

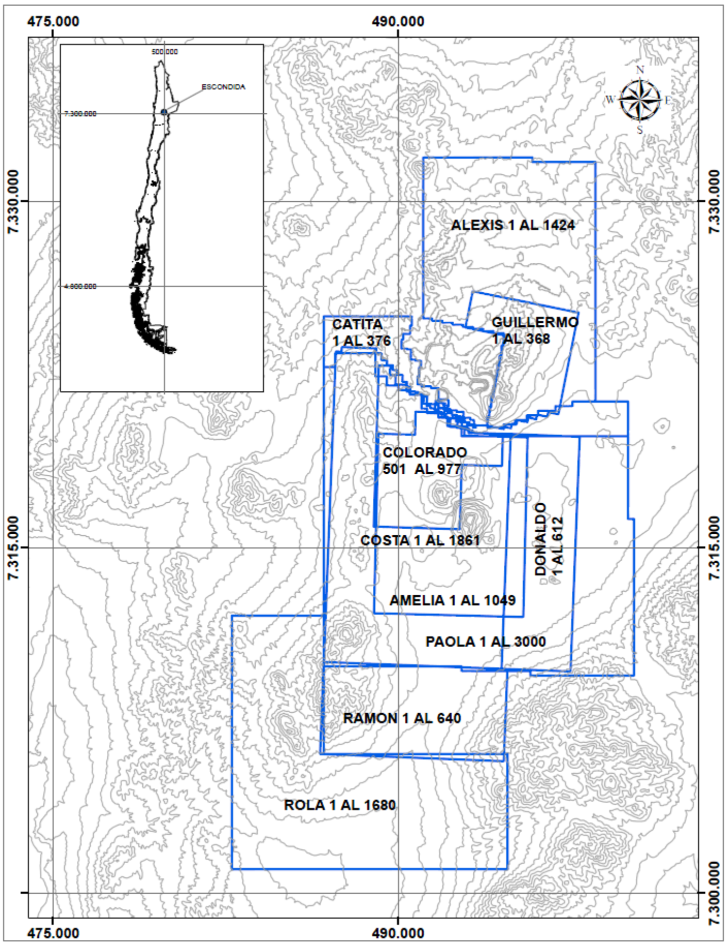

Figure 1.1: Escondida location plan and property boundaries

1.5 Regional Geology

The Escondida and Escondida Norte copper deposits lie in the Escondida-Sierra de Varas shear lens of the Domeyko Fault System (Mpodozis et al., 1993). Both deposits are supergene-enriched copper-molybdenum porphyries with primary mineralisation related in space and time to multi-phase middle Eocene to early Oligocene intrusive bodies of monzonite to granodiorite composition. Cretaceous and Palaeozoic volcanic and volcaniclastic units of andesite and rhyolite host the porphyry bodies and important quantities of mineralisation. Figure 1.2 presents the regional geology that includes locations of the more important projects that comprise the Exploration Targets.

Ore Reserves are currently defined in the Escondida and Escondida Norte deposits, which are considered to be part of a relatively long-lived cluster of mid-Eocene to early Oligiocene (44-33 Ma) multiphase porphyritic stocks of biotite granodiorite composition, hosted by intrusive and extrusive rocks of Palaeozoic and Cretaceous ages. In Escondida, several intrusive pulses ~38-36 Ma in age can be distinguished from cross-cutting relationships that are hosted in andesitic rocks of Cretaceous age. Escondida Norte is associated with an intrusive system of similar age to Escondida that is hosted by Palaeozoic-aged rhyolite complex that overlies an andesite volcaniclastic unit, both part of the La Tabla formation.

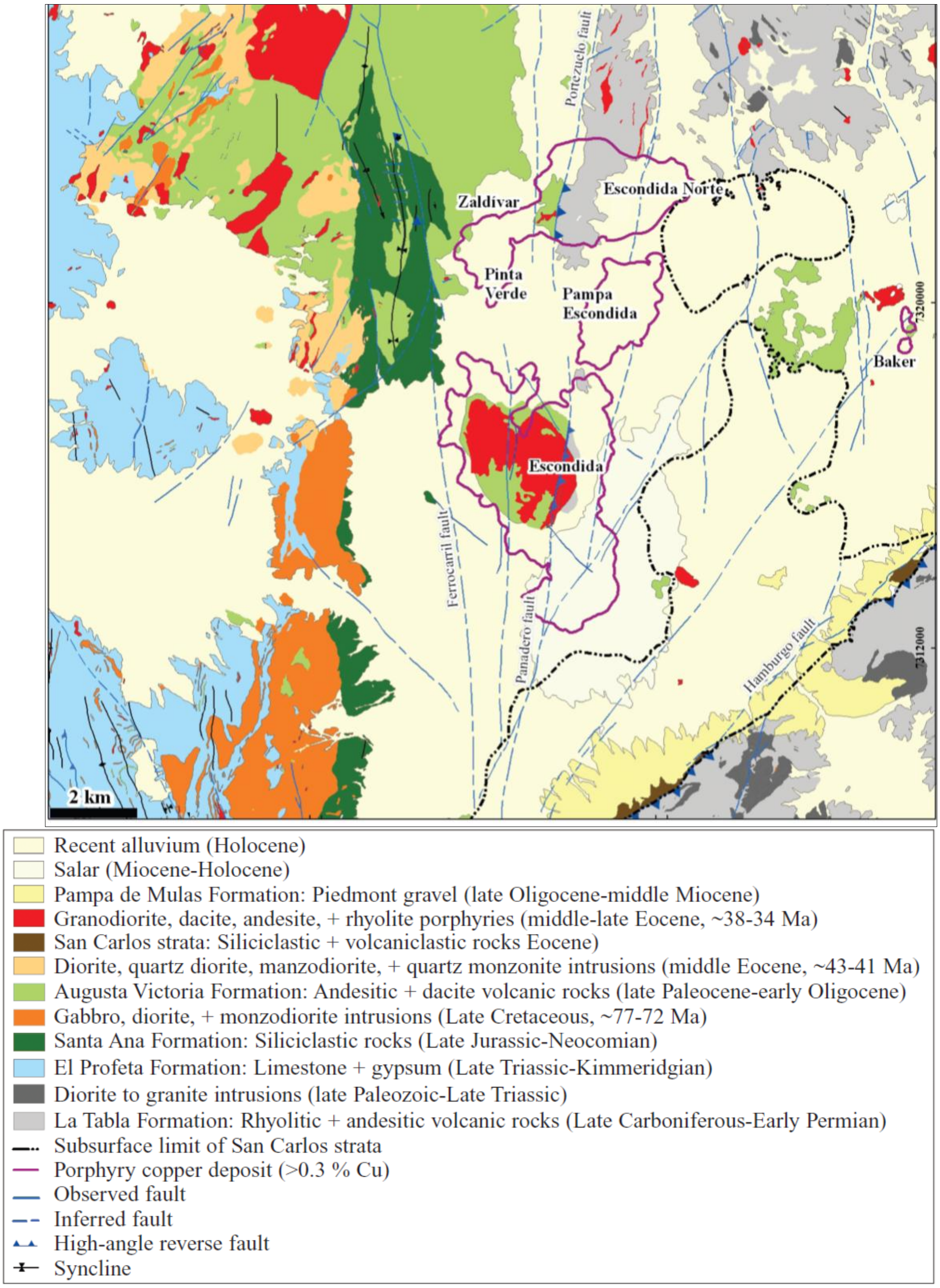

Figure 1.2: Regional geological setting of the Escondida-Escondida Norte deposits, showing major exploration and development project (Chimborazo lies north of the map area). Geology modified from Urzúa, 2009 in Hervé et al., 2012.

Overprinting the primary mineralisation, a secondary supergene leaching and enrichment process occurring 14-18 Ma developed the large part of historical production and current Ore Reserves. A nearly barren supergene leached cap was developed in the near-surface environment, with the local formation of high-grade copper oxide mineralisation (predominately brochantite). The enrichment process importantly generated laterally-continuous and sub-horizontal high-grade sulphide mineralisation zones across the deposit. The dominant copper sulphide minerals within the supergene mineral zone are chalcocite and covellite. The primary hypogene mineralisation is mainly present in the deepest parts of the ore body and is defined with the presence of chalcopyrite and bornite.

Mineral Resources that are exclusive of Ore Reserves occur in deep and peripheral sectors of Escondida and Escondida Norte, and in the advanced projects of Pampa Escondida, Pinta Verde, and Chimborazo (Figure 1.2). These projects are also associated with granodiorite porphyry intrusives, with Pampa Escondida and Pinta Verde occurring within the Escondida cluster. Pampa Escondida is located between Escondida and Escondida Norte, spatially continuous in a NE trend and of slightly younger age (36-34 Ma). Chimborazo is believed to be within a separate porphyry cluster, located at a distance several kilometres NW of Escondida and earlier in time (41 Ma).

Significant addition of Mineral Resources in the Escondida mine since 2010 have been a result of in-fill drilling the Escondida Este exploration project. Escondida Este and Escondida porphyry systems overlap each other in space, but Escondida Este is associated with distinctly younger intrusive pulses compared to Escondida. Recent studies have identified structural discontinuities in the eastern portion of Escondida that juxtapose Cretaceous host rocks to the west (Escondida) against Palaeozoic rocks to the east (Escondida Este). These structures have been defined by the exploration team as strands of the Panadero Fault, a regional pre-mineral structure that controlled the emplacement of intrusive pulses related to both Escondida and Escondida Este porphyry units, as well as the differing age of host rocks.

A major feature of porphyry copper deposits is the development of a zoned alteration system that accompanied sulphide mineralisation. Three main alteration assemblages are recognised throughout the district as important controls on copper grade:

- Quartz-Sericite-Clay that is related in part to secondary supergene mineralisation, and in part as primary pyrite-bearing alteration, that consists of quartz, sericite and clays that occurs with pyrite, chalcocite and covellite association that averages 1.0 per cent total copper grade.
- Potassic alteration that occurs as K-feldspar in the porphyry units and in the andesitic rocks as secondary biotite alteration and associated with mineralisation of chalcopyrite, magnetite, primary covellite and pyrite and averages 0.8 per cent total copper grade.
- Sericite-Chlorite-Clay occurs in the periphery of the deposit, generally in more mafic host rocks. The assemblage consists of chlorite + sericite and clays associated with pyrite, chalcopyrite, chalcocite and molybdenite and averages 0.6 per cent total copper grade.

These zones are used as guides in exploration to establish productive porphyry stocks in the cluster, as well as to better define estimation domains in Mineral Resource estimation.

1.6 Data acquisition

Data acquisition of exploration and advanced projects is performed by the Minera Escondida Geology team, who provide specialist services to the exploration, mine, and resource geology teams. Description of data acquisition procedures and protocols are sourced from the March 2014 Competent Person report for Escondida Mineral Resources.

Geological data used for evaluation of exploration potential was derived from drill logging and geochemical sampling of diamond core holes. All data was captured digitally, validated, and stored in an acQuire database. The average turnaround time between sample collection and data available in the verified database was three months. Partially validated drill holes may have been used to inform geological interpretation of projects, depending on timing of the analysis and status of workflow. A summary of the information used to evaluate the exploration projects is provided in Table 1.2.

Table 1.2: Summary of drilling information used for evaluation of Exploration Targets.

Project	Date of RRA	No. of DHs	Length (km)	Nominal Drill grid (m)
Escondida Este	Feb 2013	110	185.8	500–1,000
Baker	Feb 2012	83	45.4	250–500
Chimborazo (Deep)*	Oct 2011	12	16.6	N/A
Escondida Norte (Deep)*	Oct 2012	26	45.9	500–1,000
Escondida (Deep)	Mar 2011	6	7.0	300–400
Hamburgo	Oct 2012	71	59.3	300–500
Rincones	Mar 2009	45	15.8	250–750
Pamela Oxides	Nov 2011	163	107.2	250

* Evaluation includes consideration of drilling and interpretation of overlying Mineral Resources.

1.6.1 Drilling and logging

Since the initial exploration in the early 1980s four drilling methods have been used by Escondida:

- Conventional open rotary holes;
- Reverse circulation (RC) drill holes;
- Diamond drilling (DDH) – HQ (63.5 mm diameter) with reduction to NQ (47.6 mm) and BQ (36.4 mm) as required. PQ holes (85 mm) for metallurgical purposes; and
- Combination of RC and diamond drilling.

Diamond drilling is the most common of the methods used in the exploration programs. Combined drill holes (RC DDH) have been used mainly to save drilling cost by using RC to drill through barren overburden, and switching to DDH method shortly above mineralised rock. The local presence of water will force a change in the drilling method from RC to DDH, even if the hole is still in overburden.

With the exception of the diamond drilling in unconsolidated gravels, the average recovery (RC and diamond) for any given lithology exceeded 90 per cent. This was calculated by either the sample weight recovery percentage of the theoretical weight for RC samples or by direct length measurement of the drill core recovered from each sample run.

Geological logging was captured using a Tablet-pc and entered into an acQuire database. Logged features include:

- Lithology: Includes granodiorite, quartz porphyry, feldspar porphyry, andesite and breccia;
- Alteration: Main and subordinate alteration, description of mineralogical species and associated intensity; and
- Mineralisation: Ore minerals, proportion and relations, mineralisation styles, vein types, etc.

1.6.2 Survey

Prior to June 2000, the locations of the drill hole collars were surveyed by conventional surveying techniques after which a high resolution GPS system was implemented. All collar locations were measured using high-definition GPS before and after drilling, with the latter measurement considered final. Differences between both measurements are less than 30 cm. Approximately 10 per cent of collar locations were checked by the same contractor, but using a different surveyor. The differences reported for all of the location checks are smaller than 10 cm.

The drill hole orientation was historically determined primarily by one of three techniques: prior to 2000, single-shot cameras collected orientation measurements at intervals of approximately 50 m; the “Maxibor” instrument that obtained orientations at 3 m of separation from February 2000 to August 2003; and a multi-shot instrument that determined orientations at 6 m of separation from August 2003 through 2012. The Continuous North Seeking Gyroscope was implemented in 2012 and is still in use today.

Other techniques for measuring orientation have also been used for a small number of drill holes, including ATV (Acoustic Televiewer, with orientation measurements every 10 m) and real time gyroscope (measurements every 20 m).

In general, the down-hole deviation of drill holes is minimal, rarely exceeding a cumulative deviation of 1 per 100 m for both diamond and RC drilling. More significant cumulative deviations that average 2 per 100 m, have occasionally occurred with high pressure RC drilling.

1.6.3 Sampling and assaying

Escondida has two core facilities, one located on site and the other located in Antofagasta. Both core facilities are fitted with racks for drill core storage and are used for sample receiving, core logging, and sample preparation for assay. Additionally, the site core facility has a warehouse for storing the RC drill cuttings, assay pulps, and 10 mesh rejects.

The core facilities are segregated away from the main mining operations and have restricted access regulations in place. The facilities are managed by the Minera Escondida Ltda. Sample Control & Database Superintendent.

Diamond drill sampling was conducted on 2 m intervals, mainly obtained from hydraulic core splitting. Less than five per cent of cores have been cut using a core saw that was recently acquired to split core of good physical core quality. One half of the split core is sent for preparation and analysis and the remaining half stored on site for reference and metallurgical sampling. In the case of the PQ core, one half is sent for metallurgical test work, one quarter is sent for preparation and chemical analysis while the remaining quarter is retained for reference. RC cuttings from 2 m sample intervals were reduced to approximately 20 kg at the rig site, using a riffle splitter according to a standardised splitting protocol with the remainder of sample discarded.

Field duplicate samples (three per cent of total analysed samples) correspond to paired samples obtained from the first splitting process in the case of RC and a quarter of the core in the case of DDH.

All assay samples are crushed to 90 per cent passing 10 mesh, subsequently reduced to a 1 kg sample by a rotary splitter. The sample is then pulverised to 95 per cent passing 150 mesh to produce three 200 g duplicate pulp samples for chemical analysis. The RC and diamond sampling flowchart is presented in Figure 1.3.

All assaying is performed externally by Geoanalítica, Verilab and SGS laboratories, located in Antofagasta, with routine chemical analysis for TCu (Total Copper), SCu (Acid-soluble Copper), Fe (Iron) and As (Arsenic). TCu has routinely been carried out by atomic absorption spectrometry (AAS) after a hot nitric-perchloric acid digestion, although in a number of assays aqua regia alone was used. SCu is obtained using citric-sulphuric acid digestion, then filtered and analysed by AAS.

Fe and As were analysed using the same digestion solutions as for TCu however the results for Fe represent only a partial analysis, as the digestion will not remove primary oxide iron (e.g. magnetite). Fe and As have not being routinely assayed throughout the mine history; the coverage is about 66 per cent of the data set for both elements. To address this issue a different interpolation strategy was adopted compared to the copper grade estimation.

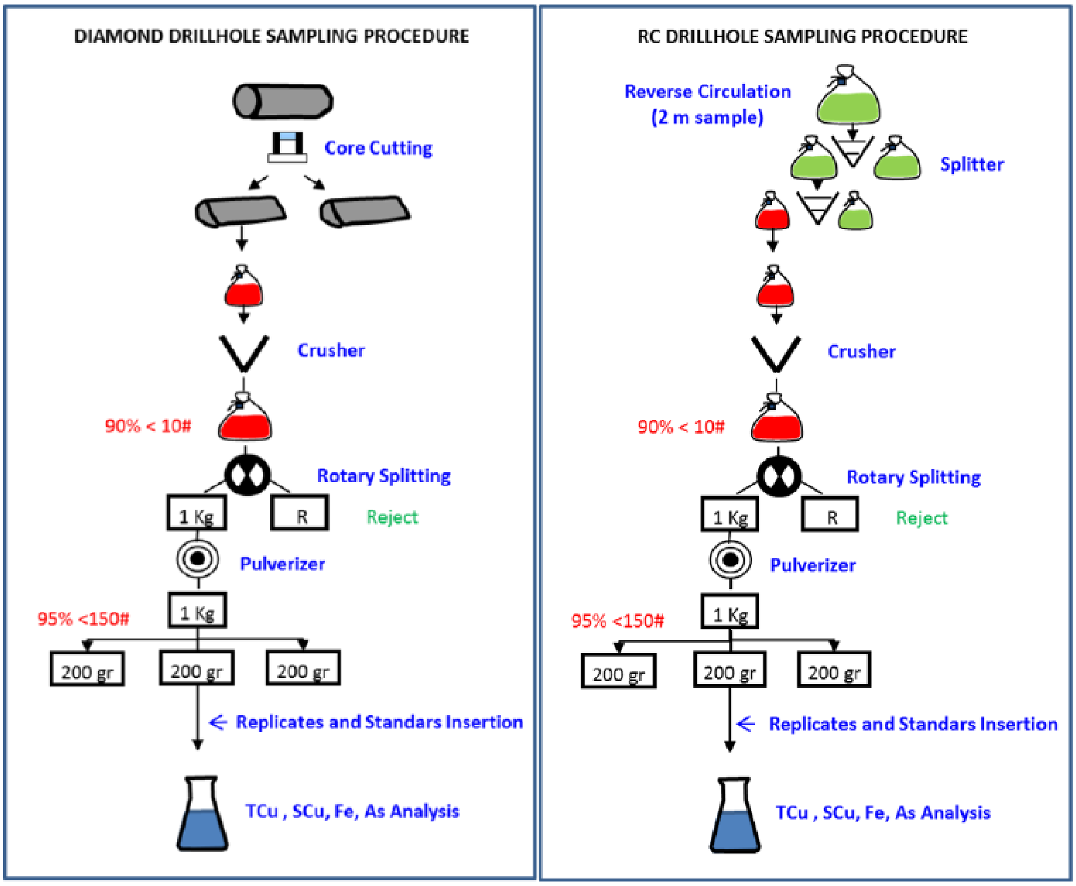

Figure 1.3: Diamond and RC sampling flowchart.

1.6.4 Quality of assay data and laboratory tests

A rigorous and effective QA/QC program was implemented and improved during the Escondida history. Key aspects include:

- a bar code drill sample labelling system to permit the submission of blind samples from the drilling for analysis;
- control samples (10 per cent of total samples assayed) comprise blanks (in Escondida's case low grade samples), internal reference samples, duplicate samples for RC drill holes, replicates of composites for DDH and RC drill holes and certified reference materials; and
- use of certified external laboratories for assaying.

The results of the accuracy and precision of TCu samples from the past six years (2008–2013) are shown in Table 1.3. Typically two laboratories are used each year (Geoanalitica-CIMM, Geoanalitica-SGS). Results indicate that for 2013, 96.4 and 95.1 per cent of Duplicate and Replicate samples, respectively, are within the acceptable deviation limits (10 per cent for duplicates and 30 per cent for replicates in terms of relative differences). An accuracy of 98.1 per cent (bias level of 1.9 per cent) was achieved.

Table 1.3: Precision and Accuracy for TCu, 2008 2013

		2008	2009	2010	2011	2012	2013
Precision	Duplicates	98.5%	97.3%	98.4%	98.5%	97.0%	96.4%
	Replicates	98.4%	98.8%	98.8%	98.7%	96.1%	95.1%
Accuracy	IRM	98.2%	98.5%	98.3%	98.6%	98.4%	98.1%

Dry density has been determined for 10-15 cm drill core samples collected at intervals of approximately 10 m, and is determined using a wax immersion method, at times supported by measuring the cylinder volume by callipers. Five per cent of the samples are submitted to an independent laboratory to determine replicate measurements of dry density by the same method. More than 32,000 density samples have been determined over the course of the historical drilling programs in Escondida.

1.6.5 *Verification of sampling and assaying*

Protocols have been defined in order to assure data verification and data storage of both physical and electronic records.

Currently the geological data is captured electronically in the field (bar codes used for RC and Diamond drill samples) and entered directly in an acQuire database. The analytical data is electronically provided by laboratories and loaded into the database using specifically designed and automated interfaces.

Upon capture into the database and prior to any export for modelling and resource estimation purposes, survey, geology and assay data is validated. The database is located on the Escondida server and backed up daily.

