

METALS & MINING

 Jeff Woolley, CFA, Analyst | 416.361.9557 | jwoolley@paradigmcap.com
 David Davidson, Sr. Analyst | 416.360.3462 | ddavidson@paradigmcap.com

All figures in C\$, unless otherwise noted.

Rating: Buy

unchanged

12-Month Target: \$1.35↑

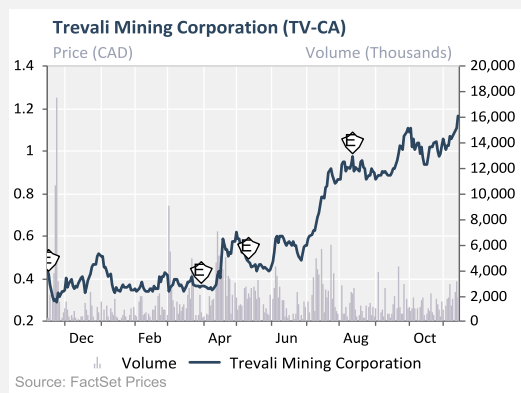
previously \$1.25

Price		\$1.13
Ticker		TV-T, TV-BVL
FYE		31-Dec
Potential ROR (incl. dividend)		19%
	Basic (M)	FD (M)
Shares O/S	399	411
Market Cap (\$M)	\$451	\$464
Net Debt (\$M)		\$90
Enterprise Value FD (\$M)		\$555
NAV/sh (FD)		\$1.33 ↑

PCI Est	FY15	FY16e	FY17e
Revenue (\$M)	\$106	\$196 ↓	\$364 ↓
previously		204	366
EBITDA (\$M)	\$12	\$59 ↑	\$135 ↓
previously		57	138
Adj. EPS (\$)	-\$0.05	\$0.04	\$0.15
previously		unch.	unch.
Adj. CFPS (\$)	\$0.03	\$0.13	\$0.24 ↓
previously		unch.	0.25
P/E	nmf	30.2x	7.4x
P/CFPS	36.3x	8.5x	4.7x
EV/EBITDA	46.1x	9.4x	4.1x

Operating Data	FY15	FY16e	FY17e
ZnEq (Mlb) *	102	152	248
C1 Cost (US\$/lb ZnEq)*	\$0.64	\$0.70	\$0.68
Zinc Price (US\$/lb)	\$0.84	\$0.96	\$1.10

*Commercial production only



Source: FactSet, Company filings, Paradigm Capital Inc.

Company description: Trevali Mining is listed on the TSX and the Peruvian Bolsa de Valores de Lima. Trevali is a development-stage mining company currently focused on bringing its second polymetallic (zinc-rich) mine into production. The Santander Mine in Peru declared commercial production in January 2014, while the Caribou mine in New Brunswick, Canada, has just followed suit in Q3/16. Initial combined production is targeted to reach ~250Mlb ZnEq next year, with expansion options to almost double the production capacity by 2020.

Swings to Become Free Cash Positive

Investment Thesis. With Trevali's Santander mine generating positive cash flow and its second mine, Caribou, now commercial, the growth story is coming together for Trevali. Caribou more than doubles Trevali's production profile and the successful start-up materially de-risks the company. We see a continuation of the current tightening supply/demand fundamentals within the zinc market delivering additional financial upside to the Trevali operations.

Event

Trevali reported strong Q3 financial results, modestly ahead of our forecast. Q3 operational results were pre-announced on October 13 and guidance was maintained at that time.

