ORVANA
MINERALS CORP

MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE AND SIX MONTHS ENDED MARCH 31, 2019

Introduction

This management's discussion and analysis ("MD&A") of results of operations and financial condition of Orvana Minerals Corp. and its consolidated subsidiaries ("Orvana" or the "Company") describes the operating and financial results of Orvana for the three and six months ended March 31, 2019.

This MD&A should be read in conjunction with the unaudited condensed interim consolidated financial statements of Orvana for the three and six months ended March 31, 2019 and related notes thereto (the "Q2 Financials"). The Q2 Financials are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board.

In this MD&A, all currency amounts (except per unit amounts) unless otherwise stated, are in United States dollars ("US dollars"). Production and sales in respect of gold and silver are in fine troy ounces referred to as "ounces" or "oz" and in respect of copper are in pounds also referred to as "lbs". The information presented in this MD&A is as of May 13, 2019, unless otherwise stated.

A cautionary note regarding forward-looking statements follows this MD&A.

Company Overview

Orvana is a multi-mine gold-copper-silver producer with organic growth opportunities. Orvana's operating properties consist of:

(i) El Valle and Carlés underground mines with their El Valle processing plant (collectively, "El Valle"), producer of copper concentrates and doré bars; located in Asturias, northern Spain; and,

(ii) The Don Mario Mine Complex ("Don Mario"), a set of assets that includes Cerro Felix satellite open pit, Las Tojas ore body, and the previously mined Lower Mineralized Zone ("LMZ") and Upper Mineralized Zone ("UMZ"), with processing facilities that currently produce doré bars, and previously produced copper concentrates, located in Chiquitos, southeastern Bolivia.

Orvana's strategic focus is on initiatives and opportunities that deliver long-term shareholder value. In that regard, Orvana is currently working to optimize its operations, reduce its unitary operating costs and realize growth in its future production base through exploration within, and in proximity, to its existing operations.

Consolidated Operating and Financial Highlights:

- **Net income of $3.3 million for the three months ended March 31, 2019 and $2.3 million for the first half of fiscal 2019.**
- **EBITDA of $8.3 million for the three months ended March 31, 2019 and $12.7 million for the first half of fiscal 2019.**
- **El Valle delivers 7% higher gold production (17,742 oz) in the second quarter of fiscal 2019 compared to the first quarter (16,546 oz), due to 8% grade increase.** Gold grade improved in the second quarter to 3.49 g/t due to 44% oxides participation in blending (41% in previous quarter).
- **Don Mario delivers 11% lower gold production (9,564 oz) in the second quarter of fiscal 2019 compared to the first quarter (10,726 oz), according to plan and on track to meet fiscal 2019 guidance.**

  Engineering to develop a Sulphidization-Acidification-Recycling-Thickening "(SART") circuit, and associated leach pad, continues to progress. This undertaking is designed to add an additional three years of mine life, starting in FY2021, for Don Mario, subject to the completion of technical and economic reviews supportive of the project and securing the required financing.

- **In the second quarter of fiscal 2019 the Company, through its wholly-owned subsidiary OroValle, closed a syndicated credit facility with three Spanish Banks for a total amount of €6 million.** Concurrent with the closing, Orvana repaid the full Samsung C&T Prepayment Facility, originally entered into in August 2016. **Subsequent to March 31, 2019, the syndicated credit facility has been increased by €2 million, to a total amount of €8 million.**
- **Subsequent to March 31, 2019, the Board of Directors of the Company approved to enter into a purchase agreement with Compañía Minera Taguas S.A. pursuant to which Orvana agrees to acquire the Taguas property located in the Province of San Juan, Argentina.** In consideration for 100% of the Taguas Property, Orvana will grant Compañía Minera Taguas S.A. an indivisible net smelter royalty equal to 2.5% on all future metals production mined from the Taguas Property.
- **Fiscal 2019 Guidance Maintained:** Based on operating results generated from the first half of fiscal 2019, the Company believes that it will be within its stated fiscal 2019 consolidated production and cost guidance. Consolidated cash operating costs ("COC") and all-in sustaining costs ("AISC") per ounce of gold sold for the first half of fiscal 2019 were $999 and $1,135, respectively (refer to Outlook section of this MD&A, below).

Consolidated Results

	Q2 2019	Q1 2019	Q2 2018	YTD 2019	YTD 2018
Operating Performance					
Gold					
Grade (g/t)	**2.54**	2.54	**2.54**	**2.54**	**2.55**
Recovery (%)	**93.2**	93.5	**92.2**	**93.3**	**91.1**
Production (oz)	**27,306**	27,272	**24,788**	**54,578**	**47,960**
Sales (oz)	**25,507**	27,466	**25,489**	**52,973**	**47,484**
Average realized price / oz	**$1,299**	$1,226	**$1,304**	**$1,261**	**$1,293**
Copper					
Grade (%)	**0.49**	0.48	**0.57**	**0.49**	**0.60**
Recovery (%)	**78.1**	75.9	**63.0**	**77.0**	**63.1**
Production ('000 lbs)	**1,441**	1,375	**2,609**	**2,816**	**5,368**
Sales ('000 lbs)	**1,531**	1,400	**2,531**	**2,931**	**5,231**
Average realized price / lb	**2.80**	$2.81	**$2.80**	**2.80**	**$2.81**
Financial Performance *(in 000's, except per share amounts)*					
Revenue	**$36,013**	$36,318	**$36,930**	**$72,331**	**$71,100**
Mining costs	**$27,512**	$30,595	**$30,525**	**$58,107**	**$58,585**
Gross margin	**$3,930**	$865	**($394)**	**$4,795**	**$64**
Net income (loss)	**$3,334**	($1,060)	**($3,505)**	**$2,274**	**($6,884)**
Net income (loss) per share (basic/diluted)	**$0.02**	($0.01)	**($0.03)**	**$0.02**	**($0.05)**
EBITDA (1)	**$8,265**	$4,449	**$4,473**	**$12,714**	**$8,655**
Operating cash flows before non-cash working capital changes	**$8,684**	$4,169	**$2,447**	**$12,853**	**$4,533**
Operating cash flows	**$1,238**	$3,366	**($5,486)**	**$4,604**	**($3,339)**
Ending cash and cash equivalents	**$9,316**	$8,325	**$12,482**	**$9,316**	**$12,482**
Capital expenditures (2)	**$1,956**	$1,763	**$5,462**	**$3,719**	**$11,669**
Cash operating costs (by-product) ($/oz) gold (1)	**$971**	$1,025	**$1,055**	**$999**	**$1,029**
All-in sustaining costs (by-product) ($/oz) gold (1)(2)	**$1,107**	$1,161	**$1,309**	**$1,135**	**$1,283**
All-in costs (by-product) ($/oz) gold (1)(2)	**$1,138**	$1,172	**$1,387**	**$1,156**	**$1,390**

(1) Earnings before interest, taxes, depreciation and amortization ("EBITDA"), cash operating costs, , all-in sustaining costs and all-in costs are non-IFRS performance measures. For further information and a detailed reconciliation of these measures not presented elsewhere, please see the "Other Information - Non-IFRS Measures" section of this MD&A.

(2) These amounts are presented in the consolidated cash flows in the Q2 Financials on a cash basis. Each reported period excludes capital expenditures incurred in the period which will be paid in subsequent periods and includes capital expenditures incurred in prior periods and paid for in the applicable reporting period. See the "Cash Flows, Commitments and Liquidity - Capital Expenditures" section of this MD&A. The calculation of all-in sustaining costs and all-in costs includes capex incurred (paid and unpaid) during the period.

Operational Results

- Production of 27,306 ounces of gold and 1.4 million pounds (654 tonnes) of copper during the second quarter of fiscal 2019, a sustained level of gold production and an increase in copper production of 5% compared with the first quarter of fiscal 2019.
- Production of 31,091 gold equivalent ounces during the second quarter of fiscal 2019, compared with 30,988 gold equivalent ounces during the first quarter of fiscal 2019. (1)
- Sales of 25,507 ounces of gold and 1.5 million pounds (695 tonnes) of copper during the second quarter of fiscal 2019, a decrease in gold sales of 7% and an increase in copper sales of 9% compared with the first quarter of fiscal 2019.
- Gold and copper production of 54,578 ounces and 2.8 million pounds (1,277 tonnes), respectively, during the first half of fiscal 2019, an increase of 14% to gold production and a decrease to copper production of 48%, compared to the first half of fiscal 2018.
- Production of 62,079 gold equivalent ounces during the first half of fiscal 2019, compared with 62,562 gold equivalent ounces during the first half of fiscal 2018. (1)
- Sales of 52,973 ounces of gold and 2.9 million pounds (1,329 tonnes) of copper during the first half of fiscal 2019, an increase of 12% in gold and a decrease of 44% in copper, compared with the first half of fiscal 2018.

El Valle

- Gold and copper production increased by 7% and 5%, respectively, compared with the first quarter of fiscal 2019, driven by higher gold and copper grades, as well as a 2% improvement in copper recovery.
- The ratio of oxides to skarns processed in the mill was at the level of 44% over the second quarter of fiscal 2019, an increase of 3% compared to the first quarter of fiscal 2019. The Company target is to reach a 50% of oxides processing blend.
- Mechanical advance rates in oxide areas continued to improve, increasing by 6% to 2,019 meters during the second quarter of fiscal 2019, as compared to the first quarter of fiscal 2019.
- Carlés ore processed at the mill was 16% of total tonnes in the second quarter of fiscal 2019, an increase of 9% compared to the first quarter of fiscal 2019.

Don Mario

- Gold production in the second quarter of fiscal 2019 was 9,564 ounces, a decrease of 11% compared to 10,726 ounces during the first quarter of fiscal 2019. Production decrease was due to lower head-grade area mined, which was expected and planned for.
- Gold recovery of 94% in the second quarter of fiscal 2019 remained stable compared to 94.1% gold recovery in the first quarter of fiscal 2019.

Financial Results

- Consolidated cash and cash equivalents were $9.3 million as at March 31, 2019, an increase of $1 million from December 31, 2018.
- Net revenue of $36 million for the second quarter of fiscal 2019, or 2% lower, compared with $36.9 million for the second quarter of fiscal 2018, primarily due to lower copper sales volume.
- Mining costs of $27.5 million for the second quarter of fiscal 2019, or 10% lower, compared with $30.5 million for the second quarter of fiscal 2018 primarily due to exchange movements in the Euro to USD rate at El Valle, as well as lower royalty taxes and cost of goods sold at Don Mario as a result of lower copper production.
- Net income for the second quarter of fiscal 2019 of $3.3 million compared with net loss $3.5 million for the second quarter of fiscal 2018.

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(1) Gold equivalent ounces include copper pounds and silver ounces produced and are converted to a gold equivalent based on a ratio of the average market price for the commodities for the period discussed.