An internal audit of the database has been completed annually since 2005. This involved a manual check on five per cent of the information, including survey, grades, collars and geological coding (mineral zone, alteration and lithology). These audits on average determine a total error rate of less than one per cent.

The integrity and validity of Escondida’s drilling database, is managed by the Minera Escondida Ltda. Database Administrator, and was audited by Consultores de Recursos Minerales (CRM) in 2012. The conclusion was that the “management of the database is competent, and the quality of the database and the contained data is more than sufficient to support the resource estimation and reserve statement”.

1.6.6 *Method of estimation*

All of the projects in this report (Figure 1.4) have sufficient distribution of drill data to support evaluation of the size and quality of the target, but at a drill spacing that is insufficient to assume continuity of mineralisation. The projects each have sufficient drill data that reduce the importance of individual drill hole intercepts. For that reason, tables of individual drill hole results are not given for each project, but instead a listing of the total number of holes and meters that support high-level estimates of the exploration target size and quality.

Evaluation of each exploration project is performed with a defined process called Resource Range Analysis (RRA). The analysis consists of a facilitated workshop that includes project-based experts with detailed knowledge of the deposit, content experts who are external to the project, and the Exploration Results Competent Person.

The workshop participants evaluate compiled data, assumptions, and interpretations of the deposit and known analogues to obtain three deterministic interpretations of key geological features that control size and quality of the deposit. Each interpretation must honour the available data, but can challenge project assumptions and interpretations in order to obtain estimates of maximum, minimum, and mid-case (or most likely) size and/or quality. The interpretations are often aided by the use of GIS and three-dimensional geological modelling software for volumetric determination, and reference to grade-tonnage curves for quality.

The three deterministic interpretations provide volume and grade estimates that roughly correspond to the 1st, 99th, and 50th percentile of meeting or exceeding the estimate, respectively. In general, interpretations in the low end of the range tend to assume little to no continuity of mineralisation between widely-spaced drilling. Interpretations at the high end assume extrapolation of mineralisation where still permissive within data and reasonable geometry for porphyry copper deposits. These estimates are fitted to a Weibull distribution, a three-parameter distribution generally used in reliability analysis, which then provides a probabilistic estimate of the 10th and 90th percentile that are termed the high and low cases, respectively, and provide the basis for public reporting.

Due to the disseminated nature of mineralisation in all of the exploration projects, ore body dimensions are estimated from multiple holes within mineralised rocks, at a 0.2% Cu cut-off or higher, and are listed as true lengths. Bulk density assumptions are based on measurements within individual projects where sufficient information is available, supported by historical information of samples with same lithology and alteration style.

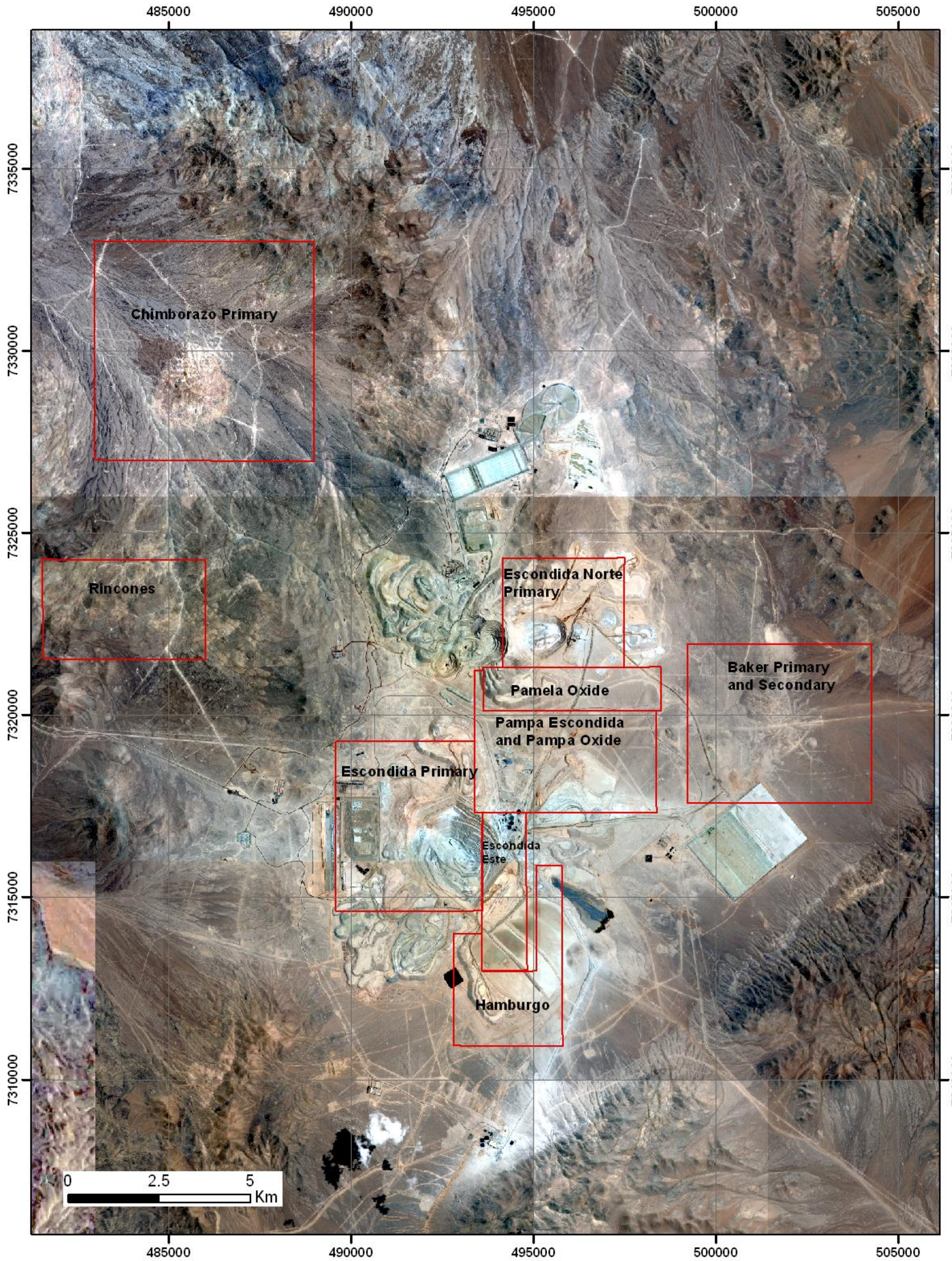

Figure 1.4: Location map of exploration and development projects in the Escondida mining district

1.6.7 Escondida Este

Escondida Este (EE) is the most recent of several large porphyry copper-molybdenum deposits discovered in the Escondida district, located at depth and immediately east to southeast of the Escondida deposit (Figure 1.4). As was the case for Pampa Escondida in 2006, EE was initially discovered from reinterpretation of historical data in context of changing conceptual and geological models. The EE target was successfully tested by deep drill holes, resulting in the discovery of two mineralisation zones: the northern orebody in early 2009 and the southern one in late 2010.

One hundred and ten drill holes were completed within the exploration program that total 185.8 km of drilling, the deepest to a depth of 2,000 m. Slightly more than 170 km of drill program consisted of diamond core HQ and NQ core, with the remainder being RC pre-collar drilling. At the time of the RRA estimate in February 2013, approximately 151 km of the drilling had been verified and in the data base. Remaining drill hole information was completed after the RRA and used for resource estimation in May 2013. All sample preparation is completed according to standard MEL sampling preparation protocol previously described in this document.

The drilling pattern is locally irregular due to some surface constraints caused by existing infrastructure, but angle holes are used to obtain a more regular grid pattern at depth. Some portions of the deposit have been drilled with a combination of exploration and mine in-fill drilling to a sample grid sufficient for Inferred Resource classification, where other portions are drilled to a nominal grid ranging from 500 to 1,000 m (Figure 1.5). Those parts of the deposit that have been classified as Inferred Mineral Resources (both prior and subsequent to the February 2013 RRA) have been excluded from this estimate and are included in the Escondida Mineral Resource Statement as of 31 March 2014.

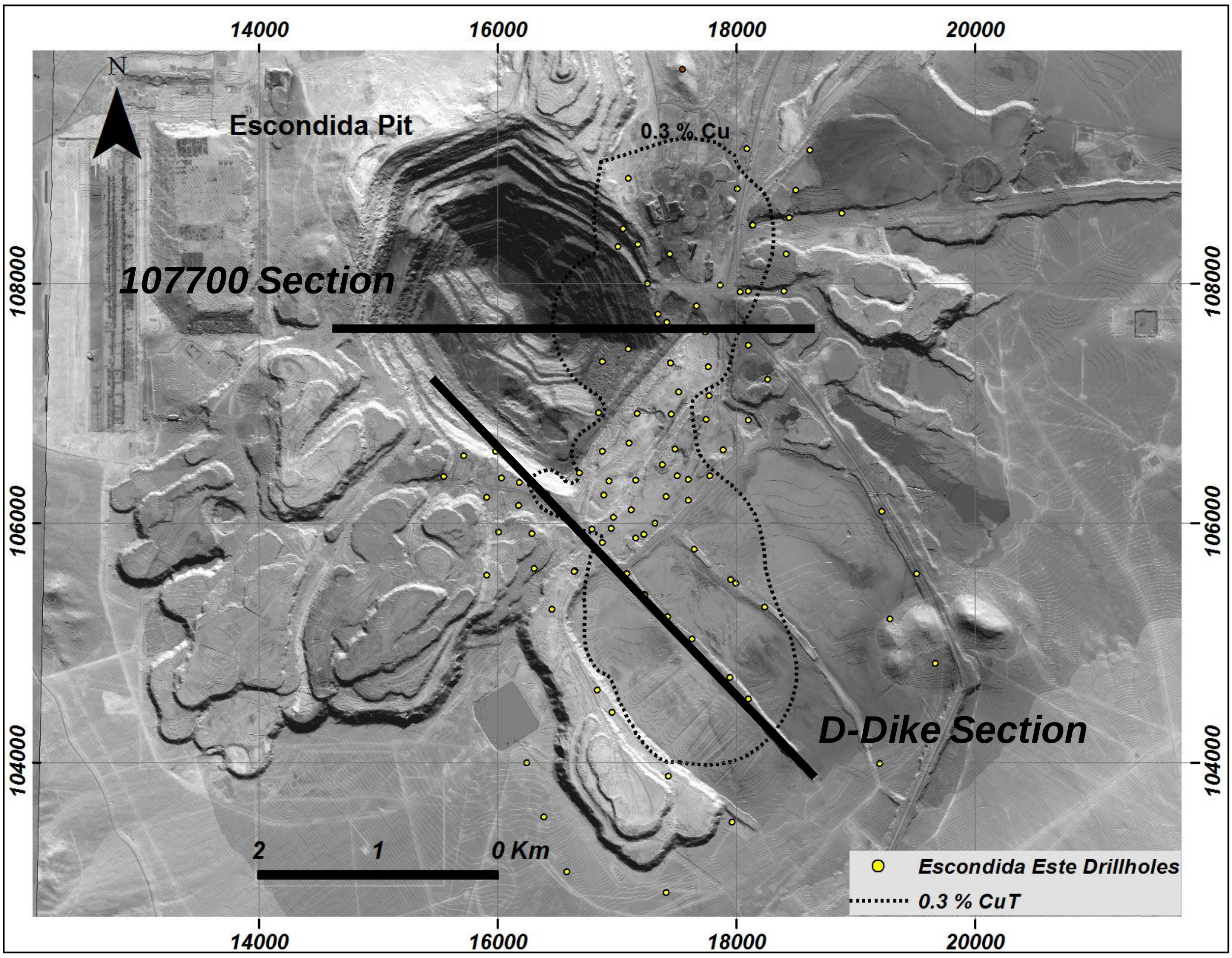

Figure 1.5: Aerial photo of the Escondida mine area, showing footprint of the Escondida Este deposit, distribution of exploration drill holes, and location of cross sections along 107700N and the Hamburgo tails D-Dike

EE is located immediately to the east of the Escondida deposit and the two deposits, while distinct in age, overlap with each other at depth. The newly discovered porphyry Cu-Mo system, extending 4.5 km north-south by 1 km east-west, is composed of two centres of mineralisation that are genetically related to a granodiorite porphyry complex that largely postdate mineralised feldspar porphyries in the Escondida deposit. The northern orebody lies underneath a nearly barren quartz porphyry dome that post-dates Escondida mineralisation (Figure 1.6), whereas the southern mineralisation zone is concealed by a sequence of Miocene gravels (Figure 1.7).

EE porphyry system is hosted by a succession of bimodal volcanic and intrusive rocks of Carboniferous-Permian La Tabla Formation, Palaeocene-Eocene andesite of Augusta Victoria Formation and also by the Escondida Intrusive Complex (~38-35 Ma; U-Pb zircon dating). All these units are intruded by the "Escondida Este Intrusive Complex", which composed of a pre-mineral phase of diorite to monzodiorite intrusives (~36 Ma; U-Pb zircon dating), an early-mineral intrusive phase characterised by multiple pulses of granodiorite porphyry stocks (34.5-33.7 Ma; U-Pb zircon dating) and a late-mineral porphyry stock of granodiorite composition (33.3 Ma; U-Pb zircon dating).

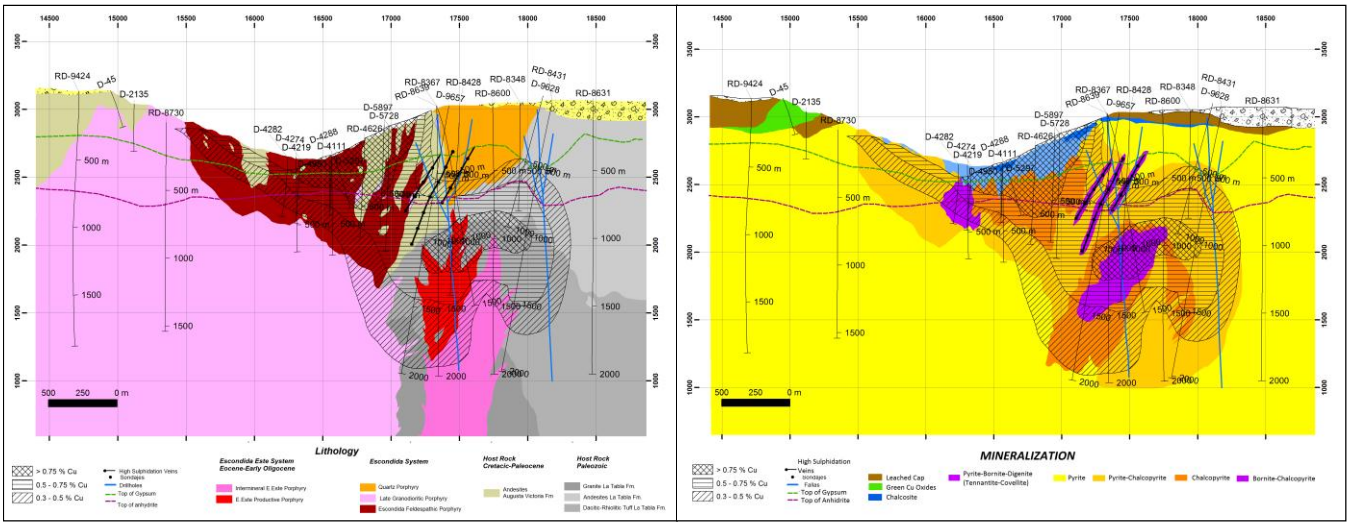

Figure 1.6: Cross section along 107700N, looking north. through the Escondida mine and northern mineralised centre of Escondida Este. The drill hole data and mid-case interpretation of copper grade zoning are superimposed on interpretations of lithology (diagram on left) and sulphide mineral zone (diagram on right). Topography is based on the current mine surface.

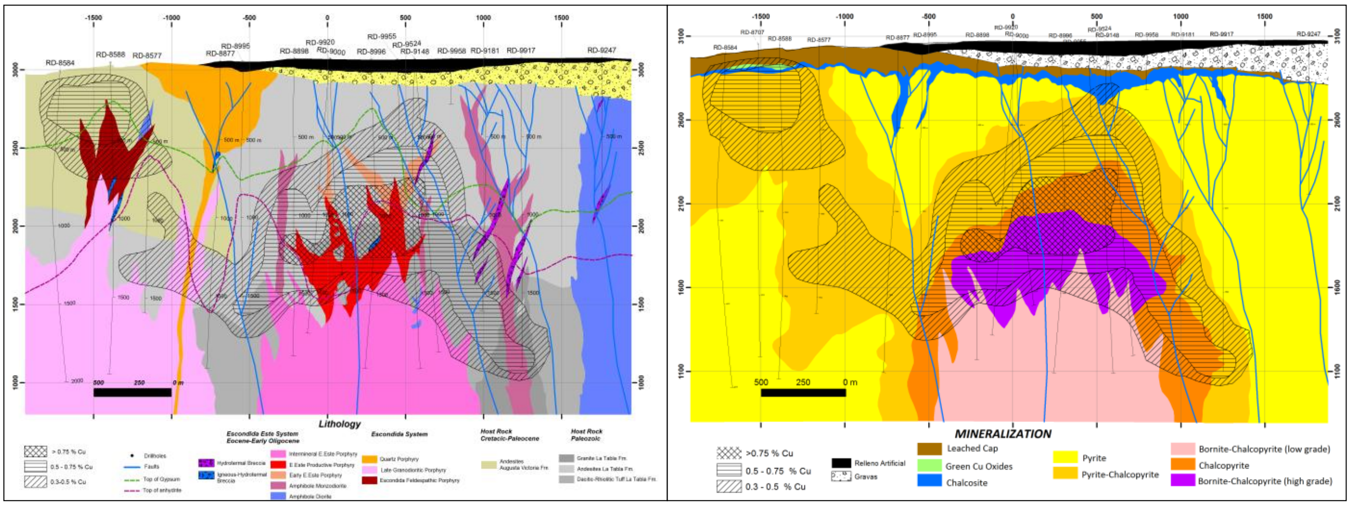

Figure 1.7: Cross section along D-Dike looking northeast. through the southern mineralised centre of Escondida Este. The drill hole data and mid-case interpretation of copper grade zoning are superimposed on interpretations of lithology (diagram on left) and sulphide mineral zone (diagram on right).

The top of the high grade hypogene mineralisation zone is encountered approximately 900 m below the current surface (Figure 1.6 and Figure 1.7). Disseminated and vein-hosted hypogene copper mineralisation, mostly fractionated in the potassic alteration stage, is dominated by chalcopyrite and bornite with minor chalcocite. The bulk of copper mineralisation is paragenetically and spatially related to early gray-green sericite alteration (31.8 Ma; Ar-Ar sericite dating) that is the strongest hydrothermal event within the potassic stage and is centered at the top of the early-mineral porphyry stocks. This alteration event overprints early K-feldspar and biotite assemblages and also the eastern side of the older Escondida mineralisation system. Although mineralisation at EE is predominately hypogene, an immature supergene chalcocite blanket was developed in the uppermost part of the southern orebody, 150 m beneath current surface.

Potential size of the mineral deposit was estimated by an RRA process in February 2013 from drilling data available at that time as ranging between 9 and 19 Bt at an average grade from 0.4 and 0.6% Cu and 150 to 200 ppm Mo (0.3% Cu cut-off). The tonnage range is based a low degree of continuity between drill holes at the low end, while the high end assumes a lateral extension of the deposit from mineralised drill hole intercepts in the southern orebody, northeast of the D-Dike cross section (Figure 1.5). This estimate was updated in March 2014 to exclude the results of recent in-fill drilling immediately southeast of the Escondida mine that converted approximately 4 Bt of exploration results to Inferred Mineral Resources.

1.6.8 Baker Project

The Baker project is located about 7 km east of the Escondida Norte pit, north of the Escondida Sulphide Leach heap pads (Figure 1.4). The porphyry copper deposit consists of a near-surface supergene sulphide zone overlaying a deeper primary target. The upper portion of the deposit is defined by a NNE-trending footprint approximately 1,500 by 500 m (Figure 1.8) that flairs outward with increasing depth (Figure 1.9).

The deposit was initially discovered in 2007 through surface geology and drill hole testing. Evaluation of the deposit was conducted by a drilling program between 2007 and 2011 that completed a total of 83 vertical and inclined holes. Evaluation of the deposit was based on 61 shallow RC holes and 22 deep diamond core totalling 45,377 m and 20,331 samples collected on 2 m intervals. All samples were logged submitted and control for quality according to the standard MEL protocols. Samples were analysed by AA technique for total and acid-soluble Cu, As, Zn, Mo, Ag, and Fe. Gold was analysed by fire assay with an AA finish. Down-hole gyroscopic survey was performed only in deep drill holes.

The deposit is delineated on a nominal 250 m drilling grid. Near the edges of the deposit, drill spaces is on the order of 500 m, while spacing of 100 m or less is locally achieved in the deposit centre (Figure 1.8). Deeper portions of the deposit are evaluated on a nominal drill spacing of 200 m.

The deposit is largely hosted by an elongated granodiorite porphyry stock that was intruded into Augusta Victoria andesite at 37.1 Ma. Primary mineralisation consists as veinlets and disseminated of bornite-chalcopyrite occurring as a central zone bordered by lower-grade chalcopyrite-pyrite (Figure 1.9). Secondary enrichment by chalcocite and minor covellite is developed as a 20-200 m blanket overprinting the primary sulphide zone and below 150 m of leach cap, The enrichment zone is controlled by NW- and NE-trending structures and the primary sulphide zone by NE-trending zones.

