

ASX ANNOUNCEMENT

Coburn Mineral Sands Project



STRANDLINE
resources limited

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Outstanding test results further strengthen financial outlook and offtake negotiations

Metallurgical tests deliver further enhancements in Coburn's final product specification and overall recoveries, pointing to increased financial returns

HIGHLIGHTS

- **Confirmatory metallurgical tests of Coburn's proposed mineral separation process result in increased pit-to-product recovery rates**
- **The results highlight the strong scope to increase project revenues from the recently announced Definitive Feasibility Study**
- **The latest tests, undertaken to optimise process settings, provide four key benefits:**
 - Extra technical validation of the robustness of Coburn's mineral separation plant process flowsheet;
 - Increased production of higher-value premium zircon and rutile final products;
 - Further enhanced product quality specification, resulting in greater offtake appeal; and
 - Additional product samples for marketing and offtake negotiations.
- **An updated Coburn financial evaluation will now be undertaken as part of the project funding process**

Strandline Resources (ASX: STA) is pleased to announce more outstanding metallurgical test results which further strengthen the financial outlook, product offtake negotiations and funding strategy for its Coburn mineral sands project in WA's Mid West.

The latest tests included optimisation to equipment settings and attritioning of the feed material and have further validated that Coburn can efficiently deliver premium-quality mineral sands products using conventional processing technology.

They also demonstrate the scope to further increase recoveries and therefore production of the higher-value zircon and rutile final product streams.

The process enhancements are expected to increase average annual project revenues relative to the Coburn Definitive Feasibility Study (DFS) (announced in April-2019) and support current offtake and funding activities.

An updated Coburn financial evaluation is now being undertaken as part of the project financing process.

Strandline Managing Director Luke Graham said the results strengthened Coburn's outlook on several fronts.

"These results show the proposed processing design will deliver increased recoveries and specifications which will in turn pave the way for increased revenue for no increase in capital or operating costs," Mr Graham said.

“Strandline is now in advanced negotiations with major global consumers for long-term product offtake as part of the project financing process currently underway.

“The ability to produce highly-marketable products across the entire zircon and titanium mineral suite expands Coburn’s offtake and funding options.

“The Coburn project is development-ready and set to be a world-scale, long-life operation located in the well-established mining jurisdiction of WA, with proximity to key infrastructure.”

SUMMARY OF RESULTS

Exceptional high-quality final mineral sands products have been achieved from the latest confirmatory metallurgical testwork program. A representative bulk heavy mineral concentrate (**HMC**) sample produced during the DFS wet concentration plant (**WCP**) testwork was processed through an optimised mineral separation plant (**MSP**) flowsheet.

The tests were performed at TZMI’s Allied Mineral Laboratories and utilised full scale or scalable equipment configured as per the DFS flowsheet design (with no impact to DFS capital or operating cost estimates). Optimisation of equipment settings and attrition scrubbing of the HMC feed material resulted in improved separation efficiencies of valuable minerals and product specifications.

The rutile (HiTi) product stream also benefited from directing more rutile mineral to the underutilised cleaner stages of the MSP, rather than reporting mineral into product earlier in the flowsheet. This resulted in a cleaner, higher TiO₂ grade rutile of 93.3% TiO₂ (up from 90.1% TiO₂) as well as an improved rutile recovery from 70.9% to 84.7%.

The premium zircon product stream benefited from improving separation efficiency at each electrostatic separation stage of the MSP. This resulted in higher zircon recovery from 98.7% to 99.7%. MSP zircon recovery comprises 58.3% into premium zircon and a further 41.4% into zircon concentrate as contained zircon.

The increase in pit-to-product recovery rates results in an increase to total average annual production and importantly, an increase to the higher-value premium zircon and rutile streams (as shown in the Table below).

Table 1 Coburn Average Annual Production Per Final Product Stream

Product	Previous Average Annual Production (Apr-2019) (tonnes)	Updated Average Annual Production (Jan-2020) (tonnes)
Premium Zircon	32,000	34,000
Zircon Concentrate	58,000	54,000
Ilmenite	110,000	110,000
Rutile (HiTi)	20,000	24,000
Total	220,000	222,000

Engagement with leading mineral sands consumers continues in order to secure long-term offtake agreements to support the current project financing process. It remains evident that Coburn’s zircon and titanium products are in high market demand for a range of high-end applications including the large ceramics and pigment markets.

Coburn is a world-class long-life mineral sands deposit and benefits from being situated in the well-established mining jurisdiction of Western Australia, close to key road, port and services infrastructure.

The Coburn DFS shows the Project will generate strong financial returns with a pre-tax NPV of A\$551m (USD:AUD 0.72, 8% discount rate), an IRR of 32%, Life of Mine (LOM) EBITDA of A\$1.9b (average annual EBITDA of A\$86 million) and an attractive revenue-to-operating cost ratio of 2.2, based on TZMI’s commodity price forecast. For more information on the Coburn Mineral Sand Project and the DFS, refer to the ASX Announcement dated 16 April 2019 for details of the material assumptions underpinning the production target



Coburn Mineral Sands Project – Confirmatory Test Work Enhances Financial Outlook

and financial results. The Company confirms that all the material assumptions continue to apply and have not materially changed

The latest testwork results highlight the potential to materially increase project revenues over the life of the mine (~38 years) relative to the DFS, further enhancing project returns. An updated financial evaluation will be released in due course as part of the current financing process.

