

Volcan Compañía Minera S.A.A. and Subsidiaries Management Discussion and Analysis Fourth Quarter 2018

Principal Results:

Consolidated Volcan	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Sales Prices									
Zinc (USD/MT)	3,404	3,122	2,549	2,636	3,161	-16.6	2,917	2,836	2.9
Lead (USD/MT)	2,511	2,392	2,123	1,964	2,499	-21.4	2,245	2,311	-2.8
Copper (USD/MT)	6,931	6,896	6,123	6,158	6,688	-7.9	6,464	6,148	5.1
Silver (USD/Oz)	16.7	16.6	15.0	14.5	16.6	-12.6	15.7	17.1	-7.9
Gold (USD/Oz)	1,330	1,302	1,215	1,228	1,274	-3.6	1,265	1,262	0.3
Operating Results									
Mineral treatment ¹ (thousands MT)	1,921	1,915	2,110	2,132	2,158	-1.2	8,077	8,312	-2.8
Zinc Production (thousands FMT)	58.8	56.4	65.3	60.5	63.9	-5.2	241.1	255.1	-5.5
Lead Production (thousands FMT)	12.0	10.8	12.1	12.3	13.7	-10.2	47.2	51.3	-7.9
Copper Production (thousands FMT)	1.1	1.2	1.3	1.1	1.4	-23.7	4.6	5.4	-13.9
Silver Production (millions Oz)	4.2	4.3	4.4	4.2	4.6	-8.4	17.0	17.3	-1.7
Gold Production (thousands Oz)	2.5	2.9	3.1	3.1	2.5	21.8	11.6	8.1	43.5
Unit Cost (USD/MT)	48.0	47.8	45.8	45.2	46.3	-2.5	46.6	47.9	-2.6
Total Investments (MM USD)	35.2	44.1	45.6	60.0	70.3	-14.5	184.9	193.0	-4.2
Financial Results (MM USD)									
Sales before adjustments	220.2	229.5	202.5	179.3	227.0	-21.0	831.5	860.2	-3.3
Volcan Production	220.2	229.5	202.5	179.3	223.7	-19.8	831.5	837.4	-0.7
Commercialization Business	0.0	0.0	0.0	0.0	3.3	-100.0	0.0	22.8	-100.0
Sales Adjustments	-17.6	-19.4	-13.2	-6.3	-10.4	-39.6	-56.4	-3.4	
Settlement of prior period adjustments	2.6	-5.2	-11.8	-20.1	2.0		-34.5	9.4	
Adjustments for open positions ²	-7.8	-8.6	-5.4	13.8	-5.7		-8.0	-7.2	10.6
Hedging results	-12.4	-5.6	4.0	0.1	-6.7		-13.9	-5.6	149.7
Sales after adjustments	202.6	210.1	189.3	173.0	216.6	-20.1	775.1	856.7	-9.5
Net profit before exceptionals	24.5	17.9	1.3	-13.3	23.5		30.3	92.7	-67.3
Exceptional adjustments	-2.3	0.0	0.0	1.4	-570.2		-0.9	-570.2	-99.8
Net profit after exceptionals	22.2	17.9	1.3	-11.9	-546.7	-97.8	29.4	-477.5	
EBITDA³	91.8	81.6	64.6	50.9	88.4	-42.5	288.8	343.0	-15.8

¹ Includes treated tons at Oxides Plant

² Adjustments for open commercial positions refer to shipments without final settlement, which are therefore exposed to possible adjustments from variations of future metals prices. These financial provisions, embedded derivatives and sales adjustments, reflect this exposure according to a forward-price curve.

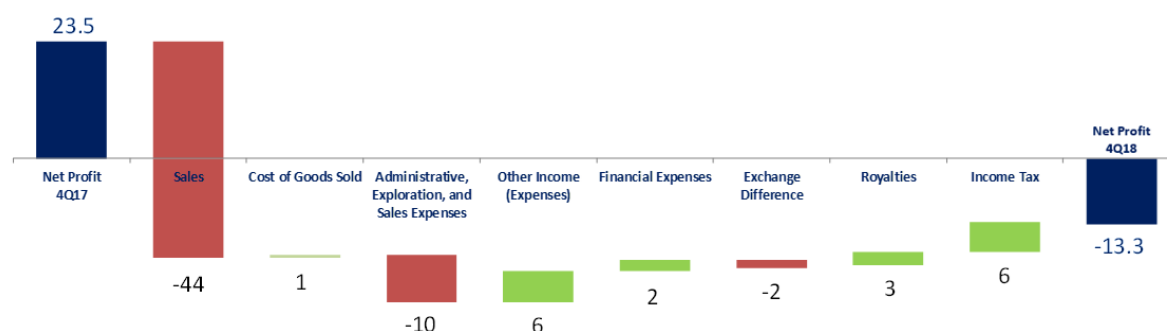
³ Does not consider exceptional adjustments.

Source: Volcan Cia. Minera

1. Executive Summary

- As compared to 4Q17, the results in 4Q18 were mainly affected by decreased sales as a result of significantly lower metals prices, as can be seen in the figure below:

Figure 1: 4Q18 vs 4Q17 variations impact on net profit before exceptional items (USD MM)



Net sales decreased by 20.1%, from USD 216.6 MM in 4Q17 to USD 173.0 MM in 4Q18, mainly due to lower metals prices, as shown in the figure below.

Figure 2: 4Q18 vs 4Q17 variations impact on sales (USD MM)



- The average sales price of zinc fell from 3,161 USD/MT in 4Q17 to 2,636 USD/MT in 4Q18 (-16.6%), lead from 2,499 USD/MT to 1,964 USD/MT (-21.4%), copper from 6,688 USD/MT to 6,158 USD/MT (-7.9%), silver from 16.6 USD/Oz to 14.5 USD/Oz in 4Q18 (-12.6%), and gold from 1,274 USD/Oz to 1,228 USD/Oz (-3.6%).
- Fines production in 4Q18 was lower as compared to 4Q17, mainly explained by over two weeks of suspended operations in all mines at the Yauli Unit with the purpose of ensuring compliance with the Company's high safety standards. Zinc production decreased by 5.2%, from 63.9 thousand FMT in 4Q17 to 60.5 thousand FMT in 4Q18; lead production decreased by 10.2%, from 13.7 thousand FMT in 4Q17 to 12.3 thousand FMT in 4Q18, copper production decreased by 23.7%, from 1.4 thousand FMT in 4Q17 to 1.1 thousand FMT in 4Q18, and silver decreased by 8.4% from 4.6 MM Oz in 4Q17 to 4.2 MM Oz in 4Q18.

- Consolidated unit cost decreased by 2.5%, from 46.3 USD/MT in 4Q17 to 45.2 USD/MT in 4Q18. This is mainly explained by greater low-cost volumes of production from stockpiles at Cerro de Pasco (14.3 USD/MT in 4Q18).
- Total investments decreased by 14.5%, from USD 70.3 MM in 4Q17 to USD 60.0 MM in 4Q18, mainly due to lower investments in plants and tailings dams, and regional explorations being reported as expenses and not as investments.
- The reduction of sales due to lower prices also had an impact on EBITDA, which decreased by 42.5%, from USD 88.4 MM in 4Q17 to USD 50.9 MM in 4Q18.
- In annual terms (Jan-Dec), net profit before exceptional items decreased from USD 92.7 MM in 2017 to USD 30.3 MM in 2018, mainly explained by the declining trend of metals prices throughout the year. EBITDA decreased from USD 343.0 MM in 2017 to USD 288.8 MM in 2018.

2. Consolidated Results

2.1 Production

Table 1: Consolidated Production

Consolidated Production	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Mineral extraction (thousands MT)	1,938	1,876	2,157	2,086	2,198	-5.1	8,057	8,371	-3.8
Polymetallic ore	1,720	1,648	1,928	1,847	1,967	-6.1	7,143	7,499	-4.7
Oxides ore ¹	218	228	229	239	232	2.9	914	872	4.8
Mineral treatment (thousands MT)	1,921	1,915	2,110	2,132	2,158	-1.2	8,077	8,312	-2.8
Concentrator Plants	1,703	1,687	1,880	1,893	1,926	-1.7	7,164	7,440	-3.7
Silver Oxides Plant	218	228	229	239	232	2.9	914	872	4.8
Fine Content									
Zinc (thousands FMT)	58.8	56.4	65.3	60.5	63.9	-5.2	241.1	255.1	-5.5
Lead (thousands FMT)	12.0	10.8	12.1	12.3	13.7	-10.2	47.2	51.3	-7.9
Copper (thousands FMT)	1.1	1.2	1.3	1.1	1.4	-23.7	4.6	5.4	-13.9
Silver (millions Oz)	4.2	4.3	4.4	4.2	4.6	-8.4	17.0	17.3	-1.7
Gold (thousands Oz)	2.5	2.9	3.1	3.1	2.5	21.8	11.6	8.1	43.5

Source: Volcan Cia. Minera

In 4Q18, extracted ore volumes decreased by 5.1% compared to the same quarter of the previous year, from 2.198 MM MT in 4Q17 to 2.086 MM MT in 4Q18. The lower extracted volumes were mainly explained by approximately two weeks of suspended operations at Yauli with the purpose of ensuring compliance with the Company's high safety standards.

