MANAGEMENT'S DISCUSSION AND ANALYSIS
YEAR ENDED DECEMBER 31, 2019

TREVALI

This Management's Discussion & Analysis ("MD&A") is dated as of February 20, 2020 and should be read in conjunction with our audited consolidated financial statements for the year ended December 31, 2019. In this MD&A, a reference to "Trevali", the "Company", "us", "we" or "our" refers to Trevali Mining Corporation and its subsidiaries. Additional information about us, including our Annual Information Form and Management Information Circular, is available on SEDAR at www.sedar.com.

This MD&A contains certain forward-looking information and forward-looking statements. Please refer to the cautionary language under the heading "Notes to Reader".

FINANCIAL AND OPERATIONAL HIGHLIGHTS

- **Significantly improved safety performance** with 46% reduction in Total Recordable Injury Frequency in 2019 compared to 2018.
- **Exceeded 2019 zinc production guidance by producing a record annual 417 million payable pounds of zinc** (3% increase on 2018). Total 2019 lead and silver production also exceeded guidance (21% and 15% increase, respectively, on 2018).
- **Adjusted EBITDA[1] of $106.9 million** ($20.4 million during Q4 2019) and annual operating cash flows of $111.9 million (2018: $119.0 million) which facilitated voluntary debt repayments of $69.5 million during 2019.
- **Successful completion of the Rosh Pinah filtration and grinding upgrade project on schedule and on budget.**
- **The T90 Program has identified $42 million of the $50 million targeted sustainable efficiencies, $14 million of which have been implemented** and will be realized on an ongoing annual basis at end of 2019 as part of the goal to achieve an AISC[1] of $0.90 per pound by the beginning of 2022.
- **Advanced the RP2.0 Expansion Project with the Pre-Feasibility Study now expected in Q2 2020.**
- **Achieved record zinc payable sales of 440 million pounds in 2019,** surpassing prior year by 9%, reducing stock levels to 15,000 tonnes, a 40% reduction of zinc concentrate inventories from Q3.
- **A fixed zinc pricing arrangement at $1.10 per pound was entered into for a six-month period,** for December 2019 to May 2020, equal to 70% of the zinc concentrate produced at Caribou and Santander.
- **Discovered a third VMS lens at Perkoa named "T3" and began the resource conversion program at the Santander Pipe.** Exploration spend of $10.4 million achieving 41,000 metres drilled during 2019.

		2019	2018	YoY	**Q4'19**	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Zinc payable production	Mlbs	417.4	406.9	3%	104.8	106.8	102.7	–2%	2%
Lead payable production	Mlbs	50.3	41.7	21%	13.8	13.6	9.7	1%	42%
Silver payable production	Moz	1.5	1.3	15%	0.4	0.4	0.3	0%	33%
Revenue	$	386,110	464,347	–17%	91,466	87,135	121,763	5%	–25%
Adjusted EBITDA[1]	$	106,864	198,807	–46%	20,364	22,487	39,427	–9%	–48%
Net (loss) income	$	(35,411)	(230,595)	85%	(3,833)	(16,131)	(251,778)	76%	98%
Net (loss) income per share	$	(0.04)	(0.27)	85%	0.00	(0.02)	(0.29)	100%	100%
Operating Cost[1]	$/t	67	68	–1%	67	63	76	6%	–12%
C1 Cash Cost[1]	$/lb	0.88	0.77	14%	0.86	0.84	0.90	2%	–4%
AISC[1]	$/lb	1.01	0.96	5%	1.02	0.96	1.15	6%	–11%
Sustaining capital expenditure[1]	$	52,004	76,781	–32%	15,752	11,975	26,373	32%	–40%
Exploration expenditure	$	10,362	12,837	–19%	2,755	2,576	7,952	7%	–65%

Conversion of tonnes to pounds, 1 tonne = 2,204.62 pounds or lbs.

Revenue amounts in the table above, including previous and comparative annual and quarterly amounts have been restated to reflect the change in accounting policy set out in Note 3 of the audited consolidated financial statements for the year ended December 31, 2019.

[1] *See "Use of Non-IFRS Financial Performance Measures".*

OUR BUSINESS

Trevali is a global base-metals mining company, headquartered in Vancouver, Canada. The bulk of Trevali's revenue is generated from base-metals mining at its four operational assets: the 90%-owned Perkoa Mine in Burkina Faso, the 90%-owned Rosh Pinah Mine in Namibia, the wholly-owned Caribou Mine in northern New Brunswick, Canada and the wholly-owned Santander Mine in Peru. In addition, Trevali owns the Halfmile and Stratmat Properties and the Restigouche Deposit in New Brunswick, Canada, and the past producing Ruttan Mine in northern Manitoba, Canada. Trevali also owns an effective 44%-interest in the Gergarub Project in Namibia, as well as an option to acquire a 100% interest in the Heath Steele deposit located in New Brunswick, Canada. The shares of Trevali are listed on the TSX (symbol TV), the OTCQX (symbol TREVF), the Lima Stock Exchange (symbol TV), and the Frankfurt Exchange (symbol 4TI). For further details on the Company, readers are referred to the Company's website (www.trevali.com) and to Canadian regulatory filings on SEDAR at www.sedar.com.

T90 PROGRAM

At the end of Q3 2019, Trevali launched the T90 Business Improvement Program which targets $50 million of annual sustainable efficiencies and a reduction in AISC[1] to $0.90 per pound of zinc by the beginning of 2022. As of the end of 2019, $42 million in annual sustainable efficiencies have been identified and $14 million in sustainable efficiencies have been implemented and will be realized on an ongoing annual basis.

FINANCIAL AND OPERATIONAL SUMMARY

The following table sets forth selected consolidated financial and operating information for each of the eight most recently completed quarters:

	Q4'19	Q3'19	Q2'19	Q1'19	Q4'18	Q3'18	Q2'18	Q1'18
Revenues	**91,466**	87,135	82,297	125,212	121,763	73,095	151,593	117,895
Zinc sales (Mlbs)	**110**	111	93	125	124	76	114	89
EBITDA[1]	**19,611**	12,945	(7,443)	46,674	(271,499)	(22,401)	58,785	58,546
Adjusted EBITDA[1]	**20,364**	22,487	17,558	46,455	39,427	21,249	83,039	52,427
Net (loss) income	**(3,833)**	(16,131)	(31,563)	16,116	(251,778)	(30,846)	23,454	28,575
Net (loss) income per share – basic and diluted	**0.00**	(0.02)	(0.04)	0.02	(0.29)	(0.04)	0.03	0.03
Adjusted (loss) income per share[1]	**0.00**	(0.01)	(0.01)	0.02	0.01	(0.04)	0.04	0.02

Revenue amounts in the table above, and comparative quarter amounts, have been restated to reflect the Company's change in accounting policy.

Revenues increased by 5% from Q3 2019 due to higher quarterly lead payable sales as quarterly London Metal Exchange ("LME") average zinc prices and zinc payable sales remained consistent. EBITDA[1] and Adjusted EBITDA[1] were similar during the quarter due to minimal settlement mark-to-market adjustments (refer to summary on page 5).

Net loss in Q4 2019 was $3.8 million or $0.00 per share, compared to net loss of $251.8 million or ($0.29) per share, for the same period a year ago. The decrease in loss per share during Q4 2019 is largely attributable to the 2018 Q4 net non-cash impairment charge of $263.0 million primarily driven by the decline in the price of zinc.

Quarterly Adjusted EBITDA[1] has stabilized during 2019, with the main source of variations being commodity price fluctuations and improved logistics of concentrate inventories at the African operations. The Company's mining activities are conducted throughout the year, and there are no notable variations due to seasonality.

[1] *See "Use of Non-IFRS Financial Performance Measures".*

EBITDA[1] was higher and net loss lower for Q4 2019 compared to Q4 2018 despite significantly higher benchmark smelting and refining charges and lower zinc prices. The Q4 2019 negative settlement mark-to-market amounted to $0.3 million compared to a positive settlement mark-to-market of $1.7 million during the same period in 2018.

	2019	2018	2017
Revenues	386,110	464,347	328,614
Zinc sales (Mlbs)	440	403	244
EBITDA[1]	71,787	(176,569)	100,960
Adjusted EBITDA[1]	106,864	198,807	117,110
Net (loss) income	(35,411)	(230,595)	20,227
Net (loss) income per share – basic and diluted	(0.04)	(0.27)	0.03
Adjusted income per share[1]	0.00	0.12	0.07
Totals assets	744,570	825,740	1,180,159

Revenue amounts in the table above have been restated to reflect the Company's change in accounting policy.

The above trend analysis shows a large increase in zinc sales volumes during 2018 which is the first full year of operations following the acquisition of the Perkoa and Rosh Pinah mines in September 2017. A net loss was reported in 2018 despite high revenues due to a net non-cash impairment charge of $263.0 million. Revenues for 2019 have decreased, despite increased sales volumes which was caused by the year-over-year decline in the price of zinc and higher benchmark smelting and refining charges.

		2019	2018	YoY	**Q4'19**	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Production									
Ore mined	t	3,150,423	2,973,669	6%	790,927	824,935	723,384	–4%	9%
Ore milled	t	3,234,358	3,054,768	6%	822,278	838,543	737,496	–2%	11%
Zinc head grade		8.0%	8.3%	–4%	7.8%	7.9%	8.8%	–1%	–11%
Lead head grade		1.5%	1.4%	7%	2.0%	1.5%	1.2%	33%	67%
Silver head grade	(ozs/t)	1.4	1.2	17%	1.3	1.3	1.1	0%	18%
Zinc recovery		87.2%	87.0%	0%	88.2%	87.1%	85.9%	1%	3%
Lead recovery		67.2%	65.1%	3%	69.5%	69.6%	70.3%	0%	–1%
Silver recovery		46.2%	43.9%	5%	47.4%	45.9%	48.5%	3%	–2%
Zinc payable	Mlbs	417.4	406.9	3%	104.8	106.8	102.7	–2%	2%
Lead payable	Mlbs	50.3	41.7	21%	13.8	13.6	9.7	1%	42%
Silver payable	Moz	1.5	1.3	15%	0.4	0.4	0.3	0%	33%
Sales									
Zinc payable	Mlbs	440.1	403.3	9%	110.4	111.1	124.1	–1%	–11%
Lead payable	Mlbs	47.5	39.9	19%	14.8	10.6	10.7	40%	38%
Silver payable	Moz	1.4	1.2	17%	0.3	0.3	0.3	0%	0%
Cost per unit									
Operating Cost[1]	$/t	67	68	–1%	67	63	76	6%	–12%
C1 Cash Cost[1]	$/lb	0.88	0.77	14%	0.86	0.84	0.90	2%	–4%
AISC[1]	$/lb	1.01	0.96	5%	1.02	0.96	1.15	6%	–11%

Quarterly zinc payable production reduced slightly (2%) to 104.8 million pounds compared to Q3, following two consecutive record production quarters in Q2 and Q3 and a 2% increase from the comparative quarter in 2018. Compared to the comparative quarter of 2018, ore tonnes milled at Rosh Pinah, Perkoa, Santander and Caribou improved sequentially, with overall lower grades as planned due to lower grade ore milled at all operations except Santander where higher grades are attributed to continued improvement with dilution control and to higher grade ore access recently developed in accordance with the mine plan.

Zinc payable sales in Q4 2019 were 110.4 million pounds, representing a balanced sales quarter at 25% of annual production. Cost per unit during the quarter increased compared to Q3 2019 due primarily to higher than average development meter costs at Caribou, as well as scheduled mill maintenance and implementation of improvements in the grinding and flotation circuits to improve recoveries and concentrate grades at Santander. During 2019, sales of zinc payable increased due to improved logistics and to the successful sale of inventory backlog achieving a record low balance.

[1] *See "Use of Non-IFRS Financial Performance Measures".*

Initiatives across Trevali to improve shipping logistics during 2019 realized benefits with concentrate inventory levels steadily decreasing to the point of effectively just-in-time inventory levels at December 31, 2019. A new zinc concentrate filter press was installed at Rosh Pinah during Q4 2019, which is expected to reduce the volatility of concentrate sales volumes and to reduce stock levels in conjunction with an improved concentrate logistics performance.

2019 costs were positively impacted by the decreasing operating cost trend and increased production. There is an overall net decrease in 2019 operating costs over the prior year except for the significantly higher benchmark zinc concentrate smelting and refining charges in 2019 compared to 2018 which had an impact of adding $0.10 per pound (13% of C1 Cash Cost[1]) to both C1 Cash Cost[1] and AISC[1].

OUTLOOK

Commodity Markets

We believe the outlook for the zinc market is supportive of higher prices. In 2019, global consumption of the metal was greater than what the market could supply for a fourth consecutive year. Over the past year, zinc smelters globally have been slow to respond to increasing smelting and refining charges. As a result, refined zinc inventories are currently at levels which have not been experienced since July 2007 at a time when the zinc price was approximately $1.60 per pound. This deficit to refined zinc inventories occurred despite two years of demand contraction. Despite demand growth of the metal forecasted to return in 2020 and 2021 at rates of 1.0% and 1.6%, respectively, we believe the inventory deficit will continue, counter to what some market participants forecast. The combination of a relatively low zinc price coupled with higher smelting and refining charges will lead to a widening inventory deficit resulting in marginal and restarting mining operations curtailing or suspending production much more rapidly and in higher volume than forecast by the market. This should provide fundamental support for a higher zinc price.

OPERATIONS REVIEW

Consolidated Revenues

In addition to our operating results, financial performance is directly affected by several factors, including metals prices, foreign exchange rates and input costs, including energy prices. The average LME metal prices are included below, the Q4 2019 average zinc price increased slightly (2%) compared to the previous quarter and remains volatile.

		2019	2018	YoY	**Q4'19**	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Revenues									
Zinc revenue	$	497,160	526,177	–6%	117,406	116,771	145,594	1%	–19%
Lead and silver revenue		70,339	62,309	13%	21,278	17,198	14,709	24%	45%
Smelting and refining costs		(181,389)	(124,139)	–46%	(47,218)	(46,834)	(38,540)	–1%	–23%
Net revenue	$	386,110	464,347	–17%	91,466	87,135	121,763	5%	–25%
Average zinc LME price	$/lb	1.16	1.33	–13%	1.08	1.06	1.19	2%	–9%
Average lead LME price	$/lb	0.91	1.02	–11%	0.92	0.92	0.89	0%	3%
Average silver LBMA price	$/oz	16.20	15.71	3%	17.33	17.02	14.55	2%	19%
Sales quantities									
Payable zinc	Mlbs	440.1	403.3	9%	110.4	111.1	124.1	–1%	–11%
Payable lead	Mlbs	47.5	39.9	19%	14.8	10.6	10.7	40%	38%
Payable silver	Mozs	1.4	1.2	17%	0.3	0.3	0.3	0%	0%

Revenue amounts in the table above, and comparative quarter amounts, have been restated to reflect the Company's change in accounting policy.

