

Speculative Buy

Ticker	MRC AU
Share Price (A\$)	0.125
Target Price (A\$)	0.18
Upside (%)	44%
12mth high/low (A\$)	0.145/0.07
Shares out (m)	404.9
Market Cap (A\$m)	50.6
Enterprise Value (US\$)	41.2



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Grade is the key

Mineral Commodities successfully commissioned its first project, the high grade Tormin mineral sands project in the Western Cape of South Africa, within its A\$16m budget in January, 2014. Having reported a maiden profit of US\$8.38m post tax for FY2014, it has just reported a US\$3.9m profit for H1 2015, making it one of the few mineral sand companies to be currently operating profitably.

One of the reasons MRC has been so successful is the exceptional grade of the deposit as Tormin is probably the highest grade minerals sands deposit in the world. When production started the resource grade was 49.9% total heavy minerals, comprising 10.6% ilmenite, 3.4% zircon, 0.7% rutile and 25.3% garnet. Although the resource size is small, the beach is being actively replenished and with MRC now having access to the remaining areas of the mining lease and having potential to process the offshore areas, the company has enough confidence to commit significant capital to the plant optimisation and expansion as there is significantly more mineralised material than reflected in the current resource.

MRC is focusing on ramping up production, optimising the plant and expanding the resource base at Tormin. We forecast revenue to grow 39% to US\$48.7m in FY2015E and a further 50% to US\$72.6m in FY2016E as a series of improvements and expansions are implemented. These include the construction of the tailings scavenger spiral (TSP) circuit which will increase the total heavy mineral recovery from 66% to 89%, equivalent to an additional 147kt of heavy mineral concentrate per year from September and the addition of a garnet stripping plant (GSP) which will enable MRC to produce a higher value garnet concentrate and non-magnetic concentrate feed. MRC is also looking at a stand-alone Magnetic Separation Plant and selling ilmenite alongsite zircon/rutile concentrate and garnet.

This will continue to improve the profitability of Tormin and MRC are looking to declare a maiden dividend early in 2016 based on the FY 2015 results. MRC also has the larger scale Xolobeni ilmenite project in the Eastern Cape, which is currently undergoing permitting and offers a further option on the ilmenite price.

We have updated our valuation to include the current plant optimisation and resource estimate which we have modelled supporting a four year mine life. Although commodity prices have weakened as MRC reports in US\$, our target price which is in A\$ has benefited from the weaker A\$. **Our revised target price is now A\$0.18/sh and we retain our SPECULATIVE BUY recommendation.**

Y/E-Dec		2014A	2015F	2016F	2017F	2018F
Key financials						
Revenue	US\$(k)	34,960	48,770	72,660	78,430	83,198
Costs	US\$(k)	27,078	31,447	40,809	42,641	43,970
Capex	US\$(k)	5,158	10,683	3,384	377	
EBITDA	US\$(k)	4,427	15,000	28,170	31,628	34,881
EPS	US\$(¢)	2.06	1.67	3.97	4.55	5.14
Cash and Equivalents	US\$(k)	4,216	2,089	12,674	27,878	22,955
Debt	US\$(k)	7,235	5,367	3,324	1,177	2,753
PE		4.33	5.25	2.21	1.92	1.70
EV/EBITDA		6.36	2.75	1.46	1.30	1.18

Source: Mirabaud Securities estimates

Tormin is probably the highest grade minerals sands deposit in the world.

Whilst Tormin also produces an ilmenite concentrate and had some sales in FY2014, the ilmenite market remains in oversupply and sales have stalled. The company continues to explore other options to add value to the project and, in conjunction with its garnet off-take partner GMA, has just initiated a scoping study into final processing all the non-magnetic zircon/ rutile concentrate, as well as the ilmenite concentrate, through a stand-alone Magnetic Separation Plant (MSP).

One of the reasons MRC has been so successful in funding, commissioning and then operating Tormin profitably is the exceptional grade of the deposit. Tormin is probably the highest grade minerals sands deposit in the world. When production started the resource grade was 49.9% total heavy minerals, comprising 10.6% ilmenite, 3.4% zircon, 0.7% rutile and 25.3% garnet. The mined grade was initially even higher at 86% heavy minerals and compared to other producers such as Sierra Rutile (average resource grade is 0.94% rutile, 0.13% ilmenite and 0.05% zircon), Kenmare Resources (2.7% ilmenite, 0.064% rutile and 0.18% zircon), Base Resources (2.59% ilmenite, 0.65% rutile and 0.29% zircon) and Iluka (2.8% ilmenite, 0.32% rutile and 0.97% zircon) it easy to understand why Tormin was able to make a profit, while others struggled in the current weak pricing environment.

Resource expansion the key

However, whilst the resource grade is Tormin's strength, the size can be seen as a weakness. At 2.7Mt as at the end of December, the resource can theoretically only sustain production for less than two years at planned production rates. However, this does not tell the full story.

The southern and northern areas of the mining lease were quarantined until a final assessment of their conservation value had been determined and were therefore excluded from the resource estimate. The conservation value was determined during Q1 2015, and this now gives MRC access to approximately another 3km of mineable beach area and accounts for the difference between MRC's resource and the 4.9Mt resource estimated by Trans Hex in 1992.

Based on the assumption that the heavy minerals originate from a zone offshore, in 2012 MRC was granted the prospecting rights for the immediate offshore area along the full 12km length of the Tormin tenement extending from the low water mark to 1km out to sea. In 2014 MRC applied for the prospecting rights to be extended 10km out to sea to an area covering 120km² and is awaiting a formal decision.

MRC has appointed consultants to investigate how to mine the shore break area and plans to start bathometric offshore surveys and wave refraction studies later this quarter to better understand how and where the concentrations of heavy minerals occur.

Looking beyond the immediate area, during Q2 2015, MRC submitted a prospecting application for heavy mineral sands over a 24km stretch of coast line that was previously explored by Trans Hex and is known to host heavy mineral sand deposits. If successful, this will again further increase the resources and the project life.

After mining 1.07mt of higher grade material during the first full year of production, the total tonnage of the resource was unchanged, albeit at a lower resource classification.

Resource Replenishment

What also makes Tormin, different from the majority of other mineral sand projects is that the deposit remains an active depositional environment and the heavy minerals are still being replenished and re-concentrated on the beach. Although, there has not yet been enough work done to determine exactly how the beach is being replenished and thus the long term viability of the current resource is being continually renewed, MRC released an updated resource in December 2014. After mining 1.07mt of higher grade material during the first full year of production, the total tonnage of the resource was unchanged, albeit at a lower resource classification. Furthermore, although the zircon and rutile grade had fallen, it was relatively unchanged for ilmenite and garnet.

Comparison of 2013 and 2014 JORC resource to demonstrate the impact of replenishment

Category	Resource (mt)	Total (% HM)	Ilmenite (%HM)	Zircon (%HM)	Rutile (%HM)	Garnet (%HM)
Indicated Resource – Dec 2013	2.70	49.40%	10.60%	3.40%	0.70%	25.30%
Run-of-mine (ROM) 2014	1.07	55.30%	16.90%	5.02%	0.65%	32.55%
Inferred Resource – Dec 2014	2.70	38.14%	10.05%	2.21%	0.46%	25.22%

Source: Mineral Commodities

Whilst not definitive, the results indicate that resource replenishment is occurring and combined with gaining access to the remaining areas of the mining lease and the offshore potential has given the company enough confidence to commit significant capital to the plant optimisation and expansion as there is significantly more mineralised material than reflected in the current resource.

