stanmorecoal

ASX announcement

30 July 2015

Stanmore acquires the Isaac Plains Coal Mine in the Bowen Basin

Highlights

- Stanmore has contracted to acquire 100% of the Isaac Plains Coal Mine which was recently placed into care and maintenance by the current owners, Vale S.A. and Sumitomo Corporation.
- Stanmore is targeting mining recommencement for 1H2016 at an initial production rate of 1.1Mt per annum. Isaac Plains contains an updated JORC Resource of 30.1Mt[1] with open cut JORC Reserves of 5.0Mt[2]
- The acquisition price is $1, with Stanmore assuming all outstanding contracts including transport infrastructure access arrangements.
- In exchange for releasing the Vendors from material ongoing liabilities, Stanmore will receive a series of compensation payments within the first twelve months of completion. These payments are repayable to the Vendors via a production-based royalty to be applied based on coal price thresholds.
- Taurus Mining Finance Fund has committed to provide Stanmore with a two year facility which will be used to cash-back certain financial guarantees as well as providing additional working capital.
- Significant capital and operational synergies are anticipated with the recently acquired Wotonga deposit, located immediately to the east of Isaac Plains.
- Isaac Plains' coal has a strong sales history with large steel makers in North Asia on account of its favourable coal quality characteristics.
- The acquisition provides Stanmore with an established coking coal mining operation with the potential to continue building a strategic platform in the region.

[1] Refer Note 1 Competent Persons Statement
[2] Run of Mine basis. Refer Note 2 Reserves Note

A subsidiary of Stanmore Coal Limited (**Stanmore** or the **Company**) has agreed to purchase the Isaac Plains Coal Mine (**Isaac Plains** or the **Mine**) from Vale S.A. and Sumitomo Corporation (the **vendors**) for $1 consideration. The acquisition includes all assets held by the joint venture participants in relation to the Mine including a dragline, coal handling and processing plant (**CHPP**), rail loop, loading facility and mine infrastructure area. Upon completion of the transaction the joint venture will be dissolved and Stanmore will own 100% of Isaac Plains.

Key transaction terms and conditions precedent

As noted above the acquisition price is $1. In accordance with the transaction terms Stanmore will acquire the management company (Isaac Plains Coal Management Pty Ltd) and key assets utilised in the operation of the Mine. The major assets include:

- A Bucyrus 1370W dragline;
- A coal handling, preparation and processing facility with nameplate feed rate of 500tph;
- Dedicated train load out and rail spur facilities which connects to the Goonyella rail system; and
- Assorted critical spares and workshop goods.

A number of contractual commitments also form part of the transaction terms. These include:

- Rail haulage and port contracts;
- Accommodation services agreement;
- Water supply and transportation arrangements; and
- Power supply contracts.

Stanmore will be compensated by the vendors for some of the contractual commitments it will become responsible for. These payments are expected to cover fixed infrastructure charges and the working capital requirements of Stanmore through to first coal and the ramp up of operations.

These compensation payments will be repaid to the vendors via a production-based royalty to be applied based on coal price thresholds.

As a result of Stanmore taking ownership of the Isaac Plains mining tenements, Stanmore will become responsible for the $32 million rehabilitation obligation associated with the mine. This liability will be cash-backed and reduce over time as rehabilitation activities are undertaken. The majority of the liability relates to removal of fixed infrastructure which will only be rehabilitated once the mine is exhausted.

The main conditions precedent which, once satisfied, will allow completion of the transaction, include:

- Foreign Investment Review Board (**FIRB**) approval;
- Novation or assignment of the specified material contracts; and
- customary Ministerial and State Government approvals.

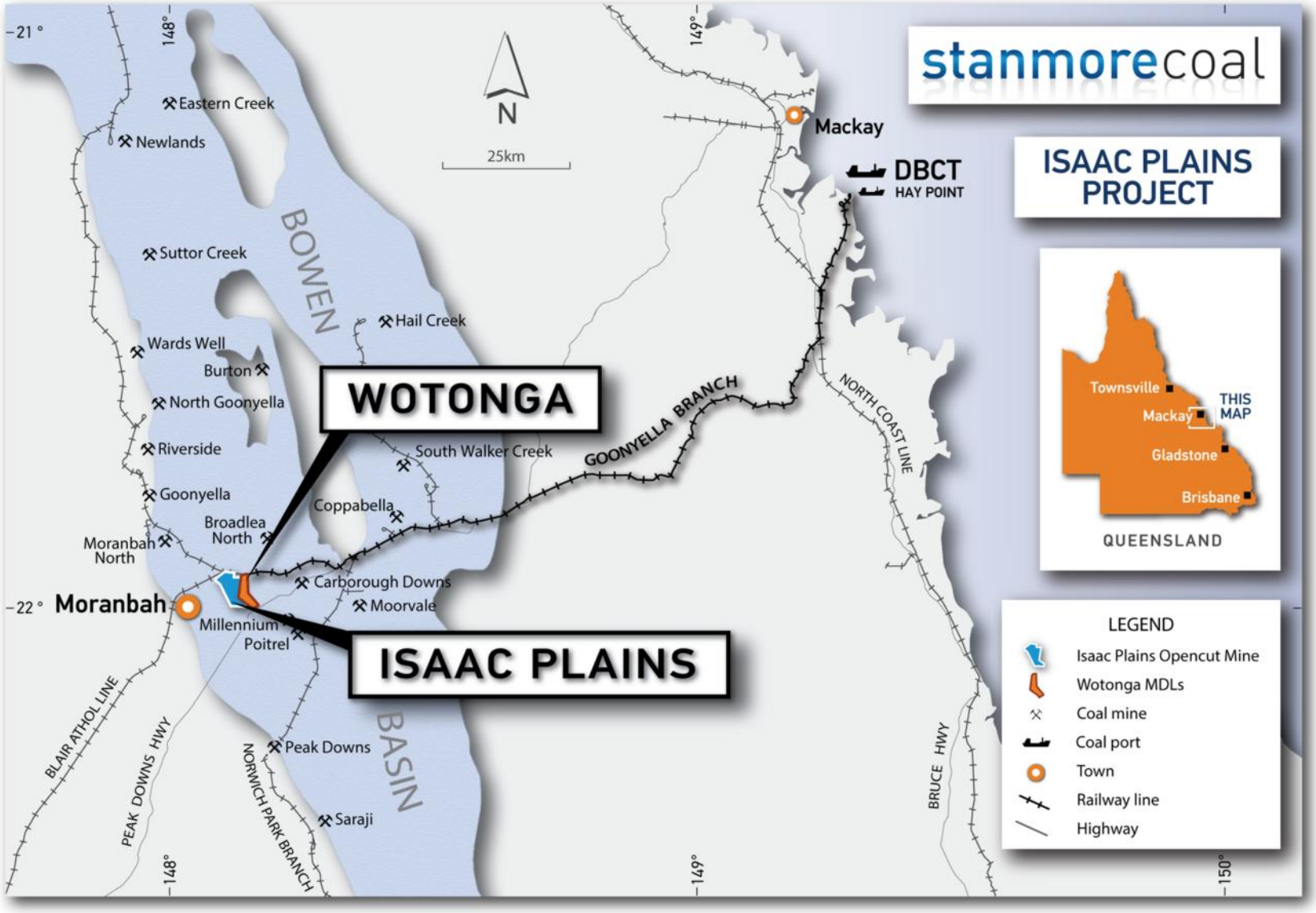
Completion of the transaction is anticipated to occur by the end of October 2015.

Mine location & operating history

Isaac Plains is located approximately 7km to the east of Moranbah in Central Queensland. Open-cut coal mining within Mining Lease (**ML**) 70342 commenced in 2006 with production continuing until late 2014 when the Mine was placed under care and maintenance. At peak production the Mine produced around 2.8Mtpa of export coal, comprising coking, PCI and thermal coal types. The coal was sold to a number of the major steel makers within Asia including Japan, South Korea and Taiwan.

The area around Isaac Plains is a prime coking coal region within the Bowen Basin, with a number of nearby operating mines and development assets owned by significant players (refer Map 1). The region is well serviced by the coal ports of Dalrymple Bay Coal Terminal (**DBCT**) and the Hay Point Coal Terminal (BHP Mitsubishi Coal Alliance) near Mackay. Isaac Plains has its own dedicated coal handling, preparation and processing facilities and rail access infrastructure, with product coal transported 172km by rail to DBCT.

Map 1: Regional locality of Isaac Plains



Geology

The primary target within Isaac Plains is the Leichhardt seam from within the Rangal Coal Measures. The Leichhardt seam is typically about 3.5m thick and dips to the east until it meets the regionally identified Isaac Thrust Fault. In the north of the ML the seam splits into an upper and lower seam with the interburden increasing through to the northern ML limit. The Vermont seam lies approximately 25-30m beneath the Leichhardt but there is limited information available at present to assess its characteristics.

JORC Resources and Reserves

Xenith Consulting Pty Ltd prepared an estimate of JORC Resources and JORC Reserves within the Mine area for Stanmore, based on the current level of exploration carried out within Isaac Plains. This includes 67 valid points of observation under JORC 2012.

Table 1: JORC Resources[3]

Seam[4]	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	Total Resource (Mt)
Leichhardt	9.6	6.8	9.0	25.4
Leichhardt Upper	0.3	2.0	2.0	4.3
Leichhardt Lower	0.1	0.3	-	0.4
Total	10.0	9.1	11.0	30.1

Table 2: Open Cut JORC Reserves[5][6]

Seam	Proven (Mt)	Probable (Mt)	Total Reserve (Mt)
Leichhardt	3.3	-	3.3
Leichhardt Upper	0.3	1.0	1.3
Leichhardt Lower	0.1	0.3	0.4
Total	3.7	1.3	5.0

The maps in Appendix B outline the Resource and Reserve polygons within the ML. Refer to the JORC 2012 Table 1 information contained at Appendix C.

[33] Refer Note 1 Competent Person Statement
[4] 'Leichhardt' refers to the composite seam averaging 3.5m in thickness; 'Leichhardt Upper' and 'Leichhardt Lower' refer to the seam in the north where the main composite seam splits
[5] Refer Note 2 Competent Person Statement - Reserves
[6] Reserves are stated as Run of Mine Reserves

Coal Quality

The Leichhardt seam at Isaac Plains is classified as a medium volatile bituminous coal with a vitrinite reflectance in the order of 1.0% mmr[7]. The coal displays typical characteristics as seen in other Bowen Basin mines which target the Rangal Coal Measures. Vitrinite content is concentrated in the finer coal fractions and also in the low density float sink fractions. Historically, the Leichhardt seam at Isaac Plains has been mined in two parts with the top fraction of the seam mined separately from the bottom. The bottom section displays stronger coking properties by virtue of the vitrinite content which in turn drives coking and plastic properties. The CHPP takes full advantage of these features and permits a flexible operating mode to allow production of the various coal products.

In recent years of operation the Mine produced three coal products – semi hard coking coal (**SHCC**), semi soft coking coal (**SSCC**) and thermal coal. Similar coal products are anticipated to be produced from mining and processing the coal going forward.

- **Semi-Hard Coking Coal**

  The medium volatile SHCC is produced from the bottom section of the Leichhardt seam with an average Crucible Swell Number (**CSN**) of 6. The SHCC product is suitable for blending with other coking coals given its low sulphur and moderate volatile matter content.
- **Semi-Soft**

  The medium volatile SSCC product displays an average CSN of 3 with volatile matter content around 25% (adb[8] basis). This product contains low total sulphur with calorific value and Hardgrove Grindability Index (**HGI**) at acceptable levels and in accordance with coal rank.
- **Thermal**

  The thermal coal from Isaac Plains exhibits high energy content (at or above the Newcastle premium benchmark) with low sulphur, ash and nitrogen content. The product has excellent handling characteristics due to its coarse product size and is easy to grind given its high HGI value. Traditionally much of this coal has been sold into the Japanese utility market.

Indicative product specification sheets are contained at Appendix A.

[7] Mean maximum reflectance
[8] Air dried basis

Coal Marketing

Approximately 50% of production from the last two years was sold as a SSCC product, with approximately a quarter being the SHCC and the balance sold as a thermal coal. In the lead up to production Stanmore will seek to re-engage with former customers in order to establish long term relationships. Former customers include premium steel makers within Japan, South Korea and Taiwan.

Stanmore Mine Plan

At current spot coking coal prices, the Company estimates that a further open cut mine life of 3 years is possible at the Isaac Plains open cut pit. The initial mine plan is supported by over three years of JORC Reserves. During this time detailed studies on the potential for life extension by underground methods will be conducted (including underground mining and high wall mining). Studies and approvals for potential open cut mining for the recently acquired Wotonga deposit will also be conducted over this time.

When acquired, the Isaac Plains Mine will effectively hold around 1.1Mtpa of rail and port obligations compared to the 2.8Mtpa under prior ownership. Lowering production volumes to 1.1Mtpa maximises the ownership and operational benefits of the dragline in combination with a single truck-shovel fleet. This approach is largely consistent with prior mining activities activity at Isaac Plains but undertaken at a smaller scale which reduces the reliance on multiple higher cost truck-shovel fleets and reduces the average strip ratio by targeting only the lower strip pits in the north.

Stanmore plans to utilise contract mining and CHPP operations at Isaac Plains and is currently running a tender process for contractor selection. The CHPP has a feed rate design of 500tph which is in excess of the requirement under Stanmore's recommencement plan. The CHPP and train load out will be run several days a week with non-operational days to be utilised for general repairs and maintenance on the site.

Managing Risk

Stanmore's risk profile will change if the transaction is completed as planned. As well as operational risks there are various other factors which the Board and management will be required to manage during the recommencement of mining activities at Isaac Plains.

Stanmore will be committing to a series of ongoing contractual obligations that are necessary to the proposed recommencement of mining activities. Beyond the financial compensation payments, which are expected to meet Stanmore's fixed infrastructure and working capital requirement through the ramp-up of operations, Stanmore plans to meet these ongoing contractual commitments through normal business operations. If operations cease for any material period of time, the fixed charge component of these contracts is likely to have a material adverse impact on the ongoing viability of Stanmore as a going concern.

In addition to the contractual risks, Stanmore's operations will be subject to general market risks such as foreign currency denominated export prices and foreign currency exchange rates.

Stanmore's Board and management are cognisant of the enhanced risk profile and plans to manage these risks proactively, utilising the significant operational and development experience of the Board members and key management personnel. Stanmore has undertaken a significant diligence process to date and utilised a wide range of specialised consultants and contractors.

Substantial synergies with Wotonga

Key to Stanmore's interest in Isaac Plains was the acquisition of the Wotonga deposit in early July 2015, located adjacent and to the east. The Leichhardt seam within Isaac Plains dips gently to the east and is then up-thrust to the surface by a large fault which runs in a north-south direction between the two deposits. The Wotonga deposit contains this same up-thrust seam package and is anticipated to produce a similar combination of coal products, as demonstrated by the historical coal quality parameters achieved under previous owners BHP Mitsui and Peabody. Refer to the Company's ASX announcement of 1 July 2015 for further information on expected Wotonga coal quality.

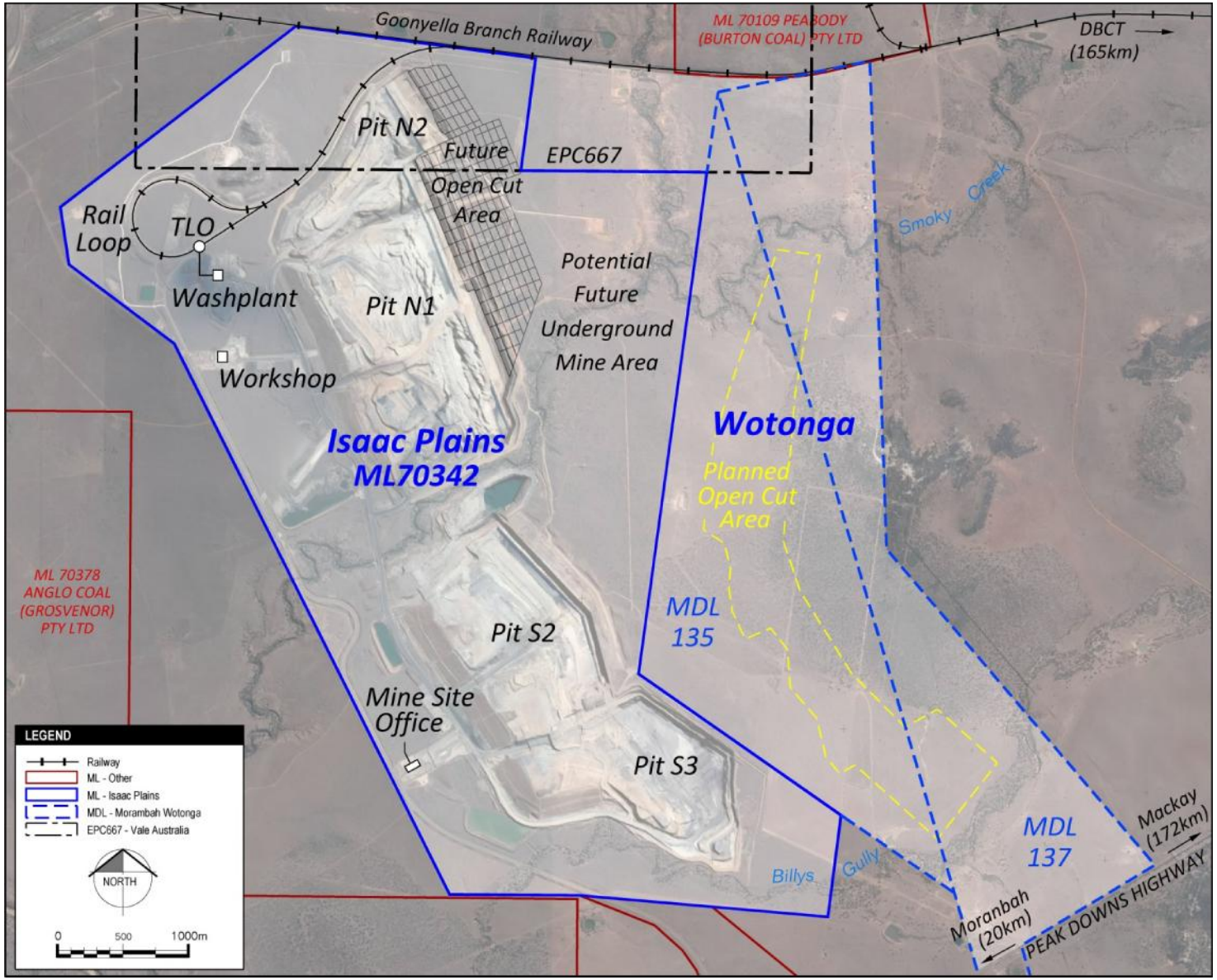
Importantly the Leichhardt seam within the Wotonga deposit subcrops very close to the surface resulting in lower in-situ strip ratios in the initial years of mining (commencing at sub 5:1).

In order to progress development at Wotonga, Stanmore will undertake an extensive exploration plan prior to the end of the calendar year. This will include confirmatory coal resource drilling, detailed coal quality laboratory analysis and seismic surveys. In parallel, Stanmore plans to commence the approval process for the Mining Lease and relevant environmental. It is expected that the Wotonga Mining Lease could provide a key value driver for the combined project as it should substantially increase the overall mine life at a lower cost of mining. The ability to utilise the existing Isaac Plains dragline and infrastructure eliminates the need for major capital costs at Wotonga with only a 2km haul road required to connect the two pits.

Underground operations at Isaac Plains will also be evaluated with the potential to run both sites simultaneously given the significant capacity in the CHPP and rail infrastructure.

Stanmore will work to develop an integrated mine plan as it progresses through the approval process.