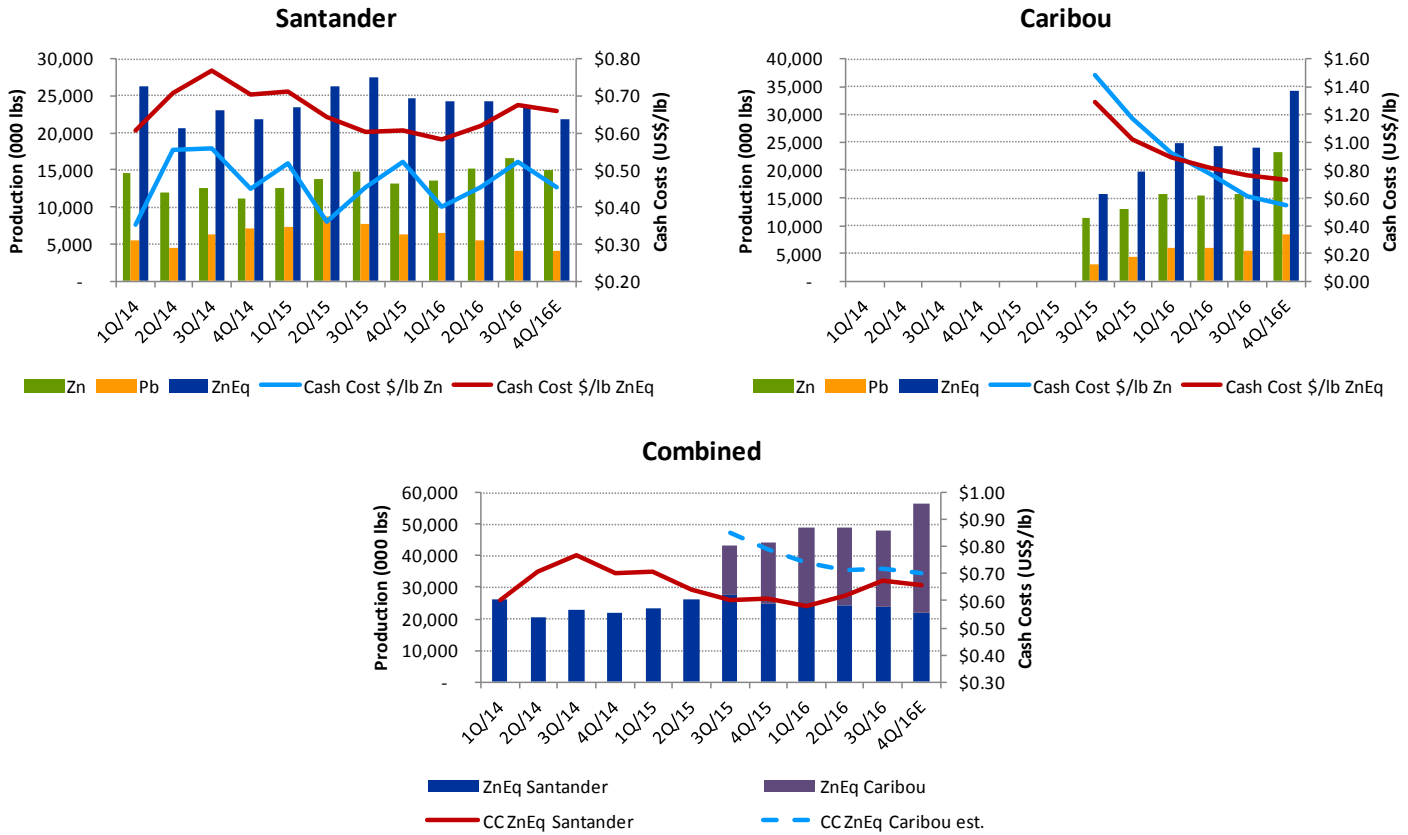
Highlights

- ▶ **Q3 Cash Generation Ahead of Forecast** | With the Caribou mine declared commercial on July 1, and zinc prices on the rise, TV reported materially higher revenue, earnings and cash flow in Q3. Revenue doubled q/q to \$57M while adjusted EBITDA improved to \$15.9M (+94% q/q and 3% above our estimate). Adjusted earnings were \$2.3M (\$0.01/sh) and operating cash flow increased to \$13.8M (\$0.03/sh), both in line with our estimates. Importantly, the operations were free cash positive and unrestricted cash increased by \$3.5M to \$13M.
- ▶ **Caribou Cash Costs Better than Forecast** | Q3 production was pre-announced at 16Mlb Zn (+2% q/q), 6Mlb Pb (-5% q/q) and 170Koz Ag (+0% q/q), for combined production of 24.0Mlb ZnEq (-1% q/q). Despite the increased mill maintenance downtime, site operating costs were better than we had expected at US\$59/t milled. Consequently, C1 cash costs were an impressive \$0.77/lb ZnEq (\$0.08/lb ZnEq better than our forecast).
 - New SAG mill liners and lifters are now installed which have increased mill throughput rates materially thus far in Q4 (to ~2.8Ktpd or 95% of design).
 - Consequently, production guidance has been maintained, which implies a substantial increase in Q4 to ~34Mlb ZnEq (+42% q/q), while operating cost levels are anticipated to be relatively stable.
 - We continue to expect Caribou to produce ~108Mlb ZnEq this year (of which ~58Mlb is commercial production), with cash costs of \$0.76/lb ZnEq.
- ▶ **Santander Has Another Excellent Quarter** | Q3 production was pre-announced and remained strong at 17Mlb Zn (+10% q/q), 4Mlb Pb (-25% q/q) and 192Koz Ag (-13% q/q), for combined production of 23.7Mlb ZnEq (-2% q/q). Cash costs in the quarter were in line with our expectations at \$0.68/lb ZnEq (+9% q/q).
 - We look for Q4 to be almost a repeat performance of the strong Q3 result and maintain our 2016 forecast of ~94Mlb at a cash cost of \$0.63/lb (all ZnEq).
 - We expect a resource update near year-end to materially improve upon the existing estimate owing to the ongoing exploration success with the discovery and expansion several high-grade mantos, including the Oyon, Fatima and Rosa zones.