- EBITDA for the second quarter of fiscal 2019 of $8.3 million compared with $4.5 million for the second quarter of fiscal 2018. (2)
- Cash flows provided by operating activities of $1.2 million for the second quarter of fiscal 2019, compared with cash flows used in operating activities of $5.5 million for the second quarter of fiscal 2018 and cash flows provided by operating activities before changes in non-cash working capital of $8.7 million in the second quarter of fiscal 2019, compared with $2.4 million for the second quarter of fiscal 2018. (2)
- Capital expenditures of $2 million for the second quarter of fiscal 2019 compared with $5.5 million for the second quarter of fiscal 2018.
- COC and AISC on a by-product basis (net of copper and silver by-product revenue from El Valle and Don Mario) per ounce of gold sold for the second quarter of fiscal 2019 of $971 and $1,107, respectively, compared with COC and AISC (by-product) of $1,055 and $1,309, respectively, for the second quarter of fiscal 2018. Decreased mining costs and lower capital expenditures at El Valle and Don Mario positively impacted both COC and AISC. (2)
- Net revenue of $72.3 million for the first half of fiscal 2019, or 2% higher, compared with $71.1 million for the first half of fiscal 2018, primarily due to higher gold sales volumes, partially off-set by lower copper sales volumes and and lower realized prices of gold.
- Mining costs of $58.1 million for the first half of fiscal 2019, or 1% lower, compared with $58.6 million for the first half of fiscal 2018.
- Net income for the first half of fiscal 2019 of $2.3 million compared with loss of $6.9 million for the first half of fiscal 2018.
- EBITDA for the first half of fiscal 2019 of $12.7 million compared with $8.7 million for the first half of fiscal 2018. (2)
- Consolidated cash and cash equivalents were $9.3 million as at March 31, 2019, a decrease of $2.3 million from September 30, 2018.
- Cash flows provided by operating activities of $4.6 million in the first half of fiscal 2019, compared with cash flows used in operating activities of $3.3 million for the first half of fiscal 2018 and cash flows provided by operating activities before changes in non-cash working capital of $12.9 million in the first half of fiscal 2019, compared with $4.5 million in the first half of fiscal 2018. (2)
- Capital expenditures of $3.7 million for the first half of fiscal 2019 compared with $11.7 million in the first half of fiscal 2018.
- COC and AISC on a by-product basis (net of copper and silver by-product revenue from El Valle and Don Mario) per ounce of gold sold in the first half of fiscal 2019 of $999 and $1,135, respectively, compared with COC and AISC (by-product) of $1,029 and $1,283, respectively. Higher gold volumes sold and lower capital expenditures resulted in lower COC and AISC. (2)

Growth Initiatives Highlights

El Valle

- Carlés is expected to re-start providing skarn material with a new short-term open pit project. Production is scheduled for fiscal 2019.
- Continuous fine-tuning of oxides fleet with higher capacity equipment (to improve efficiencies and availability).
- Evaluation of backfill processes, to improve logistic efficiencies with focus on cost control.

Don Mario

- The Company is analysing an economic way to treat its Oxides Stockpile of 2.1 million tonnes (1.85 g/t Au and 1.9% Cu). Studies conducted in fiscal 2018 show an economic metallurgical

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(2) EBITDA, cash flows provided by operating activities before non-cash working capital, COC and AISC are non-IFRS performance measures. The Company believes that, in addition to conventional measures prepared in accordance with IFRS, the Company and certain investors use this information to evaluate the Company's performance including the Company's ability to generate cash flows from its mining operations. Accordingly, it is intended to provide additional information and should not be considered in isolation or as substitutes for measures of performance prepared in accordance with IFRS. For further information and detailed reconciliations, please see the "Other Information - Non-IFRS Measures" section of this MD&A.

option combining a SART circuit, with preceding heap leaching, and ending up in conventional CIC. Engineering to develop a SART circuit, and associated leach pad, continues to progress. This undertaking is designed to add an additional three years of mine life, starting in fiscal 2021, for Don Mario.

- The Company has commenced an evaluation of re-processing tailings to determine the viability of recovering gold from material deposited in the tailings impoundment since the commencement of production at Don Mario.
- Mine exploration activities are focused on completing Las Tojas open pit infill drilling in order to complete tonnage/grade for fiscal 2020 mine plan.

Outlook

The Company continues to pursue its objectives of optimizing production, lowering unitary cash costs, maximizing free cash flow, and extending the life-of-mine of its operations while increasing its output.

At El Valle, the primary objective for the second half of fiscal 2019 is maintaining the level of metal production achieved in the first half of the fiscal year and lowering unitary cash costs. Several productivity initiatives are in progress, including the following: revaluation of the backfill process, reduction of power consumption through different initiatives at the plant and the mine, and renegotiation of rental of fleet units to reduce costs.

At Don Mario, production for the second half of fiscal 2019 is planned from Cerro Felix deposit. Year-to-date production results are on track to meet FY2019 Guidance. Mine exploration activities are focused on Las Tojas open pit infill drilling in order to complete tonnage/grade for FY2020 mine plan. Next focus for life of mine extension is processing the existing oxides stockpile. This undertaking will require the implementation of a SART circuit, subject to the completion of technical and economic reviews supportive of the project and securing the required financing. Engineering phase is in progress, expecting to be closed along the second half of fiscal 2019.

The following table sets out Orvana's results for the second quarter of fiscal 2019 as well as its fiscal 2019 production and cost guidance.

	YTD 2019 Actual	**FY 2019 Guidance**
El Valle Production		
Gold (oz)	**34,288**	62,000 – 68,000
Copper (million lbs)	**2.8**	3.2 – 3.6
Don Mario Production		
Gold (oz)	**20,290**	38,000 – 42,000
Copper (million lbs)		
Total Production		
Gold (oz)	**54,578**	100,000 – 110,000
Copper (million lbs)	**2.8**	3.2 – 3.6
Total capital expenditures	**$3,719**	$12,000 – $13,500
Cash operating costs (by-product) ($/oz) gold [1]	**$999**	$950 – $1,050
All-in sustaining costs (by-product) ($/oz) gold [1]	**$1,135**	$1,150 – $1,250

(1) FY 2019 guidance assumptions for COC and AISC include by-product commodity prices of $2.75 per pound of copper and an average Euro to US Dollar exchange of 1.16.

Overall Performance

The key factors affecting Orvana's operating and financial performance are tonnages mined and treated, metal grade and recoveries, quantities of metals produced and sold, realized metals prices, costs (including labour, energy and other supplies and material), mine development and other capital expenditures, foreign exchange rates and tax rates.

Second Quarter Ended March 31, 2019 Compared with Second Quarter Ended March 31, 2018

The Company recorded a net income of $3.3 million or $0.02 per share for the second quarter of fiscal 2019 compared with $3.5 million of net loss or $0.03 per share for the second quarter of fiscal 2018. The Company's net income was impacted significantly by the following factors:

- Revenue for the second quarter of fiscal 2019 decreased by $0.9 million or 2% to $36.0 million from sales of 25,507 ounces of gold and 1.5 million pounds of copper from El Valle and Don Mario compared with revenue of $36.9 million from sales of 25,489 ounces of gold and 2.5 million pounds of copper in the second quarter of fiscal 2018. The decrease in revenue was primarily due to lower copper sales volumes.
- Mining costs were $27.5 million or $3 million lower for the second quarter of fiscal 2019 compared with $30.5 million for the second quarter of fiscal 2018, primarily due to exchange movements in the Euro to USD rate at El Valle, as well as lower royalty taxes and cost of goods sold at Don Mario in the absence of copper production.
- Depreciation decreased by $2.2 million to $4.6 million for the second quarter of fiscal 2019 compared with $6.8 million for the second quarter of fiscal 2018, primarily due to incorporation of the oxides-stockpile in the reserves base at Don Mario.
- Gross margin increased by $4.3 million to positive $3.9 million for the second quarter of fiscal 2019, compared with negative $0.4 for the second quarter of fiscal 2018.

Total consolidated COC (by-product) of $971 per ounce of gold sold in the second quarter of fiscal 2019 were $84 or 8% lower than the second quarter of fiscal 2018. Total AISC (by-product) of $1,107 per ounce of gold sold in the second quarter of fiscal 2019 were $202 or 15% lower than in the second quarter of fiscal 2018. Decreased mining costs and lower capital expenditures at El Valle and Don Mario positively impacted both COC and AISC.

First Half Ended March 31, 2019 Compared with First Half ended March 31, 2018

The Company recorded a net income of $2.3 million or $0.02 per share for the first half of fiscal 2019 compared with $6.9 million of net loss or $0.05 per share for the first half of fiscal 2018. The Company's net income was impacted significantly by the following factors:

- Revenue for the first half of fiscal 2019 increased by $1.2 million or 2% to $72.3 million on sales of 52,973 ounces of gold and 2.9 million pounds of copper from El Valle and Don Mario compared with revenue of $71.1 million on sales of 47,484 ounces of gold and 5.2 million pounds of copper.
- Mining costs were $58.1 million or $0.5 million lower for the first half of fiscal 2019 compared with $58.6 million for the first half of fiscal 2018, primarily due to exchange movements in the Euro to USD rate at El Valle.
- Depreciation decreased by $3.1 million to $9.4 million for the first half of fiscal 2019 compared with $12.5 million for the first half of fiscal 2018.
- Gross margin increased by $4.6 million to $4.7 million for the first half of fiscal 2019 compared with $0.1 million for the first half of fiscal 2018.

Total consolidated COC (by-product) of $999 per ounce of gold sold in the first half of fiscal 2019 were $30 or 3% lower than the first half of fiscal 2018. Total AISC (by-product) of $1,135 per ounce of gold sold in the first half of fiscal 2019 were $148 or 12% lower than in the first half of fiscal 2018. Higher gold volumes sold and lower capital expenditures resulted in lower COC and AISC, but were partially offset by lower by-product credits from copper.

Second Quarter Ended March 31, 2019 Compared with First Quarter Ended December 31, 2018

The Company recorded a net income of $3.3 million or $0.02 per share for the second quarter of fiscal 2019 compared with $1.1 million of net losses or $0.01 per share for the first quarter of fiscal 2019. The Company's net gain was impacted significantly by the following factors:

- Revenue for the second quarter of fiscal 2019 decreased by $0.3 million or 1% to $36 million from sales of 25,507 ounces of gold and 1.5 million pounds of copper from El Valle and Don Mario compared with revenue of $36.3 million from sales of 27,466 ounces of gold and 1.4 million pounds of copper in the first quarter of fiscal 2019. The decrease in revenue was primarily due to lower gold sales volume, partially offset by higher realized prices of gold.
- Mining costs were $27.5 million or $3.1 million lower for the second quarter of fiscal 2019 compared with $30.6 million for the first quarter of fiscal 2019, primarily due to lower sales volumes of gold.
- Depreciation decreased by $0.3 million to $4.6 million for the second quarter of fiscal 2019 compared with $4.9 million for the first quarter of fiscal 2019, primarily due to incorporation of the oxides-stockpile in the reserve base at Don Mario.
- Gross margin increased by $3 million to positive $3.9 million for the second quarter of fiscal 2019, compared with $0.9 million for the first quarter of fiscal 2019.

Total consolidated COC (by-product) of $971 per ounce of gold sold in the second quarter of fiscal 2019 were $54 or 5% lower than the first quarter of fiscal 2019. Total AISC (by-product) of $1,107 per ounce of gold sold in the second quarter of fiscal 2019 were $54 or 5% lower than in the first quarter of fiscal 2019. Higher by-product credits from copper sales positively impacted both COC and AISC.

