



**Astron Corporation Limited** 









# Astron is commissioning a processing plant to process up to 150,000 tons per annum of rutile

Astron Corporation Limited ARBN 154 924 553

Incorporated in Hong Kong, Company Number:

1687414 Annual Report for the Year Ended 30

**June 2018** 

### **CAUTIONARY STATEMENT**

Certain sections of this report contain forward-looking statements that are subject to risk factors associated with, among others, the economic and business circumstances occurring from time to time in the countries and sectors in which the Astron Group operates. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a wide range of variables which could cause results to differ materially from those currently.

# **COMPETENT PERSONS STATEMENT**

The information in this report that relates to Exploration Results and Mineral Resources for the Donald Project is based on information compiled by Mr Rod Webster, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and Australian Institute of Geoscientists. Mr Webster is a full-time employee of AMC Consultants Pty Ltd and is independent of DMS, the owner of the Donald Project Mineral Resources. Mr Webster has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Webster consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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# Chairman's Report

Dear Shareholders.

A processing plant and warehouse to process up to 150,000 tons per annum has been completed and commissioning commenced in January 2019.

The Yingkou plant will be a precursor for DMS production. In the first instance, the plant will process TiO<sub>2</sub> feedstock that has been sourced by Astron, which is then planned to be for immediate sale to customers.

Developing this plant will allow Astron to transition to feedstock from its Senegal project. Over time, this will then transition to processing DMS material. As the plant is modularised there are opportunities to increase its size and production output over time, based on quantity of feedstock and customer demand.

The DMS project will include a WCP in Australia and an MSP, the MSP will be the Yingkou plant. A previous amount of 2,000 tons which was used for design work, and in the recently completed financial year a further 1,000 tons was extracted for a pilot plant for WCP MSP customer application test.

A primary focus for Astron this year has been the construction of the processing plant in China for processing feedstock, for which commissioning has commenced.

# **OPERATIONS REVIEW**

# **China Operations**

Astron will produce TiO<sub>2</sub> feedstock from its processing plant once commissioning is completed, and up to 150,000 tons per annum can be processed.

# **DMS Summary**

From an external perspective, the business cycle for the Zircon and Titanium industry is anticipated to improve following a 5 year of low. DMS will start construction of the Donald Mineral Sands project once final financing milestones have been achieved and hopes to enjoy the benefits of the forthcoming positive industry cycle. As part of this, Astron continues to work the various funding options DMS project.

# Senegal

As part of the process, Astron remains engaged with the local community where possible, this includes such commitments as sponsoring the Regional. The Team, a Major League Soccer team representing the region / province of Casamance hosted an official signing ceremony where Astron representatives attended to present its present and future support for the team. Astron continues negotiations with the implementation of learning and development opportunities and industry alternatives or growth for the

region's economic and social development program.

Astron has delivered all the equipment and relevant facilities required for Senegal Project, the wells will start few weeks.

# **USA** Developments

USA has shipped 50,000 tons raw materials to China.

# THE YEAR AHEAD

For the coming year, Astron will be focused on the production of rutile and become one of the best manufacturers in the world.

Astron will also focus on bringing the Niafarang Project in Senegal into production.

Regarding DMS, Astron is renting a pilot plant in Australia for customer application and investigating options for financing the Donald Project in Victoria.

Finally, I thank my team at Astron for their continued support, hard work and enthusiasm and I look forward to entering an exciting new phase with you all.

Com

Gerard King Chairman



# Donald Mineral Sands Project – Murray Basin

Project Status: Financing and Detailed Engineering Definition Stage

World Class Zircon rich deposit – The Murray Basin is an iconic Geological formation where it has layered our land as we know it today with high value and high-grade mineral sands anomalies. The Donald project area is a significant generational opportunity for our regional communities.

To achieve Astron's global objectives during 2018 much effort was given to the planning and housekeeping of existing design and external reporting requirements. Strategies were implemented to focus on value adding outcomes related to defining the next phase of works.

In early 2018, DMS completed its second extraction of Run of Mine Material during which significant tests were carried out under a separate work plan permit to excavate an ore sample and conduct selective geotechnical and metallurgical tests within the previous test pit vicinity.

Pit wall stability of material in dry and wet zones, overburden and ore were completed during a 1,000t ore sample excavation program. Further assessments will be conducted in due course in material placement, rehabilitation and post back-fill environmental condition monitoring.

This test work was an important step in progressing the DMS Project final submission and approval of the final Work Plan. The test pit Run of Mine (ROM) material will be refined into final products for the development of marketing samples and long term global off take agreements.

Subsequent to the extraction, the site underwent preliminary rehabilitation, and in May 2018 was returned to its original agricultural use, and is currently sown to barley.

# Specific tasks - 2019

Continue to work towards completion of project work plan and update EIS where necessary Dependent on funding, initiate detailed phases and execution strategies, the following actions are proposed:

Commence execution and development of the Astron owners' team – engineering, planning, project management

- Commence final review of the detailed engineering scope and optimisation processes
- Commence long lead item procurement
- Commence detailed engineering
- Execute and ramp up community engagement program
- Commence road upgrade engineering and design Commence initial pipeline upgrades to site for process water access
- Compile final PEP (Project execution Plan)
- Develop project base and head office owners team spread across Project site, head office and China
- Define and lock down Design Criteria's and Financing Strategies.



# Senegal Mineral Sands Project – Niafarang

Niafarang Project progressed significantly with respect to Astron's presence with the country and more specifically locally represented through senior team site visits including in-country representation through Astron's consultancy and visible working groups.

Equipment is shipped to the project site, and local procurement has commenced.

Reporting period achievement and forecast 2019 milestones include, Awarding of Road Construction and Well Drilling Contracts.

Detailed mine planning and cross section developments Preliminary design and Scope of Facilities

Modelling of the High-Grade beach deposit near surface level.

Upgrade of ore reserves to comply with JORC 2012, including mine production grades, as well as zircon, rutile and ilmenite specifications.

Construction commencement.

Mine start up and first shipment of HM to China for processing Final product sales of process minerals (zircon, rutile & ilmenite).

# Environmental, social and other aspects

Astron has obtained environmental approvals for the project as part of the grant of the Small Mining Licence (SML). Whilst some concerns were raised regarding the environmental impact of this project (marine erosion and sea level change), these matters were addressed as part of the environmental approval process and addressing these risks is an important part of the project plan.

Other social issues are being addressed through the planning and resettlement process, including Astron's opportunities to provide benefits to the local communities living on or near the Niafarang dunes, which include fruit farming, wells, jobs and infrastructure.