Treated volumes decreased by 1.2%, from 2.158 MM MT in 4Q17 to 2.132 MM MT in 4Q18. The difference between the extracted and treated volumes is mainly explained by the ore stockpiles treated at Alpamarca.

In annual terms (Jan-Dec), the extraction volume decreased by 3.8% as compared to the same period in the previous year, while treated volume decreased by 2.8%, from 8.312 MM MT in 2017 to 8.077 MM MT in 2018, mainly due to suspended operations at the Chungar Unit (2Q18) and the Yauli Unit (4Q18) for ensuring compliance with the safety standards mentioned above.

As a result of the lower extracted and treated volumes, zinc production decreased by 5.2%, from 63.9 thousand FMT in 4Q17 to 60.5 thousand FMT in 4Q18; lead production decreased by 10.2%, from 13.7 thousand FMT in 4Q17 to 12.3 thousand FMT in 4Q18, copper production decreased by 23.7%, from 1.4 thousand FMT in 4Q17 to 1.1 thousand FMT in 4Q18, and silver decreased by 8.4% from 4.6 MM Oz in 4Q17 to 4.2 MM Oz in 4Q18.

2.2 Cost of Production

Table 2: Consolidated Cost of Production

Consolidated Production Cost	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Production Cost (MM USD)	92.7	90.5	97.8	95.2	101.0	-5.7	376.3	399.5	-5.8
Mine Cost	48.0	46.2	51.5	48.7	52.9	-7.9	194.5	211.3	-8.0
Plant and Other Cost	44.7	44.4	46.2	46.5	48.1	-3.3	181.8	188.2	-3.4
Unit Cost (USD/MT)	48.0	47.8	45.8	45.2	46.3	-2.5	46.6	47.9	-2.6
Mine Cost	24.8	24.6	23.9	23.4	24.1	-2.9	24.1	25.2	-4.4
Plant and Other Cost	23.3	23.2	21.9	21.8	22.3	-2.1	22.5	22.6	-0.6

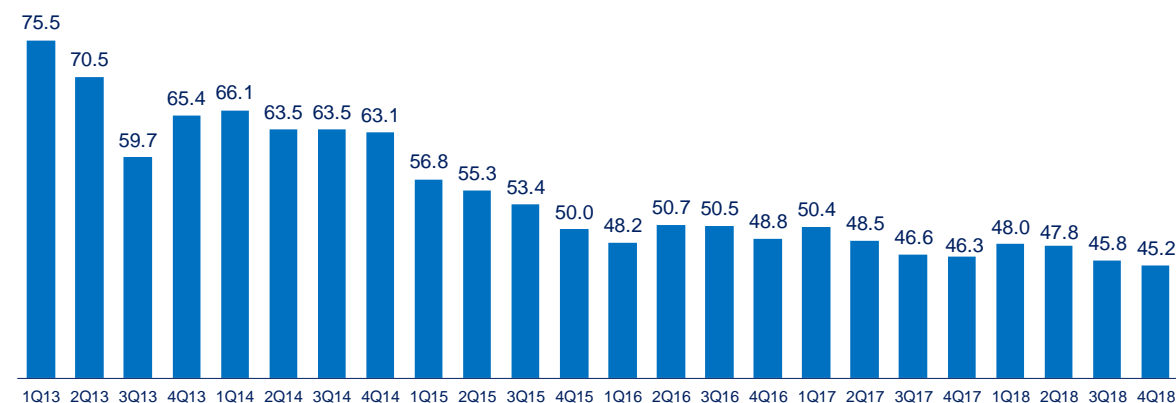
Source: Volcan Cia. Minera

Absolute cost of production decreased by 5.7%, from USD 101.0 MM in 4Q17 to USD 95.2 MM in 4Q18, mainly due to a lower extraction and treatment volume at the Yauli Unit resulting from the temporary suspension of over two weeks of operations in October.

Consolidated unit cost fell by 2.5%, from 46.3 USD/MT in 4Q17 to 45.2 USD/MT in 4Q18. This is mainly explained by greater low-cost volumes of production from stockpiles at Cerro de Pasco (14.3 USD/MT in 4Q18).

In annual terms (Jan-Dec), the absolute cost of production decreased by 5.8%, from USD 399.5 MM in 2017 to USD 376.3 MM in 2018, while the unit cost decreased by 2.6%, from 47.9 USD/MT in 2017 to 46.6 USD/MT in 2018.

The Company is permanently focused on controlling and reducing operating costs across all operating units. The figure below shows a 40.2% unit cost decrease between 1Q13 and 4Q18.

Figure 3: Evolution of the Unit Cost of Production (USD/MT)


Source: Volcan Cia. Minera

2.3 Total Investments

Table 3: Consolidated Investment

Consolidated Investment (MM USD)	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Mining	34.0	43.4	44.9	58.8	67.9	-13.4	181.1	189.8	-4.6
Mining Units	33.7	43.0	44.0	54.3	57.9	-6.3	174.9	171.5	2.0
Local Exploration	3.8	5.6	6.5	6.5	2.7	142.5	22.4	13.2	69.4
Development	18.5	20.5	18.4	19.6	18.3	7.0	76.9	69.6	10.6
Plants and Tailings Facilities	4.8	5.8	11.7	13.0	23.6	-45.0	35.3	52.8	-33.2
Mine and Infrastructure	4.0	8.1	4.7	7.4	9.2	-19.7	24.2	26.6	-9.0
Electrical Infrastructure in Units	1.6	1.4	1.3	4.0	1.1	266.7	8.2	3.5	133.5
Support and Others	1.0	1.6	1.4	3.9	3.1	26.0	7.9	5.8	35.3
Regional Explorations	0.1	0.0	0.4	3.0	7.7	-61.4	3.5	14.8	-76.6
Growth and Others	0.3	0.5	0.5	1.5	2.3	-33.0	2.8	3.5	-20.2
Energy	1.1	0.6	0.7	1.3	2.3	-46.5	3.8	3.2	18.4
Total	35.2	44.1	45.6	60.0	70.3	-14.5	184.9	193.0	-4.2

Source: Volcan Cia. Minera

Total mining investments decreased by 13.4%, from USD 67.9 MM in 4Q17 to USD 58.8 MM in 4Q18. Operating unit investments fell by 6.3%, from USD 57.9 MM in 4Q17 to USD 54.3 MM in 4Q18, mainly due to lower investments in plants and tailings dams and mine infrastructure, partially offset by greater investments in explorations at the operating units. It is important to mention that the investment in electric infrastructure at the units increased from USD 1.1 MM in 4Q17 to USD 4.0 MM in 4Q18.

The apparent reduction in greenfield or early stage explorations investments is mainly due to regional explorations investments being recorded directly as expenses on the financial statement.

Investments in the energy business decreased from USD 2.3 MM in 4Q17 to USD 1.3 MM in 4Q18, mainly due to the investment in repairs at the Rucuy Hydroelectric Plant, which is in its final stage. This plant is expected to resume operations in the first half of 2019.

As a result, total investments decreased by 14.5%, from USD 70.3 MM in 4Q17 to USD 60.0 MM in 4Q18.

In annual terms (Jan-Dec), mining investments decreased by 4.6%, from USD 189.8 MM in 2017 to USD 181.1 MM in 2018. It is important to mention that the investment in electric infrastructure at the units increased from USD 3.5 MM in 2017 to USD 8.2 MM in 2018, while investments in the energy business grew by 18.4%, from USD 3.2 MM in 2017 to USD 3.8 MM in 2018. Total investments decreased by 4.2%, from USD 193.0 MM in 2017 to USD 184.9 MM in 2018.