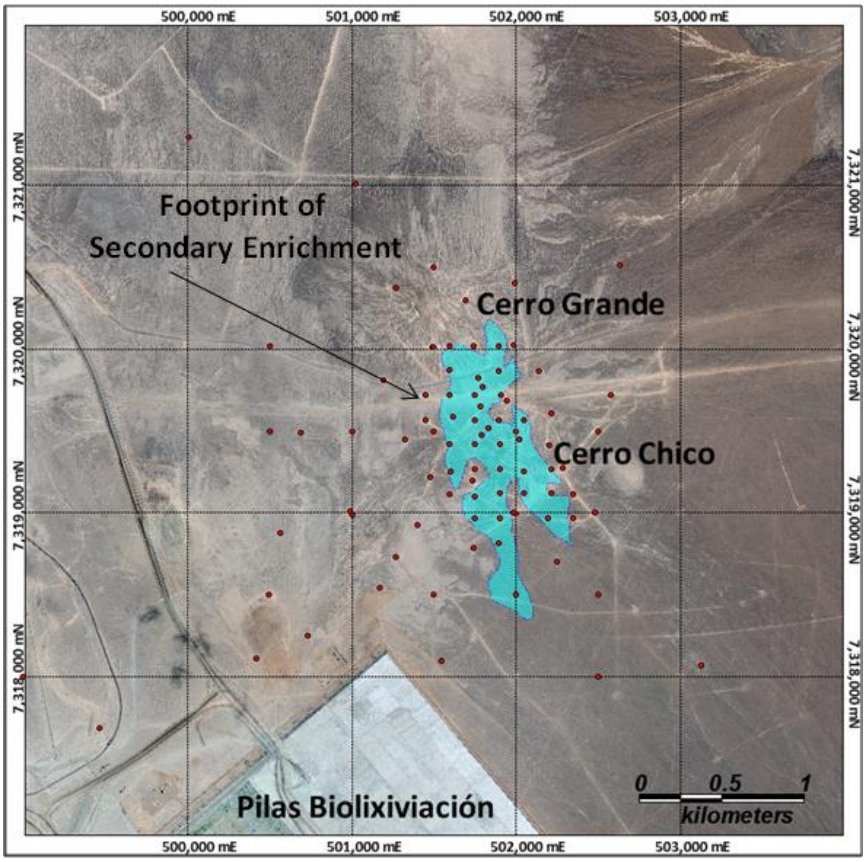

Figure 1.8: Drill hole collars and supergene sulphide footprint (mid-case estimate) of the Baker project

Size and quality of the project was evaluated in an RRA workshop performed in February 2012, separately evaluating the supergene and hypogene resource base. The supergene zone was estimated to contain between 50 and 150 Mt of mineralisation, averaging 0.4% Cu (0.2% Cu cut-off). The primary mineralisation was estimated be within the range of 600 to 1,100 Mt averaging 0.3% (0.2% Cu cut-off).

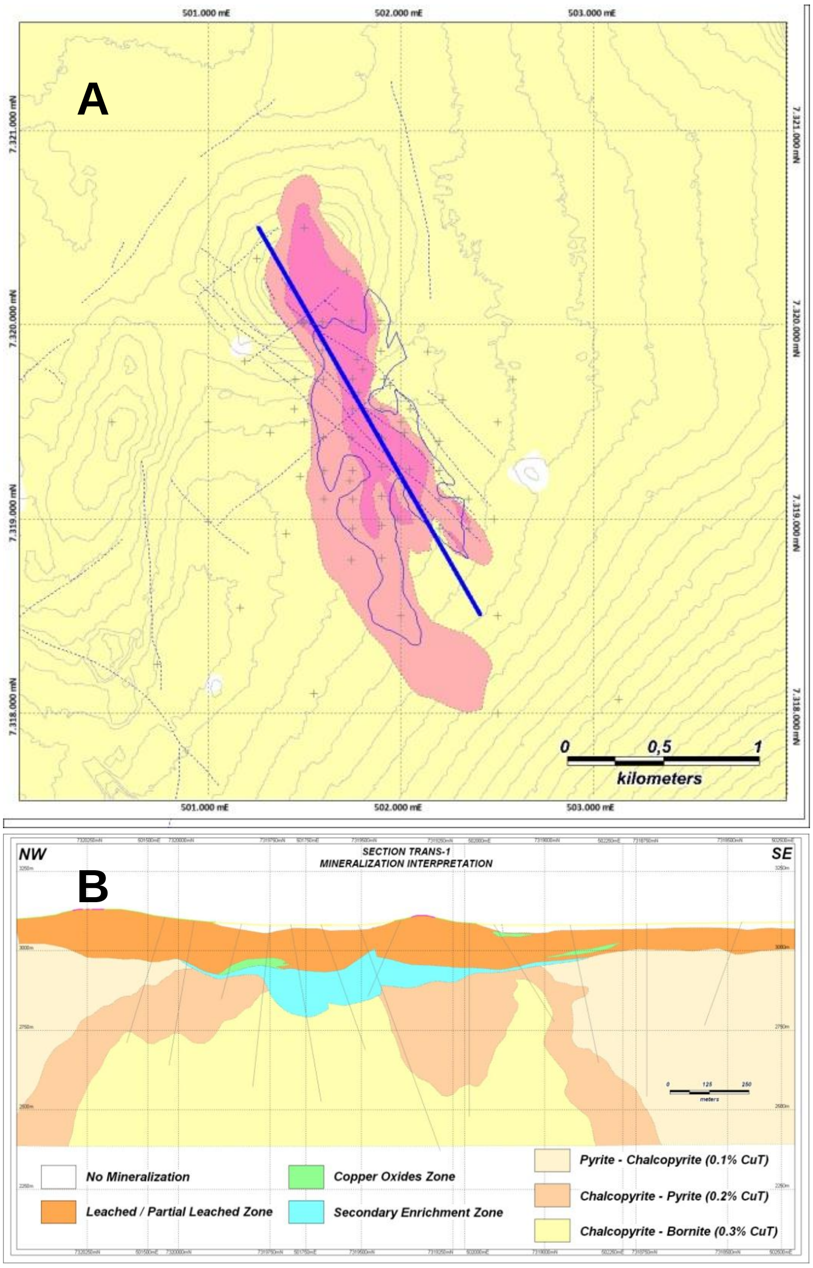

Figure 1.9: Geology of the Baker project. A. Surface topography and projection to the surface of the granodiorite porphyry (early) in pink and in monzodiorite (intermineral) in salmon and footprint of supergene sulphide with cross section location. B. Long section looking NE of mineral zonation and drill hole location

1.6.9 Chimborazo (Deep)

The Chimborazo deposit has a long history of gold and copper exploration as outlined by Herve, et al. (2012). Earliest exploration began in 1968 and was focused on epithermal-style gold mineralisation that outcrops near the crest of Cerro Chimborazo in the south part of the project. By the early 1990s, discovery and partial delineation had been made of a chalcocite enrichment zone underlying intermontane gravel on the northern flank of the hill (Figure 1.10). Minera Escondida Limitada purchased the Chimborazo property from Cyprus in 2000, began a systematic development program of the project in 2007, and first announced Mineral Resources as of December 2011.

While Chimborazo mineralisation is largely supergene chalcocite enrichment, it was recognised that the deposit manifests several characteristics of an epithermal deposit, rather than those of a typical porphyry copper. This triggered a drilling program to determine potential for deep porphyry mineralisation below or lateral to the near-surface deposit. A program of twelve deep drill holes totalling 16,585 m was completed in 2010 and 2011, confirming the occurrence of porphyry copper-style mineralisation of 0.1% to 0.4% Cu. Locally, higher grade intercepts of mineralisation average 0.5% to 1% Cu were encountered (Table 1.4). The deep exploration program included only diamond core drilling and was carried under the standard MEL logging, sampling and assaying protocols, including down hole gyroscopic survey of the holes.

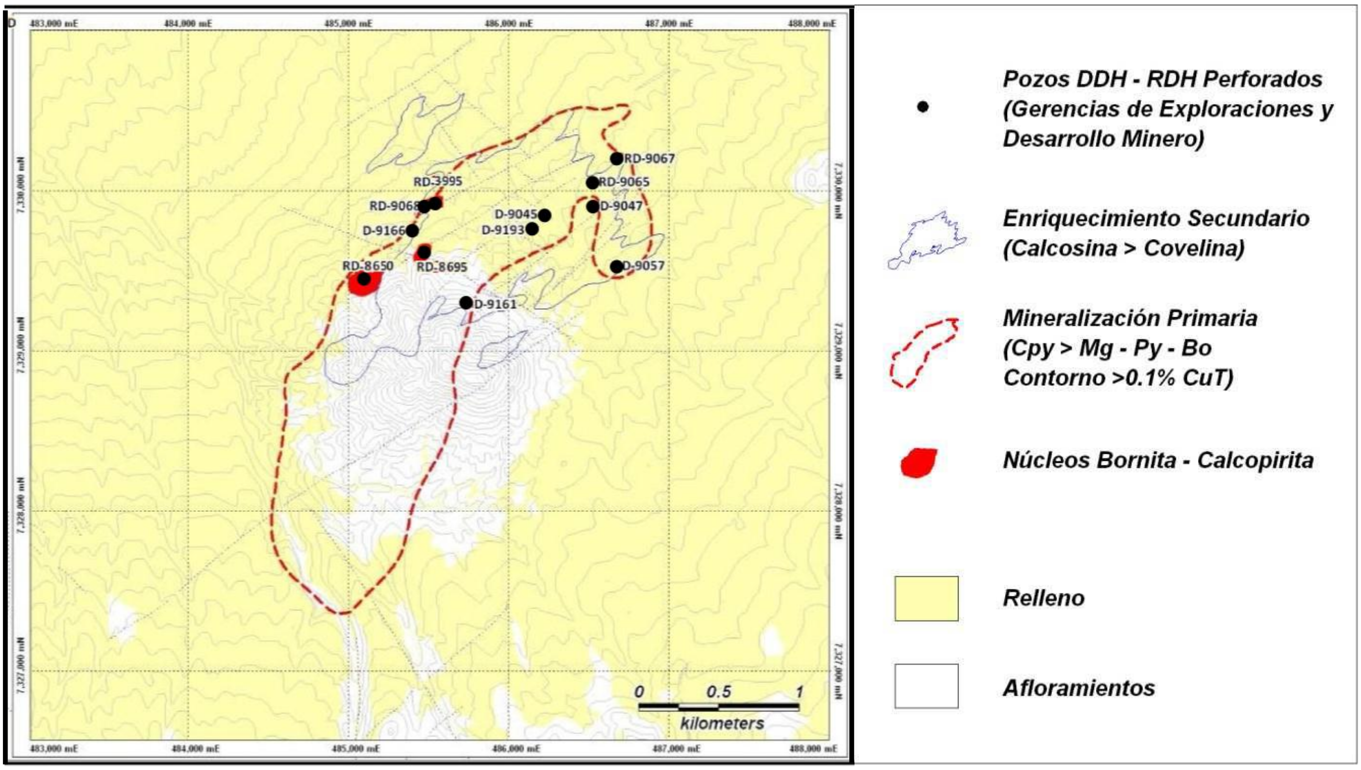

Figure 1.10: Surface map of the Chimborazo project.

The Chimborazo porphyry and epithermal system is largely hosted to a depth of ~1,000 m by dacitic tuffs and lesser andesitic breccias and flows assigned to the Augusta Victoria Formation (Herve, et al., 2012). Hornblende diorite and monzodiorite intrusions that appear to be both premineral (~42 Ma) and late-mineral (38.1±0.3 Ma) occur within altered volcanic succession in outcrop and drill hole intercepts. At ~1,000 m below the surface, drill holes have intersected the uppermost parts of an early mineralised biotite granodiorite porphyry intrusion. Northwest of the deposit (Figure 1.11A) is the Chimborazo intrusive complex that is of inter- to late-mineral age. The complex is composed of fine-grained diorite to granodiorite phase and dated at ~39 to 37 Ma. The volcanic rocks and monzodiorite are cut by a series of pipe-like, magmatic-hydrothermal breccias that are developed over a 1,000 m vertical interval. The breccias are mineralised, largely through open space filling, by a sequence of mineral assemblages that changes vertically with the system-scale alteration-mineralisation zoning pattern seen in host rocks.

Table 1.4: Deep Chimborazo drill hole intercepts.

Drill Hole	Collar location (UTM)			DH Length (m)	Significant Intercept[1]					
	East	North	Elev.		From (m)	To (m)	Length (m)	Cu (wt %)	Au (g/t)	Mo (ppm)
DDH 3995[2]	485,543	7,329,919	2591	656	442	642	200	0.61	0.05	838
DDH 8650[2]	485,099	7,329,449	2612	1,400	1028	1082	54	0.78	0.05	91
DDH 8695[3]	485,475	7,329,615	2616	1,400	1136	1194	58	2.36	0.27	1337
DDH 8695[2]	485,475	7,329,615	2616	1,400	1194	1398	204	0.51	0.05	102
D-9045	486,226	7,329,846	2602	524	--	--	--	--	--	--
D-9047	486,526	7,329,900	2619	909	--	--	--	--	--	--
D-9057	486,675	7,329,525	2635	1,517	--	--	--	--	--	--
RD-9065	486,524	7,330,050	2612	1,955	--	--	--	--	--	--
RD-9067	486,674	7,330,200	2612	1,022	--	--	--	--	--	--
RD-9068	485,475	7,329,900	2592	1,212	--	--	--	--	--	--
D-9161	485,735	7,329,300	2678	1,559	--	--	--	--	--	--
D-9166	485,400	7,329,750	2596	1,333	--	--	--	--	--	--
D-9193	486,147	7,329,762	2615	1,700	--	--	--	--	--	--

1 Significant intercepts are quoted as down hole lengths, not necessarily representing true widths of mineralisation. Minimum intervals quoted are approximately 50 metres down hole length, unless at the end of the drill hole, with a minimum assay interval grade of 0.5% Cu. Calculations are from length-weighted averages of contiguous two meter, half-core samples, and include internal low-grade intervals.

2 Chalcopyrite mineralisation zone.

3 Bornite mineralisation zone.

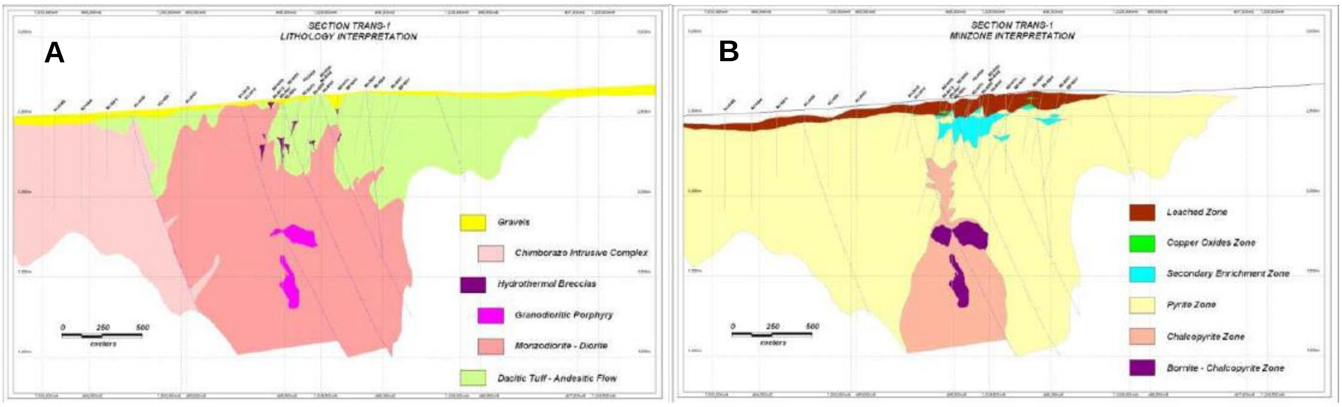

Figure 1.11: Cross sections through Deep Chimborazo target. A. Lithological interpretation. B. Mineral zone interpretation.

Fine-grained quartz-alunite dominates the uppermost section of Cerro Chimborazo, and grades downward to advanced argillic assemblage of quartz-alunite-kaolinite plus minor dickite. Alteration passes downward and outward through sericitic alteration to an earlier chlorite-sericite assemblage that in turn transitions to a deep potassic zone (pervasive biotitization of volcanic rocks and orthoclase veining in porphyry). A gray-green sericite event locally overprint the potassic alteration.

The potassic-altered rocks contain minor amounts of chalcopyrite, pyrite, and subordinate magnetite, whereas the overprinted gray sericite zone is characterised by chalcopyrite and bornite plus elevated gold values. The chlorite-sericite zone is dominantly pyritic, while advanced argillic alteration is associated with early pyrite and enargite ± tennantite as disseminations, veinlets, and veins, and late chalcopyrite-sphalerite ± pyrite ± galena veins, which tend to occur peripherally. Highest copper grades are developed in the gray sericite zone, while the porphyry-hosted potassic alteration generally contains low-grade mineralisation.

The potential size and quality of the deep primary deposit was estimated during an October 2011 RRA to range between 1 and 6 Bt at an average grade of 0.3% to 0.6% Cu. Ranges on the size of the deposit were estimated on the basis of continuity of mineralisation among the drill hole intercepts and footprint of the deposit provided by surface exposures and interpretation of geophysical information (ground magnetic, induced polarisation, and magnetotelluric surveys). Range in copper grade was based on assumptions of the relative proportions of the deposit assumed to be altered to gray sericite. This higher grade zone was assumed to comprise about 20%, 40%, and 50% of the deposit in the Low, Mid, and High-case estimates, respectively.

1.6.10 Escondida Norte Deep

Escondida Norte is one of the two enriched porphyry copper deposits that comprise the mine operations of Minera Escondida. The deposit was originally discovered in 1981 in conjunction with the nearby Escondida deposit, but development was delayed in deference to the higher quality of initial Escondida ore feed. Pre-feasibility and Feasibility studies were carried out to develop the Escondida Norte supergene deposit between 1995 and 2003, at which time stripping of the ore body was started. Project execution was completed in 2005 when initial ore deliveries were made to the Escondida concentrators. Mineral Resources and Ore Reserves of the Escondida Norte deposit are based on a database of nearly 2,600 drill holes that total 841.7 km of drilling and are declared, combined with those in the Escondida mine, on the basis of open-pit mining of high-grade chalcocite-covellite supergene mineralisation and uppermost parts of the underlying primary chalcopyrite-bearing deposit.

A total of 26 drill holes and 45,926 m have been drilled below and lateral to the Escondida Norte deposit to evaluate the potential for vertical extension of chalcopyrite ± bornite at depth and additional mineral centres. These deeper drill holes were combined with distribution of grade in the interpolated grade at the base of the Mineral Resources to evaluate deep potential of the deposit. All drilling was logged, sampled, and assayed under the MEL standard protocol.

Geological features of the Escondida Norte deposit are summarised by Herve, et al. (2012) and by MEL (2013), who also provides discussion of the interpretation and estimation of the Mineral Resources by Escondida Norte. For that reason, only a brief overview is presented here.

Escondida Norte is hosted by rhyolites, andesites, and their coeval intrusives of the Palaeozoic La Tabla Formation, intruded 38-36 Ma by multiple stages of mineralised northeast-striking dikes and stocks of biotite granodiorite porphyry, often associated with igneous and hydrothermal breccias (Figure 1.12). Potassic alteration and veining is developed at depth throughout the deposit, characterised by biotite-K-feldspar in felsic and intermediate rocks, and biotite in mafic protoliths. Gray-green sericite veinlets overprint the potassic alteration at depth. At shallower levels, chlorite-sericite-sulphide alteration is wide-spread and overprints potassic veins. Chlorite-sericite alteration gives way at shallower depths to pervasive and veinlet-controlled quartz-sericite-pyrite, which is overprinted locally by quartz-pyrophyllite ± alunite alteration, closely associated with northwest-striking veinlet zones that are locally sheeted and host high-sulphidation mineralisation.

Leached lithocap and the underlying chalcocite enrichment blanket overprints hypogene mineralisation in the uppermost 200-500 m of the deposit. Most of the hypogene sulphide mineralisation at Escondida Norte is associated with gray sericite and chlorite-sericite veins, and consists of chalcopyrite and pyrite. Only localised centres of chalcopyrite-bornite ± chalcocite mineralisation have been encountered in the potassic zone. There is a tendency for copper tenors to drop at depth in the potassic zone, implying that appreciable copper was introduced at the chlorite-sericite stage. Potential size of the mineral primary deposit has been estimated in an October 2012 RRA workshop, incorporating 13 new condemnation drill holes completed in the previous year and a revised interpretation of the sequence and geometry of the syn-mineral intrusions. Volumes were estimated at a 0.2% cut-off grade, and exclude Mineral Resources defined by a Lerchs-Grossman optimised pit shell.

The range in tonnes was based on assumptions regarding continuity, overall strike length, and width of mineralised zones adjacent to syn-mineral granodiorite porphyry units encountered down-dip from the interpolated mineral resources. Variable assumptions were also applied to continuity and geometry of post-mineral dacite porphyry units. Copper grade assumptions were based on the continuity and size of deep potassic zones with chalcopyrite-bornite, while a consistent molybdenum grade of 125 ppm. The high-tonnage case postulated lateral extensions of mineralisation, consistent with shallow (~300 m) and widely-spaced condemnation drilling that tested the mine and dump areas.

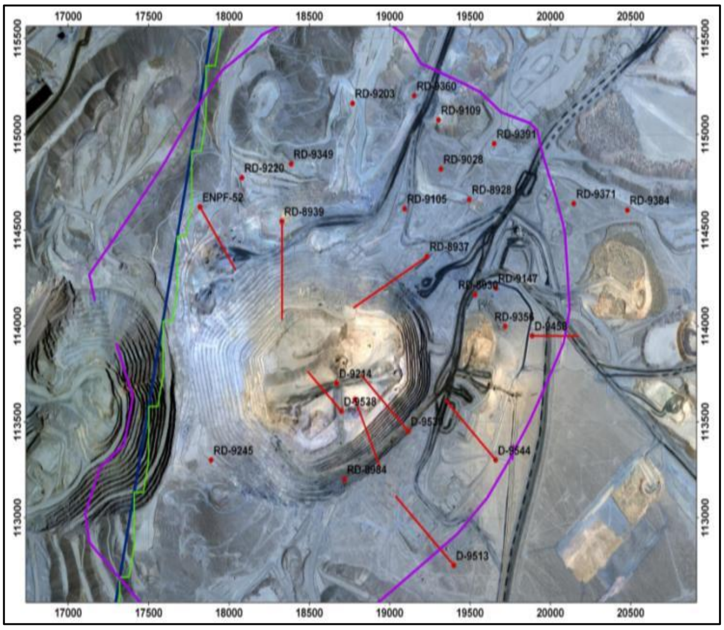

Figure 1.12: Collar location of deep diamond holes.

