

STRANDLINE RES. LTD (STA)

Coburn DFS

Strandline Res. Ltd (STA) has released a DFS for its Coburn mineral sands project in Western Australia. There are two studies – one to final products (capex A\$257m) and one only to HMC (capex A\$207m). There is additional working capital requirement, although the Company is hopeful for pre-payments to finance it.

The Company also released a JORC Reserve of 523Mt grading 1.11% total heavy mineral (THM). Based on the reserve, the mine life is 22 years, but the Company has also completed a scoping study that would extend mine life to 38 years.

Large zircon and chloride ilmenite project

The study envisages 32ktpa of premium zircon plus 58ktpa of zircon concentrate. Chloride ilmenite production is expected at 110ktpa and HiTi of 20ktpa.

The Company says that the premium zircon product contains 66% ZrO₂ and low contaminant trace elements making it suitable for a range of industry applications (including ceramics, foundry and chemical application). The chloride ilmenite product contains 62% TiO₂ and is low in most key impurities, attractive for direct chloride pigment application or upgrading via Synthetic Rutile (SR) or slag routes into high grade chloride route pigment feedstock. The HiTi90 product contains 90% TiO₂. The zircon concentrate contains 28% ZrO₂ and 11% TiO₂.

Hartleys model update

The DFS assumes annual EBITDA ~A\$84m pa, and our model is similar. On spot mineral sands prices, we estimate annual EBITDA A\$105m pa.

We have updated our model for the information in the DFS. We have increased our capex assumptions and production estimates, but we now model the expanded case (ie 38 years). We assume capex of A\$280m (total pre-production capital of A\$354m which also assumes working capital and higher than DFS capex). Our NPV₁₂ today is A\$200m (spot ~A\$340m) and at decision to mine is A\$235m (spot A\$400m). Using NPV₈, our estimated valuation more than doubles given the very long mine life.

We assume a final product in our model. We will consider the HMC case if the Company signs off-takes for the HMC rather than final products. We believe that the economics for STA shareholders are likely to be better for the HMC case, in theory, due to likely less dilution. However, selling the concentrate could mean longer to negotiate off-take and hence a higher risk of execution. Consequently, we model final product case which has more certainty to proceed on off-takes, in our view.

Retain Speculative Buy

We retain our Speculative Buy. Using our base mineral sands prices, our valuation (NPV₁₂, our standard discount rate for this stage) is 21cps, diluted for ~1.6b new shares to develop both the small Fungoni project in Tanzania and the larger Coburn project. Our model assumes Fungoni is developed before Coburn. It is possible that dilution is far less than we assume, boosting our valuation per share, especially if the market uses lower discount rates.

Share Price	\$0.10
Preliminary valuation	\$0.21
Price Target (12 month)	\$0.22

Brief Business Description:

Mineral sands developer in Tanzania and Australia.

Hartleys Brief Investment Conclusion

STA has potential to build substantial mineral sands business in Tanzania and Australia. The Fungoni development is an attractive zircon rich project in Tanzania. Coburn is a large WA asset.

Chairman & MD

Didier Murcia (Non Exec-Chairman)

Luke Graham (MD)

Top Shareholders

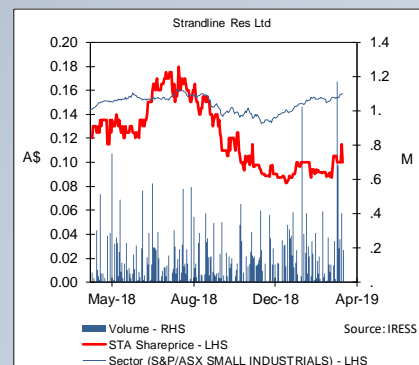
Tembo	35.9%
C&H Investments	9.7%
Gasmere / Hatch	7.3%

Company Address

35 Richardson St
West Perth, WA 6005

Issued Capital	320.7m
- fully diluted	373.3m
Market Cap	A\$32.1m
- fully diluted	A\$37.3m
Cash (31 Dec 18a)	A\$4.2m
Debt (31 Dec 18a)	A\$0.0m
EV	A\$27.9m