2.4 Income Statement

Table 4: Income Statement

Income Statement (MM USD)	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Sales before adjust.	220.2	229.5	202.5	179.3	227.0	-21.0	831.5	860.2	-3.3
<i>Sett. of prior periods adjust.</i>	2.6	-5.2	-11.8	-20.1	2.0		-34.5	9.4	
<i>Adj. open positions</i>	-7.8	-8.6	-5.4	13.8	-5.7		-8.0	-7.2	10.6
<i>Hedging</i>	-12.4	-5.6	4.0	0.1	-6.7		-13.9	-5.6	149.7
Sales after adjust.	202.6	210.1	189.3	173.0	216.6	-20.1	775.1	856.7	-9.5
Cost of Goods Sold	-127.9	-131.3	-135.4	-139.4	-140.0	-0.4	-534.1	-566.1	-5.7
Gross Profit	74.7	78.8	53.9	33.6	76.6	-56.1	241.0	290.6	-17.1
<i>Gross Margin</i>	<i>37%</i>	<i>38%</i>	<i>28%</i>	<i>19%</i>	<i>35%</i>	<i>-16 pp</i>	<i>31%</i>	<i>34%</i>	<i>-3 pp</i>
Administrative Expenses	-10.6	-8.8	-14.2	-14.5	-10.4	39.5	-48.1	-43.5	10.6
Exploration Expenses	-1.5	-1.7	-3.9	-6.7	-0.7	795.6	-13.7	-2.2	533.0
Sales Expenses	-6.2	-7.0	-6.3	-7.6	-8.2	-6.5	-27.2	-30.6	-11.1
Other Income (Expenses) ¹	-2.9	-15.1	-4.5	3.7	-2.6		-18.8	-10.5	80.0
Operating Profit	53.5	46.1	25.0	8.5	54.7	-84.5	133.2	203.9	-34.7
<i>Operating Margin</i>	<i>26%</i>	<i>22%</i>	<i>13%</i>	<i>5%</i>	<i>25%</i>	<i>-20 pp</i>	<i>17%</i>	<i>24%</i>	<i>-7 pp</i>
Financial Income (Expense)	-9.3	-9.8	-9.4	-12.3	-14.6	-15.7	-40.8	-40.3	1.2
Exchange Difference (net)	0.2	-0.9	-1.4	-2.3	-0.7	223.5	-4.4	1.2	
Royalties	-4.0	-4.9	-2.8	-1.6	-4.3	-63.5	-13.3	-17.5	-23.9
Income Tax	-15.9	-12.7	-10.3	-5.6	-11.6	-51.6	-44.4	-54.6	-18.6
Net Profit before Exceptionals	24.5	17.9	1.3	-13.3	23.5		30.3	92.7	-67.3
<i>Net Margin</i>	<i>12%</i>	<i>9%</i>	<i>1%</i>	<i>-8%</i>	<i>11%</i>	<i>-19 pp</i>	<i>4%</i>	<i>11%</i>	<i>-7 pp</i>
Exceptional adjustments ²	-2.3	0.0	0.0	1.4	-570.2		-0.9	-570.2	-99.8
Net Profit after Exceptionals	22.2	17.9	1.3	-11.9	-546.7	-97.8	29.4	-477.5	
EBITDA³	91.8	81.6	64.6	50.9	88.4	-42.5	288.8	343.0	-15.8
<i>EBITDA Margin</i>	<i>45%</i>	<i>39%</i>	<i>34%</i>	<i>29%</i>	<i>41%</i>	<i>-11 pp</i>	<i>37%</i>	<i>40%</i>	<i>-3 pp</i>

¹ Includes the sales and cost of sales of the energy division.

² Exceptionals for 2018 are equivalent to USD -12.3 MM in cost of goods sold, USD 38.7 MM in other income (expenses) y USD -27.4 MM in income tax, which total USD -0.9 MM.

³ Does not consider exceptional adjustments.

Source: Volcan Cia. Minera

• Sales Analysis

Table 5: Average Sales Prices

Sales Prices	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Zinc (USD/MT)	3,404	3,122	2,549	2,636	3,161	-16.6	2,917	2,836	2.9
Lead (USD/MT)	2,511	2,392	2,123	1,964	2,499	-21.4	2,245	2,311	-2.8
Copper (USD/MT)	6,931	6,896	6,123	6,158	6,688	-7.9	6,464	6,148	5.1
Silver (USD/Oz)	16.7	16.6	15.0	14.5	16.6	-12.6	15.7	17.1	-7.9
Gold (USD/Oz)	1,330	1,302	1,215	1,228	1,274	-3.6	1,265	1,262	0.3

Source: Volcan Cia. Minera

Table 6: Fine Contents Sales Volumes

Fines Sales		Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Volcan Production	Zinc (thousands FMT)	59.3	56.2	65.3	58.0	62.6	-7.4	238.7	255.0	-6.4
	Lead (thousands FMT)	10.1	13.9	12.4	11.4	12.8	-10.7	47.8	51.0	-6.3
	Copper (thousands FMT)	0.7	1.1	1.3	1.2	0.9	29.9	4.2	3.6	16.3
	Silver (millions Oz) ¹	3.9	4.8	4.4	4.0	4.3	-7.5	17.0	17.4	-2.2
	Gold (thousands Oz) ¹	3.1	3.9	3.9	4.0	2.9	37.7	15.0	9.9	51.9
Commercial- ization Business	Zinc (thousands FMT)	0.0	0.0	0.0	0.0	0.1	-100.0	0.0	2.6	-100.0
	Lead (thousands FMT)	0.0	0.0	0.0	0.0	0.4	-100.0	0.0	0.6	-100.0
	Copper (thousands FMT)	0.0	0.0	0.0	0.0	0.1	-100.0	0.0	1.5	-100.0
	Silver (millions Oz)	0.0	0.0	0.0	0.0	0.1	-100.0	0.0	0.7	-100.0
	Gold (thousands Oz)	0.0	0.0	0.0	0.0	0.0	-100.0	0.0	0.2	-100.0
Total	Zinc (thousands FMT)	59.3	56.2	65.3	58.0	62.7	-7.5	238.7	257.5	-7.3
	Lead (thousands FMT)	10.1	13.9	12.4	11.4	13.2	-13.3	47.8	51.6	-7.3
	Copper (thousands FMT)	0.7	1.1	1.3	1.2	1.0	17.3	4.2	5.1	-17.0
	Silver (millions Oz)	3.9	4.8	4.4	4.0	4.5	-9.9	17.0	18.1	-5.9
	Gold (thousands Oz)	3.1	3.9	3.9	4.0	2.9	37.1	15.0	10.0	49.5

¹ Includes Oxides Plant silver and gold sales

Source: Volcan Cia. Minera

Table 7: Sales in USD

Sales (millions USD)		Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Volcan Production	Zinc	139.7	127.2	117.9	103.8	131.0	-20.8	488.6	478.9	2.0
	Lead	21.4	28.2	22.8	20.1	27.0	-25.4	92.5	95.2	-2.8
	Copper	3.2	4.5	4.6	3.9	4.2	-6.5	16.3	13.1	24.7
	Silver	53.2	66.0	53.7	47.7	59.4	-19.6	220.7	243.3	-9.3
	Gold	2.6	3.6	3.5	3.7	2.1	73.1	13.4	6.8	96.2
	Sales before adjust.	220.2	229.5	202.5	179.3	223.7	-19.8	831.5	837.4	-0.7
	Sett. of prior period adjust.	2.6	-5.2	-11.8	-20.1	2.1		-34.5	9.5	
	Adjust. for open positions	-7.8	-8.6	-5.4	13.8	-6.5		-8.0	-10.4	-22.9
	Hedging results	-12.3	-5.7	4.0	0.1	-6.6		-13.8	-6.3	118.8
	Sales after adjust.	202.8	210.1	189.3	173.0	212.6	-18.6	775.2	830.1	-6.6
Commercial- ization Business	Zinc	0.0	0.0	0.0	0.0	0.2	-100.0	0.0	5.6	-100.0
	Lead	0.0	0.0	0.0	0.0	0.9	-100.0	0.0	1.4	-100.0
	Copper	0.0	0.0	0.0	0.0	0.5	-100.0	0.0	6.4	-100.0
	Silver	0.0	0.0	0.0	0.0	1.7	-100.0	0.0	9.4	-100.0
	Gold	0.0	0.0	0.0	0.0	0.0		0.0	0.1	-100.0
	Sales before adjust.	0.0	0.0	0.0	0.0	3.3	-100.0	0.0	22.8	-100.0
	Sett. of prior period adjust.	0.0	0.0	0.0	0.0	-0.1	-100.0	0.0	-0.1	-100.0
	Adjust. for open positions	0.0	0.0	0.0	0.0	0.8	-100.0	0.0	3.1	-100.0
	Hedging results	-0.1	0.0	0.0	0.0	-0.1	-100.0	-0.1	0.8	
	Sales after adjust.	-0.1	0.0	0.0	0.0	4.0	-100.0	-0.1	26.6	
Total	Zinc	139.7	127.2	117.9	103.8	131.2	-20.9	488.6	484.5	0.8
	Lead	21.4	28.2	22.8	20.1	27.8	-27.6	92.5	96.5	-4.2
	Copper	3.2	4.5	4.6	3.9	4.7	-16.8	16.3	19.5	-16.4
	Silver	53.2	66.0	53.7	47.7	61.0	-21.8	220.7	252.7	-12.7
	Gold	2.6	3.6	3.5	3.7	2.1	73.1	13.4	6.9	94.1
	Sales before adjust.	220.2	229.5	202.5	179.3	227.0	-21.0	831.5	860.2	-3.3
	Sett. of prior period adjust.	2.6	-5.2	-11.8	-20.1	2.0		-34.5	9.4	
	Adjust. for open positions	-7.8	-8.6	-5.4	13.8	-5.7		-8.0	-7.2	10.6
	Hedging results	-12.4	-5.6	4.0	0.1	-6.7		-13.9	-5.6	149.7
	Sales after adjust.	202.6	210.1	189.3	173.0	216.6	-20.1	775.1	856.7	-9.5

