

# Mineral Commodities Ltd

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## Quarterly Activities Report For the period ended 31 December 2016



Production Summary	Quarter ended	Quarter ended	Quarter ended	Full Year	Full Year
	31-Dec-16	30-Sep-16	31-Dec-15	31-Dec-16	31-Dec-15
<b>Mining</b>					
Tonnes	537,576	370,745	438,775	1,807,750	1,624,636
Grade	36.28%	45.34%	52.59%	45.96%	49.81%
- Garnet	24.36%	27.39%	30.90%	29.21%	28.94%
- Ilmenite	9.09%	14.39%	16.99%	12.97%	16.15%
- Zircon	1.84%	2.66%	3.77%	2.78%	3.88%
- Rutile	0.53%	0.57%	0.66%	0.62%	0.60%
- Leucoxene	0.46%	0.33%	0.27%	0.38%	0.23%
<b>GSP / SCP Processing &amp; Production</b>					
Tonnes processed	201,469	176,103	160,355	658,857	597,950
Tonnes produced					
- Garnet concentrate	61,856	64,994	80,389	270,802	284,990
- Ilmenite concentrate	94,567	62,803	24,782	211,704	109,959
- Zircon/Rutile concentrate	9,717	7,450	11,227	35,813	44,489
zircon in concentrate	76.85%	79.06%	72.47%	74.10%	72.88%
rutile in concentrate	14.35%	14.11%	14.25%	13.34%	13.44%
<b>Sales (wmt)</b>					
- Zircon/Rutile concentrate	9,576	7,980	10,322	38,408	45,240
- Ilmenite concentrate	2,068	-	0	4,070	0
- Garnet concentrate	80,308	50,000	80,175	130,308	372,466
<b>Highlights</b>	<b>Corporate and Cash</b>				
<ul style="list-style-type: none"> <li>No lost time injuries</li> <li>Ilmenite concentrate production at record 94,567 tonnes for the quarter</li> <li>Strong demand for ilmenite concentrate and incremental increase in zircon/rutile non-magnetic pricing</li> <li>EMP 102 Amendment Application for Expansion to Mining Areas – nearing completion</li> </ul>	<p><b>Securities:</b> 405 million shares, 6 million options and 4 million performance rights</p> <p><b>Cash:</b> Cash as at 31 December 2016 of US\$2.9 million, plus US\$8.0 million in trade and other receivables</p> <p><b>Debt:</b> Shareholder Loans balance of US\$1.1 million repaid immediately subsequent to quarter end</p> <p>US\$4.5 million debt facility obtained from GMA Garnet Group (“GMA”) to finance the Garnet Stripping Plant (“GSP”) fully drawn down</p> <p>US\$0.5 million overdraft facility unutilised as at 31 December 2016</p>				

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## **SAFETY, ENVIRONMENT AND COMMUNITY**

There were no lost time injuries reported for the quarter. The Company has now achieved 1,724,656 hours without any Lost Time Injury ("LTI") since operations commenced in October 2013.

The divestment of the Company's Xolobeni Mineral Sands Project ("Xolobeni Project") as detailed in the September 2016 quarterly continued, however, there were no material developments in relation of the finalisation of the sale during the quarter. The Company continues to engage with its Black Economic Empowerment ("BEE") partner Keysha Investments, related stakeholders and relevant authorities to facilitate and finalise the sale process. It is expected that this due process will take some time to finalise to ensure all stakeholders are fully appraised of the related issues.

The Company continues its commitment to community investment and BEE ownership and participation. During the year the Company has spent in excess of ZAR 7 million on Social Labour Plan ("SLP") initiatives, including approximately ZAR 5 million on human resource development initiatives, bursaries, scholarships, traineeships, apprenticeships and adult basic education programs. In addition, local enterprise development investment in community infrastructure exceeded ZAR 2 million. The Company's BEE affirmative procurement and economic empowerment of Historically Disadvantaged South Africans ("HDSA") was approximately ZAR 326 million for 2016.