All Trevali's zinc and lead concentrate sales contracts provide final pricing in a future month based primarily on quoted LME monthly average zinc and lead prices. The Company recognizes revenues at the time of shipment based on estimated final pricing, with mark-to-market adjustments made each subsequent period until final pricing on the date of settlement. Concentrate smelting and refining charges and freight, included within smelting and refining cost, are negotiated at market-related rates.

[1] *See "Use of Non-IFRS Financial Performance Measures".*

Zinc sales volumes and zinc price both remained stable compared to the prior quarter, however the net revenue decreases over Q4 2018 are due to lower sales volumes and zinc price. Benchmark smelting and refining rates have increased at an amount equating to an additional $0.10 per pound, with 2019 revenues before smelting and refining costs slightly below prior year with the increase in volumes unable to offset the decrease in price.

Settlement Mark-to-market

		Zinc	Lead
Spot 3-month future price as at September 30, 2019	$/lb	1.05	0.95
Provisionally priced metal – September 30, 2019	Mlbs	151.5	3.5
Average 3-month future price for September 2019	$/lb	1.05	0.94
Average Q4 LME price	$/lb	1.08	0.92
Provisionally priced metal – December 31, 2019	Mlbs	147.4	5.9
Average 3-month future price for December 2019	$/lb	1.03	0.87
Spot 3-month future price as at December 31, 2019	$/lb	1.04	0.88

Management estimates that each $0.05 change in the zinc price per pound realized from the December 31, 2019 provisional price recorded of $1.03 per pound would result in approximately $7.0 million on 2019 settlement mark-to-market and EBITDA.

The negative $0.3 million settlement mark-to-market for Q4 2019 primarily reflects the decrease in the estimated final zinc pricing at December 31, 2019 from $1.05 per pound to $1.03 per pound compared to the average zinc prices during Q3 and Q4 2019 of $1.06 and $1.08 per pound, respectively. This is also impacted by the quantity of provisionally priced metal at various stages during the quarter and the timing of sales weighted towards the end of the quarter with 56% of Q4 sales occurring during the month of December.

A fixed zinc pricing arrangement was entered into in November 2019 for 70% of the zinc concentrate produced at Caribou and Santander and for a six-month period covering December 2019 to May 2020 at a price of $1.10 per pound. Management made a strategic decision to fix the zinc price at the two higher cost operations when the opportunity arose with the temporary strengthening of the zinc price in November. This will reduce the quantity of provisionally priced metal in future quarters and reduce the impact of the settlement mark-to-market adjustments. As a result of the fixed pricing arrangement which covered December 2019, net income for Q4 2019 was $0.7 million higher.

[1] *See "Use of Non-IFRS Financial Performance Measures".*

PERKOA MINE, BURKINA FASO

		2019	2018	YoY	Q4'19	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Production									
Ore mined	t	751,681	708,263	6%	181,165	195,058	161,815	–7%	12%
Ore milled	t	739,849	724,995	2%	189,740	189,445	185,662	0%	2%
Zinc head grade		14.3%	14.9%	–4%	14.0%	14.9%	15.4%	–6%	–9%
Zinc recovery		91.6%	91.8%	0%	93.9%	92.1%	90.0%	2%	4%
Zinc concentrate grade		50.5%	50.3%	0%	52.0%	50.8%	49.6%	2%	5%
Zinc payable	Mlbs	179.8	184.0	–2%	46.2	48.3	47.6	–4%	–3%
Sales									
Zinc payable	Mlbs	191.5	182.5	5%	47.3	48.5	52.7	–2%	–10%
Operating Cost[1]	$/t	96	105	–9%	89	88	118	1%	–25%
C1 Cash Cost[1]	$/lb	0.88	0.80	10%	0.83	0.77	0.88	8%	–6%
AISC[1]	$/lb	0.94	0.91	3%	0.90	0.82	1.13	10%	–20%
FINANCE									
Revenues, net	$	151,980	193,341	–21%	33,365	34,861	48,295	–4%	–31%
Mine operating expenses		105,011	108,402	–3%	23,607	22,116	36,402	7%	–35%
Adjusted EBITDA[1]		46,969	84,939	–45%	9,758	12,745	11,893	–23%	–18%
Other expenses (income) and impairment		16,038	57,722	–72%	(3,138)	8,972	23,278	–135%	–113%
EBITDA[1]		30,931	27,217	14%	12,896	3,773	(11,385)	242%	213%
Depreciation, depletion & amortization		35,702	27,904	28%	7,769	9,954	1,390	–22%	459%
EBIT[1]	$	(4,771)	(687)	–594%	5,127	(6,181)	(12,775)	183%	140%

Revenue amounts in the table above, and comparative quarter amounts, have been restated to reflect the Company's change in accounting policy.

Payable zinc production for Q4 2019 was 46.2 million pounds, a 4% and 3% reduction over the prior and corresponding quarter in 2018, respectively. High production levels have been sustained through higher plant throughput, and higher recoveries. Recoveries were higher due to decreasing mining dilution from 15% during the first half of 2019 to 11% while a higher plant throughput rate was realized as a result of more consistent ore feed and improved mill availability. Improved zinc recoveries have been sustained following the modification of the existing flotation circuit to pre-float iron prior to the flotation of zinc during Q2 2019. The resulting benefits from decreasing the iron content in the zinc concentrate, through reduced freight costs and reduced smelting and refining penalties, are being realized.

C1 Cash Cost[1] reduced by 6% compared to the corresponding quarter in 2018, reflecting the lower production costs per pound associated with increased mining and processing performance and reduced iron grades in zinc concentrate produced. This reduction was offset by significant increases to industry benchmark zinc concentrate smelting and refining charges and higher volumes of concentrate trucking. The AISC[1] decrease of $0.23 per pound compared to Q4 2018 is due to a decrease in sustaining capital expenditures, primarily due to the construction of the heavy fuel oil power conversion plant in the prior year. C1 Cash Cost[1] and AISC[1] increased quarter-over-quarter as a result of one-off credits recorded in Q3 2019.

2019 production guidance was exceeded while achieving cost guidance, despite the higher benchmark smelting and refining charges during 2019. Improved dilution control along with the modifications to the processing plant to eliminate iron prior to floating the zinc potentially facilitates the processing of additional mineral resources not currently in the mine plan and is expected to, in combination with other cost efficiencies, provide a basis to review, and potentially extend Perkoa Mine's life.

[1] *See "Use of Non-IFRS Financial Performance Measures".*

ROSH PINAH MINE, NAMIBIA

		2019	2018	YoY	Q4'19	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Production									
Ore mined	t	714,356	627,295	14%	196,723	179,289	158,354	10%	24%
Ore milled	t	705,651	641,980	10%	181,408	181,490	149,201	0%	22%
Zinc head grade		8.2%	9.2%	–11%	7.4%	7.2%	10.9%	3%	–32%
Lead head grade		1.3%	1.0%	30%	2.0%	1.2%	0.8%	67%	150%
Silver head grade	oz/t	0.6	0.5	20%	1.1	0.5	0.4	120%	175%
Zinc recovery		85.9%	86.8%	–1%	84.5%	83.8%	84.9%	1%	0%
Lead recovery		63.9%	64.7%	–1%	72.1%	74.4%	65.4%	–3%	10%
Silver recovery		47.1%	46.8%	1%	54.3%	49.8%	53.2%	9%	2%
Zinc concentrate grade		49.6%	47.7%	4%	50.0%	49.8%	49.7%	0%	1%
Lead concentrate grade		45.3%	30.5%	49%	52.0%	49.4%	19.8%	5%	163%
Zinc payable	Mlbs	92.0	94.2	–2%	20.9	20.3	25.4	3%	–18%
Lead payable	Mlbs	12.1	8.5	42%	5.3	3.2	1.5	66%	253%
Silver payable	Moz	0.2	0.1	100%	0.2	–	–	100%	100%
Sales									
Zinc payable	Mlbs	105.5	91.4	15%	26.7	24.2	39.1	10%	–32%
Lead payable	Mlbs	9.3	7.7	21%	6.0	–	3.3	100%	82%
Silver payable	Moz	0.1	0.1	0%	0.1	–	–	100%	100%
Operating Cost[1]	$/t	54	59	–8%	59	52	71	13%	–17%
C1 Cash Cost[1]	$/lb	0.84	0.70	20%	0.82	1.01	0.91	–19%	–10%
AISC[1]	$/lb	1.03	0.90	14%	1.00	1.25	1.11	–20%	–10%
FINANCE									
Revenues, net	$	89,440	102,937	–13%	24,040	16,030	37,284	50%	–36%
Mine operating expenses		53,288	50,233	6%	16,036	11,425	19,287	40%	–17%
Adjusted EBITDA[1]		36,152	52,704	–31%	8,004	4,605	17,997	74%	–56%
Other expenses (income) and impairment		2,182	91,262	–98%	1,943	(3,269)	82,449	159%	–98%
EBITDA[1]		33,970	(38,558)	188%	6,061	7,874	(64,452)	–23%	109%
Depreciation, depletion & amortization		24,502	17,991	36%	6,607	5,995	9,432	10%	–30%
EBIT[1]	$	9,468	(56,549)	117%	(546)	1,879	(73,884)	–129%	99%

Revenue amounts in the table above, and comparative quarter amounts, have been restated to reflect the Company's change in accounting policy.

Payable zinc production for Q4 2019 was 20.9 million pounds, 18% lower than during the corresponding quarter in 2018 due to a 32% decrease in ore feed grade offset by 22% increase in milled tonnes. Payable zinc production for Q4 2019 represents a 3% improvement from the previous quarter as grades improved during the fourth quarter, in line with expectations and guidance. Ore blending efforts to optimize grade and ore type continue to have success, improving the process plant stability and increasing ore processing rates. A significant increase in the ready-to-blast, drilled-off stope tonnes available provides the blending flexibility to further improve processing plant stability.

C1 Cash Cost[1] and AISC[1] reduced by $0.09 per pound and $0.11 per pound, respectively, when compared to the corresponding quarter in 2018 due primarily to an 82% increase in by-product sales. As well, the decrease in operating costs and sustaining capital was partially offset by an 18% decrease in zinc payable production and by the significant increase to industry benchmark zinc concentrate smelting and refining charges. C1 Cash Cost[1] and AISC[1] decreased quarter-over-quarter primarily due to increased by-product revenues with the second lead shipment of 2019 as scheduled and a 15% decrease in sustaining capital expenditures.

2019 production guidance was exceeded and AISC[1] guidance achieved. The zinc concentrate filter press was commissioned two weeks earlier than planned in mid-December and is expected to reduce zinc concentrate moisture content, re-handling costs and variability as well as improved metal accounting accuracy due to lower concentrate levels.

[1] *See "Use of Non-IFRS Financial Performance Measures".*

CARIBOU MINE, CANADA

		2019	2018	YoY	Q4'19	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Production									
Ore mined	t	909,298	887,141	2%	239,113	244,707	184,635	–2%	30%
Ore milled	t	913,178	884,529	3%	232,055	248,710	174,180	–7%	33%
Zinc head grade		5.7%	5.9%	–3%	5.6%	5.6%	6.0%	0%	–7%
Lead head grade		2.3%	2.3%	0%	2.0%	2.3%	2.3%	–13%	–13%
Silver head grade	oz/t	2.1	2.0	5%	1.7	2.1	1.9	–19%	–11%
Zinc recovery		79.1%	75.6%	5%	80.1%	79.5%	72.9%	1%	10%
Lead recovery		63.6%	61.8%	3%	62.7%	63.9%	67.6%	–2%	–7%
Silver recovery		37.6%	36.4%	3%	35.1%	37.8%	38.2%	–7%	–8%
Zinc concentrate grade		47.0%	46.9%	0%	46.7%	47.7%	44.9%	–2%	4%
Lead concentrate grade		38.7%	38.8%	0%	38.1%	38.6%	39.3%	–1%	–3%
Zinc payable	Mlbs	75.0	72.0	4%	18.9	20.3	13.7	–7%	38%
Lead payable	Mlbs	26.7	25.3	6%	5.9	7.5	5.5	–21%	7%
Silver payable	Moz	0.7	0.7	0%	–	0.2	0.1	–100%	–100%
Sales									
Zinc payable	Mlbs	73.9	72.9	1%	18.1	20.5	15.0	–12%	21%
Lead payable	Mlbs	26.7	24.4	9%	6.1	7.8	4.6	–22%	33%
Silver payable	Moz	0.7	0.7	0%	–	0.2	0.1	–100%	–100%
Operating Cost[1]	$/t	73	68	7%	71	66	90	8%	–21%
C1 Cash Cost[1]	$/lb	1.03	0.85	21%	1.05	0.93	1.28	13%	–18%
AISC[1]	$/lb	1.17	1.14	3%	1.24	1.05	1.93	18%	–36%
FINANCE									
Revenues, net	$	75,219	97,384	–23%	17,084	19,235	16,527	–11%	3%
Mine operating expenses		68,520	60,802	13%	16,541	17,917	15,084	–8%	10%
Adjusted EBITDA[1]		6,699	36,582	–82%	543	1,318	1,443	–59%	–62%
Other expenses and impairment		5,325	80,906	–93%	1,308	2,113	66,808	–38%	–98%
EBITDA[1]		1,374	(44,324)	103%	(765)	(795)	(65,365)	4%	99%
Depreciation, depletion & amortization		12,940	10,751	20%	478	4,683	2,319	–90%	–79%
EBIT[1]	$	(11,566)	(55,075)	79%	(1,243)	(5,478)	(67,684)	77%	98%

Revenue amounts in the table above, and comparative quarter amounts, have been restated to reflect the Company's change in accounting policy.

Payable zinc production for Q4 2019 was 18.9 million pounds, 38% higher than the corresponding quarter in 2018 due to increased ore mined from production stopes, and 7% lower than Q3 after milling fewer tonnes. Milled tonnes were higher compared to Q4 2018 as a result of increased ore mined for the same period. Mill performance continues to exceed expectations with strong metallurgical recoveries and throughput rates.

C1 Cash Cost[1] and AISC[1] were higher quarter-over-quarter due to lower zinc payable production and higher sustaining capital expenditures due to an increase in development meters. C1 Cash Cost[1] and AISC[1] have decreased when compared to the corresponding quarter in 2018, reflecting increases in zinc payable production and cost reduction initiatives such as mining contractor services being insourced and decreased sustaining capital expenditures. These reductions were partially offset by significant increases to industry benchmark zinc concentrate smelting and refining charges.

2019 production and cost guidance were achieved. Mill throughput rates and recoveries remained strong. The improved ore production compared to Q4 2018 is based on the improved ground control and mining sequence. The first ore tonnes were extracted from Zone 6 in late Q4 as an additional ore source. Record mine rehabilitation for secondary support was achieved in Q4 2019 along with higher than normal development meters.