Summary production and financial forecasts

		FY'14A	FY'15E	FY'16E	FY'17E	FY'18E
Mining						
Mined	kt	1,075	1,681	1,905	1,905	1,905
Grade						
Zircon	%	4.8%	3.6%	3.4%	3.4%	3.4%
Rutile	%	0.1%	0.5%	0.5%	0.5%	0.5%
Ilmenite	%	17.3%	13.0%	12.1%	12.1%	12.1%
Garnet	%	31.2%	24.8%	24.5%	24.5%	24.5%
Other	%	46.8%	58.1%	59.5%	59.5%	59.5%
Production						
SCP Feed	kt	556.11	580.56	626.47	652.64	652.57
Non-Mag concentrate	kt	42.67	51.23	64.09	64.08	64.07
Ilmenite concentrate	kt	100.44	146.76	252.29	292.35	292.32
Garnet concentrate	kt	254.82	243.34	190.23	212.03	212.01
Sales						
Ilmenite	kt	21.92		258.60	299.66	299.63
NonMag	kt	42.04	53.87	66.97	66.96	66.95
Garnet (stockpile)	kt		257.81			
Garnet FOB	kt	79.63	79.99	194.99	217.33	217.31
Key financials						
Revenue	US\$(k)	34,960	48,770	72,660	78,430	83,198
Costs	US\$(k)	27,078	31,447	40,809	42,641	43,970
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EV/EBITDA		6.36	2.75	1.46	1.30	1.18

Source: Mirabaud Estimates

Assumptions

Whilst we believe that mineral sand prices have bottomed and the current outlook is more positive, the continued weak data from China suggests this will not be reflected in mineral sand prices in the short term.

With demand reflecting GDP growth, the slowdown in global growth and in particular in Chinese growth, which had been the catalyst for the rapid increase in prices from 2010 to 2012, led to a slow down in demand and the build-up of inventories. Unfortunately this coincided with large volumes of new production coming to the market, a direct result of the 2012 spike in prices encouraging many new entrants to enter the market in particular from Africa.

Whilst inventories are beginning to clear and we would currently expect to see seasonally stronger prices, it will require discipline from the major suppliers to see this reflected in short term prices as they drop prices to try to increase market share.

However there are several positives which should benefit prices over the medium term. Firstly the rapid crash in iron ore prices means that by-product ilmenite production should fall. Secondly, we expect to see further rationalisation of the sector, whether through companies exiting the sector, or through M&A activity given the low multiples companies are currently trading (see the earnings multiples table in our valuation section).

Price deck

We have marked our price deck to market and adjusted our short and medium term price. Whilst we expect prices to start to recover next year, our long term view remains unchanged.

Mirabaud Mineral Sand Price Forecast

Market Prices (FoB - Real)		CY2015	CY2016	CY2017	CY2018	CY2019	CY2020 +
Ilmenite - sulphate (53.5% TiO ₂)	US\$/t	125	160	185	195	205	205
Ilmenite – chloride	US\$/t	180	190	220	230	240	240
Natural rutile	US\$/t	825	900	1,050	1,100	1,150	1,150
Zircon	US\$/t	1,050	1,150	1,200	1,300	1,300	1,325
Valuation Ratios		8 year Avg					
Sulphate ilmenite/chloride	88.0%	69.4%	84.2%	84.1%	84.8%	85.4%	85.4%
Rutile/chloride ilmenite	4.7	4.6	4.7	4.8	4.8	4.8	4.8

Source: Mirabaud

Valuation

Earnings multiples

We normally value producing mining companies on a blend of discounted cash flow (DCF) and earnings multiples (PE ratio and EV/EBITDA) to reflect the need to balance short-term earnings against a depleting asset base. Examining several of the key western listed producers in the table below, it is clear that the sector as a whole has suffered as a result of the fall in prices, hitting earnings and impacting debt service. However, based on our own and consensus estimates, the outlook from 2016 is looking more optimistic.

The sector is currently trading on an average EV/EBITDA of 5.13x and PE of 11.25x, although the spread is wide and companies such as Mineral Deposits and Kenmare are not currently profitable. If MRC was to trade on a similar multiple the

Earnings forecasts for key mineral sand producers (as at 28/7/2015)

Company	Ticker	Mkt Cap (US\$m)	EV (US\$m)	EBITDA (US\$m)		EPS (US\$/sh)		EV/EBITDA		PE	
				FY2015E	FY2016E	FY2015E	FY2016E	FY2015E	FY2016E	FY2015E	FY2016E
MRC	MRC-AU	29.87	32.65	20.63	27.74	0.03	0.04	1.58	1.18	2.82	1.93
Base Resources	BSE-LN	44.07	233.81	39.89	57.98	-0.01	0.02	5.86	4.03		4.28
Mineral Deposits	MDL-AU	50.86	27.76	-8.49	-6.81	-0.35	-0.07				
Kenmare	KMR-LN	117.40	401.41	5.45	111.93	-0.03	0.00	73.65	3.59		
Sierra Rutile	SRX-LN	180.59	232.40	30.05	58.43	0.01	0.04	7.73	3.98	53.20	9.10
Tronox	TROX-US	1,066.43	4,029.56	362.33	530.33	-1.00	0.53	11.12	7.60		17.41
Iluka Resources	ILU-AU	2,267.15	2,297.26	243.81	354.52	0.22	0.38	9.42	6.48	24.52	14.21
Avg (Excl MRC)								21.56	5.13	38.86	11.25

Source: Bloomberg consensus and Mirabaud Estimates

share price would be between A¢43.5 and A¢58.3/sh or A¢51/sh on average.

However, similar to Base Resources, MRC is trading on a multiple which only reflects its current resource and projected mine life. This supports our view that the best way for management to increase shareholder value beyond the current plant optimisation would be to increase the mine life rather than increasing production as it would multiply rather than incrementally increase the share price.

DCF-based valuation

We have based our DCF valuation on the company's recent production guidance, expected growth through plant optimisation, installing the garnet stripping plant and the assumption that ilmenite sales would commence from H2 2016. However, we have not included the proposed MSP which is currently being scoped.

In terms of mine life we have used the exploration target and assumed the full length of beach will be exploited, but not included the near and off-shore potential to further increase the resource to give 4 years mine life.

Using a 7.5% real discount rate we calculate an NPV of US\$52m, based on cash flows attributable to MRC and including G&A. For Xolobeni, given the current status of the permitting we have used the nominal asset value, but acknowledge this could be substantially higher once the permitting has been granted. Accounting for cash and debt this gives a total valuation of US\$50.8m or A¢17.91/sh.

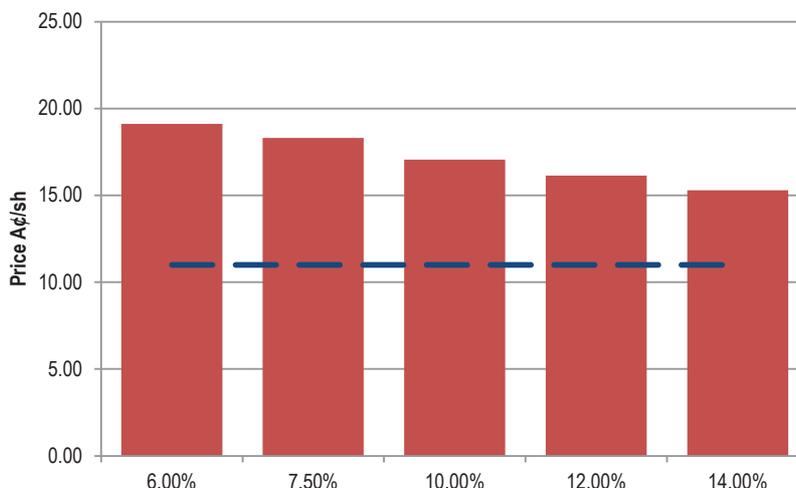
Sum-of-parts valuation of Mineral Commodities

Sum of Parts	DR	US\$(m)	US\$ /Share	A¢ /Share
Tormin (attributable)	7.5%	\$53,337	\$13.17	\$18.81
Xolobeni		\$3,246	\$0.80	\$1.14
Net Cash (Debt)		\$-5,800	\$(1.43)	\$(2.05)
Total		\$50,783	\$12.54	\$17.91

Source: Mirabaud Estimates

For a comparison, we re-calculated the valuation per share at real discount rates between 6% and 14% giving a range of values between A¢18.75 and A¢14.8/sh as shown in the chart below.

