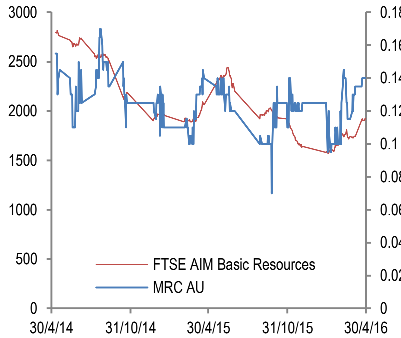
# Mineral Commodities

## Mining Research

29 April 2016

## Speculative Buy

| | |
|---|---|
| Ticker | MRC AU |
| Share Price (A$¢) | 0.14 |
| Target Price (A$¢) | 0.17 |
| Upside (%) | 22% |
| 12mth high/low (A$¢) | 0.15/0.07 |
| Shares out (m) | 404.9 |
| Market Cap (A$m) | 56.7 |
| Enterprise Value (A$m) | 56.4 |





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## MRC's growth is twofold as Tormin expands

During March quarter MSR (MRC's 50% owned South African subsidiary) concluded the financing arrangements (a loan facility provided by the GMA group – MSR's garnet off-take partner) for the garnet stripping plant (GSP) at its Tormin mineral sands project in SA. The plant has been budgeted at US$4.5m and is planned for an early Q3 2016 commissioning.

The GSP, which will be installed in front of the existing secondary concentrator plant (SCP), will enable MRC to produce a higher-value garnet concentrate by stripping out the garnet prior to the SCP, improving the grade of non-mag feed into the SCP. That, coupled with the commissioning of the tailings scavenger plant (TSP – will re-treat the PBC tailings stream increasing the PBC's throughput by ~15%), will boost overall zircon recoveries to >75% from current levels of ~55% as well as yielding a higher grade garnet by-product.

Moreover, the granting of the offshore prospects and the prospecting rights to the north of the current beach operations is an important step towards achieving an increase in the resource base, which in our view could re-rate the company's share price (see p4).

### New resource replaces tonnage mined

MRC has recently announced (26 April) an updated inferred JORC resource of 2.7Mt which indicates that since mining started (early 2014) the action of the sea has replaced the entire mined volume (2.7Mt over a period of two years). However, resource replenishment is happening at a constantly diminishing grade particularly after the third time an area is mined.

Thus, we have now adopted a declining grade profile for our Tormin model, which assumes a 15% annual reduction in the HM grade from 2017 onwards (see p5 - for 2016 we are maintaining our grade assumption). However, a further understanding of how the replenishment happens and its likely future pattern can only be confirmed after the finalisation of the offshore exploration (early 2017).

### Maiden dividend makes MRC more attractive

As a result of the strong annual results, the company declared a maiden dividend of A$0.01/share which offers a very attractive yield of ~7% (based on MRC's current share price). That would put MRC at the top of the select group of those few mineral sands producers paying a dividend.

### Valuation update

We have updated our model mainly by adjusting our (more conservative) Tormin LoM grade profile according to the company's new resource estimate as well as our operating assumptions according to the Q1 2016 results. Our revised valuation has also been impacted by a short-term correction of our assumed product prices as well as by a ~9% strengthening of the A$ since our last note (2 September 2015). **Our TP is now A$¢17.1 (~4% down from A$¢17.9 previously) offering >20% upside to MRC's current share price and we thus retain our stance on the stock at SPECULATIVE BUY.**

### Summary forecasts

| Y/E-Dec | | 2015E | 2016F | 2017F | 2018F |
|---|---|---|---|---|---|
| Revenue | US$m | 46.5 | 37.5 | 76.8 | 93.6 |
| Costs | US$m | 26.4 | 22.2 | 43.0 | 56.6 |
| EBITDA | US$m | 13.7 | 15.1 | 29.2 | 31.4 |
| EPS | US¢/sh | 2.6 | 2.0 | 4.0 | 4.4 |
| Dividend yield | % | 7.1 | 7.1 | 7.5 | 15.0 |

Source: Mirabaud Securities estimates A$1=US$0.76

**Upcoming catalysts**

| | |
|---|---|
| TSP commissioning | Q2 CY2016 |
| GSP construction completion | end-June 2016 |
| GSP commissioning | July 2016 |
| Q2 FY2016 production results | end-July 2016 |
| Offshore exploration drill sampling campaign | Q3 CY2016 |

Source: Mirabaud Securities

## MRC offers a high dividend yield

As a result of the strong annual production results, the company announced a maiden dividend (unfranked – liable to income tax deductions) of A$0.01 per share (or a total distribution of ~A$4.05m) which yields a very attractive yield of ~7% (based on MRC's current share price of A$0.01/share). That would put MRC at the top of the select group of those few mineral sands producers paying a dividend as well as at the upper end of the group of dividend-paying mining companies.

Equally important is the fact that this high dividend yield comes with a comparatively high cover of ~3.4x for FY2015 (assuming an exchange rate of US$:A$ of 1.39), ~2.7x for FY2016 and ~4.9x for 2017 (based on our estimates). That indicates that MRC has the capacity to maintain its dividend pay-out at similar yields, even in FY2016 which is a transitional year with high capex spending being planned.

*We are assuming a LT dividend policy of ~40% of MRC's net profit*

In anticipation of the company's formal dividend policy to be announced, we are assuming a long-term average dividend pay-out of 40% of the company's net profit from 2016 (maintained at A$0.01 per share for FY2016), which even after adjusting for our reduced zircon prices (see p11) results in a substantial dividend increase by almost 100% to ~US$6.5m pa (or a dividend yield of ~15% at the company's current share price) from FY2017 onwards.

MRC's maiden dividend comes at a time when various mining companies are either cutting or abandoning their dividends, with the most recent in the sector being Anglo American, BHP Billiton, Rio Tinto and Tronox. From our selected group of mineral sands producers, currently only Iluka Resources (difficult to see this maintained at current levels as it represents 40% of FCF) and Tronox are paying a dividend (at lower dividend yields), with the latter having been recently cut by >80% (for FY2016) as the level was unsustainable.