[1] *See "Use of Non-IFRS Financial Performance Measures".*

SANTANDER MINE, PERU

		2019	2018	YoY	Q4'19	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Production									
Ore mined	t	775,088	750,970	3%	173,926	205,881	218,580	–16%	–20%
Ore milled	t	875,680	803,265	9%	219,075	218,898	228,454	0%	–4%
Zinc head grade		5.0%	4.3%	16%	5.3%	5.1%	4.3%	4%	19%
Lead head grade		0.8%	0.6%	33%	0.7%	0.8%	0.7%	–13%	0%
Silver head grade	oz/t	1.2	0.9	33%	1.1	1.1	1.1	0%	0%
Zinc recovery		87.7%	89.3%	–2%	88.3%	87.5%	89.2%	1%	–1%
Lead recovery		83.0%	80.0%	4%	83.7%	83.6%	80.4%	0%	4%
Silver recovery		62.1%	61.3%	1%	62.0%	60.9%	61.9%	2%	0%
Zinc concentrate grade		46.8%	47.7%	–2%	46.5%	46.1%	47.9%	1%	–3%
Lead concentrate grade		49.9%	50.0%	0%	49.0%	49.2%	51.4%	0%	–5%
Zinc payable	Mlbs	70.6	56.8	24%	18.8	17.9	16.0	5%	18%
Lead payable	Mlbs	11.5	7.9	46%	2.6	2.8	2.7	–7%	–4%
Silver payable	Moz	0.6	0.5	20%	0.2	0.1	0.2	100%	0%
Sales									
Zinc payable	Mlbs	69.2	56.5	22%	18.3	17.9	17.3	2%	6%
Lead payable	Mlbs	11.5	7.8	47%	2.7	2.9	2.8	–7%	–4%
Silver payable	Moz	0.6	0.5	20%	0.2	0.1	0.2	100%	0%
Operating Cost[1]	$/t	45	43	5%	50	45	33	11%	52%
C1 Cash Cost[1]	$/lb	0.76	0.72	6%	0.79	0.71	0.59	11%	34%
AISC[1]	$/lb	0.99	0.99	0%	1.10	0.92	0.63	20%	75%
FINANCE									
Revenues, net	$	69,471	70,687	–2%	16,977	17,009	19,666	0%	–14%
Mine operating expenses		43,766	37,863	16%	12,581	11,265	9,070	12%	39%
Adjusted EBITDA[1]		25,705	32,824	–22%	4,396	5,744	10,596	–23%	–59%
Other expense (income) and impairment		1,301	94,277	–99%	626	1,021	87,588	–39%	–99%
EBITDA[1]		24,404	(61,453)	140%	3,770	4,723	(76,992)	–20%	105%
Depreciation, depletion & amortization		10,738	10,916	–2%	2,844	1,674	1,224	70%	132%
EBIT[1]	$	13,666	(72,369)	119%	926	3,049	(78,216)	–70%	101%

Revenue amounts in the table above, and comparative quarter amounts, have been restated to reflect the Company's change in accounting policy.

Payable zinc production for Q4 2019 was 18.8 million pounds, an 18% improvement over the corresponding quarter in 2018 as higher grades were processed and consistent with the previous quarter. During Q4 2019, Santander achieved better zinc recoveries than the previous quarter as a direct result of improvements implemented in the cyclones and zinc flotation circuit combined with improved blending of the plant feed which in turn led to improved zinc concentrate grades. Further, plant reliability has been improved with the implementation of a more disciplined maintenance program. A new tertiary crusher was commissioned during the quarter contributing to more than 0.5% increased recoveries. The primary crusher was also replaced during the January 2020 maintenance shutdown. These improvements to the crushing circuit will improve comminution and ensure metallurgical recoveries and concentrate grades are aligned to the 2020 targets.

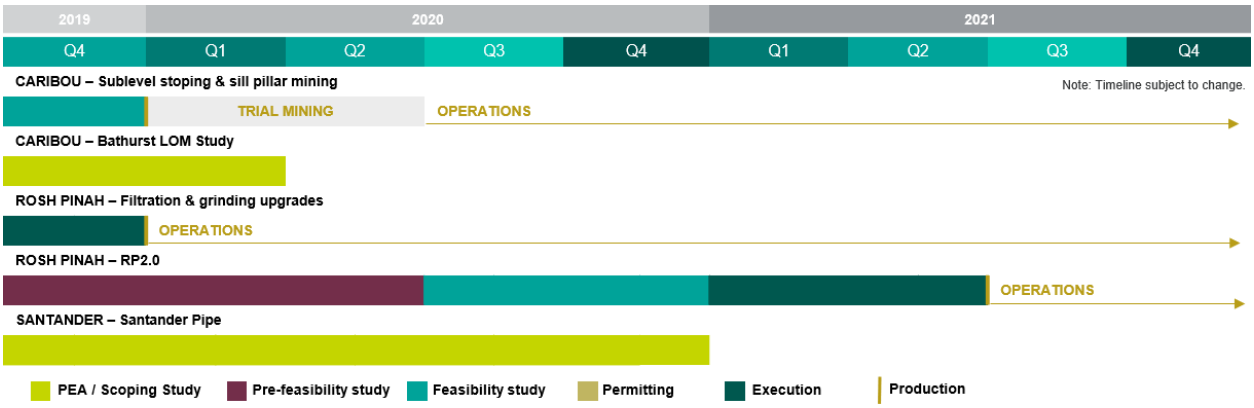
C1 Cash Cost[1] and AISC[1] increased compared to the corresponding quarter in 2018 primarily due to the higher benchmark zinc concentrate smelting and refining charges, offset by increased by-product revenues resulting from higher silver prices. The quarter-over-quarter increase in C1 Cash Cost[1] reflects scheduled maintenance costs for the mill, implementation of improvements in the grinding and flotation circuits to improve recoveries and concentrate grades discussed above. AISC[1] costs for Q4 increased due to higher sustaining capital expenditures.

2019 production guidance was exceeded while C1 Cash Cost[1] guidance was achieved and AISC[1] guidance was below the low end of guidance despite higher than expected smelting and refining charges. Head grades improved as well due to higher mill reliability with the trend of improved concentrate grades and recoveries continuing during Q4.

[1] *See "Use of Non-IFRS Financial Performance Measures".*

GROWTH PROJECTS AND STUDIES

The current anticipated milestones for 2020 through 2021 for some of the Company's numerous projects are outlined below:



Growth projects and anticipated milestones for 2019 through 2021

Caribou: Sublevel Stoping and Sill Pillar Mining

During Q4 2019, trial mining of a historical mining zone was successful, allowing for inclusion of additional ore tonnes not previously in the mine plan. Trial mining of sublevel stoping in the East has also been identified as the location where the new top-down method will be trialed in H1 2020, informed by flowability of ore in the historical zone. Mining of sill pillars is currently still being evaluated through numerical modeling which is expected to be completed in Q1 2020.

Caribou: Bathurst Life of Mine Review

In Q3 2019, a study began on Restigouche considering it as a supplemental ore source for the Caribou mill. Initial results show that other satellite deposits owned by Trevali with higher grade and more tonnes may be better suited to feed the Caribou mill in the near term. The study was expanded to include Halfmile as potential ore feed to the Caribou mill. The study is estimated to be completed in Q4 2020.

Rosh Pinah: Filtration and Grinding Project

The filtration and grinding upgrade project was completed during Q4 2019 on schedule and on budget. Ramp-up is advancing and the benefits of the project are improved metallurgical recoveries, reduced processing times, and reduced inventory levels as a result of the project delivering a finer grind size and decreasing moisture levels in the concentrate.

Rosh Pinah: RP2.0 Project

The RP2.0 feasibility study continued to advance during Q4 2019 and Trevali plans on publishing a pre-feasibility study during Q2 2020 to support the initial long lead procurement investment decision. This will be followed by the feasibility study in Q4 2020. The feasibility study will be used to support the full execution funding decision.

Santander: Santander Pipe

Drilling continued during Q4 2019 targeting an increase in inferred mineral resources and converting additional inferred mineral resources to an indicated mineral resource level. Three drills were actively drilling the pipe as of the end of Q4 2019. An internal preliminary economic assessment is expected to be completed by the end of Q4 2020 which will evaluate the economic viability of incorporating the Santander Pipe ore into the existing operation.

EXPLORATION AND DEVELOPMENT

The primary goal of Trevali's 2019 exploration program was to focus on near-mine exploration targets with the objective to discover new mineral resources in proximity to existing mine infrastructure. The Company had committed to invest an original budget of $8.4 million in 2019 which included ground geophysical surveys, geochemical surveys, first pass air-core drilling and approximately 36,000 metres of diamond drilling from surface and underground primarily focused on the Perkoa and Santander mineral systems. Given the positive results to date, the budget was increased in Q4 to cover further drilling programs at all operations which included additional drilling along the Northern extension of the Western Orefield at Rosh Pinah, additional drilling at Perkoa to test the down-plunge extension of the T3 horizon, additional exploration work at Caribou to test anomalies at Murray Brook South and additional drilling at Santander to extend and convert the Mineral Inferred resources at the Santander Pipe at depth.

Exploration expenditures for 2019 amounted to $10.4 million. A total of approximately 41,000 meters of exploration drilling was completed during the year. Given the recent exploration successes, the 2020 exploration budget has been increased to $12.0 million and 53,000 drill meters which represents a 43% growth over the 2019 original budget of $8.4 million and an increase of 15% over the 2019 final exploration expenditures of $10.4 million. Additional funds could be allocated to exploration in 2020 contingent on positive exploration results.

The 2020 exploration program will continue to focus on advancing near-mine exploration targets towards the development of new mineral resources located within trucking distance of existing mines, while also maintaining a necessary level of expenditures on regional programs to make new discoveries. Updated Mineral Resource statements are expected to be released at the end of Q1 2020.

Perkoa Exploration, Burkina Faso

A new volcanogenic massive sulfide ("VMS") horizon was discovered at Perkoa during Q2 2019 and exploration drilling programs were modified to further test the newly discovered T3 horizon during the second half of 2019. Two underground holes intersected a VMS horizon referred to as T3, which is located approximately 200 metres in the hanging wall of the main Footwall lens as illustrated in Figure A. The T3 horizon represents the third VMS horizon discovered at the Perkoa Mine. The discovery was made using a combination of geochemical and alteration vectoring and downhole electromagnetic ("EM") survey.

A news release was published on December 2, 2019 presenting the latest drill results of the T3 and hanging wall underground drilling program.

During Q4, an additional 3 underground holes were drilled to follow up on the T3 discovery, holes PUX022 to PUX024. Hole PUX024 intersected the T3 horizon approximately 50 metres along strike from hole PUX021, a zone of semi-massive to massive mineralization was intersected between 453.0 to 455.9 metres. The hole was continued and intersected another zone of mineralization approximately 120 metres deeper, between 549.5 to 563.3 metres. The zone is characterized by sphalerite rich massive sulphide mineralization and although at an early stage, this second mineralized horizon has been intersected by two holes as illustrated in Figure A.

Exploration of the T3 area was slow in the last months of 2019 due to increasingly difficult access from underground developments and poor drilling angles. To improve drilling performances, a decision was made to develop a new exploration drive which will improve drilling position as illustrated in Figure B. Initial planning of 4 holes has been designed from the new exploration drive to test the northern extension of the T3 horizon.

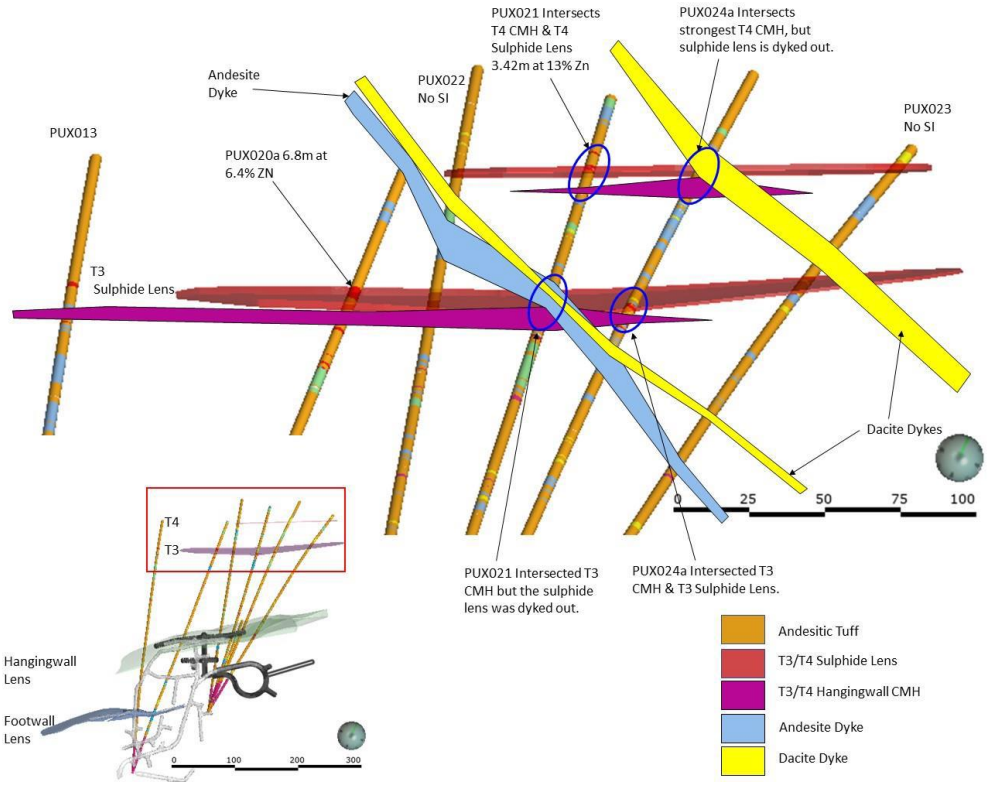


Figure A: **Perkoa Mineralized lenses showing Perkoa Main Zone (blue), Hanging Wall Zone (green) and new T3 and T4 horizons (red) and the associated marker horizons and dykes.**

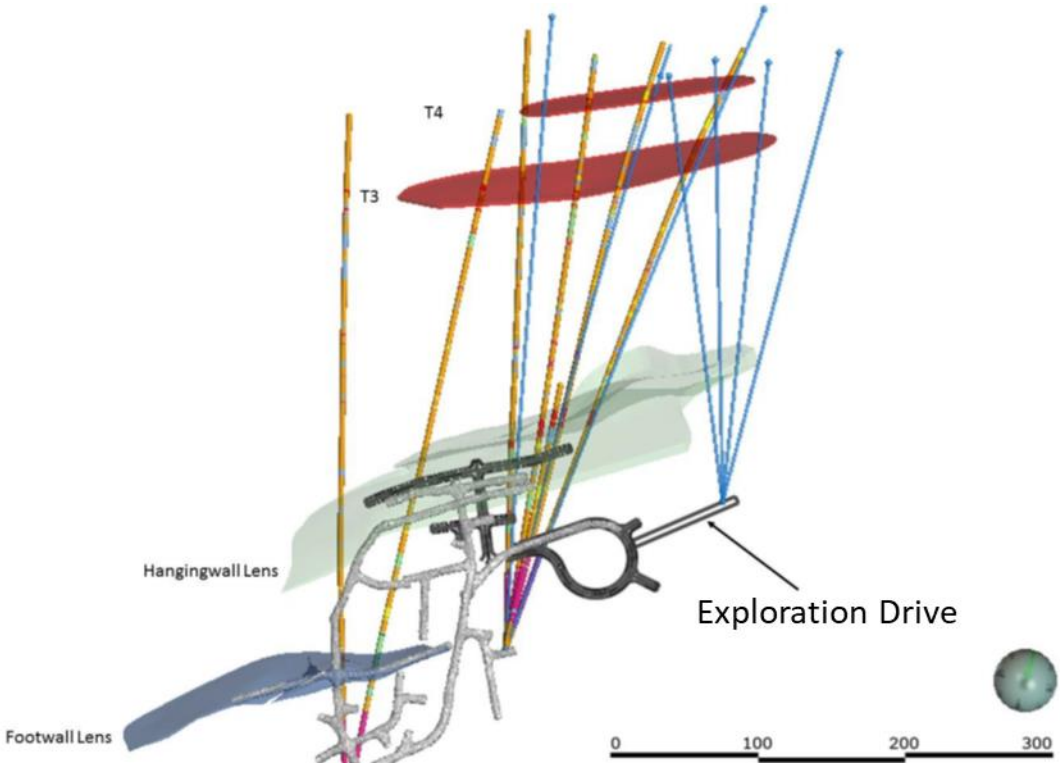


Figure B: **Plan view showing exploration drift with planned holes in blue.**

Regional exploration programs were scheduled to resume in Q4 following the cessation of the rainy season, but due to the current security situation in Burkina Faso, only limited exploration resumed, mostly mapping, soil geochemistry and ground Fluxgate EM surveys.