Valuation at different discount rates compared with the current share price



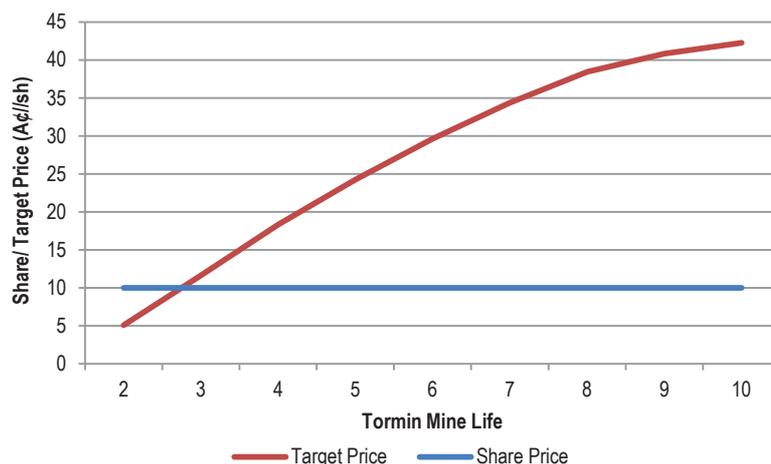
Source: Mirabaud Estimates

Sensitivity analysis

Mineable resources (mine life)

As we stated in our investment case, the resource is a key factor limiting the share price and this is reflected in the earnings multiples at which MRC trades. As there are several near and medium term drivers that could substantially increase the resource from the current 2.7Mt, we looked at the impact of increasing the resource base and as a consequence the mine life on our DCF based valuation.

Impact of increasing resource (mine life) on valuation

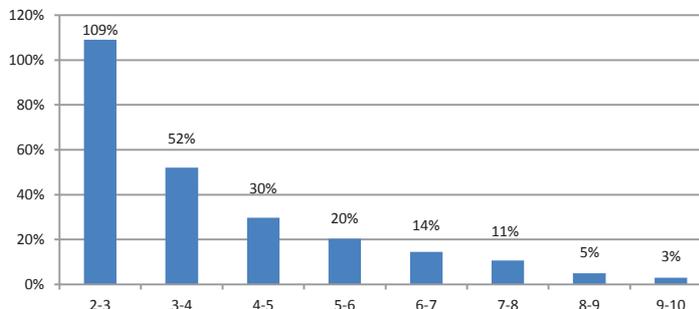


Source: Mirabaud Estimates

As can be seen in the chart above, increasing the mine life has a significant impact on our valuation. The incremental increase in the valuation diminishes with each additional year as the percentage increase in mine life decreases (adding one year to a two year mine life has more impact than adding a year to a ten year project) and due to the mechanism of discounting future cash flows. However, increasing the mine life to eight years or more has even less impact as by that point the

project capex and loans to Blue Bantry will have been re-paid and revenues will begin to be shared.

Percentage change in valuation for each additional year

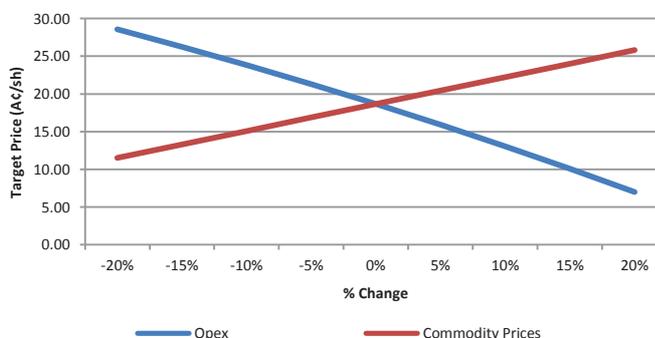


Source: Mirabaud Estimates

Commodity Prices and Operating Costs

Of all the other parameters we looked at, operating costs and commodity prices had the biggest impact on our valuation. As can be seen in the chart below a 10% change in operating costs had a 28% to 30% impact on our valuation, whereas flexing all the commodity prices together (rutile, zircon, garnet and ilmenite) only had a 19% impact on our valuation.

Impact of change in operating costs and commodity prices on target price



Source: Mirabaud Estimates

The tables below show the absolute and relative impact of changing the operating costs and zircon, rutile and ilmenite prices on our valuation.

Absolute and relative impact of changing the operating costs and commodity prices on our valuation. (A¢/sh)

	Opex	Zircon	Rutile	Ilmenite
-20%	28.44	11.17	17.32	17.25
-15%	25.95	12.85	17.47	17.41
-10%	23.36	14.54	17.62	17.58
-5%	20.68	16.22	17.76	17.74
0%	17.91	17.91	17.91	17.91
5%	15.05	19.60	18.06	18.08
10%	12.09	21.28	18.20	18.24
15%	9.04	22.97	18.35	18.41
20%	5.90	24.65	18.50	18.57

	Opex	Zircon	Rutile	Ilmenite
-20%	53%	-32%	-3%	-3%
-15%	41%	-24%	-2%	-2%
-10%	28%	-16%	-1%	-2%
-5%	14%	-8%	-1%	-1%
0%	0%	0%	0%	0%
5%	-15%	8%	1%	1%
10%	-30%	16%	1%	2%
15%	-46%	24%	2%	2%
20%	-63%	32%	3%	3%

Source: Mirabaud estimates

Risks

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SWOT Analysis		
Positive		
Negative		
Internal	Strengths <ul style="list-style-type: none"> Tormin probably highest grade mineral sands project in world Management project execution – Tormin delivered on time and budget 	Weaknesses <ul style="list-style-type: none"> Small mine life at Tormin (~4 years) Xolobeni needs permits
	Opportunities <ul style="list-style-type: none"> Optimising Tormin plant Expanding Tormin plant through MSP Increase resource size at Tormin Selling ilmenite Potential dividend declared in FY 2016 	Threats <ul style="list-style-type: none"> Commodity prices NGO activity at Xolobeni impacting Tormin Xolobeni not receiving permits Further increase in receivables impacting cash flow GMA not shipping garnet concentrate
External		

Source: Mirabaud

Target price and recommendation

The discrepancy between our DCF valuation and potential earnings multiple-based valuation reflects the size of the current resource. However, the company has many opportunities both organic and inorganic to increase the resource, which we believe will be a major trigger for the stock to be re-rated. A similar re-rating should occur if the permits are granted for Xolobeni, although this is largely outside the company’s control. Until then we retain our Speculative Buy recommendation with a target price of A\$0.18

Mineral Commodities assets

Mineral Commodities holds the rights to two heavy-mineral sands projects in South Africa. The first, Tormin, is a high grade beach deposit on the country's Atlantic coast which entered commercial production last year. The second project is the large-scale Xolobeni ilmenite project on the eastern coast, which remains in permitting limbo.

Tormin

Tormin is a zircon-rutile enriched heavy mineral sands deposit located on the coast in the Western Cape of South Africa, approximately 400km north of Cape Town and just south of Tronox's (TROX US) Namakwa Sands operations.

After successfully securing the required financing, MRC completed construction of the Tormin mineral sands project on budget for A\$16m in October 2013. Commissioning of the Primary Beach Concentrators (PBC) and mining started in October followed by hot commissioning in mid-December. By January full commissioning was completed and the mine was officially opened by the then Mines Minister Susan Shabangu in March 2014.

During the first year of production, Tormin processed 556kt through the Secondary Concentrator (SCP) to produce 42,688t of non-magnetic concentrate, 100,437t of ilmenite and 254,816t of garnet concentrate and posted a US\$8.38m post tax profit. In H1 2015 297,107t (+21% period on period) was processed through the SCP to produce 23,038t (+13%) of non-magnetic concentrate, 61,604t (36%) of ilmenite concentrate and 136,973t (32%) of granet concentrate, generating a US\$3.9m post tax profit.