Source: Volcan Cia. Minera

In 4Q18, total sales before adjustments decreased by 21.0%, USD 179.3 MM as compared to USD 227.0 MM in 4Q17, due to lower prices for all metals, reduced sales volume of the Company's own production of zinc, silver and lead, and the absence of sales of third-party concentrates, which totaled USD 3.3 MM in 4Q17.

In 4Q18, sales adjustments were negative, USD -6.3 MM as compared to USD -10.4 MM recorded in 4Q17. That is, quarter versus quarter, there was a positive effect of USD 4.1 MM. In 4Q18, sales adjustments included final settlements of USD -20.1 MM, provisions related to open shipments of USD 13.8 MM, and positive hedge results of USD 0.1 MM. Total sales after adjustments decreased by 20.1%, from USD 216.6 MM in 4Q17 to USD 173.0 MM in 4Q18.

In annual terms (Jan-Dec), sales before adjustments decreased by 3.3%, from USD 860.2 MM in 2017 to USD 831.5 MM in 2018, while sales after adjustments decreased by 9.5%, from USD 856.7 MM in 2017 to USD 775.1 in 2018, due to the absence of sales of third-party concentrates, which totaled USD 22.8 MM in 2017, and the significant negative sales adjustments (USD -42.5 MM in 2018 vs USD 2.2 MM in 2017), resulting from the declining trend of prices throughout the year, and negative hedge results (USD -13.9 MM in 2018 vs USD -5.6 MM in 2017).

- **Cost of Goods Sold**

Table 8: Cost of Goods Sold (before exceptionals)

Cost of Goods Sold (millions USD)	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Volcan Production	125.0	128.6	134.1	139.6	132.7	5.1	527.2	539.8	-2.3
Volcan Production Cost	92.7	90.5	97.8	95.2	101.0	-5.7	376.3	399.5	-5.8
D&A from Production Cost	35.0	29.6	35.2	48.2	34.5	39.8	148.0	130.5	13.4
Ore Purchase	0.0	0.0	0.6	1.1	0.0		1.7	3.1	-43.9
Extraordinary Costs	0.4	0.4	0.2	0.4	1.0	-53.8	1.4	2.7	-48.4
Variation of Inventories	-3.1	8.1	0.2	-5.4	-3.7	46.3	-0.1	4.0	
Commercialization Business	0.0	0.0	0.0	0.0	2.6	-100.0	0.0	18.5	-100.0
Concentrates Purchase	0.0	0.0	0.0	0.0	2.7	-100.0	0.0	16.9	-100.0
Variation of Inventories	0.0	0.0	0.0	0.0	-0.2	-100.0	0.0	1.6	-100.0
Workers Participation	2.9	2.7	1.3	-0.1	4.7		6.8	7.8	-12.5
Total	127.9	131.3	135.4	139.4	140.0	-0.4	534.1	566.1	-5.7

Source: Volcan Cia. Minera

The total cost of goods sold decreased by 0.4%, from USD 140.0 MM in 4Q17 to USD 139.4 MM in 4Q18. This is mainly explained by a USD 5.8 MM reduction in the production cost, a USD 4.8 MM reduction in workers participation, and a USD 2.7 MM decrease in purchases of third-party concentrates. This was partially offset by a USD 13.7 MM increase in depreciation and amortization, resulting from ongoing works being recorded as assets, and USD 1.1 MM in purchases of third-party ore.

In annual terms (Jan-Dec), the total cost of goods sold declined by 5.7%, from USD 566.1 MM in 2017 to USD 534.1 MM in 2018.

- **Gross Margin and Gross Profit**

The Company's gross margin decreased from 35% in 4Q17 to 19% in 4Q18, due to reduced metals prices. The 56.1% decline of gross profit, from USD 76.6 MM in 4Q17 to USD 33.6 MM in 4Q18, is explained by the reduced gross margin and a lower sales volume.

In annual terms (Jan-Dec), gross margin decreased from 34% in 2017 to 31% in 2018, due to the declining trend of prices during 2018. Gross profit decreased from USD 290.6 MM in 2017 to USD 241.0 MM in 2018.

- **Administrative Expenses**

Administrative expenses increased by 39.5%, from USD 10.4 MM in 4Q17 to USD 14.5 MM in 4Q18, mainly due to specific personnel expenses provisions.

In annual terms (Jan-Dec), administrative expenses rose from USD 43.5 MM in 2017 to USD 48.1 MM in 2018, for the reasons stated above.

- **Exploration Expenses**

Exploration expenses increased from USD 0.7 MM in 4Q17 to USD 6.7 MM in 4Q18. This is explained by investments in greenfield or early stage regional explorations being reflected as expenses under this item in the financial statement and not capitalized as from 2018.

In annual terms (Jan-Dec), exploration expenses rose from USD 2.2 MM in 2017 to USD 13.7 MM in 2018, for the reasons stated above regarding changes to expense reporting.

- **Sale Expenses**

Sales expenses decreased by 6.5%, from USD 8.2 MM in 4Q17 to USD 7.6 MM in 4Q18, due to lower transportation expenses. In annual terms (Jan-Dec), the sales expenses decreased from USD 30.6 MM in 2017 to USD 27.2 MM in 2018.

- **Other Income and Expenses (before exceptionals)**

In 4Q18, the net amount of other income and expenses was positive, USD 3.7 MM versus a negative amount of USD -2.6 MM in 4Q17.

In annual terms (Jan-Dec), other income and expenses were USD -18.8 MM in 2018, as compared to USD -10.5 MM in 2017. The higher negative result is mainly explained by lower income from insurance compensation, costs resulting from suspended operations at Chungar and Yauli, and greater permanent costs at Cerro de Pasco and Yauli.

- **Financial Expenses and Exchange-Rate Difference**

During 4Q18, net financial expenses totaled USD 12.3 MM, a 15.7% decrease if compared to the USD 14.6 MM reported in 4Q17.

In annual terms (Jan-Dec), net financial expenses totaled USD 40.8 MM in 2018, a 1.2% increase if compared to the USD 40.3 MM reported in 2017. Interests from loans received and bank expenses decreased by USD 4.2 MM. However, financial income decreased by USD 2.1 MM and, in line with the IFRS standards, this item now reflects the difference obtained by updating the present value of mine closure provisions, which amounted to USD 2.6 MM.

Moreover, an exchange-rate variation loss totaling USD -2.3 MM was registered in 4Q18, as compared to the exchange-rate loss reported in 4Q17 (USD -0.7 MM). In annual terms (Jan-Dec), an exchange-rate loss totaling USD -4.4 MM was registered in 2018, as compared to the exchange-rate gain reported in 2017 (USD 1.2 MM).

- **Income Tax and Royalties**

Royalties decreased from USD 4.3 MM in 4Q17 to USD 1.6 MM in 4Q18, while income tax decreased from USD 11.6 MM in 4Q17 to USD 5.6 MM in 4Q18, in line with the reduced profits. However, the effective rate of the income tax is distorted in 4Q18 due to specific adjustments to the deferred income tax, related to non-deductible losses of financial instruments of previous periods, and the exchange difference in non-monetary items. It is important to note that adjustments to the deferred income tax have no impact on the Company's cash generation.