A total of 12,750 metres of exploration drilling was accomplished at Perkoa from both underground and surface drilling in 2019 targeting regional anomalies and the T3 area.

Rosh Pinah Exploration, Namibia

Late in Q3 2019, surface exploration drilling began targeting the Northern extension of the Western Orefield, with an initial program of 1,600 metres completed in that quarter. Following the success in extending the WF3 mineralization towards the North, an additional 2,910 metres of drilling was completed on this underexplored area of Rosh Pinah in Q4, targeting new inferred mineral resources by extending the known mineralization to the North. A total of 9 holes were drilled on the Northern Western Orefield area.

Drilling from underground continued during Q4 2019 at the Western Orefield and the AAB orebody targeting areas at depth for mineral resource conversion. This mineral resource conversion program will also be included in the updated year-end Mineral Resource disclosure.

Surface EM surveys which started in the second quarter continued in the fourth quarter along the Northern Extension of the Western Orefield and along the Eastern Limb of the Rosh Pinah deposit. New targets have been identified, with the most prospective being two conductive targets adjacent to a large rhyolite dome, 1.5 kilometres east of the Rosh Pinah Mine. Mineralization within the belt is associated with felsic volcanic flows and these untested targets will be drill tested in 2020.

A total of 10,760m of exploration drilling was accomplished at Rosh Pinah from both underground and surface drilling in 2019, targeting the Western Orefield at depth and the northern extension along strike as well as the AAB orebody at depth.

Santander Exploration, Peru

Exploration continued at Santander during the fourth quarter with surface EM surveys, Magneto-Telluric ("MT") surveys and drilling at Magistral, the Santander Pipe and Blanquita with both surface and underground drill rigs.

At the Santander Pipe, where an indicated mineral resource is defined, mineral resource expansion drilling which began in Q3 continued in Q4. The program is designed to test the down-plunge and lateral extents of mineralization on both flanks of the deposit. Exploration at the Santander Pipe is targeting an increase in Mineral Inferred Resources and converting additional Mineral Resources to an Indicated Mineral Resource level in support of the ongoing evaluation of the deposit's potential to contribute to production in future years.

At Magistral, an underground exploration drill program was initiated in September to test the southern extension of the Magistral South deposit continued in the fourth quarter. A total of 6 holes were drilled on the Magistral South area in 2019 and the program was successful in extending the mineralization at depth and along strike as illustrated in Figure C.

One hole was also drilled at depth at Blanquita which is located South along strike from Magistral and was also successful in intersecting narrow mineralization. As illustrated in Figure C, the Blanquita area is under explored at depth and is highly prospective being located in between the Magistral and Santander Pipe deposits.

A magneto-telluric survey was initiated in early September with the goal of probing the deeper exploration potential (approximately 500 metres – 2 kilometres) of the property for possible porphyry and skarn type mineralization. The survey was completed in Q4 2019 with data processing beginning in Q1 2020. A helicopter supported magnetic survey scheduled to begin in October, but the survey has been postponed to the first half of 2020. Data from both the MT and magnetic surveys will be used for target generation.

A total of 13,650 metres of drilling was accomplished at Santander from both underground and surface drilling in 2019.

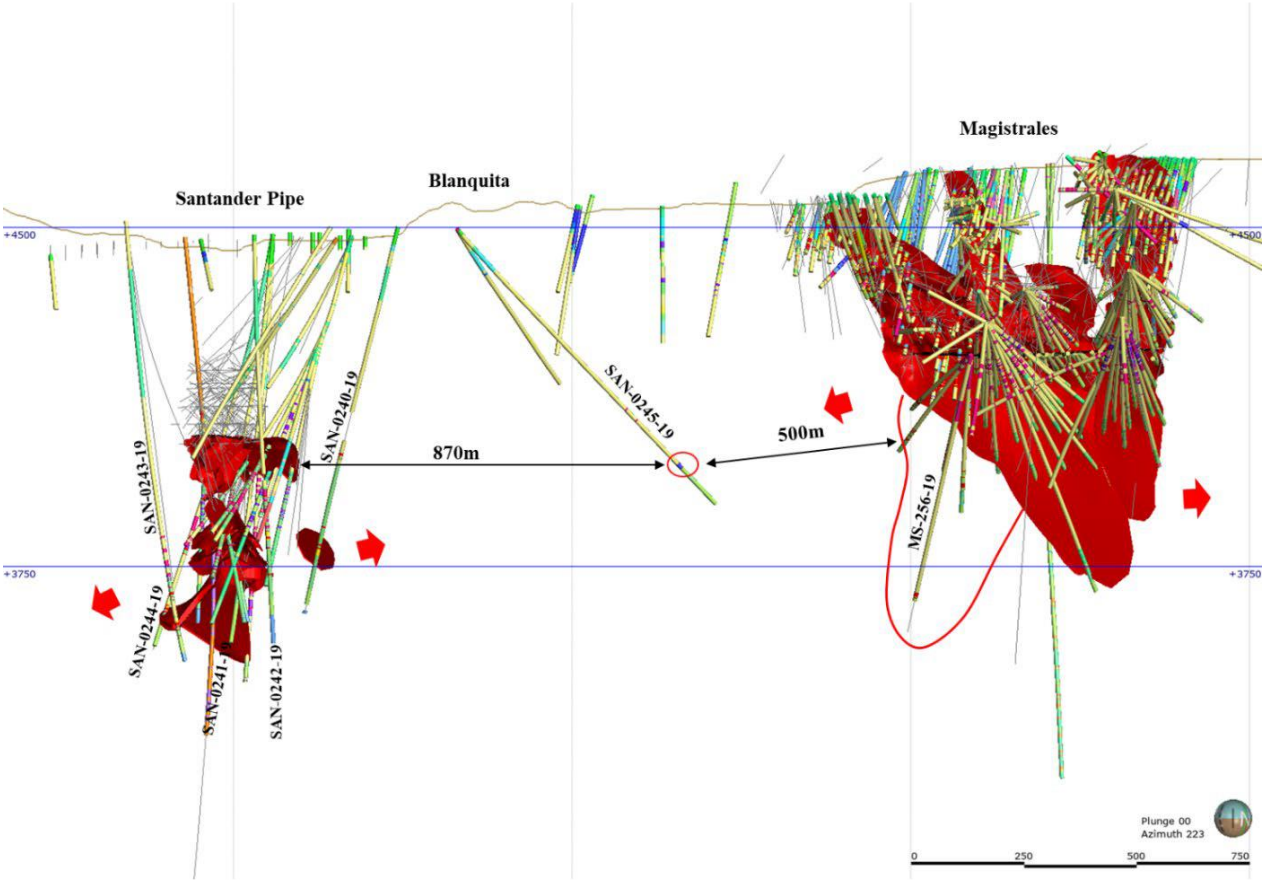


Figure C: **Santander Magistral and Pipe longitudinal section looking West showing the mineralization extension at depth at Magistral with hole MS-256-19 and hole SAN-0245-19 intersecting mineralization at Blanquita.**

Caribou Mine Exploration, Canada

The surface Mineral Resource conversion drilling program which began in Q3 at Caribou to test the Northern Extension of the Caribou North Limb below the current development was completed in Q4. A total of 6 holes amounting to 3,815 metres were drilled for the program with assays disclosed in a January 6, 2020 news release.

The aim of the program along the Northern limb was to target a Mineral Resource upgrade from Inferred to Indicated further North and at depth below the current Measured and Indicated Mineral Resource, improve the accuracy of the geological model and provide insight into the economic viability of development along the Northern Limb.

At Murray Brook South, a Time-Domain Electro-Magnetic ("TDEM") survey was completed over portions of the Murray Brook South claim in order to refine targets for drill testing scheduled to begin in Q1 2020. Trenching performed in 2018 as part of a joint venture agreement between Puma Exploration and Trevali discovered a narrow gossan within the Mount Brittain formation, which hosts the Murray Brook deposit located 1.5 kilometres to the north-east. A drilling program is currently underway to test the Murray Brook South anomalies.

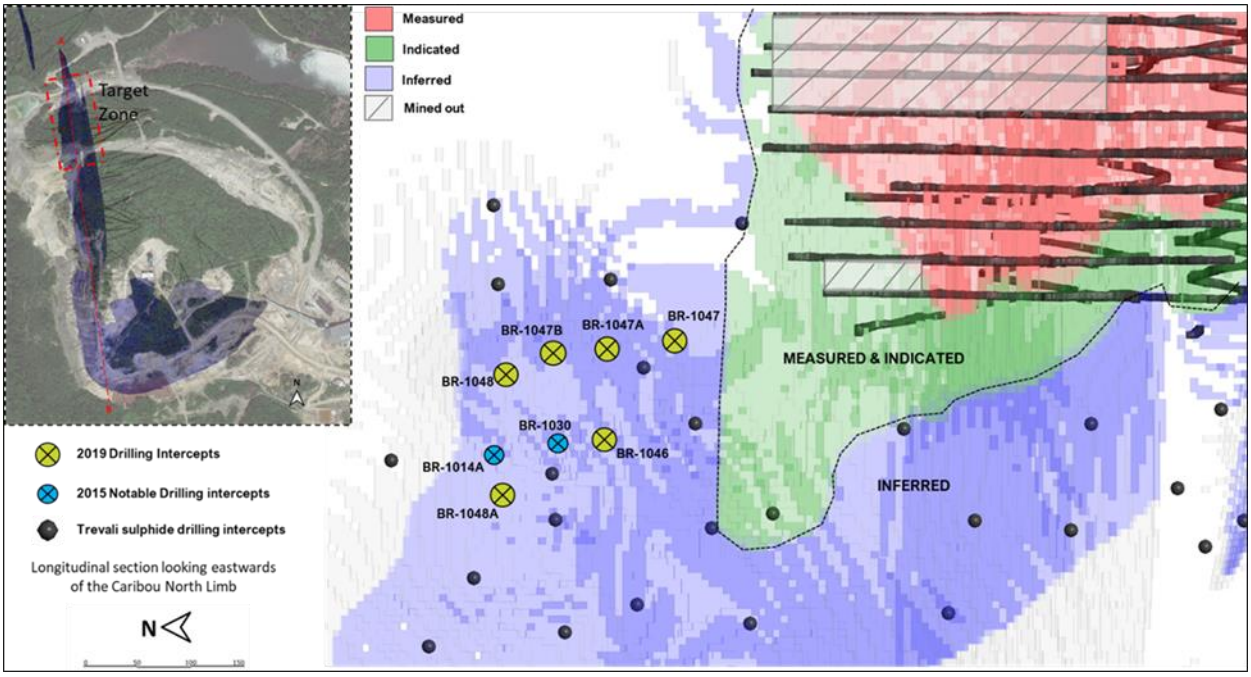


Figure D: **Caribou North Limb longitudinal section with Northern extension 2019 drilling.**

FINANCIAL REVIEW

Financial Results

The following table summarizes the change in net loss for 2019 and the quarter:

		2018 vs 2019	Q4'18 vs Q4'19
Net loss for the 2018 period	$	(230,595)	(251,779)
Decrease in revenues		(78,237)	(30,297)
(Increase) decrease in components of expenses:			
Mine operating expenses		(30,531)	7,522
General and administrative		(421)	158
Other items		38,261	1,428
Impairment		308,166	311,828
Income tax expense		(42,054)	(42,693)
Net increase	$	195,184	247,946
Net loss for the 2019 period	$	(35,411)	(3,833)

Revenue amounts in the table above, and comparative quarter amounts, have been restated to reflect the Company's change in accounting policy.

The net loss reduced in Q4 2019 compared to the corresponding quarter of 2018 primarily due to the impairment taken in Q4 2018 and rising sales volumes which was offset by decreases in revenues due to the lower zinc price in 2019 as well as an increase in income tax expense.

The same factors impact the year-over-year variance. The variance is further explained by items such as the increase in mine operating expenses as a result of higher production volumes, reduced stock balances and increased depreciation and the decrease in other items which is due to lower negative settlement mark-to-market adjustments in 2019 and lower interest expense.

Other Items

		2019	2018	YoY	Q4'19	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Settlement mark-to-market	$	23,485	61,758	–62%	311	10,868	(1,655)	–97%	–119%
Loss (gain) on foreign exchange		2,458	1,684	46%	1,321	(1,280)	(732)	–203%	–280%
Interest expense		8,280	14,408	–43%	1,814	2,156	4,897	–16%	–63%
Restructuring expenses		7,550	–	100%	–	718	–	–100%	–
Impairment		3,662	311,828	–99%	–	–	311,828	–	–100%
Other income		(2,078)	106	–2060%	(879)	(764)	1,485	–15%	–159%
	$	43,357	389,784	–89%	2,567	11,698	315,823	–78%	–99%

The decreased other items during Q4 2019, compared to the comparative quarters is due to the impairment booked in Q4 2018 and also a decrease in negative settlement mark-to-market adjustments due to less zinc price volatility during Q4 2019.

In addition to lower negative settlement mark-to-market adjustments, the 2019 decrease is attributed to lower interest expenses due to principal repayments and the refinanced revolving credit facility (the "Facility") in September 2018 that bears interest at a lower rate offset by the restructuring expenses of $7.6 million related to the corporate restructuring that occurred in the first half of 2019.

At December 31, 2019, the Company's market capitalization deficiency was an indicator of impairment. Accordingly, the recoverable value of the Company's cash generating units ("CGUs") was estimated and compared against their carrying value. The recoverable value of the Perkoa, Rosh Pinah and Caribou CGUs exceeded their carrying amount. The recoverable amount of Santander approximated its carrying value and no impairment was recognized, any adverse change to the assumptions would however result in an impairment being recognized.