Ownership and BEE structure

The Tormin mining rights are held by MRC's 50%-owned South African subsidiary Mineral Sands Resources (Pty) Ltd (MSR), the 50% balance of which is owned by Black Economic Empowerment (BEE) partner Blue Bantry Investments (Pty) Ltd (Blue Bantry).

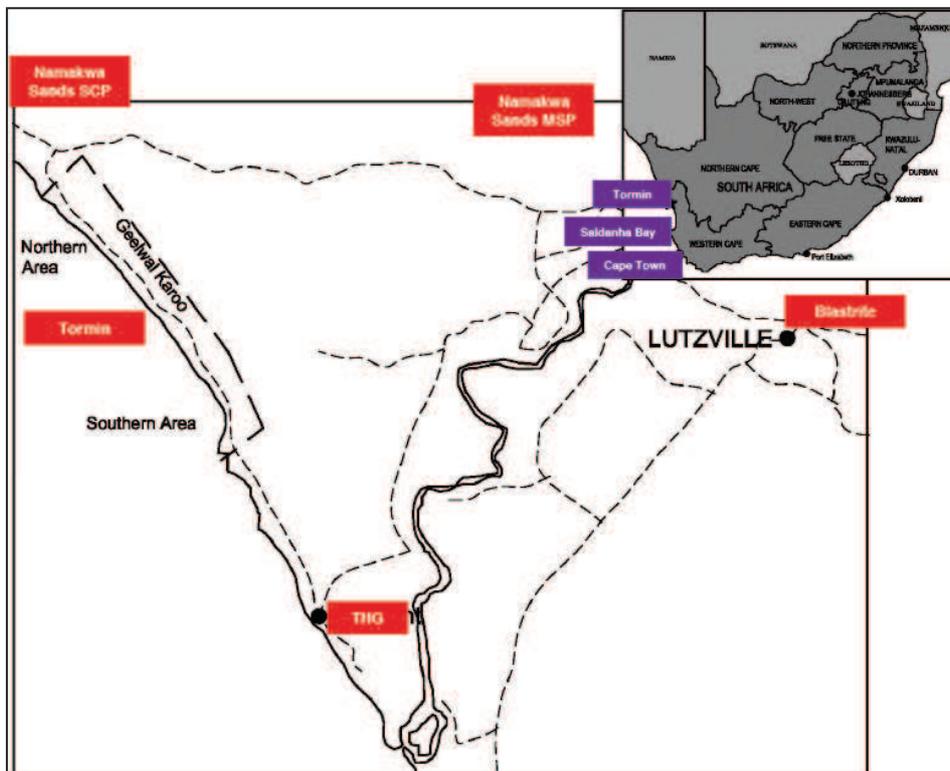
At the request of Blue Bantry, MRC has agreed to advance some of the economic benefits to their partner by providing a cash sum structured as a loan, which will be repaid by Blue Bantry through its dividends from the project. As such, until MRC has recouped all its costs, deemed 'intellectual capital' and monies forwarded to Blue Bantry, MRC will have an effective 100% economic interest in the project.

Geological setting

The Tormin heavy minerals have accumulated along a ~12km long by 100m beach, to a maximum depth of 12m. Unlike many mineral sand deposits, this is still an active depositional marine environment. The source of the Tormin beach deposit is a heavy mineral-rich offshore zone which is deposited onshore by tidal action. This is especially apparent between August and October when the high Spring tides are able to re-mobilise more material further upgrading and replenishing the beach. The favourable geomorphology of the J-shaped coast line at Tormin also works as a further natural concentrator preventing long shore drift removing material further down the coast. The predominant heavy mineral by volume is garnet, with zircon, rutile, ilmenite and leucoxene also contained in the

heavy mineral assemblage.

Location of Tormin with Tronox (Namakwa Sands) to the north and Trans Hex Group's diamond operations to the south



Source: Mineral Commodities

Environmental and permitting

Current Mining area

The Tormin deposit is covered by two tenements, one of which was held by the company and the other was held under option in the name of Steenvas Pty Ltd. In 2008 the company applied and was granted the mining rights for the former and conversion of the later. However, the environmental approval to mine wasn't received until July 2012. In March 2015, a revised Environmental Management Program (EMP) was submitted and then granted in April by the Department of Mineral Resources (DMR). This allowed MSR to finalise the re-zoning of additional land that will be used for expanding the current operations including moving stockpiles away from the beach and tidal area.

The southern and northern areas of the mining lease had previously been quarantined until the final assessment of their Conservation Value was assessed. This was completed during Q1 2015, and gives MSR access to approximately another 3km length of mineable beach.

Additional offshore and onshore prospecting prospects

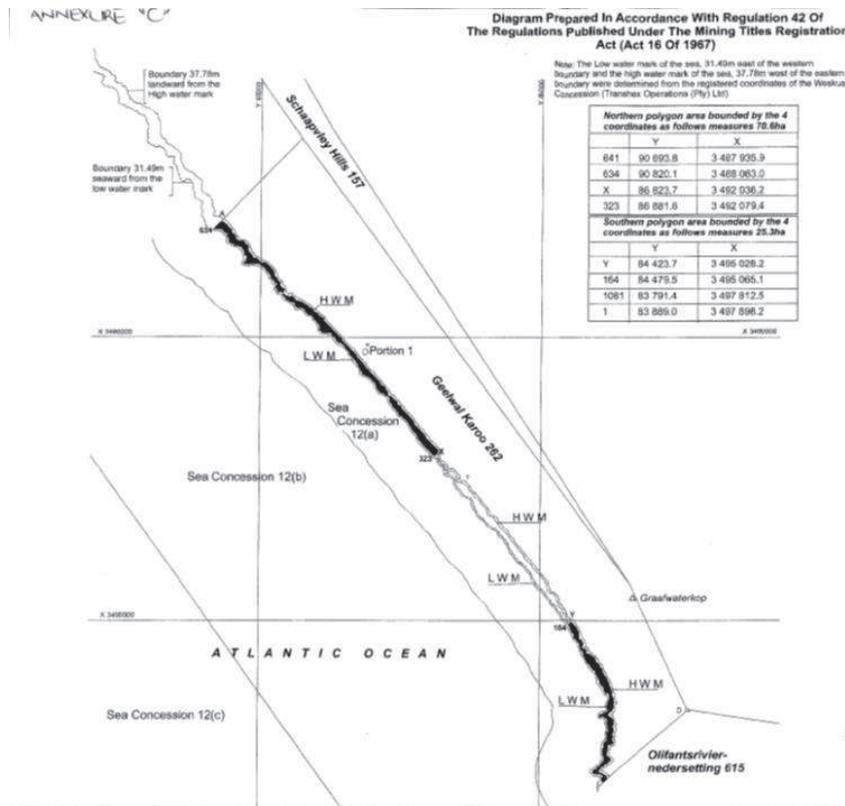
In December 2012, MRC applied for and was granted the prospecting rights to the immediate offshore area at Tormin. The offshore prospecting area extends 1km out to sea from the low water mark and covers the full 12km length of the Tormin

tenement.

Based on the assumption that the source of the beach sands is a heavy mineral rich zone offshore, in 2014, MSR applied for the prospecting rights to be extended 10km out to sea to an area covering 120km².

During Q2 2015, MSR submitted a prospecting application for heavy mineral sands over a 24km stretch of coast line that is known to host heavy mineral sand deposits and which was previously explored by Trans Hex. The application covered 398ha from the northern limit of the Tormin license area to Jakkalshok, a few kilometres south of Tronox's heavy mineral sand mine.

Plan of beach, offshore and sea concessions including low and high water marks



Source: Mineral Commodities

Resources – current and potential

Drilling and bulk sampling of the sands has been carried out intermittently since 1989, initially by diamond-producer Trans Hex Group Ltd (TSX SJ) which still holds the alluvial diamond rights over the property. A feasibility study produced by Trans Hex in 1992 was based on a then-defined inferred mineral resource estimate for the entire beach of 4.9Mt grading 42.3% heavy minerals.