Valuation & Conclusion

Caribou exceeded our operating cost expectations in Q3, and with the mill throughput rates approaching design levels thus far in Q4, we forecast a very strong (both operational and financial) Q4. We have tweaked our estimates and now look for consolidated production to increase ~20% in Q4. Combined with improved commodity prices, we forecast operating cash flow to increase to ~\$25M (+80% q/q) and for the company to be materially free cash positive to end the year. We are modestly increasing our target price to \$1.35 (was \$1.25) and maintaining our Buy rating.

Figure 1: Quarterly Production Performance and Q4/16 Forecast



Source: Company filings, Paradigm Capital Inc.

Figure 2: Trevali Financial and Operating Results and Forecast

Financial Summary (C\$000)									
	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16E	FY/15	FY/16E	FY/17E
Gross Revenue	\$27,074	\$22,816	\$26,953	\$28,946	\$57,462	\$82,544	\$106,351	\$195,905	\$363,530
Adj. EBITDA	\$3,947	-\$1,993	\$7,354	\$8,190	\$15,924	\$27,402	\$12,026	\$58,870	\$134,809
Income From Mining Operations	\$1,456	-\$2,329	\$4,169	\$5,231	\$10,642	\$20,132	\$6,723	\$40,174	\$106,255
Adj. Net Income	-\$3,420	-\$8,278	\$827	-\$335	\$2,393	\$11,570	-\$14,299	\$14,455	\$62,666
Adj. EPS (FD) (\$)	-\$0.01	-\$0.03	\$0.00	\$0.00	\$0.01	\$0.03	-\$0.05	\$0.04	\$0.15
Operating Cash Flow (before W/C)	\$6,401	-\$1,144	\$7,913	\$8,452	\$15,963	\$27,902	\$17,276	\$60,230	\$106,495
CFPS (FD) (\$)	\$0.02	\$0.00	\$0.02	\$0.02	\$0.04	\$0.07	\$0.06	\$0.16	\$0.26
Interest Payments	-\$347	-\$3,214	\$0	-\$4,399	-\$2,144	-\$2,103	-\$7,758	-\$8,646	-\$7,275
Adj. CFPS (FD) (\$)	\$0.02	-\$0.01	\$0.02	\$0.01	\$0.03	\$0.06	\$0.03	\$0.13	\$0.24
Working Capital Changes	\$1,156	\$4,328	-\$8,405	-\$279	\$1,343	\$0	\$1,283	-\$7,341	\$0
Capex	-\$17,286	-\$13,848	-\$1,933	-\$19,062	-\$4,648	-\$7,333	-\$61,648	-\$32,976	-\$26,667
Scheduled Debt Repayments	-\$2,346	-\$1,134	-\$6	-\$6	-\$7,264	-\$5,767	-\$13,043	-\$13,759	-\$13,759
Free Cash Flow	-\$12,422	-\$15,012	-\$2,431	-\$15,294	\$3,250	\$12,698	-\$50,847	-\$1,777	\$58,794
FCF/share (\$)	-\$0.04	-\$0.05	-\$0.01	-\$0.04	\$0.01	\$0.03	-\$0.17	\$0.00	\$0.14
Cash - Unrestricted	\$7,978	\$6,336	\$22,192	\$9,289	\$12,924	\$25,619	\$6,336	\$25,619	\$69,413
Total Debt	\$112,110	\$119,558	\$117,111	\$118,308	\$114,027	\$108,260	\$119,558	\$108,260	\$79,500
Net Debt	\$104,132	\$113,222	\$94,919	\$109,019	\$101,103	\$82,641	\$113,222	\$82,641	\$10,087