**Dividend yield and earnings forecasts for key mineral sand producers (29 April 2016)**

| Company | Ticker | Mkt Cap (US$m) | EV (US$m) | EBITDA (US$m) | Dividend (US¢/share) | | Dividend yield (%) | |
|---|---|---|---|---|---|---|---|---|
| | | | | FY2015 | FY2015 | FY2016E | FY2015 | FY2016E |
| Astron | ATR AU | 18.6 | 14.9 | 5.6 | na | na | na | na |
| Base Resources | BSE LN | 34.7 | 275.4 | 54.8 | na | na | na | na |
| Kenmare | KMR LN | 32.9 | 360.5 | (11.5)* | na | na | na | na |
| Mineral Deposits | MDL AU | 22.8 | 17.3 | (6.7) | na | na | na | na |
| Sierra Rutile | SRX LN | 200.1 | 226.5 | 16.1# | na | na | na | na |
| Tronox | TROX US | 845.6 | 3,737.6 | 272.0 | 1.00 | 0.18 | 13.7% | 2.5% |
| Iluka Resources | ILU AU | 2,046.2 | 2,040.2 | 275.4 | 0.25 | 0.20 | 4.0% | 3.2% |
| MRC | MRC AU | 43.1 | 42.9 | 17.9 | 0.8 | 0.8 | 7.1% | 7.1% |
| **Avg (excl MRC)** | | | | | | | **8.9%** | **2.9%** |

Source: companies' reports and Mirabaud Estimates £1=US$1.46, A$1=US$0.76
*our estimate # based on company's preliminary financial results

## Near mine and offshore potential

The factor that makes Tormin different from most of the other mineral sand projects is the fact that the deposit remains an active depositional environment, with the heavy minerals (HM) still being replenished and re-concentrated on the beach through normal tidal movements.

However, the work to determine exactly how the beach is being replenished has not yet been finalised. The company advises that beach replenishment continues, with some areas having being mined up to five times over a year.

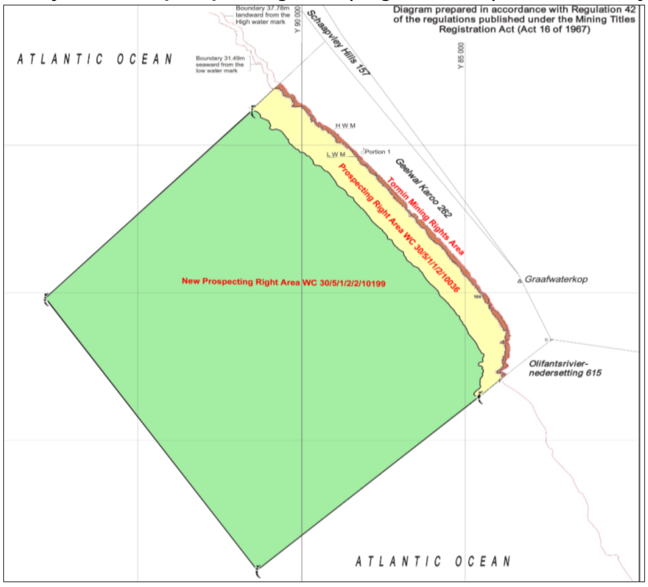
Over the last two years the company has mined ~2.7Mt (comprising ~1.1Mt in 2014 and ~1.6Mt in 2015), with almost the total mined volume having being replenished, though at a lower classification and ,more importantly, at a lower grade.

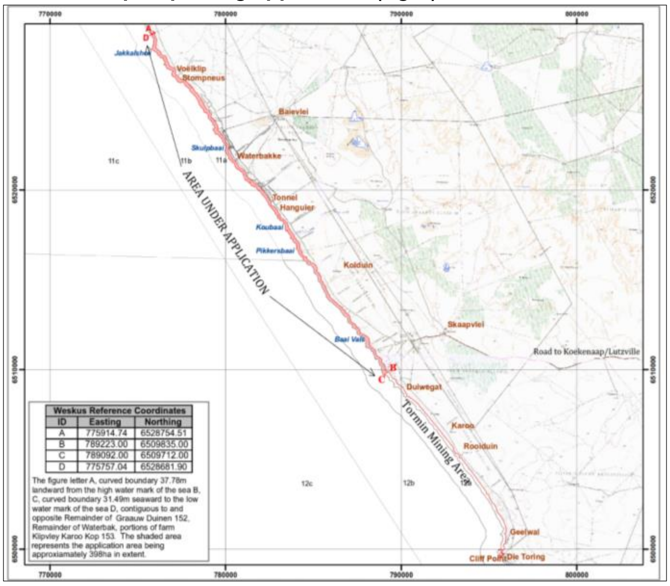
Last November a new prospecting right was granted to MSR for an area up to 10km offshore from the current mining area (~10,500ha in total), which is the source of HMS material replenishing the currently mined area (see pictures on the left below). In addition MSR has lodged a new prospecting and bulk sampling application along a 24km-long beach and surf zone to the north of its current mining operations which is currently under review for approval by the South African Department of Mineral Resources.

*We do not yet give any credit to the company for the off-shore potential*

The offshore area, which is adjacent to the existing shore break prospecting right and currently mined areas, is believed to contain significant heavy mineral sand concentrations and to be the source of the replenishment of the currently mined area. The exploration of this newly granted prospecting right will enable the company to further support the beach replenishment model (both in terms of grade and size) for its current mining activities and provide the opportunity to increase the resource base and thus the demonstrable mine life.