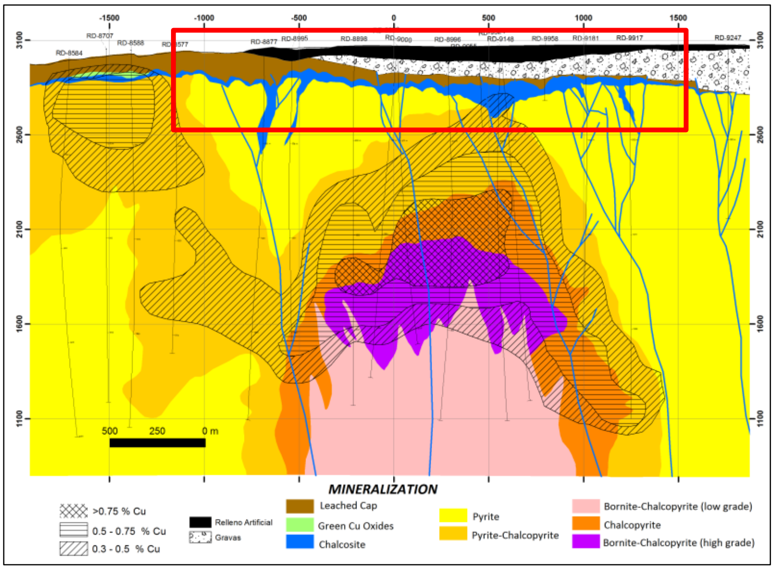

Figure 1.13: Cross section looking NE along the Hamburgo tailings D-Dike. Red box highlights the Hamburgo project area of interest.

1.6.11 Hamburgo Project

The Hamburgo project consists of evaluation of supergene mineralisation that was sporadically encountered in drilling of the Escondida Este southern mineral centre (Figure 1.4 and Figure 1.5). The drill data and geological framework was previously described in section 5.1.

Supergene mineralisation was encountered in 22 of the 71 drill holes located in and around the Hamurgo tailings facilities to a depth of 500 m (Figure 1.13). Moderate amounts of disseminated supergene sulphides mineralisation was encountered in intervals of 40 to 150 m of chalcopyrite-pyrite in phyllic-altered andesite, below approximately 150 m of unconsolidated gravels and leached capping. Secondary enrichment in late northwest-trending pyrite and high-sulphidation veinlets of the Escondida Feldspar Porphyry increase grades in the moderate enrichment of Escondida Este. Thicker zones of secondary mineralisation is associated with higher primary grades at depth.

Evaluation of the deposit was made in an RRA workshop held in October 2012. The deposit size was based on various assumptions on the extension and continuity of intercepts by widely spaced drill sites in the Hamburgo tailings facility (Figure 1.5 and Figure 1.13). The assumptions range from narrow zones, constrained by structurally controlled sericitic alteration to relatively consistent enrichment over the mineralised footprint within the Hamburgo Basin. Quality of the blanket was estimated from an average of grades encountered in the drill hole intercepts, with variable influence assumed from high-sulphidation veins.

1.6.12 Rincones Project

The Rincones project, located 10 km west of Escondida Norte (Figure 1.4), is considered part of the Chimborazo cluster of porphyry copper deposits. The project was discovered in 2004 by surface mapping, geochemistry and drill testing. Exploration drilling completed 45 holes totalling 15,769 m by 2009. All holes were drilled with reverse circulation, all of which were vertical. The remainder were drilled at orientations greater than -75°. Drill hole logging, sampling and assaying were performed under standard MEL protocols. Samples were obtained on 2 m intervals starting 10 m above first occurrence of sulphides and analysed by AA methods for total and acid-soluble Cu, Mo, Zn, and As. Additional exploration and sampling data used for evaluation of the project include ground magnetic survey, performed 100 m line spacing with continuous surveying; approximately 3,500 m of trenching for sampling of near-surface oxide mineralisation, and 65 stream sediment sample (sieved -150 micron size fraction analysed for Cu, Mo, As, Pb, Zn, Au, Ag).

Outcropping host rocks in the project area are andesitic volcanics of the Palaeocene-Eocene Augosto Victoria Formation that have been intruded by diorite to granodiorite stock complexes of late Eocene-Oligocene age. These units are largely covered by post-mineral gravel deposits of Miocene-Pliocene age (Figure 1.14 and Figure 1.15). Main structural trends correspond to N-S lineaments controlling the topography and geomorphology in the area. Other important structural features are NE and NW trending faults thought to be important for emplacement of the porphyry cluster.

Drilling and trenching encountered narrow and erratic intercepts of oxide and supergene chalcocite mineralisation to a depth of 300 m below the surface (Figure 1.15). The intercepts are interpreted as a thin and discontinuous blanket overprinting structurally controlled enargite-pyrite mineralisation. Using a range of assumptions on the continuity and extent of the supergene deposit, and average drill hole grades at a 0.2% cut-off, a March 2009 RRA workshop resulted in an estimated supergene deposit between 100 and 700 Mt in size, averaging 0.5% Cu.

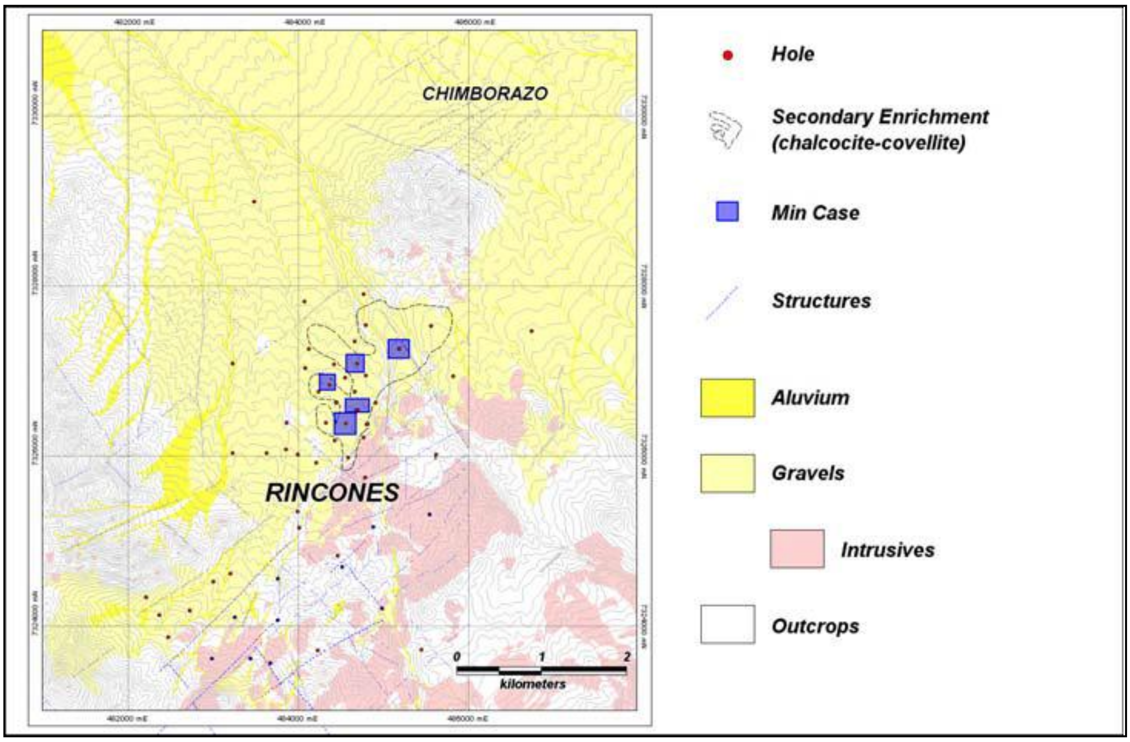

Figure 1.14: Surface geology and drill hole locations in the Rincones project area.

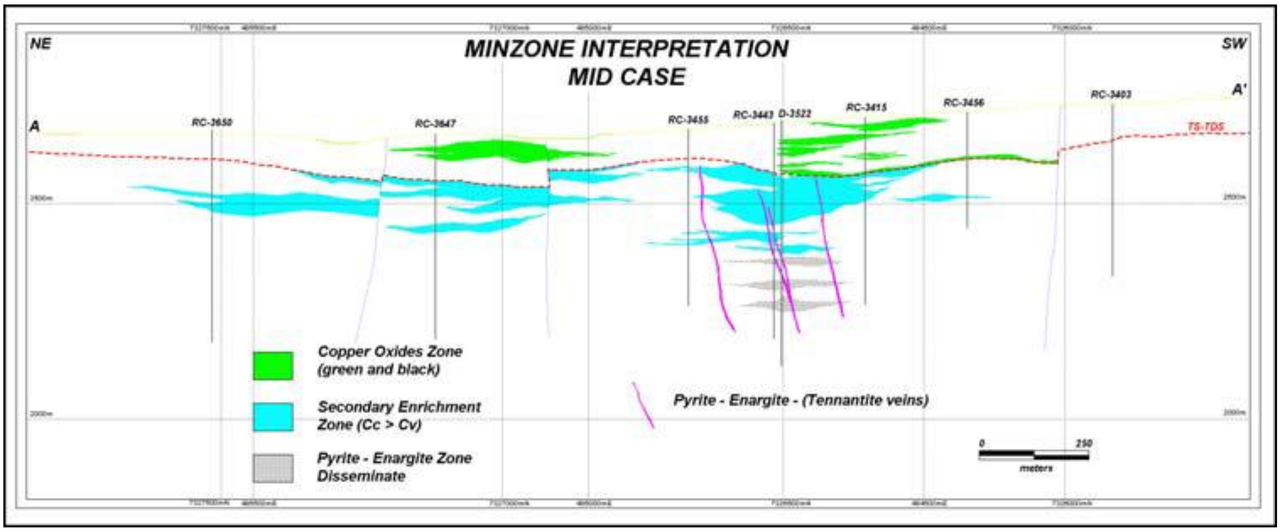

Figure 1.15: Cross section through the Rincones project, looking NW, showing drill holes locations and Mid-case interpretation

1.6.13 Pamela Oxides Project

The Pamela Oxides project area is located between the Escondida Norte and Pampa Escondida deposits, partially covered by waste stockpiles from the Escondida Norte mine (Figure 1.4). The mineralisation in the vicinity of the deposit was initially discovered as a result of condemnation drilling during Escondida Norte Feasibility studies. Subsequent drilling in the Pampa Escondida and Carmen projects identified the presence of lithological and structurally controlled copper oxide mineralisation overlying portions of the deeply buried porphyry systems.

Drill hole information in the project area includes a total of 163 holes with 107,214 m of diamond core samples and RC pre-collar drilling (Figure 1.16). Drill core logging, sampling, and assaying was conducted under standard MEL protocol. Samples were collected on 2 m intervals, and analysed by AA methods for total and acid-soluble Cu, Mo, Fe, Ag, Pb, Zn, As, and for Au by 50 g fire assay method with AA finish. Drill hole orientations are largely vertical, with approximately 15% inclined holes, with drill orientation between -75º and vertical.

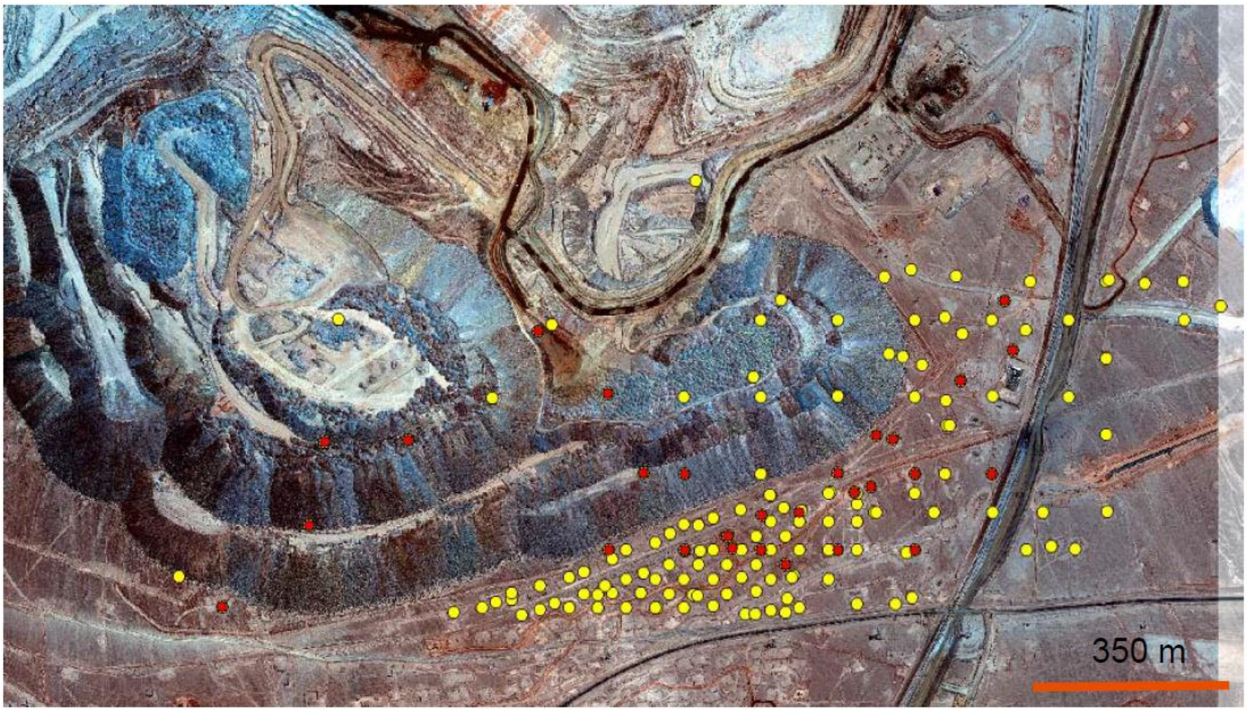

Figure 1.16: Drill hole collar locations in the Pamela Oxides project area. Red symbols correspond to drilling completed in the most recent drilling campaign in 2010.

The Pamela Project is partially under Escondida Norte waste stockpiles and is bordered to the north with the Escondida Norte mine, to the east with deep sterilisation drilling, to the west by the Zaldivar mine and abuts the Pampa Escondida deposit to the south. Late Cainozoic unconsolidated gravels cover 100% of the Pamela project area, with an average depth of 30 m to pre-mineral bedrock.

Host rocks consist of the vertical sequence of (from top to bottom) UVS (Volcanic-Sedimentary Unit) that are assigned to the La Tabla Formation along with the underlying dacite and andesite volcanics, and several intrusives of Upper Palaeozoic age (~290 Ma): Grueso Porphyry, Rhyolite Porphyry and Negro Porphyry. These units are intruded by the Pamela Porphyry, a granodiorite porphyry associated with mineralisation and two post-mineral dacite porphyry bodies. Late-stage hydrothermal breccias are observed and are mineralised.

Mineralisation within the UVS consists of an upper zone of copper oxides hosted by sedimentary units and dacite tuff interbedded with the andesite volcanics. Disseminated and fracture-controlled mineralisation hosted by limestone interbeds in the UVS is dominated by chrysocolla-brochantite, with or without formation of garnet-actinolite skarn. Oxide mineralisation in dacite tuff is dominated by fracture controlled chrysocolla. Thin and erratic chalcocite-covellite enrichment occurs below the oxidised lithocap, transitioning to weak chalcopyrite mineralisation at depth (Figure 1.17).

Evaluation of the project area was conducted with Resource Range Analysis in November 2011, focusing on size and quality of the oxide zone mineralisation. Grade was estimated from a range of relative proportions of dacite and limestone units assumed to be contained in the UVS oxide zone. Tonnes were estimated from assumptions on the continuity, relative abundance, and orientation of the favourable host rocks. This included a range of assumptions on the extent of mineralisation within open and sparsely drilled volumes. Due to small drill grid, the permissive range on the size of the deposit is low, ranging from a low of 30 Mt and high estimate of 50 Mt, averaging 0.5% Cu, at a 0.2% Cu cut-off.

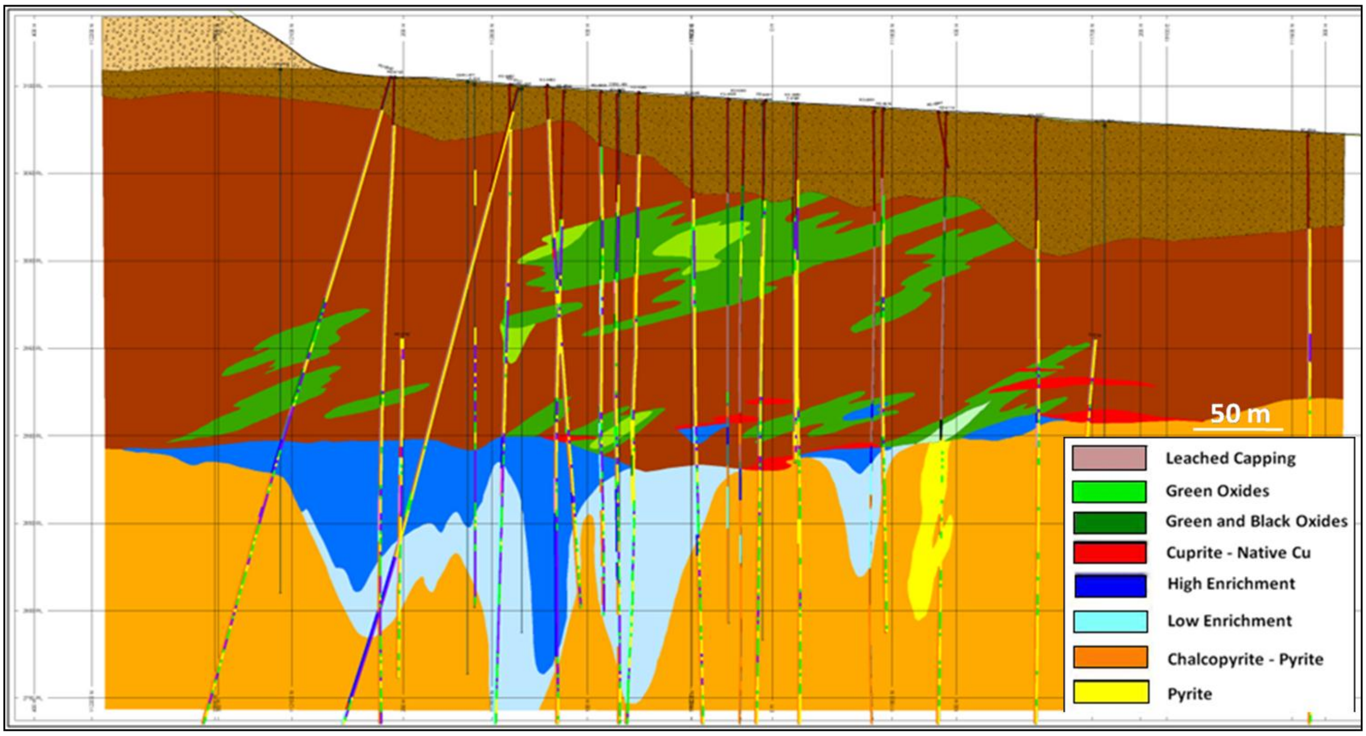

Figure 1.17: Representative cross section of mineral zones, Pamela Oxides, looking NNE

1.6.14 *Escondida (Deep)*

The Escondida deposit, was discovered in 1981 and brought into production in December 1990. Herve, et. al provides the most recent summary of the geological framework and exploration history of the deposit. A summary of the methods and results of estimation and classification of Mineral Resources is provided by MEL (2014). Escondida Deep exploration program is part of an on-going evaluation of the deeper portions of the deposit, and is aligned with overall brownfield exploration program. The Escondida program area has an upper limit of the Escondida Mineral Resources as defined by a Lerchs-Grossman optimised pit surface. The Panadero Fault is used to divide the Escondida inventory from Escondida Este (Figure 1.18).

The Escondida Deep exploration target was evaluated in March 2011, at which time the deposit was drilled by 3,876 holes totalling nearly 969 km of drilling, most of which was used for estimating mineral resources at a drill grids ranging from 50 to 110 spacing. A total of 6 drill holes have been drilled to depths reaching 2,000 m amsl (~1,100 m depth). All drilling has been performed under the MEL protocol as previously described in this document.

Evaluation of the deep mineralisation considered the geological interpretation of the overlying Mineral Resource, adjacent Escondida Este data and interpretations, but excluded these zones from grade and tonnage tabulation. The Resource Range Analysis assumed a range of extent and continuity on key geological features assumed to control deep hypogene grade, including geometry of post-mineral intrusions, distribution of grey-green sericite, and bornite-chalcopyrite mineralisation in intrusive-hosted potassic alteration. Assumptions for the low end in range on tonnes were based on potential for post-mineral intrusives to dominate the sparsely drilled volumes. High end of the ranges assumed limited additional vertical extent, but a larger volume was due to assumptions of lateral extension of early-stage porphyry pulses to the north and west. The resulting range for increased mineralisation in Escondida was 2,000 to 7,000 Mt averaging 0.5-0.6% Cu, at a 0.3% Cu cut-off. The average grade is consistent with chalcopyrite mineralisation in the low end of the range, with increased proportion of bornite-chalcopyrite assumed for the high end of the range.