Tax Expense

		2019	2018	YoY	Q4'19	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Current income tax	$	11,079	13,159	–16%	(1,041)	2,814	6,187	–137%	–117%
Deferred income tax expense (recovery)		3,031	(41,103)	–107%	4,751	1,559	(45,170)	205%	–111%
	$	14,110	(27,944)	–150%	3,710	4,373	(38,983)	–15%	–110%

The current tax expense in Q4 2019 was lower than the corresponding quarter of 2018 and Q3 2019 primarily due to lower net income at Rosh Pinah.

The 2019 current tax expense is comparable to 2018 and reflects the net impact of increased current taxes as a result of higher withholding taxes in 2019.

The deferred tax expense during Q4 2019 and 2019 year, respectively, relates primarily to timing differences between accounting and tax deductions at Rosh Pinah and Santander, which moved into a deferred tax liability position. A deferred tax expense was recognized during the corresponding periods in 2018, which reflects the deferred tax on the impairment recorded in Q4 2019 and also included a build up of deferred tax liabilities related to the use of tax losses and other tax attributes, offset by a deferred tax recovery at Rosh Pinah as a result of timing differences.

LIQUIDITY AND CAPITAL RESOURCES

Financial Condition

		December 31, 2019	December 31, 2018	Change
Total debt	$	78,608	132,424	–41%
Cash and cash equivalents		24,468	65,462	–63%
Net debt		54,140	66,962	–19%
Working capital		49,792	16,851	195%
Adjusted working capital[1]	$	49,792	148,855	–67%

[1] *Working capital at December 31, 2018 has been adjusted for the temporary reclassification of the carrying value of the Facility from non-current to current liabilities.*

The Company's financial position and liquidity remains strong including $24.5 million in cash and cash equivalents, with available liquidity totalling $229.0 million inclusive of $195.8 million available under the Facility.

The increase in working capital position to $49.8 million as of December 31, 2019 compared to $16.9 million at December 31, 2018 is due to the reclassification of $132.0 million in Q1 2019 related to the Facility to non-current liabilities along with 2019 principal repayments on the Facility of $69.5 million and a reduction of concentrate inventory at year end. The decrease of 67% compared to the Adjusted working capital position is the voluntary principal repayments of the Facility using available cash.

In September 2018, the Company entered into an amended and restated credit agreement with a syndicate of lenders for the $275.0 million Facility, which replaced the $160.0 million term facility and $30.0 million revolving facility originally entered in August 2017.

At December 31, 2019, the Company was in full compliance with its debt covenants and has $67.0 million drawn on the Facility ($136.5 million as at December 31, 2018). The Company issued letters of credit under the Facility, totaling $9.1 million to support $6.1 million in various reclamation bonding requirements with the Caribou mine and to provide $3.0 million of financial security toward power transmission payments related to the Santander mine. The Company also arranged a $12.5 million financial guarantee to support reclamation bonding requirements with its Santander mine.

The Company continued to purchase and cancel its common shares under its normal course issuer bid with 8,483,000 common shares purchased for $1.4 million during the current quarter (2019: 15,934,500 common shares for $3.2 million) for a cumulative total of 28,634,500 common shares at a cost of $6.7 million since inception.

Cash Flows

		2019	2018	YoY	**Q4'19**	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Operating cash flows before changes in working capital	$	63,991	121,012	–47%	20,076	8,840	35,653	127%	–44%
Changes in working capital		47,928	(1,987)	2512%	(4,947)	8,014	(6,571)	–162%	–25%
Net cash from operating activities		111,919	119,025	–6%	15,129	16,854	29,082	–10%	–48%
Net cash used in investing Activities		(77,448)	(83,589)	7%	(28,295)	(15,273)	(4,526)	85%	525%
Net cash used in financing activities		(75,433)	(63,035)	–20%	(1,095)	(16,983)	(50,772)	–106%	–102%

The increase in cash from operating activities in Q4 2019 compared to Q3 2019 and the corresponding quarter of 2018 is mainly because of an increase in working capital during Q4 2019 due to the timing of cash from settlement receivables and VAT factoring facility. Similar timing in receiving cash from settlement receivables and continued focus on efficient working capital management has seen incremental improvements during Q4 2019.

2019 reflects higher refining and smelting charges, offset by cash inflows as a result of reduced working capital, primarily timing of settlement receivables and reduced concentrate inventory.

In all 2019 periods, cash was invested primarily in property, plant and equipment and exploration and evaluation assets, similar to the same periods in the previous year.

Cash used in financing activities is consistent for all quarters with the most significant factor being the amount of debt repayments and the VAT factoring of $7.8 million that occurred in Q4 2019. 2019 debt repayments totalled $69.5 million of debt compared to $15.5 million during Q4 2018. The purchase and cancellation of the Company's own shares under the NCIB spanned both years and resulted in even amounts during both periods. The other exception which occurred in Q2 2018 was the Rosh Pinah share buy-back for $23.1 million in May 2018 which increased the Company's shareholding from 80.1% to 90.0%.

CONTRACTUAL OBLIGATIONS AND COMMITMENTS

In the normal course of business, the Company enters into contracts that give rise to commitments for future minimum payments. The following table summarizes the approximate timing of payment of the remaining maturities of the Company's commitments at December 31, 2019 in undiscounted cash flows:

		2020	2021	2022	2023	2024	2025+	**Total**
Debt	$	7,822	–	67,000	–	–	–	74,822
Accounts payable and due to related parties		67,075	–	–	–	–	–	67,075
Lease commitments		4,697	1,430	923	435	–	–	7,485
Purchase commitments		33,383	34,940	33,048	11,326	1,899	–	114,596
Reclamation and rehabilitation		–	–	–	–	–	50,628	50,628
	$	**112,977**	**36,370**	**100,971**	**11,761**	**1,899**	**50,628**	**314,606**

The Company enters into commitments for capital expenditures in advance of the expenditures being incurred. Approvals are obtained prior to expenditure being incurred in line with the Company's capital budget.

CAPITAL MANAGEMENT

We expect to have adequate resources to meet our committed expenditures for the next twelve months, as well as our planned exploration and development activities for the foreseeable future. However, this is highly dependent on metal prices and the ability of the Company to maintain cost and grade control at its operations and is subject to changes in the Company's growth plans and strategy. The Company continues to evaluate accretive investment opportunities, which may require additional capital.

Liquidity risk is the risk that the Company will encounter difficulty in satisfying financial obligations as they fall due. The Company manages its liquidity risk by optimizing its cash holdings, forecasting cash flows required by operations and anticipated investing and financing activities.

The Company monitors its capital structure and, based on changes in operations and economic conditions, may adjust the structure by issuing new shares, issuing new debt or retiring existing debt. The Company prepares quarterly forecasts and annual budgets, which are approved by the Company's Board of Directors, to facilitate the management of its capital requirements.

The Company's operating cash flows are very sensitive to variations in the price of zinc and lead, foreign exchange rates and ore grades, and any cash flow outlook provided may vary significantly. Spending and capital investment plans may also be adjusted in response to changes in operating cash flow expectations. An increase in average zinc and lead prices from current levels may result in an increase in planned expenditures and, conversely, weaker average zinc and lead prices could result in a reduction of planned expenditures.

On November 14, 2018, the Toronto Stock Exchange ("TSX") approved the Company's normal course issuer bid ("NCIB") to purchase for cancellation up to 40,000,000 common shares, having an aggregate maximum purchase price of C$20 million. The original NCIB expired on November 18, 2019. During Q4 2019, 8.5 million shares were purchased bringing the total shares purchased under the NCIB program to 28.6 million shares for an aggregate purchase price of $6.7 million.

On November 28, 2019, the TSX approved the renewal of the Company's NCIB for a period commencing December 3, 2019 and ending not later than December 2, 2020, to purchase for cancellation up to 50,000,000 common shares. In connection with the renewal of the NCIB, the Company also renewed its automatic securities purchase plan, which allows for the purchase of common shares under the NCIB at times when the Company would ordinarily not be permitted to purchase shares due to regulatory restrictions and customary self-imposed blackouts. No common shares have been purchased by the Company since the renewal of the NCIB in December 2019.

The Company maintained focus on paying down debt, repaying $3.0 million during Q4 2019, bringing the amount paid down to $69.5 million in 2019.

The Company has not entered into any long-term hedging arrangement in respect of its metal sales, however, a fixed zinc pricing arrangement was agreed with Glencore, as the purchaser, for 70% of the zinc concentrate produced at Caribou and Santander for six months from December 1, 2019 to May 30, 2020 at a price of $1.10 per pound. Management made a strategic decision to fix the price of zinc at the two higher cost operations when the opportunity arose with the temporary strengthening in the zinc price during November.

OUTSTANDING SHARE DATA

The Company's authorized capital consists of an unlimited number of common shares without par value, of which 802,561,585 are issued and outstanding as of the date of this MD&A.

RELATED PARTY TRANSACTIONS AND BALANCES

Glencore

As of December 31, 2019, Glencore owned 210,835,925 Trevali common shares representing approximately 26.3% of the total issued and outstanding common shares.

Glencore purchases the Company's concentrate production under separate off-take agreements with each of its mines which were entered into before Glencore was a related party of the Company.

In addition, pursuant to a Services Agreement dated August 31, 2017 between the Company and Glencore, Glencore provides certain technical, financial and other advisory services to the Company, which services are provided on a cost-recovery basis.

The Company entered into the following transactions during the years ended December 31, 2019 and 2018:

		2019	2018	YoY	**Q4'19**	Q3'19	Q4'18	Q4'19 vs Q3'19	Q4'19 vs Q4'18
Net revenue on concentrate sales	$	386,110	464,347	–17%	91,466	87,135	121,764	5%	–25%
Settlement mark-to-market on concentrate sales		23,485	61,758	–62%	310	10,868	(1,655)	–97%	–119%
Production costs		–	17,294	–100%	–	–	17,294	–	–100%
Mine development[1]		–	10,303	–100%	–	–	10,303	–	–100%
Professional services		250	–	100%	63	63	–	–	100%
Interest expense on concentrate sales advances	$	–	387	–100%	–	–	387	–	–100%

Revenue amounts in the table above, and comparative quarter amounts, have been restated to reflect the Company's change in accounting policy.

		December 31, 2019	December 31, 2018
Settlement receivables	$	32,472	56,091
Payable	$	73	1,539

[1] *Capitalized to property, plant and equipment.*

P.E. Minerals Namibia (Proprietary) Limited

P.E. Minerals Namibia (Proprietary) Limited is a minority shareholder of Rosh Pinah and owns the right to use the Rosh Pinah Mine Grant Number ML39 with the Company paying a market rate lease. This mining licence expires during 2020 and a licence renewal application has been submitted to the Ministry of Mines and Energy in Namibia. Management does not foresee any reason for the application to be denied.

Key management compensation

The compensation for key management recognized in the statement of operations is summarized in the table below. Key management includes our directors and chief officers.

	Year ended December 31,	
	2019	**2018**
Short-term employee benefits	$ 3,514	$ 2,969
Share-based payments	933	930
Termination benefits	7,548	–
Other short-term benefits	140	51
	$ 12,135	$ 3,950

RISKS AND UNCERTAINTIES

The Company is subject to several risks and uncertainties due to the nature of our business, including financing, exploration, development and operating of mining properties. Investors should carefully consider the risks and uncertainties described below before deciding to invest in Common Shares of the Company. The risks and uncertainties described below could have a material adverse effect on the Company's business, financial condition or results of operations, which could result in a decline in the trading price of the Common Shares and the loss of some or all of your investment in the Company. There can be no assurance that the Company will be able to effectively control or address these or other risks that may affect its business. There may also be additional risks and uncertainties not currently known by the Company, or that the Company currently deems immaterial, that could impair the Company's operations.

***The volatility of the price of zinc, lead, silver and other metals could have a negative impact on the Company's current and future operations*.**

The Company's principal products are zinc, lead, and silver with minor gold and copper production. Even if commercial quantities of mineral deposits are discovered by the Company, there is no guarantee that a profitable market will continue for the sale of the metals produced. The price of the Common Shares, the Company's financial results and exploration, and the Company's development and mining activities in the future may be materially adversely affected by declines in the price of zinc, lead, silver, gold and copper. Zinc, lead, silver, gold and copper prices fluctuate widely and are affected by numerous factors beyond the Company's control, such as the sale or purchase of metals by various central banks and financial institutions, interest rates, exchange rates, inflation or deflation, fluctuation in the value of the United States dollar and foreign currencies, global and regional supply and demand, and the political and economic conditions of major metals-producing and metals-consuming countries throughout the world.

If Mineral Reserve calculations and life-of-mine plans are required to be revised using significantly lower zinc, lead, silver, gold and copper prices, as a result of a decrease in commodity prices, this could result in material write-downs of the Company's investment in mining properties and increased reclamation and closure charges. In addition to adversely affecting the Company's Mineral Reserve and Mineral Resource estimates and financial condition, declining metal prices can impact operations by requiring a reassessment of the feasibility of a specific project. As a result of any reassessment, the Company may determine that it is not feasible to continue commercial production at some or all its current projects. Even if a project is ultimately determined to be economically viable, the need to conduct such a reassessment may cause substantial delays and/or may interrupt operations until the reassessment can be completed, which may have a material adverse effect on the results of operations and financial condition.

The Company is subject to currency fluctuations that may adversely affect its financial position.

The Company is subject to currency risks. The Company's functional currency is the US dollar, and its mining operations and interests located in Canada, Peru, Burkina Faso, and Namibia, with additional development stage assets in Canada and Namibia. Zinc, lead, silver, gold and copper are sold in US dollars and the Company's costs are incurred principally in US dollars, Canadian dollars, Peruvian sols, Namibian dollars, South African rand, West African CFA francs, and Euros. The appreciation of non-US dollar currencies against the US dollar can increase the cost of zinc, lead, silver, gold and copper production and capital expenditures in US dollar terms. The Company also holds cash and cash equivalents that are denominated in foreign currencies that are subject to currency risk. The Company is further exposed to currency risk through non-monetary assets and liabilities of entities whose taxable profit or tax loss are denominated in foreign currencies.

Global economic conditions may adversely affect the Company's growth and profitability.

Global markets continue to experience a high level of price and volume volatility, which continue to impact many industries, including the base metals mining industry. Some of the key impacts of these conditions include contraction in credit markets resulting in a widening of credit risk, devaluations, high volatility in global equity, commodity, foreign exchange and precious metal markets, and a lack of market confidence and liquidity. A continued or worsened slowdown in the financial markets or other economic conditions, may adversely affect the Company's growth and profitability. Specifically: the global credit/liquidity crisis could impact the cost and availability of financing and the Company's overall liquidity; continued recessionary pressures could adversely impact demand for the Company's production; volatile energy, commodity and consumables prices could impact the Company's production costs; and the devaluation and volatility of global stock markets could impact the valuation of the Company's equity and other securities.