Avg. FD Shares (MM)	320	325	337	393	403	411	305	386	411
Sales Volume and Realized Commodity Price									
ZnEq Production (mlb)	27.6 ¹	24.6 ¹	24.2 ¹	24.3 ¹	47.8	56.3	101.9 ¹	152.1 ¹	247.9
ZnEq Sales (mlb)	28.2 ¹	24.4 ¹	23.3 ¹	24.5 ¹	47.8	56.3	100.6 ¹	152.1 ¹	247.9
Realized Price - Zn (US\$/lb)	\$0.78	\$0.70	\$0.82	\$0.89	\$1.04	\$1.10	\$0.84	\$0.96	\$1.10
Realized Price - Pb (US\$/lb)	\$0.73	\$0.74	\$0.82	\$0.78	\$0.86	\$0.90	\$0.78	\$0.84	\$0.95
Operating Summary									
Santander Mine - Peru									
Payable Production									
Zn (mlb)	14.8	13.1	13.7	15.2	16.6	15.0	54.1	60.4	51.0
Pb (mlb)	7.8	6.3	6.4	5.6	4.1	4.1	30.2	20.3	21.1
Ag (koz)	286	224	221	222	192	204	1,055	840	863
ZnEq (mlb)	27.6	24.6	24.2	24.3	23.6	21.9	101.9	93.6	84.2
Reported Site Cash Cost (US\$/ tonne milled)	\$38.67	\$38.70	\$32.22	\$35.64	\$36.33	\$36.00	\$42.61	\$35.64	\$43.00
Reported Total Cash Cost, incl. capex (US\$/lb ZnEq)	\$0.71	\$0.72	\$0.67	\$0.70	\$0.78	\$0.77	\$0.75	\$0.75	\$0.81
Est. C1 Cash Cost (US\$/lb ZnEq)	\$0.60	\$0.61	\$0.58	\$0.62	\$0.68	\$0.66	\$0.64	\$0.63	\$0.69
Est. C1 Cash Cost (US\$/lb Zn)	\$0.45	\$0.52	\$0.40	\$0.45	\$0.52	\$0.45	\$0.46	\$0.46	\$0.43
Caribou Mine - Canada									
Payable Production									
Zn (mlb)	11.4 ¹	13.0 ¹	15.6 ¹	15.5 ¹	15.8	23.1	24.6 ¹	70.0 ¹	106.6
Pb (mlb)	3.2 ¹	4.4 ¹	6.1 ¹	5.9 ¹	5.6	8.4	7.5 ¹	26.0 ¹	37.9
Cu (mlb)	-	-	-	-	-	-	0.0 ¹	0.0 ¹	1.9
Au (koz)	-	-	-	-	-	-	0.0 ¹	1.0 ¹	3.0
Ag (koz)	71 ¹	97 ¹	167 ¹	170 ¹	170	222	168 ¹	729 ¹	934
ZnEq (mlb)	15.7 ¹	19.7 ¹	24.8 ¹	24.4 ¹	24.1	34.3	35.6 ¹	107.7 ¹	163.7
Reported Site Cash Cost (US\$/ tonne milled)	n/a	n/a	n/a	n/a	\$58.88	\$59.63	n/a	\$59.31 ¹	\$55.88
Reported Total Cash Cost, incl. capex (US\$/lb ZnEq)	n/a	n/a	n/a	n/a	\$0.91	\$0.83	n/a	\$0.75 ¹	\$0.74
Est. C1 Cash Cost (US\$/lb ZnEq)	n/a	n/a	n/a	n/a	\$0.77	\$0.74	n/a	\$0.76 ¹	\$0.68
Est. C1 Cash Cost (US\$/lb Zn)	n/a	n/a	n/a	n/a	\$0.64	\$0.58	n/a	\$0.60 ¹	\$0.48
Combined Operation Summary									
Payable Production									
Zn (mlb)	26.2	26.1	29.2	30.7	32.4	38.1	78.8 ¹	130.4 ¹	157.6
Pb (mlb)	11.0	10.7	12.5	11.5	9.7	12.6	37.8 ¹	46.3 ¹	59.0
Cu (mlb)	-	-	-	-	-	-	0.0 ¹	0.0 ¹	1.9
Au (koz)	-	-	-	-	-	-	0.0 ¹	1.0 ¹	3.0
Ag (koz)	357	321	389	392	363	426	1,223 ¹	1,570 ¹	1,797
ZnEq (mlb)	43.3	44.4	49.0	48.7	47.8	56.3	137.5 ¹	201.3 ¹	247.9
Est. C1 Cash Cost (US\$/lb ZnEq)	\$0.60 ¹	\$0.61 ¹	\$0.58 ¹	\$0.62 ¹	\$0.73	\$0.71	\$0.64 ¹	\$0.70 ¹	\$0.68
Est. C1 Cash Cost (US\$/lb Zn)	\$0.45 ¹	\$0.52 ¹	\$0.40 ¹	\$0.45 ¹	\$0.58	\$0.53	\$0.46 ¹	\$0.54 ¹	\$0.47