El Valle

Through its wholly-owned subsidiary, OroValle Minerals S.L. ("OroValle"), the Company owns and operates the El Valle and Carlés mines located in the Rio Narcea Gold Belt in northern Spain, where the Company mines skarns and oxides underground.

The following table includes consolidated operating and financial performance data for El Valle for the periods set out below.

	Q2 2019	Q1 2019	Q2 2018	YTD 2019	YTD 2018
Operating Performance					
Ore mined (tonnes) (wmt)	**181,996**	182,850	156,120	**364,846**	295,029
Ore milled (tonnes) (dmt)	**170,435**	170,399	150,966	**340,834**	282,252
Daily average throughput (dmt)	**1,993**	1,950	1,766	**1,971**	1,632
Gold					
Grade (g/t)	**3.49**	3.24	3.36	**3.37**	3.05
Recovery (%)	**92.7**	93.2	92.9	**93.0**	93.9
Production (oz)	**17,742**	16,546	15,139	**34,288**	25,923
Sales (oz)	**15,833**	16,190	13,805	**35,023**	24,003
Copper					
Grade (%)	**0.49**	0.48	0.51	**0.49**	0.45
Recovery (%)	**78.1**	75.9	80.4	**77.0**	80.8
Production ('000 lbs)	**1,441**	1,375	1,372	**2,816**	2,258
Sales ('000 lbs)	**1,531**	1,400	1,234	**2,931**	2,097
Financial Performance *(in 000's, except per share amounts)*					
Revenue	**$23,271**	$22,420	$19,915	**$45,691**	$34,662
Mining costs	**$16,319**	$18,764	$17,780	**$35,083**	$34,077
Income (loss) before tax	**$4,007**	($110)	($834)	**$3,897**	($5,538)
Capital expenditures	**$1,643**	$1,823	$1,900	**$3,466**	$4,601
Cash operating costs (by-product) ($/oz) gold (1)	**$864**	$1,014	$1,150	**$940**	$1,268
All-in sustaining costs (by-product) ($/oz) gold (1)	**$1.014**	$1,162	$1.356	**$1,088**	$1,536
All-in costs (by-product) ($/oz) gold (1)	**$1.020**	$1,170	$1.356	**$1,096**	$1,536

(1) For further information and a detailed reconciliation of COC, AISC and AIC, please see the "Other Information - Non-IFRS Measures" section of this MD&A.

El Valle Operating Performance

During the second quarter of fiscal 2019, El Valle produced 17,742 ounces of gold and 1.4 million pounds of copper compared with 15,139 ounces of gold and 1.4 million pounds of copper during the second quarter of fiscal 2018. Gold production increased by 17%, primarily due to higher throughput and recoveries, while copper production increased by 5%, primarily due to higher throughput partially offset by lower grade and recoveries.

Consistent with the first quarter of fiscal 2019, the Company mined higher gold grade oxide tonnes and blended them with a ratio of 44% together with skarn ore. Historically, the ratio of mined oxide to skarn ore has been approximately 22%.

Mechanical advance rates in oxide areas continued to improve, increasing by 6% to 2,019 meters during the second quarter of fiscal 2019, as compared to the first quarter of fiscal 2019.

Plant improvements were developed during fiscal 2018 in order to allow for the processing of a higher ratio of oxide ore. Studies continue progressing to improve copper recoveries in a higher oxide blend, targeting 68% to 72%. Metallurgical studies are also being conducted to reduce the buildup of in-process gold from the increase in oxide ore processed in the plant. Assessment of possible options will be conducted in third quarter with focus on capital cost.

El Valle expects to further increase mine production flexibility and grade control by significantly reducing the proportion of inferred ore material in its mine planning through planned infill drilling campaigns, as well as addressing grade variability risk through additional geological review steps in the mine planning phase, in addition to introducing conservatism in high grade zone planning where ore bodies have been known to be non-homogenous or non-contiguous.

The Carlés short-term project that started in fiscal 2018 was completed in the second quarter of fiscal 2019. Carlés is expected to continue to provide skarn material in the future, and a new short-term project is under evaluation, expecting to restart production in the fourth quarter of fiscal 2019.

El Valle Financial Performance

Revenue from El Valle for the second quarter of fiscal 2019 increased by 17% to $23.3 million on sales of 15,833 ounces of gold and 1.5 million pounds of copper from $19.9 million for the second quarter of fiscal 2018 on sales of 13,805 ounces of gold and 1.2 million pounds of copper.

Mining costs decreased by 8% from $17.8 million for the second quarter of fiscal 2018 to $16.3 million for the second quarter of fiscal 2019, mainly due to exchange movements in the Euro to USD rate at El Valle.

Income before tax for the second quarter of fiscal 2019 was $4 million compared with $0.8 millions of losses for the second quarter of fiscal 2018.

Total capital expenditures at El Valle during the second quarter of fiscal 2019 were $1.7 million compared with $1.9 million for the second quarter of fiscal 2018. Capital expenditures in the second quarter of fiscal 2019 consisted substantially of primary development and heavy equipment upgrades.

Total COC (by-product) of $864 per ounce of gold sold in the second quarter of fiscal 2019 were $286 or 25% lower than in the second quarter of fiscal 2018. Total AISC (by-product) of $1,014 per ounce of gold sold in the second quarter of fiscal 2019 were $342 or 25% lower than in the second quarter of fiscal 2018. COC and AISC were positively impacted by higher gold ounces sold, higher by-product credits and lower mining costs.

El Valle Growth Exploration

During second quarter fiscal 2019 a drilling program was completed with 5,856 mts of diamond drill hole drilled at El Valle Mine. The breakdown of this program includes 1,561 mts in skarn to define the long-term stopes in Black Skarn and Boinás East, and 3,026 mts or 51% in oxides areas to convert inferred resources into measured and indicated resources (A107, A208, Villar and High Angle). An investigation gallery was completed in High Angle during the second quarter of fiscal 2019, and the drilling program in this area started at the end of the second quarter of fiscal 2019, to drill the high-grade vertical oxides structures.

1,270 mts were drilled in brownfield. In A208, two drill holes were the focus to search for the continuity of this oxide structure to the East with positive results; the brownfield program will continue to define the orebody interpretation. Three drill holes were completed to explore the North of Villar intersecting mineralization; the brownfield program will continue to search for the extension to the North. One drill hole was completed to continue the exploration program started in the first quarter of fiscal 2019 over Oxide Black Skarn area, to check the mineralization in upper levels.

The drilling program of greenfield exploration continued in the Quintana Investigation Permit (located close to El Valle Mine´s southern tip) with 409 mts drilled in the second drill hole of the three planned in Phase 1. Lithologies were intersected with some metamorphic aspects; core samples are being sent to external laboratory and mineralogical studies are being performed.

Don Mario

Through its wholly-owned subsidiary, Empresa Minera Paititi S.A. ("EMIPA"), the Company owns and operates Don Mario under a number of concessions in the Don Mario district located in south-eastern Bolivia. Fiscal 2009 marked the last year of six years of production from the Company's LMZ underground gold mine at Don Mario with some gold production from lower-grade open pit satellite deposits and lower grade stockpiles continuing into fiscal 2010 and 2011. From 2012 to the end of 2016, EMIPA mined the UMZ as an open-pit mine. From 2016 to 2018, EMIPA mined new material at the upper extension of the LMZ as an open-pit mine. EMIPA is currently focused on mining at its Cerro Felix property within the Don Mario area.

The following table includes operating and financial performance data for Don Mario for the periods set out below.

	Q2 2019	Q1 2019	Q2 2018	YTD 2019	YTD 2018
Operating Performance					
Ore mined (tonnes) (dmt)	**192,447**	200,788	205,614	**393,235**	425,989
Ore milled (tonnes) (dmt)	**188,606**	186,996	178,698	**375,602**	359,788
Daily average throughput (dmt)	**2,191**	2,201	2,191	**2,196**	2,167
Gold					
Grade (g/t)	**1.68**	1.9	1.84	**1.79**	2.16
Recovery (%)	**94.0**	94.1	91.3	**94.1**	88.5
Production (oz)	**9,564**	10,726	9,649	**20,290**	22,037
Sales (oz)	**9,674**	11,276	11,684	**20,950**	23,481
Copper					
Grade (%)	**-**	-	0.62	**-**	0.72
Recovery (%)	**-**	-	50.3	**-**	53.7
Production ('000 lbs)	**-**	-	1,237	**-**	3,110
Sales ('000 lbs)	**-**	-	1,297	**-**	3,134
Financial Performance *(in 000's, except per share amounts)*					
Revenue	**$12,742**	$13,898	$17,015	**$26,640**	$36,438
Mining costs	**$11,194**	$11,831	$12,745	**$23,025**	$24,508
Income (loss) before tax	**$1,119**	$139	($314)	**$1,258**	$4,230
Capital expenditures	**$654**	$477	$3,176	**$1,131**	$6,394
Cash operating costs (by-product) ($/oz) gold (1)	**$1,144**	$1,041	$942	**$1,089**	$785
All-in sustaining costs (by-product) ($/oz) gold (1)	**$1,243**	$1,132	$1,179	**$1,184**	$965
All-in costs (by-product) ($/oz) gold (1)	**$1,300**	$1,146	$1,350	**$1,217**	$1,182

(1) For further information and a detailed reconciliation of COC, AISC and AIC, please see the "Other Information - Non-IFRS Measures" section of this MD&A.

Don Mario Operating Performance

During the second quarter of fiscal 2019, Don Mario produced 9,564 ounces of gold and had no production of copper, compared with 9,649 ounces of gold and 1.2 million pounds of copper in the second quarter of fiscal 2018.

Gold production decreased by 1% due to lower head-grade, almost entirely offset by high throughput. Copper production decreased due to the shutdown of the flotation circuit at the end of the second of fiscal 2018.

Don Mario Financial Performance

Revenue from Don Mario decreased by 25% from $17.0 million in the second quarter of fiscal 2018 to $12.7 million on sales of 9,674 ounces of gold and nil pounds of copper in the second quarter of fiscal 2019 compared with sales of 11,684 ounces of gold and 1.3 million pounds of copper in the second quarter of fiscal 2018.

Mining costs of $11.2 million for the second quarter of fiscal 2019 decreased by $1.5 million or 12% compared with $12.7 million for the second quarter of fiscal 2018 primarily due lower royalty taxes and lower costs of goods sold in the absence of copper sales.

Income before tax for the second quarter of fiscal 2019 was $1.1 million compared with loss before tax of $0.3 million for the second quarter of fiscal 2018.

Total capital expenditures at Don Mario in the second quarter of fiscal 2019 were $0.7 million compared with $3.2 million in the second quarter of fiscal 2018. Capital expenditures in the second quarter of fiscal 2019 primarily related to improvements at the plant.

Total COC (by-product) of $1,144 per ounce of gold sold in the second quarter of fiscal 2019 were $202 or 21% higher compared to the second quarter of fiscal 2018. Total AISC (by-product) of $1,243 per ounce of gold in the second quarter of fiscal 2019 were $64 or 5% higher compared to the second quarter of fiscal 2018. The increase in COC and AISC were driven by lower by-product revenues.