Map 2: Isaac Plains & Wotonga



Financing

Taurus Mining Finance Funds (**Taurus**) will provide a US$42 million interest-only facility to Isaac Plains for a term of up to 2 years. Interest is payable quarterly in arrears at a rate of 10% on drawn funds and 2% on undrawn funds. Approximately US$30 million will be used to cash-back certain financial guarantees relating to rehabilitation, infrastructure and utilities, with the balance available as a contingent working capital amount. The additional US$12 million Taurus working capital facility provides a buffer for the Company should it be required.

To finance the acquisition, Stanmore will contribute A$12 million from existing cash reserves alongside the financial guarantees provided by Taurus. The overall financing structure in place has been sized to provide sufficient funding to reach full production without the requirement for additional equity and includes the A$2 million payment on completion of Wotonga.

Taurus is a $1.5bn global fund manager that specialises in investment in the mining industry. Taurus has a highly skilled team of geologists, mining engineers, mining financiers and metallurgists as well as portfolio managers will many successful years of investment experience.

Gordon Galt, Chairman of Taurus, said, “Taurus is pleased to partner with Stanmore in this project, which will re-start production at Isaac Plains and then look to continue into Wotonga. The project has a large resource base and comes complete with existing infrastructure and logistics solutions, and has both coking and thermal products which have demonstrated their attractiveness in export markets. We expect Isaac Plains to again become a valuable export mining operation for Queensland and Australia.”

Stanmore intends to work on the re-finance of the Taurus facilities with project finance style debt in parallel with the approvals process and studies for Wotonga over the next two years.

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Nick Jorss, Stanmore's Managing Director said, "The acquisition of Isaac Plains represents a transformational step for Stanmore. Isaac Plains provides us with all of the necessary infrastructure and sufficient minable coal to commence mining in 2016, while the neighbouring Wotonga deposit is anticipated to provide us with a significant mine life extension at a materially lower cost of production."

"It's an exciting time for the Stanmore team as we prepare to join the ranks of Australia's coking coal producers in supplying high quality coal to the large steel mills of Asia. This transaction represents the culmination of nine months of comprehensive due diligence and negotiations by the Stanmore team. We have carefully assessed over 40 growth opportunities in coal over the past two years before selecting Isaac Plains and Wotonga as the right fit for our strategy and risk appetite. We are now working hard towards the transition to mining operations to ensure success in what remains a challenging coal market."

"We are very pleased to welcome Taurus on board as a high calibre financing partner as we undertake this significant step for our business. The acquisition of Isaac Plains and Wotonga provides a substantial platform for Stanmore's growth and positions the Company well to benefit from an anticipated increase in coking coal prices over coming years."

On behalf of the Board

Andrew Roach

Company Secretary

For further information, please contact:

Mr Nick Jorss
Managing Director
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Mr Andrew Roach
Chief Financial Officer &
Company Secretary
07 3238 1000

Note 1: Competent Persons Statement

The information in this report relating to exploration results and coal resources is based on information reviewed by Mr Troy Turner who is a member of the Australian Institute of Mining and Metallurgy and is a full time employee of Xenith Consulting Pty Ltd. Mr Turner is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Turner consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.

The information in this report relating to coal reserves is based on information compiled by Mr Ken Hill who is a full-time employee of Xenith Consulting Pty Ltd. Mr Hill is the Managing Director of Xenith Consulting Pty Ltd, is a qualified civil engineer, a member of the Australian Institute of Mining and Metallurgy (AusIMM) and has the relevant experience (30+ years) in relation to the mineralisation being reported to qualify as a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code 2012 Edition)". Mr Hill consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.

Note 2: Reserves Note

The Marketable Coal Reserves of 3.6Mt is derived from a JORC compliant run of mine (ROM) Coal Reserve of 5.0Mt based on a predicted yield of 73%. The 3.6Mt Marketable Reserve is included in the 27Mt total JORC Resource (10Mt Measured, 8.4Mt Indicated plus 9Mt Inferred).

About Stanmore Coal Limited (ASX code: SMR)

Stanmore Coal is a growth focused coal mining company with a number of prospective coal projects and mining assets within Queensland's Bowen and Surat Basins. Stanmore Coal owns 100% of the Isaac Plains Coal Mine and the adjoining Wotonga Project and is focused on the creation of shareholder value via the prudent operation of Isaac Plains and identification of further development opportunities. Stanmore continues to progress its prospective thermal coal assets in the Northern Surat Basin which will prove to be valuable as the demand for high quality, low impurity thermal coal grows at a global level. Stanmore's focus is on the prime coal bearing regions of the east coast of Australia.

APPENDIX A – INDICATIVE COAL PRODUCT SPECIFICATIONS

Semi Hard Coking Coal

		AS RECEIVED	AIR DRIED	DRY
Moisture (%):	Total	11.7		
Proximate Analysis (%) :	Inherent Moisture		2.3	
	Ash	8.2	9.1	9.3
	Volatile Matter	24.2	26.7	27.4
	Fixed Carbon	55.9	61.9	63.3
Total Sulphur (%):		0.33	0.36	0.37
Phosphorus (%):		0.089	0.099	0.101
Plastic Properties:	CSN		6	
Gieseler Plastometer:				
	Plastic Range (Deg C)		63	
	Maximum Fluidity (ddpm)		130	
	Log 10		2.11	
Petrographics (%):				
Based on limited samples	Vitrinite		52	
	Vitrinite Reflectance (% rmr)		0.97	

Semi Soft Coking Coal

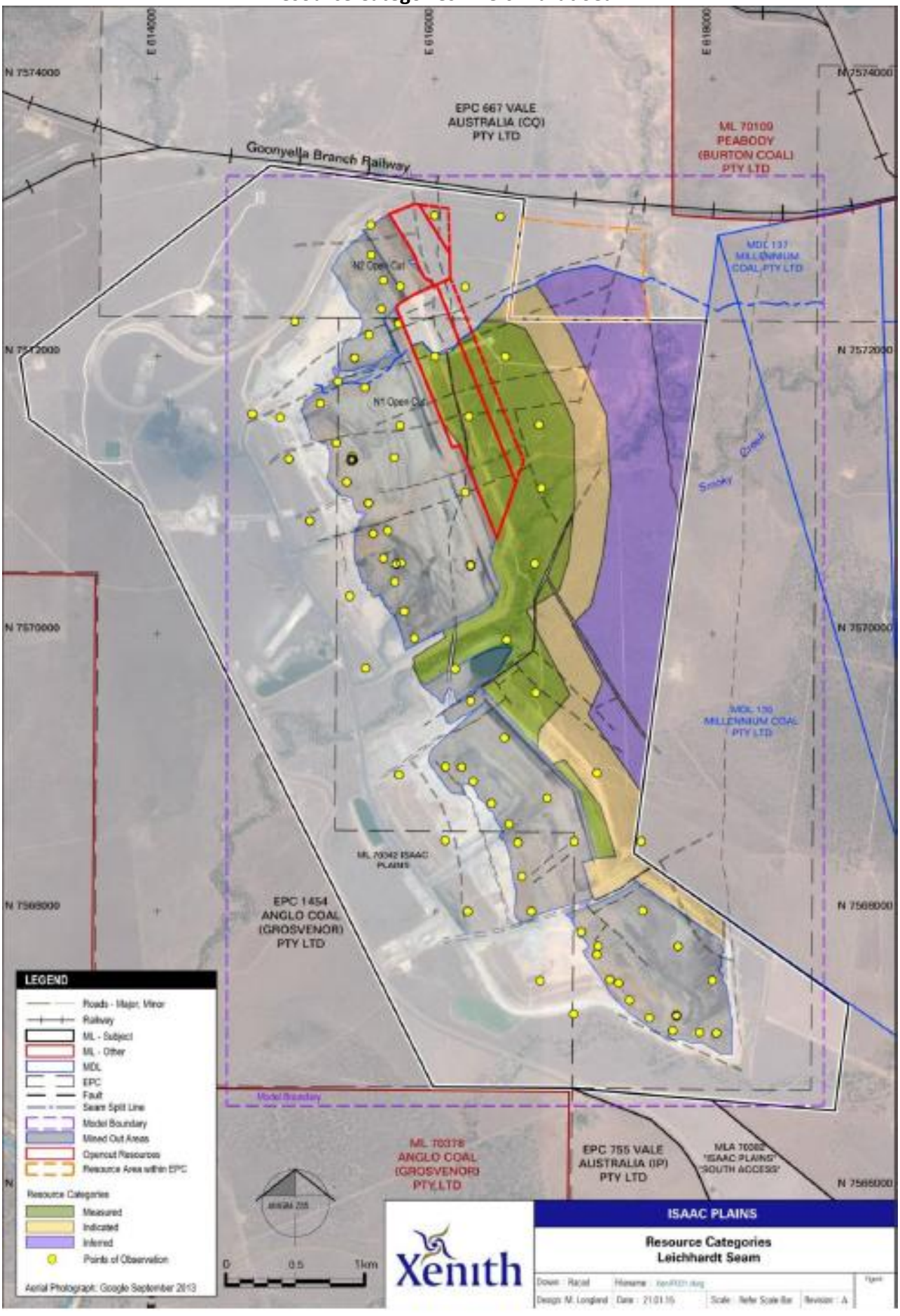
		AS RECEIVED	AIR DRIED	DRY
Moisture (%):	Total	10.9		
Proximate Analysis (%) :	Inherent Moisture		2.3	
	Ash	8.7	9.5	9.8
	Volatile Matter	23.4	25.7	26.3
	Fixed Carbon	57.0	62.5	64.0
Total Sulphur (%):		0.32	0.35	0.36
Phosphorus (%):		0.083	0.091	0.093
Calorific Value :	Gross (kcal/kg)	6780	7430	7610
HGI:	66			
Plastic Properties:	CSN		3	
Gieseler Plastometer:				
	Plastic Range (Deg C)		54	
	Maximum Fluidity (ddpm)		25	
	Log 10		1.41	

Thermal Coal

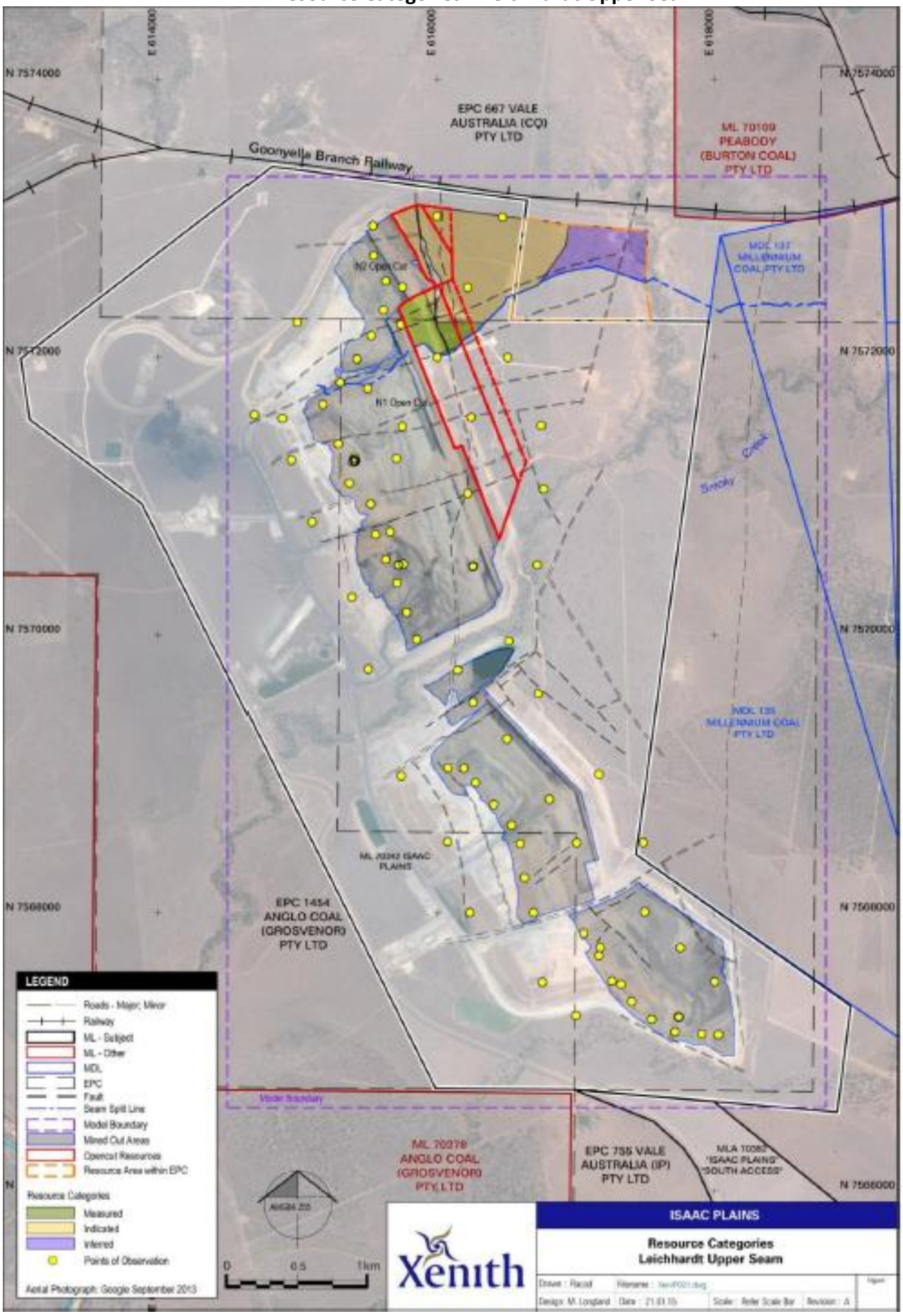
			AS RECEIVED	AIR DRIED	DRY
Moisture (%):	Total		9.3		
Proximate Analysis (%) :	Inherent Moisture			3.1	
	Ash		14.2	15.2	15.7
	Volatile Matter		22.4	23.9	24.6
	Fixed Carbon		54.2	57.8	59.7
Fuel Ratio				2.4	
Total Sulphur (%):			0.35	0.37	0.38
Chlorine (%):			0.06	0.06	0.06
Calorific Value :	Gross	(kcal/kg)	6370	6800	7020
	Net	(kcal/kg)	6110	6500	6700
HGI:	65				
Ash Fusion Temperatures (°C):			Reducing		
	Deformation		1430		

APPENDIX B – RESOURCE / RESERVE DIAGRAMS

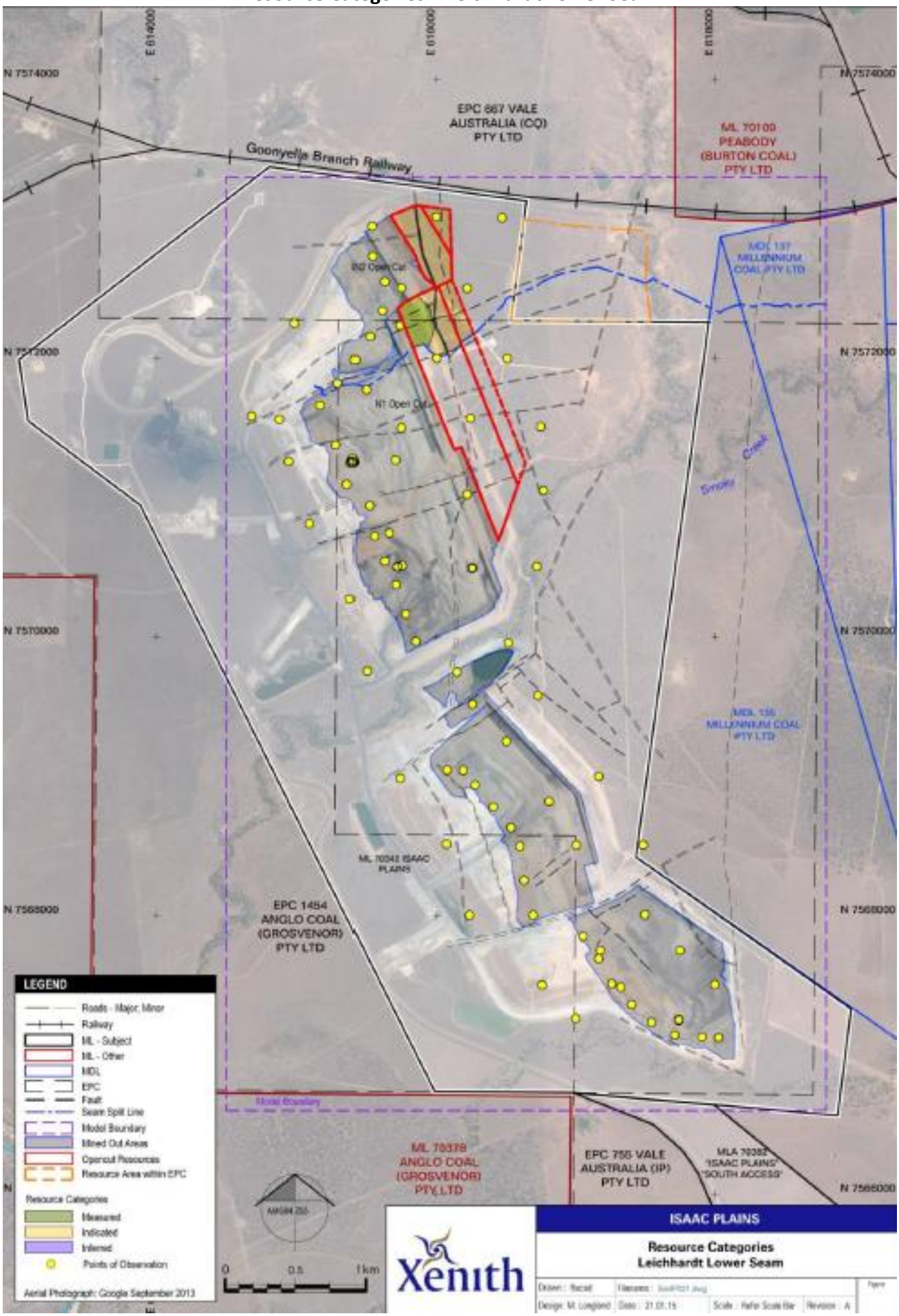
Resource Categories – Leichhardt Seam



Resource Categories – Leichhardt Upper Seam



Resource Categories – Leichhardt Lower Seam



APPENDIX C – JORC 2012 Table 1

Xenith Consulting Pty Ltd

Coal Resources

JORC CODE, 2012 EDITION – TABLE 1

This Appendix details sections 1, 2 and 3 of the JORC Code 2012 Edition Table 1. Sections 4 'Estimation and Reporting of Ore Reserves' and 5 Estimation and Report of Diamonds and Other Gemstones' have been excluded as they are not applicable to this deposit and estimation.

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	CP Comments
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	<u>Exploration 2009 to Present</u> • No Coal quality drilling has been indicated to have been undertaken since December 2009. • Exploration drilling in 2013 involving 36 holes of structural fault definition. <u>Exploration 2008 to 2009</u> • In July 2008 to September 2009 BCCM drilled a further 287 drillholes to assist with determining gas content, improving fault definition. • For the 2008 program, samples were taken at approximately 30cm intervals (2010 JORC Resource report) • All cored holes were photographed in the field (digital Camera), sampled, boxed into core trays where depth were recorded for subsequent reference. • No detail of interburden thickness sampling rules was presented. • The immediate roof and floor have been sampled of lengths >than 0.1m in general. At the minimum Ash and RD analysis has been conducted.