**Newly awarded prospecting area (in green - left) and area subject to a new prospecting application (right)**



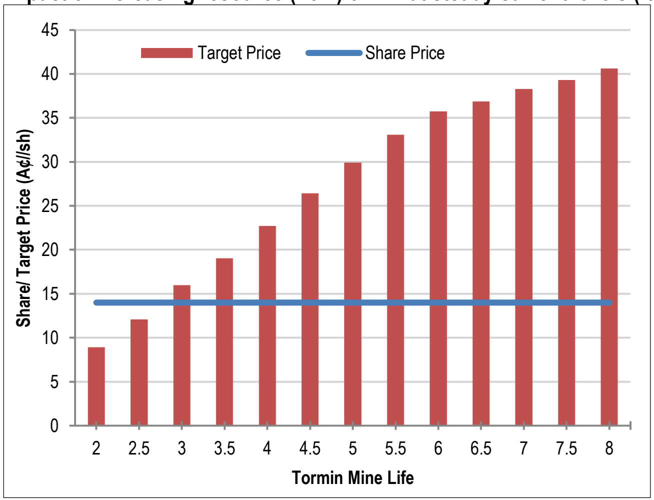

Source: Mineral Commodities

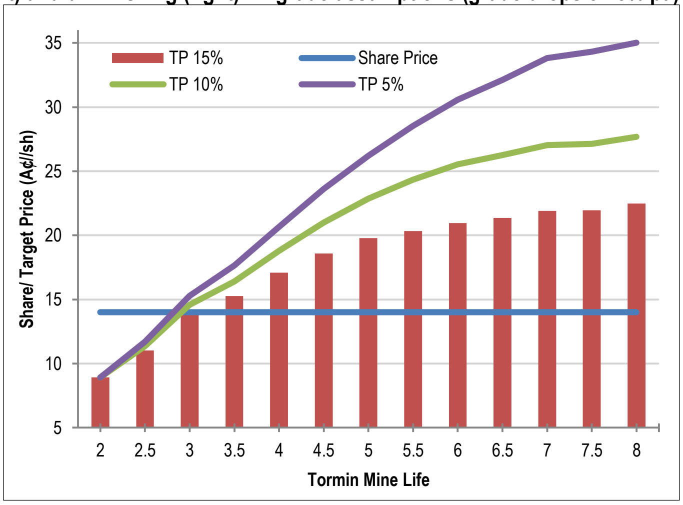
The primary purpose of MSR's exploration efforts would be to determine the deposition of valuable HM and develop a sampling and exploration technique which, in turn, would allow a resource categorisation. The exploration drill sampling campaign is based on the results of the bathymetric and sub-bottom sea floor profiling geophysical survey over the surf zone (the area between the low tide and the wave crest formation), conducted by MSR.

The drilling campaign, which will be performed by an independent contractor (Enguftek) and assisted by a diving sea sledge and an undersea drill tower (currently being constructed in SA), will commence in June and will focus on defining a resource for the shore break area.

MSR has also submitted a prospecting (and bulk sampling) application for heavy mineral sands over a 24km stretch of coast line, from the northern limit of the Tormin licence area to Jakkalshok, a few kilometres south of Tronox's heavy mineral sand mine. The area is known to host heavy mineral sand deposits and was previously explored by Trans Hex (see picture on the right above) which holds the right for mining diamonds only. Although the process is at a relatively early stage we believe that, if MRC gains access to that area, could unlock significant additional value by further extending the life of Tormin's plant.

**Impact of increasing resource (LoM) on TP at steady current levels (left) and diminishing (right) HMgrade assumptions (grade drops 5-15% pa)**




Source: Mirabaud Securities

*Near-mine potential could extend mine life and thus re-rate MRC*

The granting of the near-mine prospecting rights (to the north of the current operations) along with the exploration results of the underwater drill campaign, could increase Tormin's resource base and thus life-of-mine (beyond the current LoM), towards our base-case scenario of four years. We believe that should trigger a re-rating in the company's share price (see graph on the left above).

## Replenishment happens at a diminishing grade

MRC in its recently published (26 April 2016) Q1 2016 quarterly report, announced an updated inferred JORC resource of 2.7Mt for its Tormin HMS operation. The new resource indicates that since mining started (early 2014) MRC has successfully replaced the entire mined volume (2.7Mt over a period of two years).

Although tonnage replenishment seems to take place at a continuous pace, it is happening at a constantly diminishing HM grade particularly after the third time an area is mined. MRC advises that it can mine the same area up to five times a year (mining blocks have been mined up to ten times over the past two years).

The HM grade has historically dropped from 49.4% (2011 resource update) to 38.1% (2014 resource update) and to the current 28.0% (see table below). Although, the 2015 resource update is very similar to that of 2014 with regards to the percentage of individual minerals in the total HM grade, that is not sufficient to establish a general pattern of how grade is distributed among individual minerals.

**Tormin resource update (2011-2015)**

| Category | Resource (Mt) | Total HM% | Ilmenite HM% | Zircon HM% | Rutile HM% | Garnet HM% |
|---|---|---|---|---|---|---|
| Indicated resource 2011 | 2.70 | 49.4% | 10.6% | 3.4% | 0.7% | 25.3% |
| *2014 mining depletion* | *1.07* | *55.3%* | *16.9%* | *5.0%* | *0.7%* | *32.6%* |
| Inferred resource 2014 (December) | 2.70 | 38.1% | 10.1% | 2.2% | 0.5% | 25.2% |
| *2015 mining depletion* | *1.62* | *49.8%* | *16.2%* | *3.9%* | *0.6%* | *28.9%* |
| Inferred resource 2015 (December) | 2.70 | 28.0% | 7.0% | 1.6% | 0.6% | 18.5% |