The Company is subject to taxation in multiple jurisdictions and changes to the taxation laws of such jurisdictions could have a material adverse effect on its profitability.

The Company has operations and conducts business in multiple jurisdictions and it is subject to the taxation laws of those jurisdictions. The Company may be subject to review, audit and assessment in the ordinary course, the outcome of which could result in penalties imposed or higher taxes being payable, any of which could have a material adverse effect on the Company. These taxation laws are complicated and subject to change. The introduction of new tax laws, regulations or rules, or changes to, or differing interpretation of, or application of, existing tax laws, regulations or rules in any of the countries in which the Company's operations or business is located, could result in an increase in the Company's taxes, or other governmental charges, duties or impositions, or an unreasonable delay in the refund of certain taxes owing to the Company. No assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail production or development. Taxes may also adversely affect the Company's ability to repatriate earnings and otherwise deploy its assets.

Changes in the Company's production outlook will have an effect on the Company's cash flow from operations.

A decrease in the amount of, or a change in the timing of the production outlook for, or in the prices realized for, metals of the Company, particularly in relation to the production of zinc, lead and silver, will directly affect the amount and timing of the Company's cash flow from operations. The actual effect of such a decrease on the Company's cash flow from operations would depend on the timing of any changes in production and on actual prices and costs. Any change in the timing of these projected cash flows that would occur due to production shortfalls, delays in receiving permits, delays in construction, delays in commissioning the mines or labour disruptions would, in turn, result in delays in receipt of such cash flows and in using such cash to fund capital expenditures, including capital for the Company's development projects, in the future. Any such financing requirements could adversely affect the Company's ability to access capital markets in the future to meet any external financing requirements or increase its debt financing costs.

Shortages, or increases in prices, of energy and other consumables can adversely affect the Company's results of operations.

The Company is dependent on various commodities (such as diesel fuel, electricity, steel, and concrete), labour and equipment (including parts) to conduct its mining operations and development projects. A shortage of such input commodities, labour or equipment or a significant increase of their cost could have a material adverse effect on the Company's ability to carry out its operations and therefore limit or increase the cost of production.

The Company is also dependent on access to and supply of water and electricity to carry out its mining operations, and such access and supply may not be readily available. Market prices of input commodities can be subject to volatile price movements which can be material, occur over short periods of time and are affected by factors that are beyond the Company's control, including global and regional supply and demand, political and economic conditions, and applicable regulatory regimes. An increase in the cost, or decrease in the availability, of input commodities, labour or equipment may affect the timely conduct and cost of the Company's operations and development projects. If the costs of certain input commodities consumed or otherwise used in connection with the Company's operations and development projects were to increase significantly, and remain at such levels for a substantial period, the Company may determine that it is not economically feasible to continue commercial production at some or all of its operations or the development of some or all of its current projects, which could have an adverse impact on the Company's financial performance and results of operations.

Failure to obtain or retain permits would adversely affect the Company's results of operations, development work and financial condition.

The operations of the Company, including various aspects of exploration, development and expansion of projects, require receipt and maintenance of licenses and permits from various governmental authorities. Failure or delay in obtaining or maintaining required permits and licenses could result in injunctions, fines, suspension or revocation of permits and other penalties, or result in interruption of production, exploration or development. The Company has implemented plans to obtain all necessary permits prior to the relevant deadlines. While the Company is confident in its ability to meet all required deadlines or milestones to maintain its concessions in good standing, there is risk that the relevant permitting and licensing authorities will not respond in a timely manner. If these deadlines are not met, the Company believes that extensions to deadlines for obtaining the required approvals and permits could be negotiated so that the concessions would remain in good standing. However, there is no guarantee that the Company will be able to obtain the approvals and permits as planned or, if unable to meet such deadlines, that negotiations for an extension will be successful in order to maintain its concessions in good standing.

In addition to meeting the requirements necessary to obtain permits and approvals, permits may be invalidated if the applicable regulatory authority is legally challenged that it did not lawfully issue such permits and approvals. Changes in applicable laws and regulations or changes in their enforcement or regulatory interpretation could negatively impact current or planned exploration and development activities or any other projects with which the Company becomes involved. The ability of the Company to obtain and maintain permits and approvals and to successfully develop and operate mines may be adversely affected by real or perceived impacts associated with its activities that affect the environment and human health and safety at its development projects and operations and in the surrounding communities. The real or perceived impacts of the activities of other mining companies may also adversely affect the Company's ability to obtain and maintain permits and approvals. The Company is uncertain as to whether all necessary permits will be maintained on acceptable terms or in a timely manner.

There are additional political, legal and economic risks at foreign operations.

Trevali's operations in foreign countries are subject to various levels of political, economic and other risks and uncertainties that could negatively impact Trevali's results of operations and financial condition. These risks and uncertainties vary significantly from country to country and include, but are not limited to, the existence or possibility of terrorism; hostage taking; military repression; extreme fluctuations in currency exchange rates; high rates of inflation; labour unrest; the risks of war or civil unrest; coups and counter coups; expropriation and nationalization; uncertainty as to the outcome of any litigation in foreign jurisdictions; uncertainty as to enforcement of local laws; arbitrary changes in law or policy; environmental controls and permitting; restrictions on the use of land and natural resources; renegotiation or nullification of existing government orders, concessions, licenses, permits and/or contracts; delays in obtaining permits

or licences; illegal mining; sabotage, theft, robbery, vandalism, lack of civil services such as utilities (electricity and water), hospitals, ambulances, police departments and fire departments; disease and other potential endemic health issues; changes in taxation policies; difficulty obtaining key equipment or key components; restrictions on foreign exchange and repatriation; corruption; bribery; inadequate infrastructure; unstable legal systems; changing political conditions; changes in mining and social policies; opposition to mining by non-governmental organizations or environmental groups; limits on foreign ownership; local communities; social unrest on account of poverty or unequal income distribution; "black economic empowerment" legislation; governmental regulations that favor or require the awarding of contracts to local contractors or require foreign contractors to employ citizens of, or purchase supplies from, a particular jurisdiction or require equity participation by local citizens; import and export restrictions; and other risks arising out of foreign sovereignty issues.

Trevali's mineral exploration and mining activities may be affected in varying degrees by political instability and governmental legislation and regulations relating to foreign investment and the mining industry. In particular, Burkina Faso has experienced varying degrees of civil unrest (See "There are security risks associated with the Company's operations in Burkina Faso that may have a material adverse effect on its operations" below). Threats or instability in a country caused by political events including elections, change in government, changes in personnel or legislative bodies, foreign relations or military control present serious political and social risk and instability causing interruptions to the flow of business negotiations and influencing relationships with government officials. Changes in policy or law may have a material adverse effect on the Company's business, financial condition or results of operations.

In the event of a dispute arising from the Company's activities, the Company may be subject to the exclusive jurisdiction of courts or arbitral proceedings outside of North America or may not be successful in subjecting persons to the jurisdiction of courts in North America, either of which could unexpectedly and adversely affect the outcome of a dispute. The courts in these foreign jurisdictions may offer less certainty as to the judicial outcome or a more protracted judicial process than is the case in North America.

Enforcement of laws in foreign jurisdictions may depend on and be subject to the interpretation placed upon such laws by the relevant local authority, and such authority may adopt an interpretation of an aspect of local law which differs from the advice that has been given to Trevali by local lawyers or even previously by the relevant local authority itself. Thus, there can be no assurance that contracts, joint ventures, licenses, license applications or other legal arrangements will not be adversely affected by the actions of government authorities and the effectiveness of and enforcement of such arrangements.

There are security risks associated with the Company's operations in Burkina Faso that may have a material adverse effect on its operations.

The Perkoa Mine is located in Burkina Faso. Criminal and terrorist activities in the region, or the perception that activities are likely, may disrupt the Company's operations, hamper the Company's ability to hire and keep qualified personnel and impair the Company's access to sources of capital. Incidences of armed criminal activities have been reported by other companies with operations in Burkina Faso. As well, both the French and Canadian government authorities, have issued warnings of heightened risk of jihadist incursions from Mali in certain areas within an 80-kilometre wide zone along the western border of Burkina Faso. Moreover, since last year, armed incidents on the roads to mining operations in the western region of the country have been reported, though there is no reason to believe that the employees or operations of the affected mining companies are specifically targeted.

The Perkoa Mine is outside of this zone as it is located approximately 125 kilometers from the Malian border. Risks associated with conducting business in the region include risks related to personnel safety and asset security, including, but not limited to: kidnappings of employees and contractors, exposure of employees and contractors to local crime related activity and disturbances, and damage or theft of Company or personal assets including any future concentrate shipments. The effect of these factors cannot be accurately predicted and may result in serious adverse consequences including personal injuries or death, property damage or theft, limiting or disrupting operations, restricting the movement of funds, impairing contractual rights, and causing the Company to suspend or shutdown operations. Although the Company has developed procedures regarding these risks, there is no assurance that these measures will be successful.

Failure of the Company to comply with laws and regulations could negatively impact current or planned mining activities and exploration and developmental activities.

The Company's mining, exploration and development activities are subject to extensive laws and regulations concerning the environment, worker health and safety, employment standards, waste disposal, mine development, mine operation, mine closure and reclamation, and other matters. Activities required to achieve full compliance can be costly and involve extended timelines. Future changes in applicable laws and regulations or changes in their enforcement or regulatory interpretation could negatively affect current or planned mining, exploration and developmental activities on the projects in which the Company is, or may become, involved. Any failure to comply with applicable laws and regulations or to obtain or maintain permits, even if inadvertent, could result in the interruption of mining, exploration and developmental operations or in material fines, penalties, cleanup costs, damages, and the loss of key permits or approvals. While the Company has taken great care to ensure full compliance with its legal obligations, there can be no assurance that the Company has been, or will be, in full compliance with all of these laws and regulations, or with all permits and approvals that it is required to have.

Furthermore, laws applicable to the Company constantly change and the Company's continued compliance with changing requirements is both time consuming and costly. Adding to the significant costs of compliance with laws is the Company's desire to meet a high standard of corporate governance. The Company's continued efforts to comply with numerous changing laws and adhere to a high standard of corporate governance have resulted in, and are likely to continue to result in, increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities.

One or more groups of indigenous people may oppose continued operation, further development, or new development of the Company's projects and mines.

The Company operates in some areas presently or previously inhabited or used by indigenous peoples. Trevali puts a priority on being a responsible corporate citizen and takes considerable care to develop productive relationships with a range of stakeholders in every community where it operates. In the case of indigenous peoples, the Company's presence can trigger various international and national laws, codes, resolutions, conventions, guidelines, and imposing obligations on government and companies to respect the rights of indigenous people. These may include a mandate that government consult with communities surrounding the Company's projects and mines regarding actions affecting local stakeholders, prior to granting us mining rights, permit, amendments or authorizations. Consultation and other rights of Aboriginal people may require accommodations, including undertakings regarding employment, royalty payments and other matters. While the Company is respectful of these obligations, this may affect the Company's ability to acquire, within a reasonable time frame, effective mineral titles in jurisdictions in which aboriginal title is claimed, and may affect the timetable and costs of development of mineral properties in these jurisdictions. The obligations of government and private parties under the various international and national laws pertaining to indigenous people continue to evolve and be defined. There can be no assurance that the Company's relations with any indigenous group will remain amicable. If a dispute were to arise, it might result in reduced access to properties or a delay in operations. The current and future operations are subject to a risk that one or more groups of indigenous people may oppose continued operation, further development, or new development of the Company's projects or operations. Such opposition may be directed through legal or administrative proceedings or expressed in manifestations such as protests, roadblocks or other forms of public expression against the Company's activities. Opposition by indigenous people to the Company's operations may require modification of or preclude operation or development of the properties or may require the Company to enter into agreements with indigenous people with respect to the properties.

Trevali is respectful of Indigenous peoples in Canada and has a working relationship with the Mi'kmaq First Nation partners in New Brunswick. However, the nature and extent of First Nation rights and title remains the subject of active debate, claims and litigation in Canada, including with respect to intergovernmental relations between First Nation authorities and federal, provincial and territorial authorities. There can be no guarantee that claims will not cause permitting delays, unexpected interruptions or additional costs for the Company's projects.

The Company's directors and officers may have interests that conflict with the Company's interests.

The directors of Trevali are nominated or appointed on the strength of their experience and the specific skills and expertise they can bring to the establishment and execution of the Company's strategy and the enhancement of shareholder value. Certain directors and officers of the Company are, and may continue to be, involved in the mining and mineral exploration industry through their direct and indirect participation in corporations, partnerships or joint ventures that are potential competitors of the Company. Situations may arise in connection with potential acquisitions or opportunities where the other interests of these directors and officers may conflict with the interests of the Company. Directors and officers of the Company with conflicts of interest will be subject to, and follow the procedures set out in, applicable corporate and securities legislation, regulation, rules and policies.

Exploration, development and production at the Company's mining operations are dependent upon the efforts of its key personnel as well as good labour and employment relations.

The Company operates large mining operations in Canada, Peru, Burkina Faso, and Namibia that requires technical expertise in the areas of geology, engineering, mine planning, metallurgical processing, mine operations, and environmental compliance. The Company's success is heavily dependent on its key personnel and on the ability to motivate, retain and attract highly skilled employees. The Company and other companies in the mining industry compete for personnel and the Company is not always able to fill positions in a timely manner. If the Company is unable to attract and retain qualified personnel or fails to establish adequate succession planning strategies, the Company's operations could be adversely affected. The Company does not carry key-man life insurance with respect to its executives.

Competition for skilled workers in the resource sector results in employee turnover at the Company's operations and a need to constantly recruit and train new employees. This competition for qualified employees occasionally results in workforce shortages, which can often be supplemented with more costly contract labour. As technology evolves and automation increases, the skill mix required also changes and the Company may not be able to attract the required capabilities for new ways of working, or re-skill those skills sets that will be changed in the future. Relations between the Company and its employees may be impacted by changes in labour relations which may be introduced by, among others, employee groups, unions, and the relevant governmental authorities in whose jurisdictions the Company carries on business.

Changes in employment legislation or otherwise in the Company's relationship with the Company's employees may result in higher ongoing labor costs, employee turnover, strikes, lockouts or other work stoppages, any of which could have a higher material adverse effect on the Company's business, results of operations and financial condition.

Actual costs of reclamation are uncertain, and higher than expected costs could negatively impact the results of operations and financial position.

Land reclamation requirements are generally imposed on mineral exploration companies (as well as companies with mining operations) in order to minimize long-term effects of land disturbance, and the Company is subject to such requirements at its mineral properties. Decommissioning liabilities include requirements to control dispersion of potentially deleterious effluents; and, reasonably re-establish pre-disturbance landforms and vegetation.

In order to carry out reclamation obligations arising from exploration and potential development activities, the Company must allocate financial resources that might otherwise be spent on further exploration and development programs. Reclamation costs are uncertain and planned expenditures may differ from the actual expenditures required. If the Company is required to carry out unanticipated reclamation work, its financial position could be adversely affected.

Mining operations have a significant carbon footprint.