Astron is striving for a cooperative approach with local communities and businesses, particularly given the anticipated opportunities for employment and economic development within the local regions.

# Astron's long term future in West Africa

The future of Astron Senegal project includes consideration for further exploration and potential expenditure.

Astron has several large area's identified for future exploration and potential expenditure within the local region of Casamance, Senegal. The exploration areas will be determined through a detailed assessment to ensure environmental areas with low sensitivity are prioritised.



# China

# REBUILD OF ADVANCE MATERIALS AND MANUFACTURING BASE IN CHINA









# REBUILD OF ADVANCE MATERIALS AND MANUFACTURING BASE IN CHINA

In April 2018, Astron signed a construction contract for a processing plant and warehouse to process up to 150,000tpa artificial rutile for use as a high-quality feedstock for chlorination methods with TiO<sub>2</sub> powder production plants in China.

Astron will produce  $TiO_2$  feedstock from its processing plant once commissioning is completed, and it is anticipated that up to 150,000 tons per annum should be able to be processed.

The project includes a new 10,000m<sup>2</sup> warehouse and 10,000m<sup>2</sup> hardstand for raw material stocks.

Currently most TiO<sub>2</sub> industry market expansion is ongoing to build up to 600,000tpa of chlorination process capacity 2019 in China, creating a big demand for suitable high purity feedstocks in early 2019.

Initially, Astron will use suitable available lower grade TiO<sub>2</sub> feedstock, although it intends to ultimately use its own main TiO<sub>2</sub> feedstock from its Donald project in Victoria, Australia. The Donald Project is working towards commencing its development and execution activities.

The rebuild is welcomed by directors as a significant first step in rebuilding Astron as a major advanced materials company.

Current suppliers for specialty chlorination feedstocks include most major heavy minerals producers, and current prices are in the order of USD1000 per ton CIF in China.

# **Developed Products**

Nuclear-grade zirconia production Yingkou, People's Republic of China

200tpa high purity zirconium sponge production facility and an independent lab equipped with advanced analysers including Bruker S8 XRF, Leeman ICP and laser particle size analyser Atomic energy (high purity grade) zirconia production facility in operation already, producing high-quality high purity grade zirconia products.



# Specialty R&D

# Sponge zirconium technology

Astron has succeeded in producing high purity grade zirconia containing hafnium less than 50ppm by TBP-HCL-HNO<sub>3</sub> extraction method. A facility of 200tpa highly-pure zirconia has been established, with independent lab equipped with ICP and XRF etc.

Removal of Zircon Impurities Astron has spent nearly ten years and succeeded in removing U/Th/Fe/Ti from zircon. This can greatly improve the quality of zircon. Lower impurity content makes better glaze colour, which can provide premium raw materials for ceramics, refractory, casting and chemical industry in China. The concentrated U solid waste can provide uranium resource of low cost and high content to nuclear industry.

# Pelletizing technology

Rutile pelletizing is a process to solve the problem of fine rutile being unable to be used for TiCl4. This can also indirectly improve the fine rutile value. It is one of the methods of recovering the blow-off of chlorinator. With chlorination, the particle size of the rutile products being processed in this method enables better chlorination than common rutile and slag materials.

# CP TiO<sub>2</sub> technology

Astron spent 3 years and more than several tens of million RMB in completing the detailed design of 90,000tpa CP TiO<sub>2</sub> Project with the cooperation with a team of experts in China and overseas.

# ZOC technology

Alkaline fusion is being generally used for ZOC industry with great pollution and poor economy. Astron's CP method is environment agreeable with its by products being of improved economy.



### SUSTAINABLE DEVELOPMENT

Astron's sustainable development encompasses our commitment and policy towards our employees, local communities, health and safety, and the environment.

# **EMPLOYEES AND OTHER STAKEHOLDERS**

Astron Group currently has about 60 employees. We take our responsibility to our staff seriously through our human resources policies.

Astron's human resources policies demonstrate care and concern for our staff and their training, development and happiness, as well as care and concern for our customers, suppliers and shareholders.

In Astron, salaries are based on competitiveness within the local market environment. Additionally, some key employees have a variable performance related bonus which is determined by pre-arrangement with alignment with individual and team objectives.

# LOCAL COMMUNITIES

Astron is committed to bringing positive change to the communities surrounding its mining operations.

Astron's Donald Project has been planned in close consultation with the local community to provide significant economic and social benefits to the community.

In 2018 Astron purchased a printer for the Minyip branch of the State Emergency Service, who provide critical local assistance to minimise the impact of emergencies and strengthen the community's capacity to plan, respond and recover when emergencies occur.

The new printer will assist with the provision of training for volunteer members and general administrative support of the unit.

Astron also sponsored the Minyip Art Show, the Minyip Golf Club, as well as the Donald Scout group's Muddy Duck event. In addition, sponsorship of the Minyip Murtoa Football Club's "Buddy Program" saw senior football players mentor the skills of juniors over three nights throughout the playing season, building the skills, confidence and fitness of developing footballers.

Astron is also in the process of planning a community fruit farming initiative in Senegal, nearby to Astron's Niafarang Project and considering other options for a dried fruit business. The social impact of the Niafarang project and acceptance of it has been the focus point during the year, in particular by focusing on communication strategies and information drives on small groups. Part of the engagement with local communities has included discussions of opportunities including the potential for a dried fruit business, community soccer sponsorship arrangements and other ways in which the project and Astron may benefit the local communities, as well as Senegal as a whole.

## **ENVIRONMENT**

Astron strives to be the best in class performance in all aspects of environmental management. Compliance with all applicable legal requirements and legal codes of practice is seen as a minimum standard and we work to prudently reduce emissions and waste.

The Astron Group is totally committed to continuing environmental vigilance and improving systems of control, compliance and results such as the minimisation of all kinds of waste from mining and down streaming processes where practicably possible.

# Astron's background and history

Astron Corporation Ltd (**Astron**) is domiciled in Hong Kong and listed on the Australian Securities Exchange (**ASX**). Astron is well-known in the industry globally, specialized in its zirconium and titanium business.

Astron's main focus is developing its two wholly owned mineral sands projects, the Donald Project in Australia and the Niafarang project in Senegal, West Africa.

The Donald project is one of the largest known zircon and titanium resources in the world.

The Niafarang project in Senegal, West Africa, is a high-grade coastal mineral sands deposit, to be excavated using simple dredge mining and processing methodologies. Astron has obtained the mining licence for the Niafarang Project and continues to work on social acceptance and other relevant social resettlement programs.