Criteria	JORC Code explanation	CP Comments
		• All coal samples were collected into plastic bags and then transported to the laboratory via courier and were accompanied by a sample advice sheet. • Coal Quality samples were sent to ALS / Actest Laboratory in Maitland NSW, or Bureau Veritas (previously CCI) Laboratory in Newcastle. • All coal quality samples were prepared and analysed using ALS/ Actest or Bureau Veritas testing parameters. Both laboratories are NATA registered and have been operating in Australia for over 50 years. <u>Exploration 2004 to 2006</u> • For the 2004 program, samples were taken on approximately 25-30cm intervals (2010 JORC Resource report) • For cored holes, coal seams were sampled discretely on the basis of lithological characteristics such as the brightness profile, and where reasonable were sampled on a ply basis into approximately 0.5m plies • No detail of interburden thickness sampling rules was presented. • The immediate roof and floor have been sampled of lengths >than 0.1m in general. At the minimum Ash and RD analysis has been conducted. • All coal samples were collected into plastic bags and then transported to the laboratory via courier and were

Criteria	JORC Code explanation	CP Comments
		accompanied by a sample advice sheet. • Coal Quality samples were sent to Casco Australia Pty Ltd (Casco) laboratory in Mackay. • All coal quality samples were prepared and analysed using Casco testing methodologies. Casco is a National Association of Testing Authorities (NATA) registered organisation. • Line of oxidation (lox) samples were collected in 0.5m samples. • Lox samples were bagged on site and sent to CCI Australia Laboratory in Moranbah for analysis. • Gas sampling was conducted at three sites, located in pits N1, N2 and S3. The full seam was sampled into gas canisters. • Q1 gas testing was undertaken by the field Geologist in the field. The process of analysis involved Geogas standard procedures. • Gas samples were sent to Geogas laboratory in Mackay for gas analysis (Q2 and Q3). • Seven fully cored (diamond) holes were drilled to analyse the overburden, coal and floor sediments for rock strength and other geotechnical issues. Samples were stored in core trays, with representative 30cm length samples wrapped in plastic and sealed from moisture. • Geotechnical samples were reviewed from 7 HQ fully cored drill holes by Insite Geology and sent samples for destructive geotechnical test work with Ullman and Nolan laboratories I

Criteria	JORC Code explanation	CP Comments
		Mackay. • Multiple mini-Sosie seismic work undertaken by Velseis Pty Ltd in March/April 2004 and July/August 2005 (8.7km and 9.3km surveys respectively) to better delineate structure within the deposit. • Ground magnetic survey undertaken by Resolve Geological in October 2004 to delineate extent of intrusive material within the area. <u>Historic exploration:</u> • Details for the historic drilling information Pre -2004 are not available. • A review of suitable historic holes was reported to have been conducted as part of the 2010 resource estimate
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• All coal quality holes were cored (partially or fully) using core barrel, producing a 63.5 mm and 100mm core diameter (also a series of 200mm cores were drilled late 2004). • Structural holes were drilled as part of a fault delineation program. As part of this work, these holes were fully open (chipped). • Lines of Oxidation ("LOX") holes were drilled by a reverse circulation hammer drill rig. • Non-cored holes were used in the model to define structure and stratigraphy but were not used as Points of Observation ("POB"). • A full list of drill holes and drilling types is available at the end of Table 1 in Appendix C

Criteria	JORC Code explanation	CP Comments
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No details of the process followed for determining % recovery were viewed for the purpose of producing this resource report. • If there was less than 95% core recovery, it appears the seam was required to be redrilled. • No details were available on the relationship between sample recovery and quality or sample bias.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All drill core was geologically logged, marked and photographed prior to sampling. Geological and geotechnical features were identified and logged as part of this process. • All chip holes had chips collected every metre, which were then geologically logged and photographed. • All drill holes have been geophysically logged (except where blocked) with the minimum suite of tools run including: Density, Calliper, Verticality/Deviation and Gamma. • A full list of the suite of geophysical logs that have been run on each drill hole can be found in Chapter 6.5 of the 2015 Resource estimate report. • The calibration of the geophysical tools was conducted by the geophysical logging company engaged in the project at the time.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• All core coal samples were double bagged on site and were transported to the laboratory for testing. • The lab(s), Casco complies with the Australian Standards for sample preparation and sub-sampling. • All coal samples were crushed to a top size of 32mm before analysis, for **HQ and PQ** core (**63.5 mm and 85 mm** mm core

Criteria	JORC Code explanation	CP Comments
	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	diameter) and for 100mm core. • Two, 200mm cores were drilled to take a bulk sample for detailed sizing, washability and coke oven testing.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Casco in Mackay, QLD comply with the Australian Standards for coal quality testing and are certified by the NATA. • Geophysical tools were calibrated by the logging company engaged in the project at the time.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Casco in Mackay, QLD comply with the Australian Standards for coal quality testing, and as such conduct the verifications for coal quality analysis outlined in the standards. • Coal quality results were verified by **Xenith Consulting Pty Ltd** ("**Xenith**") personnel before inclusion into the geological model and resource estimate. • Product coal assessment is currently being undertaken by **MResources Pty Ltd,** ("M Resources"). • No adjustments have been made to the lab analysis sheets sited in the data room.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	• Professional survey of the exploration work was conducted by Shield Surveying Pty Ltd (Mackay) and Mackay Surveys Pty Ltd. • The datum used AGD 84 and the projection used AMG 84 Z55.

Criteria	JORC Code explanation	CP Comments
	• *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The aerial topographic survey was conducted in March 2005 by Cottrell Cameron and Steen. The survey accuracy is +-0.5m. • The previous topography model was based on Ikonos satellite imagery (with ground survey control) and was processed by GeoImage.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drill hole spacing has been dictated by the characteristics and consistency of the target seams within the deposit. • Exploration drilling has been conducted on different drilling patterns depending on the nature of the program. For instance, the fault delineation drill holes were spaced between 10 to 20m apart along a pre-determined targeted line. • Structural drilling is in general on 250m centres and coal quality drilling is located on approximately500m centres. • The inclusion of holes from neighbouring areas has given the model a reasonable amount of lateral continuity in the north of the ML area. • Samples were reported to have been taken on approximately 30 cm interval and compositing into top and bottom plies. As such, where appropriate, sample compositing has been completed. • No details exist for how these top and bottom plies were composited to produce the resultant coal quality models is detailed in the reports • Considering the continuity of the target seam(s) in the deposit, this spacing has proven to be sufficient to give adequate control to the model and give the required confidence in the geological interpretation.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the*	• The orientation and spacing of the drilling grid is deemed to be suitable to detect geological structures and coal seam continuity within the resource area.

Criteria	JORC Code explanation	CP Comments
	orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	• *The measures taken to ensure sample security.*	• No details on sample security was outlined in the provided literature
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No results sited for this resource update • Casco undertake internal audits and checks in line with the Australian Standards and their NATA certification. • Vale reported to have performed a high level technical review of the a geological data system during the sale process in 2007

SECTION 2 REPORTING OF EXPLORATION RESULTS

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

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>CP Comments</th></tr>
<tr><td>Mineral tenement and land tenure status</td><td>• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.
• The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</td><td>• The interest held between parties as part of the Isaac Plains Coal Joint Venture, a 50/50 joint venture between Sumitomo and Vale has been summarised in the table below.
<table>
<tr><th>Tenure Type</th><th>Tenure Number</th><th>Date Granted</th><th>Date Expires</th><th>Principal Holder</th><th>Area (Hectares)</th></tr>
<tr><td>Mining Lease</td><td>ML 70342</td><td>1/12/05</td><td>31/12/25</td><td>IP Coal Pty Ltd (50%)
Vale Australia (IP) Pty Ltd (50%)</td><td>2,142</td></tr>
</table>
• There are no known impediments to obtaining a licence to operate in the Isaac Plains area.</td></tr>
<tr><td>Exploration done by other parties</td><td>• Acknowledgment and appraisal of exploration by other parties.</td><td>• Historically (since the early 1970’s), there have been 6 EPC’s (EPC 6, 3, 292, 755, 602, 1454) held over the Isaac Plains area.
• A total of 7 parties have undertaken exploration activities within the project area.
• Exploration drilling and geophysical surveys that have been completed within and in close proximity to the Isaac Plains area has been reviewed as part of this report.
• Within the lease boundary and EPC 677 resource zone, a</td></tr>
</table>

Criteria	JORC Code explanation	CP Comments
		total of 37 drill holes with publically available information drilled by other parties were reviewed, including drilling for coal Among them, 36 historic holes were considered suitable for use in the geological model. • An additional 3 drill holes located outside of the lease boundary and EPC resource zone were included to ensure adequate structural control of the resource deposit. • MGC Resources Australia Pty Ltd conducted 2D dynamite seismic surveys within the area during the early 1990's.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Isaac Plains project area lies within the Permo-Triassic Bowen Basin. The Bowen Basin consists of 10 kilometre (km) thick sequences of volcanic, shallow marine and terrestrial sediments and is categorised back-arc to foreland basin. • The general stratigraphy of the project area includes (oldest to youngest) – Lower-Permian Reids Dome Beds, Lower-Upper Permian Back Creek Group, Upper Permian Blackwater Group, and Rewan group. • Coal seams occur within the Rangal Coal Measures which are Late Permian in age. These seams dip gently to the east at approximately 5 degrees. • The coal seams found within the Rangal Coal Measures are as follows – Leichhardt, Leichhardt Upper and Leichhardt Lower, and Vermont. • The seams have a cumulative thickness of approximately 10 m across the deposit. • The Vermont seam was not included in the resource estimate as the seam was judged to be of poor quality.

Criteria	JORC Code explanation	CP Comments
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• A detailed list of the drill holes used to define the coal quality of the resource in the Isaac Plains Project can be found in Appendix C. • All drill holes have been modelled from vertical, although hole deviation (from vertical) has been recorded for all holes. Deviation modelling is under consideration for the next model update; hole deviation has been recorded for 0 drill holes. • A review and analysis of the deviation data will be considered in the next model update.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• It is reported that all seams where multiple coal quality samples were taken were given composite coal quality values based on top and bottom plies. • Details for the aggregation and compositing conducted for the construction of the coal quality model was not outlined in the literature supplied.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Historically holes were all drilled vertical. • As reported in the 2010 resource report constraints were applied in thickness modelling to exclude over thickened and under thickened working sections in the model. The variations in the thickness was largely attributable to faulting and LOX thinning

Criteria	JORC Code explanation	CP Comments
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• All appropriate diagrams are contained within the main body of the report
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All available exploration data for the Isaac Plains area has been collated and reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• All exploration data was gathered and or utilised in the resource estimation. • Geotechnical logging, sampling and testing from the overburden, interburden, seam roof/floor and coal (such as defect logging, field point load testing and laboratory testing) has been undertaken. • A geostatistical assessment of the Isaac Plains deposit was reported to have been undertaken by Snowden Mining Industry Consultants (Snowdens). The original report and date for which were not sited. This study concluded that a drill hole spacing of 250m is "suitable for to confirm the thickness continuity as indicated by the JORC Code of 1999 for the definition of Measured Resources".
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• No future work has been planned for the Isaac Plains Mine, and production on site has currently ceased. • Recommendations for future work have been proposed in the various historic resource and structural reports but no detailed planning has been undertaken.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	CP Comments
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Data was entered in the field by the field Geologist into LogCheck software. • Lithological logs, and coal intersection depths were reported to have been reconciled and corrected to the geophysical log. A review of the geophysical logs was conducted as part of this resource estimate • All bore hole collars were checked against the natural topographic surface and with the exception of approximately 18 drill holes the difference in RL was less than 1m. • Coal Quality data was reportedly checked against lab reports and cross referenced with lithology and ply logs. As part of this resource estimate seam picks and sample thicknesses were validated and raw qualities were compared to results from the historic resource reports.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• No site visit has been undertaken as part of this resource estimate but the competent person made several visits to the site on a weekly basis for 6 months during 2008 • The Competent Persons familiarity with the Isaac Plains project area and stratigraphy is sufficient. Review of the previous exploration data indicates that the geology is typical of the area.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.*	• The drill hole density (core and chip) in the Isaac Plains project allows good level of confidence in the nature of seam splitting, seam thickness, coal quality, the location of sub-crops and general location of faults.

Criteria	JORC Code explanation	CP Comments
	• *The factors affecting continuity both of grade and geology.*	
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Leichhardt target seam(s) extends approximately 4 km along strike and approximately 2.5km perpendicular to strike with an approximate average cumulative thickness of 3.5m. • The depth of first coal ranges from between 64m in the central area proximal to the main central thrust fault, and 250m in the east. • The current resource extent covers approximately 6.5km^2 the central and eastern part of the tenement. • Variability in the coal seam parameters, such as seam thickness and raw coal quality, is reflected in the resource classifications assigned to each seam.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to*	• The geological model was constructed in Vulcan using different modelling algorithms for structure, thickness and coal quality parameters. The triangulation interpolator with trending and minor smoothing was applied for structure; the triangulation interpolator without trending was applied for thickness; and inverse distance squared algorithm was used for both raw and clean coal composites. • A maximum extrapolation distance for resource categorization of 250m from the last data point has been used for Measured Resources. • Limits were placed on the JORC Resource Estimate with cut-offs at 0.3m thickness for all coal seams within the proposed opencut region and 1.5m for the remainder of the resource, with the minimum parting thickness of 0.3m to be considered within the seam. Stone bands greater than 0.1m are not included within the seam, so modelling of the seam split occurs. • The comparison to the 2010 Resource estimate is consistently made throughout the Report and estimation process. The

Criteria	JORC Code explanation	CP Comments
	control the resource estimates. • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	processes outlined in the 2010 estimate were closely followed to assist with the comparison. • A zone of approximately 10m was used across the main faults as indicated in the 2010 resource estimate. Subsequently splitting the ML 70342 area into zones.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Coal resource tonnages were estimated using a calculated Preston and Sanders in situ relative density, using air-dried moisture, total moisture and moisture holding capacities from coal samples (where available). • Based on the results from coal quality testing, the in situ moisture has been estimated to be 5%. The 5% was assumed based on similar Rangal Coal Measure seams located within the area.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Typically, a maximum raw ash percentage has been applied, where a maximum raw ash of 50%, air-dried basis, has been applied to the resource estimate.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Xenith have applied a minimum thickness appropriate to the potential mining method, see '*Modelling technique'* and deem the coal resource have reasonable prospects of economic extraction. • Outside of the proposed opencut area N1 pit strip 39 to 46 and N2 pit strip 15 to 21, the majority of ML 70342 and EPC 667 were only considered for underground extraction. As such a minimum mining thickness of 1.5m was needed outside the proposed opencut area. • Absolute depth of resource was a maximum of 260 m from topography.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the*	• It is Xenith's opinion that at this stage of the project that there are no limiting metallurgical factors. • Isaac Plains has been an operating opencut mine since 2006. • Reported higher than average Rangal Coal Measures phosphorous

Criteria	JORC Code explanation	CP Comments
	assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	percentages may require blending before shipping.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• It is Xenith's opinion that at this stage of the project that there are no limiting environmental factors.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Preston and Sanders In situ Relative Density Estimation – The in situ density of the coal seams has been estimated using the Preston and Sanders in situ relative density estimation equation. • Inherent moisture values have been derived from the supplied grids (*.rig) • In situ Moisture was assumed to be 5% for the purpose of the resource estimation • True RD that was used in the Preston Sanders Equation was calculated from a regression formula devised from the analysis of 57 samples as previously identified in the JB Mining 2010 Resource Statement. The formula is True RD = Raw Ash x 0.0089 + 1.278 • For the **Isaac Plains** project area, 4 geological domains have been identified. Domain 1 and Domain 2 were further separated into the area north of the split line

Criteria	JORC Code explanation	CP Comments
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Three resource categories have been identified within the Isaac Plains area, dependent on the level of confidence in the seam structure and continuity plus the level of variability in the coal quality data. • The level of drilling information and presence of an operating mine also assist with the classification of resource categories.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• There has been no independent reviews of the resource estimate, but JB Mining alluded to conducting internal reviews of the geological database systems and data collection processes.in their 2010 Resource estimate
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Xenith have assigned three level(s) of confidence to the coal resource estimate, depending on the seam and drill hole spacing, as described in the Chapter 10 of the 2015 JORC Resource report. • A geostatistical review of the coal seam thickness data for the Isaac Plains Project area has been conducted. • Factors that could affect accuracy include unknown structures between completed drill holes, seam washouts in roof or inseam stone bands developing. No evidence exists at this point in time for these, apart from what has currently been geologically modelled or exists within the models design database. The inclusion/exclusion of these features was discussed in the report.

Appendix A.

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
001R	615998.813	7572000.5	238.5	155	Chip	96		2004-2006		22			108.48	110.92	111.12	112.32	141	142.25
002R	615999.313	7571499.5	234.2	149	Chip	96		2004-2006		23	73.36	77.2					115.8	116.84
003R	615436.688	7571499.5	236.4	113	Chip	96		2004-2006		21	39.8	43.64					76.8	78
004R	614930.75	7571494	237.52	87	Chip	96		2004-2006		19							38.44	39.32
005R	615999.313	7570998.5	230.4	95	Chip	96		2004-2006		26	53.86	57.98					88.48	89.61
006R	616000.375	7570501	226.6	89	Chip	96		2004-2006		17	51.55	55.4					85.7	87.08
007R	615999.688	7570001	224.3	95	Chip	96		2004-2006		18	30.32	34.05					62.86	64.52
008R	615999.813	7569499	222.7	72	Chip	96		2004-2006		13	7.9	9.16					30.42	32.17
009R	616498.5	7569499	227.2	143	Chip	96		2004-2006		18.5	86.64	90.12					119.2	120
010R	616498	7568999	228.2	124	Chip	96		2004-2006		21	42.27	45.24					84.23	85.62
011R	616500.813	7568498.5	228.2	100	Chip	96		2004-2006		14.5	14.84	16.42					56.21	57.53
012R	617003.625	7567504	224.78	89	Chip	96		2004-2006		21							43.61	44.54
013R	616748.875	7568505.5	231.8	101	Chip	96		2004-2006		25	34.7	34.71					72.68	73.79
014R	616994.625	7568505	234.8	149	Chip	96		2004-2006		24	69.1	72.14					106.1	107.08
015R	617259.625	7568504.5	236.8	125	Chip	96		2004-2006		35	105.06	108.94						
016R	617493.5	7568504	236.8	146	Chip	96		2004-2006		26	129.78	133.49						
017R	616991.688	7567997	231.69	99	Chip	96		2004-2006		21	24.46	27.92					68.8	69.6
018R	617497.188	7568000.5	231.71	83	Chip	96		2004-2006		27.5	64.32	68						
019R	617238.563	7567993.5	231.1	65	Chip	96		2004-2006		25	39.9	42.88						
020R	617492.875	7567499	227.86	53	Chip	96		2004-2006		23.5	36.86	40.76						
021R	617743.313	7567505	229.78	71	Chip	96		2004-2006		25	52.74	56.68						
022R	617502	7566898.5	224.54	83	Chip	96		2004-2006		22.5							48.52	48.88
023R	618002.063	7567002	226.77	29	Chip	96		2004-2006		17.8	15.68	19.84						
024R	618502.5	7567000	229.83	77	Chip	96		2004-2006		24								
025R	618405.063	7567499	232.93	60	Chip	96		2004-2006		24								
026R	617152.813	7568997	234.02	169	Chip	96		2004-2006		26	100.68	104.52					126.4	127.54
027R	615762	7572002	238.8	78	Chip	96		2004-2006		24.5			59.84	62.62	62.92	64.05		
028R	615497.125	7572001	240.6	48	Chip	96		2004-2006		19			32.4	35.13	37.16	37.97		
029R	615245.875	7571998	241.8	78	Chip	96		2004-2006		17.15			10.38	12	17.15	17.6	58.03	59.34
030R	615249.5	7571513.5	237.2	48	Chip	96		2004-2006		14.5			25.12	27.76	27.8	28.8		
031R	615744.5	7571501	234.7	72	Chip	96		2004-2006		20	55.94	59.76						
032R	615755.813	7570997	229.6	54	Chip	96		2004-2006		17	36.46	40.48						
033R	615489.375	7570999	231.5	78	Chip	96		2004-2006		15	22.8	26.88					50.59	51.88
034R	615747.313	7570505	224.4	45	Chip	96		2004-2006		13.5	27.4	31.04						
035R	615506.188	7570507.5	228.1	72	Chip	96		2004-2006		11.84	11.84	15.64					46.28	47.93