The Company's mining and processing operations are energy intensive, resulting in a significant carbon footprint. The Company acknowledges climate change as an international and community concern. Several governments or governmental bodies have introduced or are contemplating regulatory changes in response to the potential impacts of climate change, including the introduction or expansion of carbon emission taxes. Where legislation already exists, regulation relating to emission levels and energy efficiency is becoming more stringent. Some of the costs associated with reducing emissions can be offset by increased energy efficiency and technological innovation. While the Company is committed to exploring ways to minimize the environmental impact of its operations, in the long term this may result in increased operating costs. The inability to achieve required energy efficiencies could have an adverse impact on the Company's ability to achieve cost guidance.

The Company may not have sufficient insurance coverage.

The mining industry is subject to significant risks that could result in damage to, or destruction of, mineral properties or producing facilities, personal injury or death, environmental damage, delays in mining, monetary losses, and possible legal liability.

The Company's insurance does not cover all risks that may result in loss or damages and may not be adequate to reimburse the Company for all losses sustained. In particular, the Company does not have coverage for certain environmental losses or certain types of earthquake damage. The occurrence of losses or damage not covered by insurance could have a material and adverse effect on the Company's cash flows, results of operation, and financial condition.

During exploration, development, and production of mineral properties, certain risks and, in particular, unexpected or unusual geological operating conditions, including cave-ins, fires, flooding and earthquakes may occur. It is not always possible to fully insure against such risks and the Company may decide not to take out insurance against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the securities of the Company.

Any failure to strictly comply with anti-corruption laws could have a material adverse effect on the Company's reputation and results of operations.

The *Canadian Corruption of Foreign Public Officials Act,* the *U.S. Foreign Corrupt Practices Act* and anti-bribery laws in other jurisdictions prohibit companies and their intermediaries from making improper payments for the purposes of obtaining or retaining business or other commercial advantage. The Company's policies mandate compliance with these anti-bribery laws, which often carry substantial penalties. The Company operates in jurisdictions that have experienced governmental and private sector corruption to some degree, and, in certain circumstances, strict compliance with anti-bribery laws may conflict with certain local customs and practices. There can be no assurances that the Company's internal control policies and procedures will always protect it from reckless or other inappropriate acts committed by the Company's affiliates, employees or agents. Violations of these laws, or allegations of such violations, could have a material adverse effect on the Company's business, financial position and results of operations.

Trevali's critical operating systems may be compromised.

Cyber threats have evolved in severity, frequency and sophistication in recent years, and target entities are no longer primarily from the financial or retail sectors. Cybersecurity risk is increasingly difficult to identify and quantify and cannot be fully mitigated because of the rapid evolving nature of the threats, targets and consequences. Persons engaging in cybercrime may target corruption of systems or data, or theft of sensitive data. While the Company invests in robust security systems to detect and block inappropriate or illegal access to the Company's key systems, including supervisory control and data acquisition operating systems at the Company's operations, and regularly reviews policies, procedures and protocols to ensure data and system integrity, there can be no assurance that critical systems will not be inadvertently or intentionally breached and compromised. This may result in business interruption losses, equipment damage, or loss of critical or sensitive information.

The Company is in competition with other mining companies that have greater resources and experience.

The mining industry is competitive in all of its business phases. The Company competes with numerous companies that have experience and financial resources significantly in excess of those of the Company, in the search for: attractive mineral properties; qualified technical expertise, operational experience, service providers, and labour; equipment and suppliers; and capital for the purpose of financing development of mineral properties. As a result of this competition, the Company may be unable to maintain or acquire attractive mining properties, recruit or retain qualified people, or acquire the capital necessary to fund its operations and develop its properties on terms it considers acceptable, or at all. Consequently, the Company's competitive disadvantages could have materially adverse effects on the Company's, operations, revenues, and financial condition.

Mining has inherent risks and is subject to conditions or events beyond the Company's control, which could have a material adverse effect on its business and which conditions and events may not be insurable.

Mineral exploration and development involve risks, which even a combination of experience, knowledge and careful evaluation may not be able to overcome. Operations in which the Company has a direct or indirect interest will be subject to hazards and risks beyond the Company's control and normally incidental to exploration, development and production of minerals, any of which could result in work stoppages, damage to or destruction of property, loss of life and environmental damage. Fires, power outages, labour disruptions, flooding, explosions, cave-ins, landslides and the inability to obtain suitable or adequate machinery, equipment or labour are other risks involved in the operation of mines and the conduct of exploration programs. Substantial expenditures are required to establish reserves through drilling, to develop metallurgical processes, to develop the mining and processing facilities and infrastructure at any site chosen for mining. Although substantial benefits may be derived from the discovery of a major mineralized deposit, no assurance can be given that minerals will be discovered in sufficient quantities to justify commercial operations or that funds required for development can be obtained on a timely basis. The economics of developing mineral properties is affected by many factors including the cost of operations, variations of the grade of ore mined, fluctuations in the price of minerals produced, costs of processing equipment and such other factors as government regulations, including regulations relating to royalties, allowable production, importing and exporting of minerals and environmental protection. In addition, the grade of mineralization ultimately mined may differ from that indicated by drilling results and such differences could be material. Short-term factors, such as the need for orderly development of mineralized bodies or the processing of new or different grades, may have an adverse effect on mining operations and on the results of operations. There can be no assurance that minerals recovered in small scale laboratory tests will be duplicated in large scale tests under on-site conditions or in production scale operations. Material changes in geological resources, grades, stripping ratios or recovery rates may affect the economic viability of projects. The Company does not currently carry any liability insurance for such risks, electing instead to ensure its contractors have adequate insurance coverage. The nature of these risks is such that liabilities might exceed any insurance policy limits, the liabilities and hazards might not be insurable, or the Company might not elect to insure itself against such liabilities due to high premium costs or other factors. Such liabilities may have a materially adverse effect upon the Company's financial condition.

The business of exploration for minerals and mining requires significant infrastructure. Infrastructure in some of the jurisdictions in which the Company operates may be underdeveloped, which could have an adverse effect on the Company.

Mining, processing, development, and exploration activities depend, to one degree or another on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important determinants, which affect capital and operating costs. The maintenance and management of much of the infrastructure that the Company relies upon is beyond the control of the Company. The loss of such infrastructure, even temporarily, could potentially materially adversely affect the Company's operations, revenues, and financial condition.

Trevali's operations in Namibia and Burkina Faso depend on adequate infrastructure, which is underdeveloped in certain parts of West Africa, and the uninterrupted flow of materials, supplies, and services. Mining, processing, development and exploration activities depend, to one degree or another, on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important determinants which affect capital and operating costs. The lack of availability on acceptable terms or the delay in the availability of any one or more of these items could prevent or delay exploitation and/or development of the Company's projects. If adequate infrastructure is not available in a timely manner, there can be no assurance that the continued development of the Company's projects will be commenced or completed on a timely basis, if at all, or that the resulting operations will achieve the anticipated production volume, or that construction costs and ongoing operating costs will not be higher than anticipated. In addition, unusual or infrequent weather phenomena, sabotage or other interference in the maintenance or provision of such infrastructure could adversely affect the Company's business, financial condition and results of operations. Any interruptions to the procurement of equipment or the flow of materials, supplies and services to these properties could have an adverse impact on Trevali's business, financial condition and results of operations.

The trading price of the Company's shares may be volatile, subject to large fluctuations over short periods, and may increase or decrease in response to several events and factors, some of which are outside of the Company's ability to control.

Share prices for many companies in the mineral exploration and mining industries have experienced wide fluctuations that have been often unrelated to the operations, underlying asset values or prospects of the companies themselves. These factors may include:

- the price of zinc and other metals;
- operating performance and the performance of competitors and other similar companies;
- exploration results from mineral properties;
- the public's reaction to news releases, other public announcements, and filings with the various securities regulatory authorities;
- changes in earnings estimates or recommendations by research analysts;
- changes in general economic conditions;
- the arrival or departure of key personnel; and
- acquisitions, strategic alliances or joint ventures involving a company or its competitors.

The market price of the Company's shares is affected by many variables not directly related to the Company's success and are therefore not within the Company's control, including other developments that affect the market for all resource sector shares, the breadth of the public market for the Company's shares, and the attractiveness of alternative investments. The effect of these and other factors on the market price of the Company's shares on the exchanges in which the Company trades has historically made the Company's share price volatile and suggests that the Company's share price will continue to be volatile in the future.

CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

The preparation of financial statements in accordance with IFRS requires management to make significant assumptions and judgments about the future and other sources of estimation uncertainty that management has made at the end of the reporting year, which could result in a material adjustment to the carrying amounts of assets and liabilities within the next twelve months, in the event that actual results differ from assumptions made.

These estimates are based on historical experience, current and future economic conditions and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

a) Review of asset carrying values and impairment assessment

Impairment assessments require the use of estimates and assumptions such as future zinc, lead and silver metal prices (considering current and historical prices, price trends and related factors), operating and capital costs, discount rates, foreign exchange rates, closure and rehabilitation costs, exploration potential, mineral reserves and resources, operating performance (which includes production and sales volumes) and estimated life-of-mines. These estimates and assumptions are subject to risk and uncertainty. Therefore, there is a possibility that changes in circumstances will impact these projections, which may impact the recoverable amount of assets and/or cost generating units ("CGUs"). In such circumstances, some or all of the carrying amount of the assets/CGUs may give rise to an impairment or a reversal of previous impairments with the impact recognized in the statement of operations.

b) Income taxes

Judgment is required to determine which arrangements are considered to be a tax on income as opposed to an operating cost. Judgment is also required to determine whether deferred tax assets are recognized in the statement of financial position. Deferred tax assets, including those arising from unutilized tax losses, require the Company to assess the likelihood that it will generate sufficient taxable earnings in future periods, in order to utilize recognized deferred tax assets. Judgment is also required in respect of the application of existing tax laws in each jurisdiction.

Assumptions about the generation of future taxable profits depend on management's estimates of future cash flows. These estimates of future taxable income are based on forecast cash flows from operations (which are impacted by production and sales volumes, commodity prices, reserves, operating costs, closure and rehabilitation costs, capital expenditure, and other capital management transactions). To the extent that future cash flows and taxable income differ significantly from estimates, the Company may have the ability to realize the net deferred tax assets not recorded at the reporting date.

c) Reclamation and rehabilitation provision

The ultimate costs for reclamation and rehabilitation are uncertain, and cost estimates can vary in response to many factors, including estimates of the nature, extent and timing of rehabilitation activities, technological changes, regulatory changes, cost increases as compared to inflation rates, the risk-free interest rate for discounting future cash flows, foreign exchange rates, and estimates of the underlying currencies in which the provisions will ultimately be settled. The Company estimates its costs based on studies using current restoration standards and techniques, and the provision at the reporting date represents management's best estimate of the present value of the future rehabilitation costs required.

d) Useful lives of mineral properties, plant and equipment

Estimated mineral resources are used in determining the depreciation of certain assets. This results in depreciation expense proportional to the depletion of the anticipated remaining life-of-mine production. The estimate of the remaining lives of the Company's producing mineral properties is based on a combination of quantitative and qualitative factors including historical production and financial results, mineral resources reported under National Instrument 43-101 ("NI 43-101"), estimates of ore mineral feed production from areas not included in the NI 43-101 reports, and management's intent to operate the property. The estimated remaining lives of the producing mineral properties are used to calculate amortization and depletion expense, assess impairment charges and the carrying values of assets, and for forecasting the timing of the payment of reclamation and remediation costs.

There are numerous uncertainties inherent in the estimation of the remaining lives of the producing mineral properties, and assumptions that are valid at the time of estimation may change significantly when new information becomes available. Changes in the forecast prices of commodities, exchange rates, or production costs may change the economic status of the mineral resources, estimates of production from areas not included in the NI 43-101 reports, and management's intent to operate the property, and may ultimately have a material impact on the estimated remaining lives of the properties.

e) Exploration and evaluation assets and expenditures

Judgment is required in evaluating whether expenditures meet the criteria to be capitalized, including the probability that future economic benefits will be generated. Determination of probable future economic benefit is based on management's evaluation of the technical feasibility and commercial viability of the geological properties of a given ore body based on information obtained through evaluation activities, including metallurgical testing, mineral resource and reserve estimates and the economic assessment of whether the ore body can be mined economically.

CHANGES IN ACCOUNTING POLICY

Revenue and settlement receivables

Revenue is recorded at the date of sale based on the estimated final consideration to be received, being the estimate of the price expected to be received at the end of the relevant quotational period ("QP") stipulated in the off-take agreement, i.e., the forward price. At the same time, a corresponding settlement receivable is recognized.

Adjustments to the sales price based on movements in quoted market prices between the date of revenue recognition and the end of the QP are referred to as settlement mark-to-market and are made to settlement receivables in subsequent periods up to the date of final pricing. As the adjustment mechanism is an embedded derivative, the changes in fair value of the settlement receivables are disclosed separately from revenue from contracts with customers. Previously, these changes in fair value were recognized as an adjustment to revenue, however, in order to enhance the relevance, comparability and understandability of disclosures, the Company has revised its accounting policy to record settlement mark-to-market in other items.

		Year ended December 31, 2018		
EXTRACT FROM CONSOLIDATED STATEMENTS OF OPERATIONS		**As originally presented**	**Change in accounting policy**	**Restated**
Revenues	$	402,589	61,758	464,347
Settlement mark-to-market		–	61,758	61,758
Loss before taxes	$	(258,539)	–	(258,539)
Net loss	**$**	**(230,595)**	–	**(230,595)**

NEWLY ADOPTED ACCOUNTING POLICY

Leases

The impact of the adoption of IFRS 16: Leases ("IFRS 16") on Trevali's financial statements and the new accounting policies that have been applied from January 1, 2019 is described below.

Several other amendments and interpretations applied for the first time in 2019, but did not have an impact on the consolidated financial statements of Trevali and have therefore not been disclosed. Trevali has not early adopted any standards, interpretations or amendments that have been issued but are not yet effective.

Nature of leasing activities and accounting policy

Trevali leases certain buildings, including offices and warehouses and various items of equipment. Rental contracts are typically made for fixed periods of 2 to 6 years but may have extension options as described below. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

Until the 2018 financial year, leases of property, plant and equipment were classified as either finance or operating leases. Payments made under operating leases were charged to the consolidated statement of operations on a straight-line basis over the period of the lease.

From January 1, 2019, leases are recognized as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Company. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to the consolidated statement of operations over the lease period to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- variable lease payment that is based on an index or a rate;
- amounts expected to be payable by the lessee under residual value guarantees;
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option; and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of the lease liability;
- any lease payments made at or before the commencement date less any lease incentives received;
- any initial direct costs; and
- restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognized on a straight-line basis as an expense in the consolidated statement of operations. Short-term leases are leases with a lease term of 12 months or less. Low-value assets are comprised primarily of IT-equipment.

Extension and termination options are included in several leases across the Company. These terms are used to maximize operational flexibility in terms of managing contracts.

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated). The assessment is reviewed if a significant event or a significant change in circumstances occurs which affects this assessment and that is within the control of the lessee. During the current financial period, no lease terms have been revised.