In annual terms (Jan-Dec), royalties decreased from USD 17.5 MM in 2017 to USD 13.3 MM in 2018, while income tax decreased from USD 54.6 MM in 2017 to USD 44.4 MM in 2018.

- **Net Profit and EBITDA**

Net profit before exceptional items decreased from USD 23.5 MM in 4Q17 to USD -13.3 MM in 4Q18, mainly due to reduced sales as a result of lower metals prices. EBITDA decreased by 42.5%, from USD 88.4 MM in 4Q17 to USD 50.9 MM in 4Q18.

In annual terms (Jan-Dec), net profit before exceptional items decreased from USD 92.7 MM in 2017 to USD 30.3 MM in 2018, mainly explained by the decreasing trend of prices throughout the year, and the reduced production at Chungar and Yauli resulting from suspended operations to ensure compliance with safety standards. EBITDA decreased from USD 343.0 MM in 2017 to USD 288.8 MM in 2018.

2.5 Liquidity and Creditworthiness

In 4Q18, cash generated by mining operations and the energy business, after operating investments, totaled USD -15.7 MM. Investments in regional exploration, growth and the energy business totaled USD 6.5 MM. Interests paid amounted to USD 1.1 MM and net financing cash flow for the period was negative and totaled USD -12.4 MM. Therefore, during 4Q18, the resulting total cash flow was USD -35.8 MM, and the total cash balance as of December 31, 2018, was USD 63.0 MM.

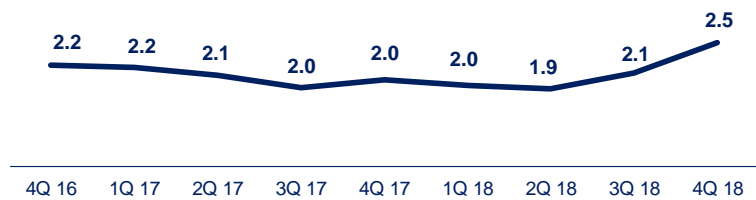
Table 9: Net Debt / EBITDA Ratio

Net Debt/EBITDA Ratio	As of Dec. 31, 2018
Gross Debt (MM USD)	781.5
Cash Balance (MM USD)	63.0
Net Debt (MM USD)	718.5
EBITDA¹ (MM USD)	288.8
Ratio	2.5

¹ EBITDA for the last 12 months.

Source: Volcan Cia. Minera

Figure 4: Net Debt / EBITDA Ratio Evolution



Source: Volcan Cia. Minera

As of December 31, 2018, the net debt/EBITDA ratio was 2.5, higher than in the previous quarter, mainly due to the lower EBITDA accumulated in the last 12 months as a result of lower metals prices.

3. Results by Operating Unit

3.1 Yauli Unit Operating Results

Table 10: Yauli Production

Yauli Production	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Mineral extraction (thousands MT)	757	808	858	778	940	-17.2	3,201	3,563	-10.2
Mineral treatment (thousands MT)	751	823	852	786	937	-16.2	3,212	3,585	-10.4
Fines Content									
Zinc (thousands FMT)	33.7	37.7	40.2	35.0	36.9	-5.1	146.6	146.3	0.3
Lead (thousands FMT)	4.2	4.6	5.0	5.3	4.2	26.1	19.1	18.1	5.9
Copper (thousands FMT)	0.6	0.8	0.8	0.7	0.9	-19.0	2.9	3.0	-3.8
Silver (million Oz)	1.8	2.2	2.0	1.9	2.1	-9.0	7.8	7.7	1.4
Gold (thousands Oz)	1.6	1.9	2.0	1.9	1.6	18.2	7.5	5.2	43.2

Source: Volcan Cia. Minera

In 4Q18, ore extracted at the Yauli Unit decreased by 17.2% as compared to the same quarter of the previous year, mainly explained by over two weeks of suspended operations at all mines with the purpose of ensuring compliance with the Company's high safety standards. The ore treated at the Yauli Unit concentrator plants decreased by 16.2% in 4Q18, as compared to the same period of the previous year.

In annual terms (Jan-Dec), ore extraction in 2018 decreased by 10.2%, as compared to the previous year, while treated ore decreased by 10.4%, as compared to 2017.

In 4Q18, the production of fine zinc, copper and silver decreased by 5.1%, 19.0% and 9.0%, respectively, as compared to 4Q17, mainly due to lower volumes from the Carahuacra, San Cristóbal and Andaychagua mines. Lead production increased by 26.1%, explained by higher head grades at San Cristóbal and Andaychagua.

In annual terms (Jan-Dec), the production of fine zinc, lead, silver and gold increased by 0.3%, 5.9%, 1.4% and 43.2%, respectively, mainly due to the reformulation of mining plans, which resulted in increased head grades. Production of copper decreased by 3.8%, due to lower metallurgical recovery.

Table 11: Yauli Cost of Production

Yauli Production Cost	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Production Cost (MM USD)	52.0	53.1	53.5	50.0	59.5	-15.8	208.6	232.9	-10.4
Extraction Cost	31.2	32.4	32.6	30.1	34.7	-13.4	126.3	138.8	-9.0
Treatment Cost	20.8	20.6	21.0	20.0	24.8	-19.3	82.4	94.2	-12.6
Unit Cost (USD/MT)	68.9	65.2	62.5	64.1	63.3	1.1	65.1	65.2	-0.2
Extraction Cost	41.2	40.1	38.0	38.6	36.9	4.6	39.4	38.9	1.3
Treatment Cost	27.7	25.1	24.6	25.4	26.4	-3.7	25.6	26.3	-2.4

Source: Volcan Cia. Minera

In 4Q18, the absolute cost of production decreased by 15.8%, from USD 59.5 MM in 4Q17 to USD 50.0 MM in 4Q18. This is mainly explained by lower production volumes at the Yauli Unit mines.

The unit cost of production increased by 1.1%, from 63.3 USD/MT in 4Q17 to 64.1 USD/MT in 4Q18, mainly due to lower extracted and treated volumes.

In annual terms (Jan-Dec), the absolute cost of production declined by 10.4%, from USD 232.9 MM in 2017 to USD 208.6 MM in 2018. The unit cost of production decreased by 0.2%, from 65.2 USD/MT in 2017 to 65.1 USD/MT in 2018.

Table 12: Yauli Operating Investments

Yauli Operating Investment (MM USD)	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Local Exploration	2.4	3.2	3.5	4.4	1.6	179.4	13.4	8.0	68.3
Mine Development	12.0	11.2	11.6	12.8	13.1	-1.7	47.6	51.5	-7.4
Plants and Tailings Dams	1.1	2.0	4.3	4.7	6.8	-30.6	12.1	16.2	-25.5
Mine and Infrastructure	1.8	1.8	1.7	4.1	5.1	-20.1	9.4	14.1	-33.5
Electrical Infrastructure	0.8	1.2	0.9	3.0	0.6	428.5	5.9	2.5	138.8
Support and Others	0.5	0.8	0.5	2.0	0.5	306.2	3.8	2.0	84.5
Total	18.5	20.3	22.4	31.0	27.6	12.4	92.2	94.2	-2.2

Source: Volcan Cia. Minera

In 4Q18, operating investments at Yauli amounted to USD 31.0 MM, 12.4% higher than the USD 27.6 MM for 4Q17. Explorations and energy investments increased, but developments, plants, tailings dams and mine infrastructure investments decreased.

In annual terms (Jan-Dec), operating investments fell by 2.2%, from USD 94.2 MM in 2017 to USD 92.2 MM in 2018. The lower investments in developments, plants, tailings dams and mine infrastructure were partially offset by increased explorations and higher energy investments.

3.2 Chungar Unit Operating Results

Table 13: Chungar Production

Chungar Production	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Mineral extraction (thousands MT)	434	301	462	469	459	2.1	1,666	1,868	-10.8
Mineral treatment (thousands MT)	432	317	462	479	444	8.0	1,690	1,838	-8.1
Fines Content									
Zinc (thousands FMT)	19.8	13.7	20.4	21.0	20.9	0.7	74.9	87.8	-14.7
Lead (thousands FMT)	5.0	3.6	4.6	4.9	6.2	-21.4	18.1	22.5	-19.3
Copper (thousands FMT)	0.4	0.3	0.3	0.3	0.5	-34.6	1.3	1.9	-30.6
Silver (million Oz)	1.0	0.8	1.1	1.1	1.0	13.3	3.9	3.6	8.5

Source: Volcan Cia. Minera

In 4Q18, ore volumes extracted at Chungar increased by 2.1% as compared to 4Q17, explained by greater volumes from the Animón and Islay mines. Similarly, ore volumes treated in 4Q18 increased by 8.0%, as compared to the same quarter in the previous year.