Trans Hex historical resource (1992)

	Tonnes(Mt)	HM (%)	Ilmenite(%)	Rutile(%)	Zircon(%)	Garnet (%)
Inferred	4.9	42.3	9.2	0.6	2.6	22.3

Source: Mineral Commodities

As the beach environment is dynamic with continued deposition and erosion of material, it does not particularly lend itself to resource estimation under any of the relevant reporting codes. Nevertheless, in 2006 MRC compiled a JORC indicated resource estimate based on historical drill results from TSX and bulk sampling undertaken by MSR in 2004. As the main objective of MSR's bulk-sampling work was to obtain samples for metallurgical testing, it did not take into account the entire 12km stretch of the beach tenement, only the southern portion of the beach. This gave an estimated indicated resource of 2.71Mt grading 49.4% heavy minerals.

Tormin JORC resource (2006)

	Tonnes (Mt)	HM (%)	Ilmenite (%)	Rutile(%)	Zircon(%)	Garnet (%)
Indicated	2.7	49.4	10.6	0.7	3.4	25.3

Source: Mineral Commodities

However, MRC reviewed the work carried out by Trans Hex and concluded that it was to current industry standards, and as such based the economic modelling in its DFS on a target resource of 5Mt grading 41.3% heavy minerals. This gave a mine life of up to 5 years.

The lower overall grade relative to MRC's stated 2.71Mt resource is due to the expectation of lower grades for the northern section of the beach and at the low-water mark, owing to the combination of near-shore currents and the morphology of the coastline with heavy minerals being more heavily concentrated in the curve of the J at the south end of the beach.

MRC exploration target (2012)

	Tonnes (Mt)	HM (%)	Ilmenite (%)	Rutile(%)	Zircon(%)	Garnet (%)
Indicated	5.0	41.3	8.5	0.5	2.6	16.4

Source: Mineral Commodities

Impact of resource replenishment

The Tormin beach deposit is formed by the erosion of paleo-strandlines (ancient high water marks) and heavy mineral-rich offshore zones. As the beach is still active, it is currently being replenished by tidal wave action transporting material from deeper water and concentrating the heavy mineral sands below the high water mark.

Approximately 1.075Mt had been mined from the beach by the end of FY2014. This included material from areas which had been naturally replenished during the year and mined up to five times. At the end of the year MRC reported that 99% of the beach mined had been replenished through normal tidal movements.

Whilst replenishment is evident, MRC are unable to report a replenishment grade under the JORC 2012 code and more data is required over a longer period to predict long term replenishment. Instead the remaining grade has been estimated based on 108 samples from exploration pits in unmined areas as well as 25 pit/trench samples from mined areas that have undergone replenishment.

Change in Tormin Resource 2013-2014

	Tonnes(Mt)	HM(%)	Ilmenite(%)	Rutile(%)	Zircon(%)	Garnet(%)
Indicated Resource – Dec 2013	2.70	49.40%	10.60%	3.40%	0.70%	25.30%
ROM 2014	1.07	55.30%	16.90%	5.02%	0.65%	32.55%
Inferred Resource – Dec 2014	2.70	38.14%	10.05%	2.21%	0.46%	25.22%

Source: Mineral Commodities

What is significant is that after a full year's production, the resource remains unchanged at 2.7Mt, giving an indication of the scale of replenishment of the beach, albeit at a lower grade and resource classification.

Offshore potential

MSR is actively looking at its options to mine the shore break area between the low tide and the wave formation. IHC Mining Advisory Services is currently conducting mining studies of the shore break area and the company has received proposals from Jan Du Nul, one of the World's largest dredging companies, on the mining methodologies it could use.

In addition proposals have been received by various international and local South African consultants to conduct bathometric offshore surveys and wave refraction studies to identify the best method for sampling the surf zone to define an offshore resource between the low tide mark and wave break zone. These studies will start during Q3 2015.

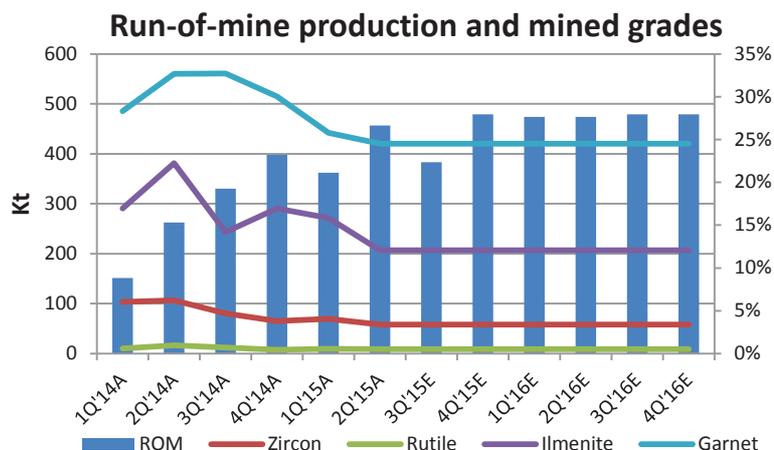
Production

Mining

During the first year of production mining was ramped up from 152kt in Q1 2014 to 398kt by Q4 2014. By year end a total 1,075,408t had been mined roughly 17% above budget. As the beach resource is naturally replenished and upgraded due to the stronger winter tides between August and October every year, some mining blocks had been mined up to five times by the end of the year. Having established significant stockpiles, mining production dipped in Q1 2015 but reached 456,624t (20% above budget) in Q2 2015 as the dynamics of the beach replenishment were better understood and the mining methodology was refined.

Whilst we believe Tormin to be the highest grade project in the world, the initial mined grade of 86% valuable heavy minerals (VHM) was exceptional and well above the expected 41.3% grade. Since then grades have fallen towards the long term average, but at 40.5% VHM are still well above the resource grade of 38.14%.

An amendment to the Environmental Management Plan (EMP) was granted by the DMR in April, which has allowed the remaining ilmenite stockpile to be relocated from the beach to the plant site, which should prevent any stockpile losses due to erosion by high tides. This also allowed mining to start in the Southern High grade area which has zircon grades of up to 12%. However, mining has now been curtailed in these areas to preserve the grade for future blending with material from lower grade areas.



Source: Mineral Commodities, Mirabaud Securities Estimates

Processing

The plant had an initial nameplate capacity of 1.2Mtpa run-of-mine, but this has increased to 1.5Mtpa and is expected to reach 1.9Mtpa by the year end. The processing methodology at the plant is relatively straightforward. The Primary Beach Concentrator (PBC) is located on the beach and involves trommel screens removing any oversize material, before a spiral circuit uses gravity to produce a heavy mineral pre-concentrate. This is then trucked from the beach to the Secondary Concentrator Plant (SCP) where it is upgraded further by gravity separation on spirals before a wet high-intensity magnetic separation (WHIMS) circuit is used to remove magnetite, ilmenite and garnet.