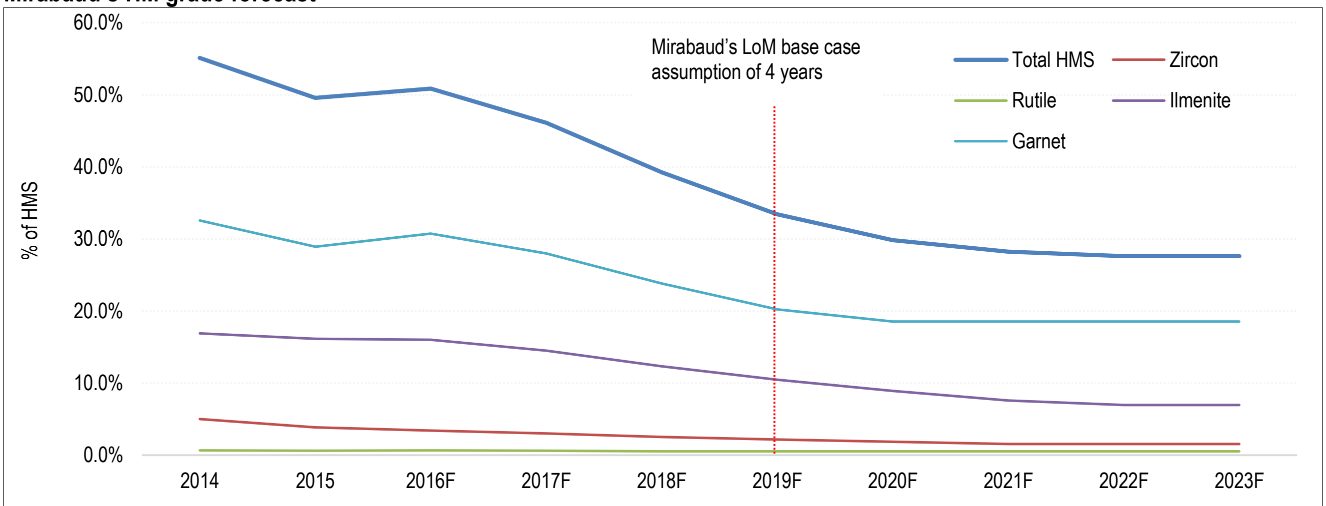
Source: Mineral Commodities

*We are now assuming a 15% annual weakening of the HM grade from 2017 onwards*

Following the fall in grade for the second year in-a-row, we have now adopted a declining grade profile for our Tormin DFC model, which assumes a 15% annual weakening of the HM grade from current levels of 49.6% to the updated resource HM grade of 28.0%, from 2017 onwards (see graph below). For 2016 we are assuming a grade profile similar to that of the previous two years as the company advises that it continues to experience similar mined grades as in FY2015 (Q1 2016 HM grade reported at 51.3%).

However, a full understanding of how the replenishment happens can only be confirmed after the finalisation of the offshore exploration, the results of which could imply a more favourable approach for the deposit's replenishment compared with our assumption. It is worth noting that over the first two years of operation, MRC has consistently mined and processed material above the resource grade and thus our assumption should be considered as very conservative.

**Mirabaud's HM grade forecast**




Source: Mirabaud Securities

## Throughput increase balances a potential fall in grade

In the event of a declining grade profile, MRC could maintain the final HMS concentrate output unchanged by increasing the PBC throughput capacity when the grade falls below a certain level. In our model we are assuming an increase in the PBC's capacity when the total HMS grade falls below 40%, which we model from FY2017 onwards (see graph above).

That could happen with the addition of a third concentrator, as part of Tormin's primary beach concentrator circuit (Tormin's PBC currently operates with two concentrators). This could increase the PBC's nominal throughput capacity by ~50% from ~2.3Mt in H2 2016 (after the commissioning of the TSP) to ~3.5Mt in 2018 (or 2.6Mt, assuming a long-term utilisation of the primary concentrator of 75% vs. >80% currently). In that way the company could increase the feed to the secondary concentrator by ~15% to a maximum 820kt (vs. the SCP's nominal capacity of ~875kt, thus max utilisation is assumed at ~94% vs. a current 93% rate), while maintaining an unchanged zircon grade within the concentrate of ~7.5%.

We note that although the PBC throughput increase would come at the cost of an opex increase (we calculate it at ~15% of the total cash cost, as mining, processing and loading, transport & shipping cost is 60-70% of the total cash cost) as well as a small capex rise (the cost of the acquisition of the third concentrator which we estimate at ~US$1m and is incorporated in our 2016 capex numbers). Tormin, even at the current grade of 28%, is one of the highest grade mineral sands deposits in the world, with more than 9x the average grade of the main producers (see table below), thus retaining its strong economics even after a likely opex increase.

That is why MRC remains one of the few profitable mineral sand producers in the current weak price environment, despite Tormin's diseconomies of scale, the result of a smaller-scale plant compared with other producers. The above, combined with the fact that the deposit is located in a relatively favourable African jurisdiction, makes MRC an excellent investment alternative to other mineral sand producers within the African mineral sands space.

**Mineral sand producers resources and reserves**

| Producer | Resources (Mt) | HM resource grade | Reserves (Mt) | HM reserve grade |
|---|---|---|---|---|
| Iluka Resources | 2,460.4 | 7.0% | 407.3 | 5.7% |
| Tronox | - | - | 1,260.0 | 6.7% |
| Sierra Rutile | 895.6 | 1.1% | 382.3 | 1.3% |
| Kenmare Resources | 8,015.0 | 3.0% | 815.0 | 3.3% |
| Base Resources | 143.0 | 4.4% | 110.4 | 5.0% |
| MZI Resources | 155.0 | 2.0% | 72.1 | 2.2% |
| Astron* | 4,780.0 | 3.7% | 461 | 5.9% |
| Mineral Deposits# | 861.8 | 1.4% | 582.3 | 1.5% |
| MRC | 2.7 | 28.0% | - | - |
| Average(excl. MRC) | | 3.1% | | 4.3% |

Source: Mirabaud Securities

#Mineral deposits owns 50% of Tizir ltd, which in turn owns 90% of GCO

*Astron reserves are reported as at December 2012

## 2016 a transitional year

The possible extension of the project's mine life has given MSR enough confidence to commit significant capital to the plant optimisation and expansion as, we believe, there is significantly more mineralised material than reflected in the current resource.

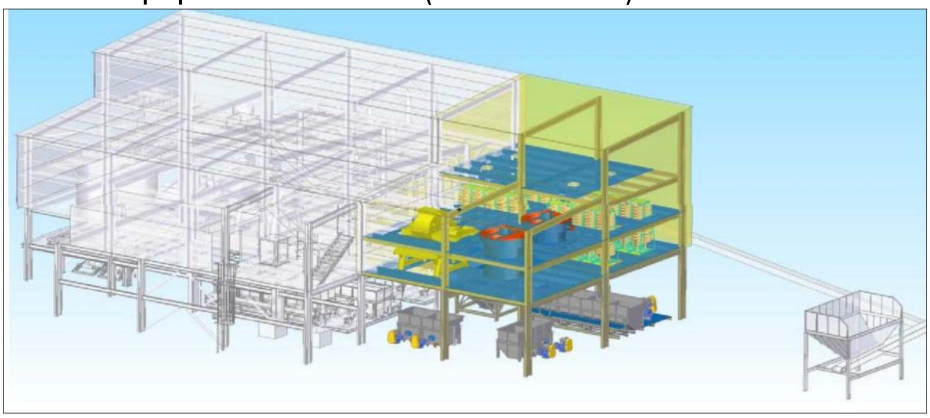
The dismissal of the Blastrite court application and the resolving of the outstanding matters with Wogen have allowed MRC to conclude financing options for the garnet stripping plant (GSP) expansion. The GSP, including an upgraded ilmenite circuit, has been budgeted at around US$4.5m and is expected to take approximately two more months to complete (end of June 2016), with commissioning planned for Q3 CY2016.