In annual terms (Jan-Dec), ore extraction in 2018 decreased by 10.8%, as compared to the previous year, while treated ore decreased by 8.1%, as compared to 2017, explained by approximately one month of suspended operations in 2Q18.

In 4Q18, fine zinc production increased by 0.7%, due to greater treated volumes, and silver production increased by 13.3% due to greater volumes from Islay. Lead and copper production decreased by 21.4% and 34.6%, respectively, due to lower head grades at the Animón mine.

In annual terms (Jan-Dec), zinc, lead, copper production fell by 14.7%, 19.3% and 30.6%, respectively, and silver grew by 8.5%, as compared to the previous year.

Table 14: Chungar Cost of Production

Chungar Production Cost	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Production Cost (MM USD)	25.1	19.8	26.6	26.0	24.7	5.0	97.4	102.2	-4.6
Extraction Cost	14.6	11.2	16.3	15.6	16.0	-2.7	57.7	62.5	-7.6
Treatment Cost	10.5	8.5	10.3	10.4	8.7	19.3	39.7	39.7	0.2
Unit Cost (USD/MT)	57.9	64.2	57.6	54.9	54.5	0.8	58.2	55.0	5.7
Extraction Cost	33.7	37.3	35.2	33.3	34.9	-4.7	34.7	33.5	3.6
Treatment Cost	24.3	27.0	22.4	21.6	19.6	10.5	23.5	21.6	9.0

Source: Volcan Cia. Minera

In 4Q18, the absolute cost of production increased by 5.0%, from USD 24.7 MM in 4Q17 to USD 26.0 MM in 4Q18, due to higher extracted and treated volumes. The unit cost of production increased by 0.8%, from 54.5 USD/MT in 4Q17 to 54.9 USD/MT in 4Q18.

In annual terms (Jan-Dec), the absolute cost of production declined by 4.6%, from USD 102.2 MM in 2017 to USD 97.4 MM in 2018, due to lower extracted and treated volumes. The unit cost of production increased by 5.7%, from 55.0 USD/MT in 2017 to 58.2 USD/MT in 2018.

Table 15: Chungar Operating Investments

Chungar Operating Investment (MM USD)	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Local Exploration	1.4	1.7	2.2	1.9	1.1	74.4	7.3	4.9	48.5
Mine Development	6.5	9.3	6.8	6.7	5.2	28.8	29.3	18.1	61.6
Plants and Tailings Dams	0.9	1.0	1.1	2.2	6.2	-64.7	5.1	16.8	-69.5
Mine and Infrastructure	2.2	2.1	2.2	2.9	3.7	-21.5	9.4	10.5	-9.8
Electrical Infrastructure	0.7	0.2	0.4	1.0	0.5	96.2	2.3	1.0	121.3
Support and Others	0.2	0.2	0.5	0.8	1.7	-53.0	1.7	2.4	-29.2
Total	11.8	14.4	13.3	15.6	18.5	-15.6	55.1	53.7	2.6

Source: Volcan Cia. Minera

Operating investments decreased by 15.6%, from USD 18.5 MM in 4Q17 to USD 15.6 MM in 4Q18, due to lower investments in tailings dams.

In annual terms (Jan-Dec), operating investments grew by 2.6%, from USD 53.7 MM in 2017 to USD 55.1 MM in 2018. Greater investments in developments and explorations were partially offset by lower investments in tailings dams.

3.3 Alparmarca Unit Operating Results

Table 16: Alparmarca Production

Alparmarca Production	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Mineral extraction (thousands MT)	239	223	282	218	262	-17.0	962	1,008	-4.7
Mineral treatment (thousands MT)	229	232	240	246	240	2.6	948	958	-1.0
Fines Content									
Zinc (thousands FMT)	2.4	2.2	2.2	1.6	3.0	-48.3	8.4	11.7	-28.3
Lead (thousands FMT)	1.8	1.6	1.7	1.2	2.0	-42.2	6.2	7.2	-13.5
Copper (thousands FMT)	0.1	0.1	0.1	0.1	0.1	-13.7	0.4	0.5	-15.0
Silver (million Oz)	0.4	0.4	0.4	0.3	0.4	-20.8	1.5	1.8	-20.6

Source: Volcan Cia. Minera

In 4Q18, ore volumes extracted at the Alparmarca Unit decreased by 17.0% compared to the same quarter of the previous year, while treated volumes increased by 2.6%. This is explained by a larger portion of treated ore coming from stockpiles.

In annual terms (Jan-Dec), in 2018 the extraction volume at Alparmarca was reduced by 4.7%, and the treated ore volume decreased by 1.0%, compared to 2017.

In 4Q18, zinc, lead, silver and copper production decreased by 48.3%, 42.2%, 20.8% and 13.7%, respectively, as compared to 4Q17, mainly explained by lower head grades of the treated ore. In annual terms (Jan-Dec), in 2018, zinc, lead, silver and copper production fell by 28.3%, 13.5%, 20.6% and 15.0%, respectively, as compared to 2017.

Table 17: Alparmarca Cost of Production

Alparmarca Production Cost	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Production Cost (MM USD)	3.6	4.0	4.1	4.4	3.7	18.7	16.2	16.9	-4.0
Extraction Cost	1.0	1.3	1.4	1.7	1.0	67.0	5.3	5.5	-2.9
Treatment Cost	2.7	2.7	2.8	2.8	2.7	1.0	10.9	11.4	-4.6
Unit Cost (USD/MT)	15.7	17.3	16.4	19.0	15.3	24.3	17.0	17.3	-1.9
Extraction Cost	4.1	5.7	5.0	7.7	3.8	101.2	5.5	5.4	1.9
Treatment Cost	11.7	11.5	11.5	11.2	11.4	-1.6	11.5	11.9	-3.6

Source: Volcan Cia. Minera

In 4Q18, the absolute cost of production was USD 4.4 MM, 18.7% higher than the USD 3.7 MM figure for the same quarter of the previous year, due to greater stripping cost at the Alparmarca open pit. The unit cost increased by 24.3%, from 15.3 USD/MT in 4Q17 to 19.0 USD/MT in 4Q18.

In annual terms (Jan-Dec), the absolute cost of production decreased by 4.0%, from USD 16.9 MM in 2017 to USD 16.2 MM in 2018. The unit cost of production decreased by 1.9%, from 17.3 USD/MT in 2017 to 17.0 USD/MT in 2018.

Table 18: Alpacamarca Operating Investments

Alpacamarca Operating Inv. (MM USD)	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Local Exploration	0.0	0.5	0.5	0.0	0.0		1.1	0.0	
Plants and Tailings Dams	0.1	0.4	1.7	2.0	1.1	88.0	4.3	3.4	26.5
Mine and Infrastructure	0.0	0.1	0.0	0.0	0.0	195.7	0.2	0.4	-39.0
Support and Others	0.2	0.0	0.0	0.1	0.1	-22.2	0.3	0.4	-15.0
Total	0.3	1.1	2.3	2.2	1.2	81.4	5.9	4.1	43.0

Source: Volcan Cia. Minera

Operating investments increased by 81.4%, from USD 1.2 MM in 4Q17 to USD 2.2 MM in 4Q18, due to higher investments in the tailings dam.

In annual terms (Jan-Dec), operating investments grew by 43.0%, from USD 4.1 MM in 2017 to USD 5.9 MM in 2018, due to increased local explorations and tailings dam investments.

3.4 Cerro de Pasco Unit Operating Results

Table 19: Cerro de Pasco Production

Cerro de Pasco Production	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Mineral extraction (thousands MT)	291	315	327	382	305	25.1	1,314	1,059	24.1
Mineral treatment (thousands MT)	291	315	327	382	305	25.1	1,314	1,059	24.1
Fines Content									
Zinc (thousands FMT)	2.9	2.8	2.5	3.0	3.1	-4.2	11.2	9.3	19.8
Lead (thousands FMT)	1.0	1.0	0.8	0.8	1.1	-26.3	3.7	3.5	6.2
Silver (million Oz)	0.1	0.1	0.1	0.1	0.1	-7.6	0.4	0.4	5.0

Source: Volcan Cia. Minera

In 4Q18, ore volumes extracted and treated at Cerro de Pasco increased by 25.1% compared to the same quarter of the previous year, from 305 thousand MT in 4Q17 to 382 thousand MT in 4Q18. In annual terms (Jan-Dec), in 2018 the extraction and treated volume at Alpacamarca increased by 24.1%, compared to 2017.