A primary focus for Astron this year has been the construction of the processing plant for processing feedstock, for which commissioning has commenced. While initially this plant will be used to process and upgrade the low-grade TiO<sub>2</sub> feedstock that Astron has recently acquired, the long-term plans for this plant are to develop processes for refining HMC from Senegal and then DMS. Astron continues to work on commissioning the processing plant and using the outputs to develop Astron's markets.

Astron has continued to build on its unique 25-year track record in China as a Chinese-Australian company in developing, selling and marketing zirconium and titanium products. Astron has significant research and technology capabilities in titanium and zirconium metal and chemical processes. Astron carries on its Chinese mineral sands trading business to maintain close relationships with its key customers. Astron continues to further develop its technical capabilities of producing zircon and titanium metals and chemicals in establishing customer specific satisfaction.

Astron was at one time the largest quality manufacturer of fused zirconia and zirconium carbonate in the world. Astron was also a leading company that introduced titanium slag into the market in China.

In the meantime, Astron was also a pioneering company that introduced tailing processing technology into China. Astron has strong research and development of zirconium, titanium and chemical products with many proprietary technologies. Astron is a manufacturer of zirconium and titanium resource and high-end materials in the world. Astron built a small-size high purity zirconia production facility towards the end of 2014.

# CORPORATE GOVERNANCE STATEMENT

The Board of Astron is responsible for the corporate governance of the Group. The Board guides and monitors the business and affairs of Astron on behalf of the shareholders by whom they are elected and to whom they are accountable. This statement reports on Astron's key governance principles and practices.

# 1. COMPLIANCE WITH BEST PRACTICE RECOMMENDATIONS

The Company, as a listed entity, must comply with the *Corporations Act 2001* (so far as it applies to foreign registered companies) and the Australian Securities Exchange (ASX) Listing Rules. The ASX Listing Rules require the Company to report on the extent to which it has followed the Corporate Governance Principles and Recommendations published by the ASX Corporate Governance Council. Where a recommendation has not been followed, that fact is disclosed, together with the reasons for the departure.

The table below summaries the Company's compliance with the Corporate Governance Council's Principles and Recommendations:

Principle #	AS	SX Corporate Governance Council Recommendations	Reference	Comply
Principle 1	Lay s	solid foundations for management and oversight		
1.1	A liste	ed entity should disclose:	2.1	Yes
	(a)	the respective roles and responsibilities of its board and management; and		
	(b)	those matters expressly reserved to the board and those delegated to management.		
1.2	A list	ed entity should:	2.2, 3.2	Yes
	(a)	undertake appropriate checks before appointing a person, or putting forward to security holders a candidate for election, as a director; and		
	(b)	provide security holders with all material information in its possession relevant to a decision on whether or not to elect or re-elect a director.		
1.3		ed entity should have a written agreement with each director enior executive setting out the terms of their appointment.	3.2	No
1.4	direct	company secretary of a listed entity should be accountable that the board, through the chair, on all matters to do with proper functioning of the board.	2.6	Yes
1.5	A liste	ed entity should:	6.3	Yes
	(a)	have a diversity policy which includes requirements for the board or a relevant committee of the board to set measurable objectives for achieving gender diversity and to assess annually both the objectives and the entity's progress in achieving them;		
	(b)	disclose that policy or a summary of it; and		

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1.5 (continued):	(c)	measu diversi of the diversi	se as at the end of each reporting period the urable objectives for achieving gender ity set by the board or a relevant committee board in accordance with the entity's ty policy and its progress towards achieving and either:	6.3	Yes
		(1)	the respective proportions of men and women on the board, in senior executive positions and across the whole organisation (including how the entity has defined "senior executive" for these purposes); or		
		(2)	if the entity is a "relevant employer" under the Workplace Gender Equality Act, the entity's most recent "Gender Equality Indicators", as defined in and published under that Act.		
1.6	A liste	ed entity s	should:	2.8, 3.2	Yes
	(a)	have a evalua	nd disclose a process for periodically ting the performance of the board, its ttees and individual directors; and		
	(b)	whethe	se, in relation to each reporting period, er a performance evaluation was undertaken reporting period in accordance with that ss.		
1.7	A liste	ed entity s	should:	3.2, Remuneration	Yes
	(a)		nd disclose a process for periodically ting the performance of its senior executives;	Report	
	(b)	whethe	se, in relation to each reporting period, er a performance evaluation was undertaken reporting period in accordance with that ss.		
Principle 2	Struc	ture the	Board to add value		
2.1	The b	oard of a	listed entity should:	3.2	No
	(a)		nomination committee which:		
		(1)	has at least three members, a majority of whom are independent directors; and		
		(2)	is chaired by an independent director,		
		and dis	the charter of the committee;		
		(4)	the members of the committee; and		
		(5)	as at the end of each reporting period, the number of times the committee met throughout the period and the individual attendances of the members at those meetings; or		
	(b)	disclos addres that the knowled diversi	es not have a nomination committee, se that fact and the processes it employs to se board succession issues and to ensure e board has the appropriate balance of skills, edge, experience, independence and ty to enable it to discharge its duties and estibilities effectively.		
2.2	settin	g out the	should have and disclose a board skills matrix mix of skills and diversity that the board currently ng to achieve in its membership.	2.2, 2.3	Yes
					2



2.3	A liste	ed entity should disclose:	2.3, 2.5	Yes
	(a)	the names of the directors considered by the board to be independent directors;		
	(b)	if a director has an interest, position, association or relationship of the type described in Box 2.3 (which appears on page 16 of the ASX Recommendations and is entitled "Factors relevant to assessing the independence of a director") but the board is of the opinion that it does not compromise the independence of the director, the nature of the interest, position, association or relationship in question and an explanation of why the board is of that opinion; and		
	(c)	the length of service of each director.		
2.4	A maj direct	ority of the board of a listed entity should be independent ors.	2.5	No
2.5	direct	hair of the board of a listed entity should be an independent or and, in particular, should not be the same person as the of the entity.	2.3, 2.4, 2.5	Yes
2.6	and p for dir	ed entity should have a program for inducting new directors rovide appropriate professional development opportunities ectors to develop and maintain the skills and knowledge ed to perform their role as directors effectively.	3.2	Yes
Principle 3	Act e	thically and responsibly		
3.1	A liste	ed entity should:	6.1	Yes
	(a)	have a code of conduct for its directors, senior executives and employees; and		
	(b)	disclose that code or a summary of it.		
Principle 4	Safeg	uard integrity in corporate reporting		
4.1	The b	oard of a listed entity should:	3.1	No
	(a)	have an audit committee which:		
		(1) has at least three members, all of whom are non-executive directors and a majority of whom are independent directors; and		
		<ul><li>is chaired by an independent director, who is not the chair of the board,</li></ul>		
		and disclose:		
		(3) the charter of the committee;		
		(4) the relevant qualifications and experience of the members of the committee; and		
		(5) in relation to each reporting period, the number of times the committee met throughout the period and the individual attendances of the members at those meetings; or		