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
036R	615750.938	7569998	223.35	78	Chip	96		2004-2006		17.8	15.03	17.8					49.84	51.51
037R	616498.125	7571001.5	231.8	96	Chip	96		2004-2006		21	76.76	80.36						
038R	616496	7570503.5	225.9	78	Chip	96		2004-2006		13	61.59	64.63						
039R	616255.313	7570497.5	228	66	Chip	96		2004-2006		17	52.25	55.72						
040R	616512.5	7569956	222	54	Chip	96		2004-2006		12.8	37.02	40.58						
041R	616254.875	7569512.5	225.3	60	Chip	96		2004-2006		19	42.6	45.93						
042R	616249.688	7569003.5	227.6	42	Chip	96		2004-2006		19	26.22	28.92						
043R	616995	7568246	235.76	90	Chip	96		2004-2006		25								
044R	616749.813	7568004.5	229	114	Chip	96		2004-2006		19	31.2	31.3					68.72	69.52
045R	617798.75	7567500	230.32	72	Chip	96		2004-2006		24	56.92	60.77						
046R	616248.313	7571998.5	238	102	Chip	96		2004-2006		25			83.56	85.44	85.58	86.65		
047R	616998.563	7571996	234.39	156	Chip	96		2004-2006		20	136.15	139.76						
048C	615997.5	7569999.5	224.2	42	core		100	2004-2006	No	14	30.07	33.76						
049C	615254.75	7571510.5	237.26	42	core		100	2004-2006	No	15			25.34	27.87	27.99	29.01		
050R	617015.188	7571501	232.04	126	Chip	96		2004-2006		21	109.48	112.91						
051R	616968	7570008	230.1	132	Chip	96		2004-2006		19	112.63	115.6						
052R	617014.938	7570480	225.97	126	Chip	96		2004-2006		17	111.5	114.5						
053R	616482.625	7568018.5	225.6	72	Chip	96		2004-2006		24							49.92	50.52
054C	616990.688	7567997	231.7	40	core		100	2004-2006	No	22.03	24.2	27.07						
055C	617492.563	7567496.5	227.86	48	core		100	2004-2006	No	22	36.6	39.88						
056C	616501.688	7568993	228.77	48.03	core		100	2004-2006	No	22	42.45	46.42						
056CR	616499.438	7568990.5	228.71	60	core		100	2004-2006	No									
057C	615755.625	7570993.5	229.61	54	core		100	2004-2006	No	17	36.38	40.41						
058C	615498.313	7572001	240.59	54	core		100	2004-2006	No	19			32.2	34.84	37.1	37.86		
059R	614878.875	7571560	237.8	199	Chip	96		2004-2006		15							41.97	43.24
060C	614884.688	7571562.5	238	77	core		100	2004-2006	No	15							42.65	44
061C	615495.625	7571773.5	238.76	72.17	core		63	2004-2006	yes	25.27			60.65	63.25	63.39	64.5		
062C	615705	7571269	232.57	69.17	core		63	2004-2006	yes	21.54	56.82	60.8						
063C	615659	7570742.5	228.27	42.17	core		63	2004-2006	yes	14.74	30.64	34.31						
064R	617014.75	7571043.5	227.26	129	Chip	96		2004-2006		17	115.22	117.26						
065R	617032	7570236.5	229.26	66	Chip	96		2004-2006		18								
066R	617032.25	7570236.5	229.29	114	Chip	96		2004-2006		19.5	96.19	99.41						
067R	616777.25	7569966	227.8	102	Chip	96		2004-2006		24	87	90						
068R	615850.625	7570249	223.91	90	Chip	96		2004-2006		17	26.09	29.68					59.78	61.21
069R	615991.25	7570242	225.03	54	Chip	96		2004-2006		18	38.18	41.96						
070R	616769.563	7569283.5	230.3	102	Chip	96		2004-2006		21	88.89	92.66						
071R	616280.063	7569283	227.93	96	Chip	96		2004-2006		20	54.68	57.94					79.96	81.49

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
072R	616520.875	7572213	237.91	120	Chip	96		2004-2006		23			101.6	104.02	104.2	105.2		
073R	616316.688	7572204	239.12	90	Chip	96		2004-2006		24.5			74.58	77.09	77.28	78.3		
074R	616005	7572220.5	240.81	48	Chip	96		2004-2006		21			35.24	36.8	40.4	40.85		
075R	615734	7572235.5	241.23	117	Chip	96		2004-2006		20			46.96	49.38	53.08	53.8	92.27	93.56
076R	615495.813	7572246	242.41	102	Chip	96		2004-2006		11			11.72	14.27	22.75	23.15	66.49	67.76
077R	616320.875	7571736.5	235.71	66	Chip	96		2004-2006		20	53.28	56.5						
078R	616008.5	7571757	236.46	120	Chip	96		2004-2006		25	103.63	107.1						
079R	615750.563	7571766	237.08	96	Chip	96		2004-2006		23			81.08	83.72	83.82	84.94		
080R	615237.625	7571793.5	240.16	90	Chip	96		2004-2006		25			35.85	38.38	38.78	39.78	73.63	75.34
081R	615080.938	7571789.5	240.01	78	Chip	96		2004-2006		18							43.03	44.31
082R	616277.625	7571249.5	232.56	75	Chip	96		2004-2006		20	59.44	63.37						
083R	616008.688	7571252.5	232.19	84	Chip	96		2004-2006		16	66.84	70.72						
084R	615758.75	7570741	227.29	54	Chip	96		2004-2006		17.5	38.34	42.25						
085R	615499.563	7570747	229.42	84	Chip	96		2004-2006		15	17.94	22.07					51.48	52.6
086R	615981	7570759.5	229.1	72	Chip	96		2004-2006		14	58.73	62.38						
087R	615331.938	7572250	243.63	90	Chip	96		2004-2006		15.85			8.58	9.5	15.3	15.85	59.25	60.4
088R	615501.563	7570250.5	223.48	66	Chip	96		2004-2006		5	5.7	6.6					34.88	36.06
089R	616282.625	7570225.5	225.11	54	Chip	96		2004-2006		16	40.68	44.38						
090R	616542.25	7570222	224.03	72	Chip	96		2004-2006		19	51.78	55.39						
091R	616545.188	7571256.5	232.95	90	Chip	96		2004-2006		20.5	73.91	77.33						
092R	615514.563	7571268	233.61	108	Chip	96		2004-2006		17.5	43.63	47.46					77.56	78.84
093R	615250.625	7571263	234.59	78	Chip	96		2004-2006		11.94	10.84	14.68					47.64	48.92
094R	616750.938	7572286.5	237.43	132	Chip	96		2004-2006		23	117.79	121.32						
095R	617002.313	7572271	235.05	163	Chip	96		2004-2006		30	145.83	149.16						
096R	616774.375	7572067	235.49	133	Chip	96		2004-2006		22	117.37	120.9						
097R	616748.25	7571503	233.29	108	Chip	96		2004-2006		31	89.56	92.96						
098R	616239.875	7571564	234.44	84	Chip	96		2004-2006		21	62.74	67.71						
099C	616242.75	7571567	234.46	78	core		100	2004-2006	yes	21	63.65	68.77						
1001R	615952.125	7572108	239.59	90	Chip	96		2013		24			77.36	80.08	80.48	81.42		
1002R	616007.438	7572126	239.47	96	Chip	96		2013		24			74.48	77.36	77.6	78.78		
1003R	616053.25	7572139	239.77	84	Chip	96		2013		18			33.4	37	37.2	38.24		
1004R	616033.188	7572132.5	239.66	96	Chip	96		2013		20			73.26	76.12	76.36	77.6		
1005R	616078.75	7572147.5	239.71	90	Chip	96		2013		20			36.86	39.84	40.08	41.2		
1006R	615956.75	7572307	241.74	78	Chip	96		2013		24			59.7	62.37	65	65.88		
1007R	616052.125	7572314	241.18	132	Chip	96		2013		13			23	24.97	26.4	27.38		
1008R	616004.188	7572312	241.5	84	Chip	96		2013		10			20.24	23.3	24.4	25.02		
1009R	615979.563	7572310.5	241.69	72	Chip	96		2013		10			56.66	59.44	62.32	63.2		

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
100R	616187.625	7569249.5	227.63	71	Chip	96		2004-2006		19.5	42.42	45.46						
1010R	615992.125	7572311	241.53	66	Chip	96		2013		10			19.32	21.74				
1011R	616021.5	7572313	241.39	54	Chip	96		2013		10			20.42	22.94	24.86	25.78		
1012R	616036.875	7572316	241.33	48	Chip	96		2013		10			20.46	22.32	25.12	26		
1013R	615940.438	7572505.5	243.68	54	Chip	96		2013		21			33.22	35.66	44.1	44.7		
1014R	615866.563	7572505	244.01	54	Chip	96		2013		21			34.4	36.8	44.58	46.98		
1015R	615987.75	7572501.5	243.43	54	Chip	96		2013		24			30.26	33.14	41.28	41.98		
1016R	616054.938	7572503.5	243.1	48	Chip	96		2013		18.16			15.68	18.16	26.94	27.64		
1017R	616011.188	7572503	243.26	48	Chip	96		2013		18.1			5.78	7.48	18.1	18.94		
1018R	616160.375	7571748.5	235.68	120	Chip	96		2013		18	65.6	69.8						
1019R	616198.063	7571744	235.78	96	Chip	96		2013		23	51.24	54.86						
101R	616500.188	7569252	228.87	83	Chip	96		2004-2006		24	63.64	67.08						
1020R	616234.375	7571739.5	235.66	96	Chip	96		2013		21	51	54.43						
1021R	616278.813	7571742.5	235.6	84	Chip	96		2013		20	49.56	53.4						
1022R	616217.125	7572209.5	239.51	96	Chip	96		2013		23.5			73.46	76.06	76.28	77.26		
1023R	616290.938	7571994.5	237.59	102	Chip	96		2013		26	86.62	90.16						
1024R	616332.625	7571994.5	237.37	102	Chip	96		2013		21	86.62	89.82						
1025R	616370.438	7571993.5	237.18	102	Chip	96		2013		27	87.08	90.55						
1026R	616409.375	7571996	237.05	102	Chip	96		2013		26	87.88	91.34						
1027R	616462.375	7571990.5	236.92	102	Chip	96		2013		27	91.38	94.98						
1028R	615791.063	7572755	246.46	72	Chip	96		2013		24			51.28	53.56	63.65	64.24		
1029R	615854.75	7572747.5	246.09	78	Chip	96		2013		27			55.8	58.02	69.18	69.66		
102R	616085.438	7569248	226.78	83	Chip	96		2004-2006		23	40.5	42.2					66.5	67.5
1030R	615915	7572740.5	245.88	84	Chip	96		2013		29			18.7	19.95	27	27.42		
1031R	616034.75	7572731	245.2	72	Chip	96		2013		26			54.36	56.38	64.15	65.1		
1032R	616095.75	7572724	245.08	72	Chip	96		2013		25			55	57.06	64.16	65.04		
1033R	615942.063	7572734.5	245.86	96	Chip	96		2013		22.38			22.38	24.32	33.58	34.22		
1034R	615888.625	7572747.5	246.16	102	Chip	96		2013		26			60.46	62.8	73.28	73.86		
1035R	616598.375	7571126	231.68	102	Chip	96		2013		23	82.8	86.38						
1036R	616636.563	7570910	229.97	102	Chip	96		2013		23	79.56	84.18						
103R	616199.688	7569029.5	227.5	42	Chip	96		2004-2006		17	25.86	28.58						
104R	616098.313	7569018.5	226.91	42	Chip	96		2004-2006		14.5	22.83	25.52						
105R	616000.063	7568997.5	225.87	66	Chip	96		2004-2006		17.25	15.3	17.25					54.8	55.76
106R	615922.125	7569255.5	224.73	36	Chip	96		2004-2006		13.5							16.7	17.84
107R	615964.188	7569261.5	225.2	60	Chip	96		2004-2006		20							20.93	21.9
108R	616515.25	7571771	235.27	87	Chip	96		2004-2006		21	70.71	74.19						
109R	616724.438	7571768	234.55	108	Chip	96		2004-2006		22	92.52	96.06						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
110R	616968.438	7571761	231.8	132	Chip	96		2004-2006		20	116.16	119.58						
111R	616474.125	7571498	233.67	95	Chip	96		2004-2006		24	79.04	82.59						
112R	617495.75	7572025	228.9	213	Chip	96		2004-2006		21	196.16	199.92						
113R	617476.688	7571525	227.57	110	Chip	96		2004-2006		27.5								
114R	617469.75	7571532	227.85	93	Chip	96		2004-2006		27.5								
115R	616479.25	7569751.5	224.09	51	Chip	96		2004-2006		20.3	36.02	39.78						
116R	616765.188	7569735	228.41	120	Chip	96		2004-2006		16.5	102.78	106.4						
117R	617001.625	7569728.5	231.59	126	Chip	96		2004-2006		19	110.41	114.32						
118R	617262.75	7569738.5	234.92	132	Chip	96		2004-2006		31	118.08	122.2						
119R	617241.563	7569521	234.58	144	Chip	96		2004-2006		25	130.52	133.93						
120C	615746.563	7571498	234.84	72	core		100	2004-2006	yes	20	56.16	60						
121R	616212.938	7571019	231.76	90	Chip	96		2004-2006		24	75.8	79.61						
122C	616217.625	7571019.5	231.66	90	core		100	2004-2006	yes	24	58.28	61.32						
123R	616768.5	7571048	228.64	108	Chip	96		2004-2006		18	91.92	95.32						
124C	616765.25	7571048.5	228.59	102	core		100	2004-2006	yes	19	91.63	95.09						
125C	616505.5	7571995.5	237.01	108	core		100	2004-2006	yes	21	94.55	98.06						
126C	615999.188	7571996.5	238.75	126	core		100	2004-2006	yes	28	109.53	113.27						
127C	615753.125	7570510	225.54	42	core		100	2004-2006	yes	13.5	28.08	31.68						
128C	616256.563	7570493.5	228.07	66	core		100	2004-2006	yes	17	52.13	55.72						
129C	616514.938	7569955.5	222.27	54	core		100	2004-2006	yes	12.8	37.27	40.8						
130R	616716.125	7569565.5	228.74	114	Chip	96		2004-2006		21	99.48	103.18						
131R	616969.313	7569505	231.49	120	Chip	96		2004-2006		21	105.64	108.78						
132R	617523.25	7569559.5	238.65	174	Chip	96		2004-2006		15	149	152.5						
133R	617299.75	7570007	234.49	141	Chip	96		2004-2006		24	125.58	129.04						
134R	617496.688	7570001.5	237.99	168	Chip	96		2004-2006		23	147.74	151.41						
135R	616202.688	7570028	222.78	48	Chip	96		2004-2006		17	26.14	29.78						
136R	616512.188	7570746	229.24	90	Chip	96		2004-2006		23	72.52	76						
137R	616998.813	7571266	228.6	126	Chip	96		2004-2006		16	110.6	114.02						
138R	616741.188	7571245	231.78	96	Chip	96		2004-2006		24	76.18	79.44						
139R	616244.375	7570760	230.1	78	Chip	96		2004-2006		24	61.24	65.26						
140R	616714.25	7570503	223.55	90	Chip	96		2004-2006		19	74.56	78.24						
141C	616717.75	7570504	223.57	90	core		100	2004-2006	yes	19	74.97	78.6						
142C	616256.5	7569515.5	225.51	60	core		100	2004-2006	yes	20	43.24	46.51						
143R	616764.375	7570250	223.33	108	Chip	96		2004-2006		16	91.94	95.2						
144R	616757.188	7570735	225.68	102	Chip	96		2004-2006		15	84.12	87.22						
145R	616992	7570753	226.45	123	Chip	96		2004-2006		22.5	108.74	111.8						
146R	616010.438	7569742	222.18	90	Chip	96		2004-2006		10	20.74	24.22					50.56	51.92