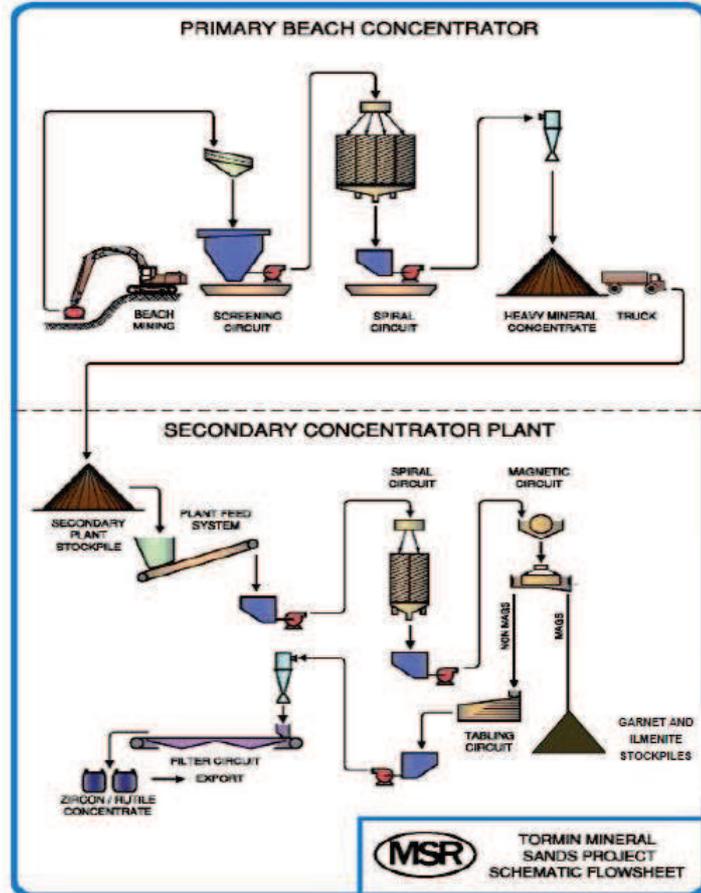
When mining commenced in October 2013, the Spring tides had seasonally enriched the beach sands which meant that MSR could mine directly off the beach at a heavy mineral grade of 86%. This was well above the 41.3% run-of-mine (ROM) resource grade the plant had been designed to process. Due to these exceptional high grades, the initial ROM material did not require upgrading and was fed directly into the SCP without pre-concentration in the PBC. To cope with the high grade material an additional spiral stage from the PBC was incorporated before the SCP to stabilise the feed grade and maintain recoveries. As this proved highly effective MSR decided to permanently relocate the PBC from the beach to the SCP site, which improved PBC availability as it was no longer impacted by daily tidal movements.

Although the plant experienced some issues with the magnetic separation equipment during commissioning, the SCP reached nameplate throughput of 1.2Mtpa in Q2 2014 and by the end of the first year of production 1.075Mt of ore was mined at a grade of 53.83% HMC comprising 31.16% garnet, 17.26% ilmenite, 4.76% zircon and 0.65% rutile. Of this 556,105t was processed through the SCP producing 254,816t garnet concentrate, 100,437t of ilmenite concentrate and 42,668t of zircon/ rutile concentrate. Since then the focus has been on optimising the process plant to improve recoveries and increase throughput.

MSR installed a Tailings Return System (TRS) from the PBC to the beach during Q1 2015, which significantly cut material re-handling. Unfortunately the wrong motor size had been fitted to the TRS and production from the PBC was below budget in Q1 at 99,712t (-33% vs budget) and Q2 2015 at 112,216t (-26.5% vs

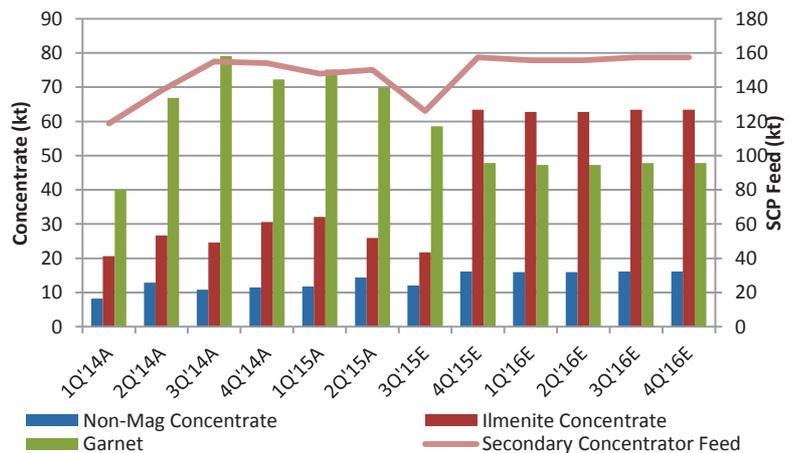
budget) as throughput was limited by 25-30%. However, the shortfall was offset by supplementing feed to the SCP with high grade ROM material.

Processing route



Source: Mineral Commodities

Secondary concentrator feed and concentrate production (kt)



Source: Mineral Commodities, Mirabaud Securities Estimates

In Q1 2015 the SCP processed 147,913t of feed. During Q2 2015 a new seawater intake system and pickup point was installed which will allow the water flow into the process water dams to be more consistent which, in combination with the TRS, means that there is now an uninterrupted supply of water to the plant which has

improved the quality of the non-mag concentrates. In June an Anaconda mobile feed screener unit was installed which will remove the gravel oversize material, improving the grade of feed into the plant. Since then throughput has continued to increase and in Q2 2015 was 149,194t, roughly in line with budget.

However, some recovery issues were encountered due to the winter storm season impacting the characteristics of the ROM feed material during the quarter which required the spiral settings in the PBC to be adjusted. This impacted zircon/ rutile concentrate production which was 15% below budget in 1Q 2015 (11,723t) and 20% below budget in Q2 2015 (11,314t). Garnet production fell from 4% over budget (75,125t) in Q1 to 19% below budget (61,847t) in Q2. Ilmenite production also fell from 32,121t in Q1 and 29,483t in Q2, but remains above budget (12% and 1% respectively).

This had a further impact as the downtime caused a backlog of ilmenite and garnet concentrates to build up on the beach, which was then subsequently washed away by the tides. The company does not believe this will be an issue going forward as the EMP amendment has increased the site footprint and means more concentrate can be stockpiled away from the immediate beach area and unlikely to be impacted by high tides.

Potential exists for further expansion and optimisation

With the plant operating above capacity and the results of the recent resource test work appearing positive MSR has been looking to further optimise the plant throughput and recoveries.

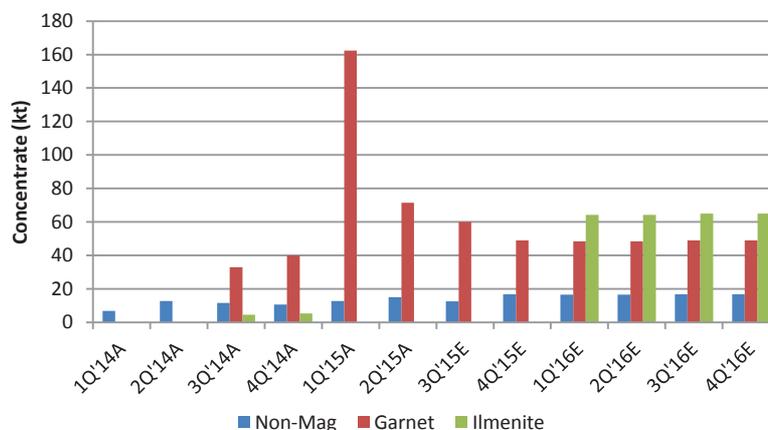
Firstly, it has been installing a Tailings Scavenger Spiral circuit (TSP) at a capital cost of ~US\$1m. This involves the re-processing of the tailings stream which is currently discharged back onto the beach. This should increase the PBC throughput rate from 2 x 115tph to 2x 140tph and will result in another approximately 147kt tonnes of HMC product being available for treatment through the SCP. Test work has indicated that the total heavy mineral recovery will increase from 66% to 89%, with zircon recoveries improving from 83.8% to 95.18%. Although this can be funded from cash flow, an agreement in principle has been reached with a financier for a sale and leaseback arrangement on commissioning the plant, currently expected to be by the end of September

Last September, MSR announced it was completing a study for the construction of a garnet stripping plant (GSP) which will increase the recovery of non-magnetic concentrate by stripping out the garnet and increase the average grade of the garnet concentrate to over 70%. The GSP, including an upgraded ilmenite circuit, is expected to cost around US\$3.5m and take approximately six months to complete. The project was delayed whilst the revised EMP approvals were pending, but will now start once funding is secured, with construction expected to be completed in H1 2016.

Meanwhile the Company continues to explore further options in relation to value adding by final processing all non-magnetic zircon / rutile concentrate, as well as ilmenite concentrate through a standalone Magnetic Separation Plant (MSP). MRC, in conjunction with its garnet offtake partner GMA, has initiated a scoping study, although guidance has yet to be given on when this will be completed

and so is excluded from our estimates.