<u>Don Mario Exploration and Mine Life Extension</u>

The company has an oxides stockpile reserves of approximately 2.1 million tones with an average gold grade of 1.85 g/t and copper grade of 1.90%. The Company undertook a new technical and economic review of its Oxides Stockpile in fiscal 2018, concluding that the best option is to include a SART process (allows for recovery of copper sulfide, cyanide recycling and optimal gold recovery) in the plant flowsheet. Engineering to develop a SART circuit, and associated leach pad, continues to progress. This undertaking is designed to add an additional three years of mine life, starting in Fiscal 2021, for Don Mario.

Mine exploration activities are focused on Las Tojas open pit infill drilling in order to complete tonnage/grade for fiscal 2020 mine plan. 82 Diamond Drill holes and 38 reverse circulation holes have been drilled at depth and near surface confirming enough resources to target a full fiscal 2020 production. Final phase of infill drilling is in progress in the third quarter of fiscal 2019.

An evaluation of re-processing tailings is in progress to determine the viability of recovering gold from material deposited in the tailings impoundment since the commencement of production at Don Mario.

Other Projects

The Company spent approximately $0.2 million in exploration of other projects during the first and second quarter of fiscal 2019, mainly focused on Argentina and Perú. The Company has been actively looking for and evaluating projects that could be aligned with the Company's strategy, to add a third project to the current portfolio.

On May 13, 2019, the Board of Directors of the Company approved to enter into a purchase agreement with Compañía Minera Taguas S.A. (the "Vendor") pursuant to which Orvana agrees to acquire the Taguas property ("Taguas" or the "Property") located in the Province of San Juan, Argentina. In consideration for 100% of Taguas, Orvana will grant the Vendor an indivisible net smelter royalty equal to 2.5% on all future metals production mined from the Property.

Taguas consists of 15 mining concessions over an area of 3,273.87 ha. It is located in the Province of San Juan, Argentina, on the eastern flank of the Andes, between 3,500 m to 4,300 m above sea level. The Property is approximately 25km north of Barrick's Veladero operations.

Pursuant to Multilateral Instrument 61-101 – Protection of Minority Security Holders in Special Transactions ("MI 61-101"), entering into the Purchase Agreement with the Vendor is a "related party transaction" as the Vendor is indirectly owned by Orvana's 51.9% shareholder. The Company is exempt from the requirements to obtain a formal valuation or minority shareholder approval in connection with the Transaction contemplated by the Purchase Agreement by virtue of sections 5.5(a) and 5.7(a), respectively, of MI 61-101, as neither the fair market value of the subject matter of the Purchase Agreement, nor the fair market value of the consideration for the Property exceeds 25% of the Company's market capitalization as calculated in accordance with MI 61-101. The purchase agreement was considered and unanimously approved by the board of directors of the Company. Ms. Sara Magner abstained from voting on this matter.

The Toronto Stock Exchange ("TSX") has provided conditional acceptance of Orvana's notice of the Transaction, pursuant to the TSX Company Manual. Closing of the Transaction is subject to the final acceptance of the TSX and a number of closing conditions including, without limitation, completion of satisfactory due diligence by Orvana and applicable local mining rights registration.

The Company expects to deliver a NI 43-101 preliminary economic assessment report on Taguas, within the third quarter of fiscal 2019.

Market Review and Trends

Metal Prices

The market prices of gold and copper are primary drivers of Orvana's earnings and ability to generate free cash flows. During the second quarter of fiscal 2019, gold traded in a range from $1,279 to $1,348 per ounce and averaged $1,304 per ounce compared with $1,330 per ounce in the second quarter of fiscal 2018. Orvana's average gold realized price in the second quarter of fiscal 2019 was $1,299 per ounce, as compared to $1,304 per ounce in the second quarter of fiscal 2018. The Company derived approximately 86% of its revenue from sales of gold in the first half of fiscal 2019.

Copper prices during the second quarter of fiscal 2019 traded in a range of $2.57 to $2.96 per pound and averaged $2.82 per pound compared with $3.16 per pound in the second quarter of fiscal 2018. Orvana's average copper realized price in the second quarter of fiscal 2019 was $2.80 per pound. The Company derived approximately 12% of its revenue from sales of copper in the first half of fiscal 2019.

Currency Exchange Rates

The results of Orvana's operations are affected by US dollar exchange rates. Orvana's largest exposure is to the Euro/US Dollar exchange rate. The Company incurs operating and administration costs at El Valle in Euros, while revenue is denominated in US dollars. Orvana's Euro costs decreased year over year, with the Euro to US Dollar exchange rate moving from an average of 1.23 in the second quarter of fiscal 2018 to 1.14 in the second quarter of fiscal 2019. As a result of foreign exchange movements, mining costs at El Valle were lower by approximately $1.1 million in the second quarter of fiscal 2019 compared with the second quarter of fiscal 2018.

Orvana also has a minor exposure to the Canadian dollar and the Swedish krona through corporate administration costs. Orvana's exposure to the US Dollar to Bolivianos exchange rate is limited as this exchange rate has not fluctuated significantly during previous reporting periods.

FINANCIAL CONDITION REVIEW

Balance Sheet Review

The following table provides a comparison of key elements of Orvana's balance sheet at March 31, 2019 and September 30, 2018.

(in 000's)	**March 31, 2019**	**September 30, 2018**
Cash and cash equivalents	**$9,316**	$11,634
Restricted cash (short term)	**$62**	$61
Non-cash working capital (1)	**$605**	($2,833)
Total assets	**$156,653**	$158,800
Total liabilities	**$76,624**	$81,089
Shareholders' equity	**$80,029**	$77,711

(1) Working capital represents current assets of $39 million less cash and cash equivalents and short-term restricted cash totaling $9.4 million and less $28.9 million in current liabilities composed of accounts payable and accrued liabilities, income taxes payable and derivative instruments (not including current debt).

Total assets decreased by $2.1 million from $158.8 million to $156.7 million primarily as a result of the decrease in (i) cash and cash equivalents of $2.3 million (ii) plant, property and equipment of $5.5 million, (iii) accounts receivables of $0.1 million, (iv) income tax receivable of $0.5 million and (v) reclamation bonds of $0.3 million, offset by increases in (vi) VAT receivables of $4.2 million, (vii) inventory of $1.1 million, (viii) restricted cash of $0.8 million and (ix) deferred income tax asset of $0.5 million.

Total liabilities decreased by $4.5 million or 6% to $76.6 million at March 31, 2019 from $81.1 million at September 30, 2018 primarily as a result of a decrease in (i) debt of $2.2 million, (ii) accounts payable and accrued liabilities of $1.5 million, (iii) other long term liabilities of $1.1 million, (iv) asset retirement obligations of $0.2, (v) lease obligations of $0.1 million and (vi) income taxes payable for $0.1 million. All this offset by increases in (vii) long term compensation of $0.7 million and other minor increases in deferred revenue, derivative instruments and provision for statutory labour obligations totaling $0.1 million.

BISA TSF Loan, Heavy equipment Loan and Revolving Facility

In June 2017, EMIPA closed a Bolivian loan denominated approximately $11.3 million with BISA bank, comprised of an $8.3 million term facility (the "BISA TSF Loan") and a $3.0 million revolving working capital facility.

The proceeds of the BISA TSF Loan were used to fund a major tailings storage facility expansion project that will add sufficient capacity to support future operations. Under the terms of the BISA TSF Loan, seven disbursements of specified amounts will be drawn down as expenditures are incurred for the tailings storage facility expansion, with the first draw down occurring on June 30, 2017. The BISA TSF Loan matures in January 2021 and has an interest rate of 5.3% per annum, with twelve quarterly repayments beginning in April 2018. As at March 31, 2019, $8.3 million were drawn down this facility and $2.7 million of principal were repaid.

The revolving working capital facility of up to $3.0 million can be drawn down in the form of cash of up to $2.0 million, bank guarantees of $3.0 million or a combination of the two up to the limit of $3.0 million. The revolving working capital facility is renewable every six months until November 2020 and interest will be determined at the date of drawdown and is dependent on the form of the drawdown. As at March 31, 2019, $1,972 were drawn down from this facility (September 30, 2018 - $nil). The funds have to be reimbursed jointly with their interests between July and August 2019.

Security for both the BISA TSF Loan and the revolving working capital facility include the CIL asset and other equipment at Don Mario.

In May 2018, EMIPA obtained a new Bolivian loan with BISA of $2.4 million for heavy equipment purchases. This loan matures in April 2021, it has monthly repayments and interest rate of 5.5% per annum. Security for the loan includes heavy equipment purchased. At March 31, 2019, the total amount was drawn from this loan and $669 thousand of principal were paid.

Samsung C&T Prepayment Facility & the New Facility - Spanish local banks

In August 2016, the Company entered into a $12.5 million copper concentrates and gold doré prepayment agreement ("Prepayment Facility") with Samsung C&T U.K. Ltd. ("Samsung C&T"), the proceeds of which were invested at El Valle for its ongoing development activities and infrastructure projects.

Under the terms of the Prepayment Facility, Orvana is selling gold doré from its El Valle Mine in Spain and copper concentrate from its Don Mario Mine in Bolivia to Samsung C&T, on an exclusive basis for a period of thirty months. In exchange, Orvana received $12.5 million in prepayment financing from Samsung C&T in two instalments. The first instalment of $8.0 million was drawn on closing and the second instalment of $4.5 million was drawn down in February 2017. Interest payments and principal repayments under the terms of the Prepayment Facility were made against Orvana's on-going shipments of copper concentrates and/or gold doré. Samsung C&T has agreed to pay for copper concentrates and gold doré at a price based on the prevailing metal prices for the gold, silver and copper content around time of shipment, less customary treatment, refining and shipping charges, and pursuant to the terms of the Prepayment Facility.

The Prepayment Facility was amended in March 2018 such that the payments on the remaining principal outstanding at March 2018 was rescheduled and extended by two months, in exchange for a higher interest rate and an extension of gold doré deliveries to April 2020, amongst other terms.

The Company's obligations to Samsung C&T under the Prepayment Facility were secured by the pledge to Samsung C&T of all of Orvana's shares of OroValle, which owns the El Valle and Carlés Mines in Spain.

Throughout fiscal 2018, the Company had been evaluating financing alternatives with the objective to refinance the Samsung Prepayment Facility by extending the repayment period. In January 2018, the Company, through its wholly owned subsidiary OroValle, closed a syndicated credit facility (the "New Facility – Spanish local banks") for a total amount of €6 million ($6.7 million). The New Facility is subject to a 2% bank commission fee, bears a fixed interest rate of 2.55%, semi-annual principal repayments and semi-annual interest payments over a term of four years. The Company's obligations to the lenders are secured by: (i) the pledge of all of Orvana's shares of OroValle; (ii) the pledge of OroValle's doré sale proceeds; and (iii) 12.5% restricted cash.

Concurrent with the closing of the New Facility, Orvana has repaid the full Samsung C&T Prepayment Facility. That means the Company paid Samsung $9.1 million in the first half of fiscal 2019. The Company continues its commercial relationship with Samsung C&T for the sale of copper concentrate from its Don Mario Mine and gold doré from its El Valle Mine.

In May 2019, Orovalle increased the New Facility in €2 million, achieving a total aggregated amount of €8 million. The conditions for this funding are the same to the previous tranche (in terms of interest rate, fees, repayment schedule, security and covenants).