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
147R	616302	7569799.5	223.4	96	Chip	96		2004-2006		13	23.5	26.94					60.42	61.68
148R	616962.625	7569252.5	231.46	120	Chip	96		2004-2006		24	101.57	105.44						
149R	617238.625	7569219	234.86	168	Chip	96		2004-2006		19	123.04	126.4					150.3	151.64
150R	617294.688	7569014	235.2	132	Chip	96		2004-2006		21	114.48	117.76						
151R	616547.75	7568793	229.07	90	Chip	96		2004-2006		21	33.06	35.88					71.62	72.76
152R	616742.875	7569006	230.13	84	Chip	96		2004-2006		18	65.8	68.84						
153R	617045.438	7568807	233.89	96	Chip	96		2004-2006		22	79.38	82.88						
154R	617272.438	7568725	236.27	114	Chip	96		2004-2006		17	99.64	103.08						
155R	617525.875	7568805.5	237.32	156	Chip	96		2004-2006		36	143.05	146.54						
156R	618038.625	7568265	239.81	73	Chip	96		2004-2006										
157R	618249.25	7568000.5	238.64	132	Chip	96		2004-2006		49								
158R	617746.875	7568006.5	234.74	109	Chip	96		2004-2006		29.5	93.44	97.18						
159R	618030.25	7568005	237.42	123	Chip	96		2004-2006		21	103.37	108.88						
160R	617725.625	7568260.5	236.17	99	Chip	96		2004-2006		27	84.49	88.55						
161R	617498.313	7568252.5	235.1	111	Chip	96		2004-2006		29	91.58	95.45						
162C	616144.25	7569747.5	223.25	32.45	core		63	2004-2006	yes	12.84	15.06	18.97						
163C	616807.438	7568818	231.52	62.57	core		63	2004-2006	yes		52.1	55.03						
164C	616404.875	7568778	227.88	29.99	core		63	2004-2006	yes	17.3	19.12	22.05						
165R	617017.688	7567746	227.83	102	Chip	96		2004-2006		17.22	14.28	17.22					56.62	57.42
166R	617500.313	7567751	229.97	66	Chip	96		2004-2006		27	49.9	53.48						
167C	617174.25	7567751	228.13	38.48	core		63	2004-2006	yes	15.34	27.56	30.75						
168R	616742	7568243	231.67	120	Chip	96		2004-2006		22	33.77	36.68					73.62	74.41
169R	617252.75	7568249.5	235.4	108	Chip	96		2004-2006		24	89.81	93.08						
170R	617749.813	7567750.5	232.41	90	Chip	96		2004-2006		32	76.54	80.76						
171R	617994.75	7567746.5	234.83	96	Chip	96		2004-2006		25	76.72	80.98						
172R	618252.313	7567748.5	235.46	111	Chip	96		2004-2006		32.24								
173R	617253.688	7567493.5	225.06	108	Chip	96		2004-2006		13	18.7	22.01					60.36	61.28
174R	617982.75	7567508	232.01	78	Chip	96		2004-2006		24	61.18	65.38						
175R	618259.625	7567552.5	233.13	93	Chip	96		2004-2006		24								
176R	617250.75	7567250	223.6	60	Chip	96		2004-2006		21							41.64	42.62
177R	617494.813	7567231.5	225.18	114	Chip	96		2004-2006		17	21.04	24.82					63.84	64.6
178R	617746.938	7567249.5	226.92	120	Chip	96		2004-2006		24	30.97	34.98					81.03	81.82
179R	618029.688	7567318	229.9	54	Chip	96		2004-2006		29	42.01	46.38						
180R	618250	7567250	229.95	28	Chip	96		2004-2006		24								
181C	617163.625	7568997.5	234.15	113	core		100	2004-2006	yes	23	101.53	105.26						
182C	616190.25	7569040	227.46	42	core		100	2004-2006	yes	18	25.92	29.36						
183R	616570	7568470	229.14	23	Chip	96		2004-2006		13	19.5	22.2						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
184C	616595.875	7568496.5	229.65	36	core		100	2004-2006	yes	16	19.58	22.29						
185C	617002.563	7568504.5	235.14	84	core		100	2004-2006	yes	28	69.93	72.95						
186R	616616.5	7568013	227.48	102	Chip	96		2004-2006		16	18.51	21.28					59.3	60
187C	616692.875	7568002	228.54	36	core		100	2004-2006	yes	17	24.04	26.85						
188C	617494.125	7568006	231.88	78	core		100	2004-2006	yes	25	63.52	67.31						
189C	617323.125	7567485	225.59	36	core		100	2004-2006	yes	14	23.1	26.64						
190C	617996.25	7567504.5	232.06	72	core		100	2004-2006	yes	25	60.66	64.82						
191C	617737.063	7567251	227.2	42	core		100	2004-2006	yes	24	30.52	34.42						
192C	617482.813	7568505	237.18	144	core		100	2004-2006	yes	27	128.24	131.68						
193R	616994.625	7569007.5	232.28	102	Chip	96		2004-2006		29	86.6	90.29						
194C	616724.875	7569576.5	228.8	112	core		100	2004-2006	yes	22	99.92	103.58						
195R	620100	7563200	100	129	Chip	96		2004-2006		23								
196C	616747.938	7571506.5	233.27	102	core		100	2004-2006	yes	31	89.38	92.8						
197R	614854.313	7571805	240.55	60	Chip	96		2004-2006		16							25.6	27
198R	615127.875	7572263	244.41	84	Chip	96		2004-2006		19							45.98	47.2
199R	614757.938	7572276.5	246.44	60	Chip	96		2004-2006		18							23	24.52
200L	615283.75	7571260.5	234.6	27	Chip	96		2004-2006		14	14.44	18.74						
201L	615309.438	7571260.5	234.67	29	Chip	96		2004-2006		15	17.48	21.44						
202L	615329.438	7571020.5	232.06	26	Chip	96		2004-2006		15	15.53	19.88						
203L	615375.313	7571019	232.03	29	Chip	96		2004-2006		17	18.07	22.34						
204L	615469.438	7570752	229.54	29	Chip	96		2004-2006		15	16.68	20.69						
205L	615499.938	7570752.5	229.49	29	Chip	96		2004-2006		13.5	18.16	22.08						
206L	615563.875	7570497	228.03	26	Chip	96		2004-2006		13.8	13.8	17.52						
207L	615605.188	7570508.5	227.89	29	Chip	96		2004-2006		16	17.42	21.16						
208L	615698.875	7570251	223.66	29	Chip	96		2004-2006		15	17.72	21.22						
209L	615196.375	7571262.5	234.21	17	Chip	96		2004-2006		15	8.2	10.34						
210L	615228.5	7571263.5	234.12	20	Chip	96		2004-2006		14	9.4	13.04						
211L	615292.813	7571023.5	231.85	26	Chip	96		2004-2006		17.68	13.68	18.04						
212L	615275.875	7571026.5	232	26	Chip	96		2004-2006		17.44	13.14	17.44						
213L	615234.5	7571121.5	232.76	20	Chip	96		2004-2006		10.7	9.2	13.08						
214L	615374.813	7570757.5	229.54	29	Chip	96		2004-2006		15								
215L	615417.125	7570753	229.54	20	Chip	96		2004-2006		15.5	13.4	13.9						
216L	615443.625	7570752.5	229.6	20	Chip	96		2004-2006		15.8								
217L	615487.75	7570517	228.29	26	Chip	96		2004-2006		11.2	11.2	15.2						
218L	615454.938	7570518.5	228.11	20	Chip	96		2004-2006		10.1	9.6	13.3						
219L	615445.25	7570630.5	228.83	23	Chip	96		2004-2006		13.3	12.8	16.72						
220L	615603.563	7570253.5	223.35	23	Chip	96		2004-2006		11.76	10.76	14.48						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
221L	615697.25	7570007.5	223.36	23	Chip	96		2004-2006		20								
222L	615722.375	7570001.5	223.35	7	Chip	96		2004-2006										
223L	615854.438	7569984	223.76	29	Chip	96		2004-2006		13.5	23.4	27.2						
224L	615798.938	7569985.5	223.67	29	Chip	96		2004-2006		19.2	19.2	22.9						
225L	615725.125	7570136	223.33	23	Chip	96		2004-2006		14.5	14	17.6						
226L	615690.438	7570134.5	223.23	23	Chip	96		2004-2006		12.2	11.2	15.3						
227L	615547.438	7570419.5	226.63	29	Chip	96		2004-2006		12.5	17.64	21.1						
228L	615471.813	7570418	226.81	23	Chip	96		2004-2006		13.5	11.5	15.3						
229L	615435.75	7570418.5	226.83	20	Chip	96		2004-2006		18	10.64	11.78						
230L	615379.75	7570875.5	230.52	17	Chip	96		2004-2006		16	7.36	8.48						
231R	621002.375	7561002	203.31	90	Chip	96		2004-2006		20	27.3	31.1						
232R	623798.375	7559001.5	200.27	204	Chip	96		2004-2006		30								
233R	622990.313	7560020.5	205.29	186	Chip	96		2004-2006		20	124	125						
234R	623970.313	7560007	205.39	198	Chip	96		2004-2006		22								
235R	620999.5	7562002	205.18	60	Chip	96		2004-2006		24								
236R	619540	7564050	0	42	Chip	96		2004-2006		19								
237R	619203.438	7564901	243.08	60	Chip	96		2004-2006		22	19.35	20.5						
238R	620002	7566015	247.29	139	Chip	96		2004-2006		57								
239P	616544.813	7571999.5	236.52	105	Piezo	96		2004-2006		23	97.42	101.03						
240P	616572.813	7571996.5	236.32	79	Piezo	96		2004-2006		22.5								
241L	615428.188	7570875	230.44	17	Chip	96		2004-2006		11.44	9.24	11.44						
242L	615497.5	7570876	230.5	23	Chip	96		2004-2006		15.4	12.44	16.76						
243L	615871.75	7569823	223.05	32	Chip	96		2004-2006		11.5	19.42	23.16						
244L	615789.563	7569814	222.91	23	Chip	96		2004-2006		13.7	11.75	15.32						
245L	616089	7569498.5	224.66	23	Chip	96		2004-2006		12.8	11.72	15.09						
246L	616089.375	7569355	226.14	8	Chip	96		2004-2006										
247L	616132.188	7569354	226.83	29	Chip	96		2004-2006		18	19.42	23.02						
248L	615961.813	7569003	225.51	29	Chip	96		2004-2006		15.5								
249L	616330.188	7568783.5	226.9	26	Chip	96		2004-2006		17.4	14.75	17.4						
250L	616438.375	7568510.5	227.7	23	Chip	96		2004-2006		21	13.8	14						
251L	616498.875	7568496	228.3	23	Chip	96		2004-2006		18	15.28	16.8						
252L	616570.375	7568498	229.29	29	Chip	96		2004-2006		18.48	18.48	21.28						
253L	616467.563	7568684	228.32	32	Chip	96		2004-2006		19	21.09	23.75						
254L	616569.438	7568011	226.82	26	Chip	96		2004-2006		18	14.8	18						
255L	616553.188	7568139.5	227.78	23	Chip	96		2004-2006		22	12.2	13.22						
256L	616606	7568138.5	228.69	32	Chip	96		2004-2006		18.5	22.24	25.63						
257L	616567.375	7568264	228.91	26	Chip	96		2004-2006		16.55	15.55	18.75						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
258L	616556.063	7568372	229.07	26	Chip	96		2004-2006		16	15.54	18.38						
259L	616996.938	7567748	227.68	23	Chip	96		2004-2006		15.69	13.2	15.69						
260L	616859.875	7567842	227.98	20	Chip	96		2004-2006			10.87	11.64						
261L	616963.375	7567843.5	228.89	26	Chip	96		2004-2006		18	17.2	20.12						
262L	617188.938	7567498	226.09	32	Chip	96		2004-2006		17.93	17.43	20.78						
263L	617087	7567596	226.36	29	Chip	96		2004-2006		20.2	13.45	15.15						
264L	617118.938	7567594.5	226.49	32	Chip	96		2004-2006		18.08	14.81	18.08						
265L	617408.938	7567242	224.02	26	Chip	96		2004-2006		17.2	15.1	18.85						
266L	617285.875	7567365	224.07	20	Chip	96		2004-2006		12.04	10.76	12.04						
267L	617359.438	7567363	225.21	29	Chip	96		2004-2006		16.53	16.53	20.16						
268L	617627.688	7567091.5	224.56	23	Chip	96		2004-2006		17								
269L	617597.438	7567089.5	224.43	29	Chip	96		2004-2006		19	21.4	23.37						
270L	617996.313	7566993	226.68	26	Chip	96		2004-2006		18.74	16.04	18.74						
271P	616563.188	7569972.5	221.54	74				2004-2006		15	40.08	43.58						
272P	616545.438	7569948.5	221.8	42				2004-2006		14	37.88	41.29						
273P	617256.75	7569503.5	234.78	126.5				2004-2006		26	120.72	124.33						
274P	616471.563	7568045	225.98	50.8				2004-2006		27								
275P	617980.125	7567535	232.24	100				2004-2006		22	63.7	69						
276P	618005.813	7567550	232.59	66.8				2004-2006		28	60.88	65.4						
277P	618012.875	7567518	232.08	57.8				2004-2006		27								
278P	617265.313	7569474.5	234.99	109.7				2004-2006		18								
279R	614744.625	7571253	234.27	54	Chip	96		2004-2006		18							13.1	14.24
280P	615223.438	7571306	234.85	45				2004-2006		17	11	14						
281L	617781.125	7566998.5	225.58	35	Chip	96		2004-2006		24.1	23.25	27.48						
282L	617722.188	7566955.5	223.75	26	Chip	96		2004-2006		20.4	16.36	20.4						
283L	617524.938	7567059	223.36	26	Chip	96		2004-2006		18.32	14.53	18.32						
284L	616393.813	7568679.5	227.74	26	Chip	96		2004-2006		16.69	16.19	18.81						
285L	616371.313	7568679.5	227.38	26	Chip	96		2004-2006		16.6	15.18	17.84						
286L	616100.25	7568901	226.66	29	Chip	96		2004-2006		17.57	17.57	20.4						
287L	616044.75	7568880	226.33	26	Chip	96		2004-2006		17.5								
288L	616007.75	7569181	226.12	41	Chip	96		2004-2006		18	27.4	30.3						
289L	615960.375	7569176.5	225.41	26	Chip	96		2004-2006		19.8	15.12	18.3						
290L	616065	7569354	225.76	23	Chip	96		2004-2006		17	15.1	15.8						
291L	616092.188	7569353	226.23	29	Chip	96		2004-2006		20.7	17.5	20.7						
292L	615796.75	7569905	223.63	26	Chip	96		2004-2006		16.5	14.95	18.96						
293L	615756.563	7569895.5	223.39	20	Chip	96		2004-2006		15.3	13.36	15.9						
294L	615093.938	7571529	237.58	29	Chip	96		2004-2006		19.3	17.44	21.28						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
295L	615158.75	7571789	239.97	32	Chip	96		2004-2006		9								
296L	615046.438	7571537.5	237.8	20	Chip	96		2004-2006		16			12.15	13.12	13.24	13.92		
297L	615096.813	7571631.5	238.78	32	Chip	96		2004-2006		17.5			20.15	22.68	22.86	23.84		
298L	615045.5	7571627.5	238.97	29	Chip	96		2004-2006		19.48			16.7	19.36	19.48	20.91		
299L	615239.938	7571899	240.97	23	Chip	96		2004-2006		14.04			9.92	10.92	13.63	14.04		
300P	616767.5	7568237.5	232.06	80.65				2004-2006		22.5	40.24	43.43						
301R	613964.313	7571687	240.41	209	Chip	96		2004-2006		21								
302R	613061.938	7571799	235.88	200	Chip	96		2004-2006		17.8								
303R	612408.438	7571281	230.14	153	Chip	96		2004-2006		21								
304R	614272	7567122.5	214.65	177	Chip	96		2004-2006		17								
305R	615005.688	7567911	219.73	129	Chip	96		2004-2006		16								
306R	619000	7566000	0	51	Chip	96		2004-2006		18								
310L	615283.25	7571895.5	241.04	26	Chip	96		2004-2006		19.1			14.45	16.2	18.32	19.1		
311L	615312.375	7572001.5	242.21	29	Chip	96		2004-2006		16.84			14.39	16.84	21.84	22.28		
312L	615478.875	7572244	242.52	20	Chip	96		2004-2006		13.8			10.72	13.28				
313L	615390.625	7572146.5	242.6	41	Chip	96		2004-2006		14.24					13.95	14.24		
314L	615133.25	7571787	239.73	29	Chip	96		2004-2006		13								
315L	615173.875	7571393.5	235.8	29	Chip	96		2004-2006		21.3	19.04	23.82						
316L	615113.875	7571382	235.79	23	Chip	96		2004-2006		18.72	14.96	18.72						
322R	615257	7570247	224.4	45	Chip	96		2004-2006		17.54							13.08	14.4
324R	615498.188	7569745.5	222.47	57	Chip	96		2004-2006		16.9							18.5	20.1
325C	615500.125	7569752	222.54	33	core		100	2004-2006	no	16							19.05	20.93
326R	615962.813	7569641.5	222.4	60	Chip	96		2004-2006		12	14.56	18					41.09	42.76
327R	615404.375	7571260	234.45	42	Chip	96		2004-2006		23	29.08	33.12						
328C	615403.25	7571255	234.41	39	core		100	2004-2006	yes	23	28.86	32.74						
329R	615471.25	7571264	233.95	60	Chip	96		2004-2006		22	39.87	43.66						
330C	615735.125	7572233.5	241.27	63	core		100	2004-2006	yes	20			47.16	49.66	53.32	54.02		
331R	615725	7570499.5	225.65	31	Chip	96		2004-2006		14	24.3	28						
332C	615719.625	7570504	225.73	39	Large Diameter		200	2004-2006		14	24.71	28.4						
333C	615719.5	7570500	225.67	41.77	Large Diameter		200	2004-2006		14	24.63	28.34						
334C	616253.125	7570494.5	228.16	64.69	Large Diameter		200	2004-2006		17	52.05	55.52						
335C	616253.75	7570490	228.16	64	Large Diameter		200	2004-2006		17	51.76	55.23						
336C	617740.375	7567246	226.81	45	Large Diameter		200	2004-2006		24	30.27	34.3						
337C	617740.25	7567251.5	226.86	45	Large		200	2004-2006		24	30.65	34.58						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
					Diameter													
338R	618024.563	7567124.5	227.5	36	Chip	96		2004-2006		17.5	25.28	29.45						
339R	615739.313	7568987.5	223.61	78	Chip	96		2004-2006		24							41	42.8
340R	615528.063	7569003	222.41	28	Chip	96		2004-2006		17.7								
341R	615616.625	7568994.5	222.81	28	Chip	96		2004-2006		18								
342C	615739.063	7568984	223.65	75	core		100	2004-2006	no	24							39	40.04
343R	616235.563	7567998	225.09	52	Chip	96		2004-2006		23							31.95	33.2
344C	616235.5	7568001.5	225.1	48	core		100	2004-2006	no	23							31.61	32.44
345R	616247.875	7568492.5	226.63	64	Chip	96		2004-2006		24							47.3	48.9
346R	615929.5	7568497.5	225.68	40	Chip	96		2004-2006		20.1							18.7	19.8
347R	616071.313	7568508	226.26	64	Chip	96		2004-2006		21							42.28	43.4
348C	616071.688	7568511	226.3	57.58	core		100	2004-2006	no	19							42.36	43.43
349R	616756.313	7567503	223.48	46	Chip	96		2004-2006		18.5							28.78	29.8
350C	618025.313	7567123	227.42	36	core		100	2004-2006	yes	15	23.82	27.98						
351C	617749.688	7567749	232.39	90	core		100	2004-2006	yes	33	76.19	80.62						
352C	616499.563	7569250.5	228.98	78	core		100	2004-2006	yes	24	63.58	67.14						
353C	616756.563	7567500.5	223.47	40.77	core		100	2004-2006	no	18.5							28.11	29.02
354R	616998.5	7567259.5	223.47	40	Chip	96		2004-2006		16							28.2	29.5
355C	616998.25	7567261.5	223.44	46	core		100	2004-2006	no	16							28.26	29.26
356R	617271.688	7566966	223.81	40	Chip	96		2004-2006		20							28.03	29.5
357C	617271.75	7566963.5	223.91	40	core		100	2004-2006	no	20							28.15	29.2
358R	614682.125	7571580.5	237.56	46	Chip	96		2004-2006		21							24.6	26.3
359R	614989.375	7572247	245.21	63	Chip	96		2004-2006		14.5							35.34	36.52
360C	614988.625	7572249.5	245.34	70	core		100	2004-2006	no	14.5							35.55	36.71
361R	615072.063	7571990.5	242.05	64	Chip	96		2004-2006		19							39.74	41.14
362R	614947	7571257	234.91	52	Chip	96		2004-2006		18							23.28	24.56
363C	614947.25	7571258.5	235	51	core		100	2004-2006	no	18							23.36	24.6
364R	615212.313	7570609.5	228.41	64	Chip	96		2004-2006		12.3							33.12	34.33
365R	615386.5	7570271	224.48	58	Chip	96		2004-2006		13							26.68	27.95
366C	615384.063	7570270.5	224.53	58	core		100	2004-2006	no	13							26.26	27.92
367R	615399.813	7570006.5	222.44	58	Chip	96		2004-2006		16							24.24	26.12
368R	615609.063	7569504.5	222.07	52	Chip	96		2004-2006		14.51							13.86	14.51
369R	615725.438	7569263.5	223.36	46	Chip	96		2004-2006		14.21							10.28	10.96
370R	615818.375	7568723.5	224.42	64	Chip	96		2004-2006		21.5							23.7	25.1
371R	616203.75	7568240	225.72	82	Chip	96		2004-2006		20							38.3	39.08
372R	616501.5	7567757.5	224.53	46	Chip	96		2004-2006		19							29.84	30.64
373R	614914.813	7571008	231.97	52	Chip	96		2004-2006		18							21.52	22.72