4.1 (continued)	(b) if it does not have an audit committee, disclose that fact and the processes it employs that independently verify and safeguard the integrity of its corporate reporting, including the processes for the appointment and removal of the external auditor and the rotation of the audit engagement partner.	3.1	No
4.2	The board of a listed entity should, before it approves the entity's financial statements for a financial period, receive from its CEO and CFO a declaration that, in their opinion, the financial records of the entity have been properly maintained and that the financial statements comply with the appropriate accounting standards and give a true and fair view of the financial position and performance of the entity and that the opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.	5.3	No
4.4	A listed entity that has an AGM should ensure that its external auditor attends its AGM and is available to answer questions from security holders relevant to the audit.	4.1	No
Principle 5	Make timely and balanced disclosure		
5.1	A listed entity should:	4.2	Yes
	(a) have a written policy for complying with its continuous disclosure obligations under the Listing Rules; and		
	(b) disclose that policy or a summary of it.		
Principle 6	Respect the rights of security holders		
6.1	A listed entity should provide information about itself and its governance to investors via its website.	4.1, 4.2	Yes
6.2	A listed entity should design and implement an investor relations program to facilitate effective two-way communication with investors.	4.1, 4.2	Yes
6.3	A listed entity should disclose the policies and processes it has in place to facilitate and encourage participation at meetings of security holders.	4.1, 4.2	Yes
6.4	A listed entity should give security holders the option to receive communications from, and send communications to, the entity and its security registry electronically.	4.1, 4.2	Yes
Principle 7	Recognise and manage risk		
7.1	The board of a listed entity should:	3.1	No
	<ul><li>(a) have a committee or committees to oversee risk, each of which:</li></ul>		
	<ul><li>(1) has at least three members, a majority of whom are independent directors; and</li></ul>		
	(2) is chaired by an independent director,		
	and disclose:		
	(3) the charter of the committee;		
	(4) the members of the committee; and		
	as at the end of each reporting period, the number of times the committee met throughout the period and the individual attendances of the members at those meetings; or		



7.1 (continued)	(b)		ot have a risk committee or committees	3.1	No
(continued)		processes	(a) above, disclose that fact and the it employs for overseeing the entity's gement framework.		
7.2	The b	oard or a con	nmittee of the board should:	5.1, 5.2	Yes
	(a)		entity's risk management framework at ally to satisfy itself that it continues to be		
	(b)		n relation to each reporting period, uch a review has taken place.		
7.3	A liste	d entity shou	ıld disclose:	3.1	No
	(a)	if it has an	internal audit function, how the function d and what role it performs; or		
	(b)	fact and th	ot have an internal audit function, that he processes it employs for evaluating ually improving the effectiveness of its dement and internal control		
7.4	expos	ure to econo	ald disclose whether it has any material mic, environmental and social sustainability, how it manages or intends to manage those	5.1	Yes
Principle 8	Remu	nerate fairly	and responsibly		
8.1	The b	oard of a list	ed entity should:	3.2	No
	(a)		nuneration committee which:		
	` '		as at least three members, a majority of whom re independent directors; and		
		(2) is	chaired by an independent director,		
		and disclos	e:		
		(3) th	e charter of the committee;		
		(4) th	e members of the committee; and		
		nı th	s at the end of each reporting period, the umber of times the committee met throughout be period and the individual attendances of the embers at those meetings; or		
	(b)	disclose th setting the for director	ot have a remuneration committee, at fact and the processes it employs for level and composition of remuneration is and senior executives and ensuring emuneration is appropriate and not		
8.2	regard	ing the remu	Id separately disclose its policies and practices neration of non-executive directors and the ecutive directors and other senior executives.	3.2, Remuneration Report	Yes
8.3	A liste shoul		ch has an equity-based remunerationscheme	6.2, Remuneration Report	Yes
	(a)	to enter int of derivativ	icy on whether participants are permitted to transactions (whether through the use west or otherwise) which limit the risk of participating in the scheme; and		
	(b)	disclose th	at policy or a summary of it.		

# 2. THE BOARD OF DIRECTORS

# 2.1. Roles and Responsibilities of the Board

The Board is accountable to the shareholders and investors for the overall performance of the Company and takes responsibility for monitoring the Company's business and affairs and setting its strategic direction, establishing and overseeing the Company's financial position. The Board is responsible for:

- 2.1.1. Appointing, evaluating, rewarding and if necessary the removal of the Chief Executive Officer ("CEO") or their functional equivalent and senior management;
- 2.1.2. Development of corporate objectives and strategy with management and approving plans, new investments, major capital and operating expenditures and major funding activities proposed by management;
- 2.1.3. Monitoring actual performance against defined performance expectations and reviewing operating information to understand at all times the state of the health of the Company;
- 2.1.4. Overseeing the management of business risks, safety and occupational health, environmental issues and community development;
- 2.1.5. Satisfying itself that the financial statements of the Company fairly and accurately set out the financial position and financial performance of the Company for the period under review;
- 2.1.6. Satisfying itself that there are appropriate reporting systems and controls in place to assure the board that proper operational, financial, compliance, risk management and internal control process are in place and functioning appropriately;
- 2.1.7. Approving and monitoring financial and other reporting;
- 2.1.8. Assuring itself that appropriate audit arrangements are in place;
- 2.1.9. Ensuring that the Company acts legally and responsibly on all matters and assuring itself that the Company has adopted a Code of Conduct and that the Company practice is consistent with that Code; and other policies; and
- 2.1.10. Reporting to and advising shareholders. Other than as specifically reserved to the Board, responsibility for the day-to-day management of the Company's business activities is delegated to the CEO and senior management.

# 2.2. Board Composition

The Directors determine the composition of the Board employing the following principles:

- 2.2.1. the Board, in accordance with the Company's constitution must comprise a minimum of three directors;
- 2.2.2. the roles of the Chairman of the Board and of the CEO should be exercised by different individuals:
- 2.2.3. the majority of the Board should comprise directors who are non-executive (however this is not currently the case and the Company is seeking to address this);
- 2.2.4. the Board should represent a broad range of qualifications, experience and expertise considered of benefit to the Company; and
- 2.2.5. the Board must be structured in such a way that it has a proper understanding of, and competency in, the current and emerging issues facing the Company, and can effectively review management's decisions.