	FY19e	FY20e	FY21e
EBITDA	-1.9	2.4	32.2
Op Cash Flw	-3.2	2.0	26.5
Norm NPAT	-3.6	-3.4	6.2
CF/Share (cps)	-0.8	0.2	1.3
EPS (cps)	-0.9	-0.3	0.3
P/E	-11.3	-37.6	32.4



Trent Barnett

Head of Research

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Hartleys has assisted in the completion of a capital raising in the past 12 months for Strandline Resources Limited ("Strandline") for which it has earned gross fees. Hartleys has a beneficial interest in fully paid ordinary shares Strandline Resources Limited. See back page for disclosure

Strandline Res Ltd						Share Price		17 April 2019					
STA						\$0.100		Speculative Buy					
Key Market Information						Company Information							
Share Price						Directors							
Market Capitalisation - ordinary						Didier Murcia (Non Exec-Chairman)							
Net Debt (cash)						Luke Graham (MD)							
Market Capitalisation - fully diluted						Peter Watson (Exec Director)							
EV						Earnest (Tom) Eadie (Non- Exec Director)							
EV inc. assumed new capital						John Hodder (Non- Exec Director, Tembo nominee)							
Issued Capital						www.strandline.com.au							
Options													
Issued Capital (fully diluted inc. all options)													
Issued Capital (fully diluted inc. all options and new capital)													
Valuation													
12month price target													
P&L						Reserves & Resources							
Net Revenue						Total Resource							
Total Costs						Fungoni							
EBITDA						Tanga Sth							
- margin						Coburn							
Depreciation/Amort						Total Reserve							
EBIT						Fungoni							
Net Interest						Tanga Sth							
Pre-Tax Profit						Coburn							
Tax Expense						Coburn Production Summary							
Normalised NPAT						Mining Inventory							
Abnormal Items						Mill Throughput							
Reported Profit						HM grade							
Minority						Zr production							
Profit Attrib						Rutile / Hi-Ti production							
						Chlor. Ilmenite production							
						Ilmenite							
						Zircon							
						Rutile / Hi-Ti production							
						Monazite							
						Fungoni Production Summary							
						Mining Inventory							
						Mill Throughput							
						HM grade							
						Zr production							
						Rutile / Hi-Ti production							
						Chlor. Ilmenite production							
						Ilmenite							
						Zircon							
						Rutile / Hi-Ti production							
						Monazite							
						Price Assumptions							
						AUDUSD							
						Chloride Ilmenite							
						Zircon							
						Rutile							
						Leucoxene							
						Monazite							
						Sensitivity Analysis							
						Base Case							
						Spot Prices							
						Spot USD/AUD 0.72, Sulphate Ilmenite cfr \$175/t, Chloride Ilmenite cfr \$225/t, Zircon \$1550/t, Rutile \$1050/t.							
						AUDUSD +/-10%							
						Ilmenite +/-10%							
						chloride ilmenite +/-10%							
						Zircon +/-10%							
						Rutile +/-10%							
						Leucoxene +/-10%							
						Operating Costs +/-10%							
						Production +/-10%							
						Unpaid Capital							
						Year Expires							
						30-Jun-19							
						30-Jun-20							
						30-Jun-21							
						30-Jun-22							
						30-Jun-23							
						30-Jun-24							
						TOTAL							
						Valuation							
						Fungoni							
						100% Coburn (pre-tax NAV at disc. rate of 12%)							
						Tanga Sth							
						Other Assets/Exploration							
						Forwards							
						Corporate Overheads							
						Net Cash (Debt)							
						Tax (NPV future liability)							
						Options & Other Equity							
						Total							
						Balance Sheet							
						Cash							
						Other Current Assets							
						Total Current Assets							
						Property, Plant & Equip.							
						Exploration							
						Investments/other							
						Tot Non-Curr. Assets							
						Total Assets							
						Short Term Borrowings							
						Other							
						Total Curr. Liabilities							
						Long Term Borrowings							
						Other							
						Total Non-Curr. Liabil.							
						Total Liabilities							
						Net Assets							
						Net Debt							
						Cashflow							
						Operating Cashflow							
						Income Tax Paid							
						Interest & Other							
						Operating Activities							
						Property, Plant & Equip.							
						Exploration and Devel.							
						Other							
						Investment Activities							
						Borrowings							
						Equity or "tbc capital"							
						Dividends Paid							
						Financing Activities							
						Net Cashflow							
						Shares							
						Ordinary Shares - End							
						Ordinary Shares - W'ted							
						Diluted Shares - W'ted							
						Ratio Analysis							
						Cashflow Per Share							
						Cashflow Multiple							
						EV (+ cap.) / EBIT							
						EV (+ cap.) / EBITDA							
						Earnings Per Share							
						Price to Earnings Ratio							
						Dividends Per Share							
						Dividend Yield							
						Net Debt / Net Debt + Equity %							
						Interest Cover							
						Return on Equity							