Concentrate sales



Source: Mineral Commodities, Mirabaud Securities Estimates

Contracts, Sales and Revenues

Non-Magnetic Concentrate (Rutile/ Zircon)

In July 2013 MSR signed an off take agreement with Wogen Pacific Limited for 100% of the non-magnetic, primarily zircon and rutile concentrate produced at Tormin. The agreement was for an initial 3 years with evergreen provisions which could be terminated by either party. Under the terms of the agreement Wogen would pay MSR for the concentrate FOB and then fund the shipping and processing of the concentrate until it was sold into the Chinese market as a finished product. MSR would then receive the sale proceeds net of commission, shipping and processing costs. In addition to the off-take agreement, Wogen provided MRC with a US\$2m Pre-finance Arrangement with repayment due within 12 months of commercial production. Having drawn down this facility, MSR duly repaid the full pre-finance arrangement by March 2015.

By the end of Q1 2015, MSR sold a total of 54,834wmt of zircon/ rutile concentrate, which allowing for 4.5% moisture, we estimate is ~96.5% of the total produced. However, due to a dispute over moisture and quality claims, toll treatment standards, pricing of final product and payment delays, MSR terminated the agreement with Wogen in May 2015. As this had been an ongoing issue, MRC established its own trading company to sell the entire product produced at Tormin on behalf of MSR on an arms-length commercial basis. Following the termination of the agreement, MRC sold 11,622wmt of zircon/rutile concentrate (~98.5%) in Q2 2015 through a marketing agent, but expects to sell future concentrates directly to customers, commission free.

Garnet

Previously, it had been assumed that the garnet concentrate would be sold to Blastrite, a South African privately-owned producer of industrial minerals for the surface-preparation industry. However, in July, 2014 MSR entered into an initial three year offtake agreement with a further 2 year buyer's option with Garnet Group of Australia (GMA) to provide between 150ktpa and 240ktpa of garnet concentrate. The concentrate will be sold FOB from the Saldanha Bay Port north

of Cape Town and re-processed into industrial abrasives by GMA. However, MSR receives only a portion of the value when the garnet concentrate is stockpiled at port, with the balance once the concentrate is shipped, at GMA's discretion. Under the Agreement, MSR has also maintained the right to sell up to 60ktpa of garnet concentrate to third parties at its discretion.

One consequence of this agreement was that Andrew Lashbrooke, then CEO of MSR and CEO of Blastrite, resigned and took action in the High Court of South Africa against MSR over the sale of garnet and any other abrasives to anyone other than Blastrite. In December, 2014 Blastrite withdrew its application for interim relief and had to pay MSR's costs. The matter was deferred to oral evidence in June and a positive verdict is expected towards the end of September. MSR continues to claim the action is spurious and sales of garnet concentrate to GMA continue unabated. MRC has also dispensed with the management and administrative services provided by Blastrite. Instead MRC now independently operates the Tormin project as well as its entire administration and governmental regulatory functions in South Africa, charging its costs to MSR.

In FY2014, MSR sold 79,630wmt of its 254,816dmt of garnet concentrate, although this was impacted by the rescheduling of a 39,994t shipment from December 2014 to January 2015. This caused a spike in sales in Q1 2015 when a total of 79,994wmt was shipped under the GMA offtake and a further 87,472wmt held in stockpile by GMA for total sales of 162,466wmt. A further 66,312wmt of garnet concentrate was sold and stockpiled under the GMA offtake in Q2 2015.

One impact of the new agreement is that much of the garnet revenue is now deferred until GMA decides to ship the concentrate to a customer. This has pushed up trade and other receivables from US\$3.8m at the end of FY2014 to US\$7.5m by the end of H1 2015.

Ilmenite

MSR produces a typical slagging ilmenite from Tormin with ideal iron and TiO₂ ratios, suitable for smelting. During the first year of operation 21,920wmt of ilmenite concentrate was sold as potential customers tested the quality of the product. The largest of these was Tronox, which processed 20kt of ilmenite concentrate as part of a trial arrangement at its nearby Namakwa Sands processing facility. MSR has shipped trial ilmenite concentrate to other independent third party off-take processing facilities, which indicated good recoveries and a good quality of finished product.

MSR had expected to finalise first concentrate sales in Q2 105, but oversupply in the ilmenite market, stalled its efforts to secure sales. Instead it is looking to tertiary process finished ilmenite and has initiated a scoping study with GMA for a mineral separation plant (MSP) to produce final ilmenite, rutile and garnet products at Tormin.

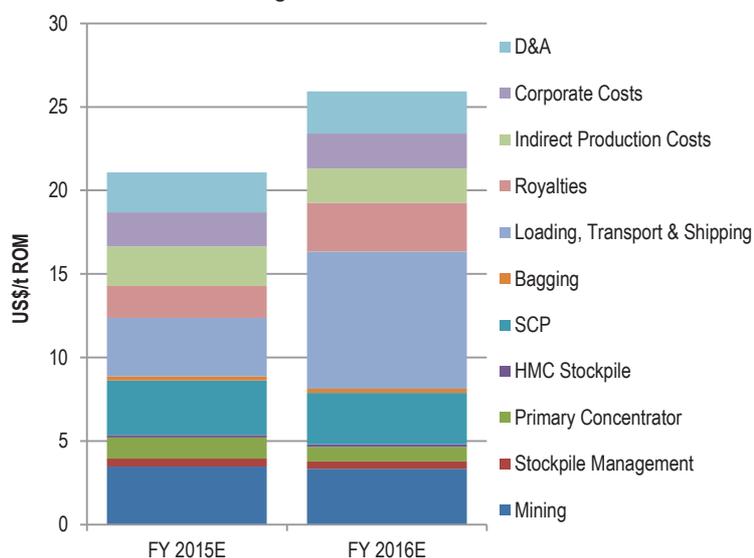
Revenue and costs

During the first year of production Tormin generated revenue of US\$33.3m from the sale of 42,042wmt of zircon/rutile concentrate, 21,920wmt of ilmenite and 79,630wmt of garnet. In Q1 2015 total revenue was US\$18.2m from the sale of

12,792wmt of zircon/rutile concentrate to Wogen, 79,994wmt of garnet concentrate shipped and 84,472wmt stockpiled under the GMA offtake agreement. However, in Q2 2015 revenue fell sharply to US\$8.37m, 30% below budget of US\$11.91m due to lower rutile/zircon production, outstanding quality claims under the terminated Wogen agreement from Q1 and the revised interim garnet stockpile prices.

Total costs for FY2014 during the ramp-up in production were US\$27m not including corporate overheads, which representst US\$517.5/wmt zircon/ rutile concentrate. Lower production in Q1 2015 raised costs above budget where they remained in Q2 at US\$442.68/wmt (vs. US\$311.68/wmt budget). We estimate costs for the year will average USS\$424/t zircon/rutile concentrate or US\$21.96/t ROM including depreciation. This will rise to US\$551/t or US\$26.2/t ROM due to increased product transport costs and royalties in FY2016 as more garnet is shipped, but this will be reflected in higher received prices.