The Company's constitution requires one-third of the directors (or the next lowest whole number) to retire by rotation at each Annual General Meeting (AGM), other than the managing director. The directors to retire at each AGM are those who have been longest in



office since their last election. Where directors have served for equal periods, they may agree amongst themselves or determine by ballot who will retire. A director must retire in any event at the third AGM since he or she was last elected or re-elected. Retiring directors may offer themselves for re-election.

A director appointed as an additional or casual director by the Board will hold office until the next AGM when they may be re-elected. Any director appointed as an additional or casual director, is not to be taken into account in determining the number of directors required to retire by rotation.

# 2.3. Board Membership

The Board is currently comprised of one non-executive directors and two executive directors. Details of the Board member's experience, expertise and qualifications are set out in the Directors' Report of the Annual Financial Statements under the heading "Directors Report". The Board of Directors at the time of issue of this report comprises:

- 2.3.1. Gerard (Gerry King (Chairman of Directors (Non-Executive
- 2.3.2. Alexander (Alex Brown (Managing Director/President
- 2.3.3. Mdm Kang Rong (Deputy Managing Director (Executive

# 2.4. Chairman

The Chairman is responsible for:

- 2.4.1. leadership of the Board;
- 2.4.2. the efficient organisation and conduct of the Board's functions;
- 2.4.3. the promotion of constructive and respectful relations between Board members and between the Board and management;
- 2.4.4. facilitating the effective contribution of all Board members; and
- 2.4.5. committing the time necessary to effectively discharge the role of the Chairman. The CEO is responsible for:
- 2.4.6. briefing directors in relation to issues arising at Board meetings;
- 2.4.7. implementing the Company's strategies and policies; and
- 2.4.8. the day-to-day management of the Group's business activities.

The Board specifies that the roles of the Chairman and the CEO are separate roles to be undertaken by separate people.

# 2.5. Independent Directors

The Company recognises that independent directors are important in assuring shareholders that the Board is properly fulfilling its role and is diligent in holding senior management accountable for its performance. The Board assesses each of the directors against specific criteria to decide whether they are in a position to exercise independent judgment.

Directors of Astron are considered to be independent when they are independent of management and free from any business or other relationship that could materially interfere with, or could reasonably be perceived to materially interfere with, the exercise of their unfettered and independent judgement.

In making this assessment, the Board considers all relevant facts and circumstances. Relationships that the Board will take into consideration when assessing independence are whether a director:

- 2.5.1. is a substantial shareholder of the Company or an officer of, or otherwise associated directly with, a substantial shareholder of the Company;
- 2.5.2. is employed, or has previously been employed in an executive capacity by the Company or another group member, and there has not been a period of at least three years between ceasing such employment and serving on the Board;
- 2.5.3. has within the last three years been a principal of a material professional advisor or a material consultant to the Company or another group member, or an employee

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# **Astron Corporation Limited**

- materially associated with the service provided:
- 2.5.4. is a material supplier or customer of the Company or other group member, or an officer of or otherwise associated directly or indirectly with a material supplier or customer: or
- 2.5.5. has a material contractual relationship with the Company or another group member other than as a director.
- has been a director of the entity for such a period that his or her independence may 2.5.6. have been compromised.

The Board notes that the mere fact that a director has served on a Board for a substantial period does not mean that he or she has become too close to management to be considered not independent. The Board will regularly assess the independence of all and any director who serves on the Board.

Family ties and cross-directorships may be relevant in considering interests and relationships which may affect independence, and should be disclosed to the Board.

The Company does not comply with ASX Recommendation 2.4, as there is not a majority of non- executive directors nor is there a majority of independent directors on the Board. In accordance with the definition of independence above, only one of the directors of the Company is considered to be independent.

The Board believes that the Company is not of sufficient size to warrant the inclusion of more independent non-executive directors in order to meet the ASX recommendation of maintaining a majority of independent non-executive directors. The Company maintains a mix of directors from different backgrounds with complementary skills and experience.

In recognition of the importance of independent views and the Board's role in supervising the activities of management the Chairman is a non-executive director.

#### 2.6. **Company Secretary**

The appointment, performance, review, and where appropriate, the removal of the Company Secretary is a key responsibility of the Board. All directors have access to the Company Secretary who is accountable directly to the Board, through the Chairman, on all matters to do with the proper functioning of the Board.

# **Avoidance of Conflicts of Interest by a Director**

In order to ensure that any interests of a director in a particular matter to be considered by the Board are known by each director, each director is required by the Company to disclose any relationships, duties or interests held that may give rise to a potential conflict. Directors are required to adhere strictly to constraints on their participation and voting in relation to any matters in which they may have an interest.

Directors are able to access members of the management team at any time to request relevant information. There are procedures in place, agreed by the board, to enable directors, in furtherance of their duties, to seek independent professional advice at the company's expense.

#### **Review of Board Performance** 2.8.

The performance of the board and each of its committees is reviewed at least annually by the Chairman. Performance evaluations are conducted annually which involve an assessment of each board member's performance against specific and measurable qualitative and quantitative performance criteria. The performance criteria against which directors and executives are assessed is aligned with the financial and non-financial objectives of Astron. Directors whose performance is consistently unsatisfactory may be asked to retire.

The performance of each committee is against the requirements of their respective charters.

#### 3. **BOARD COMMITTEES**

The Board has the ability under the Company's constitution to delegate its powers and responsibilities to committees of the Board.

# 3.1. Audit and Risk Committee

The Board does not have an Audit and Risk Committee and as such the Group is not in compliance with Principle 4.1 of the ASX Corporate Governance Council. The Board considers that the Group is not of a size, nor are its financial affairs of such complexity to justify the formation of a separate audit and risk committee. The Board as a whole undertakes the selection and proper application of accounting policies, the identification and management of risk and the review of the operation of the internal control systems. The Board considers that the experience and qualifications of the Board will assure the integrity of the financial statements of the Group and the independence of the external auditor.

Where practical and feasible, the Board invites the auditor to attend all general meetings of shareholders.

The Board in lieu of an Audit and Risk Committee is responsible for:

- 3.1.1. reviewing the quality and integrity of the Group's financial reporting to shareholders, ASX and the Australian Securities and Investments Commission;
- 3.1.2. reviewing the accounting policies, internal controls, practices and disclosures to assist the Board in making informed decisions, with direct access to management;
- 3.1.3. reviewing the scope and outcome of external audits, with direct access to external auditors:
- 3.1.4. nominating external auditors and reviewing the adequacy of existing external audit arrangements;
- 3.1.5. ensuring the independence of external auditors and reviewing any other services provided by them:
- 3.1.6. reviewing the Group's risk management systems; and
- 3.1.7. reporting on meetings and the results of any assessments and reviews.

