CAPITAL MARKETS
HAYWOOD SECURITIES INC.
Member of the Canadian Investor Protection Fund

Trevali Mining Corporation (TV-T, $0.91)

Rating	**BUY**	
Target Price	**$1.25**	*(from $1.00)*
Return	**37%**	
Overall Risk Rating	**Very High**	

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Positioned to Capitalize on Higher Zinc Pricing in +H2/16

Company Profile
About the Company – Trevali is a zinc-focused producer domiciled on the Toronto Stock Exchange (TSX).
Website – www.trevali.com
CEO – Mark Cruise

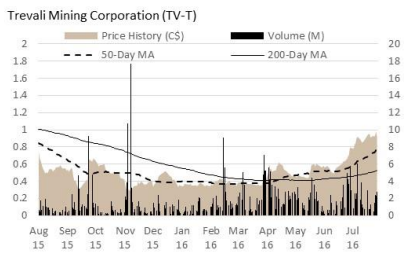
Company Data

52-Week High/Low	$0.98 / $0.25
YTD Performance	78%
Dividend Yield	N/A
Shares O/S	399.1M (basic)
	424.6M (F/D)
Market Capitalization	$363.2M
Cash (incl. restricted)	$14.5M
Working Capital	$18.3M
Long-term Debt	$75.8M
Enterprise Value	$420.7M
Daily Volume	2,152,268
Currency	C$ unless noted

Haywood Estimates

	2016	2017	2018
Forecast Zinc Price, US$/lb	$0.80	$1.00	$1.20
Payable Zinc Production, Mlb	147	156	153
Total Zinc Cash Cost, US$/lb	$0.70	$0.45	$0.40
Earnings, US$M	($17)	$29	$29
EPS, US$	($0.04)	$0.07	$0.07
Cash Flow Begore W/C Changes, US$M	$31	$78	$98
CFPS, US$	$0.08	$0.20	$0.25
Price / CFPS	**8.6**	**3.6**	**2.9**
	C$/US$ FX Rate:		*1.30*

Price Performance



Source: Capital IQ and Haywood Securities

Event | Solid Q2/16A financial results – 2016E production guidance reiterated; downdip exploration continues to bear fruit at Magistral North; Caribou commercial production declared as of July 1, 2016

Valuation | Our target price is based on a 5.0x multiple to 2017E cash flow per share (CFPS) of US$0.20 at a forecast zinc price of US$1.00/lb. Acknowledging that Trevali's base metals-producing peers currently trade at +4.0x CFPS, we would argue the Company's relatively unique 'pure play' zinc production profile stands to garner a premium valuation in the context of improving medium-term (+H2/16) zinc pricing/sentiment.

Impact – Positive | Q2/16A CFPS of $0.02 beat IBES analyst consensus and Haywood's expectations (both at $0.01), reflecting record performance at the Company's 100% owned Santander mine. Ongoing success in Peru follows the declaration of commercial production start-up at Trevali's 100% owned Caribou mine in New Brunswick in early July. The Company's timing is coinciding well with improving zinc market sentiment, as the metal's price, up ~6% over the past month, is now convincingly testing the US$1.00/lb level despite London Metal Exchange inventory volatility over the same period (up ~4%).

- **With commercial production now established at two mines, we anticipate stronger Q3/16-to-date zinc pricing stands to drive Trevali's share price higher, prompting an increased target price of $1.25 per share (from $1.00). Our new target is based on a revised premium 5.0x multiple to 2017E CFPS of US$0.20 at US$1.00/lb of zinc (previously 4.0x; note, peers currently trade at ~4.0x CFPS). This is a multiple we believe prudent given the Company is poised to become a (the) marquee mid-tier 'pure-play' zinc producer in a market facing a significant medium-term supply issue**.
- Q2/16A financials were driven by previously reported production of 15.2 Mlb of zinc, 5.6 Mlb of lead, and 222 koz of silver (payable), tracking reiterated 2016E production guidance (including 57 Mlb to 60 Mlb of zinc). **Santander's Q2/16 production profile was underpinned by a third consecutive quarter of record mill throughput (~2,408 tpd). The operation continues to operate well above its 2,000 tpd nameplate capacity, with good recoveries (including ~90% zinc)**.
- **Santander's total zinc cash cost averaged US$0.47/lb (payable) net of credits in Q2/16 (compared with US$0.36/lb in Q1/16)**. The cost increase reflects higher on-site operating costs (US$0.08/lb) and lower by-product credits (US$0.10/lb), partially offset by lower off-site treatment charges (~US$0.08/lb). **A Q2/16A on-site operating cost of US$35.64/tonne milled is up from US$32.22 in Q1/16, but still notably below a 2015A average cost of US$42.65 and well within the lower end of reiterated 2016E cost guidance (US$35 to US$38). Our model includes an arguably conservative US$40/tonne milled on-site operating cost at Santander this year**.
- Caribou production, now commercial, continues to ramp-up towards design levels. Metallurgical improvement initiatives continue to bear fruit: zinc recovery averaged ~82% during July and is expected to reach a target rate of +84% by late Q3/16. Similarly, underground mining is currently averaging ~2,400 tpd and is expected to ramp-up to a design rate of 3,000 tpd by late Q3/16.

Please see page 47 for Analyst Certification, pages 47 - 50 for Important Information and Legal Disclaimers, and notes.