Shareholders' Equity

Shareholders' equity at March 31, 2019 increased by 3% to $80 million compared with $77.7 million at September 30, 2018. The table below sets out the number of each class of securities of the Company outstanding at March 31, 2019 and as at the date hereof.

	At March 31, 2019
Common Shares	136,623,171
Warrants (1)	100,000
Options (2)	1,185,823

(1) All of the outstanding warrants are held by Fabulosa Mines Limited, the Company's majority shareholder. Warrants were issued in connection with amendments to the Fabulosa Loan in 2013 and 2014 as follows: warrants to purchase 100,000 Common Shares were issued on July 11, 2014 at an exercise price of C$0.54 until July 11, 2019.

(2) The options have a weighted average exercise price of $0.24 and expiry dates ranging from 2019 to 2022.

Derivative Instruments

The Company had the following derivative instruments outstanding as at March 31, 2019:

	Contract Prices	Cash Settlement	Contract Amounts
Gold			
Gold forwards (April – June 2019)	€1,135-€1,138-€1,160 / troy oz	Monthly	6,000 troy oz

The Company paid net cash proceeds of $0.1 million and received net cash proceeds of $0.1 million during the second quarter and first half of fiscal 2019, respectively, in settlement of the derivative instruments that matured in the period.

The outstanding balance at March 31, 2019, for $49 corresponds to the unrealized portion of these contracts.

Changes in the fair value of the Company's outstanding derivative instruments are recognized through the Company's income statement as non-cash derivative instrument gains or losses. At maturity of each contract, a cash settlement takes place resulting in a corresponding reduction in the carrying value of the derivative instruments. The mark-to-market fair value of the Company's outstanding derivative instruments is based on independently provided market rates and determined using standard valuation techniques, including the impact of counterparty credit risk.

The Company recorded fair value adjustments on its outstanding derivative instruments as follows:

(in 000's)	Q2 2019	Q1 2019	Q2 2018	YTD 2019	YTD 2018
Change in unrealized fair value	**($50)**	($109)	$1,174	**($159)**	$884
Realized gain (loss) on cash settlements of derivative instruments	**($98)**	37	(1,478)	**($61)**	(2,238)
Derivative instruments loss	**($148)**	($72)	($304)	**($220)**	($1,354)

Capital Resources

At March 31, 2019, the Company had cash and cash equivalents of $9.3 million and restricted cash of $1.2 million. The Company considers its capital employed to consist of shareholders' equity (including share capital, contributed surplus and retained earnings) and total debt net of cash and cash equivalents as follows:

(in 000's)	March 31, 2019	September 30, 2018
Shareholders' equity	**$80,029**	$77,711
Revolving facilities	**2,809**	2,894
Revolving facilities TSF	**1,972**	-
Capital leases	**974**	1,031
BISA Heavy Equipment Loan	**1,704**	2,114
BISA TSF Loan	**5,668**	7,085
Prepayment Facility	**-**	8,865
New Facility – Spanish local banks	**6,576**	-
	$99,732	$99,700
Less: Cash and cash equivalents	**(9,316)**	(11,634)
Capital employed	**$90,416**	$88,066

The Company's financial objective when managing capital is to ensure that it has the cash and debt capacity and financial flexibility to fund its ongoing business objectives including operating activities, investments and growth in order to provide returns for shareholders. In order to maintain or adjust the capital structure, in addition to using cash flows from operating activities for this purpose, the Company may issue new shares or obtain additional debt. In fiscal 2016, the Company closed the $12.5 million Prepayment Facility, and during fiscal 2017 the Company closed the $11.3 million BISA TSF Loan and revolving working capital facility. In fiscal 2019, the Company closed the New Facility with local Spanish banks for €6 million. Subsequent to the closure of the second quarter of fiscal 2019 Orovalle has closed an additional 2€ million in a syndicated revolving line with the same Spanish banks, in similar terms that the €6 million.

The Company monitors its capital structure and makes adjustments according to market conditions in an effort to meet its objectives given the Company's operating and financial performance and current outlook for the business and industry in general. The Company's alternatives to fund future capital needs include cash flows from operating activities, debt or equity financing or adjustments to capital spending. The capital structure and these alternatives are reviewed by management and the board of directors of the Company on a regular basis to ensure the best mix of capital resources to meet the Company's needs.

The Company manages capital through its operating and financial budgeting and forecasting processes. The Company reviews its working capital and forecasts its future cash flows on a periodic basis, based on operating expenditures and other investing and financing activities. The forecast is regularly updated based on the results of El Valle and Don Mario. Information is regularly provided to the board of directors of the Company.

The Company's strategy during fiscal 2018 is to manage its existing capital resources and liquidity in a prudent fashion to sustain ongoing capital projects and exploration programs at EMIPA and OroValle, and to meet all of its existing debt repayment obligations. In connection with this, the Company is currently evaluating possible, near-term financing alternatives with the objective of re-financing the Prepayment Facility and securing access to additional liquidity for advancement of the Company's strategic objectives.

Cash Flows, Commitments, Liquidity and Contingencies

Cash Flows

Total cash and cash equivalents as at March 31, 2019 was $9.3 million, primarily denominated in US dollars, representing a decrease of $2.3 million from $11.6 million at September 30, 2018. Short-term restricted cash was $0.1 million at March 31, 2019 which is the same amount as at September 30, 2018. The Company's total debt was $18.7 million at March 31, 2019. This compares with total debt as at September 30, 2018 of $21 million.

The following table summarizes the principal sources and uses of cash for the periods specified below:

(in 000's)	**Q2 2019**	**Q1 2019**	**Q2 2018**	**YTD 2019**	**YTD 2018**
Cash provided by operating activities before changes in non-cash working capital	**$8,684**	$4,169	$2,447	**$12,853**	$4,533
Cash provided by (used in) operating activities	**1,238**	3,366	(5,486)	**4,604**	(3,339)
Cash used in investing activities [(1)]	**(3,097)**	(1,438)	(2,708)	**(4,535)**	(9,188)
Cash provided by financing activities	**2,826**	(5,255)	117	**(2,429)**	1,288
Change in cash	**$967**	$(3,327)	$(8,077)	**$(2,360)**	(11,239)

(1) These amounts are presented on a cash basis. Each reported period excludes unpaid capital expenditures incurred in the period which will be paid in subsequent periods and includes capital expenditures incurred in prior periods and paid for in the applicable reported period. See "Cash Flows, Commitments and Liquidity - Capital Expenditures".

Orvana's primary source of liquidity continues to be from operating cash flows. Cash flows provided by operating activities before changes in non-cash working capital were $8.7 and $12.9 million for the second quarter and first half of fiscal 2019, respectively, compared with $2.4 and $4.5 million for the second quarter and first half of fiscal 2018, respectively. Cash flows provided by operating activities were $1.2 and $4.6 million for the second quarter and first half of fiscal 2019, respectively, compared with cash flows used for operating activities of $5.5 and $3.3 million for the second quarter and first half of fiscal 2018, respectively.

Significant drivers of the change in operating cash flow are production and realized gold and copper prices on sales. Future changes in the market price of gold and copper, either favourable or unfavourable, will continue to have a material impact on the Company's cash flows and liquidity. The principal uses of operating cash flows have been working capital and the funding of the Company's planned capital expenditures.

Cash used in investing activities was $3.1 and $4.5 million in the second quarter and first half of fiscal 2019, respectively, compared with $2.7 and $9.2 million in the second quarter and first half of fiscal 2018, respectively. Capital expenditures and movements in the Company's restricted cash and reclamation bond accounts drive the majority of cash flows used in investing activities.

Cash provided by financing activities was $2.8 in the second quarter and $2.4 million were used in financing activities in first half of fiscal 2019. All this compared with cash used for financing activities amounting $0.1 and $1.3 million in the second quarter and first half of fiscal 2018, respectively, and is driven primarily by the repayment of Samsung Facility from Orovalle (Spain). This facility was substituted by local banks for a smaller amount than Samsung Facility.

Capital Expenditures

The following table sets forth Orvana's capital expenditures for the periods specified below for El Valle and Don Mario:

(in 000's)	**Q2 2019**	**Q1 2019**	**Q2 2018**	**YTD 2019**	**YTD 2018**
El Valle	**$1,643**	$1,823	$1,900	**$3,466**	$4,601
Don Mario	**654**	477	3,176	**1,131**	6,394
Corporate	**-**	-	9	**-**	19
Sub-total capital expenditures	**$2,297**	$2,300	$5,085	**$4,597**	$11,014
Accounts payable adjustments (1)	**($341)**	($537)	$377	**($878)**	655
Total capital expenditures (1)	**$1,956**	$1,763	$5,462	**$3,719**	$11,669

(1) These amounts are presented on a cash basis. Each reported period excludes unpaid capital expenditures incurred in the period which will be paid in subsequent periods and includes capital expenditures incurred in prior periods and paid for in the applicable reported period.

At El Valle, capital expenditures in the second quarter of fiscal 2019 consisted mainly of primary development and updates to its underground mining equipment. Significant capital expenditures at Don Mario included optmization of the CIC/CIL process, and metallurgical and engineering studies to process the oxides stockpile.

The Company expects sustaining capital expenditures for fiscal 2019 to be in the range of $12 million to $13.5 million. Refer to the "Outlook" section of the MD&A.

Other Commitments

The Company's current contractual obligations are summarized in the following table:

As at March 31, 2019		**Payment Due by Period**			
(in 000's)	**Total**	**Less than 1 Year**	**1-3 Years**	**4-5 Years**	**After 5 Years**
Spanish Local Banks	**$7,132**	$1,848	$4,430	$854	
BISA TSF Loan + Heavy equipment	**$9,847**	$6,477	$3,370	-	-
Operating leases	**$1,737**	$1,220	$517	-	-
Finance leases	**$974**	$919	$55	-	-
Decommissioning liabilities (1)	**$24,266**	$50	-	$5,988	$18,228
Reclamation bond (2)	**$5,618**	$5,618	-	-	-
Purchase obligations	**$5,979**	$2,709	$2,550	$720	-
Provision for statutory labour obligations (3)	**$3,902**	-	$3,902	-	-
Long-term compensation	**$1,086**	-	-	-	$1,086
Total contractual obligations (4)	**$60,541**	**$18,841**	**$14,824**	**$7,562**	**$19,314**

(1) Decommissioning liabilities are undiscounted.

(2) Spanish regulatory authorities have requested that an additional reclamation bond of €5.0 million be deposited by the Company under Spanish mining regulations in respect of El Valle. The Company is challenging the requirement to fund the additional reclamation bond through an administrative appeal process. The Company is also working with the Spanish regulatory authorities to come to an agreement regarding posting this additional bond, including the consideration of alternatives to posting this bond.

(3) Under Bolivian law, EMIPA has an obligation to make payments to employees in the amount of one month's wages for each year of service. The employee can elect to receive payment after five years of service in the amount of five months of wages while continuing employment with EMIPA.

(4) Production from El Valle and Don Mario is subject to certain royalties for which amounts have not been included in total contractual obligations at March 31, 2019. For a description of such royalties and amounts payable, see "Royalties" below.