The Company completed its annual Independent Environmental Authorisation Compliance Audit. The Tormin mine was assessed as being more than 84% in compliance with the relevant conditions contained in the two Environmental Authorisations and their associated Environmental Management Programmes.

## **TORMIN – OPERATIONAL PERFORMANCE**

Run of Mine ("ROM") production of 537,576 tonnes during the December quarter was achieved, versus budget of 453,699 tonnes. ROM ore grading 36.28% Valuable Heavy Mineral ("VHM") was mined for the quarter, consisting of a garnet grade 24.36%, ilmenite grade 9.09%, zircon grade 1.84% and rutile grade 0.53%. Reduction in grade is in line with the February 2016 stated Inferred resource grade of 28% VHM.

The above budget performance of the mining operations continued for the quarter and the full year 2016, dealing with the nature of mining a beach subject to tides and surf. The increased mining rates are consistent with a falling ROM VHM grade.

The Company has purchased specialised amphibious excavation equipment which will allow it to mine the seaward extremities of its current Mining Permit resource boundaries. This equipment is due for delivery in the first quarter of 2017, and will allow almost continuous mining in the inter-tidal high and low water zones. This equipment will also be used for resource sampling and grade control in previously inaccessible areas.

Quarterly processing of Heavy Mineral Concentrate ("HMC") production through the two Primary Beach Concentrators ("PBC") produced 100,703 tonnes of HMC for the December quarter, below the budgeted 155,392 tonnes due to lower mined grades.

The December quarter was the second full quarter of material being fed into the Tailings Scavenger Plants ("TSP"). During the quarter, 406,683 tonnes of PBC tailings were fed into the TSPs' to produce a further 48,925 tonnes of HMC.

The Garnet Stripping Plant ("GSP") / Secondary Concentrator Plant ("SCP") processed throughput of 201,469 tonnes in the December quarter, which was above budget.

Zircon/rutile concentrate production for the quarter was 9,717 tonnes versus a budget of 15,132 tonnes.

Contained zircon in the concentrate of 76.85% was marginally below budget of 80.0% zircon, whilst rutile was above budget at 14.35% contained rutile in concentrate. The reduction in non-magnetic zircon/rutile concentrate production is directly related to the diminishing grade of zircon in the ROM VHM grade.

For the December quarter, ilmenite concentrate production was a record 94,567 tonnes versus budget of 88,944 tonnes, and garnet concentrate production was 61,856 tonnes versus budget of 71,281 tonnes.

During the quarter, the Company re-treated 32,010 tonnes of previously stockpiled ilmenite concentrate to extract excess zircon and to upgrade the final ilmenite concentrate product.

The overall throughput performance of the PBC / TSP exceeded all budgeted throughput tonnages. Similarly the GSP / SCP performance also exceeded budget on a throughput basis. Encouragingly, there was an improvement in overall recoveries of zircon from both the PBC / TSP and GSP / SCP Processing Plants over previous quarters.

The December quarter was the second quarter of operation of the GSP Plant, which was commissioned in July 2016. The plant continues to perform in accordance with all process throughput and recovery design parameters considering and adjusting for the diminishing HMC feed grade.

As alluded to in the September reporting period, during the quarter a trial batch processing was carried out through the SCP / GSP on previously pre-GSP stockpiled Ilmenite concentrate. A total of 5,892 tonnes of ilmenite in concentrate grading 88% contained ilmenite was produced. In addition, 65% of the contained zircon was extracted from the ilmenite concentrate. The Company will continue this processing through the first quarter of 2017 to supplement GSP / SCP HMC feed.

During the quarter the Company continued to work with Transnet Rail and Port Services to deliver a logistics solution which will reduce logistics costs as compared to the current road transport operations. This will see bulk ilmenite and garnet concentrate products being loaded at a rail siding approximately 30km from the mine site and railed directly to the Saldanha Port for storage.