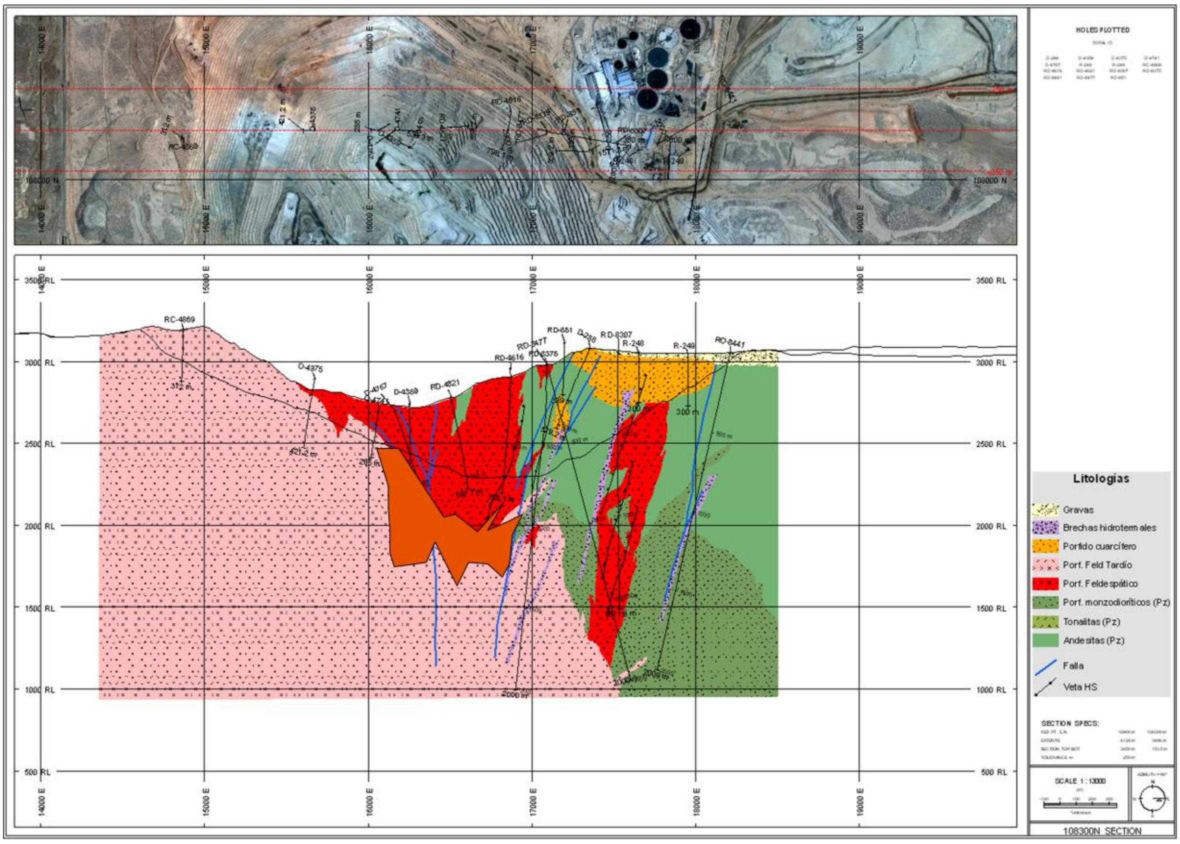

Figure 1.18: Cross sectional interpretation of the mid-case Escondida Deep target

1.7 Exploration Targets statement

Exploration Targets in the Escondida district have been compiled to reflect the range of potential size and quality, consistent with actual exploration results and porphyry copper models developed from but exclusive to the Escondida Mineral Resources.

Table 1.5: Exploration Targets as at 30 June 2014 in 100 per cent terms – reported in compliance with the 2012 JORC Code.

Project	Date	Low Case		Mid Case		High Case	
		Ton (Mt)	%Cu	Ton (Mt)	%Cu	Ton (Mt)	%Cu
Escondida Este*	Feb 2013	5,200	0.44	10,000	0.48	15,000	0.47
Escondida (Deep)	Mar 2011	2,000	0.55	3,600	0.55	7,500	0.62
Escondida Norte (Deep)	Oct 2012	1,800	0.33	2,800	0.30	5,000	0.35
Chimborazo (Deep)	Oct 2011	1,000	0.50	2,000	0.35	6,600	0.32
Baker Hypogene	Feb 2012	600	0.31	800	0.31	1,100	0.31
Baker Supergene	Feb 2012	50	0.43	80	0.45	150	0.38
Hamburgo	Oct 2012	200	0.48	400	0.53	800	0.56
Rincones	Mar 2009	100	0.47	200	0.47	700	0.47
Pamela Oxide	Nov 2011	30	0.70	30	0.72	50	0.73
Total		**11,000**	**0.47**	**20,000**	**0.46**	**37,000**	**0.47**

* Updated to be consistent with additional data reported as Escondida Mineral Resources as of 31 March 2014

- Exploration Targets potential quantity 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 determination of a Mineral Resource. It should not be expected that the quality of the Exploration Targets is equivalent to that of the Mineral Resource
- The estimates are based on exploration results of projects in and around the Escondida and Escondida Norte mineral deposits, are all of porphyry copper style of mineralisation, and are currently developed at varying degrees of project maturity and therefore exploration drilling density
- Estimations were performed within a formal facilitated process called Resource Range Analysis, in which deterministic estimates of potential volumes are determined over a range of assumptions on continuity and extension that are consistent with available data and genetic models of porphyry copper style of mineralisation.

1.8 Further work

Exploration work continues to test the high-case assumptions of the exploration projects in a prioritised sequence, with priorities established for oxide and enrichment open pit targets. Resource development work has been started to determine potential for exploitation through underground mining methods of higher-grade intercepts in deep mineralisation. Geological studies to improve the geological understanding of the deposits, especially in regards to mapping the sequence of productive and barren intrusives continue to be of high priorities. Better understanding of the geological features will be needed for the deeper portion of the Escondida deposit. At this time this mineralisation could be scheduled far into the future.

1.9 References

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2 Queensland Coal

2.1 Executive summary

This report summarises the estimation of FY14 Explorations Targets for BHP Billiton's Queensland Coal Assets of BHP Billiton Mitsubishi Alliance (BMA) (50% BHP Billiton Interest) and BHP Billiton Mitsui Coal (BMC) (80% BHP Billiton Interest).

Table 2.1: Explorations Targets as at 30 June 2014 in 100% terms reported in compliance with the JORC Code.

Mine / Project	Explorations Targets (Bt) (excluding Resources)		
	Low	**Mid**	**High**
BMA	12.3	20.8	26.3
BMC	1.2	2.7	3.4
Total Queensland Coal	13.6	23.5	29.7

Exploration Targets	Vitrinite Reflectance	Ash	Volatile Matter	Calorific Value	Coal Type
Quality Data	%	%	%	kCal/kg	
BMA	0.5-2.1	5.1-18.9	6.1-39.1	6,080-7,820	Met / Th
BMC	1.1-3.1	5.9-19.0	7.5-26.3	5,600-7,710	Met / Th / Anth
Queensland Coal	**0.5-3.1**	**5.1-19.0**	**6.1-39.1**	**5,600-7,820**	**Met / Th / Anth**

2.2 Competent Person acknowledgment

This Competent Persons Report, which provides a summary of the FY14 Explorations Targets for Queensland Coal for the year ending 30 June 2014, was prepared under the direction of the Competent Persons listed below (Table 2.2).

These Competent Persons verify that:

- they have full knowledge of information contained in this report relating to the estimation of the Explorations Targets of the said deposit
- the Explorations Targets are estimated in accordance with the relevant assessment criteria contained in Table 1 of the JORC Code
- they are members of the AusIMM, AIG or approved RPO and have the relevant experience and competency required by the JORC Code
- material issues are transparently disclosed on an 'if not, why not' basis

Table 2.2: Queensland Coal Exploration Targets Competent Persons

Name	Professional Membership	Title
Imanuel Pranoto	Member of the Australasian Institute of Mining and Metallurgy (# 225952)	Lead Geology (BMA)
Nick Cox	Member of the Australasian Institute of Mining and Metallurgy (# 312386)	Manager Exploration & Resource Geology (BMC)

2.3 Introduction

This report is issued in support of the BHP Billiton Coal Business declaration of FY14 Explorations Targets for Queensland Coal.

2.3.1 BHP Billiton Mitsubishi Alliance (BMA)

BHP Billiton Mitsubishi Alliance (BMA) is an unincorporated alliance between BHP Billiton (50%) and Mitsubishi Development (50%) which operates six open cut and two underground mines in the Bowen Basin of Central Queensland, and includes an additional four undeveloped resources (Red Hill, Peak Downs East, Saraji East and Liskeard) and three exploration projects (Humboldt, Picardy and Ridgeland). The Ridgeland Project is located in the Surat Basin of Southern Queensland.

BMA Development History

1960s	First exploration on BMA-held tenements in the Bowen Basin is conducted by Utah Development Company Limited
1967	Blackwater Mine commences operation
1971	Goonyella Mine commences operation
1972	Peak Downs Mine commences operation
1974	Saraji Mine commences operation
1976	Utah Development is purchased by GE
1979	Norwich Park Mine commences operation
1984	BHP Coal purchases coal business from GE
1997	First underground operation (Crinum) commences
2001	BHP Billiton Mitsubishi Alliance (BMA) is formed
2005	Broadmeadow Mine commences underground operation
2012	Norwich Park and Gregory Mines placed under care and maintenance
2013	Daunia Mine commences operation
2014	Caval Ridge Mine commences operation

2.3.2 BHP Billiton Mitsui Coal (BMC)

BMC is a joint venture between BHP Billiton (80%) and Mitsui Corporation (20%) which operates two open cut mines at South Walker Creek and Poitrel in the Bowen Basin of Central Queensland and includes three undeveloped resources (Wards Well, Bee Creek and Nebo West).

BMC Development History

1960s	First exploration on BMC-held tenements is conducted by Thiess Peabody Mitsui Pty Ltd
1996	South Walker Creek Mine commences operation
2006	Poitrel Mine commences operation
2011	BHP Billiton Mitsui Coal Pty Ltd (BMC) is formed

The Queensland Coal BMA and BMC assets location plan is represented as Figure 2.1.

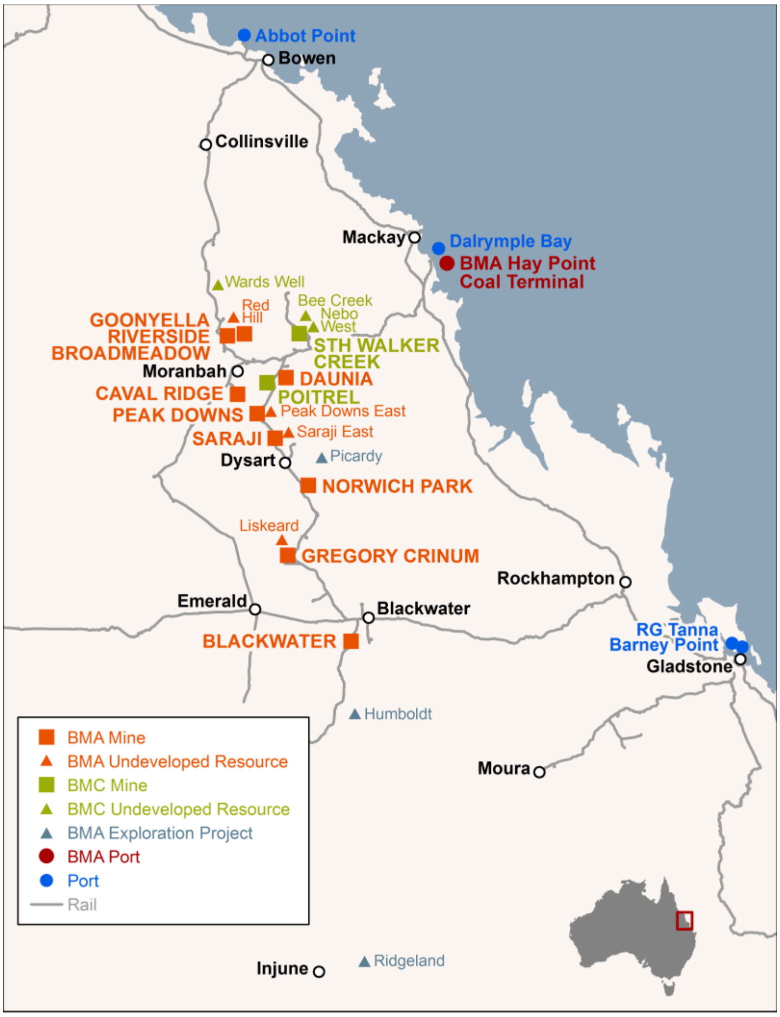

Figure 2.1: Queensland Coal BMA and BMC Assets Location

2.4 Tenure

Queensland Coal, through BMA and BMC, holds Mining Leases, Mineral Development Licences and Exploration Permits for the purposes of coal mining, exploration and the associated infrastructure requirements in the Queensland coalfields, primarily the Bowen Basin.

Tenement management is achieved using the 1SAP/TCM and LandAssist environments, and the spatial geodatabase reference and display of tenures in GIS mapping. The systems manage and govern the following:

- land and associated rights
- complex land ownership payable and receivables
- imperative approvals process and security
- all contracts that BHP Billiton is a party to are captured in 1CMS
- Business Partners' governance
- improved reporting and auditing
- central processes for tenure management obligations, reminders and tasks
- security of the tenure

There are no known impediments, notably Native Title or Environmental, which will significantly threaten the mining operations.

BMA and BMC held tenements are shown in Figure 2.2 and summarised in Table 2.3.

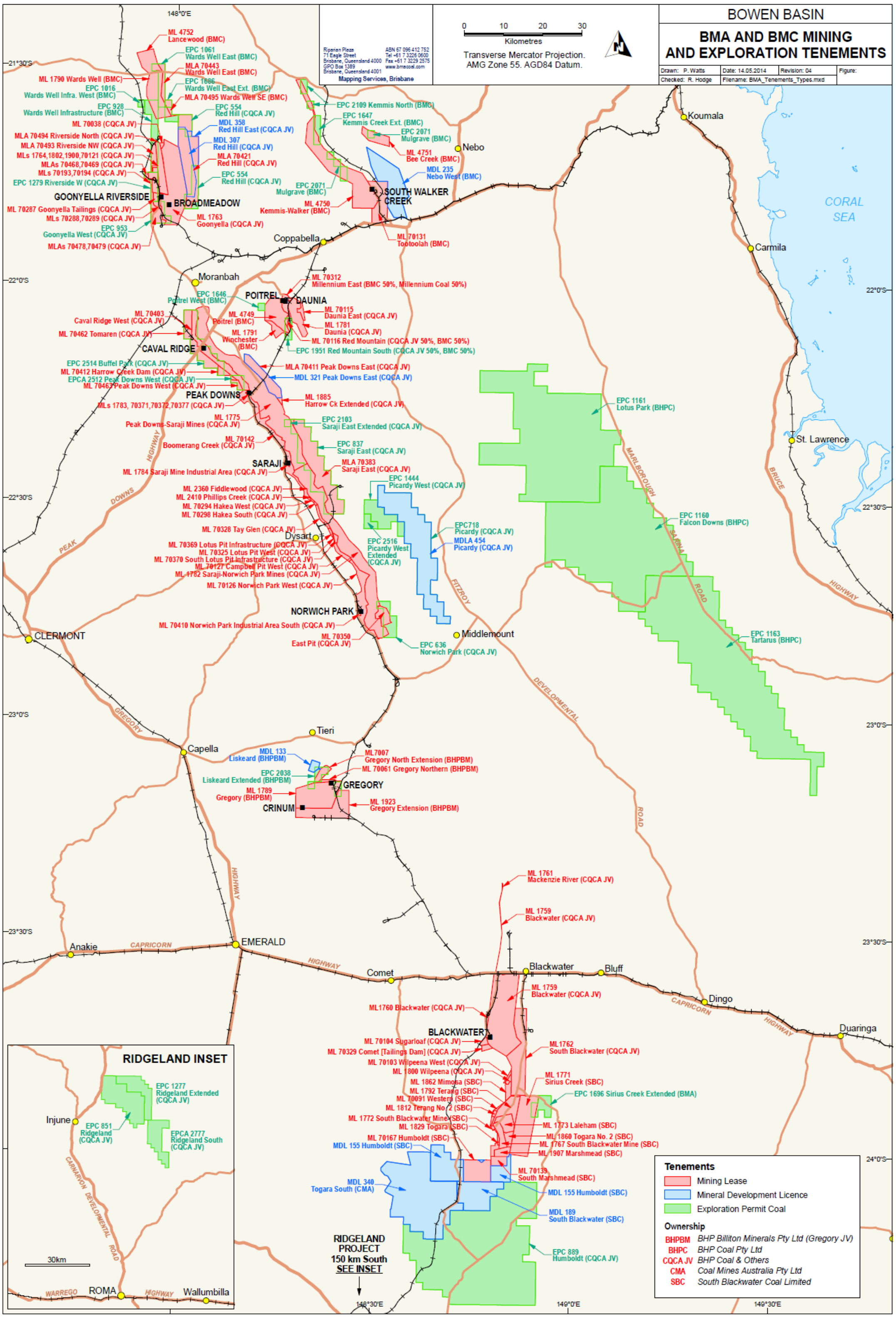

Figure 2.2: Mining Tenure

Table 2.3: Summary of Queensland Coal Tenure

	Mining Lease		Mineral Development Licence		Exploration Permit for Coal	
Mine/Project	**Number**	**Area (ha)**	**Number**	**Area (ha)**	**Number**	**Area (ha)**
Operations						
Blackwater	21	42,000	2	15,512	1	2,193
Caval Ridge	3	10,167				
Gregory Crinum	4	12,601	1	597		
Daunia	3	3,349				
Goonyella/Broadmeadow	18	25,946			2	3,814
Norwich Park	9	15,170			1	2,842
Peak Downs	10	13,534	1	2,824		
Saraji	8	11,734				
South Walker Creek	2	15,168			3	3,819
Poitrel / Winchester	3	4,969			2	1,269
Undeveloped Resources						
Liskeard					1	1,890
Peak Downs East			1	2,824		
Red Hill			2	6,336	1	4,134
Saraji East					2	12,347
Wards Well	2	6,758			4	7,639
Bee Creek	1	1,712				
Nebo West			1	8,058		
Exploration						
Cockenzie					2	157,127
Humboldt					1	72,190
Picardy					3	24,037
Ridgeland					2	39,524
Total	**84**	**163,108**	**8**	**36,150**	**25**	**332,825**

2.5 Deposit Geology

The deposits (with the exception of Ridgeland) are located in the Permo-Triassic Bowen Basin and principally comprise of fluvial and some marine sediments. The Bowen Basin extends for more than 250 km north to south and up to 200 km east to west and is related to the group of Permo-Triassic basins in eastern Australia that includes the Sydney and Gunnedah Basins. The Bowen Basin's axis orientation is NNW-SSE, roughly parallel to the Palaeozoic continental margin. The basin is situated between stable, Devonian to Carboniferous rocks of the Clermont Block to the west and a Devonian to early Permian island arc system, the Eungella-Cracow Mobile belt, to the east, as shown in Figure 2.3.

Tectonically, the basin can be divided into NNW-SSE trending platforms or shelves separated by sedimentary troughs. These units from west to east are the Springsure Shelf, Denison Trough, Collinsville Shelf/Comet Platform, Taroom Trough, Connors and Auburn Arches (interrupted by the Gogango Over-folded Zone) and the Marlborough Trough.

Development of the basin in the Early Permian occurred as a series of half-grabens that subsequently became areas of regional crustal sag. The basin has suffered extensional and compression events oriented in NE-SW direction. Variations in depositional patterns and deformation styles that occur along strike suggest the possibility of NE trending deep seated crustal transfer faults referred to as a 'transfer corridor' by Hammond (1987). This structural evolution of the basin occurred in five phases:

1. Late Carboniferous to Early Permian tensional basin development (rifting).
2. Late Permian thermal relaxation and slow subsidence resulting in widespread accumulation of coal bearing sequences.
3. Late Triassic compression, resulting in folding and reverse faulting.
4. Cretaceous to Tertiary normal faulting due to extension associated with the opening of the Coral Sea.
5. Tertiary hot spots resulting in thermal doming and collapse. Widespread intrusion\extrusion of basalt dykes, sills and flows.

A generalised geology and stratigraphic column of the Bowen Basin is represented in Figure 2.3. Schematic cross sections of the northern and southern Bowen Basin are represented in Figure 2.4.

A generalised geology and stratigraphic column of the Ridgeland Project within the Surat Basin is represented in Figure 2.5.