# **External Auditor**

The Company's policy is to appoint external auditors who clearly demonstrate quality and independence. The performance of the external auditor is reviewed annually, taking into consideration assessment of performance, existing value and tender costs.

An analysis of fees paid to the external auditors, including a breakdown of fees for non-audit services, is provided in the notes to the financial statements. It is the policy of the external auditors to provide an annual declaration of their independence to the Board.

# Internal Audit

The Company does not currently have a formal internal audit function however the Board oversee the effectiveness of risk management and internal control.

The Board works closely with management to identify and manage operational, financial and compliance risks which could prevent the Company from achieving its objectives. The Board actively encourages the External Auditor to raise internal control issues, and oversees management's timely remediation thereof.

# 3.2. Remuneration and Nomination Committee

Given the present size of the Group, the existing Board is able to meet the needs of the Group in the examination of selection and appointment practices without the establishment of a nomination committee of the Board as recommended under Principle 2.1.

## Remuneration

The remuneration received by directors and executives in the current period is contained in the "Remuneration Report" section in the Directors' Report of the Annual Financial Statements.

The Company seeks to attract and retain directors and executives with the appropriate expertise and ability to create value for shareholders.

The remuneration structure for non-executive directors is not related to performance. The



Company aims to ensure non-executive directors receive fees which reflect their skills, responsibilities and the time commitments required to discharge their duties. The Company does not pay retirement benefits to non-executive directors (other than superannuation contributions in accordance with its statutory superannuation obligations.

The remuneration structure for executive directors and other executives reflects the Company's financial resources and as such there is not currently a direct correlation between the executive's reward and individual and Company performance so as to seek to ensure that the Company's remuneration policy is aligned with its long-term business objectives and the interests of shareholders and other stakeholders.

# **Nomination**

A profile of each director is included in the Directors' Report of the Annual Financial Statements under the heading "Directors information". The Company does not have a written agreement in place with each director setting out the terms of their appointment. The committee and the Board consider the composition of the Board at least annually, when assessing the Board's performance and when considering director election and re-election.

In considering whether the Board will support the election or re-election of incumbent directors, the committee considers the skills, experience, expertise, diversity and contribution made to the Board by the director and the contribution that the director is likely to make if elected or re-elected.

When considering appointing new directors, the committee assesses the range of skills, experience, expertise, diversity and other attributes from which the Board would benefit and to the extent to which current directors possess such attributes. This assessment allows the committee to provide the Board with a recommendation concerning the attributes for a new director, such that they balance those of existing directors.

All material information that is relevant to the decision as to whether or not to elect or re-elect a director is provided to shareholders in the explanatory notes accompanying the notice of meeting for the Annual General Meeting at which the election or re-election is to be considered.

# 4. TIMELY AND BALANCED DISCLOSURE

# 4.1. Shareholder Communication

The Company believes that all shareholders should have equal and timely access to material information about the Company including its financial situation, performance, ownership and governance.

The Board aims to ensure that shareholders are informed of all material information relating to the Company by communicating to shareholders through:

- 4.1.1. continuous disclosure reporting to the ASX;
- 4.1.2. its annual reports; and
- 4.1.3. media releases and other investor relations publications on the Company's website. The Company provides other information about itself and its governance via its website.

# **Two-way Communication**

The Board is also mindful of the importance of not only providing information, but also enabling two-way communication between the Company and its shareholders.

The Company encourages direct electronic contact from shareholders – the Company's website has a "Contact Us" section which allows shareholders to submit questions or comments.

The Company provides shareholder materials directly to shareholders through electronic means. A shareholder may request a hard copy of the Company's annual report to be posted to them.

Shareholders may also communicate via electronic means with the Company's Share Registry and may register to access personal shareholding information and receive electronic information.

# **General Meetings**

Shareholders are encouraged to participate in general meetings. Copies of any addresses by the Chairman or CEO are disclosed to the market and published on the Company's website. At the meeting the Chairman encourages questions and comments from shareholders and seeks to ensure that shareholders are given ample opportunity to participate.

The Company's external auditor are not invited to attend the Company's annual general meeting to answer shareholder questions about the conduct of the audit, the preparation and content of the audit report, the accounting policies adopted by the Company and the independence of the auditor in relation to the conduct of the audit, however the Company will facilitate any questions from shareholders about these matters.

# 4.2. Continuous Disclosure Policy

The Company is committed to ensuring that shareholders and the market are provided with full and timely information and that all stakeholders have equal opportunities to receive externally available information issued by the Company.

The Company's "ASX Disclosure Policy" encourages effective communication with its shareholders by requiring that Company announcements:

- 4.2.1. be factual and subject to internal vetting and authorisation before issue;
- 4.2.2. be made in a timely manner;
- 4.2.3. not omit material information:
- 4.2.4. be expressed in a clear and objective manner to allow investors to assess the impact of the information when making investment decisions;
- 4.2.5. be in compliance with ASX Listing Rules continuous disclosure requirements; and
- 4.2.6. be placed on the Company's website following release.

The Company's "ASX Disclosure Policy" reinforces the Company's commitment to continuous disclosure and outline management's accountabilities and the processes to be followed for ensuring compliance.

The policy also contains guidelines on information that may be price sensitive. The Company Secretary has been nominated as the person responsible for communications with the ASX. This role includes responsibility for ensuring compliance with the continuous disclosure requirements with the ASX Listing Rules and overseeing and coordinating information disclosure to the ASX.

# 5. RECOGNISING AND MANAGING RISK

# 5.1. Board responsibility for risk management

The Board is responsible for ensuring there are adequate policies in relation to risk management, compliance and internal control systems. The Company's policies are designed to ensure strategic, operational, legal, reputation and financial risks are identified, assessed, effectively and efficiently managed and monitored to enable achievement of the Company's business objectives. Considerable importance is placed on maintaining a strong control environment.

The Company has exposure to the following risks:

- 5.1.1. Funding: The Company is subject to the risks in relation to funding its projects. The Board will continue to monitor these risks.
- 5.1.2. Currency: The Company is exposed to fluctuations in the RMB and USD against the Australian dollar which can impact on expenditures related to project development and potentially future operations. Due to the size and assets of the

Company the Board has not instigated a hedging program. The Board will continue to review the implementation of hedging at each Board meeting to ensure it fits within the Company's hedging policy framework and is deemed appropriate.