Unit costs US\$/t ROM through PBCs

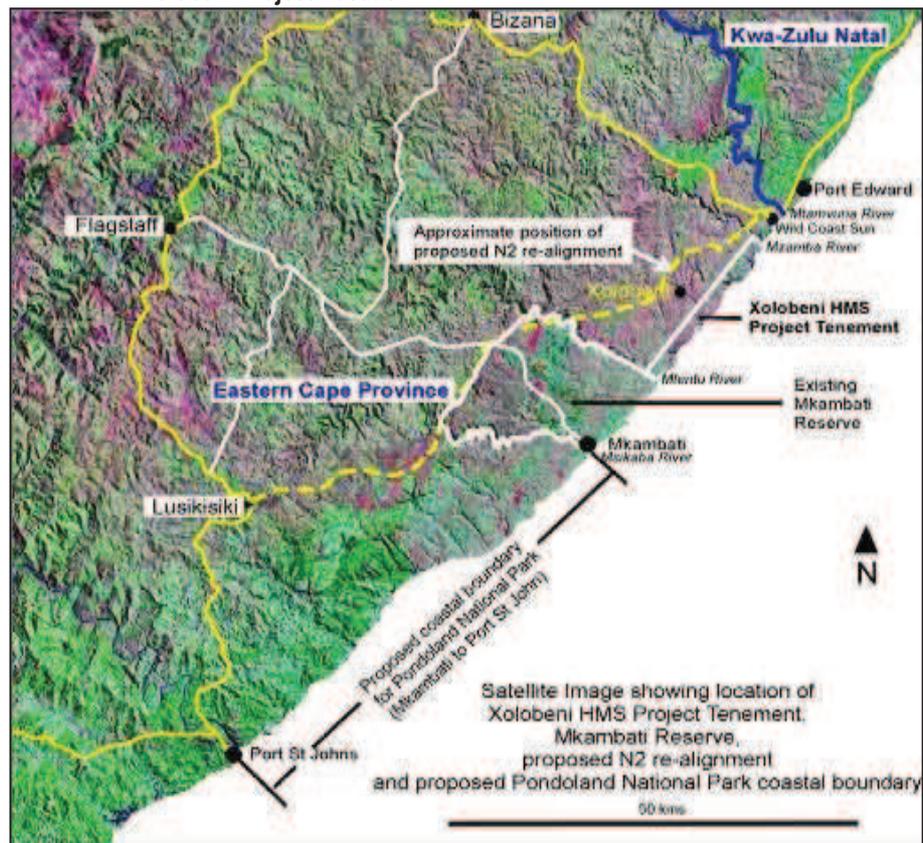


Source: Mineral Commodities and Mirabaud Securities Estimates

Xolobeni

The Xolobeni mineral sands project is located in South Africa’s Eastern Cape Province, approximately 300km north of East London and 200km south of Durban. JORC-compliant resources are estimated at 346Mt grading 5.0% heavy minerals (of which 65% is in the measured category), making it one of the largest undeveloped mineral sands deposits known globally. The principal economic heavy mineral is ilmenite – at an average grade of 2.8% (9.3Mt of ilmenite), but the deposit also contains zircon (450kt), rutile (570kt) and leucoxene (450kt).

Xolobeni Project Location



Source: Mineral Commodities

MRC holds prospecting rights over four of the five property blocks that make up the Xolobeni project, but not over the Kwanyana block (which accounts for 40% of the total project resources). It has re-applied for prospecting rights for Kwanyana, and under normal circumstances a decision should have been made during Q4 2012. However, following local objections, MRC has been asked by the authorities to hold further consultations with stakeholders. This took place in early 2013 and the feedback was submitted to the DMR in H2 2013. The DMR then requested the company undertake a further round of consultations during 2014 with the local Royal Family, the Eastern Cape Cabinet, the district municipality and the local Chamber of Commerce. These were completed and a report submitted to the DMR.

In anticipation of receiving the prospecting right for the Kwanyana block MRC started preparing various baseline studies which are required as part of the

prospecting works programme and for the application for the mining rights for the entire Xolobeni project.

However, as the rights have still not been received, MRC submitted a Mining Right Application (MRA) on 4 March 2015 to expedite the process and has mobilised consultants to register all interested and affected parties for the next stage of the public participation process.

The company was able to submit the Environmental Scoping Study during Q2 2015, and although intense lobbying by anti-mining and pro-environmental groups interrupted the next stage of the project development studies, MRC is confident it will be able to submit the Environmental Impact Assessment Report on time as part of the Mining Right Application process.

In its Q2 2015 report, MRC reports that “meetings were held in June between the Amadiba Crisis Committee and pro-mining members, resulting in the formation of a Steering Committee which has allowed peaceful and co-ordinated access for consultants undertaking public participation processes”. This is a positive step forward and should allow the process to progress more rapidly.

Current financing and corporate structure

There are currently 404.9m shares in issue of which 66.5% is held by the four largest shareholders. There are also 16m options; 10m at A\$0.20 and 1m at A\$0.35 all expiring 31 December, 2015 with a further 5m at A\$0.20 expiring 30th May 2018.

Top shareholders > 3%

Shareholder	% Interest
Au Mining Ltd	23.61%
Caruso Mark Victor	19.35%
Tormin Holdings Ltd	14.70%
M&G Investment Management	8.84%

Source: Bloomberg

At the end of June 2015, the company had cash of US\$2m and US\$7.06m in debt, giving a net debt of US\$5.08m.. The debt comprises equipment finance facilities, shareholder loans and an overdraft facility. During H1 2015, the company’s trade and other receivable increased from US\$3.1m to US\$8.4m, largely we believe to payments due from delivery of garnet to the GMA stockpiles.

Directors and Management

Mark Victor Caruso - Executive Chairman

Mark Caruso has extensive experience in mining, earthmoving and civil engineering. Most recently Mr Caruso served as chairman of Allied Gold plc, a Pacific Ring gold producer, during which time he raised over US\$550m to develop its operations in Papua New Guinea and the Solomon Islands and oversaw the successful sale of Allied Gold in September 2012 at a 92% premium. Mark has been a director of MRC since September 2000.

Guy Walker - Non-Executive Director

Guy Walker is a highly accomplished director and senior investment management executive with over 20 years financial markets experience. Mr Walker currently sits on the boards of several mining companies including exploration, development and production companies. He has extensive experience in capital raising through both traditional banks and alternative lenders.

Peter Torre - Non-Executive Director and Company Secretary

Peter Torre was appointed company secretary of MRC in July 2006 and as a director in April 2010. He is a Chartered Accountant, a Chartered Secretary and a member of the Australian Institute of Company Directors. He was previously a partner of an internationally affiliated firm of Chartered Accountants and is currently the company secretary of several ASX listed companies.

Joe Anthony Caruso - Non-Executive Director

Joe Caruso is a director of Zurich Bay Holdings Pty Ltd and construction manager of Simto Australia Pty Ltd, both of which are involved in mining, earthmoving, civil engineering and construction. He has considerable experience in the management and administration of engineering, mining, raw materials production operations, earthmoving and related infrastructure and services contracts. Mr Caruso has been a director of MRC since September 2000 and served as chairman until August 2012.

Ross Hastings - Independent Non-Executive Director

Mr Hastings is a geologist with over 30 years international experience working in the minerals industry with a majority of that time working in Papua New Guinea at Ok Tedi copper mine in the roles of geotechnical superintendent and manager of Mining, and at Misima gold mine as chief geologist. From 1996 to 2014, Mr Hastings was involved with Allied Gold PLC's Simberi gold project where his roles included management of exploration and the feasibility and pre-development studies for mine construction. Mr Hastings then progressed to general manager resource development and concluded his tenure at St Barbara subsequent to the latter merger between with Allied Gold. He is currently a director of Perpetual Resources Ltd.

RECOMMENDATIONS HISTORY

Mineral Commodities Ltd

Market index	Aim Basic Resources Index				
Date		Market Index	Stock Price (A\$)	Valuation (A\$)	Opinion
31 January 2013		3,675	0.11	0.20	Speculative Buy
5 November 2013		3,381	0.14	0.19	Speculative Buy
2 September 2015		1,960	0.125	0.18	Speculative Buy

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ACCUMULATE/OVERWEIGHT:	The stock is expected to generate absolute positive price performance of 10-20% during the next 12 months
NEUTRAL:	The stock is expected to generate absolute price performance of between 10% positive and 10% negative during the next 12 months.
REDUCE/UNDERWEIGHT:	The stock is expected to generate absolute negative price performance of 10-20% during the next 12 months
SELL:	The stock is expected to generate absolute negative price performance of over 20% during the next 12 months.
RISK Qualifier:	Speculative: Stocks bear significantly higher risk that typically cannot be valued by normal fundamental criteria. Investments in the stock may result in material loss.

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