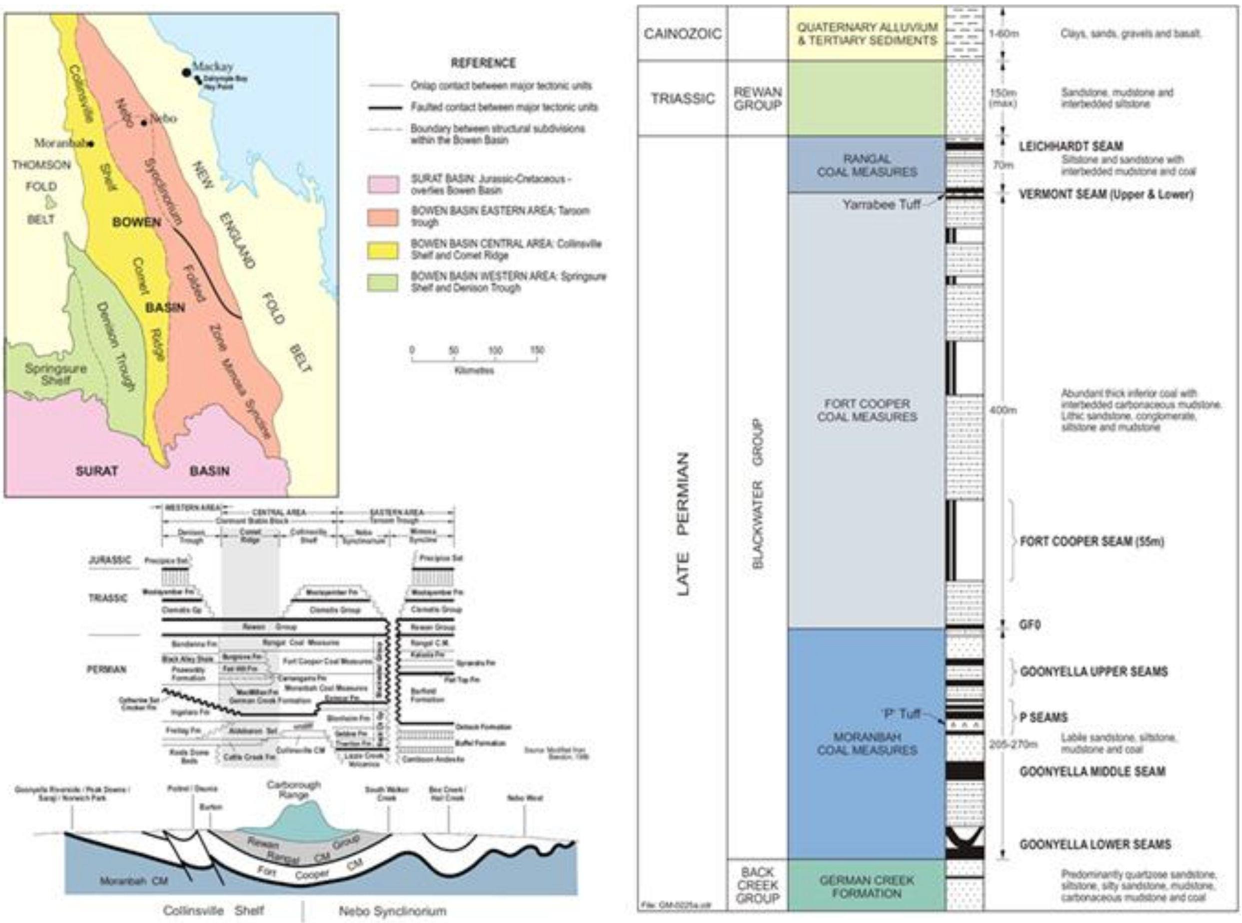

Figure 2.3: Generalised Geology Plan and Stratigraphy of the Bowen Basin

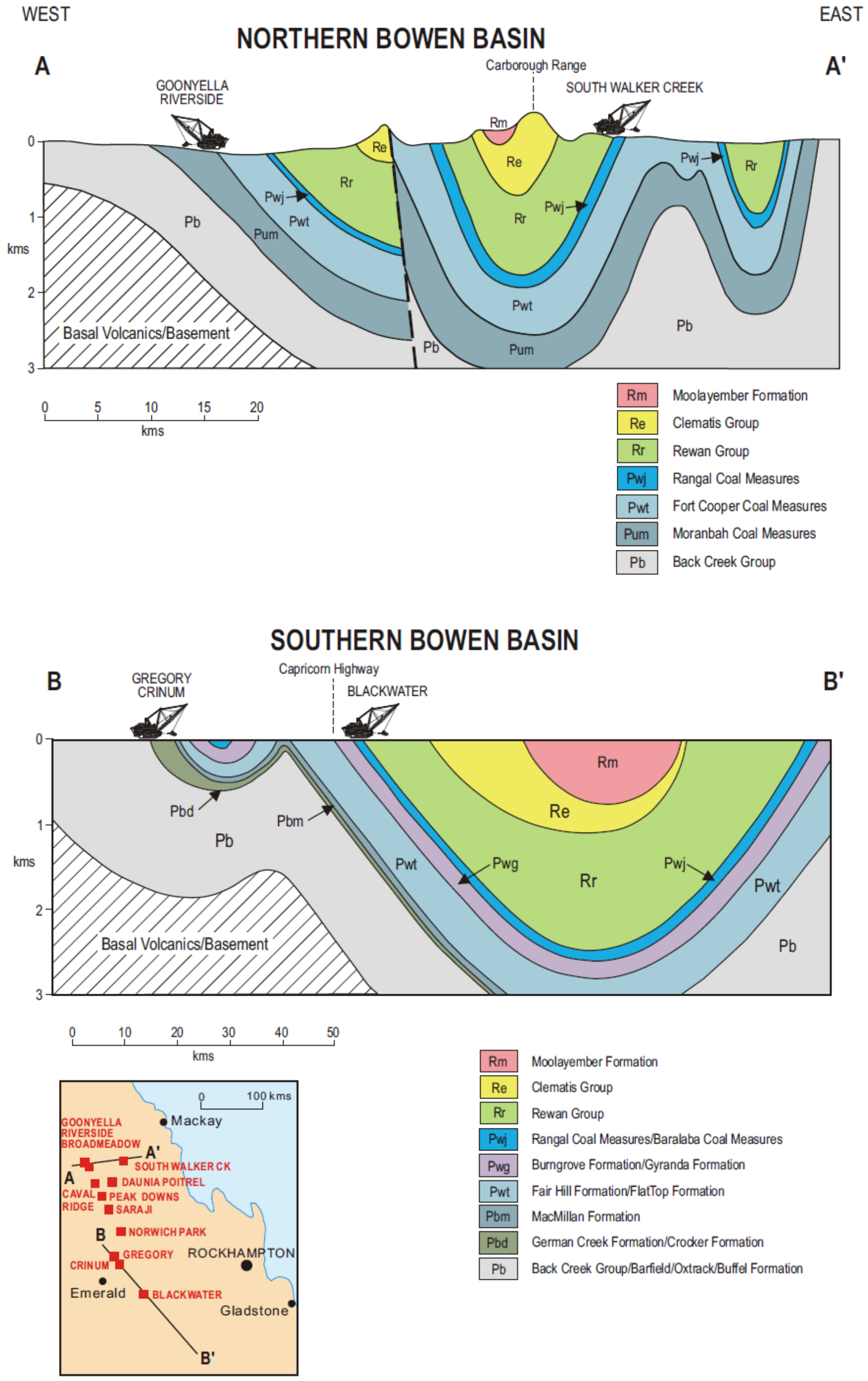

Figure 2.4: Bowen Basin Schematic Cross-sections

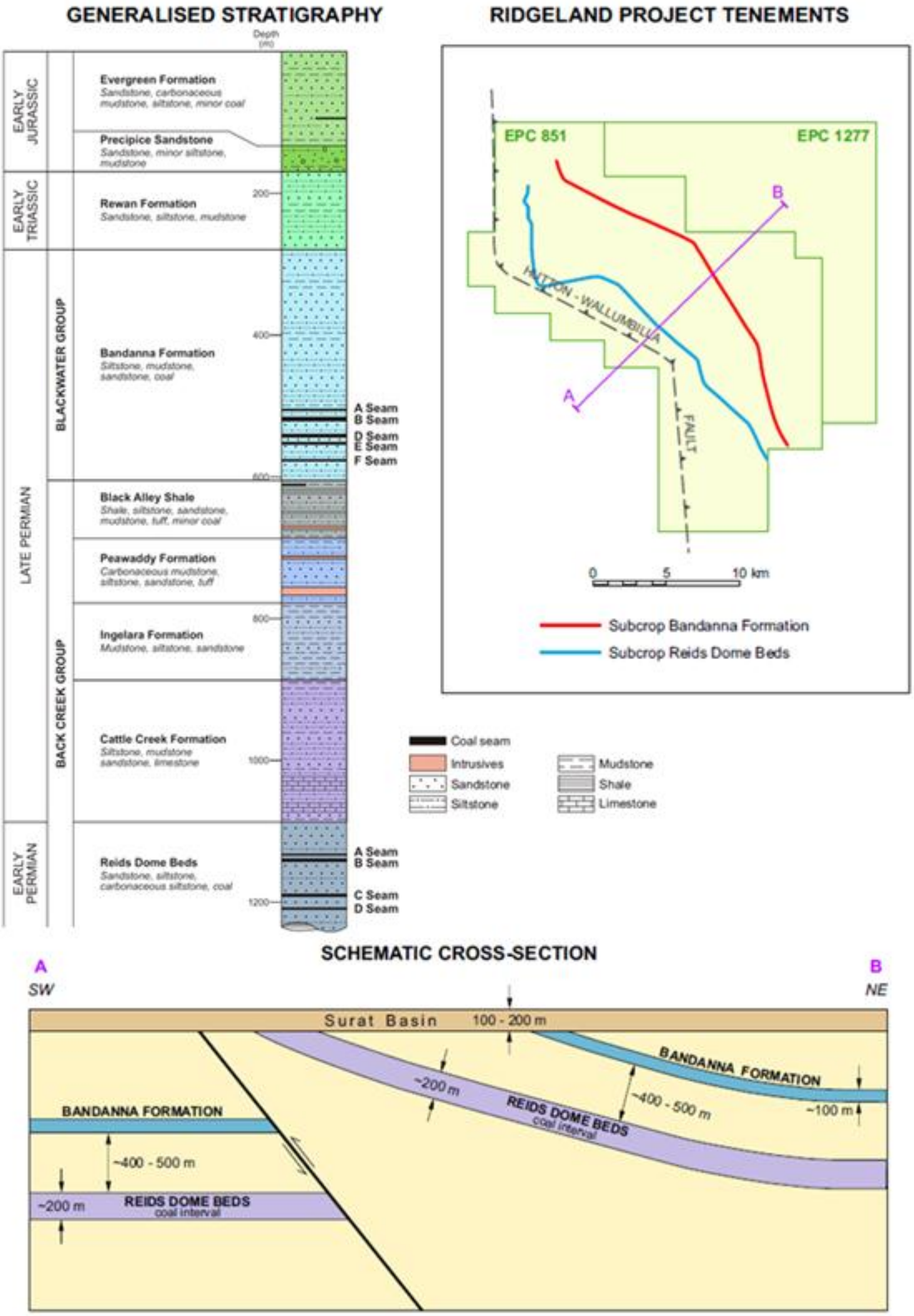

Figure 2.5: Generalised Geology Plan and Stratigraphy of the Ridgeland Project (Surat Basin)

2.6 Data Acquisition

A consistent method of data acquisition is used by exploration and development drilling campaigns through the use of a Field Data Capture System (FDCS) and Drillsite Management System (DSM), developed by the Snowden Group. BMA manages BMC's data acquisition via a service level agreement. The acquired data sets which are used for the Exploration Target estimations include:

- drilling: open hole mud and/or air rotary, conventional core, and diamond core
- seismic surveys: 2D and 3D

- other geophysical surveys: gravity and magnetic
- topographic survey, including:
  - aerial surveys (photography)
  - LIDAR scans
  - satellite imagery
  - scanned 1:250,000 topographic sheets

The drilling data acquired includes:

- drill hole collar coordinates, surveyed, before and after drilling,by in-house teams using a survey quality GPS (Global Positioning System) system with accuracy of sub-decimetre for x, y and z values
- downhole geophysics logging
- standard geological logging and automated data capture procedures, which are followed for the different drilling methods
- geotechnical logging and/or sampling, typically undertaken in accordance with established geotechnical standards
- coal analysis in accordance with site specific sampling and analysis programs

2.6.1 Drilling

Exploration drilling is conducted using standard operating procedures. Both core and non-core methods are used.

These comprise:

- core drilling, utilised for the following:
  - coal quality sampling and washability and coking properties analysis – 100 mm or PQ sized and on requirement, large diameter (200 mm) core
  - gas testing (usually HQTT), often combined with,
  - geotechnical testing (strata geomechanical testing)
  - other specialised testing as required (spontaneous combustion, geochemistry, clay mineralogy etc.)
- non-core drilling: utilised for the following:
  - pilot holes (drilled at core sites to provide details for conventionally cored holes)
  - structural definition (fault delineation, seam splitting, intrusions, etc.)
  - Line of Oxidation (LOX) definition

Drill holes are routinely geophysically logged by a coal combination sonde which has a width caliper, natural gamma, long (45 cm) and short (15 cm) spaced density logs, sonic and verticality probes where water level allows. Other sondes run from time to time for specific purposes include magnetic or gyro verticality (deeper holes), focussed electric (intruded holes), resistivity (for e.g. suspected intrusions in seams), acoustic and optical televiewers and temperature. Neutron sondes are not presently approved for use but have been used historically.

Boreholes drilled prior to 1986 were not generally geophysically logged and for a period between the late 1980’s and early 1990’s logs were run but not routinely quality controlled. Accordingly, additional verification on the logs run during this period is required. Subsequently there has been a policy to geophysically log all holes.

Table 2.4 represents a summary of the total drilling completed on the BMA and BMC deposits since the late 1960’s. Drilling is undertaken on a grid basis and the data is collectively used to establish Exploration Targets estimates. Hence actual drillhole locations, which are extensive, are not material to the context of this Report.

Table 2.4: Total BMA and BMC Drilling (to June 2014)

Deposit	No. Chip Holes	No. Core Holes	Other Holes	Total Holes
BMA				
Blackwater	15,656	4,386	660	20,702
Daunia	3,127	553	16	3,696
Gregory Crinum (Incl. Liskeard)	6,988	1,048	328	8,364
Goonyella (incl. Red Hill)	10,056	2,301	369	12,726
Humboldt	13	32	0	45
Norwich Park	6,339	1,386	16	7,741
Peak Downs (incl. Peak Downs East)	12,823	2,081	7	14,911
Picardy	656	67	0	723
Ridgeland	20	31	0	51
Saraji (incl. Saraji East)	4,565	2,332	69	6,966
BMC				
Bee Creek	125	54	-	179
Nebo West	2,015	199	-	2,214
Poitrel	3,524	941	9	4,474
South Walker Creek	3,300	2,215	8	5,523
Wards Well	358	299	10	667
Total	**69,565**	**17,925**	**1,492**	**88,982**

2.6.2 Sampling and Analytical Procedures

Geological logging and sampling is undertaken as per the BMA geological service procedure. There are minor differences in requirements at each site, but the procedure serves as a generic reference document that field personnel follow.

Coal analysis is carried out at either BMA's Barney Point laboratory, ACIRL's (ALS) Ipswich laboratory or contracted to Barney Point approved laboratories. ALS and AMDEL provide specialised trace element analyses and coke oven testing. Assay validation is performed by Barney Point laboratory staff and on site by the project geologist.

All laboratories utilised are NATA registered and all analysis techniques are carried out to the relevant Australian Standard. Work performed by the non-BMA laboratories is conducted under the terms of a sub-contractor agreement which stipulates the required sample control and storage procedures, analytical procedures and standards, participation in NATA and BHP Billiton Round Robin check testing and document control.

2.6.3 Quality of Assay Data and Laboratory Tests

The laboratories utilised are all NATA accredited and have documented procedures.

To test the performance of Barney Point and external laboratories used for coal quality analysis; blind samples and round robins are routinely undertaken. Blind samples are submitted monthly and round robins performed six monthly.

An audit of the laboratories quality assurance and quality control processes was undertaken in 2008. A summary of the report is included here for reference:

"The scope of this report was to review the typical geology sample and coal quality QAQC procedures applied by BMA to ensure the final sample data are sufficiently representative for Coal Resource estimation and reporting. The aim was to comment on whether the existing QAQC procedures provide the information and processes necessary to assess and report on the reliability of the sample data and identify any opportunities for improvements."

Assuring the quality of the sample data is critical as this data is the basis for the Coal Resource. The estimation, confidence classification and reporting of Coal Resources relies on the following main inputs and steps:

- the geological sample data in the form of geology and coal quality data
- the interpretation and modelling process
- the validation, assessment and final reporting of the modelled resource

The QAQC control of the final laboratory analytical steps can be considered as generally very good; however as the sample flow is traced further back in the sample preparation stages, fewer quantitative and qualitative controls are in place. Therefore, whilst it is possible to demonstrate the reliability of the final step in the protocol, namely the final quality analysis of the 1 g sample, it is currently not possible to comment on how representative the 1 g sample is of the original field sample.

2.6.4 Verification of Sampling and Assaying

Predicted coal seam from and to depths are provided to the exploration geologist to ensure that the correct coal seam intervals are sampled. If the depths appear to be inaccurate whilst the drilling is being undertaken, remedial action is implemented e.g. early geophysical logging of the bore hole or re-drilling if required.

Twinned holes are rarely undertaken in the coal industry because quality variations tend to be small and are investigated in short-term exploration programs.

There are a large number of physical and chemical analysis techniques undertaken on coal samples. The type and number of analysis techniques depends on the type of the product that is to be achieved (Energy or Metallurgical (i.e. Coking or Pulverised Coal Injection (PCI))). As coal seam grade varies from one product type to another, analysis techniques are developed so that all simulations can be undertaken. This means that each deposit will have a specific detailed analysis program.

During field collection, data is encoded directly into Toughbook computers via Micromine’s GBis software. Rigorous validation is undertaken such that only predefined values can be entered.

2.6.5 Sample Security

All sampling is conducted on site; the rig geologist will lithologically log the core, determine sample intervals, assign sample numbers, bag the samples and load them into steel drums for transport. Sample numbers are recorded in the BMA Field Data Capture System (FDCS) and sample submission forms generated and sent to the laboratory.

The samples are then despatched from the field to BMA’s primary external laboratory for cold storage until instructions are generated; currently this is ALS’ Richlands Laboratory.

Upon receipt of each despatch, ALS records sample details and advises BMA that samples have been received and requests analytical instructions.

The majority of results produced by the lab are captured by various automatic data capture processes and stored in the laboratory’s LIMS database until testing for each job is completed and ready for reporting. The laboratory uses internal QA/QC processes to validate each batch of specific tests including:

- standard coal reference material analysed with batches of unknowns for ash, sulphur etc.
- other test results are validated via a number of graphical relationships to ensure integrity of the results for unknown samples, e.g. sizing analysis, Ash versus Relative Density etc.

At the completion of testing, the laboratory LIMS database generates files which are sent to the BMA Specialist Coal Quality for importing into BMA’s GBis LIMS database. The lab results are then exported via GBis LIMS to create a block summary in Microsoft Excel format, used by the BMA Specialist Coal Quality to perform quality data validation using well established and documented BMA validation procedures. Any data anomalies are resolved with the laboratory before approval is given by BMA to transfer the results into the coal quality tables in GBis.

2.7 Coal Resource Range Analysis (RRA) and Explorations Targets Reporting

In-Situ Exploration Targets (Exploration Targets) are estimated from geological information including boreholes, outcrops and geophysical information, and are shown as a range, around the mid value. The potential quantity is conceptual in nature, as there has been insufficient exploration to define a Mineral Resource, in accordance with the JORC Code. It is uncertain if further exploration will result in the determination of a Mineral Resource. It should not be expected that the coal quality of the Explorations Targets is equivalent to the existing Resource.

The Resource Range Analysis (RRA) process methodically identifies and accommodates, in the final estimate, all uncertainties that may influence a coal / mining inventory. This attempts to anticipate all possible future datasets and provides a risk based assessment of possible mineral inventory outcomes. Both the known uncertainties, for which allowances need to be considered in the estimate as well as the unknown certainties and the risk exposures which may eventuate and affect the mineral inventory estimate, are all taken into account to derive a range of inventory quantities.

RRA is used at a number of stages during a project or operation's life cycle to estimate the uncertainty in a number of key variables, particularly for capital and operating cost, metallurgy and resource and mining uncertainties. In early stage opportunities, resource uncertainty can often have the largest influence in value, and even in the assessment option additional to an existing operation, uncertainty around resource can be a key value driver.

A summary of FY14 Exploration Targets is shown in the Executive Summary of this document.

2.8 Independent Audit and Review

Independent audits are conducted as required by BHP Billiton procedures. A summary of recent audits by deposit is tabulated below in Table 2.5. There were no material findings from these audits.

Table 2.5: Independent Audit Summary for BMA and BMC Operations

Operation	External Audit
Saraji	2013 BMA Technical Audit*
Daunia and Caval Ridge	BMA Major Projects Audit January 2013*
South Walker Creek Poitrel	BHP Billiton Group Audit Services April 2014*
Wards Well	2013 BMC Technical Audit*

*Internal audit only.

2.9 Further Work

The RRA process provides a methodology for assessing deposits for the range of mineralisation that can exist in an area under varying geological conditions. Incomplete knowledge of a deposit creates uncertainty. The understanding of a deposit will change over time, as the level of knowledge increases. However the ability to detect and characterise the deposit is limited by data, even after detailed exploration and evaluation. The RRA process is a means of quantifying the uncertainty by considering all possible outcomes as a range and modelling a probability distribution to quantify risk.

The range of mineralisation is estimated from geological information including boreholes, outcrops and geophysical information. The potential quantity is conceptual in nature, there has been insufficient exploration to define Mineral Resources and it is uncertain if further exploration will result in the determination of Mineral Resources. It should not be expected that the quality of the Exploration Targets is equivalent to that of the Mineral Resources.

Exploration work continues to test the high-case assumptions of the exploration projects in a prioritised sequence, based on expected margin rank analysis and aligned with tenement work commitments. Both the RRA process and margin rank analysis (with input from Marketing) occur on an annual basis. The timing of exploration is balanced across the life of the combined Coal asset portfolio to balance new growth projects with existing mine depletion.

2.10 References

Hammond, R. L., 1987, The Bowen Basin, Queensland, Australia: An upper extension model for its early history: Australian Bureau of Mineral Resources Record 1987/51.

Noppe, M., 2008, Audit Report of Laboratories QA/QC processes 14 November 2008.

3 Western Australia Iron Ore

3.1 Executive summary

Western Australia Iron Ore

Table 3.1: Exploration Targets as at 30 June 2014 in 100 per cent terms – reported in compliance with the 2012 JORC Code.