- 5.1.3. Environmental: The Company is subject to, and responsible for existing environmental liabilities associated with its tenements as well as potential new liabilities through future mining activities. The Company will continually monitor its ongoing environmental obligations and risks, and implement rehabilitation and corrective actions as appropriate to remain compliant. These risks may be impacted by change in Government policy.
- 5.1.4. Market Risk: The Company seeks to reduce investment risk by regularly monitoring the market and considering at each Board meeting the ongoing benefits of carrying investments or disposal. There are inherent uncertainty risks in the mineral sands market, noting the difficult market conditions over recent years.

# 5.2. Board Oversight of the Risk Management System

The Board is responsible for approving and overseeing the risk management system. The Board reviews, at least annually, the effectiveness of the implementation of the risk management controls and procedures.

The principle aim of the system of internal control is the management of business risks, with a view to enhancing the value of shareholders' investments and safeguarding assets. Although no system of internal control can provide absolute assurance that the business risks will be fully mitigated, the internal control systems have been designed to meet the Company's specific needs and the risks to which it is exposed.

Annually, the Board is responsible for identifying the risks facing the Company, assessing the risks and ensuring that there are controls for these risks, which are to be designed to ensure that any identified risk is reduced to an acceptable level.

Internal control measures currently adopted by the Board include:

- 5.2.1. regular reporting to the Board in respect of operations and the Company's financial position; and
- 5.2.2. regular reports to the Board by appropriate members of the management team outlining the nature of particular risks and highlighting measures which are either in place or can be adopted to manage or mitigate those risks.

# 5.3. Risk Management Roles and Responsibilities

The Board is responsible for approving and reviewing the Company's risk management strategy and policy. Senior management is responsible for implementing the Board approved risk management strategy and developing policies, controls, processes and procedures to identify and manage risks in all of the Company's activities.

The Board in place of the Audit and Risk Committee is responsible for ensuring that management has developed and implemented a sound system of risk management and internal control.

# 6. ETHICAL AND RESPONSIBLE DECISION MAKING

# 6.1. Code of Ethics and Conduct

The Board endeavours to ensure that the directors, officers and employees of the Company act with integrity and observe the highest standards of behaviour and business ethics in relation to their corporate activities. The "Code of Conduct" sets out the principles, practices, and standards of personal behaviour the Company expects people to adopt in their daily business activities.

All directors, officers and employees are required to comply with the Code of Conduct. Senior managers are expected to ensure that employees, contractors, consultants, agents and partners under their supervision are aware of the Company's expectations as set out in the Code of Conduct.



All directors, officers and employees are expected to:

- 6.1.1. comply with the law;
- 6.1.2. act in the best interests of the Company;
- 6.1.3. be responsible and accountable for their actions; and
- 6.1.4. observe the ethical principles of fairness, honesty and truthfulness, including prompt disclosure of potential conflicts.

# 6.2. Policy Concerning Trading in Company Securities

Effective 1 January 2011, the Board implemented a Share Trading Policy that applies to all directors, officers and employees. This policy sets out the restrictions on dealing in securities by people who work for, or are associated with the Company and is intended to assist in maintaining market confidence in the integrity of dealings in the Company's securities. The policy stipulates that the only appropriate time for a director, officer or employee to deal in the Company's securities is when they are not in possession of price sensitive information that is not generally available to the market.

As a matter of practice, Company shares may only be dealt with by directors and officers of the Company under the following guidelines:

- 6.2.1. no trading is permitted in the period of one month prior to the announcement to the ASX of the Company's quarterly, half year and full year results;
- 6.2.2. guidelines are to be considered complementary to and not replace the various sections of the Corporations Act 2001 dealing with insider trading; and
- 6.2.3. prior approval of the Chairman, or in his absence, the approval of two directors is required prior to any trading being undertaken.
- 6.2.4. Senior management are prohibited from entering into transactions which limit the risk of participating in unvested entitlements under any equity-based remuneration scheme.

# 6.3. Policy Concerning Diversity

The Company encourages diversity in employment throughout the Company and in the composition of the Board, as a mechanism to ensure that the Company is able to draw on a variety of skill, talent and previous experiences in order to maximise the Company's performance.

The Company's "Diversity Policy" has been implemented to ensure the Company has the benefit of a diverse range of employees with different skills, experience, age, gender, race and cultural backgrounds. The Company reports its results on an annual basis in the Annual Financial Statements in achieving measurable targets which are set by the Board as part of implementation of the Diversity Policy.

The Company notes that out of two (2 Executive Directors, one (1 is female. In relation to senior executive positions, out of seven (7 two (2 are female. Out of the total of 62 employees, 19 are female.

Astron is not a "relevant employer" under the *Workplace Gender Equality Act*. The table below outlines the diversity objectives established by the Board, the steps taken during the year to achieve these objectives, and the outcomes.

# **Objectives**

# Increase the number of women in the workforce, including management and at board level.

# Review gender pay gaps on an annual basis and implement actions to address any variances.

# Provide flexible workplace arrangements.

Provide career development opportunities for every employee, irrespective of any cultural, gender and other differences.

# **Steps Taken/Outcome**

Out of two (2) Executive Directors, one (1) is female. In relation to senior executive positions, out of seven (7), two (2) are female. Out of the total of 62 employees, 19 are female.

As a part of the annual remuneration review, the Board assesses the performance and salaries of all key management personnel and executive directors. Any gender pay disparities are addressed.

During the year Astron employed 3 employees on flexible work arrangements (2017: 7).

While Astron places special focus on gender diversity, career development opportunities are equal for all employees. Employees are encouraged to attend professional development courses/workshops throughout the year.

Promote an inclusive culture that treats the workforce with fairness and respect.

Astron has set a zero-tolerance policy against discrimination of employees at all levels. The Company provides avenues to employees to voice their concerns or report any discrimination. No cases of discrimination were reported during the year (2017: Nil).

Be compliant with all requirements.

Astron is not a "relevant employer" under the Australian mandatory diversity reporting Workplace Gender Equality Act 2012.

# Mineral resource statement for Astron and its subsidiaries

# **Geology and Geological Interpretation**

The Donald and Jackson Deposits belong to the so-called "WIM-style" fine-grained mineral sands deposits discovered in the Wimmera area of the Murray Basin in the 1980s. They consist of large and broad lobate sheet-like heavy mineral accumulations deposited within the Late Miocene to Late Pliocene Loxton-Parilla Sands. These deposits are believed to represent accumulations that developed below the active wave base in a near shore environment, possibly representing the submarine equivalent of the strand style deposits. The WIM-style deposits are considerably larger in tonnage than strand-line deposits that are formed along the seaward face of shorelines.