The GSP, which will be installed in front of the existing secondary concentrate plant (SCP), will enable MRC to produce a higher value garnet concentrate and also increase the grade of the non-magnetic concentrate feed. The latter will be achieved by stripping out the garnet prior to the SCP, improving the grade of non-magnetic feed into the SCP while increasing secondary concentrator nominal throughput by ~15% to 825ktpa from ~700ktpa previously (and non-magnetic concentrate production from the current ~45ktpa up to ~70ktpa).

Garnet production will also rise, improving at the same time the garnet concentrate's quality as it will now contain over 85% of garnet (vs. 60% previously) which in turn could earn a premium pricing. The company also advises that the above amendments will more than double ilmenite concentrate production.

The GSP follows the newly built (Q4 2015) tailings scavenger plant (TSP – at a capital cost of ~US$1m), the first stage of MRC's expansion initiatives, which when commissioned (as MRC reported in its Q1 2016 results, we expect this to happen earlier than expected in Q2) will re-treat the PBC tailings stream (previously discharged back into the beach), increasing PBC's throughput by ~15% to ~2.3Mtpa (nominal) vs. current rate of ~2.0Mtpa. Coupled with the installation of the GSP, this will increase overall zircon recoveries from ~70% (current SCP) to ~85% (GSP/SCP), thus boosting overall zircon recovery (from both PBC and SCP) to >75% from current levels of ~55%. Finally, it will also produce a higher-quality non-magnetic concentrate product, increasing from 72% contained zircon and 11% contained rutile (SCP) to 80% zircon and 13% rutile (in the GSP/SCP).

**Schematic of proposed location for GSP (in-front of the SCP)**



Source: Mineral Commodities

The GSP will be funded via a loan facility provided by the GMA group (MSR's garnet off-take partner) and will have a three year repayment period starting from January 2017 (when MSR expects to re-start garnet concentrate shipments to GMA). In the meantime, MSR will stockpile the garnet concentrate production at the Tormin mine site. Equally important is the fact that MSR and GMA have agreed to increase the term of the garnet concentrate offtake agreement to be a life of mine deal, while increasing the annual offtake tonnage by 40% to 210kt (from 150kt previously) and allowing an option to take all other remaining garnet concentrate.

*MSP if implemented could unlock a further 10-15% of non-mag value*

We highlight the fact that the company is also considering to more final processing of all the non-magnetic zircon/rutile concentrate to a stand-alone magnetic separation plant (MSP). In that case MRC could unlock a further 10-15% of the non-magnetite value and particularly for the zircon component of the concentrate.

## MRC pays down shareholder loans

MRC on 24 October announced the repayment of US$1.24m (or 50%) of the outstanding loans from its two largest shareholders Au Mining Ltd and Regional Management Pty Ltd. The loans, which originally expired in September 2014 (a year after Tormin's official commissioning) and later extended to September 2015, were to provide the company with working capital.

We highlight the fact that the company had decided to repay half of the loans (although MRC had the capacity to repay the loans in full) and retaining the balance which has now been rescheduled to be repaid by 30 September 2016. In that way MRC has increased its options and flexibility, whilst it arranges traditional debt to finance its current expansion programme.

For FY2016, on top of the ~US$4.5m for the construction of the GSP (MRC has drawn US$3.7m out of the US$4.5m of the GMA loan) and the acquisition of the third remote beach concentrator (~US$1m), we are also allowing another ~US$1.5m for the company's exploration activities. We note that MRC's Q1 2016 cash position came in at US$7.8m (at end-March) vs. US$4.2m at end-December.

Q1 2016 revenue came in at US$7.0m (vs. US$9.7m in Q4 2015) compared with the budgeted US$9.4m (which assumed 30kt of ilmenite sales). The q-o-q fall was due to a temporary pause in garnet sales, which will recommence in Q3 2016, as maximum committed annual off-take production was achieved earlier in the year.

## Q1 FY2016 results

Material mined during the quarter came in at ~445kt grading 51.28% valuable heavy minerals (comprising 3.42% zircon, 0.64% rutile, 15.05% ilmenite, 31.81% garnet and 0.36% of leucoxene which included for first time in MRC's results). Despite the q-o-q marginal decline, ROM grades were consistent with budget and well-above Tormin's resource grade.

The lower-than-expected (~15% below budget) quarterly production form the PBC of 140kt, was mainly the result of rough seas (unusual for the time of the year) and was addressed with the extension of the seawater intake pipe by 100m.

On top of that, the SCP was affected by a magnet failure, which resulted in plant downtime of one week (or ~8% of the March quarter). The SCP quarterly

*Q2 FY2016 production and sales guidance update*

performance of ~139kt was in-line with the corresponding quarter of the previous year but ~12% below Q4 2015.

Despite the operational difficulties, MRC achieved the upper end of its Q1 2016 quarterly sales guidance (of 11-12kt) having sold 11.9kt of non-magnetic material. MRC has also provided the market with an updated sales guidance for Q2 CY2016 of 11-13kt of zircon/rutile concentrate.