In 4Q18, zinc, lead and silver production decreased by 4.2%, 26.3%, and 7.6%, respectively, as compared to 4Q17, mainly explained by lower head grades of the treated ore and lower metallurgical recoveries. In annual terms (Jan-Dec), in 2018, zinc, lead and silver production increased by 19.8%, 6.2% and 5.0%, respectively, as compared to 2017, due to increased volumes.

Table 20: Cerro de Pasco Cost of Production

Cerro de Pasco Production Cost	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Production Cost (MM USD)	3.7	5.1	4.6	5.5	4.2	30.2	18.8	14.3	32.0
Treatment Cost	3.7	5.1	4.6	5.5	4.2	30.2	18.8	14.3	32.0
Unit Cost (USD/MT)	12.6	16.2	14.0	14.3	13.8	4.1	14.3	13.5	6.3
Treatment Cost	12.6	16.2	14.0	14.3	13.8	4.1	14.3	13.5	6.3

Source: Volcan Cia. Minera

Absolute cost increased by 30.2%, from USD 4.2 MM in 4Q17 to USD 5.5 MM in 4Q18 due to higher treated volumes. Unit cost increased by 4.0%, from 13.8 USD/MT in 4Q17 to 14.3 USD/MT in 4Q18.

In annual terms (Jan-Dec), the absolute cost of production increased by 32.0%, from USD 14.3 MM in 2017 to USD 18.8 MM in 2018, mainly due to greater production volume. The unit cost of production increased by 6.4%, from 13.5 USD/MT in 2017 to 14.3 USD/MT in 2018.

Table 21: Cerro de Pasco Operating Investments

Cerro de Pasco Operating Inv. (MM USD)	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Local Exploration	0.0	0.1	0.3	0.1	0.0	1488.7	0.6	0.3	85.3
Plants and Tailings Dams	1.3	1.2	2.2	2.0	7.5	-73.4	6.7	13.1	-48.6
Support and Others	0.1	0.5	0.3	0.7	0.6	18.4	1.6	0.6	168.5
Total	1.5	1.7	2.9	2.8	8.1	-64.8	8.9	14.0	-36.2

Source: Volcan Cia. Minera

Operating investments decreased by 64.8%, from USD 8.1 MM in 4Q17 to USD 2.8 MM in 4Q18, due to lower investments in plants and tailings dams. In annual terms (Jan-Dec), operating investments fell by 36.2%, from USD 14.0 MM in 2017 to USD 8.9 MM in 2018.

3.5 Oxides Plant Operating Results

Table 22: Oxides Plant Production

Oxides Plant Production	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Mineral extraction (thousands MT)	218	228	229	239	232	2.9	914	872	4.8
Mineral treatment (thousands MT)	218	228	229	239	232	2.9	914	872	4.8
Fines Content									
Silver (million Oz)	0.9	0.9	0.8	0.8	1.0	-23.5	3.4	3.7	-9.5
Gold (Oz)	884	1,019	1,087	1,121	871	28.6	4,110	2,850	44.2

Source: Volcan Cia. Minera

In 4Q18, the treated volume of ore from the Oxides Plant stockpiles increased by 2.9% as compared to 4Q17. In annual terms (Jan-Dec), the volume treated increased by 4.8% as compared to 2017.

Silver ounces production decreased by 23.5%, from USD 1.0 MM Oz in 4Q17 to USD 0.8 MM Oz in 4Q18, due to lower head grades, and gold production increased by 28.6%, from 871 Oz in 4Q17 to 1,121 Oz in 4Q18. In annual terms (Jan-Dec), silver ounces production decreased by 9.6% and gold increased by 44.2% compared to the previous year.

Table 23: Oxides Plant Cost of Production

Oxides Plant Production Cost	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Production Cost (MM USD)	8.3	8.6	8.9	9.3	8.9	4.9	35.2	33.3	5.6
Extraction Cost	1.2	1.2	1.3	1.4	1.2	16.2	5.1	4.6	12.4
Treatment Cost	7.1	7.4	7.6	7.9	7.7	3.1	30.0	28.7	4.5
Unit Cost (USD/MT)	38.1	37.9	38.9	39.0	38.2	1.9	38.5	38.2	0.7
Extraction Cost	5.7	5.4	5.7	5.8	5.2	12.9	5.6	5.3	7.2
Treatment Cost	32.4	32.6	33.2	33.1	33.1	0.2	32.8	32.9	-0.3

Source: Volcan Cia. Minera

In 4Q18, the absolute cost of production totaled USD 9.3 MM, 4.9% higher than in 4Q17, in line with the increased treated volume. Unit cost increased by 1.9%, from 38.2 USD/MT in 4Q17 to 39.0 USD/MT in 4Q18.

In annual terms (Jan-Dec), the absolute cost of production increased by 5.6%, from USD 33.3 MM in 2017 to USD 35.2 MM in 2018. The operation's unit cost increased by 0.7%, from 38.2 USD/MT in 2017 to 38.5 USD/MT in 2018.

Table 24: Oxides Plant Operating Investments

Oxides Plant Operating Inv. (MM USD)	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Plants and Tailings Dams	1.4	1.3	2.4	2.1	2.1	-0.6	7.1	3.3	112.6
Mine and Infrastructure	0.0	4.1	0.7	0.4	0.4	-1.8	5.2	1.7	205.6
Support and Others	0.1	0.2	0.0	0.2	0.1	73.2	0.5	0.5	13.9
Total	1.5	5.5	3.2	2.7	2.6	2.7	12.8	5.5	132.4

Source: Volcan Cia. Minera

Operating investments increased by 2.7%, from USD 2.6 MM in 4Q17 to USD 2.7 MM in 4Q18.

In annual terms (Jan-Dec), operating investments grew by 132.4%, from USD 5.5 MM in 2017 to USD 12.8 MM in 2018. This increase is related to investments for the development of oxides on-site and the expansion of the tailings dam.

4. Energy

Table 25: Volcan's Electric Power Balance

Electric Balance (GWh)	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Energy generation	84.0	73.0	73.2	77.5	85.1	-9.0	307.8	352.5	-12.7
Chungar	40.3	37.9	33.2	41.6	43.8	-4.9	153.0	161.9	-5.5
Tingo	2.2	2.4	2.2	2.3	2.1	8.9	9.1	9.0	1.5
Huanchor	41.5	32.7	37.8	33.5	39.1	-14.3	145.6	146.9	-0.9
Rucuy	0.0	0.0	0.0	0.0	0.0		0.0	34.6	-100.0
Energy consumption	174.0	174.6	181.5	181.8	180.6	0.6	711.8	706.7	0.7
Energy purchase	131.4	134.3	146.1	137.8	135.7	1.6	549.6	541.4	1.5

Source: Volcan Cia. Minera

During 4Q18, Volcan's total consumption of electric power reached 181.8 GWh, with a maximum demand of 93.8 MW.

The 10 hydroelectric plants that belong to the Chungar Unit generated 41.6 GWh. This accounted for 23% of the Company's total consolidated consumption, at an average cost of 18.4 USD/MWh, including operating, maintenance and transmission costs. Moreover, the Tingo Hydroelectric Plant generated 2.3 GWh, which was sold directly to Chungar.

Volcan purchased 137.8 GWh from the national central grid system (the SEIN) in order to meet its total consumption demand, at an average cost of 57.1 USD/MWh.

The Huanchor Hydroelectric Plant produced 33.5 GWh. All of this power was sold to third parties.

The operations at the Rucuy Hydroelectric Plant were suspended since March 2017 as a consequence of the coastal El Niño, due to damage to part of the penstock and a section of the transmission line. Repair works at the plant include the construction of a 430 m vertical shaft and a 620 m tunnel to replace the penstock, which are being built in line with the high safety standards of the Company. Operations are expected to resume in the first half of 2019. It is worth noting that the insurance company's adjuster has issued a favorable final report on material damages and loss of profit arising from the insurance claim.