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
374R	615096.5	7570813.5	230.11	52	Chip	96		2004-2006		18.2							20.03	21.35
375C	615097.75	7570811.5	230.1	52	core		100	2004-2006	no	17.5							19.98	21.26
376C	614682.5	7571582	237.53	41	core		100	2004-2006	no	21							23.67	25.3
377C	614883	7571558.5	237.94	76	core		100	2004-2006	no	15							42.38	43.71
400R	615364.438	7571090	232.99	35	Chip	96		2004-2006		10.5	20.98	25.4						
401C	615364.688	7571092	232.98	35	core		100	2004-2006	yes	10.5	21.12	25.5						
402C	615553.438	7570722	229.32	35	core		100	2004-2006	yes	13.5	21.96	25.84						
403R	615712.5	7570374	224.22	41	Chip	96		2004-2006		18	24.82	28.51						
404C	615709.313	7570374.5	224.27	40	core		100	2004-2006	yes	18	24.7	28.39						
405C	615777.938	7570161.5	223.6	35	core		100	2004-2006	yes	15	20.02	23.53						
406C	615851.313	7569968.5	223.76	39	core		100	2004-2006	yes	14.5	22.7	26.48						
407C	616074.5	7569043.5	226.76	35	core		100	2004-2006	No	20.39	22.54	25.28						
408C	615284.813	7571375	235.84	38	core		100	2004-2006	No	15	23.28	27.11						
409C	615519.875	7570941	231	32	core		100	2004-2006	No	15.7	17.32	21.3						
410C	615627.125	7570542	228.02	35	core		100	2004-2006	yes	14	20.46	24.15						
411C	615174.875	7571660	238.69	41	core		100	2004-2006	yes	16.5			27.14	29.63	29.84	30.78		
412C	615300.063	7571816	240.42	58	core		100	2004-2006	yes	19			42.38	44.98	45.32	46.28		
413C	615419.125	7571986	241.25	41	core		100	2004-2006	yes	16			25.04	27.7	30.31	31.07		
414R	615524.875	7572155	241.46	47	Chip	96		2004-2006		19			29.39	32.15	37.51	38.12		
415C	615524.375	7572153.5	241.45	49	core		100	2004-2006	yes	19			29.05	31.73	37.14	37.69		
416R	615611.813	7572340.5	242.57	41	Chip	96		2004-2006		22			23.16	25.71	33.72	34.13		
417C	615611.625	7572339	242.55	44	core		100	2004-2006	yes	22.4			23.22	25.75	33.88	34.24		
418R	615626.563	7572547	245.08	47	Chip	96		2004-2006		18.5			28.36	30.58	39.81	40.47		
419C	615627.125	7572546.5	245.08	51	core		100	2004-2006	yes	18.5			28.41	30.61	39.94	40.56		
420R	615539.688	7572730.5	248.01	50	Chip	96		2004-2006		15			31.36	33.69	41.72	42.52		
421C	615539.75	7572730	248.01	47.5	core		100	2004-2006	yes	15			31.37	33.66	41.77	42.54		
422R	615535.813	7572944	250.33	53	Chip	96		2004-2006		21			31.98	34.08	45.24	45.92		
423C	615535.875	7572943.5	250.3	56	core		100	2004-2006	yes	21			31.83	33.9	45.02	45.6		
424R	616225.563	7568908.5	227.27	33	Chip	96		2004-2006		21.8	19.8	22.82						
425C	616274.875	7568937	227.53	35	core		100	2004-2006	yes	22.18	23.74	25.12						
426R	616719.125	7568407	231.72	41	Chip	96		2004-2006		16.2	26.78	29.53						
427R	616867.063	7568397.5	233.75	60	Chip	96		2004-2006		26	45.86	48.82						
428R	617018.188	7568399	235.84	81	Chip	96		2004-2006		29	67.52	70.93						
429R	616795.188	7568504.5	232.59	60	Chip	96		2004-2006		24	43.42	46.2						
430R	616888.188	7568506	233.71	108	Chip	96		2004-2006		19	53.64	56.4					90.72	91.46
431R	616947.063	7568254	235.02	72	Chip	96		2004-2006		20	61.2	61.2						
432R	617040.625	7568253.5	236.11	84	Chip	96		2004-2006		29	65.96	69.06						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
433R	616895.75	7568263.5	234.21	67	Chip	96		2004-2006		28	52.24	54.16						
434R	616852.625	7568256.5	233.47	65	Chip	96		2004-2006		21	48.13	50.3						
435R	616972.063	7568194.5	234.73	74	Chip	96		2004-2006		27	59.85	60.06						
436R	616984.313	7568098.5	233.51	68	Chip	96		2004-2006		25	52.57	55.52						
437R	616993.125	7568048.5	232.75	65	Chip	96		2004-2006		27	50.24	53.1						
438R	616627	7568254	229.85	29	Chip	96		2004-2006		18.38	18.38	21.42						
439R	616535.125	7568629.5	229.04	35	Chip	96		2004-2006		18	24.68	27.26						
440R	617054.25	7567855	229.52	38	Chip	96		2004-2006		17	24.98	26.88						
455C	616626.438	7568252.5	229.8	35	core		100	2004-2006	yes	15.5	18.43	21.43						
456C	616532.563	7568630.5	229.04	41	core		100	2004-2006	yes	16	24.68	27.42						
457R	616995.625	7568287.5	236.21	76	Chip	96		2004-2006		22	65.5	65.5						
458R	617098.625	7568258	236.25	86	Chip	96		2004-2006		25.5	70.76	73.78						
459R	616802.313	7568651.5	231.84	59	Chip	96		2004-2006		22	46.09	49.26						
460R	616726.125	7568512.5	231.62	89	Chip	96		2004-2006		27	29.9	32.24					71.01	71.68
461R	617163.313	7567689	227.24	38	Chip	96		2004-2006		14	22.8	26.13						
462R	617255	7567510	225.44	41	Chip	96		2004-2006		14	20.57	24.18						
463R	616841.313	7568025	230.78	52	Chip	96		2004-2006		22	36.12	39.4						
464R	616838.188	7568122	232.25	59	Chip	96		2004-2006		21	41.3	44.56						
465R	617399.563	7567359.5	225.37	35	Chip	96		2004-2006		16	20.31	24.08						
466R	617544.375	7567235	225.15	41	Chip	96		2004-2006		18	24.15	27.97						
467R	617710.188	7567145	225.29	41	Chip	96		2004-2006		21	22.25	26.29						
468R	617904.125	7567129.5	226.8	41	Chip	96		2004-2006		19	24.58	28.77						
469C	617053.5	7567852.5	229.5	41	core		100	2004-2006	yes	15	24.11	27						
470C	617163.688	7567690.5	227.26	41	core		100	2004-2006	yes	15.3	23.18	26.24						
471C	617256.625	7567509	225.4	35	core		100	2004-2006	yes	14	20.67	24.24						
472C	617399.938	7567362	225.39	35	core		100	2004-2006	yes	15	20.43	24.31						
473C	617543.813	7567233.5	225.11	41	core		100	2004-2006	yes	17.5	24.02	27.86						
474C	617710.063	7567143.5	225.23	34	core		100	2004-2006	yes	20.5	22.18	26.2						
475C	617904.375	7567127.5	226.62	41	core		100	2004-2006	yes	19	24.47	28.71						
476C	615286.875	7571374.5	235.81	40	core		100	2004-2006	yes	14	23.55	27.72						
477C	615518.313	7570940.5	230.96	35	core		100	2004-2006	yes	12	17.37	21.82						
478C	615420.313	7571985.5	241.27	41	core		100	2004-2006	yes	17			25.17	27.89	30.4	31.24		
479R	616102.188	7571398.5	233.36	98	Chip	96		2004-2006		23	81.52	85.68						
480R	616159.375	7571392.5	233.29	101	Chip	96		2004-2006		24.3	84.34	88.53						
481R	616209.25	7571387	233.26	101	Chip	96		2004-2006		20	86.18	90.19						
482R	616257.438	7571382	233.41	149	Chip	96		2004-2006		27	52.81	57.7					127.7	128.89
483R	615498.313	7571479	235.81	101	Chip	96		2004-2006		19	47.99	48					82.26	83.66

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
484R	615288.563	7571507	237.03	47	Chip	96		2004-2006		15	26.53	30.25						
485R	615896.75	7571428.5	233.78	89	Chip	96		2004-2006		21	71.92	76.02						
486R	616313.875	7572107	238.5	161	Chip	96		2004-2006		26			87.24	89.64	89.76	90.75	141.6	142.82
487R	616200.063	7572112	239.13	80	Chip	96		2004-2006		23.8	64.44	66.47						
488R	616125.813	7572013.5	238.48	77	Chip	96		2004-2006		17.2	58.16	61.93						
489R	615799.875	7571906	237.99	107	Chip	96		2004-2006		22	90.67	94.66						
490R	615687	7571904	238.4	95	Chip	96		2004-2006		22.8			80.34	83.09	83.26	84.36		
491R	615646.063	7571788	237.8	95	Chip	96		2004-2006		19.7	75.79	79.79						
492R	616801.5	7568118	231.58	53	Chip	96		2004-2006		26	39.04	42.26						
493R	617055	7568140.5	234.56	77	Chip	96		2004-2006		21.7	60.39	63.36						
501L	615351.313	7572997.5	252.85	32	Chip	96		2004-2006		17.2			17.94	20.34				
502L	615028.188	7572997.5	254.83	17	Chip	96		2004-2006		16.3					7.28	7.96		
503L	615162.813	7572875.5	252.72	21	Chip	96		2004-2006		9.9					9.1	9.76		
504L	615329	7572875	251.29	30	Chip	96		2004-2006		15			16.24	18.4	26.88	27.85		
505L	615170.375	7572751.5	250.59	30	Chip	96		2004-2006		12			17.7	20.26				
506L	615296.938	7572755	249.9	33	Chip	96		2004-2006		12			20.3	22.8	31	32		
507L	615454.25	7572625.5	246.69	42	Chip	96		2004-2006		10			22.26	24.9	32.29	32.99		
508L	615283.25	7572623.5	248.08	33	Chip	96		2004-2006		12			12.96	15.5	23.15	24.22		
509L	615373.938	7572500.5	245.67	33	Chip	96		2004-2006		10			12.08	14.6	23.42	24.22		
510L	615569.75	7572500	244.44	33	Chip	96		2004-2006		13			22.2	24.52				
511L	615374.938	7572373	244.25	33	Chip	96		2004-2006		15.2			13.62	15.2	21.33	22.06		
512L	615499.688	7572377.5	243.49	39	Chip	96		2004-2006		18			19.95	22.48	28.3	29.32		
513L	615344	7572249	243.51	27	Chip	96		2004-2006		16.26			9.28	10.08	15.54	16.26		
514L	615462.813	7572244.5	242.53	30	Chip	96		2004-2006		12.44			9.85	12.44	20.29	20.72		
515L	615417.375	7572124	242.19	39	Chip	96		2004-2006		19			20.76	23.44	30.12	30.68		
516L	615273.625	7572124.5	243.16	39	Chip	96		2004-2006		15								
517L	615199.938	7571998.5	241.67	24	Chip	96		2004-2006		14.7			7.2	8.01	14.34	14.7		
518L	615296.875	7572001	242	30	Chip	96		2004-2006		15.04			13.56	15.04	20.38	20.86		
519L	615256	7571874.5	240.69	27	Chip	96		2004-2006		16.26			13.12	14.24	15.66	16.26		
520L	615337.375	7571875	241.07	36	Chip	96		2004-2006		19			20.85	23.45	24	24.98		
521L	615100.25	7571715.5	239.26	39	Chip	96		2004-2006		18			25.6	28.13	28.28	29.24		
522L	615081.188	7571450	237.02	27	Chip	96		2004-2006		17.32	14.3	17.32						
523L	615166.438	7571326	234.45	30	Chip	96		2004-2006		9.2	7.69	9.2						
524L	615238.5	7571198.5	233.52	24	Chip	96		2004-2006		13.1	9.32	13.1						
525C	615402.125	7571245.5	234.34	40	Large Diameter		200	2004-2006		19	28.3	32.14						
526C	615399.813	7571260	234.48	40	Large Diameter		200	2004-2006		20	28.32	32.41						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
527C	615400.813	7571276	234.58	34.44	Large Diameter		200	2004-2006		21								
528C	615391.25	7571246.5	234.34	40	Large Diameter		200	2004-2006		9	26.68	30.55						
529C	615409.25	7571253.5	234.36	40	Large Diameter		200	2004-2006		19	29.68	33.52						
530L	615245.375	7571077	232.3	33	Chip	96		2004-2006		15.4	11.14	15.4						
531L	615367	7570948.5	231.13	27	Chip	96		2004-2006		6	15.63	15.92						
532L	615444.125	7570816	229.93	30	Chip	96		2004-2006		10.48	8.32	10.48						
533L	615521.5	7570696.5	229.4	33	Chip	96		2004-2006		12	19.05	22.96						
534L	615442.125	7570695	229.22	30	Chip	96		2004-2006		12	14.16	18.29						
535L	615442.438	7570585.5	228.52	27	Chip	96		2004-2006		9	12.18	16.32						
536L	615459.375	7570478.5	227.7	30	Chip	96		2004-2006		15								
537L	615414.438	7570470	227.46	27	Chip	96		2004-2006		15.04	11.29	15.04						
538L	615537.438	7570366	225.49	27	Chip	96		2004-2006		9	12.09	15.76						
539L	615483.25	7570355	225.43	21	Chip	96		2004-2006		10.98	9.44	10.98						
540L	615464.125	7570367	225.79	21	Chip	96		2004-2006		10.32	9.12	10.32						
541L	615697.938	7570180.5	223.16	27	Chip	96		2004-2006		13	13.92	17.66						
542R	615401	7571278.5	234.6	87	Chip	96		2004-2006		15	35.4	39.08					68.6	69.8
543R	616310	7571375	233	148	Chip	96		2004-2006		27	54.76	58.52					129.2	130.33
544R	616360	7571375	232.9	148	Chip	96		2004-2006		26	61.41	65.2					104.7	105.72
545L	615675.375	7570049.5	223.27	24	Chip	96		2004-2006		13.1					12	13.1		
546L	615728.813	7570049.5	223.27	18	Chip	96		2004-2006		16.5	14.52	15.56						
547L	615770.688	7570050.5	223.41	30	Chip	96		2004-2006		16.5	16.11	19.88						
548L	615510.875	7570360.5	225.46	24	Chip	96		2004-2006		11.62	9.62	13.54						
549L	615774.25	7569758.5	222.84	27	Chip	96		2004-2006		16								
550L	615806.063	7569770	222.35	27	Chip	96		2004-2006		13.8	12.05	15.56						
551L	615819.125	7569682	220.4	21	Chip	96		2004-2006		11	7.84	9						
552L	615842.063	7569684	220.37	24	Chip	96		2004-2006		10.7	8.36	12.32						
553L	615862.688	7569577	219.92	24	Chip	96		2004-2006		6								
554L	615900.75	7569568	220.9	27	Chip	96		2004-2006		9								
555L	615929.188	7569560.5	221.23	27	Chip	96		2004-2006		8								
556L	616057.563	7569546.5	222.95	24	Chip	96		2004-2006		5	12.99	16.52						
557L	616011.5	7569528	222.51	21	Chip	96		2004-2006		10.4	7.98	12.02						
558L	616910.063	7567920	229.66	30	Chip	96		2004-2006		16	18.44	21.48						
559L	616881.875	7567932	229.6	21	Chip	96		2004-2006		17.24	16.78	17.24						
560L	616930.125	7567815.5	228.09	27	Chip	96		2004-2006		15	12.98	15.88						
561L	617070.25	7567674.5	227.11	27	Chip	96		2004-2006		17	14.5	17.3						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
562L	617121.563	7567545.5	226.03	21	Chip	96		2004-2006		19	13.4	15.08						
563L	617137.5	7567551	226.25	27	Chip	96		2004-2006		16.98	13.8	16.98						
564L	617224.188	7567429	225.09	27	Chip	96		2004-2006		15.68	12.44	15.68						
565L	617346.188	7567303	224.47	24	Chip	96		2004-2006		14.56	11.96	14.56						
566L	617360.688	7567325	224.7	27	Chip	96		2004-2006		17.56	13.64	17.56						
567L	617410.375	7567174.5	223.41	27	Chip	96		2004-2006		16.82	13.72	16.82						
568L	617429.313	7567182.5	223.62	30	Chip	96		2004-2006		16	14.32	17.2						
569L	617681.313	7567011.5	225.23	26	Chip	96		2004-2006		18	21.26	25.2						
570L	617644.75	7566970.5	223.69	27	Chip	96		2004-2006		17.5	14.89	17.88						
571P	617269.563	7566976	223.72	61				2004-2006		19								
586LD	615520	7570943	230.75	29.73	Large Diameter		200	2004-2006		12	17.28	21.69						
587LD	615522	7570943	230.74	30.39	Large Diameter		200	2004-2006		12	17.68	22.16						
588LD	615518	7570941	230.76	30.39	Large Diameter		200	2004-2006		12	16.88	21.36						
589LD	615519	7570946	230.76	29.75	Large Diameter		200	2004-2006		12	17.51	21.98						
590LD	615523	7570947	230.74	30.5	Large Diameter		200	2004-2006		12	18.43	22.91						
591LD	615524	7570944	230.72	31	Large Diameter		200	2004-2006		16.91	18.56	23.02						
602C	615230	7571575	237.93	41	core		100	2004-2006	no	15.5	26.59	30.28						
603R	615360	7571235	234.27	31	Chip	96		2004-2006		13	21.76	26.26						
604C	615445	7571035	231.66	37	core		100	2004-2006	no	14	21.71	26.08						
605C	615446	7571032	231.65	41	core		100	2004-2006	no	14.87	25.43	29.65						
606C	615592	7570640	228.8	37	core		100	2004-2006	no	13	23.79	27.61						
BC041	615549.625	7573241	253.71	149	Chip	96		Historic		17			44.09	46.36	56.7	57.8	96.64	97.84
BC042	615032.813	7573307.5	261.65	95	Chip	96		Historic		31			6	7.7	22.4	23.7	66.58	67.92
BC043	616495.5	7573113.5	244.25	173	Chip	96		Historic		25			84.17	86.2	91	91.75	144.7	145.92
BC045	616967.438	7573058	238.92	125	Chip	96		Historic		22			116.4	118.71	120.32	121.46		
BC048	617518.063	7573014	232.84	209	Chip	96		Historic		20			195.71	198.34	198.92	199.92		
BC049	615995.75	7573183	250.42	59	Chip	96		Historic		29			47.6	49.75				
BC050	616499.375	7572385	239.59	101	Chip	96		Historic		24			87.51	90.04	90.23	91.25		
BC051	615993.75	7572388.5	242.23	16	Chip	96		Historic					13.5	15				
BC059	616498.5	7572699.5	241.98	89	Chip	96		Historic		20			76.45	78.71	79.7	80.7		
BC082	616997.688	7572701.5	237.4	129	Chip	96		Historic		29			112.46	114.97	115.34	116.36		
BC089	617245	7573100.5	235.25	153	Chip	96		Historic		26			141	143.6	144.47	145.45		
BC095	616503.313	7571996.5	236.73	114	Chip	96		Historic		21	94.63	98.14						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
BC096	616496.5	7571350	232.29	150	Chip	96		Historic		24	79.73	83.31						
BC401	616216.75	7572713.5	244.83	84	Chip	96		Historic		17			61.12	63.22	68.77	69.43		
BC402	615985.938	7572738	245.88	96	Chip	96		Historic		18			26.5	28.54	37.62	38.01	76.28	77.77
BC403	615734.5	7572760.5	246.98	78	Chip	96		Historic		20.5			46.33	48.57	57.53	57.92		
BC404	615506.625	7572768	248.74	120	Chip	96		Historic		18			32.13	34.43	42.56	43.42	86.34	87.52
BC405	616500	7573000	243.6	105	Chip	96		Historic		22			87.36	89.68	93.1	93.84		
BC406	616219.563	7573009.5	247.07	180	Chip	96		Historic		27			74.92	76.86	83.68	84.36	137.8	138.84
BC407	615995.563	7573018.5	249.27	70	Chip	96		Historic		26			39.08	41.8	55.3	56.8		
BC408	615731.625	7573005.5	249.78	78	Chip	96		Historic		24			53	55.15	64.24	65.2		
BC409	615500	7573000	251.3	114	Chip	96		Historic		24.5			28.72	30.76	42.32	42.64	86.4	87.58
BC410	615238.438	7573005.5	254.21	108	Chip	96		Historic		21.5			15.14	17.68	29	30.04	75.56	76.68
BC411	615241.375	7572754.5	250.45	108	Chip	96		Historic					18.92	21.32	29.36	30.3	74.02	75.12
BC412	615250.063	7572501.5	247.08	102	Chip	96		Historic		23			12.06	13.05	21.28	21.94	63.57	64.68
BC413	615498.813	7572494.5	245	108	Chip	96		Historic		12			18.29	20.7	30	30.76	72.9	74.16
BC414	615748.688	7572503.5	244.44	60	Chip	96		Historic		23.5			37.32	39.56	50.58	50.92		
BC415	616001.75	7572500.5	243.47	84	Chip	96		Historic		19			9.08	10.04	17.6	18.32		
BC416	616747.375	7572498	238.57	120	Chip	96		Historic		24			105.16	107.69	107.92	108.96		
BC417	617000.5	7572501.5	236.31	132	Chip	96		Historic		24			115.44	117.9	118.08	119		
BC418	616751.438	7572750	240.04	108	Chip	96		Historic		26			95.65	98	98.61	99.54		
BC419	615499.438	7573000	251.29	36	core		100	Historic	No	25.12			27.32	29.28				
BC420	615992.875	7573017	249.34	48	Chip	96		Historic		20								
BC421	615996.375	7573014.5	249.25	48.7	core		100	Historic	yes	21	38.69	41.29						
BC422	616469.813	7573006	243.66	97	core		100	Historic	yes	22			87.27	89.52	92.98	93.67		
BC423	616748.063	7572970.5	241.59	118	Chip	96		Historic		28			100.53	102.72	105.44	106.24		
BC424	615747.5	7572502.5	244.45	49	core		100	Historic	yes				37.36	39.6				
BC425	616217.75	7572498	242.2	72	Chip	96		Historic		23			52.68	54.96	57.73	58.64		
BC441	616218.563	7572500.5	242.26	66	core		100	Historic	yes	23			53.22	55.54	58.16	59.04		
BC442	615497.875	7573000	251.19	42	core		100	Historic	No	24.63			26.88	29.2				
IPC620	615682.75	7570025.5	223.69	58.9	Chip	96		2008		16								
IPC621	615635.813	7570005.5	222.9	58.2	Chip	96		2008		11								
IPC622	615694.75	7569979.5	223.72	64.2	Chip	96		2008		14								
IPC623	615704.75	7569945.5	223.69	58.17	Chip	96		2008		14	16.3	18						
IPC624	615723.688	7569900	223.62	64.2	Chip	96		2008		16								
IPC625	615768.625	7569958.5	223.8	64.2	Chip	96		2008		18	25.4	27.8						
IPC626	615753.625	7569867	223.59	21.5	Chip	96		2008		14	11.5	14						
IPC627	615770.625	7569836	223.37	23.5	Chip	96		2008		14.7	12.08	14.7						
IPC628	615841.5	7569848	223.79	28.3	Chip	96		2008		22.78	19	22.78						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
IPC629	615844.063	7569780.5	221.73	29.5	Chip	96		2008		19.7	16.15	19.7						
IPC630	615919.375	7569867	224.01	34.2	Chip	96		2008		8	22.28	25.98						
IPC631	615905.438	7569832	223.47	34.5	Chip	96		2008		10	19.84	23.44						
IPC632	615942.5	7569814	220.37	28.2	Chip	96		2008		7	17.17	20.79						
IPC633	615997.25	7569911	223.74	40.4	Chip	96		2008		11	25.8	29.5						
IPC634	616025.938	7569870.5	220.92	34.3	Chip	96		2008		7	21.48	25.04						
IPC635	615974.688	7569744.5	220.59	34.3	Chip	96		2008		8	18.28	21.74						
IPC636	615992.5	7569772	220.38	34.3	Chip	96		2008		8	18.48	22.03						
IPC637	615842	7569684	220.14	28.3	Chip	96		2008		7	17.4	20.84						
IPC638	615970.313	7570142.5	224.66	35.6	Chip	96		2008		17	23	26.55						
IPC639	615950	7570090	224.59	34.2	Chip	96		2008		13	21.8	25.48						
IPC640	615921.375	7570008.5	224.19	34.2	Chip	96		2008		10	20.81	24.6						
IPC641	615951.313	7570302	224.75	38	Chip	96		2008		16	32.6	36.1						
IPC642C	615964.313	7570314	224.83	41	core		100	2008	no	18	32.6	36.1						
IPC643	615919.25	7570549	226.58	48	Chip	96		2008		15	39.41	43.18						
IPC644C	615919.25	7570549	226.02	47.36	core		100	2008	no	18	39.41	43.18						
IPC645	615899.438	7571414.5	233.83	80	Chip	96		2008		18	71.68	75.84						
IPC646C	615881.125	7571388.5	233.88	78.88	core		100	2008	no	20	71.3	75.46						
IPC647	615694.625	7571438.5	234.21	73	Chip	96		2008		23	61.74	65.8						
IPC648C	615688.75	7571407.5	234.02	68.52	core		100	2008	no	16	62.82	66.75						
IPC649	615594.5	7571381.5	234.23	66	Chip	96		2008		17	52.74	56.68						
IPC650C	615578.938	7571379	234.23	60.92	core		100	2008	no	16	53.14	57.02						
IPC651	615635.438	7571146.5	231.61	38	Chip	96		2008		16	30.94	35.12						
IPC652C	615634.5	7571143.5	231.57	37.38	core		100	2008	no	15	30.32	34.46						
IPC653	615729.125	7570873.5	228.49	60	Chip	96		2008		17	46	50						
IPC654C	615720.688	7570877.5	228.45	58	core		100	2008	no	16	45.51	49.5						
IPC657	615540.875	7572538.5	244.59	42.3	Chip	96		2008		12			20.69	22.98	32.71	33.26		
IPC658	615610.5	7572420	242.89	48	Chip	96		2008		19			26.74	28.82	38.1	38.47		
IPC659	615694.688	7572226	240.83	54.71	Chip	96		2008		20			40.86	43.48	47.44	48.18		
IPC660	615677.25	7572059	239.64	63.3	Chip	96		2008		22			51.03	53.8	55	56.04		
IPC661	615704.188	7572036.5	239.25	66	Chip	96		2008		21.5			54.24	56.99	57.52	58.63		
IPC662	615705.375	7572026.5	239.19	66.3	Chip	96		2008		24			54.66	57.42	57.92	58.97		
IPC663	615705.938	7572017	239.05	66	Chip	96		2008		28			54.87	57.6	58.05	59.12		
IPC664	615706.313	7572007	238.9	66	Chip	96		2008		24			55.09	57.88	58.28	59.34		
IPC665	615707	7571997	238.88	66	Chip	96		2008		24			55.44	58.2	58.58	59.65		
IPC666	615707.5	7571987.5	238.77	66	Chip	96		2008		24			55.56	58.33	58.66	59.68		
IPC667	615707.875	7571977.5	238.71	67	Chip	96		2008		24			55.68	58.4	58.72	59.72		