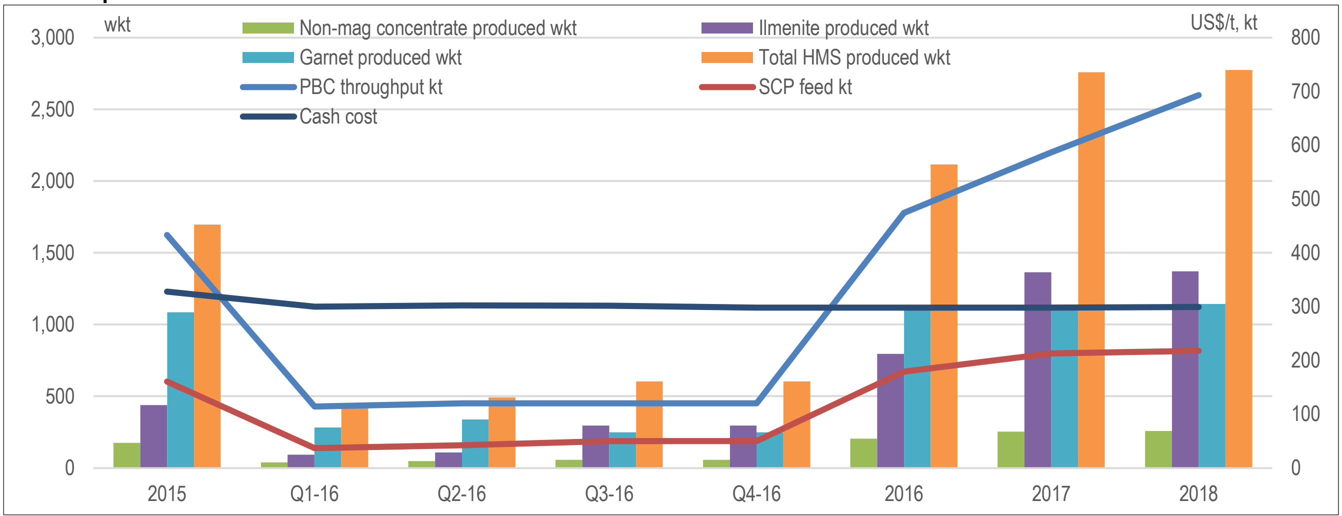
Positively, quarterly cash costs came in at US$299/t of zircon/rutile concentrate produced (below budgeted costs of US$306/t). The result represents a ~20% q-o-q reduction, achieved despite the partial recovery of the rand over the USD since the beginning of the year, indicating good cost control.

**2016 summary production and financial forecasts**

| | | Q1 2016E | Q2 2016F | Q3 2016F | Q4 2016F | 2016F |
|---|---|---|---|---|---|---|
| **Production & costs summary** | | | | | | |
| **Tormin** | | | | | | |
| Tonnes mined | Mt | 445 | 450 | 450.0 | 450.0 | 1,795 |
| Total HM grade | % | 50.9 | 49.2 | 49.6 | 49.6 | 49.8 |
| Zircon | % | 3.42 | 3.50 | 3.40 | 3.40 | 3.43 |
| Rutile | % | 0.64 | 0.65 | 0.65 | 0.65 | 0.65 |
| Ilmenite | % | 15.05 | 15.00 | 15.50 | 15.50 | 15.26 |
| Garnet | % | 31.81 | 30.00 | 30.00 | 30.00 | 30.45 |
| PBC throughput | kt | 430 | 450 | 450 | 450 | 1,778 |
| SCP feed | kt | 139 | 159 | 187 | 187 | 673 |
| **Total recoveries (PBC & SCP)** | | | | | | |
| Total zircon recoveries | % | 51.6 | 56.6 | 78.2 | 78.2 | 65.6 |
| Total rutile recoveries | % | 45.6 | 50.7 | 64.7 | 64.7 | 58.2 |
| Total ilmenite recoveries | % | 33.0 | 30.7 | 81.9 | 81.9 | 55.8 |
| Total garnet recoveries | % | 34.0 | 37.7 | 42.2 | 42.2 | 39.3 |
| **Production** | | | | | | |
| Non-mag concentrate ...of which: | kt | 10.2 | 12.0 | 14.8 | 14.8 | 51.9 |
| Zircon in concentrate | % | 71.8 | 73.0 | 80.0 | 80.0 | 76.2 |
| Rutile in concentrate | % | 13.8 | 13.5 | 13.5 | 13.5 | 13.6 |
| Ilmenite concentrate | kt | 24.4 | 28.0 | 77.2 | 77.2 | 206.8 |
| Garnet concentrate | kt | 73.4 | 87.8 | 64.8 | 64.8 | 290.8 |
| **Costs** | | | | | | |
| Cash costs | US$/t | 299 | 302 | 298 | 298 | 300 |
| Total cash costs | US$/t | 400 | 399 | 374 | 374 | 385 |
| Total operating costs | US$/t | 472 | 497 | 453 | 453 | 467 |

Source: Mirabaud Securities estimates

**Tormin's production and cost forecast**




Source: Mirabaud Securities

## Markets update

*We have marked-to-market our zircon price deck*

We have marked to market our price deck adjusting mainly our short-term prices for zircon and rutile (Tormin's main revenue contributor – ~80%), by revising downwards our short term zircon prices to ~US1$910/t (FOB) for FY2016 (from US$1150/t previously) and to US$1,095/t for FY2017 (from US$1200/t previously), while maintaining our long-term price to US$1,200/t from US$1,325/t previously.

That comes after Iluka's (~35% of the zircon market) recent (11 April) announcement of a US$100/t cut (~10% over 2015) in its zircon prices (with immediate effect) to US$950/t (FOB). That follows Tronox's and Rio Tinto's (~15% of the zircon market each) zircon price cuts in H2 2015 and Q1 2016 respectively.

Although zircon prices could move even lower in the short-term (after the seasonally strong Q2), we are retaining our positive long-term view of the mineral sands market, since we consider it as one of the very few markets (primarily the zircon and the higher grade titanium dioxide markets) to stand out as it exhibits producer discipline and thus stable pricing. We also believe much higher prices than the current ~US$910/t will be required to incentivise further exploration work in the constantly depleting high-grade deposits. In our view zircon prices have entered a post-correction phase (after a peak in 2012) and are now expected to return to a long-term positive trend.

However, in the short-term (2016-2017) we are expecting prices to remain under pressure as it is closely linked with the subdued Chinese demand, the result of the weaker Chinese growth (which could be translated in a >2% fall in the country's property construction sector this year) as well as from the above mentioned early signs of a price-discipline breakdown from the major producers (Iluka, Rio Tinto and Tronox - ~65% of the market).

*Tormin could remain profitable even at lower HMS prices*

The latter is principally the result of competition for markets between the majors, but may also be intended to put some more pressure on the smaller size new entrants (mainly African focused producers such as Mineral Commodities, Base Resources, Mineral Deposits, Astron etc.). **However, in our view MRC will be one of the last to be impacted by that behaviour, as Tormin is one of the highest grade HM deposits and thus could remain profitable even at lower zircon prices.**

**Zircon's** demand year-on-year was broadly stable for the first three quarters before slowing in the latter part of the year as a result of the high levels of stockpiled product and the high competition for sales between the major zircon producers. That, combined with the usual seasonal slow-down in demand, resulted in cautious buying behaviour from customers in Q4 2015 in Asia in particular (slight softening in ceramics sector). However, that was partially balanced by the improved Euro-zone demand (second largest market), the result of increased domestic consumption and exports, which resulted in a YoY stable zircon demand.