Ore Type	Billions (wet Mt)			Fe %
	Low	Mid	High	
Brockman	9.0	15	27	57-61%
Marra Mamba	4.2	7.2	15	57-61%
Nimingarra	0.3	0.5	1.2	57-61%
Other Bedrock	0.6	1.1	1.7	52-56%
Channel Iron	0.9	1.5	2.5	52-56%
Detrital Iron	3.1	5.8	11	52-56%
Total	18	31	58	56-60%

Note: Totals rounded to nearest billion wet metric tonnes (wmt) to reflect the appropriate level of precision. Tonnes and grade are reported above a 50% Fe cut-off. Other Bedrock includes Whaleback and Yandicoogina Shale members excluded from Brockman as well as Mt McRae Shale, Mt Sylvia, Weeli Wolli and Boolgeeda Formations.

- Western Australia Iron Ore (WAIO) is located within the Pilbara region of Western Australia. The geology of the region, comprising the Hamersley and North East Pilbara provinces, has been extensively studied and is well documented from over five decades of mapping, exploratory drilling and mining. Notably, the geological information is publicly available from the Geological Survey of Western Australia (GSWA – Department of Mines and Petroleum) in the form of maps, cross-sections, drillhole based formation and other publications.
- Due to the size of work programs and geographical area covered, WAIO does not publically report individual Exploration Results instead we report Exploration Targets. The ranges of Exploration Targets are estimated from geological information including boreholes, outcrops and geophysical information. The potential quantity is conceptual in nature, there has been insufficient exploration to define Mineral Resources and it is uncertain if further exploration will result in the determination of Mineral Resources. It should not be expected that the quality of the Exploration Targets is equivalent to that of the Mineral Resources.
- Estimations are performed within a formal facilitated process called Resource Range Analysis (RRA), in which deterministic estimates of potential volumes are determined over a range of assumptions on continuity and extension that are consistent with available data and genetic models of the Pilbara region of Western Australia.

3.2 Competent Person Acknowledgement

This Competent Persons Report, which provides supporting documentation for the Exploration Targets estimated for WAIO as at 30 June 2014, was prepared under the direction of the Competent Person listed below (Table 3.2).

The Competent Person verifies that:

- he has full knowledge of information contained in this report relating to the estimation of the Exploration Targets of the said deposits;
- the Exploration Targets are estimated in accordance with the relevant assessment criteria contained in Table 1 of the JORC Code;
- he is a member of MAIG, and has the relevant experience and competency required by the JORC Code; and;
- Material issues are transparently disclosed on an 'if not, why not' basis

Table 3.2: WAIO Exploration Targets Competent Persons

Name	Professional Membership	Title
J Knight	Member of Australian Institute of Geoscientists	Head of Exploration

3.3 Introduction

This report covers Exploration Targets and is issued in addition to the BHP Billiton, Iron Ore Business declaration of Mineral Resources in the BHP Billiton Operational Review Report for the year ended 30 June 2014 for Western Australia Iron Ore, Australia, released on the 23 July 2014.

BHP was the first company to start iron ore mining in Western Australia in the Kimberley area in 1956 at Yampi Sound's Cockatoo Island – the adjacent Koolan Island mine followed in 1965. These mines primarily supplied BHP's domestic steelworks at Newcastle and Port Kembla, although some product was exported. In 1966 BHP developed the Pilbara's first wholly export mine at Mt Goldsworthy by Goldsworthy Mining Limited (GML) and the Koolyanobbing (by Dampier Mining Company Ltd – DMC) mine in the Yilgarn. The latter mainly provided ore for BHP's steelworks in Kwinana near Perth with a minor portion exported to the Chinese market.

Major export operations commenced in 1969 with the creation of the Mt Newman Mining Joint Venture (MNM), and subsequent production from the Mt Whaleback deposit. In 1986 BHP acquired majority ownership of MNM, which along with the 100% BHP owned but undeveloped Yandi property (eventually developed in 1991) began a growth phase. Acquisition of Goldsworthy Mining Limited (GML) and Jimblebar (formerly McCamey's Monster) followed in 1990 and 1992 respectively. In July 2013, the completion of the ITOCHU Corporation (ITOCHU) and Mitsui & Co., Ltd. (Mitsui) transaction reduced our ownership in the Jimblebar Joint Venture to 85%.

BHP Billiton has been expanding the WAIO operations in response to increasing demand for iron ore. Production has increased from 68 Mt (100% basis) in the 2001 financial year to 225 Mt (100% basis) in the 2014 financial year. BHP Billiton's share of 2014 financial year production was 193 Mt.

3.4 Tenure

The majority of deposits reported are located over five main lease areas held by WAIO (and its joint venture partners, as appropriate, Figure 3.1. The leases, listed in Table 3.3, are governed by State Agreement Acts.

These State Agreement Acts are:

- *Iron Ore (Mount Newman) Agreement Act 1964 (WA)*
- *Iron Ore (Mount Goldsworthy) Agreement Act 1964 (WA)*
- *Iron Ore (Goldsworthy-Nimingarra) Agreement Act 1972 (WA)*
- *Iron Ore (McCamey's Monster) Agreement Authorisation Act 1972 (WA)*
- *Iron Ore (Marillana Creek) Agreement Act 1991 (WA)*

Table 3.3: WAIO Main Lease Areas

Lease Number	Joint Venture or Tenement Name
ML 244 SA	Mt Newman JV
M 266 SA	Jimblebar
M 270 SA	Yandi JV
ML 281 SA	Mt Goldsworthy (Area C) JV
ML 235 SA, ML 249 SA, ML 263 SA, ML 251 SA	Mt Goldsworthy (Northern Areas) JV

There is a well-defined process for operating within the tenements that comprise each of the State Agreement Acts. This process includes various State Agreement approvals required before mining, processing and transport of iron ore products can commence.

In addition, one minor operation (Callawa part of Mt Goldsworthy JV Northern) is conducted upon a mining tenement issued under the *Mining Act 1978 (WA)*.

Proposals approved under State Agreements are a binding commitment between the State and the relevant Joint Venture and provide long-term security to the tenure and thereby the rights to mine. The approvals will remain current whilst operations are actively conducted and the State Agreements, which are ratified by the relevant Act, provide security to the renewal of tenure for the life of the operations.

Tenure is managed by the Land Tenure Team. The systems in place include a database of all tenure which includes details of the location, ownership, size, grant and expiry dates and records of the rent paid. In October 2013, the 1SAP Tenement Contract Management (TCM) Module was implemented and, since then, all WAIO tenements are captured in TCM with all payments governed through this process.

A minority of deposits for which Mineral Resources have been stated are located on exploration licences. The tenements systems described above manage all mining, exploration and infrastructure tenements.

Exploration titles are applied for under the processes set out in the *Mining Act 1978 (WA)* and once an exploration licence is granted it entitles the holder to explore for minerals over the tenement area. Retention of these licences is subject to annual rental and reporting obligations and meeting annual expenditure commitments or being granted exemptions.

During FY14, Exploration Licences and Mining Leases under the *Mining Act 1978 (WA)* held by BHP Coal Pty Ltd and BHP Billiton Minerals Pty Ltd as detailed in the points below were transferred to BHP Iron (Jimblebar) Pty Ltd.

- East Jimblebar / Caramulla – Mining Leases 52/865 – 52/869 and 52/874 – 52/885
- MAC North – Exploration Licence 47/628 and Mining Lease applications 47/703 – 47/709
- Mindy / Coondiner – Mining Leases 47/710 – 47/731
- Prairie Downs – Exploration Licences 52/21 – 52/23, Mining Leases 52/886 – 52/893, 52/907 – 52/909 and Mining Lease applications 52/870 – 52/873 and 52/897 – 52/900
- Roy Hill – Exploration Licence 45/1073 and 45/1074 and Mining Lease applications 45/1038 – 45/1065
- Western Ridge – Exploration Licence 52/170 and Mining Leases 52/901 – 52/906
- Western Ridge – Exploration Licence 52/2008

In 2010, amendments were made to the five State Agreements managed by BHP Billiton Iron Ore Pty Ltd to, amongst other matters, permit applications to be made to include the area of exploration and mining tenements granted under the Mining Act 1978 (WA) into mining and mineral leases granted under the State Agreements up to 777 km^2. The State Agreement amendments also allow separate applications to be made to increase the total area of these State Agreement mining and mineral leases up to a limit not exceeding 1,000 km^2.

BHP Billiton made an application to the Minister for State Development for the inclusion of areas into Mining Lease 266SA pursuant to clause 11B(1) of the McCamey's Monster State Agreement. The Minister approved the application and in order for the new sections of Mining Lease 266SA to be granted, conditional surrenders for the tenements in Application 1 were required.

The tenements within Application 1 are:

- East Jimblebar / Caramulla – Mining Leases 52/865 – 52/869 and 52/874 – 52/885
- Mindy / Coondiner – Mining Leases 47/710 – 47/731
- Prairie Downs – Mining Leases 52/886 – 52/893, 52/907 – 52/909
- West Jimblebar – Mining Lease 52/894 – 52-896
- Dongardoo – Exploration Licence 52/1830 and Mining Lease 52/1056
- Western Ridge – Exploration Licence 52/170 and Mining Leases 52/901 – 52/906
- Western Ridge – Exploration Licence 52/2008

The conditional surrenders have now been registered and these areas are now part of Mining Lease 266SA.

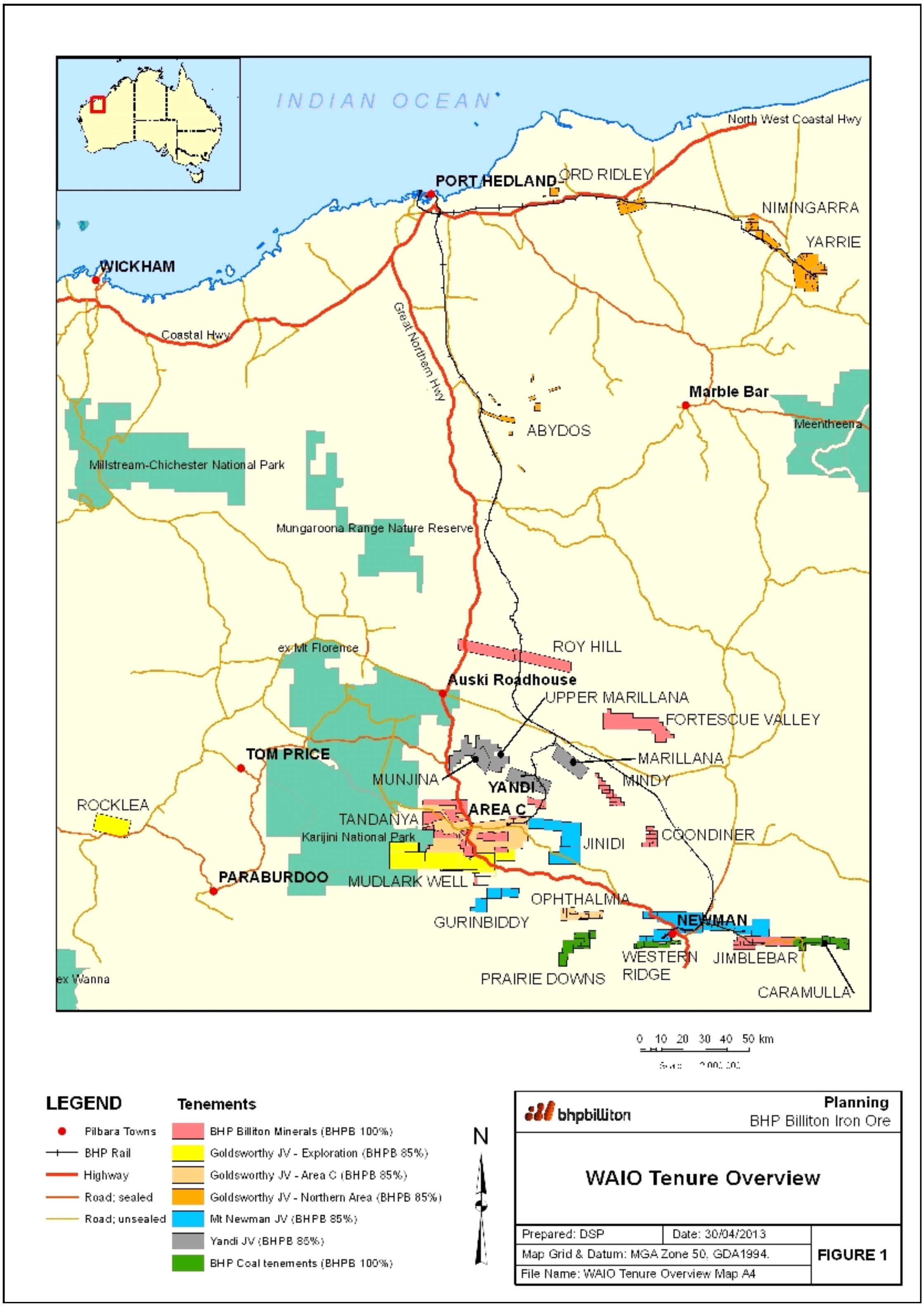

Figure 3.1: WAIO tenement location plan

3.5 Deposit Geology

The Hamersley Province, Figure 3.2 (after Harmsworth et al 1990), covers an area of 80,000 km^2 and contains late Archaean – Lower Proterozoic age (2,800-2,300 Ma) sediments of the Mount Bruce Supergroup.

The Hamersley Group forms the central part of the Mt Bruce Supergroup and is conformable with both the underlying Fortescue Group and overlying Turee Creek Group. It is a 2.5 km thick sequence of dominantly deep water chemical sediments, with subordinate turbiditic sediments and various intrusive and extrusive rocks. Sediments include (in approximate order of decreasing abundance) banded iron-formation (BIF), shale, dolomite derived from peri-platformal ooze, chert, pyroclastic shale and tuff, turbiditic carbonate and turbiditic volcanic, Figure 3.3 (after Harmsworth et al 1990).

The Hamersley Province overall can be considered as two structurally distinct regions:

i. a northern / northwest region of mild deformation typified by shallow, open folds with a west to north-west trend;

ii. a southern region displaying more intense deformation where the major iron deposits occur. This latter area can be further subdivided into a south-western area dominated by en echelon type open folds, and a south-eastern area dominated by tight E-W trending folds of shorter wavelength.

Within the banded iron-formations of the Hamersley Group there are two iron bearing stratigraphic sequences where the major bedded ores are formed:

- Brockman Iron Formation
- Marra Mamba Iron Formation

On the northern margin of the Archaean Pilbara Craton, in the North-East Pilbara (Figure 3.2) the Nimingarra Iron Formation hosts the Yarrie-Nimingarra iron ore deposits.

Another important iron bearing sequence is the Marillana Formation which is a detrital derived Channel Iron Deposit (CID) of late Eocene – Early Miocene age.

Detrital Iron deposits are colluvial-alluvial fans adjacent to some bedded iron deposits with their chemistry aligned to their source rocks. A schematic structural relationship of the various ore types in the SE Pilbara is represented as Figure 3.4.

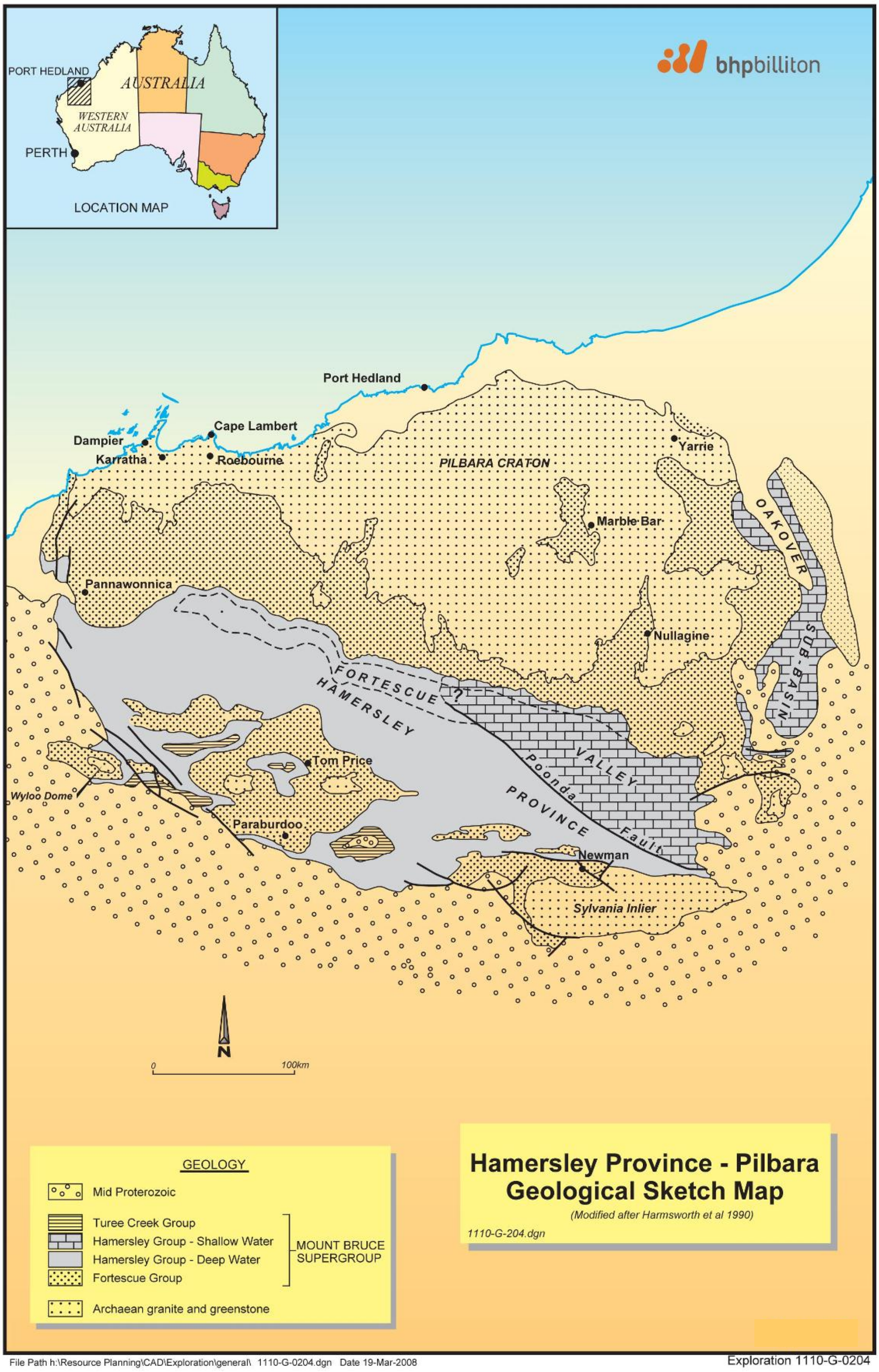

Figure 3.2: Hamersley Province – Pilbara geological sketch map.

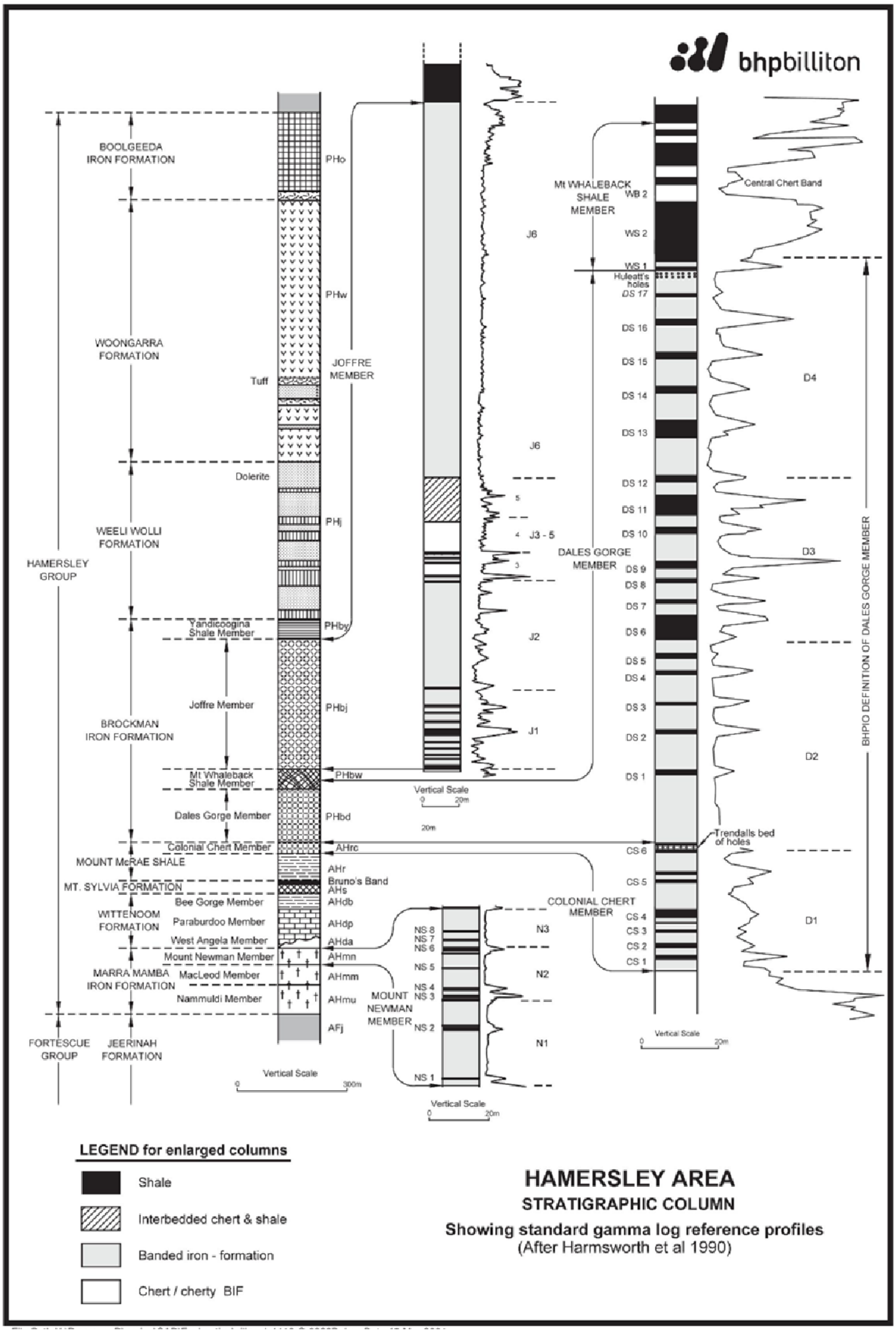

Figure 3.3: WAIO Hamersley Province stratigraphic column.