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"tbc capital" could be equity or debt. Our valuation is risk-adjusted for how this may be obtained.

Sources: IRESS, Company Information, Hartleys Research

VALUATION

Our base valuation assumes the development of both Fungoni and Coburn, which therefore assumes significant dilution. We assume Fungoni financing in FY19 with first production in March 2020. Our model assumes 95% of free cash flow until capital and debt is repaid, and then 79% project ownership. We assume no explicit residual value (but we attribute exploration value to other Tanzania assets).

We assume Coburn is financed in FY20, with first production in June 2021.

We assume mineral sands prices similar to consensus, which is now lower than spot prices.

Fig. 1: Assumptions and risks for valuation

Assumption	Risk of not realising assumption	Risk to valuation if assumption is incorrect	Comment
Fungoni & Coburn are developed	High	High	We assume both assets are developed
Equity dilution	Low	High	We assume substantial new shares to develop both Fungoni and Coburn. This implies both projects also obtain debt financing
79% project ownership in Tanzania	Low	upside	We assume STA funds 95% of the capital (free carries Govt 16% interest but not the local partners interest), but the capital is repaid (including equity) before the Govt earns dividends.
Commodity prices	Moderate	High	We assume improving AUD rutile prices and ilmenite prices but weaker AUD zircon prices
AUD appreciated modestly	High	Upside / Downside	Using current FX Coburn is substantially more viable. We assume modestly appreciated AUD. Further depreciation though would improve our STA valuation
Value for Tajiri	Moderate	High	We have a speculative unfunded model for Tajiri and use NPV14 given the speculative assumptions.
RIO options not exercised	Moderate	Upside	We don't assume the RIO options are exercised. This is purely to simplify our valuation. Exercise would increase STA cash balance.
Exploration success	Moderate	High	We attribute some value to exploration potential beyond the assumed mine life extension.
<i>Conclusion</i>	<i>We believe our STA assumptions are realistic but given the risks and assumptions we rate it as a Speculative Buy.</i>		

Source: Hartleys Research

Fig. 2: STA financial economics

	DFS - Final Products Case	DFS – HMC Case
Mine Life	22.5yrs	22.5yrs
Ore Tonnes Mined	523Mt	523Mt
Ore Throughput	23.4Mtpa	23.4Mtpa
Capex	A\$257M	A\$207M
LOM Revenue	A\$3.91B	A\$3.42B
LOM Opex (C1)	A\$1.78B	A\$1.62B
LOM AISC	A\$1.97B	A\$1.79B
Avg. C1 Cost per Product Tonne	A\$346/t	A\$316/t
Avg. AISC per Product Tonne ("A")	A\$397/t	A\$361/t
Avg. Basket Price ("B")	A\$760/t	A\$665/t
Avg. Cash Margin (B-A)	A\$363/t	A\$304/t
LOM EBITDA	A\$1.93B	A\$1.62B
Avg. EBITDA	A\$86M	A\$69M
NPV ⁸ (pre-tax, real, no debt)	A\$551M	A\$481M
IRR (pre-tax, real, no debt)	32.3%	36.4%

Source: STA

Fig. 3: Product specifications

PRODUCT QUALITY



STRANDLINE
resources limited

Outstanding metallurgical results confirm Coburn can produce both high-value HMC and final products, opening the door to a wide range of offtake and funding options