In the meantime, Iluka's decision to suspend zircon production for a period of 18 to 24 months (depending on market conditions) from the Jacinth-Ambrosia mine in Australia, would positively impact zircon prices in the medium-to-long term. We expect a sharp fall in the mine's stockpile inventories from 800kt (prior the halt) to ~250kt (assuming a 24 month suspension of mining operations), which in turn will rationalise global zircon stock inventories. According to Iluka, Jacinth-Ambrosia which last year produced ~250kt of zircon, at peak production accounted for 25-30% of the world demand.

We see Iluka's leadership position in the mineral sands market (largest global producer of zircon and second largest producer of titanium dioxide products behind Rio Tinto) as a stabilisation factor. It seems that in contrast with other major commodity producers, Iluka realised the need for a rationalisation in the zircon market's and acted in a timely manner. We note that Jacinth-Ambrosia follows last year's closure of Virginia (December 2015).

On the other side, **titanium dioxide (TiO2) and pigment** producers like Huntsman Corp., Chemours and Tronox increased **pigment** prices by ~US$100/t for the second time in five months, signalling a likely recovery in the titanium dioxide market in an effort to gain momentum during a traditionally seasonal strong quarter (Q2). In our view that should be beneficial for MSR in its effort to secure an offtake agreement for its ilmenite product. The company advises that, despite the depressed ilmenite market, it has seen more active enquires for its ilmenite product which is currently stockpiled. However, for our model we are assuming no ilmenite sales during H1 FY2016 as the ilmenite market remains slow.

Overcapacity remains an issue in both the mineral sands and pigment production industries (in which **ilmenite and rutile** are key feedstocks), due mainly to weak demand and Chinese oversupply. However, investment in new capacity has largely been delayed or abandoned with mines closing due to orebody depletion forcing some production to cease. We believe that should put pressure on pigment production capacity and thus we foresee a recovery in the supply driven $TiO_2$ sector. That could be further supported by shutdowns in China from those plants unable to meet the environmental regulatory performance measures as well as from unprofitable producers.

**Mirabaud mineral sands price deck**

| Market prices (FoB) | | CY2016 | CY2017 | CY2018 | CY2019 | CY2020 | CY2021 | CY2022 |
|---|---|---|---|---|---|---|---|---|
| Rutile | US$/t | 812 | 963 | 1,100 | 1,150 | 1,150 | 1,150 | 1,150 |
| Zircon | US$/t | 909 | 1095 | 1,300 | 1,300 | 1,325 | 1,325 | 1,325 |
| Garnet (stockpiled) | US$/t | 30 | 40 | 40 | 40 | 40 | 40 | 40 |
| Garnet delivered | US$/t | 94 | 94 | 94 | 94 | 94 | 94 | 94 |

Source: Mirabaud Securities

## Valuation

*We value Tormin using a 8% real discount rate*

We continue to value MRC on a sum-of-parts valuation basis, incorporating an NPV estimate (calculated at a slightly more conservative 8% real discount rate vs. 7.5% previously in-line with our House methodology) which assumes our downwards revised underlying House commodity price assumptions (listed above).

The main change in our sum-of-parts valuation is the rolling over by one year of our four-year life-of-mine estimate (which in our updated model starts from the beginning of 2016 vs. 2015 previously), the result of the tonnage replenishment in the company's updated resource estimate. On top of that, we have also increased the PBC's throughput capacity after 2018 (when we understand the HMS grade could potentially start depleting) and thus the processed material, over our 4-year LoM assumption, to 9.2Mt (1.8Mt in 2016, 2.2Mt in 2017 and 2.6Mt thereafter) from ~7.5Mt previously (~1.9Mtpa), as we feel more comfortable that the resource replenishment is occurring.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The positive impact of the above was more than offset by the strengthening of the A$ (by 9% to 0.70 vs. 0.76 previously), which we use to translate our US$ estimates to A$ per-share values, as well as by a short-term (2016-17) downwards correction of our assumed product prices (mainly zircon and rutile). Thus, using an 8% real discount rate we calculate an NPV of US$44.2m, based on cash flows attributable to MRC (we do not give any credits to the company for the near-mine potential which could extend Tormin's mine life and thus re-rate MRC). We have also updated MRC's net cash position as at end-Q1 2016 (A$0.2m).

Finally, we are assuming that MRC will sell to GMA its stockpiled final garnet product at the end of Tormin's life. We calculate annual garnet production of ~280kt and sales at 210kt (recently contracted with GMA). Thus, we believe that the excess material (along with the existing stockpiles) will be sold to GMA at an annual rate of 210kt after the end of the life-of-mine. So, we calculate a DCF (at an 8% discount rate) of US$15.4m which we multiply by a risk-weighting of 70%. The high risk multiplier is due to the risk of GMA ceasing purchases after the end of mine's life, as the contractual obligation in the agreement is a life-of-mine agreement with GMA having the option to take the rest of garnet's production.

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. The company in its Q1 2016 results reported that the completion of the EIA studies (submission for which has been extended to April 2016) has been put on hold in an effort, from MRC, not to engage in any activity that could lead to further violence following last November's incidents.

**Sum-of-parts valuation**

| | House Prices | |
|---|---|---|
| | **US$m** | **US¢/share** |
| Tormin (NPV @ 8% discount rate) | 44.2 | 10.9 |
| Garnet stockpiles (NPV @ 8% discount rate) | 4.6 | 1.1 |
| Xolobeni | 3.5 | 0.9 |
| Net cash position (as at end-Q1 2016) | 0.2 | 0.1 |
| **Total value** | **52.6** | **13.0** |
| No of shares (m) | | 404.9 |
| **Valuation (A$¢/share) – target price** | | **17.1** |

Source: Mirabaud Securities estimates. A$1=US$0.76

**Our revised A$¢17.1 per share TP (from A$¢17.9/share previously) now offers >20% upside to MRC's current share price, and we therefore retain our SPECULATIVE BUY recommendation.**

**Note:** Our new House thresholds for recommendations reduce the upside threshold for a Buy recommendation to 10% from 20% previously (calculated as the premium of the per-share valuation or TP to the current share price – see p14).