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
IPC668	615713.938	7571895.5	237.95	96	Chip	96		2008		24.75	83.26	87.27						
IPC669	615713.188	7571905.5	238.2	96.3	Chip	96		2008		24.5	82.79	86.94						
IPC670	615711.313	7571926	238.36	90	Chip	96		2008		26.5	77.52	81.92						
IPC671	615712.25	7571916.5	238.18	96	Chip	96		2008		25	82.74	86.44						
IPC672	615710.625	7571937	238.36	68	Chip	96		2008		24	57.26	61.34						
IPC673	615800.375	7572060	239.19	78	Chip	96		2008		26			61.89	64.62	65.05	66.09		
IPC674	615808.375	7572005	238.62	84	Chip	96		2008		21	64.25	68.15						
IPC675	615812	7571979.5	238.41	78	Chip	96		2008		23	64.9	68.88						
IPC676	615813.625	7571970	238.29	78	Chip	96		2008		22	65.31	69.39						
IPC677	615814.875	7571960	238.22	138	Chip	96		2008		27								
IPC678	615816.188	7571950	238.06	108	Chip	96		2008		23	92.18	96.18						
IPC679	615817.688	7571939.5	238	108	Chip	96		2008		21	92.22	96.27						
IPC680	615804.875	7572029.5	238.89	72	Chip	96		2008		24	62.85	67						
IPC681	615907.75	7572091.5	239.43	84	Chip	96		2008		20	73.64	77.56						
IPC682	615911.813	7572081	239.41	87	Chip	96		2008		23	74.35	78.25						
IPC683	615915.375	7572072	239.31	90	Chip	96		2008		25	75.01	78.85						
IPC684	615927.063	7572040.5	239.02	90	Chip	96		2008		24	75.67	79.58						
IPC685	615930.688	7572030.5	238.93	90	Chip	96		2008		26	76.26	80.18						
IPC686	615934.125	7572021	238.83	90	Chip	96		2008		29	75.78	79.66						
IPC687	615937.563	7572012	238.68	90	Chip	96		2008		24	76	79.88						
IPC688	615940.875	7572003	238.62	132	Chip	96		2008		26								
IPC689	615944.438	7571994	238.51	115	Chip	96		2008		25	103.49	107.22						
IPC690	615947.688	7571985	238.45	114	Chip	96		2008		25	103.56	107.33						
IPC691	615778.438	7571428.5	233.86	78	Chip	96		2008		18	67.52	71.54						
IPC692G	615791.125	7571427.5	233.86	80.35	Gas		63	2008		19	68.52	72.46						
IPC693C	615785.125	7571428.5	233.84	83.02	core		100	2008	no	20	68.2	72.26						
IPC694	615703.5	7572049.5	239.56	66	Chip	96		2008		18			53.9	56.65	57.38	58.4		
IPC695	615702.688	7572060	239.62	66	Chip	96		2008		18			53.34	56.11	57.07	58.06		
IPC696	615702	7572070	239.75	66	Chip	96		2008		18.5			53.08	55.83	57.03	58.04		
IPC697	615798.625	7572071	239.42	72	Chip	96		2008		25			61.63	64.38	64.84	65.9		
IPC698	615796.813	7572081	239.5	72	Chip	96		2008		25			61.54	64.28	64.9	65.95		
IPC699	615794.813	7572091	239.6	72	Chip	96		2008		25			61.14	63.83	64.66	65.66		
IPC700	615794.75	7572100.5	239.7	72	Chip	96		2008		25			61.07	63.82	64.75	65.74		
IPC701	615793.563	7572110.5	239.81	72	Chip	96		2008		24.5			60.84	63.58	64.68	65.7		
IPC702	615902.625	7572106.5	239.77	84	Chip	96		2008		19			72.86	75.48	75.91	76.91		
IPC703	615898.313	7572117.5	240.01	84	Chip	96		2008		20			72.5	75.14	75.64	76.61		
IPC704	615893.25	7572128	240	84	Chip	96		2008		18.5			71.9	74.48	75.06	76.01		