Key Features of Coburn Final products

- DFS design reveals development optionality with the ability to market a high-value 95% HMC product or refining further to final products
- Premium zircon product contains high 66% ZrO₂ and low contaminant trace elements making it suitable for a range of industry applications (including ceramics, foundry and chemical application)
- Chloride ilmenite product contains an attractive 62% TiO₂ and is low in most key impurities, attractive for direct chloride pigment application or upgrading via Synthetic Rutile (SR) or slag routes into high grade chloride route pigment feedstock
- HiTi90 product contains 90% TiO₂ and attractive for direct chloride pigment application or blending up of lower grade feedstocks for similar applications. Competes strongly with lower grade Leucoxene 88% TiO₂
- Zircon Concentrate contains 28% ZrO₂ and 11% TiO₂, with contained zircon suitable for blending with other ceramics grade zircon or as a stand-alone product for chemical and foundry applications. Contained TiO₂ comprises a majority of higher value HiTi minerals
- Engagement with global consumers confirms high demand for Coburn's products in both concentrate or final product form, providing a wide range of offtake and investment options



Analyses	Units	Ilmenite	HiTi	Primary Zircon	Zircon Concentrate
TiO ₂	%	62.3	90.1	0.17	10.8
Fe ₂ O ₃ (XRF)	%	29.4	1.5	0.14	4.4
Al ₂ O ₃	%	1.41	0.93	0.41	20.2
SiO ₂	%	3.4	2.7	32.8	33.7
Cr ₂ O ₃	%	0.14	0.2	0.0	0.05
ZrO ₂ + HfO ₂	%	0.12	2.4	65.8	27.9
CaO	%	0.1	0.1	0.01	0.09
MgO	%	0.2	0.05	0.03	0.67
MnO	%	0.8	0.01	0.0	0.07
CeO ₂	%	0.02	0.01	0.03	0.16
Th	ppm	130	56	117	390
U	ppm	14	50	220	151
D50	(µm)	148	121	125	NA

Table: Coburn Project Final Product Specification

Source: For more detail on DFS Product Specification refer ASX Announcement 01 April 2019

Source: STA

PRICE TARGET

Our price target is 22cps (unchanged previously).

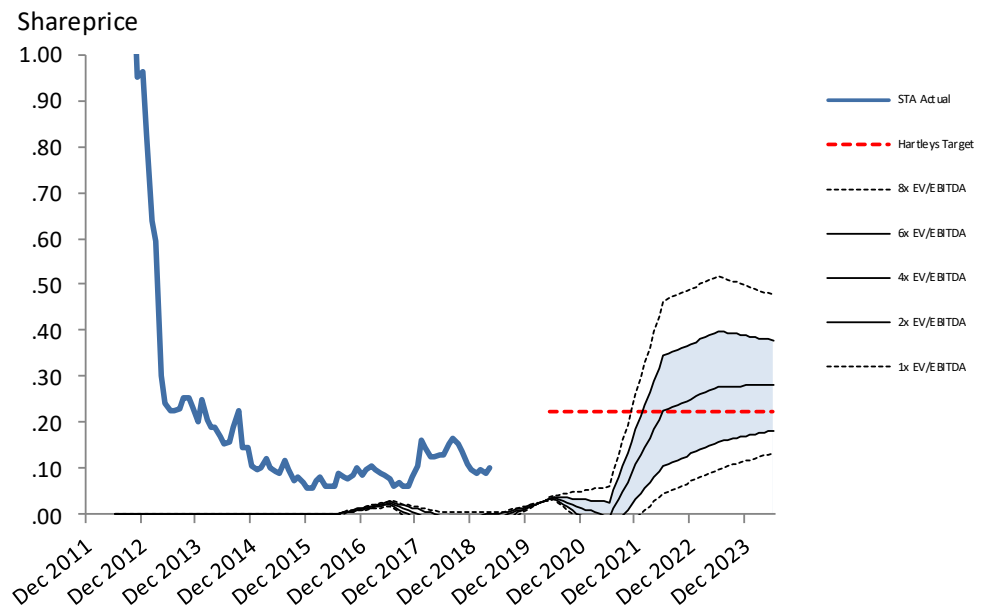
Price Target Methodology	Weighting	Spot	12 mth out
NPV ₁₂ (Fungoni + Coburn) consensus prices	30%	\$0.21	\$0.24
NPV ₁₂ at spot commodity and fx prices	20%	\$0.28	\$0.32
NPV ₈ consensus prices	5%	\$0.40	\$0.43
NPV ₈ at spot commodity and fx prices	1%	\$0.51	\$0.55
NPV ₁₂ (Fungoni development only, exploration value other assets) base commod.	35%	\$0.12	\$0.13
NPV ₁₂ , minimal dilution, divest Coburn for 50% of NPV (implied STA mcap \$195m)	3%	\$0.32	\$0.36
Net cash backing	6%	\$0.01	\$0.01
Risk weighted composite		\$0.20	
12 Months Price Target		\$0.22	
Shareprice - Last		\$0.100	
12 mth total return		122%	