## Cash Costs

In previous quarters, production cash costs were reported against total tonnes of non-magnetic zircon / rutile produced. As all forms of concentrate produced are now considered saleable, for this report and in future, the Company will report its unit production cash costs, total costs of goods sold and revenues against total concentrates produced and sold respectively.

SUMMARY OF UNIT COSTS & REVENUE PER TONNE (US\$)	Dec 2015 Quarter	Mar 2016 Quarter	Jun 2016 Quarter	Sep 2016 Quarter	Dec 2016 Quarter
Unit production cash costs per tonne of final concentrate produced	36.07	27.12	32.55	25.70	24.49
Unit cost of goods sold per tonne of final concentrate sold <sup>(1)</sup>	60.25	260.81	283.73	85.76	59.03
Unit revenue per tonne of final concentrate sold	107.26	588.13	464.39	117.41	101.42
Revenue : Costs of goods sold ratio	1.78	2.26	1.64	1.37	1.72

Note 1:- Cost of goods sold includes production cash costs, product handling, transport and selling costs, royalties, stock movements, and depreciation and amortisation. Excludes corporate and financing costs.

Production cash costs per tonne of zircon/rutile, ilmenite and garnet concentrates produced for the quarter was US\$24.49/t, and for the full year was US\$27.06/t.

Cost of goods sold (incorporating production cash costs, product handling, transport and selling costs, royalties, stock movements, and depreciation and amortisation) per tonne of concentrate sold was US\$59.03/t for the quarter, and US\$99.29/t for the full year. The unit costs of goods sold was significantly lower in the quarter due to the product mix sold, which incorporated 80,000 tonnes of stockpile sales of garnet concentrate to GMA Garnet Group ("GMA").

### **Tormin Sales and Marketing**

Sales revenue for the December quarter was US\$9.3 million. Tormin shipments / sales for the December quarter were 9,576 tonnes of zircon/rutile concentrate, 2,016 tonnes of bagged ilmenite concentrate, 80,000 tonnes of garnet concentrate delivered to the stockpile and 308 tonnes of bagged garnet concentrate.

Revenue per tonne of concentrate sold was US\$101.42/t for the quarter, and US\$163.27/t for the full year, varying due to the product mix sold in the quarter.

As announced immediately following quarter end, the Company continues its strong relationship with its existing customer base for its non-magnetic zircon/rutile concentrate, with existing customers contracted to take shipments of up to 83,000 tonnes of ilmenite concentrate in Q1 2017.

There is an evident increasing demand for ilmenite concentrate and finished ilmenite products due to a combination of the tightening of the global ilmenite supply chain, increases in titanium pigment pricing, as well as the curtailing of domestic sulphate ilmenite production within China and India, due to environmental and economic cost of production factors.

Since the commencement of mining operations in 2014, the Company has stockpiled approximately 200,000 tonnes of ilmenite concentrate in anticipation of increased pricing. The Company expects to see continued strengthening in pricing for its ilmenite concentrate post the Chinese New Year, and is confident that going forward it will see an unwinding of the significant value contained in the ilmenite concentrate stockpile consistent with increasing global demand.

In addition, the Company has also seen incremental strengthening of its non-magnetic zircon / rutile concentrate price during the quarter, and expects pricing for its zircon / rutile concentrate to continue to strengthen during the course of 2017.

The Company recommenced stockpile sales of garnet concentrate during the quarter, delivering the next 80,000 tonnes of the minimum 210,000 tonnes per annum contracted under the GMA life-of-mine off-take agreement.

The Company currently holds a further 120,000 tonnes of stockpiled garnet concentrate, that is in addition to that sold to date under stockpile bill and hold arrangements to GMA.

The Company has received independent third party enquiries for its additional garnet concentrate that is produced and stockpiled above the contracted annual tonnages under the GMA Agreement. Accordingly the Company is confident that it will realise additional sales revenue for the uncommitted garnet concentrate in the first half of 2017.