In parallel with negotiating product offtake agreements for Coburn, the Company is advancing major construction and operations contracts and other project financing activities, including the potential debt financing from Northern Australian Infrastructure Facility (**NAIF**) as announced 09 October 2019.

Refer Annexure 1 for more technical details relating to the latest test work results. This announcement is authorised for release by Luke Graham, Managing Director and CEO.

ANNEXURE 1 – PROCESS RECOVERIES AND PRODUCT SPECIFICATION

MSP Process Recoveries

The latest testwork was performed on the DFS-design MSP process flowsheet as shown in Figure 1 below.

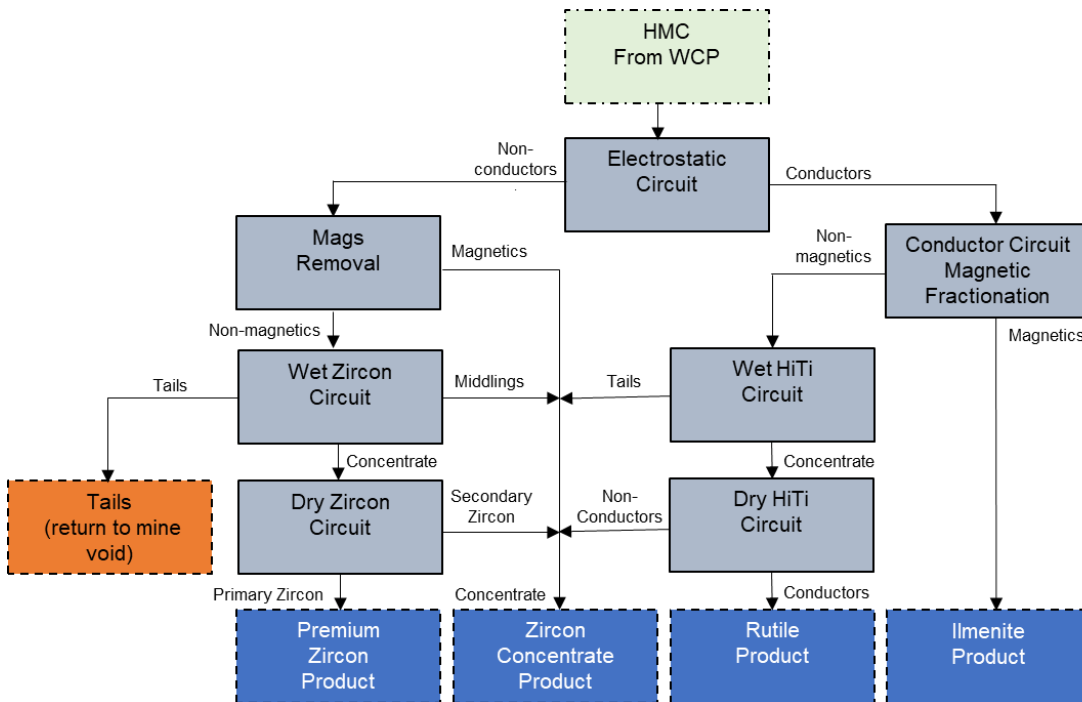


Figure 1 MSP Process Unit Block Diagram designed as part of the DFS (Apr-2019)

Table 2 Product Recoveries based on Latest Confirmatory Testwork

Product	WCP Recovery (%)	MSP Recovery (%) ³		MSP Yield to Saleable Products (%) ⁵	
	DFS-2019 Test Program ²	DFS-2019 Test Program ²	Confirmatory Test Program	DFS-2019 Test Program ²	Confirmatory Test Program
Ilmenite	86.8	95.4	96.2	103.9	102.9
Rutile/HiTi ¹	87.7	70.9	84.7	77.0	95.2
Zircon	98.2	98.7	99.7 ⁴	98.8	99.8

Notes:

¹ Rutile/HiTi product contains rutile and leucoxene mineral species.

² DFS-2019 Test Program: results from representative testwork program Allied Mineral Laboratories report Apr-2019 titled “Strandline Resources Coburn Bulk Ore Testwork”, conducted as part of the DFS announced Apr-2019

³ MSP Recoveries are for actual mineral species

⁴ MSP zircon recovery comprises 58.3% into premium zircon and a further 41.4% into zircon concentrate as contained zircon

⁵ Actual yields into saleable products are higher due to contributions from other minerals

Product Specification and Marketability

Coburn is capable of producing an extremely high-value product suite comprising a premium zircon product (66% ZrO₂), zircon concentrate product (29% ZrO₂), rutile/HiTi product (which combines the rutile and leucoxene minerals to produce a 93% TiO₂ blend) and chloride-grade ilmenite product (62% TiO₂).