RISKS

The key risks for STA (like most mine companies in development) is obtaining the necessary funding to complete the project. Other risks are earnings disappointments given the industry is volatile and earnings can disappoint due to cost overruns, project delays, cost inflation, environmental regulations, plant and mine design mistakes or lower production. Although some earnings disappointments can be short term and are only a timing issue, other disappointments can be materially value destructive and can sometimes overhang stocks for a long period of time (for example metallurgy problems). Such disappointments can be very difficult to predict and share price reactions can be severe and immediate upon disclosure by the company. High financial leverage (if it exists at that time) would add to the problem. Sovereign risk is also reasonably high in Africa.

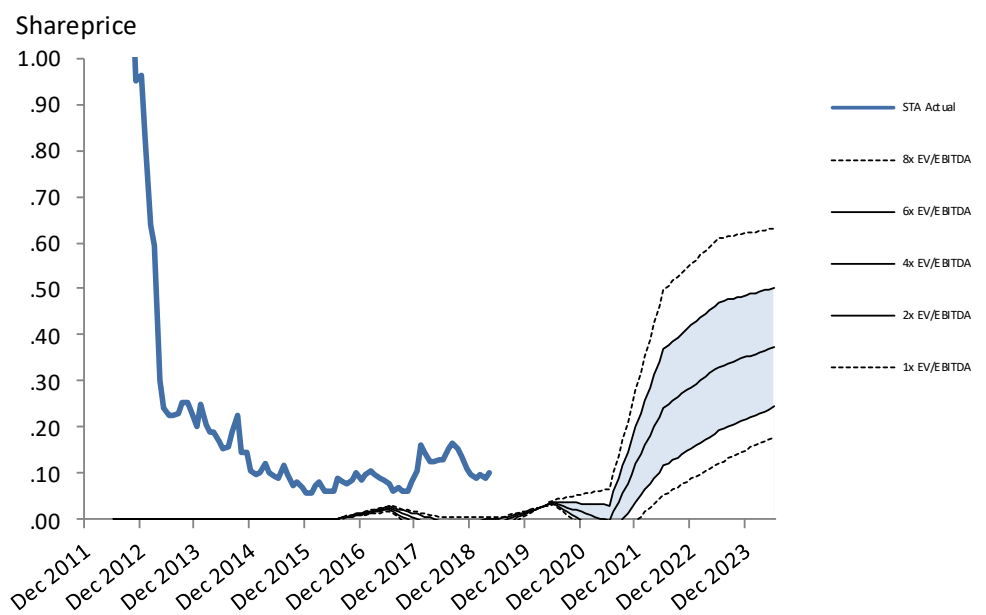
EV/EBITDA BANDS

Fig. 2: EV/EBITDA Base case



Source: Hartleys Estimates

Fig. 3: EV/EBITDA spot case



Source: Hartleys Estimates

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Note: personal email addresses of company employees are structured in the following manner: firstname.lastname@hartleys.com.au

Hartleys Recommendation Categories

Buy	Share price appreciation anticipated.
Accumulate	Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a "Buy".
Neutral	Take no action. Upside & downside risk/reward is evenly balanced.
Reduce / Take profits	It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period.
Sell	Significant price depreciation anticipated.
No Rating	No recommendation.
Speculative	Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk.
Buy	

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Hartleys has assisted in the completion of a capital raising in the past 12 months for Strandline Resources Limited ("Strandline") for which it has earned gross fees. Hartleys has a beneficial interest in fully paid ordinary shares Strandline Resources Limited.

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