## **Tormin Resource and Offshore/Onshore Prospecting Activities**

Work has commenced on the annual resource update which will be concluded and reported on in the Company's full year financial statements.

Offshore sampling of the Offshore Prospecting Right was again delayed due to the requirement to modify sample collection equipment and equipment failure of the contractor. It is planned that this sampling programme will take place in Q1 2017.

As advised on 30 June 2016, the applications for Prospecting Rights, WC30/5/1/2/10226PR along the beach and surf zone north of its current mining operations, and WC30/5/1/1/2/10229PR adjacent and inland from the current mining operations, were refused by the Department of Mineral Resources ("DMR"). The Company lodged an appeal against these decisions to the Department of Environmental Affairs ("DEA") in relation to the environmental authorisation aspect of the applications.

The Company received formal notification in respect to the Prospecting Rights appeal from the DEA advising that the appeal had been refused. The Company is now considering a further judicial appeal process on the refusal of the Prospecting Rights applications by the DEA, as it believes that the decision is based on environmental concerns and law that are without basis.

The final decision in relation to the ultimate rejection of the Prospecting Rights applications now rests with the DMR. The Company is yet to be advised by the DMR.

In anticipation of the appeal refusal, the Company had previously commenced, in consultation with the DMR, the preparation of an Environmental Management Program ("EMP") 102 Amendment Application covering an areas totalling 28.7ha of the mineable resource areas of the Northern Beach deposits and 75ha of area on the Geelwal Farm Prospecting area partly covered by the Prospecting Rights.

The Company is well advanced with this EMP 102 Amendment Application and, if granted, will provide a much shorter timeline to access and mining of the applicable areas. An EMP 102 Amendment allows the applicant to expand its existing mining operations based on its current approved mining tenure.

As another precautionary measure, and in order to protect the tenure of the two Prospecting Rights that were refused by the DEA Appeal decision, the Company is entitled to submit new prospecting rights applications over these respective prospecting areas. These second Prospecting Rights applications (WC30/5/1/1/2/10261PR over the beaches north of Tormin and WC30/5/1/1/2/10262PR over the farm Geelwal Karoo) were lodged on 22 December 2016.

In addition, the Company has also made a prospecting rights application for further onshore areas at Klipvley Karookop, to the north of its Geelwal Farm.

The Company initiated an aerial survey of the entire Tormin beach deposit, targeted to determine resource changes over the entire mining area, volumetrically. This will allow the Company to better understand and quantify the total beach deposition tonnages, grade, and its exact location of deposition.

## **CORPORATE AND BUSINESS DEVELOPMENT**

Work continued on the Tormin mine Mineral Separation Plant ("MSP") expansion initiative with ongoing process design test work being undertaken in the quarter as well as freshwater washing quantification testing.

The MSP plant site location and scope of works have been advanced and the proposed MSP plant is anticipated

to be capable of processing up to 300,000 tonnes per annum of ilmenite / garnet concentrate to produce 150,000 tonnes of finished ilmenite product and 100,000 tonnes of finished garnet product per annum. Additionally, a further 5,000 to 7,000 tonnes per annum of finished zircon product could also be produced from the processing of the ilmenite and garnet concentrate currently being produced.

The current ilmenite pricing strength supports the MSP project and will allow the Company to extract full value from its existing ilmenite and garnet concentrate stockpiles, which currently total some 750,000 tonnes cumulatively, in addition to future ilmenite and garnet concentrate production.

The Company continues to advance with other greenfield and brownfield project identification and business development opportunities.

## **Cash and Debt**

At 31 December 2016, the Company had US\$2.9 million in cash, an increase from the 30 September 2016 cash being held of US\$0.3 million.

Trade and other receivables at 31 December 2016 were US\$8.0 million, a decrease from the 30 September 2016 balance of US\$9.3 million.

Immediately following quarter end, the Company advised that shareholder loans from two of its largest shareholders, Au Mining Ltd and Regional Management Pty Ltd, totaling approximately US\$1.1 million were repaid in full.