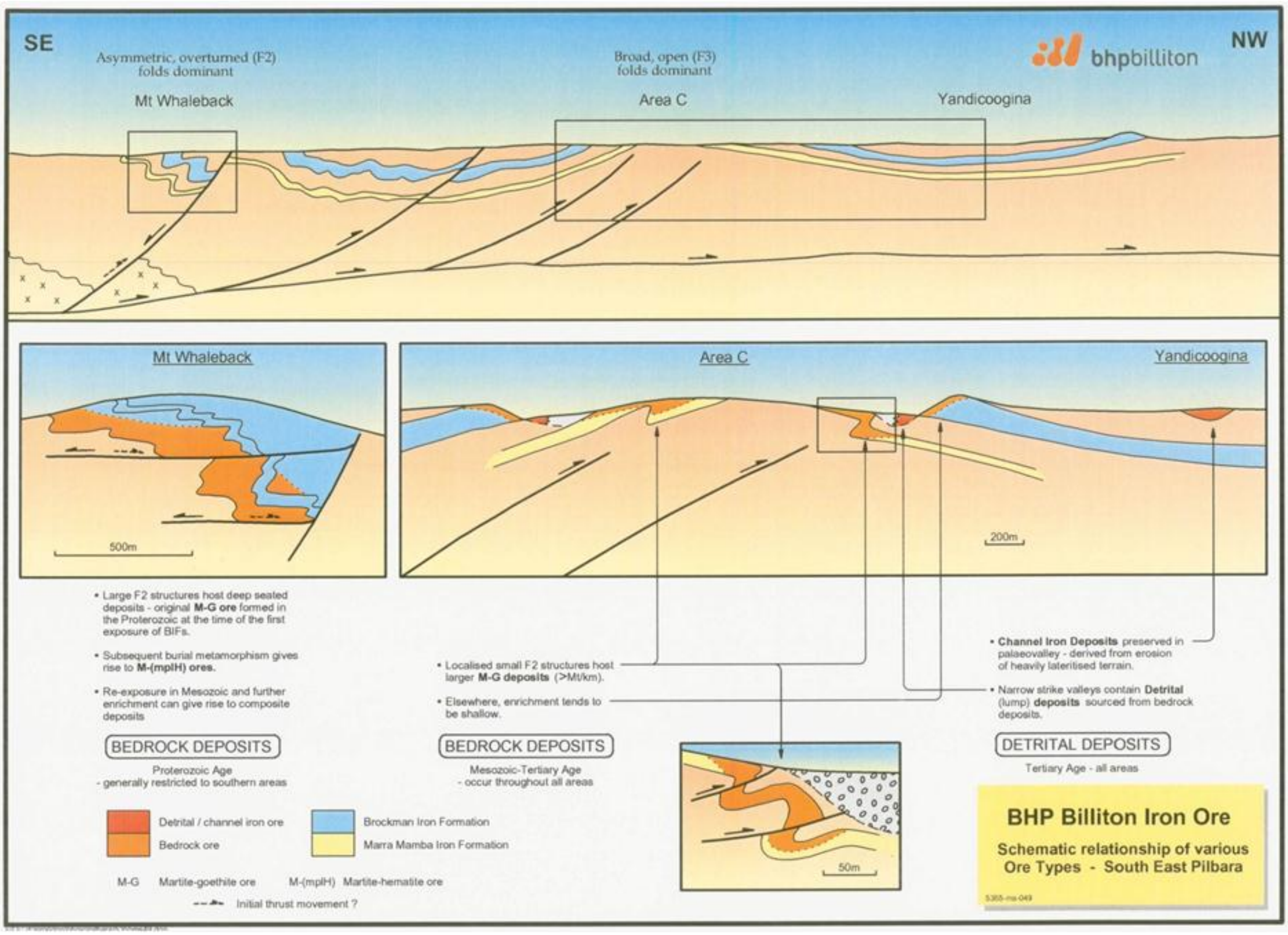

Figure 3.4: Schematic structural sections of mineralisation types of the SE Pilbara.

3.6 Data acquisition

A consistent method of data acquisition is used by WAIO for exploration and development drilling campaigns.

The data acquired includes:

- Drillhole collar coordinates, surveyed before and after drilling.
- Drillholes are geophysically logged for gamma, gamma-gamma density, calliper and magnetic susceptibility using industry standard tools and calibration methods.
- Magnetic susceptibility tool is used for measuring downhole deviation data as well as intermittent use of gyroscopes, chiefly for holes greater than 250 m length.
- Chip sampling protocols for Reverse Circulation (RC) holes follow benchmark industry practices, with QA/QC targets established and monitored.
- Standard geological logging and automated data capture procedures are followed for the different mineralisation types and different drilling methods.
- Geotechnical logging is typically undertaken in accordance with the BHP Billiton WAIO Geotechnical logging manual or under a separate consultants system which records similar features.
- Hydrogeological logging, bore construction and aquifer testing are completed in line with Australian Standards.

3.6.1 Drilling

Spacing of the drillholes is project dependent, but as a guide, the nominal grids have their greatest spacing occurring along the main strike of the mineralisation and closer spacing occurring perpendicular to the main strike of mineralisation. Drilling grids, where present, vary from 2,000 m – 50 m along strike and 300 m – 50 m across strike.

A range of historical and current drilling methods are used in geological modelling and/or resource estimation:

- **Conventional Open-hole Percussion drilling (historical):** Utilised a 140 mm conventional downhole hammer drill bit to produce chip samples of the rock mass. Compressed air forces the drill spoil up the outside of the drill rods where it is collected in a rig mounted cyclone and then drops down through a drop box into a five tier riffle splitter to produce a final sample split and reject sample.
- **Open-hole Percussion drilling with a Cross Over Sub (historical):** Identical to Conventional Open-Hole Percussion drilling except that compressed air forces drill spoil from the drill bit through a cross over sub and into dual tubed drill rods (outer and inner) and then back to the surface where it is collected in a rig mounted cyclone.
- **Reverse Circulation (RC) drilling (current):** Utilises a 140 mm RC hammer face sampling bit to produce chip samples of the rock mass. Dual tube drill rods (outer and inner) are used to carry air to the hammer and drill spoil to the surface. The volume of air forces the drill spoil up the inner tubes where it is collected in a rig mounted cyclone and then drops down through a drop box into either a static cone splitter or a five tier riffle splitter to produce a final sample split and reject sample.
- **Diamond drillholes (current and historical):** Utilises a diamond impregnated drill bit to advance an attached hollow drill rod string into hard bedrock, producing a cylindrical core sample representing the formation being drilled. BHP Billiton Iron Ore uses various diameter diamond drillholes depending on the intended use of the drillhole samples (e.g. geological drillhole, geotechnical drillhole, hydrological drillhole, geo-metallurgical drillhole). Typically though the drillhole diameters are either 63.5 mm (HQ3) or 85 mm (PQ3).

In FY14, exploration activity was completed over multiple project areas and deposits. Drilling totalled 500,464 m comprising:

- 426,214 m RC (reverse circulation drilling utilising 140 mm Face Hammer)
- 52,300 m DD (diamond drilling typically 63.5 mm HQ triple core)
- 21,950 m Hydrology* drilling.

* Hydrology drilling incorporates a range of methods and diameters including conventional air rotary, dual rotary and flooded reverse.

Table 3.4 details the historical drilling carried out in the Pilbara since the 1950s by main drill types. It is interesting to note that 68% of all drilling has occurred since the year 2000.

Table 3.4: Historical Drill Meters by Period

Period Drilled	Air Core	Conventional Hammer (Percussion)	Diamond	Percussion	Reverse Circulation	RC Hammer Face Sampling Bit	Other Drill Type	Total Per Period
1950s	0	0	132	0	0	0	86,034	86,166
1960s	0	0	1,518	5,963	1,898	0	80,602	89,981
1970s	15	107	37,298	51,560	2,354	205	381,854	473,392
1980s	3,612	6,722	15,308	54,973	10,599	0	490,444	581,659
1990s	17,407	8,411	68,450	12,243	70,745	106,937	771,694	1,055,887
2000s	1,419	46,660	246,593	1,809	237,627	2,054,475	24,731	2,613,309
2010	0	15,774	41,618	0	0	409,541	5,482	472,415
2011	0	6,393	75,680	0	1,194	502,693	2,151	588,111
2012	0	28,091	85,655	0	0	556,359	5,314	675,420
2013	0	31,914	44,211	0	0	459,473	10,780	546,378
Total	**22,453**	**144,072**	**616,463**	**126,548**	**324,417**	**4,089,683**	**1,859,086**	**7,182,712**

Note: Other Drill Types comprised of Blade; Conventional Blade; Conventional Hammer - Crossover Sub; Conventional Rock Roller; Dual Rotary; Drag Bit; Reverse Flush / Flooded Reverse; Flushing; Hydro; RC Blade - Crossover Sub; Rotary Mud; Sonic; Vacuum and Unknown Drill Type.

3.6.2 Survey

Survey practices have improved over time, ground truthing and re-survey of historic data is completed where issues are identified and it is practical to do so.

All surveys are referenced to Geocentric Datum of Australia 1994 (GDA94) and the Australian Height Datum (AHD).

Current practices are based on industry standards and best practice. The typical methodologies utilised and minimum accuracy requirements are;

For collar surveys:

- Multi Frequency Real Time Kinematic Global Positioning System (RTK GPS).
- Positional uncertainty: Horizontal 0.3 m; Vertical 0.1 m.
- For QA/QC 5% of each drill program is re-surveyed.
- Historical drillhole collars were surveyed using traditional terrestrial based techniques including trigonometric heighting and gridding by theodolite. Current RTK GPS practices were adopted circa 2000.

For mapping and relief modelling:

- Aerial Survey.
- Positional uncertainty: Horizontal 2.5 m; Vertical 1.0 m.

For downhole surveys:

- A Magnetic susceptibility tool is used for measuring downhole deviation data as well as intermittent use of gyroscopes, chiefly for holes greater than 250 m length.
- Any holes with greater than 2 degrees deviation over 5 m are investigated.
- For QA/QC purposes 5% of each drill program is re-surveyed.

3.6.3 Sampling and Analytical Procedures

The standard sample interval employed for the vast majority of drill holes is 3 m in the Bedded Iron Formations, and 2 m in Channel Iron Deposits. There is no specific trigger driving the choice of diamond drilling over RC drilling. In fact there are many varying reasons, these may include but are not limited to; QA/QC of RC techniques, geotechnical requirements, increased sample confidence below water table and detailed structural logging requirements in geologically complex deposits.

For diamond drillholes the entire interval of core is sent for Hylogging (HyLogger: Automated visible to infrared drill core scanning system that provides semi-quantitative colour and mineralogy estimates), Geometallurgy processing (typically studies on lump / fines relationships) and sample preparation.

For Open-hole Percussion and RC drillholes approximately 6 kg sample of drill cuttings is collected using either a static cone splitter or a five tier riffle splitter.

Historical assaying processes were employed by Mt Newman Mining Ltd and Goldsworthy Mining Ltd in the 1960s and 1970s where samples were processed in company-owned laboratories. Mt Newman Mining Ltd regularly assayed samples for Fe, P, SiO_2, Al_2O_3 by X-Ray Fluorescence (XRF) and sporadically for other elements such Mn, CaO, K_2O, MgO, S and TiO_2. Very early scout drill campaigns in the 1960s at Area C Goldsworthy Mining Ltd assayed Fe using a wet chemical titration method for analysis which only determined soluble Fe. Later drill programs were assayed for Fe, P, SiO_2, Al_2O_3 by X-Ray Fluorescence (XRF).

Post 1980, BHP Billiton Iron Ore has employed third party owned laboratories to process and assay drillhole samples. Samples are first oven dried and then are subsequently crushed to minus 2.8 mm (90% passing) and from each, a 2.5 kg split is robotically pulverised to minus 160 µm (95% passing). After this process, 200 g of pulp is collected and later used for chemical analysis by X-Ray Fluorescence (XRF) for Fe, P, SiO_2, Al_2O_3, MnO, CaO, K_2O, MgO, S and TiO_2 and Robotic Thermo-Gravimetric Analysis (ROBTGA) for LOI.

Since FY13, RC drilling requires the injection of water at the bit so as to minimise dust exposure. Early indications are that a 40% reduction in dust exposure to personnel has been achieved. This practice produces wet samples of slurry consistency.

During the FY14 drilling campaign, approximately 90% of the samples collected were from reverse circulation face hammer (RC) (140 mm diameter) and 10% from diamond drilling HQ triple tube core (DDH) (63.5 mm diameter). A total of 181,284 samples were analysed, with 21,462 samples collected by diamond drilling and 159,822 samples by RC drilling.

During FY14, WAIO used external laboratories for the realisation of chemical analysis. UltraTrace (Bureau Veritas) was the main lab, processing 99% of WAIO samples, SGS laboratory was also used for processing project samples, chiefly from Bulk Sampling programs. Both are ISO 17025 certified Labs and work under the same procedures.

Sample preparation protocols (drying temperatures and times, crushing and pulverising sizing requirements, etc) at laboratories meet standards defined in contracts in line with ISO standards, with QA/QC targets established; duplicates, blanks and standards are routinely included in sample batches for monitoring of precision, contamination and accuracy.

Diagrammatic flow chart of the sample preparation process is shown Figure 3.5.

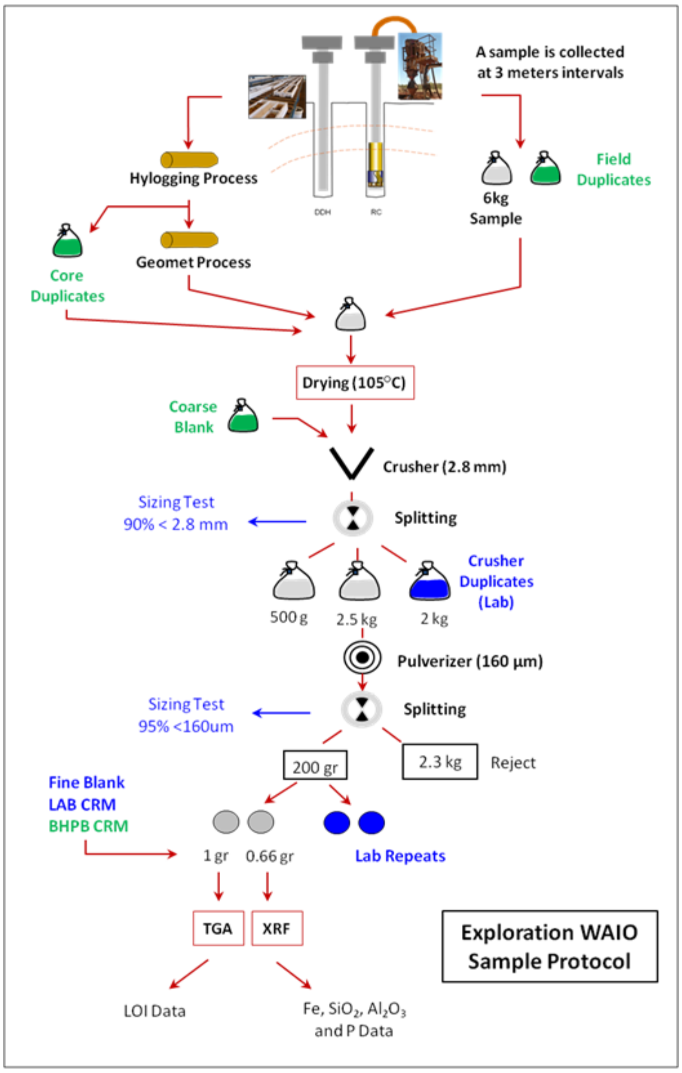

Figure 3.5: Sampling and analytical flow diagram

3.6.4 Quality of assay data and laboratory tests

Since the year 2000, WAIO have employed a formalised QA/QC program that includes routine controls for approximately 10% of the samples sent for chemical analysis. The WAIO QA/QC controls include certified reference materials (CRM), duplicates samples for RC drillholes, and blanks. They have specific objectives in the process controlling mechanical preparation of sampling and analyses. Certified reference materials were prepared by Ore Research & Exploration Lab (ORE, an independent company specialising in CRM preparation) in 2010. Additionally by contract, WAIO have set third party laboratory QA/QC controls that include sizing checks, crusher duplicates, pulp repeats, blanks and standards.

Acceptance limits have been defined according to BHP Billiton guidelines and global sampling benchmarks.

QA/QC controls include routine and 'without prior notice' visits to the laboratories, with the aim of ensuring that the laboratories are working according to our procedure and to supervise sample integrity. If issues are detected, they are raised with the laboratory managers and an action plan is developed to improve the process.

QA/QC improvements implemented during FY14, including the quantification of sampling error and the facilitation of QA/QC improvements in the field, saw a reduction of the business risk associated with sampling uncertainty.

3.6.5 Verification of sampling and assaying

WAIO drillhole data is managed internally using processes and systems including:

- Computerised field logging system that includes controlled input through drop down lists and inbuilt validation checks to trap erroneous data at the earliest possible stage.
- Comprehensive SQL Server relational database that is structured such that quality data and relevant meta-data are integrated with the primary geological, geochemical and geophysical data, and
- Strict validation rules including confirmation of acceptable QA/QC results for each batch of samples assayed. Data is only loaded to the master database after all data for the hole has been validated and signed off by the field geologist.

The WAIO drillhole database was audited by Golder Associates in July 2008 with no fatal flaws identified and all the key recommendations actioned.

The WAIO database has a security model which requires user access to have supervisor approval. The system is backed up per standard backup procedures nightly. A disaster recovery test was successfully completed in May 2010 which recovered the database from a server image and backup.

Primary data sources for all drillhole data are stored on the database server in a secure archive directory. As part of standard work procedures, 5% of the assay data stored in the drillhole database are physically checked by geologists against hardcopy laboratory certificates. The details of these checks and approvals are stored in the database. Additionally QA/QC requirements require 5% of all drillhole collars to be resurveyed.

Data exported from the drillhole database for modelling contains summary statistics, and on the upload of the exported data into the modelling systems, work procedures require statistical checks to ensure the data loaded is the same as exported.

3.6.6 Physical parameters

In general in situ bulk density is measured using gamma-gamma single density tool. A single detector density tool with a cobalt source is used. The density tool is calibrated every fortnight at designated calibration sites against known physical densities. The tool measures electron density and it is then converted to bulk density using the calibration points. The following QAQC measures are taken to monitor data quality and ensure the credibility of the density data for geological modelling and resource evaluation:

- Calibration of log responses to known engineering units (accuracy).
- Logging a repeatability borehole (demonstrate accuracy and determine precision / repeatability).
- Resurveying of 5-10% of drill holes on a drill program (repeatability / reproducibility check).

- Comparison of independent density measures, i.e. downhole gamma-gamma density versus density measurements made on diamond drill core samples (‘volume and weight’ method).

RC drilling techniques cause a rougher sidewall condition in the drillhole internally termed rugosity, this rugosity causes an air gap between the downhole gamma density tool and the wall rock thus resulting in reduced density values. Therefore all RC derived density information is studied on a project by project basis.

3.6.7 Audits and reviews

The WAIO resource drillhole process was audited by Golder Associates in July 2008. The audit covered drillhole planning; set out, pick up and downhole survey practices; drilling supervision; sample collection and submission; downhole geophysical surveys and calibration; data management processes; chain of custody; procedure documentation; data security and data validation. The audit had no fatal flaws identified and all the key recommendations have been actioned.

3.7 Exploration targets

BHP Billiton’s Exploration Targets within its Western Australia Iron Ore tenements have been estimated as the tonnage ranges provided in Table 3.1. These figures are an estimation of mineralisation with Fe cut-off ≥50%, exclude magnetite deposits, and are determined from a Resource Range Analysis (RRA) process on 76 deposit areas, together with the addition of unclassified material from resource models (withheld from reporting as JORC-compliant Mineral Resources).

The RRA process provides a methodology for assessing deposits for the range of mineralisation that can exist in an area under varying geological conditions. The range in mineralisation characteristics (tonnage, geometry and chemistry) generally has the largest single influence on project valuation. Incomplete knowledge of a deposit creates uncertainty. The understanding of a deposit will change over time, as the level of knowledge increases. However the ability to detect and characterise the deposit is limited by data, even after detailed exploration and evaluation. The RRA process is a means of quantifying the uncertainty by considering all possible outcomes as a range and modelling a probability distribution to quantify risk.

The range of mineralisation is estimated from geological information including boreholes, outcrops and geophysical information. The potential quantity is conceptual in nature, there has been insufficient exploration to define Mineral Resources and it is uncertain if further exploration will result in the determination of a Mineral Resources. It should not be expected that the quality of the Exploration Targets is equivalent to that of the Mineral Resources.

A systematic approach is utilised by Exploration to test the Max case geological thinking and these programs of work form part of the five year plan aligned with business strategic requirements.

3.8 References

Harmsworth R.A., Kneeshaw M., Morris R.C., Robinson C.J., and Shrivastava P.K., 1990. BIF-Derived Iron Ores of the Hamersley Province in Monograph 14, Geology of the Mineral Deposits of Australia and Papua New Guinea, pp 617-642. (AusIMM, Melbourne).

4 Units

μm	micrometre
mm	millimetre
cm	centimetre
m	meter
km	kilometre
km^2	square kilometre
Ha	hectare
Ma	million years
DH	drill hole
RRA	Resource Range Analysis
g	gram
kg	kilogram
kcal/kg	kilocalories per kilogram
g/t	grams per tonne
Mt	million tonnes
Bt	billion tonnes
ppm	parts per million
Mo	Molybdenum
UTM	Universal Transverse Mercator
wt %	weight percentage
amsl	above mean sea level
%	percent