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
IPC705	615889.313	7572138.5	240.11	84	Chip	96		2008		21.5			71.4	74.02	74.71	75.66		
IPC706	615884.625	7572149	240.33	84	Chip	96		2008		22.5			70.82	73.38	74.38	75.31		
IPC707	615880	7572159.5	240.38	84	Chip	96		2008		21			70.54	72.96	74.11	75		
IPC708	616128.563	7569386	226.18	30	Chip	96		2008		17	20.82	24.26						
IPC709	616178.188	7569334	227.28	36	Chip	96		2008		16	21.93	25.64						
IPC710	616227.875	7569280.5	227.58	60	Chip	96		2008		25	50	53.3						
IPC711	616219.438	7569289	227.56	60	Chip	96		2008		24	48.65	52.02						
IPC712	616211.625	7569297	227.48	60	Chip	96		2008		22	48.3	52.58						
IPC713	616203.875	7569305	227.4	54	Chip	96		2008		19.5	44.37	47.77						
IPC714	616195.688	7569314	227.41	60	Chip	96		2008		20	43.94	47.35						
IPC715	616187.688	7569322.5	227.34	36	Chip	96		2008		20.5	21.95	25.52						
IPC716	616218.313	7569448.5	226.12	42	Chip	96		2008		18.5	32.21	35.56						
IPC717	616267.938	7569397.5	227.22	48	Chip	96		2008		22	36.54	39.78						
IPC718	616275	7569390.5	227.33	48	Chip	96		2008		22	37.03	40.3						
IPC719	616282.938	7569382.5	227.41	48	Chip	96		2008		23.5	37.73	40.94						
IPC720	616290.875	7569374	227.51	84	Chip	96		2008		27	38.82	40.1						
IPC721	616298.625	7569366	227.57	72	Chip	96		2008		22	58.32	61.52						
IPC722	616306.063	7569358	227.56	72	Chip	96		2008		21	58.58	61.76						
IPC723	616182.5	7569486.5	225.42	42	Chip	96		2008		20.5	30.5	33.78						
IPC724	616190.438	7569478.5	225.55	42	Chip	96		2008		20.8	30.98	34.4						
IPC725	616198.188	7569470.5	225.77	42	Chip	96		2008		21.2	31.6	34.98						
IPC726	616205.938	7569462	225.93	42	Chip	96		2008		21.8	31.8	35.1						
IPC727	616235.938	7569431	226.63	42.7	Chip	96		2008		23.9	33.58	36.92						
IPC728	616253.375	7569413.5	227.03	48	Chip	96		2008		20	35.18	38.44						
IPC729	616090.25	7569426.5	224.6	36	Chip	96		2008		19	21.22	24.73						
IPC730	616098.125	7569418.5	224.94	36.3	Chip	96		2008		19	21.83	25.44						
IPC731	616127.313	7569387.5	226.16	8	Chip	96		2008										
IPC732	616145.813	7569368	226.71	36	Chip	96		2008		20	22.9	26.4						
IPC733	616109.313	7569407	225.27	36	Chip	96		2008		22.24	22.24	26.16						
IPC734	616163.188	7569350	227.05	36	Chip	96		2008		22	24.06	27.52						
IPC735	616247.125	7569260	227.65	60	Chip	96		2008		21	49.1	52.3						
IPC736	616265.875	7569239.5	227.72	60	Chip	96		2008		21.5	48.3	51.36						
IPC737	616285	7569218	227.82	60	Chip	96		2008		24	47.56	50.56						
IPC738	616305.063	7569196	227.9	60	Chip	96		2008		25	46.44	49.38						
IPC739	616324.813	7569174	228.05	60	Chip	96		2008		24	46.9	49.88						
IPC740	616387.5	7569592	225.02	84	Chip	96		2008		16	69.01	72.79						
IPC741	616395.25	7569584	225.18	84	Chip	96		2008		22	69.74	73.33						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
IPC742	616403.063	7569576	225.42	84	Chip	96		2008		19	70.11	73.74						
IPC743	616410.313	7569568	225.5	84.3	Chip	96		2008		16	70.27	73.92						
IPC744	616417.813	7569560	225.63	84.3	Chip	96		2008		24	70.75	74.26						
IPC745	616432.875	7569544	225.93	84.3	Chip	96		2008		22	71.48	75.09						
IPC746	616447.125	7569529	226.25	84.3	Chip	96		2008		24	72.16	75.77						
IPC747	616461.25	7569514	226.63	84.3	Chip	96		2008		25	72.25	75.86						
IPC748	616475.5	7569499	226.9	96.3	Chip	96		2008		28	82.97	86.81						
IPC749	616468.5	7569506.5	226.82	96.3	Chip	96		2008		22	74.8	75.76						
IPC750	616482.25	7569492	227.05	96.3	Chip	96		2008		21	84.02	87.7						
IPC751	616496.125	7569476	227.38	96.3	Chip	96		2008		20	85.89	89.32						
IPC752	616510.25	7569461	227.68	96.3	Chip	96		2008		18	84.54	87.81						
IPC753	616622.375	7569584.5	227.13	108.3	Chip	96		2008		17	96.24	99.88						
IPC754	616607.125	7569598.5	226.58	108.3	Chip	96		2008		18	95.05	98.56						
IPC755	616591.688	7569613	226.39	108.3	Chip	96		2008		20	93.48	96.98						
IPC756	616576.875	7569627.5	226.02	108.3	Chip	96		2008		18	92.77	96.07						
IPC757	616561.938	7569641.5	225.86	108.3	Chip	96		2008		19	93.19	96.61						
IPC758	616547	7569656	225.56	108.3	Chip	96		2008		19	94.85	98.58						
IPC759	616531.75	7569671	225.07	108.3	Chip	96		2008		19	96.25	100.15						
IPC760	616516.625	7569685	224.73	96.3	Chip	96		2008		20	84.7	86.04						
IPC761	616523.75	7569678	224.93	102.3	Chip	96		2008		19								
IPC762	616746.75	7569689.5	228.1	114.3	Chip	96		2008		16	102.43	106.05						
IPC763	616732.313	7569704	227.97	114.3	Chip	96		2008		16	101.91	105.54						
IPC764	616718.125	7569719	227.5	114.3	Chip	96		2008		16	101.06	104.58						
IPC765	616703.813	7569734.5	227.09	114.3	Chip	96		2008		14.5	100.28	103.94						
IPC766	616689.313	7569749.5	226.64	114.3	Chip	96		2008		12	99.62	103.15						
IPC767	616674.438	7569764	226.24	111.15	Chip	96		2008		14	99.2	102.62						
IPC768	616659.563	7569778.5	225.81	114.3	Chip	96		2008		15	100.15	103.46						
IPC769	616644.625	7569794	225.43	114.3	Chip	96		2008		18	101.5	104.76						
IPC770	616629.563	7569808.5	225.28	114.3	Chip	96		2008		15	102.51	105.87						
IPC771	616614.438	7569823	224.84	90.3	Chip	96		2008		23.5	80.06	81.72						
IPC772	616606.813	7569830.5	224.48	84.76	Chip	96		2008		26.5	74.36	78.2						
IPC773	616621.688	7569816.5	225.13	114.3	Chip	96		2008		23								
IPC774	616591.625	7569839	224.15	108.5	Chip	96		2008		20	53.26	53.75						
IPC775	617243.938	7568040	231.12	54.3	Chip	96		2008		22	41.72	44.97						
IPC776	617240.063	7568060.5	231.56	60.6	Chip	96		2008		28	48.38	52.29						
IPC777	617235.938	7568081	231.86	60.3	Chip	96		2008		27.5	50.99	54.21						
IPC778	617232.125	7568101.5	232.06	66.3	Chip	96		2008		28	51.4	54.1						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
IPC779	617228.313	7568122	232.34	90.3	Chip	96		2008		26	71.2	72.56						
IPC780	616666.5	7568918.5	229.64	66.3	Chip	96		2008		19	53.81	56.68						
IPC781G	616663.25	7568922.5	229.49	66	Gas		63	2008		18.5	53.55	56.4						
IPC782	617588.313	7567729.5	230.51	72	Chip	96		2008		25.5	57.09	61.09						
IPC783G	617588.188	7567734	230.67	66.3	Gas		63	2008		26	57.3	61.36						
IPC784C	617596	7567721	231.4	70.87	core		100	2008	no	25	57.3	61.3						
IPC785C	617596	7567728	231.44	68.12	core		100	2008	no	26	57.69	61.71						
IPC786C	616673	7568911	229.98	56	core		100	2008	no	19								
IPC787C	616673	7568922	229.96	65.02	core		100	2008	no	19.5	54.22	57						
IPC788C	616662.188	7568918	229.53	65.02	core		100	2008	no	19	53.37	56.28						
IPC789C	615791	7571426	233.75	83.02	core		100	2008	no	19	68.4	72.44						
IPC790	616196.375	7569308	227.49	54.54	Chip	96		2008		18.5	43.55	47.05						
IPC791	617372.375	7567661	227.53	48.54	Chip	96		2008		20.5	39.54	43.21						
IPC792C	617373.875	7567656	227.58	53.02	core		100	2008	no	20.5	39.49	43.08						
IPC793C	617376.938	7567663	227.64	53.02	core		100	2008	no	24	40.14	43.71						
IPC794	617589.5	7567326.5	226.7	42.54	Chip	96		2008		18	31.73	35.77						
IPC795C	617586.813	7567330	226.77	41.02	core		100	2008	no	19.5	31.95	35.9						
IPC796C	617584.25	7567322.5	226.59	41.02	core		100	2008	no	19	31.5	35.45						
IPC797	617939.188	7567124.5	226.54	36.54	Chip	96		2008		15	24.25	28.54						
IPC798C	617936.063	7567126	226.53	34.34	core		100	2008	no	16.5	24.5	28.83						
IPC799C	617931.75	7567127.5	226.42	35.02	core		100	2008	no	17	24.81	28.89						
IPC800	617142.5	7568013	231.55	45.54	Chip	96		2008		21	35.51	38.76						
IPC801C	617140.438	7568016	231.62	47.02	core		100	2008	no	22	35.62	38.54						
IPC802C	617138.063	7568020	231.75	47.02	core		100	2008	no	22	35.57	38.58						
IPC803C	616198.5	7569306	227.26	56	core		100	2008	no	20	44.54	47.5						
IPC804C	616201.188	7569304.5	227.41	56	core		100	2008	no	19.5	44.31	47.61						
IPC805	616426	7569069	229.07	56	Chip	96		2008		18	43.21	46.17						
IPC806C	616427.438	7569066	228.18	53	core		100	2008	no	19	43.1	46.06						
IPC807C	616430.813	7569062.5	228.14	53	core		100	2008	no	19.5	42.96	45.95						
IPC808	616702.063	7568775	230.23	54.54	Chip	96		2008		21	41.41	44.39						
IPC809C	616699.625	7568777.5	230.33	54.54	core		100	2008	no	21.5	41.44	44.32						
IPC810C	616696.938	7568780.5	230.31	54.54	core		100	2008	no	22.5	41.42	44.3						
IPC811	616877.75	7568419.5	233.76	54.54	Chip	96		2008		27	46.13	48.07						
IPC812C	616876.563	7568422.5	233.65	53.02	core		100	2008	no	24.5	42.34	45.21						
IPC813	616879.063	7568417	233.72	59.02	Chip	96		2008		25.5	47.15	50.2						
IPC814C	616881.625	7568418.5	233.78	59.02	core		100	2008	no	26	47.42	50.41						
IPC815C	616876.313	7568415.5	233.78	59.02	core		100	2008	no	28	46.83	49.83						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
IPC816	617266.438	7567869	229.33	54.54	Chip	96		2008		28.5	42.41	45.8						
IPC817C	617264.188	7567871	229.42	53.02	core		100	2008	no	27.5	42.42	45.43						
IPC818C	617261.5	7567873.5	229.47	53.09	core		100	2008	no	27.5	42.38	45.4						
IPC819	617461.625	7567562	228.07	51.55	Chip	96		2008		27	40.6	44.3						
IPC820C	617463.688	7567559	228.18	53	core		100	2008	no	27.5	40.57	43.72						
IPC821C	617466.188	7567555.5	228.29	53	core		100	2008	no	26	40.57	43.77						
IPC822	618140.125	7567081.5	227.53	36	Chip	96		2008		17	23.75	28.08						
IPC823C	618138.625	7567084	227.57	35	core		100	2008	no	17.5	23.82	28.17						
IPC824C	618137.063	7567087.5	227.56	35	core		100	2008	no	17	23.85	28.26						
IPC825C	617249.938	7568043	231.59	53	core		100	2008	no	22	42.26	45.08						
IPC826C	617246.125	7568042.5	231.51	53	core		100	2008	no	23	42.09	44.91						
IPC827	617423	7567754	229.4	54.55	Chip	96		2008		20.5	42.82	46.15						
IPC828C	617419.188	7567751	229.04	53	core		100	2008	no	22	42.5	45.49						
IPC829C	617423.875	7567753.5	229.01	53	core		100	2008	no	22.5	42.94	45.9						
IPC830	617635.063	7567419.5	228.24	48	Chip	96		2008		23	38.52	43.02						
IPC831C	617638.5	7567421.5	228.32	53	core		100	2008	no	24	38.72	42.21						
IPC832C	617641.313	7567423	228.38	53.2	core		100	2008	no	24	39.06	42.54						
IPC833	617977.688	7567215.5	227.97	42	Chip	96		2008		20.5	31.5	35.75						
IPC834C	617980	7567218	228.12	44	core		100	2008	no	20.5	31.52	35.85						
IPC835C	617982.188	7567220	228.14	44	core		100	2008	no	21	31.82	36.07						
IPC836	617753.625	7567285.5	227.23	45	Chip	96		2008		27	34.39	38.24						
IPC837C	617755.875	7567287	227.26	47	core		100	2008	no	27	34.54	38.4						
IPC838C	617758.25	7567288.5	227.45	47	core		100	2008	no	27	34.78	38.61						
IPC839	617224.063	7568141.5	233.09	81	Chip	96		2008		28	70.08	73.53						
IPC840	617219.125	7568160.5	233.42	84	Chip	96		2008		32	72.14	75.73						
IPC841	617213.688	7568179	233.67	84.5	Chip	96		2008		27	73.94	77.24						
IPC842	617230.25	7568113	232.65	61	Chip	96		2008		23								
IPC843	617525.25	7568072.5	232.9	84	Chip	96		2008		23.5	73.96	77.77						
IPC844	617514.188	7568090	232.94	84	Chip	96		2008		23.5	73.59	77.46						
IPC845	617503.25	7568108	233.26	84	Chip	96		2008		24	74.1	78.08						
IPC846	617492.438	7568124.5	233.21	84.5	Chip	96		2008		29	74.26	78.22						
IPC847	617481.563	7568142.5	233.52	84.5	Chip	96		2008		28	74.78	78.64						
IPC848	617471.313	7568159.5	233.71	87	Chip	96		2008		31	75.37	79.6						
IPC849	617460.75	7568177	233.88	96	Chip	96		2008		30.5	82.32	84.15						
IPC850	617455.25	7568186.5	233.93	90.5	Chip	96		2008		22	81.31	85.05						
IPC851	617465.438	7568169	233.84	87	Chip	96		2008		25	76.05	80.47						
IPC852	617445.125	7568203	234.3	90.5	Chip	96		2008		24.5	81.58	85.37						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
IPC853	617434.5	7568221	234.61	93	Chip	96		2008		24	81.74	85.58						
IPC854	617423.5	7568239	234.9	90.6	Chip	96		2008		33								
IPC855	617418.25	7568247.5	235.03	111	Chip	96		2008		31.5	100.63	104.58						
IPC856	617412.563	7568256.5	235.21	111	Chip	96		2008		31	101.11	104.83						
IPC857	617401.313	7568274	235.52	114.5	Chip	96		2008		31.5	105.42	109.23						
IPC858	617429.063	7568229.5	234.73	90.5	Chip	96		2008		31	81.61	85.41						
IPC859	617390.313	7568290.5	235.6	117	Chip	96		2008		30	105.84	109.74						
IPC860	617919.813	7567096	226.46	36	Chip	96		2008		20	22.41	26.64						
IPC861	617901.313	7567106	226.22	36.5	Chip	96		2008		19	22.86	27.03						
IPC862	617882.5	7567114.5	226.22	36	Chip	96		2008		19	23.32	27.44						
IPC863	617863.813	7567124	226.13	34	Chip	96		2008		16	23.55	27.63						
IPC864	617844.938	7567134	226.14	36	Chip	96		2008		19	24.32	28.38						
IPC865	617826.438	7567143.5	226.1	36	Chip	96		2008		20	25.04	28.96						
IPC866	617807.5	7567153.5	226	36	Chip	96		2008		17	25.5	29.52						
IPC867	617788.813	7567163.5	225.9	36	Chip	96		2008		17	25.72	29.68						
IPC868	617770.063	7567173	225.93	36.5	Chip	96		2008		16.5	26.24	30.18						
IPC869	617753.75	7567182	225.91	36.5	Chip	96		2008		17	26.4	30.42						
IPC870	618207.75	7567196	228.84	66.5	Chip	96		2008		26								
IPC871	618198.313	7567192	228.73	66.5	Chip	96		2008		25.5								
IPC872	618189.125	7567188	228.76	66.5	Chip	96		2008		25								
IPC873	618179.625	7567184	228.59	66.5	Chip	96		2008		26								
IPC874	618170.438	7567180	228.55	66.5	Chip	96		2008		26								
IPC875	618161.063	7567176	228.41	66.5	Chip	96		2008		26								
IPC876	618151.813	7567172	228.34	64.14	Chip	96		2008		28								
IPC877	618142.688	7567168.5	228.29	42.5	Chip	96		2008		26	33.64	35.14						
IPC878	618133.5	7567166	228.29	42.5	Chip	96		2008		23.5	30.04	34.76						
IPC879	618123.75	7567162	228.12	42.5	Chip	96		2008		20	29.8	34.48						
IPC880	618114.5	7567158.5	228.12	42.5	Chip	96		2008		23	29.4	33.82						
IPC881	618105.063	7567154.5	227.99	42.5	Chip	96		2008		18	28.48	33.27						
IPC882	618095.688	7567150.5	227.87	42.5	Chip	96		2008		18.5	27.28	31.96						
IPC883	618086.563	7567147	227.87	39	Chip	96		2008		19.5	25.98	31.93						
IPC884	618077.25	7567144	227.78	38	Chip	96		2008		21	26.49	31.09						
IPC885	617737.5	7567420	228.71	54.5	Chip	96		2008		22.5	45.09	49.01						
IPC886	617746.188	7567415	228.76	54.5	Chip	96		2008		21	45.37	49.32						
IPC887	617764.25	7567405	228.76	56	Chip	96		2008		21	45.65	49.72						
IPC888	617782.188	7567395	228.7	56	Chip	96		2008		21	45.4	49.18						
IPC889	617800.125	7567385	228.62	56	Chip	96		2008		21	45.32	49.17						

Hole	East	North	RL	Total Depth	Hole Type	Hole Diameter	Core Size	Exploration Program	POB	Depth to BW	DOR LHD	DOF LHD	DOR LHU	DOF LHU	DOR LHL	DOF LHL	DOR V1	DOF V1
IPC890	617817.563	7567374.5	228.51	56	Chip	96		2008		21	45.11	48.93						
IPC891	617835.688	7567365	228.36	54.5	Chip	96		2008		20.5	44.44	48.33						
IPC892	617852.438	7567355.5	228.46	54.5	Chip	96		2008		21	43.65	47.63						
IPC893	617924.5	7567486.5	231.03	72	Chip	96		2008		35	60.44	64.69						
IPC894	617906.563	7567495.5	231.06	72	Chip	96		2008		34	61.95	66.16						
IPC895	617888.375	7567505.5	231.01	76	Chip	96		2008		36	63.88	67.98						
IPC896	617870.125	7567516	230.97	78	Chip	96		2008		34	66.03	69.88						
IPC897	617852	7567525	231.01	72.5	Chip	96		2008		35	61.06	67						
IPC898	617833.375	7567535	230.9	78	Chip	96		2008		33	63.3	68.01						
IPC899	617815.375	7567544.5	230.75	78	Chip	96		2008		35	63.69	68.36						
IPC900	617797.375	7567554.5	230.85	74	Chip	96		2008		37	63.52	67.57						
IPC901	617910.125	7567661.5	233.36	84.5	Chip	96		2008		34	74.75	79.15						
IPC902	617881.938	7567703.5	233.47	90	Chip	96		2008		35.5	78.68	82.91						
IPC903	617853.438	7567745	233.58	94	Chip	96		2008		35	82.19	86.47						
IPC904	618061.5	7567619.5	233.26	66.85	Chip	96		2008		20								
IPC905	618043.063	7567619.5	233.41	78.5	Chip	96		2008		24.5	66.31	70.81						
IPC906	618081.5	7567619	233.25	126	Chip	96		2008		23								
IPC907	618052.25	7567619.5	233.37	126	Chip	96		2008		21	65.92	70.61						
IPC908	618055.375	7567479	231.29	60.76	Chip	96		2008		25	57.12	60.76						

This Appendix details section 4 of the JORC Code 2012 Edition Table 1. Section 5 Estimation and Report of Diamonds and Other Gemstones' has been excluded as they are not applicable to this deposit and estimation.

Section 4 Estimation and Reporting of Ore reserves

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

Criteria	JORC Code explanation	CP Comments
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	The JORC Coal Resource estimate for Isaac Plains Mine (dated January 2015) has been used as the basis for the conversion to Coal Reserves estimate for Isaac Plains Mine. The Resource estimate is: Measured: 10.0Mt Indicated: 9.1 Mt Inferred: 11.0 Mt The Coal Resource estimate is inclusive of the Coal Reserves estimate.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	Site visits have been undertaken by the Competent Person (Mr Ken Hill) on several occasions during the last 5 years. These visits confirmed the mining methods were suitable for the operation and competently managed.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	Isaac Plains mine has been an active open-cut coalmine, which ceased active production in late 2014, and prior to that time had been in operation for over 8 years. As this is a continuation of active production activities, no further studies have been carried out. Further to this, the recommencement of the operations is anticipated to start at essentially the same position that the previous operator left off, mining the same seam in a similar manner.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	An extension of the current mining strips in pits N1 and N2 were designed out to the proposed underground transition line and the waste and coal quantities calculated. These strips were

Criteria	JORC Code explanation	CP Comments
		then scheduled over a four year period and the output from the schedule was imported to a financial analysis tool to determine costs and revenue. The annual cash flow from this analysis was used to determine the cut-off for the reserves.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	Mining methodology considered for this estimate is: • Use of a combination of cast, doze, dragline or truck & excavator to move waste into the adjacent strip or dump. The strip width selected is nominally 55m. • Drilling and Blasting (D&B) of the insitu waste. • A maximum horizon of 60m of waste is allocated to the dragline. • Remaining waste is removed by dozer or truck and excavator. • Coal mining using excavators and rear dump trucks haul the coal to the Coal Preparation Plant (CPP) for washing. • Parting > 0.3m thick is stripped separately. The stripping methodology is a continuation of the methodology previously engaged. Batter allowances that have been taken into account are: • Highwall (hard): 65^{o} • Boxcut Lowwall / Endwall (hard): 45^{o} • Spoil Lowwall & Angle of Repose: 37^{o} Loss & Dilution factors used are: • Roof Loss: 0.05m • Floor Loss: 0.08m • Edge Loss: 0.5m • Percentage Loss for faults: 7% • Roof Dilution: 0.05m • Floor Dilution: 0.08m

Criteria	JORC Code explanation	CP Comments
		• Edge Dilution: 0.5m • Dilution density: 2.2 t/bcm • Dilution ash: 85% The existing infrastructure is suitable for the methodology described. A minor tonnage of Inferred Resource is within the defined economic open cut limit; however it is not anticipated to be recovered until the final stages of the mining schedule. As such, the reported reserves estimate is not reliant on the inferred resource within the economic limit.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	The existing Isaac Plains CPP is suitable to process the target seam and has done so up to the cessation of mining. As the planned mining areas are adjacent to previously mined areas, the yield is expected to remain very similar to that which was actually being achieved before operations ceased. Historical actual average yield is ~73%, and this yield has been used in this analysis. Forecast product split between the three coal types is based on actual historical data and has been set at: • Coking, 23% • PCI / Semi Soft, 48% and • Thermal, 29%
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	The economic open cut pit is located where disturbance already exists or partially rehabilitated areas exist. Therefore the impact to the environment will be incrementally minimal.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	The existing infrastructure is suitable for the methodology described.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>CP Comments</th></tr>
<tr><td>Costs</td><td>

The derivation of, or assumptions made, regarding projected capital costs in the study.
The methodology used to estimate operating costs.
Allowances made for the content of deleterious elements.
The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.
The source of exchange rates used in the study.
Derivation of transportation charges.
The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.
The allowances made for royalties payable, both Government and private.

</td><td>
The approach taken is described below.
Most cost have been developed and built up from a first principles basis. The unit costs used are:

Rehabilitation: $25,000 / ha
Waste Removal: $34.41 / ROM t
ROM Coal Mining: $4.27 / ROM t
CPP & Loadout Costs: $4.62 / ROM t
Indirect & Other Op Costs: $15.00 / Prod t

Rail and port costs are based on an estimate of costs.

Rail: $8.33 / Prod t
Port / Demurrage: $6.00 / Prod t

Royalty charges are applied as follows:

up to and including $100 per tonne: 7.0%
over $100 up to including $150 per tonne: 12.5%
above $150 per tonne: 15.0%
Research Levy: $0.2675 /prod t

</td></tr>
<tr><td>Revenue factors</td><td>

The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.
The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.

</td><td>
Forecast coal pricing for the three product coal types from Isaac Plains has been based on current broker consensus and input from MResources. The applied coal prices have a % factor of benchmark applied to represent the mine product parameters. The table below shows the benchmark coal prices in US$ used.
<table>
<tr><th>Product</th><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>% of Benchmark</th></tr>
<tr><td>Coking Coal</td><td>121</td><td>129</td><td>133</td><td>140</td><td>80</td></tr>
<tr><td>PCI</td><td>121</td><td>129</td><td>133</td><td>140</td><td>75</td></tr>
<tr><td>Thermal</td><td>72</td><td>73</td><td>77</td><td>79</td><td>100</td></tr>
</table>
Exchange rate has been based on broker consensus and is shown in the table below.
</td></tr>
</table>

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>CP Comments</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Item</th><th>2015</th><th>2016</th><th>2017</th><th>2018</th></tr>
<tr><td>$US/$AUS</td><td>0.89</td><td>0.88</td><td>0.87</td><td>0.85</td></tr>
<tr><td>Coking Price (A$/t)</td><td>109</td><td>117</td><td>122</td><td>132</td></tr>
<tr><td>PCI Price (A$/t)</td><td>102</td><td>110</td><td>115</td><td>123</td></tr>
<tr><td>Thermal Price (A$/t)</td><td>81</td><td>82</td><td>89</td><td>93</td></tr>
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<tr><td>Market assessment</td><td>• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.
• A customer and competitor analysis along with the identification of likely market windows for the product.
• Price and volume forecasts and the basis for these forecasts.
• For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</td><td>Product coal from Isaac Plains (three product types) has been successfully marketed for the past 8 years. The annual tonnages proposed in this evaluation are somewhat lower than the actual tonnages sold in the past and thus it is not expected to have any difficulty in successfully marketing the tonnages produced.</td></tr>
<tr><td>Economic</td><td>• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.
• NPV ranges and sensitivity to variations in the significant assumptions and inputs.</td><td>The deposit was assessed using a financial analysis package and the resultant annual cash flows. Inputs used are:
• Inflation: 2.5% p.a.
• Discount Rate: 8% real</td></tr>
<tr><td>Social</td><td>• The status of agreements with key stakeholders and matters leading to social licence to operate.</td><td>Isaac Plains Coal Management company have been operating Isaac Plains for over 8 years. The company has proven to be a good corporate citizen.</td></tr>
<tr><td>Other</td><td>• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:
• Any identified material naturally occurring risks.
• The status of material legal agreements and marketing arrangements.
• The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any</td><td>There are no issues known that impact the estimation and classification of the reserves.</td></tr>
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Criteria	JORC Code explanation	CP Comments
	unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	All Measured resource within the economic limit of the open cut pit has been classified as Proved reserve. All Indicated resource within the economic limit of the open cut pit has been classified as Probable reserve. The reserve estimation and classification reflects the competent person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	No audits or reviews of the reserve have been conducted.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	No statistical or geostatistical procedures have been used in the estimation of Coal Reserves themselves. The most significant areas of uncertainty in the Isaac Plains open-cut reserve estimate relates to the coal pricing and foreign exchange rate. However these present forecasts are based on highly regarded industry experts in this field. Small differences may be present in the totals due to the tonnage information being rounded so as to reflect the usual uncertainty associated with the estimate.