Impact on adoption of IFRS 16

On adoption of IFRS 16, Trevali recognized lease liabilities in relation to leases which had previously been classified as 'operating leases' under the principles of IAS 17: Leases ("IAS 17"). These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of January 1, 2019. The weighted average lessee's incremental borrowing rate applied to the lease payments was 9.64%.

For leases previously classified as finance leases the Company recognized the carrying amount of the lease asset and lease liability immediately before transition as the carrying amount of the right-of-use asset and the lease liability at the date of initial application. The measurement principles of IFRS 16 are only applied after that date.

Equipment held under finance lease arrangements continue to be presented within property, plant and equipment as right-of-use-assets. There has been no change in the amount recognized.

In applying IFRS 16 for the first time, Trevali has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics;
- the accounting for operating leases with a remaining lease term of less than 12 months as at January 1, 2019 as short-term leases; and
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application.

Trevali has also elected not to reassess whether a contract is, or contains a lease at the date of initial application. Instead, for contracts entered into before the transition date the Company relied on its assessment made applying IAS 17 and IFRIC 4: Determining Whether an Arrangement Contains a Lease.

The off-balance sheet lease obligations as of December 31, 2018 are reconciled as follows to the recognized lease liabilities as of January 1, 2019:

Operating lease commitments disclosed as at December 31, 2018	$	12,055
Discounted using the lessee's incremental borrowing rate at the date of initial application		11,204
Add: finance lease liabilities recognized as at December 31, 2018		420
Less: short-term leases recognized on a straight-line basis as expense		(418)
Less: low-value leases recognized on a straight-line basis as expense		(939)
Lease liabilities recognized as at January 1, 2019	$	10,267
Current lease liabilities	$	5,012
Non-current lease liabilities	$	5,255

MANAGEMENT'S REPORT ON INTERNAL CONTROLS

Disclosure Controls and Procedures ("DC&P")

Management, under the supervision of the President and Chief Executive Officer and the Chief Financial Officer, has designed DC&P which provide reasonable assurance that material information related to Trevali is identified and communicated on a timely basis.

Internal Control over Financial Reporting ("ICFR")

The CEO and the CFO, with the assistance of management, conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as at December 31, 2019. Based on the evaluation, the CEO and the CFO have concluded that as at December 31, 2019, the Company's internal control over financial reporting is effective, based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") on Internal Control — Integrated Framework (2013).

Our internal control system over disclosure controls and procedures is designed to provide reasonable assurance that material information relating to the Company is made known to management and disclosed to others and information required to be disclosed by the Company in our annual filings, interim filings or other reports filed or submitted by us under securities legislation is recorded, processed, summarized and reported within the time periods specified in the securities legislation.

The inherent limitations in all control systems are such that they can provide only reasonable, not absolute, assurance that all control issues and instances of fraud or error, if any, within the Company have been detected. Therefore, no matter how well-designed, ICFR has limitations and can provide only reasonable assurance with respect to financial statement preparation and may not prevent and detect all misstatements.

As of December 31, 2019, Trevali's management evaluated the effectiveness of its disclosure controls. Based on that evaluation, the CEO and the CFO have concluded that Trevali's disclosure controls and procedures and internal controls over financial reporting, provide reasonable assurance that they were effective. There have been no changes in our internal control over financial reporting during the year ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

Management is responsible for establishing and maintaining adequate ICFR. Any system of ICFR, no matter how well designed, has inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

USE OF NON-IFRS FINANCIAL PERFORMANCE MEASURES

This MD&A refers to the following non-IFRS financial performance measures: Earnings before interest, taxes, depreciation and amortization ("EBITDA"), Earnings before interest and taxes ("EBIT"), Adjusted EBITDA, Adjusted Earnings per Share, Net debt, Operating Cost per tonne, C1 Cash Cost and All-In Sustaining Cost ("AISC").

These measures are not recognized under IFRS as they do not have any standardized meaning prescribed by IFRS and are therefore unlikely to be comparable to similar measures presented by other issuers. We use these measures internally to evaluate the underlying operating performance of the Company for the reporting periods presented. The use of these measures enables us to assess performance trends and to evaluate the results of the underlying business of the Company. We understand that certain investors, and others who follow the Company's performance, also assess performance in this way.

We believe that these measures reflect our performance and are useful indicators of our expected performance in future periods. This data 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.

EBITDA and EBIT

EBITDA provides insight into our overall business performance (a combination of cost management and growth) and is the corresponding flow drivers towards the objective of achieving industry-leading returns. This measure assists readers in understanding the ongoing cash generating potential of the business including liquidity to fund working capital, servicing debt, and funding capital expenditures and investment opportunities. EBITDA is profit attributable to shareholders before net finance expense, income taxes and depreciation, depletion, and amortization. EBIT is EBITDA after depreciation, depletion, and amortization. Other companies may calculate EBIT and EBITDA differently.

Adjusted EBITDA and Adjusted Earnings per Share

Adjusted EBITDA consists of EBITDA less the impact of impairments or reversals of impairment and other non-cash and non-recurring expenses and recoveries. These expenses and recoveries are removed from the calculation of EBITDA as the Company does not believe they are reflective of the Company's ability to generate liquidity and its core operating results.

Adjusted Earnings per Share consists of net income or loss in the period less the impact of impairments or reversals of impairment, settlement mark-to-market, gain (loss) on foreign exchange and other income or expenses.

		2019	Q4 2019
Net loss	$	(35,411)	(3,833)
Current income tax		11,079	(1,041)
Deferred income tax recovery		3,031	4,751
Interest expense		8,280	1,814
EBIT		(13,021)	1,691
Depreciation, depletion and amortization		84,808	17,920
EBITDA		71,787	19,611
Settlement mark-to-market		23,485	311
Other income		(2,078)	(879)
Restructuring expenses		7,550	–
Impairment		3,662	–
Loss on foreign exchange		2,458	1,321
Adjusted EBITDA	$	106,864	20,364
Net loss	$	(35,411)	(3,833)
Loss on foreign exchange		2,458	1,321
Impairment		3,662	–
Restructuring expenses		7,550	–
Other income		(2,078)	(879)
Settlement mark-to-market		23,485	311
Adjusted net loss	$	(334)	(3,080)
Loss per Share	$	(0.04)	0.00
Adjusted (loss) earnings per Share	$	0.00	0.00
Weighted average number of shares outstanding – basic ('000)		812,958	805,070

Net debt

Net debt demonstrates how our debt is being managed and is defined as total current and non-current portions of debt and lease liabilities less cash and cash equivalents.

		December 31, 2019	December 31, 2018
Current portion of lease liabilities	$	4,028	163
Current portion of debt		7,822	132,004
Non-current portion of lease liabilities		3,028	257
Non-current portion of debt		63,730	–
Total debt		78,608	132,424
Less: cash and cash equivalents		24,468	65,462
Net debt	$	54,140	66,962

Operating Cost per tonne

This measures the mine site cash operating cost per tonne milled. This measure includes mine operating production expenses such as mining, processing, administration, indirect charges such as surface maintenance and camp expenses, and inventory stock movement divided by tonnes milled. Operating Cost per tonne does not include smelting and refining, distribution (freight), royalties, by-product revenues, depreciation, depletion, amortization, reclamation, and capital sustaining and exploration expenses.

Expressed in thousands of US dollars, except tonnes and per tonne amounts.

		Q4 2019				
		Perkoa	Rosh Pinah	Caribou	Santander	Total
Production costs	$	18,453	13,495	16,230	11,721	59,899
Inventory stock movement		(1,526)	(2,793)	249	(850)	(4,920)
Cash operating costs	$	16,927	10,702	16,479	10,871	54,979
Tonnes milled		189,740	181,408	232,055	219,075	822,278
Operating Cost per tonne	$	89	59	71	50	67

		2019				
		Perkoa	Rosh Pinah	Caribou	Santander	Total
Production costs	$	82,435	43,701	66,927	39,707	232,770
Inventory stock movement		(11,069)	(5,452)	(640)	112	(17,049)
Cash operating costs	$	71,366	38,249	66,287	39,819	215,721
Tonnes milled		739,849	705,651	913,178	875,680	3,234,358
Operating Cost per tonne	$	96	54	73	45	67

C1 Cash Cost

This measures the cash costs to produce a pound of payable zinc. This measure includes mine operating production expenses such as mining, processing, administration, indirect charges (including surface maintenance and camp), and smelting, refining and freight, distribution, royalties, and by-product metal revenues divided by pounds of payable zinc produced. C1 Cash Cost per pound does not include depreciation, depletion, and amortization, reclamation expenses, capital sustaining and exploration expenses.

AISC

This measures the cash costs to produce a pound of payable zinc plus the capital sustaining costs to maintain the mine and mill. This measure includes the C1 Cash Cost per pound and capital sustaining costs divided by pounds of payable zinc produced. All-In Sustaining Cost per pound does not include depreciation, depletion, and amortization, reclamation and exploration expenses.

		Q4 2019				
		Perkoa	Rosh Pinah	Caribou	Santander	Total
Mining	$	7,478	4,667	6,932	4,913	23,990
Processing		4,857	2,030	6,643	2,482	16,012
Maintenance		1,195	1,958	1,151	2,352	6,656
General and administrative		3,397	2,047	1,753	1,124	8,321
Smelting and refining		16,603	9,670	9,494	7,234	43,001
Distribution		4,199	1,124	311	805	6,439
Royalties		954	1,417	–	57	2,428
Less: By-product revenues		–	(5,697)	(6,479)	(4,191)	(16,367)
C1 total costs		38,683	17,216	19,805	14,776	90,480
Sustaining CAPEX		2,395	3,760	3,629	5,968	15,752
Lease payments		1,185	–	28	–	1,213
AISC total costs	$	42,263	20,976	23,462	20,744	107,445
Pounds of zinc payable produced	Mlbs	46.2	20.9	18.9	18.8	104.8
C1 Cash Cost	$/lbs	0.83	0.82	1.05	0.79	0.86
AISC	$/lbs	0.90	1.00	1.24	1.10	1.02

		Q4 2018				
		Perkoa	Rosh Pinah	Caribou	Santander	Total
C1 Cash Cost	$/lbs	0.88	0.91	1.28	0.59	0.90
AISC	$/lbs	1.13	1.11	1.93	0.63	1.15

		2019				
		Perkoa	**Rosh Pinah**	**Caribou**	**Santander**	**Total**
Mining	$	31,986	16,238	31,380	19,637	99,241
Processing		20,288	8,714	24,434	9,727	63,163
Maintenance		4,794	7,300	4,601	7,212	23,907
General and administrative		14,298	5,997	5,872	3,243	29,410
Smelting and refining		63,754	37,288	38,149	27,143	166,334
Distribution		18,954	4,642	1,593	3,046	28,235
Royalties		3,622	4,945	–	1,013	9,580
Less: By-product revenues		–	(7,644)	(28,840)	(17,342)	(53,826)
C1 total costs		157,696	77,480	77,189	53,679	366,044
Sustaining CAPEX		7,114	17,655	10,753	16,482	52,004
Lease payments		4,988	–	123	–	5,111
AISC total costs	$	169,798	95,135	88,065	70,161	423,159
Pounds of zinc payable produced	Mlbs	179.8	92.0	75.0	70.6	417.4
C1 Cash Cost	$/lbs	0.88	0.84	1.03	0.76	0.88
AISC	$/lbs	0.94	1.03	1.17	0.99	1.01

		2018				
		Perkoa	**Rosh Pinah**	**Caribou**	**Santander**	**Total**
C1 Cash Cost	$/lbs	0.80	0.70	0.85	0.72	0.77
AISC	$/lbs	0.91	0.90	1.14	0.99	0.96

Sustaining capital expenditures are defined as those expenditures which do not increase payable mineral 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. The following table reconciles sustaining capital expenditures to the Company's total capital expenditures:

	2019	**Q4 2019**
Additions to property, plant and equipment	62,752	24,575
Sustaining capital expenditures	52,004	15,752
Expansionary capital expenditures	6,814	4,889
Right-of-use assets and other	3,934	3,934

NOTES TO READER

Cautionary Note Regarding Forward-Looking Information and Statements

This MD&A contains "forward-looking information" within the meaning of Canadian securities legislation and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 (collectively, "forward-looking statements"). Forward-looking statements are based on the beliefs, expectations and opinions of management of the Company as of the date the statements are published, and the Company assumes no obligation to update any forward-looking statement, except as required by law.

Forward-looking statements relate to future events or future performance and reflect management's expectations or beliefs regarding future events including, but not limited to, statements with respect to the Company's growth strategies, expected annual savings from capital projects, anticipated effects of commodity prices on revenues, estimation of mineral reserves and mineral resources, the realization of mineral reserve estimates, the timing and amount of estimated future production, costs of production and capital expenditures, success of mining operations, environmental risks, unanticipated reclamation expenses, title disputes or claims, future anticipated property acquisitions, the content, cost, timing and results of future exploration programs and life of mine expectancies. In certain cases, forward-looking statements can be identified by the use of words such as "plans", "expects", "outlook", "guidance", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "believes", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might", "will be taken", "occur" or "be achieved" or the negative of these terms or comparable terminology. By their very nature, forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include, among others, risks related to actual results of current exploration activities; changes in project parameters as plans continue to be refined; future prices of zinc, lead, silver and other minerals and the anticipated sensitivity of our financial performance to such prices; possible variations in ore reserves, grade or recoveries; dependence on key personnel; potential conflicts of interest involving our directors and officers; labour pool constraints; labour disputes; availability of infrastructure required for the development of mining projects; delays or inability to obtain governmental and regulatory approvals for mining operations or financing or in the completion of development or construction activities; counterparty risks; increased operating and capital costs; foreign currency exchange rate fluctuations; operating in foreign jurisdictions with risk of changes to governmental regulation; compliance with governmental regulations; compliance with environmental laws and regulations; land reclamation and mine closure obligations; challenges to title or ownership interest of our mineral properties; maintaining ongoing social license to operate; impact of climatic conditions on the Company's mining operations; corruption and bribery; limitations inherent in our insurance coverage; compliance with debt covenants; competition in the mining industry; our ability to integrate new acquisitions into our operations; cybersecurity threats; litigation; and other risks of the mining industry including, without limitation, other risks and uncertainties that are more fully described in the "Risks and Uncertainties" section of this MD&A and the "Risk Factors" section of our most recently filed Annual Information Form. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Trevali provides no assurance that forward-looking statements will prove to be accurate, as actual results and future events may differ from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

Qualified Person and Quality Control/Quality Assurance

Yan Bourassa, Vice President, Mineral Resources Management of the Company, is a qualified person as defined by National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators and has supervised and approved the preparation of the scientific and technical information that forms the basis for this MD&A.

For a description of the key assumptions, parameters and methods used to estimate mineral reserves and resources, as well as data verification procedures and a general discussion of the extent to which the estimates of scientific and technical information may be affected by any known environmental, permitting, legal title, taxation, sociopolitical, marketing or other relevant factors, please see the technical reports for our material properties as filed by us on SEDAR at www.sedar.com.