Royalties

Production from El Valle is subject to a 3% net smelter return royalty ("NSR"), referred to herein as the El Valle Royalty. The El Valle Royalty rate decreases to 2.5% for any quarter in which the average price of gold is below $1,100 per ounce. The El Valle Royalty expense totaled $0.7 and $1.4 million for the second quarter and first half of fiscal 2019, respectively, compared with $0.7 and $1.1 million for the second quarter and first half of fiscal 2018, respectively.

Production from Don Mario is subject to a 3% NSR. This expense totaled $0.5 and $1 million for the second quarter and first half of fiscal 2019, respectively, compared with $0.6 and $1.2 million for the second quarter and first half of fiscal 2018, respectively. The Bolivian government collects a mining royalty tax on the revenue generated from copper, gold and silver sales from Don Mario at rates of 5%, 7% and 6%, respectively. These amounts totaled $1 and $1.9 million for the second quarter and first half of fiscal 2019, respectively, compared with $1.3 and $2.7 million for the second quarter and first half of fiscal 2018, respectively.

Liquidity

Orvana's primary sources of liquidity in the first half of the fiscal 2019 were operating cash flows, generating cash of $12.9 million from operating activities before changes in non-cash working capital. During the first half of the fiscal 2019, Orvana generated cash of $4.6 million from operating activities and used cash for $2.4 million for financing activities, supporting $4.5 million in investing activities.

As at March 31, 2019, the Company had cash of $9.3 million, and together with forecasted operating cash flow, the renewal of current revolving lines and the executed refinancing of the Prepayment Facility (see Samsung C&T Prepayment Facility & New Facility - Spanish local banks section), expects to cover the Company's commitments due in less than one year of $18.8 million.

The Company's strategy during fiscal 2019 is to manage its existing capital resources and liquidity in a prudent fashion to sustain ongoing capital projects and exploration programs at EMIPA and OroValle. Capital expenditures in respect to the SART-based in Don Mario would only be incurred should financing acceptable to the Company is realized.

The Company has been pursuing a number of initiatives at El Valle and Don Mario in order to meet its objectives of optimizing production, lowering unitary cash costs, maximizing free cash flow, extending the life-of-mine of its operations and growing its operations to deliver shareholder value. The Company is currently evaluating and implementing further cost reductions at its operations.

The Company's cash flow forecasts are developed using best available information at the time of their preparation and rely on certain material assumptions, such as gold and copper market prices and the ability to achieve planned production of gold and copper. There can be no assurances that the Company's cash flow forecasts will not change materially in the future and that the effect of changes to the Company's forecasts, if negative, could result in future financing requirements for the Company.

If (i) unanticipated events occur that may impact the operations of El Valle and Don Mario and/or (ii) if the Company does not have adequate access to financing on terms acceptable to the Company, the Company may need to take additional measures to increase its liquidity and capital resources, including obtaining additional debt or equity financing, pursuing joint-venture partnerships, equipment financings or other receivables financing arrangements. The Company may experience difficulty in obtaining satisfactory financing terms. Failure to obtain adequate financing on satisfactory terms could have a material adverse effect on Orvana's results of operations or financial condition.

Contingencies

The Company continuous to work through one environmental matter involving selenium discharges into the Cauxa River in Asturias, Spain. The Cauxa River flows past the El Valle Mine operated by the Company's Spanish subsidiary, OroValle, as well as other industrial properties owned by third parties. Selenium is a naturally occurring element that is found in rocks, land and water and thus is also naturally found in certain food supplies. The results of recent scientific studies conducted by the Company have confirmed the Company's belief that past and prevailing levels of selenium in waterways impacted by the OroValle operations do not constitute a health or environmental risk.

Spanish Water Authorities have taken the position that the levels of selenium in the river flowing past the El Valle Mine exceed the levels permitted by applicable regulations as a result of discharges attributed to OroValle which may not be in compliance with certain of OroValle's permits. In recent years, OroValle has received approximately €1.0 million (approximately $1.1 million) in fines relating to these matters and may face further additional fines or other sanctions, including the revocation or suspension of certain permits, in the future. OroValle is appealing an outstanding fine and the enforcement of certain fines has been suspended pending the related criminal matter. A judge of the criminal court of Asturias is conducting an investigation into the potential commission by OroValle of a reckless crime under the Spanish penal code relating to these matters. The judge may decide to dismiss the matter, conduct a further investigation and/or charge OroValle/Orvana, or both. If the Company is ultimately found responsible, monetary penalties, amongst other sanctions, may be applied. These sanctions could have a material impact on the Company. At this time, OroValle has not been charged. OroValle has cooperated and will continue to cooperate with investigations and is defending itself vigorously.

OroValle has been working to remediate this matter through various activities including the implementation of a reverse osmosis water treatment plant in September 2014 and the development of a long-term water management plan which is in progress. While it appears that these remediation efforts are addressing these matters, there can be no assurances that OroValle's continuing remediation activities will be judged to successfully comply with local regulations. In addition, OroValle has been seeking amendments to certain of its permits or, alternatively to receive new permits, and extensions of deadlines to comply with local requirements. Orvana is committed to developing and operating its mines and projects in full compliance with local environmental regulations and recognized international environmental standards.

In connection with workplace accidents at OroValle in 2015 and 2017, the affected employees filed claims with the Instituto Nacional de la Seguridad Social (INSS) for social security benefit surcharges, to be paid by OroValle. In late June 2018, INSS granted the two affected employees' in the 2015 workplace accident their social security benefits request for an aggregate amount of approximately $0.5 million. In October 2018, OroValle filed claims before the Labour Court in order to dispute the payment of the abovementioned surcharges. The trials have been scheduled for between May and September 2019, respectively. In respect of the 2017 workplace accident, the affected employee has filed a claim with the INSS for social security benefit surcharges. The INSS has not affirmed this claim yet. If the request of the employee is affirmed by the INSS and the amount is estimated, OroValle will file a claim before the Labour Court.

During the second quarter EMIPA received from the Bolivian tax authorities a re-assessment of its past corporate income tax filings. This re-assessment charged an additional corporate income tax of approximately $669 on the basis of different tax criteria for depreciations and the deductibility of certain expenses. EMIPA has started a process of discussions with the Bolivian tax authorities and has appealed to the regional court. Should any part of this additional corporate tax amount be determined to be the final amount payable at the end of this tax resolution process, such amount shall incur additional interest and penalties, the amount of which cannot be determined with certainty at this stage of the process.

SUMMARY OF QUARTERLY RESULTS

The following two tables include results for the eight quarters ended March 31, 2019:

	Quarters ended			
(in 000's, except per share amounts)	**Q2 2019**	**Q1 2019**	**Q4 2018**	**Q3 2018**
Revenue	**$36,013**	$36,318	$36,298	$38,438
Net income (loss)	**$3,334**	($1,060)	($1,231)	($2,982)
Loss per share (basic and diluted)	**$0.02**	($0.01)	($0.01)	($0.02)
Total assets	**$156,653**	$154,965	$158,800	$160,451
Total financial liabilities (1)	**$19,752**	$16,880	$21,989	$21,748
	Quarters ended			
	Q2 2018	**Q1 2018**	**Q4 2017**	**Q3 2017**
Revenue	**$36,930**	$34,170	$46,156	$36,671
Net loss	**($3,505)**	($3,379)	($1,722)	($3,446)
Loss per share (basic and diluted)	**($0.03)**	($0.02)	($0.01)	($0.03)
Total assets	**$163,542**	$171,035	$171,363	$171,429
Total financial liabilities (1)	**$19,486**	$20,751	$19,135	$19,019

(1) Financial liabilities include current and long-term portions of debt, obligations under finance leases and derivative liabilities.

FINANCIAL AND OTHER RISKS AND UNCERTAINTIES

Financial Risks

The Company's activities expose it to a variety of financial market risks (including commodity price risks, currency risk and interest rate risk), credit risks, liquidity risks, financing risks and other risks. Enterprise risk management is carried out by management of the Company under policies approved by the board of directors thereof. Management identifies and evaluates the financial risks in co-operation with the Company's operating units. The Board of Directors of the Company reviews management's risk management programs and provides oversight on specific areas. The Company's overall risk management program seeks to minimize potential adverse effects on the Company's financial and operating performance.

Other Risks

The Company identified a variety of additional risks and uncertainties in the most recent Annual Information Form ("AIF") including, but not limited to, (i) mineral resources and reserves estimates and replacement of depleted reserves, (ii) production estimates, (iii) development, capital projects and operations of mines, (iv) competition, (v) acquisitions and divestitures, (vi) title matters, (vii) water supply, (viii) regulatory and other risk, (ix) permits, (x) environmental, health and safety regulations, (xi) political and related risks, (xii) insurance, (xiii) reliance on key personnel and labor relations, (xiv) community relations and license to operate, (xv) litigation, (xvi) conflicts of interest, (xvii) controlling shareholder, and (xviii) share trading volatility.

In respect of regulatory and other risks and environmental regulations risks, see "Contingencies" above.

For a more detailed discussion of such financial and other business risks, please see the "Risk Factors" in Orvana's most recent AIF at www.sedar.com.

OTHER INFORMATION

Critical Accounting Estimates

The preparation of financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported amounts of certain assets and liabilities at the date of the financial statements and the reported amounts of certain revenues and expenses during the period. Actual results could differ significantly from those estimates. Specific items requiring estimates are mineral reserves, accounts receivable, property, plant and equipment, depreciation and amortization, forward metals prices, decommissioning liabilities, future income taxes, stock-based compensation and other accrued liabilities and contingent liabilities.

<u>Net Realizable Amounts of Property, Plant and Equipment</u>

At March 31, 2019, the net carrying value of the property, plant and equipment in respect of El Valle and Don Mario amounted to $62.5 million and $24.6 million, respectively. Effective from the point that they are ready for their intended use, property, plant and equipment are amortized on a straight-line basis or using the units-of-production method over the shorter of the estimated economic life of the asset or mineral property. The method of depreciation is determined based on that which best represents the use of the assets.

The reserve and resource estimates for each operation are the prime determinants of the life of a mine. In general, a mineralized deposit where the mineralization is reasonably well defined is amortized over its proven and probable mineral reserves. Non-reserve material may be included in the depreciation calculations in limited circumstances where there is a high degree of confidence in economic extraction. The expected economic life of these mines is dependent upon, among other things, the estimated remaining ore; gold, copper and silver prices; cash operating costs and capital expenditures.

The Company assesses each mine development project to determine when a mine is substantially complete and ready for its intended use and has advanced to the production stage. In its assessment, the Company considers relevant criteria based on the nature of each project, including the completion of a reasonable period of testing of mine plant and equipment, the ability to produce materials in saleable form (within specifications) and the ability to sustain ongoing production of minerals. When a mine development project moves into the production stage, the capitalization of certain mine construction costs ceases and costs are either capitalized to inventory or expensed, except for sustaining capital costs and underground mine or reserve development, which are capitalized to property, plant and equipment.

Decommissioning Liabilities

Decommissioning liabilities relate to the dismantling of the mine facilities and environmental reclamation of the areas affected by mining operations. Mine facilities include structures and the tailings dam. Environmental reclamation requirements include mine water treatment, reforestation and dealing with soil contamination. It is possible that the Company's estimates of the ultimate amounts required to decommission its mines could change as a result of changes in regulations, the extent of environmental remediation required, the means of reclamation, cost estimates or the estimated remaining ore reserves. The following table sets out the Company's estimates, prepared by management with the assistance of independent third-party experts, of the undiscounted and discounted cash flows required to settle such decommissioning liabilities in respect of El Valle and Don Mario at March 31, 2019.