The US\$4.5 million loan facility obtained from GMA to finance the GSP is fully drawn. Repayments on and interest charges against the facility will not commence until such time as GMA takes continuous shipment of its 210,000 tonnes per annum off-take commitment.

The Company's overdraft facility limit has been reduced to US\$0.5 million, and was undrawn as at 31 December 2016.

The Company continues to assess alternate financing arrangements albeit cognizant of the nature of the type of resources and assets held by the Company. Based on current ilmenite and garnet concentrate pricing, the Company has in excess of US\$25 million in unrealised net cash value (revenue at current concentrate prices less expected transport, selling and royalty costs and amounts paid to date under bill and hold arrangements) in its garnet and ilmenite concentrate stockpiles. Accordingly, the Company is looking at unlocking this value by the provision of a stockpile financing facility.

## **Outlook**

Sales guidance for the forthcoming quarter is in the order of 8,000 to 10,000 tonnes of zircon/rutile concentrate and circa 83,000 tonnes of ilmenite concentrate dependent on timing of shipments and up to 35,000 tonnes of additional garnet concentrate.

The Company is well positioned in a rising global mineral sands market to extract optimised pricing for its full suite of concentrate products.

## Securities on Issue

Issued securities at quarter-end comprise:

- 404,941,571 fully paid ordinary shares listed on the ASX.
- 5,000,000 Unlisted Options exercisable at A\$0.20 on or before 30 May 2018 and subject to the following vesting conditions:
  - (i) 3,333,334 vested; and
  - (ii) 1,666,666 vesting on 8 June 2017.
- 1,000,000 Unlisted Options exercisable at A\$0.20 on or before 31 March 2018 and subject to the following vesting conditions:
  - (i) 666,667 vested; and
  - (ii) 333,333 vesting on 31 March 2017.
- 4,000,000 Performance Rights exercisable on or before 30 May 2019 and vesting upon the closing share price reaching \$0.20 and remaining at or above \$0.20 for a period of 5 consecutive trading days.

## **Terms and Explanations**

<b>ASX</b>	Australian Stock Exchange
<b>BEE</b>	Black Economic Empowerment
<b>DEA</b>	Department of Environmental Affairs
<b>DMR</b>	Department of Mineral Resources
<b>DWA</b>	Department of Water Affairs
<b>EIA</b>	Environmental Impact Assessment
<b>EMP</b>	Environmental Management Program
<b>GMA</b>	GMA Garnet Group
<b>GSP</b>	Garnet Stripping Plant
<b>HDSA</b>	Historically Disadvantaged South Africans
<b>HM</b>	Heavy Mineral
<b>HMC</b>	Heavy Mineral Concentrate
<b>JORC</b>	Joint Ore Reserves Committee
<b>LTI</b>	Lost Time Injury
<b>MOU</b>	Memorandum of Understanding
<b>MRA</b>	Mining Right Application
<b>MSP</b>	Mineral Separation Plant
<b>MSR</b>	Mineral Sands Resources (Pty) Ltd
<b>NEMA</b>	National Environmental Management Authority
<b>NUM</b>	National Union of Mine Workers
<b>PBC</b>	Primary Beach Concentrator
<b>ROM</b>	Run of Mine
<b>SARS</b>	South African Revenue Service
<b>SCP</b>	Secondary Concentrator Plant
<b>SLP</b>	Social Labour Plan
<b>TRIFR</b>	Total Recordable Injury Frequency Rate
<b>TSP</b>	Tailings Scavenger Plant
<b>VAT</b>	Value Added Tax
<b>VHM</b>	Valuable Heavy Mineral
<b>WMT</b>	Wet Metric Tonnes

## APPENDIX 1 - RESOURCE STATEMENT

The Tormin and Xolobeni Mineral Resources based on mined material reconciliation as at 31 December 2015 for the Tormin Resource is as follows.