¹ Caribou pre-commercial production & costs have been capitalized and not reflected in Income Statement results

Source: Company filings, Paradigm Capital Inc.

Figure 3: Trevali Mining Summary NAV

	<u>US\$ millions</u>	<u>C\$ millions</u>	<u>Per Share C\$</u>
OPERATING ASSETS			
Santander (8%)	\$224.1	\$263.6	\$0.64
Caribou (8% DCR)	\$284.7	\$335.0	\$0.82
Sub-Total	\$508.8	\$598.6	\$1.46
DEVELOPMENT ASSETS			
Halfmile/Stratmat (12% DCR)	\$54.7	\$64.3	\$0.16
Sub-Total	\$54.7	\$64.3	\$0.16
OTHER ASSETS			
Adj. Cash & Restricted Cash	\$14.4	\$16.9	\$0.04
Other W/C (excl. ST debt)	\$17.7	\$20.9	\$0.05
Exploration Properties	\$10.0	\$11.8	\$0.03
Cash from Exercise of Options	\$5.5	\$6.4	\$0.02
Other LT Financial Assets	\$13.5	\$15.9	\$0.04
Sub-Total	\$61.1	\$71.9	\$0.17
TOTAL ASSETS	\$624.6	\$734.8	\$1.79
LIABILITIES			
Total Debt & Credit Facilities	\$96.9	\$114.0	\$0.28
Environmental / Other	\$41.2	\$48.5	\$0.12
PV Interest & Corp Overheads	\$23.1	\$27.1	\$0.07
Sub-Total	\$161.2	\$189.7	\$0.46
TOTAL LIABILITIES	\$161.2	\$189.7	\$0.46
NET ASSET VALUE	\$463.3	\$545.1	\$1.33
<u>Long Term Exchange Rate</u>		<u>Shares Outstanding</u>	
US\$1.00 =C\$	1.18	Basic	399.4
		warrants options	11.5
		Fully Diluted	410.9

Source: Company filings, Paradigm Capital Inc.

DISCLAIMER SECTION

Company	Ticker	Disclosures
Trevali Mining Corp.	TV-T; TV-BVL	2,3

Note: Please refer to above table for applicable disclosure numbers.

Jeff Woolley visited Trevali's Caribou property in New Brunswick in September 2015.

- The analyst has an ownership position in the subject company.
- Paradigm Capital Inc. has assumed an underwriting liability for, and/or provided financial advice for consideration to the subject companies during the past 12 months.
- Paradigm Capital Inc. expects to receive or intends to seek compensation for investment banking services from the subject companies in the next 3 months.
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Stock Coverage History

Date	Target	Rating	Estimates
10/14/2016	\$1.25	Buy	FY16 CFPS↓
8/15/2016	\$1.25↑	Buy	FY16-17 CFPS↑
5/16/2016	\$0.95↑	Buy	FY16 CFPS↓
4/4/2016	\$0.75↓	Buy	FY16 CFPS↓
1/25/2016	\$0.80↓	Buy	FY16 CFPS↓
6/29/2011	\$4.00	Buy	Initiating Coverage

Research Rating System

Paradigm Capital Inc. uses the following rating recommendation guidelines in its research:

Recommendation	Number of Companies	Percentage Breakdown	
Buy	102	64%	Buy – Expected returns of 20% or more over 12 months.
Spec. Buy	22	14%	Speculative Buy - Expected returns of 20% or more over the next 12 months on high-risk development or pre-revenue companies, such as junior mining and other early stage companies.
Hold	11	7%	Hold - Expected returns of less than +/- 20% over the next 12 months.
Sell*	4	3%	Sell - Expected returns of -20% or more over the next 12 months.
Under Review	20	13%	Under Review - Estimates, Target and/or Recommendation under review.
Total	159		

*Includes companies with a "Tender" recommendation

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