5. Final Comments

- It is important to stress that Volcan's most valuable asset is the safety of all its employees at the operations. For this reason, the Company is permanently focused on ensuring safe working conditions and a Safe Workplace culture, in compliance with the high safety standards in place. In this regard, the Company did not hesitate to suspend operations at Chungar for over three weeks in 2Q18, and operations at Yauli for over two weeks in 4Q18, to ensure compliance with standards that guarantee the safety of our employees. Fines production in 2018 was affected by the suspended operations, generating a loss in the Company's financial results, but these measures will serve as the foundation to ensure a safe production growth in the long term.
- The Company is permanently focused on developing and improving its mine infrastructure, and increasing its resources through exploration plans, with the objective of increasing the life of mine at its main operations.
- In 2018, over 209 thousand meters of diamond drilling were carried out at the current operations, and 55 thousand meters at regional explorations, mainly at Palma, Carhuacayán, Zoraida and Romina. In 2018, a total of 263 thousand meters of diamond drilling were carried out, 26% higher than the 208 thousand meters drilled in 2017.
- Compared to the previous year, the results of 2018 were mainly affected by lower sales resulting from final settlements and negative provisions on open shipments, as a consequence of the declining trend of metals prices throughout the year, and lower production due to suspended operations at Chungar and Yauli.
- The Rucuy Hydroelectric Plant should resume operations in the first half of 2019, after being suspended since March 2017, due to damage to part of the penstock and a section of the transmission line as a consequence of the coastal El Niño. Repair works at the plant include the construction of a 430 m vertical shaft and a 620 m tunnel to replace the penstock.
- In January 2019, in the city of Davos, Switzerland, the Company executed partnership agreements with China's Cosco Shipping Ports Limited (CSPL) for the development of the Chancay port. Under these agreements, CSPL will join Terminales Portuarios Chancay (TPCH) as a shareholder upon the operation's closure, owning 60% of representative shares of the capital stock. Volcan will own the remaining 40% of TPCH capital stock.

CSPL is a subsidiary of China's Cosco Shipping Corporation Ltd., which is the largest integrated port, freight and shipyard transnational company in the world, ranking first among container management companies, with 104 million TEUs per year, in over 50 ports in Asia, America, Europe and the Middle East. It is important to note that this group also owns COSCO SHIPPING LINE, the world's largest shipping company, which is part of Ocean Alliance together with Evergreen, CMA-CMG and OOCL.

The first stage of construction of the Chancay port with an estimate investment of USD 1,300 MM includes the entrance facilities, the underground pipeline tunnel, and the port operational area, which in turn comprise the container terminal and its two docks, and the bulk, general and rolling cargo terminal with two additional docks. This amount includes the

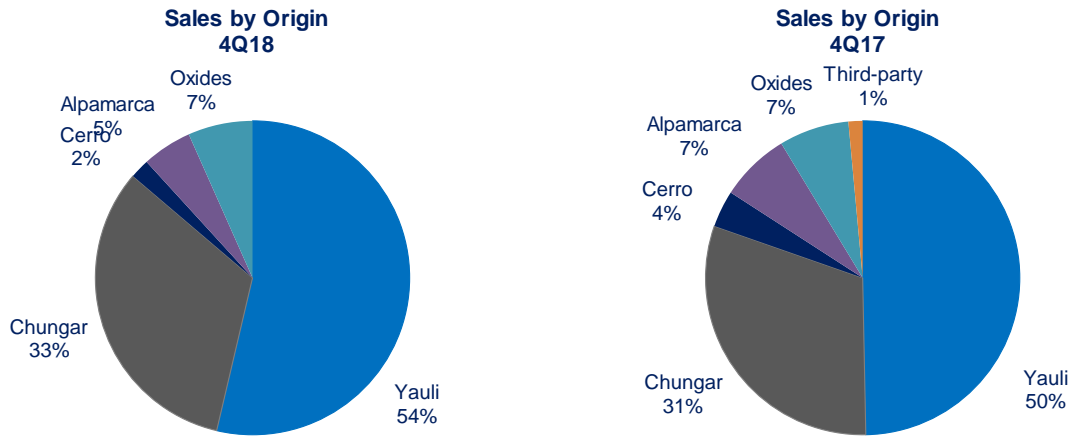
payment already made by Volcan and the USD 225 MM paid by CSPL for a 60% share of the capital stock. The difference will be financed through a non-recourse loan and no further capital contributions will be needed. Accordingly, Volcan will not make any additional investment in this project.

The development of the Chancay port is a great opportunity to boost Peru's economic development through a new connectivity network of maritime and land economic corridors between China and the rest of the world. Owing to its exceptional characteristics, Chancay port will become an important integrated port and logistics hub in the Pacific region in the medium term.

Annexes

Annex 1: Sales Breakdown

Figure 5: Sales by Origin (percentage of value in USD)

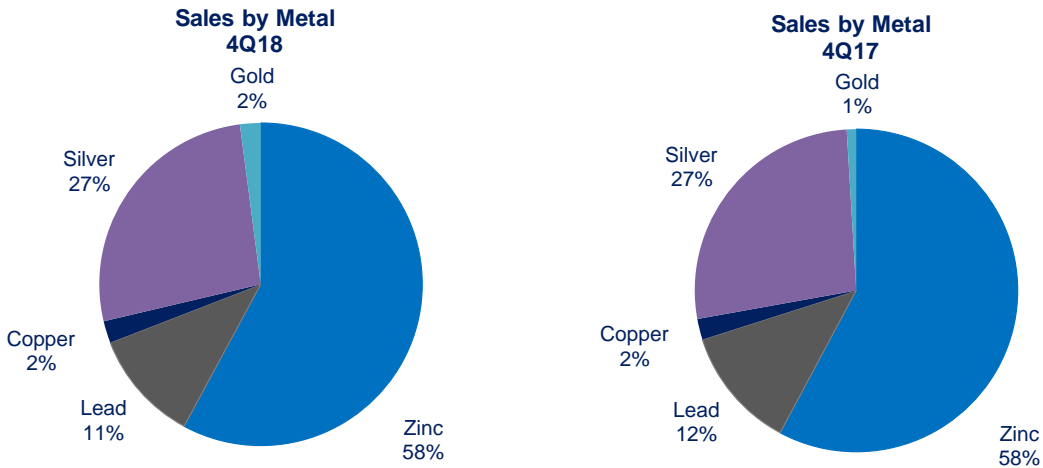


Source: Volcan Cia. Minera

Source: Volcan Cia. Minera

The distribution of sales by origin reflects an increase in the contribution of Yauli and Chungar in total sales, as compared to a reduced contribution by Cerro de Pasco and Alpamarca. Moreover, as from 4Q18, there are no third-parties concentrates sales.

Figure 6: Sales by Metal (percentage of value in USD)



Source: Volcan Cia. Minera

Source: Volcan Cia. Minera

The distribution of sales by metal in 4Q18 shows that the contribution of zinc and silver to total sales is similar to the one recorded in 4Q17.

Annex 2: Average Spot Prices

Spot Prices	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Zinc (USD/MT)	3,422	3,114	2,534	2,630	2,630	3,234	-18.7	2,925	2,894	1.1
Lead (USD/MT)	2,523	2,387	2,102	1,964	1,964	2,493	-21.2	2,244	2,318	-3.2
Copper (USD/MT)	6,959	6,872	6,103	6,168	6,168	6,808	-9.4	6,525	6,163	5.9
Silver (USD/Oz)	16.8	16.5	15.0	14.5	14.5	16.7	-12.9	15.7	17.1	-7.9
Gold (USD/Oz)	1,331	1,307	1,213	1,229	1,229	1,277	-3.8	1,270	1,258	0.9

Source: London Metal Exchange

Annex 3: Macroeconomic Indicators

Macroeconomic Indicators	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Exchange Rate (S/ x USD)	3.24	3.26	3.29	3.36	3.36	3.25	3.4	3.29	3.26	0.8
Inflation	0.36	1.43	1.28	2.19	2.19	1.36	60.6	2.19	1.36	60.6

¹ Inflation of the last 12 months

Source: Central Reserve Bank of Peru

Annex 4: Domestic Peruvian Metal Production

National Production	Jan-Mar 2018	Apr-Jun 2018	Jul-Sep 2018	Oct-Dec 2018	Oct-Dec 2017	var %	Jan-Dec 2018	Jan-Dec 2017	var %
Silver (Thousands Oz)	32,551	33,906	35,045	32,331	35,634	-9.3	133,832	142,041	-5.8
Zinc (FMT)	345,966	396,911	381,960	349,837	390,283	-10.4	1,474,674	1,473,073	0.1
Lead (FMT)	67,545	68,559	77,320	75,771	79,010	-4.1	289,195	306,784	-5.7
Copper (FMT)	567,502	606,193	612,568	650,688	645,320	0.8	2,436,951	2,445,584	-0.4
Gold (Thousands Oz)	1,075	1,154	1,202	1,155	1,261	-8.4	4,586	4,886	-6.1

Source: Ministry of Energy and Mines