PROJECT	Category	Resource (Million Tonnes)	Total Heavy Mineral (%)	Ilmenite (% in Heavy Mineral)	Zircon (% in Heavy Mineral)	Rutile (% in Heavy Mineral)	Garnet (% in Heavy Mineral)
<b>Tormin</b>	<b>Inferred</b>	<b>2.7</b>	<b>28.01%</b>	<b>24.89%</b>	<b>5.56%</b>	<b>1.97%</b>	<b>66.19%</b>
Xolobeni	Measured	224	5.7%	54.5%			
	Indicated	104	4.1%	53.7%			
	Inferred	18	2.3%	69.6%			
<b>Total Xolobeni</b>		<b>346.0</b>	<b>5.0%</b>	<b>54.0%</b>			
<b>Total MRC</b>		<b>348.7</b>	<b>5.3%</b>	<b>53.8%</b>			

Note:

Individual minerals reported as a percentage of the total heavy mineral concentration.

The Mineral Resource estimations previously reported under JORC 2004 for the Tormin Resource, are re-presented with updated disclosure for JORC 2012.

## APPENDIX 2 – LISTING OF TENEMENTS

The following information is provided pursuant to ASX Listing Rules 5.3.3:

Country	Location	Number	Type of Right	Status	Change since last Quarter	Beneficial Interest
South Africa	Tormin	(WC)30/5/1/1/2/10261 PR	Prospecting	Under Application	NA	100%
	Tormin	(WC) 30/5/1/1/2/10262 PR	Prospecting	Under Application	NA	100%
	Tormin	(WC)30/5/1/2/2/163 MR	Mining	Approved	N/A	100%
	Tormin	(WC) 30/5/1/1/2/10259 PR	Prospecting	Under Application	N/A	100%
	Tormin	(WC)30/5/1/2/2/162 MR	Mining	Approved	N/A	100%
	Tormin	(WC)30/5/1/1/2/10036 PR	Prospecting	Approved	N/A	100%
	Tormin	(WC)30/5/1/1/2/10199 PR	Prospecting	Approved	N/A	100%
	Tormin	(WC)30/5/1/1/2/10226 PR	Prospecting	To be Subject to Judicial Review	100%	100%
	Tormin	(WC)30/5/1/1/2/10229 PR	Prospecting	To be Subject to Judicial Review	100%	100%
	Tormin	(WC)30/5/1/1/2/10240 PR	Prospecting	Under Application	100%	100%
South Africa	Xolobeni	EC30/5/1/1/2/6 PR	Prospecting	Converting to Mining Right	N/A	100%
	Xolobeni - Kwanyana block	EC30/5/1/1/2/10025 PR	Prospecting	Converting to Mining Right	N/A	100%
	Xolobeni	EC30/5/1/1/2/10025 MR	Mining	Under Application	100%	100%

The Company has no interests held in any farm-in or farm-out agreements.

## Competent Persons Statement

The information in this announcement which relates to Exploration Results, Mineral Resources or Ore Reserves for **Xolobeni** is based on information compiled by Mr Allen Maynard, who is a Member of the Australian Institute of Geosciences (“AIG”), a Corporate Member of the Australasian Institute of Mining & Metallurgy (“AusIMM”) and independent consultant to the Company. Mr Maynard is the Director and principal geologist of Al Maynard & Associates Pty Ltd and has over 35 years’ of exploration and mining experience in a variety of mineral deposit styles. Mr Maynard has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the “Australasian Code for reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves” (JORC Code). This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. Mr Maynard consents to inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this announcement which relates to Exploration Results, Mineral Resources or Ore Reserves for **Tormin** is based on information compiled by Mr Adriaan du Toit, who is a Member of the AusIMM and an independent consultant to the Company. Mr du Toit is the Director and principal geologist of AEMCO PTY LTD and has over 23 years’ of exploration and mining experience in a variety of mineral deposits and styles. Mr du Toit has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. The information from Mr du Toit was prepared under the JORC Code 2012 Edition. Mr du Toit consents to inclusion in the report of the matters based on this information.