As at March 31, 2019	Undiscounted Cash Flows Estimated to Settle Decommissioning Liabilities	Discount Rate	Discounted Cash Flows Required to Settle Decommissioning Liabilities
(in 000's)			
El Valle (1)	$16,151	1.47%	$14,223
Don Mario (1)	$8,115	3.20%	$6,782
Total	**$24,266**		**$21,005**

(1) Accretion expense is recorded using the discount interest rate set out above. It is estimated that these amounts will be incurred beginning in 2019 and 2020 at Don Mario and El Valle, respectively. The discount rate used to measure decommissioning liabilities under IFRS is based on current interest rates of government bonds of the applicable country and of term that matches the time period to the commencement of the decommissioning liability being incurred.

Stock-based compensation

The Company recorded a stock-based compensation expense of $21 thousand and $44 thousand in the second quarter and first half of fiscal 2019, respectively, compared with $49.3 thousand and $98.7 thousand in the second quarter and first half of fiscal 2018, respectively. The stock-based compensation expense is based on an estimate of the fair value of stock options issued and expensed over the vesting period. The accounting for stock options requires estimates of interest rates, life of options, stock price volatility and the application of the Black-Scholes option pricing model.

Long-term Compensation

The Company established a Deferred Share Unit ("DSU") plan, effectively a phantom stock plan, for directors, effective October 1, 2008. For grants subsequent to December 1, 2015, the fair value of the units issued is expensed over the fiscal year in which they are issued and is included in long-term compensation expense under general and administrative expenses in the statement of income. The fair value of the DSUs are marked to the quoted market price of Common Shares at each reporting date and changes in their fair value are also recorded under general and administrative expenses. Payouts are settled in cash within a specified period following a director's departure, based on the market price of the Common Shares at exercise.

The Company established a Restricted Share Unit ("RSU") plan, effectively a phantom stock plan, for designated executives, effective October 1, 2008. The initial fair value of units issued is expensed and is included in long-term compensation expense under general and administrative expenses in the statement of income. The fair value of the RSUs are marked to the quoted market price of the Common Shares at each reporting date and changes in their fair value are recorded under general and administrative expenses. Payouts are settled in cash after a specified period of vesting, based on the market price of the Common Shares at vesting.

The Company established a Share Appreciation Rights ("SAR") plan for designated executives, effective in respect of fiscal 2013. Unless otherwise determined by the directors of the Company, designated participants are granted SARs in such number equal to two times the number of RSUs granted to such participant in respect of compensation for a particular fiscal year. The Initial Fair Market Value as defined in the SAR plan is determined based on the closing price of the Common Shares on the date of grant. The fair value of the SARs are measured using an option pricing model at each period end, and to the extent that employees have rendered services over a three year vesting period, an expense is recorded under general and administrative expenses in the statement of net income over such vesting period. Vested SARs may be exercised provided there has been an appreciation in the market price of the Common Shares from the Initial Fair Market Value on the grant date and payouts are settled in cash as vested SARs are exercised.

Impairment

The Company assesses the carrying values of each cash-generating unit ("CGU") at each reporting period end date to determine whether any indication of impairment exists. Where an indicator of impairment exists, a formal estimate of the recoverable amount is made which is considered to be the higher of the fair value less costs to sell ("FVLCS") or value-in-use. These assessments require the use of estimates and assumptions such as long-term commodity prices, discount rates, future capital requirements, the resale market for certain property, plant and equipment of the Company and operating performance. Fair value under FVLCS is determined as the amount that would be obtained from the sale, less costs, of the asset in an arm's length transaction between knowledgeable and willing parties. When observable market prices are not available for the asset, value-in-use for mineral properties is generally determined as the present value of estimated future cash flows arising from the continued use of the asset, which includes estimates such as the cost of future expansion plans and eventual disposal, using assumptions that are specific to the Company's circumstances with respect to each CGU. Cash flows are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

Management of the Company has assessed its CGUs to be its mine sites (El Valle and Don Mario), which are the lowest level for which cash inflows and outflows are expected to be largely independent of those of other assets. Management projected cash flows over the remaining life-of-mine in respect of El Valle and Don Mario using forecasted production and costs per the current life-of-mine plans and the long-term forecasted price of gold, copper and silver to project future revenues. The key assumptions used in making this assessment at March 31, 2019 included commodity prices, operating costs, capital expenditures, foreign exchange rates and discount rates.

Although the total public market capitalization of the Company was below the carrying amount of Orvana's net assets at March 31, 2019 of $80 million, following the completion of an impairment test in respect of each CGU at the end of the first half of fiscal 2019, the Company estimated that the net recoverable amounts are greater than the carrying values of such assets based on the Company's current life-of-mine plans and the assumptions set out above at March 31, 2019. As such, there was no impairment of such carrying values as at March 31, 2019.

In light of a continued volatile metal price environment, and notwithstanding that the Company concluded that there was no impairment of carrying values at the end of first half of fiscal 2019, there can be no assurances that an impairment adjustment may not be taken at either or both CGUs in future periods.

Management used a long-term price per ounce of gold of between $1,302 to $1,412 to perform its impairment assessments for OroValle and EMIPA as at March 31, 2019. A 5% decrease in price per ounce would have resulted in an impairment of $13 million at OroValle and $4 million at EMIPA. The 5% decrease in gold price was not modeled with a corresponding depreciation in EUR.

Management used long-term Euro/USD exchange rates between 1/1.16 to 1/1.25 to perform its impairment assessments for OroValle as at March 31, 2019. A 5% depreciation of the annual Euro/USD exchange rates would have resulted in an impairment of $7 million at OroValle and no impairment at EMIPA. The 5% depreciation in Euro/USD exchange rates was not modeled with a corresponding increase in gold price.

As it is mentioned in the Financial Statements, the company is subjected to price risks:

Gold prices

The net income of $2,274 for the first half of fiscal 2019 would be impacted by changes in average realized gold prices on gold ounces sold. A 10% increase/decrease in average realized gold prices would affect the gross revenue by an increase/decrease of approximately $6,761.

Copper prices

The net income of $2,274 for the first half of fiscal 2019 would be impacted by changes in average realized copper prices. A 10% increase/decrease in average realized copper prices would affect gross revenue by an increase/decrease of approximately $817.

Internal Controls over Financial Reporting and Disclosure Controls and Procedures

Management is responsible for the design and effectiveness of disclosure controls and procedures ("DC&P") and the design of internal control over financial reporting ("ICFR") to provide reasonable assurance that material information related to the Company, including its consolidated subsidiaries, is made known to the Company's certifying officers. The Company uses the *Internal Control – Integrated Framework* (COSO Framework) published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) to design its ICFR. Based on a review of internal control procedures at the end of the period covered by this MD&A, management believes its internal controls and procedures are appropriately designed as at March 31, 2019.

There were no significant changes in the Company's internal controls or in other factors that could significantly affect those controls subsequent to the date the Chief Executive Officer and Chief Financial Officer completed their evaluation, nor were there any significant deficiencies or material weaknesses in the Company's internal controls requiring material corrective actions.

Management of the Company was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. The result of the inherent limitations in all control systems means no evaluation of controls can provide absolute assurance that all control issues, errors and instances of fraud, if any, have been detected and that all of the objectives of the internal controls over financial reporting have been achieved or will be achieved in the future.

Non-IFRS Measures

COC, AISC and AIC

The Company, in conjunction with an initiative undertaken within the gold mining industry, began reporting COC, AISC and AIC non-IFRS performance measures as set out in the guidance note released by the World Gold Council in June 2013. The Company believes that these performance measures more fully define the total costs associated with producing gold, copper and silver, however, these performance measures have no standardized meaning. Accordingly, they are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS.

COC include total production cash costs incurred at the Company's mining operations, which form the basis of the Company's cash costs. AISC includes COC plus sustaining capital expenditures, corporate administrative expenses, costs of community relations, exploration and evaluation costs and reclamation cost accretion. The Company believes that this measure represents the total costs of producing gold from current operations and provides the Company and other stakeholders of the Company with additional information relating to the Company's operational performance and ability to generate cash flows. As the measure seeks to reflect the full cost of gold production from current operations, new project capital is not included in AISC. AIC represents AISC plus non-sustaining capital expenditures and non-sustaining exploration. Certain other cash expenditures including tax payments, debt payments, dividends and financing costs are also not included in the calculation of AIC. The Company reports these measures on a gold ounces sold basis.

Orvana Consolidated	Q2 2019	Q1 2019	Q2 2018	YTD 2019	YTD 2018
Cash operating costs, all-in sustaining costs and all-in costs (by-product) (1) *(in 000's)*					
Total mining costs (sales based)	**$27,512**	**$30,595**	**$30,525**	**$58,107**	**$58,585**
Deductions, refining, treatment, penalties, freight & other costs	2,818	2,171	3,825	4,989	7,370
Sub-total - other operating costs	**$2,818**	**$2,171**	**$3,825**	**$4,989**	**$7,370**
Copper sales - gross revenue value	(4,831)	(3,892)	(6,500)	(8,723)	(14,936)
Silver sales - gross revenue value	(741)	(721)	(965)	(1,462)	(2,152)
Other by-product gross revenue value	-		-	-	-
Sub-total by-product revenue	**($5,572)**	**($4,613)**	**($7,465)**	**($10,185)**	**($17,088)**
Cash operating costs	**$24,758**	**$28,153**	**$26,885**	**$52,911**	**$48,867**
Corporate general & administrative costs	660	794	1,484	1,454	2,645
Community costs related to current operations	129	112	508	241	965
Reclamation, accretion & amortization	406	509	424	915	822
Exploration and study costs (sustaining)	220	281	101	501	124
Primary development (sustaining)	914	968	896	1,881	1,629
Other sustaining capital expenditures (2) (3)	1,141	1,084	3,064	2,225	5,862
All-in sustaining costs	**$28,228**	**$31,901**	**$33,362**	**$60,128**	**$60,914**
Exploration and study costs (non-sustaining)	561	286	886	847	1,600
Capital expenditures (non-sustaining) (3)	247	0	1,116	247	3,504
All-in costs	**$29,036**	**$32,187**	**$35,364**	**$61,222**	**$66,018**
Au/oz sold	25,507	27,466	25,489	52,973	47,484
Cash operating costs ($/oz) gold	**$971**	**$1,025**	**$1,055**	**$999**	**$1,029**
All-in sustaining costs ($/oz) gold	**$1,107**	**$1,161**	**$1,309**	**$1,135**	**$1,283**
All-in costs ($/oz) gold	**$1,138**	**$1,172**	**$1,387**	**$1,156**	**$1,390**

(1) Costs are reported per ounce of gold sold in the period.

(2) Sustaining capital expenditures are those expenditures which do not increase annual gold ounce production at a mine site and excludes all expenditures at the Company's projects and certain expenditures at the Company's operating sites which are deemed expansionary in nature.

(3) Capital expenditures include unpaid capital expenditures incurred in the period.