# **Mineral Resource estimate**

Following the 2015 in-fill drilling at the Donald and Jackson Deposits, Astron commissioned an independent consultant, AMC Consultants Pty Ltd, to update the Mineral Resource estimates in accordance with the requirements of the JORC 2012 Code. This update was finalised in April 2016.

The current Mineral Resource estimate totals 5.71 billion tonnes of sand at an average grade of 3.2% HM (at 1% HM cut-off) - with Measured, Indicated and Inferred categories classified as presented in Table 1 for the Donald and Jackson Deposits. In addition to assaying the total HM content, major valuable heavy minerals (VHM) were assayed in more than 50% of all drill holes and the heavy mineral assemblage is presented in Table 2.

# Summary of annual review

The update of Astron's Mineral Resource estimate for the Donald and Jackson Deposits was completed and announced to the ASX on 7 April 2016 – i.e. during the financial year ended on 30 June 2016.

# **Balance date**

Astron's Mineral Resource Estimate is provided as at 30 June 2018.

# **Governance arrangements**

Astron has controls in respect of reporting Mineral Resource Estimates, which include both internal approval process and where relevant obtaining external competent persons approval.

# **Mineral Resource Estimate**

Table 1: Heavy Mineral (HM) Sand – Mineral Resource Estimate

A	Classification	Tonnes	HM	Slimes	Oversize
Area	Classification	(Mt)	(%)	(%)	(%)
RL2006	Measured	0	0.0	0.0	0.0
	Indicated	58	1.6	14.1	6.2
	Inferred	24	1.8	14.4	4.7
	Subtotal	82	1.6	14.2	5.8
RL2003	Measured	0	0.0	0.0	0.0
	Indicated	1,845	2.8	19.2	5.8
	Inferred	560	2.9	16.8	3.2
	Subtotal	2,405	2.9	18.6	5.2
Total Jackson	Measured	0	0.0	0.0	0.0
Deposit	Indicated	1,903	2.8	19.0	5.8
(RL2003 &	Inferred	584	2.9	16.7	3.3
RL2006)	Total	2,487	2.8	18.5	5.2
RL2002	Measured	343	3.9	19.8	8.1
	Indicated	833	3.3	16.2	13.5
	Inferred	1,595	3.4	15.7	6.0
	Subtotal	2,771	3.4	16.4	8.5
MIN553	Measured	372	4.5	14.4	12.8
2	Indicated	75	4.0	13.8	13.1
	Inferred	7	3.5	13.5	10.6
	Subtotal	454	4.4	14.2	12.8
Total Donald	Measured	715	4.2	17.0	10.6
Deposit	Indicated	907	3.4	16.0	13.4
(RL2002 &	Inferred	1,603	3.4	15.7	6.0
MIN5532)	Total	3,225	3.6	16.1	9.1
TOTAL	Measured	715	4.3	18.1	11.1
Donald	Indicated	2,811	3.0	17.9	8.2
Project	Inferred	2,187	3.3	16.4	5.5
	Total	5,712	3.2	16.9	7.3

Note: 1. The total tonnes may not equal the sum of the individual resources due to rounding.

- 2. The cut-off grade is 1% HM.
- 3. The figures are rounded to the nearest: 10M for tonnes, one decimal for HM, Slimes and Oversize.
- 4. For further details including JORC Code, 2012 Edition Table 1 and cross sectional data, see previous announcements dated 7 April 2016, available at ASX's website at http://www.asx.com.au/.

Table 2: HM Assemblage and Mineral Resource Estimate for available VHM data

Area	Classification	Tonnes (Mt)	HM (%)	Slimes (%)	Oversize (%)	Zircon	Rutile+ anatase (% HM)	Ilmenite	Leucoxene (% HM)	Monazite (% HM)
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RL2006	Measured	0	0.0	0.0	0.0	0	0	0	0	0
	Indicated	18	2.1	14.2	5.7	17	8	29	31	2
	Inferred	8	2.5	14.1	4.5	16	8	30	32	2
	Subtotal	26	2.2	14.2	5.3	17	8	29	31	2
RL2003	Measured									
	Indicated	650	5.0	18.2	5.4	18	9	32	17	2
	Inferred	146	4.1	15.2	3.1	22	10	32	14	2
	Subtotal	797	4.8	17.7	5.0	19	9	32	17	2
Total Jackson Deposit (RL2003 & RL2006)	Measured Indicated	668	4.9	18.1	5.4	18	9	32	17	2
KL2000)	Inferred	155	4.0	15.1	3.1	21	9	32	15	2
	Total	823	4.8	17.6	5.0	19	9	32	17	2
DI 2002						-		_		
RL2002	Measured	185	5.5	19.1	7.3	21	9	31	19	2
	Indicated Inferred	454 647	4.2 4.9	15.9 15.2	13.2 5.8	17 18	7 9	33 33	19 17	2 2
	v						8			
	Subtotal	1,286	4.8	16.0	8.6	18		33	18	2
MIN5532	Measured	264	5.4	14.2	12.2	19	7	31	22	2
	Indicated	49	4.9	13.6	12.1	20	7	33	22	2 3
	Inferred	5	4.2	13.5	10.5	22	7	36	20	
	Subtotal	317	5.3	14.1	12.1	19	7	32	22	2
Total Donald Deposit (RL2002 &	Measured	448 503	5.4	16.2 15.7	10.2 13.1	20 18	8 7	31	21 20	2
MIN5532)	Indicated									
	Inferred	652	4.9	15.2	5.8	18	8	33	17	2
	Total	1,604	4.9	15.6	9.3	18	8	32	19	2
TOTAL	Measured	448	5.4	16.2	10.2	20	8	31	21	2
Donald Project	Indicated	1,171	4.6	17.1	8.7	18	8	32	18	2
-	Inferred	807	4.7	15.2	5.3	19	9	33	17	2
	Total	2,427	4.8	16.3	7.9	19	8	32	18	2

Note:

- 1. The total tonnes may not equal the sum of the individual resources due to rounding.
- 2. The cut-off grade is 1% HM.
- 3. The figures are rounded to the nearest: 10M for tonnes, one decimal for HM, Slimes and Oversize and whole numbers for zircon, ilmenite, rutile + anatase, leucoxene and monazite.
- 4. Zircon, ilmenite, rutile + anatase, leucoxene and monazite percentages are report as a percentage of the HM.
- 5. Rutile + anatase, leucoxene and monazite resource has been estimated using fewer samples than the other valuable heavy minerals. The accuracy and confidence in their estimate is therefore lower.
- 6. For further details including JORC Code, 2012 Edition Table 1 and cross sectional data, see previous announcements dated 7 April 2016, available at ASX's website at http://www.asx.com.au/.





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