At the same time we are retaining our real model with the only inflation incorporated being our assumption that local cost inflation occurs to erode the benefit of the devaluation in the SA rand. MRC receives all its revenue in US$ with the majority of its costs being denominated in the SA rand. We are assuming local cost inflation of 3.0%, which is equal to the difference between SA's two year average inflation (~4.5%) and that of the US during the same period (~1.5%).

**Summary production and financial forecasts (assuming 3.0% pa cost inflation)**

| | | 2014A | 2015A | 2016F | 2017F | 2018F |
|---|---|---|---|---|---|---|
| **Production and costs summary** | | | | | | |
| **Tormin** | | | | | | |
| Tonnes mined | Mt | 1,075 | 1,625 | 1,795 | 2,200 | 2,600 |
| Total HM grade | 5 | 53.83 | 49.57 | 49.79 | 46.10 | 39.23 |
| Zircon | % | 4.76 | 3.88 | 3.43 | 3.00 | 2.55 |
| Rutile | % | 0.65 | 0.60 | 0.65 | 0.60 | 0.55 |
| Ilmenite | % | 17.26 | 16.15 | 15.26 | 14.50 | 12.33 |
| Garnet | % | 31.16 | 28.94 | 30.45 | 28.00 | 23.80 |
| PBC throughput | kt | 1,075 | 1,625 | 1,778 | 2,200 | 2,600 |
| SCP feed | kt | 556 | 598 | 673 | 799 | 817 |
| **Total recoveries (PBC & SCP)** | | | | | | |
| Total zircon recoveries | % | 0.69 | 62.7 | 65.6 | 78.5 | 78.5 |
| Total rutile recoveries | % | 0.69 | 62.9 | 58.2 | 65.3 | 65.3 |
| Total ilmenite recoveries | % | 0.35 | 32.3 | 55.8 | 81.9 | 81.9 |
| Total garnet recoveries | % | 0.39 | 35.7 | 39.3 | 42.3 | 42.3 |
| **Production** | | | | | | |
| Non-mag concentrate …of which: | kt | 42.7 | 44.5 | 51.9 | 64.9 | 66.0 |
| Zircon in concentrate | % | 76.9 | 72.9 | 76.2 | 80.0 | 80.0 |
| Rutile in concentrate | % | 8.9 | 13.4 | 13.6 | 13.0 | 13.0 |
| Ilmenite concentrate | kt | 100.4 | 110.0 | 206.8 | 355.2 | 356.8 |
| Garnet concentrate | kt | 254.9 | 285.0 | 290.8 | 296.4 | 297.7 |
| **Sales** | | | | | | |
| Non-mag | wkt | 42.0 | 45.2 | 55.5 | 67.9 | 69.0 |
| Garnet total | wkt | 79.6 | 372.5 | 50.0 | 210.0 | 210.0 |
| Garnet (stockpile) | wkt | - | 292.5 | 50.0 | 0.0 | 0.0 |
| Garnet (FoB) | wkt | - | 80.0 | 0.0 | 210.0 | 210.0 |
| Ilmenite | wkt | 21.9 | - | 60.0 | 200.0 | 380.0 |
| **Profit & loss** | | | | | | |
| Total revenue | US$m | 35.0 | 46.5 | 37.5 | 76.8 | 93.6 |
| Operating cost | US$m | 27.1 | 26.4 | 22.2 | 43.0 | 56.6 |
| Stock movement | US$m | - | - | 4.4 | 0 | 0 |
| EBITDA | US$m | 4.4 | 13.7 | 15.1 | 29.2 | 31.4 |
| Depreciation | US$m | 3.3 | 4.2 | 4.2 | 5.8 | 5.8 |
| Interest & admin. expenses | US$m | 1.0 | 3.0 | 4.0 | 4.9 | 5.8 |
| Profit before income tax | US$m | 4.0 | 12.9 | 11.3 | 23.1 | 25.5 |
| Taxation | US$m | 4.4 | 2.4 | 3.2 | 7.0 | 7.7 |
| Profit for the period | US$m | 8.4 | 10.6 | 8.2 | 16.1 | 17.8 |
| **Cash flow** | | | | | | |
| Cash flow from operations | US$m | 8.4 | 9.1 | 8.4 | 17.0 | 22.5 |
| Cash flow from investments | US$m | (5.4) | (6.1) | (8.7) | (6.1) | 0.0 |
| Dividends | US$m | - | - | (3.1) | (3.1) | (6.4) |
| Cash flow from financing | US$m | (0.3) | (2.6) | 2.1 | (2.5) | (1.6) |
| Net cash flow | US$m | 2.7 | 0.1 | (1.3) | 5.3 | 17.7 |
| Year-end cash position | US$m | 4.2 | 4.2 | 2.9 | 8.3 | 22.7 |
| **Ratio analysis** | | | | | | |
| EPS | US¢/share | 2.1 | 2.6 | 2.0 | 4.0 | 4.4 |
| Dividend pay-out | US$m | - | 3.1 | 3.1 | 6.4 | 7.1 |
| Dividend pay-out | US¢/share | - | 0.8 | 0.8 | 1.6 | 1.8 |
| Dividend yield | % | - | 7.1 | 7.1 | 15.0 | 16.5 |
| P/E | X | 4.3 | 4.1 | 5.3 | 2.7 | 2.4 |
| EV/EBITDA | X | 6.4 | 3.1 | 2.8 | 1.5 | 1.4 |

Source: Mirabaud Securities estimates A$1=US$0.76


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## RECOMMENDATIONS HISTORY

**Mineral Commodities Ltd**

Market index FTSE AIM Basic Resources

| Date | Market Index | Stock Price (A$) | Valuation (p) | 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 | 0.13 | 0.18 | Speculative Buy |
| 29 April 2016 | 1,925 | 0.14 | 0.17 | Speculative Buy |

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HOLD: The stock is expected to generate absolute price performance of between negative 10% and positive 10% during the next 12 months.

SELL: The stock is expected to generate absolute negative price performance of over 10% during the next 12 months.

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