The following table provides a reconciliation of COC, AISC and AIC (by-product) per ounce of gold sold for El Valle for the periods set out below:

El Valle	**Q2 2019**	**Q1 2019**	**Q2 2018**	**YTD 2019**	**YTD 2018**
Cash operating costs, all-in sustaining costs and all-in costs (by-product) (1) *(in 000's)*					
Total mining costs	**$16,319**	**$18,764**	**$17,780**	**$35,083**	**$34,077**
Deductions, refining, treatment, penalties, freight & other costs	2,808	2,161	2,005	4,969	3,552
Sub-total - other operating costs	**$2,808**	**$2,161**	**$2,005**	**$4,969**	**$3,552**
Copper sales - gross revenue value	(4,831)	(3,892)	(3,294)	(8,723)	(5,773)
Silver sales - gross revenue value	(610)	(622)	(612)	(1,232)	(1,422)
Sub-total by-product revenue	**($5,441)**	**($4,514)**	**($3,906)**	**($9,955)**	**($7,195)**
Cash operating costs	**$13,686**	**$16,411**	**$15,879**	**$30,097**	**$30,434**
Corporate general & administrative costs	375	375	625	750	1,250
Reclamation, accretion & amortization	341	443	281	784	535
Exploration and study costs (sustaining)	0	0	37	0	60
Primary development (sustaining)	914	968	896	1,882	1,629
Other sustaining capital expenditures (2) (3)	732	609	1,004	1,341	2,972
All-in sustaining costs	**$16,048**	**$18,806**	**$18,722**	**$34,854**	**$36,880**
Exploration and study costs (non-sustaining)	**105**	132	**-**	**237**	**-**
All-in costs	**$16,153**	**$18,938**	**$18,722**	**$35,091**	**$36,880**
Au/oz sold	15,832	16,190	13,805	32,023	24,003
Cash operating costs ($/oz) gold	**$864**	**$1,014**	**$1,150**	**$940**	**$1,268**
All-in sustaining costs ($/oz) gold	**$1,014**	**$1,162**	**$1,356**	**$1,088**	**$1,536**
All-in costs ($/oz) gold	**$1,020**	**$1,170**	**$1,356**	**$1,096**	**$1,536**

(1) Costs are reported per ounce of gold sold in the period.

(2) Sustaining capital expenditures are those expenditures which do not increase annual gold ounce production at a mine site and excludes all expenditures at the Company's projects and certain expenditures at the Company's operating sites which are deemed expansionary in nature.

(3) Capital expenditures include unpaid capital expenditures incurred in the period.

The following table provides a reconciliation of COC, AISC and AIC (by-product) per ounce of gold sold for Don Mario for the periods set out below:

Don Mario Mine	**Q2 2019**	**Q1 2019**	**Q2 2018**	**YTD 2019**	**YTD 2018**
Cash operating costs, all-in sustaining costs and all-in costs (by-product) [(1)] *(in 000's)*					
Total mining costs	**$11,194**	**$11,831**	**$12,745**	**$23,025**	**$24,508**
Deductions, refining, treatment, penalties, freight & other costs	10	10	1,820	20	3,818
Sub-total - other operating costs	**$10**	**$10**	**$1,820**	**$20**	**$3,818**
Copper sales – gross revenue value	0	0	(3,206)	0	(9,163)
Silver sales – gross revenue value	(132)	(98)	(353)	(230)	(730)
Other by-product gross revenue value	-		-	-	-
Sub-total by-product revenue	**($132)**	**($98)**	**($3,559)**	**($230)**	**($9,893)**
Cash Operating Costs	**$11,072**	**$11,743**	**$11,006**	**$22,815**	**$18,433**
Corporate general & administrative costs	133	91	59	224	81
Community costs related to current operations	129	112	508	241	965
Reclamation, accretion & amortization	65	66	143	131	287
Capital expenditures (sustaining) [(2)(3)]	410	475	2,060	885	2,890
Exploration and study costs (sustaining)	220	281	-	501	-
All-in sustaining costs	**$12,029**	**$12,768**	**$13,776**	**$24,797**	**$22,656**
Capital expenditures (non-sustaining)	247	0	886	247	1,600
Exploration and study costs (non-sustaining)	301	155	1,116	456	3,504
All-in costs	**$12,577**	**$12,923**	**$15,778**	**$25,500**	**$27,760**
Au/oz sold	9,674	11,276	11,684	20,950	23,481
Cash operating costs ($/oz) gold	**$1,144**	**$1,041**	**$942**	**$1,089**	**$785**
All-in sustaining costs ($/oz) gold	**$1,243**	**$1,132**	**$1,179**	**$1,184**	**$965**
All-in costs ($/oz) gold	**$1,300**	**$1,146**	**$1,350**	**$1,217**	**$1,182**

(1) Costs are reported per ounce of gold sold in the period.

(2) Sustaining capital expenditures are those expenditures which do not increase annual gold ounce production at a mine site and excludes all expenditures at the Company's projects and certain expenditures at the Company's operating sites which are deemed expansionary in nature.

(3) Capital expenditures includes unpaid capital expenditures incurred in the period.

EBITDA

The Company has included Earnings before Interest, Taxes, Depreciation and Amortization ("EBITDA") as a non-IFRS performance measure in this MD&A. The Company excludes these items from net loss to provide a measure which allows the Company and investors to evaluate the results of the underlying core operations of the Company and its ability to generate cash flows. Accordingly, it is intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS.

The following table provides a reconciliation of EBITDA to the Company's consolidated financial statement for their respective periods:

(in 000's)	**Q2 2019**	**Q1 2019**	**Q2 2018**	**YTD 2019**	**YTD 2018**
Net income (loss)	**$3,334**	($1,060)	($3,505)	**$2,274**	($6,884)
Less:					
Finance costs	**(468)**	(612)	(495)	**(1,080)**	(889)
Income taxes	**108**	(39)	(684)	**69**	(2,199)
Depreciation and amortization	**(4,571)**	(4,858)	(6,799)	**(9,429)**	(12,451)
Impairment	**-**	-	-	**-**	-
EBITDA	**$8,265**	$4,449	$4,473	**$12,714**	$8,655

Other Information

Other operating and financial information with respect to the Company, including the AIF, is available on SEDAR at www.sedar.com and on the Company's website at www.orvana.com.

Cautionary Statements – Forward-Looking Information

Certain statements in this MD&A constitute forward-looking statements or forward-looking information within the meaning of applicable securities laws ("forward-looking statements"). Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, potentials, future events or performance (often, but not always, using words or phrases such as "believes", "expects", "plans", "estimates" or "intends" or stating that certain actions, events or results "may", "could", "would", "might", "will" or "are projected to" be taken or achieved) are not statements of historical fact, but are forward-looking statements.

The forward-looking statements herein relate to, among other things, Orvana's ability to achieve improvement in free cash flow; the potential to extend the mine life of El Valle and Don Mario beyond their current life-of-mine estimates including specifically, but not limited to in the case of Don Mario, the mining of the Cerro Felix deposit, the processing of the mineral stockpiles (including, without limitation, the financial and technical ability to implement the SART circuit) and the reprocessing of the tailings material; Orvana's ability to optimize its assets to deliver shareholder value; the Company's ability to optimize productivity at Don Mario and El Valle; estimates of future production, operating costs and capital expenditures; mineral resource and reserve estimates; statements and information regarding future feasibility studies and their results; future transactions; future metal prices; the ability to achieve additional growth and geographic diversification, including without limitation, the ability to complete the acquisition of the Taguas Property; future financial performance, including the ability to increase cash flow and profits; and future financing requirements and mine development plans.

Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The estimates and assumptions of the Company contained or incorporated by reference in this MD&A, which may prove to be incorrect, include, but are not limited to, the various assumptions set forth herein or as otherwise expressly incorporated herein by reference as well as: there being no significant disruptions affecting operations, whether due to labour disruptions, supply disruptions, power disruptions, damage to equipment or otherwise; permitting, development, operations, expansion and acquisitions at El Valle and Don Mario being consistent with the Company's current expectations; political developments in any jurisdiction in which the Company operates being consistent with its current expectations; certain price assumptions for gold, copper and silver; prices for key supplies being approximately consistent with current levels; production and cost of sales forecasts meeting expectations; the accuracy of the Company's current mineral reserve and mineral resource estimates; and labour and materials costs increasing on a basis consistent with Orvana's current expectations.

A variety of inherent risks, uncertainties and factors, many of which are beyond the Company's control, affect the operations, performance and results of the Company and its business, and could cause actual events or results to differ materially from estimated or anticipated events or results expressed or implied by forward looking statements. Some of these risks, uncertainties and factors include fluctuations in the price of gold, silver and copper; the need to recalculate estimates of resources based on actual production experience; the failure to achieve production estimates; variations in the grade of ore mined; variations in the cost of operations; the availability of qualified personnel; the Company's ability to obtain and maintain all necessary regulatory approvals and licenses; the Company's ability to use cyanide in its mining operations; risks generally associated with mineral exploration and development, including the Company's ability to continue to operate the El Valle and/or Don Mario and/or ability to resume long-term operations at the Carlés Mine; the Company's ability to acquire and develop mineral properties and to successfully integrate such acquisitions; the Company's ability to execute on its strategy; the Company's ability to obtain financing when required on terms that are acceptable to the Company; challenges to the Company's interests in its property and mineral rights; current, pending and proposed legislative or regulatory developments or changes in political, social or economic conditions in the countries in which the Company operates; general economic conditions worldwide; and the risks identified in the Company's AIF under the heading "Risks and Uncertainties". This list is not exhaustive of the factors that may affect any of the Company's forward-looking statements and reference should also be made to the Company's AIF for a description of additional risk factors.

The forward-looking statements made in this MD&A with respect to the anticipated development and exploration of the Company's mineral projects are intended to provide an overview of management's expectations with respect to certain future activities of the Company and may not be appropriate for other purposes.

Forward-looking statements are based on management's current plans, estimates, projections, beliefs and opinions and, except as required by law, the Company does not undertake any obligation to update forward-looking statements should assumptions related to these plans, estimates, projections, beliefs and opinions change. Readers are cautioned not to put undue reliance on forward-looking statements.

Cautionary Notes to Investors – Reserve and Resource Estimates

In accordance with applicable Canadian securities regulatory requirements, all mineral reserve and mineral resource estimates of the Company disclosed in this MD&A have been prepared as at September 30, 2018 in accordance with NI 43-101, classified in accordance with Canadian Institute of Mining Metallurgy and Petroleum's "CIM Standards on Mineral Resources and Reserves Definitions and Guidelines" (the "CIM Guidelines").

Pursuant to the CIM Guidelines, mineral resources have a higher degree of uncertainty than mineral reserves as to their existence as well as their economic and legal feasibility. Inferred mineral resources, when compared with measured or indicated mineral resources, have the least certainty as to their existence, and it cannot be assumed that all or any part of an inferred mineral resource will be upgraded to an indicated or measured mineral resource as a result of continued exploration. Pursuant to NI 43-101, inferred mineral resources may not form the basis of any economic analysis, including any feasibility study. Accordingly, readers are cautioned not to assume that all or any part of a mineral resource exists, will ever be converted into a mineral reserve, or is or will ever be economically or legally mineable or recovered.