Key features of the final products produced from the latest Coburn testwork include:

Ilmenite Product:

- Chloride-grade ilmenite with 62% TiO₂ content, suitable for direct chloride pigment application or upgrading via Synthetic Rutile (SR) or slag routes into high grade chloride route pigment feedstock;
- Low U + Th (nominally 152 ppm);
- Minor elements of Cr₂O₃, CaO, MgO and MnO relatively low or in line with competing products;
- Relatively coarse grain size in comparison with many competing products (with D50 148µm).

Rutile Product (previously named HiTi90):

- High 93% TiO₂ content attractive for direct chloride pigment application or blending up of lower grade feedstocks for similar applications. Competes strongly with lower grade Leucoxene 88%;
- Low U + Th (nominally 75 ppm);
- Relatively coarse grain size in comparison with many competing products (with D50 121µm).

Premium Zircon Product:

- High grade premium ZrO₂ + HfO₂ of 66.4%;
- Low U + Th (nominally 348 ppm);
- Suitable for ceramics, foundry and chemical applications;
- Relatively coarse grain size in comparison with many competing products (with D50 125µm).

Zircon Concentrate Product:

- Contained zircon is relatively high and suitable for a range of applications, including ceramics, chemical and foundry uses;
- Zircon contained within the concentrate has relatively low U + Th, which may provide blending flexibility for the downstream purchaser to blend with other products that contain less favourable characteristics;
- Zircon concentrate also contains payable titanium minerals and monazite containing rare earths.

The analysis of the products produced from the latest MSP testwork are presented in the table below.

Table 3 Coburn Project Final Product Specification

Analyses	Units	Ilmenite	Rutile (HiTi)	Premium Zircon	Zircon Concentrate
TiO ₂	%	62.41	93.25	0.15	7.11
Fe ₂ O ₃ (XRF)	%	29.54	2.14	0.09	4.52
Al ₂ O ₃	%	1.1	0.57	0.31	24.81
SiO ₂	%	3.18	1.74	32.8	32.27
Cr ₂ O ₃	%	0.14	0.16	<0.002	0.05
ZrO ₂ + HfO ₂	%	0.06	0.31	66.4	28.76
CaO	%	0.07	0.05	0.01	0.08
MgO	%	0.23	0.05	0.01	0.88
MnO	%	0.79	0.01	0.01	0.07
CeO ₂	%	0.01	0.01	0.02	0.13
Th	ppm	135	50	146	349
U	ppm	17	25	202	137
D50	(µm)	148	121	125	155

ABOUT STRANDLINE

Strandline Resources Limited (**ASX: STA**) is an emerging heavy mineral sands developer with a growing portfolio of 100%-owned development assets located in Western Australia and within the world's major zircon and titanium producing corridor in South East Africa.

Strandline's strategy is to develop and operate high margin, expandable mining assets with market differentiation and global relevance.

Strandline's project portfolio contains high quality assets which offer a range of development options and timelines, geographic diversity and scalability. They include two zircon-titanium rich, 'development ready' projects, being the Fungoni Project in Tanzania and the large Coburn Project in Western Australia, as well as a series of titanium dominated exploration targets spread along the highly prospective Tanzanian coastline, including the advanced and large scale Tajiri Project in northern Tanzania.

Authorised for release by:

Luke Graham

CEO and Managing Director

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COBURN MINERAL SANDS COMPETENT PERSON'S STATEMENTS

The information in this report that relates to exploration results and metallurgical testwork results is based on, and fairly represents, information and supporting documentation prepared by Mr Brendan Cummins, Chief Geologist and employee of Strandline. Mr Cummins is a member of the Australian Institute of Geoscientists and he has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Cummins consents to the inclusion in this release of the matters based on the information in the form and context in which they appear. Mr Cummins is a shareholder of Strandline Resources.

The information in this report that relates to Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Mr Greg Jones, (Consultant to Strandline and Geological Services Manager for IHC Robbins) and Mr Brendan Cummins (Chief Geologist and employee of Strandline). Mr Jones is a member of the Australian Institute of Mining and Metallurgy and Mr Cummins is a member of the Australian Institute of Geoscientists and both have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Cummins is the Competent Person for the provision of the drill database, and completed the site inspection. Mr Jones is the Competent Person for the data integration and resource estimation. Mr Jones and Mr Cummins consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

FORWARD LOOKING STATEMENTS

This report contains certain forward looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside of the control of Strandline. These risks, uncertainties and assumptions include commodity prices, currency fluctuations, economic and financial market conditions, environmental risks and legislative, fiscal or regulatory developments, political risks, project delay, approvals and cost estimates. Actual values, results or events may be materially different to those contained in this announcement. Given these uncertainties, readers are cautioned not to place reliance on forward looking statements. Any forward looking statements in this announcement reflect the views of Strandline only at the date of this announcement. Subject to any continuing obligations under applicable laws and ASX Listing Rules, Strandline does not undertake any obligation to update or revise any information or any of the forward looking statements in this announcement to reflect changes in events, conditions or circumstances on which any forward looking statements is based.