Trevali Mining Corp. (TV-T)

Rating: BUY
Target Price: C$1.25
Target Price Metric: 4.0x 2017E CFPS

Target Price, C$	$1.25	**Shares O/S, million**	**399.1**
Current Price, C$	$0.91	Shares F/D, million	424.6
Return, %	37%	**Market Capitalization, US$M**	**$280.5**
52-Week High / Low, C$	$0.98 / $0.25	Company CEO	Mark Cruise
Daily Volume (100-day avg)	2,152,268	Company Web Site	www.trevali.com

Balance Sheet and Capitalization

	US$M	US$ / O/S Share	C$M	C$ / O/S Share
Market Capitalization	$280.5	$0.70	$363.2	$0.91
Current Cash	$11.2	$0.03	$14.5	$0.04
F/D Cash Adds	$6.3	$0.02	$8.1	$0.02
Working Capital	$14.2	$0.04	$18.3	$0.05
Long-term Debt	($58.6)	($0.15)	($75.8)	($0.19)
Book Value	$249.3	$0.62	$322.8	$0.81
Enterprise Value (EV)	$324.9	$0.81	$420.7	$1.05

EV = Market Capitalization - Working Capital + Long-term Debt
C$/US$ FX Rate: 1.30

Financial Forecast

	2016	2017	2018	2019	2020	2021
Forecast Zinc Price, US$/lb	$0.80	$1.00	$1.20	$1.15	$1.15	$1.15
Forecast Lead Price, US$/lb	$0.75	$0.95	$1.15	$1.10	$1.10	$1.10
Forecast Silver Price, US$/oz	$18.00	$24.00	$24.00	$24.00	$24.00	$24.00
C$/US$ FX Rate	1.32	1.30	1.28	1.25	1.15	1.15
Shares O/S, millions	381	399	399	399	399	399
Gross Sales Revenue, US$M	$203	$261	$300	$371	$597	$482
Net Revenue, US$M	$144	$205	$243	$288	$468	$376
Cost of Sales, US$M	($112)	($114)	($117)	($132)	($248)	($195)
Corporate G&A, US$M	($5)	($5)	($5)	($5)	($5)	($5)
EBITDA, US$M	$26	$89	$119	$140	$201	$171
EV / EBITDA	12.6x	3.7x	2.7x	2.3x	1.6x	1.9x
DD&A, US$M	($30)	($32)	($36)	($44)	($82)	($71)
Gain on Derivative Instruments, US$M	$0	$0	$0	$0	$0	$0
Earnings, US$M	($17)	$29	$29	$40	$55	$46
EPS, US$	**($0.04)**	**$0.07**	**$0.07**	**$0.10**	**$0.14**	**$0.11**
Current Price / EPS	**-**	**9.6x**	**9.8x**	**7.3x**	**5.7x**	**6.9x**
Target Price / EPS	-	13.1x	13.5x	10.0x	7.9x	9.5x
Operating Cash Flow, US$M	$31	$78	$98	$101	$160	$138
CFPS, US$	**$0.08**	**$0.20**	**$0.25**	**$0.25**	**$0.40**	**$0.35**
Current Price / CFPS	**8.6x**	**3.6x**	**2.9x**	**2.9x**	**2.0x**	**2.3x**
Target Price / CFPS	11.8x	5.0x	4.0x	3.9x	2.7x	3.2x
Operating Cash Flow, US$M	$35	$82	$109	$111	$168	$145
Current EV / Operating Cash Flow	**9.3x**	**4.0x**	**3.0x**	**2.9x**	**1.9x**	**2.2x**
Implied EV / Operating CF Target Price Multiple	12.0x	5.2x	4.0x	4.0x	2.9x	3.3x
CAPEX, US$M	($29)	($22)	($52)	($142)	($52)	($36)
Proceeds from Equity Financing, US$M	$13	$0	$0	$0	$0	$0
Proceeds from Debt Financing, US$M	$0	$0	$150	$0	$0	$0
Debt Repayment, US$M	($1)	($17)	($13)	($31)	$0	($30)
Free Cash Flow, US$M	$6	$28	$143	($85)	$96	$62
FCPS, US$	$0.02	$0.07	$0.36	($0.21)	$0.24	$0.16

Operating Cash Flow and Debt Adjusted Cash Flow (DACF) excludes working capital changes.

Santander Production Profile (100% owned)

	2016	2017	2018	2019	2020	RLOM
Ore Tonnes Milled, millions	0.8	0.8	0.8	1.5	1.5	**10.8**
Ore Tonnes Milled, tonnes per day	2,200	2,200	2,200	4,000	4,000	**4,000**
Zinc Grade Milled, %	4.3%	3.6%	3.6%	3.6%	4.2%	**4.3%**
Lead Grade Milled, %	1.7%	1.3%	1.3%	1.3%	0.8%	**0.7%**
Zinc Recovery, %	90%	90%	90%	90%	90%	**90%**
Lead Recovery, %	88%	88%	88%	88%	88%	**88%**
Payable Zinc Production, Mlb	**58**	**49**	**49**	**89**	**102**	**776**
Payable Lead Production, Mlb	**24**	**19**	**19**	**35**	**22**	**141**
Payable Silver Production, Moz	**1.0**	**0.8**	**0.8**	**1.4**	**1.0**	**6.9**
Total On-Site Operating Cost, US$/tonne milled	$40	$35	$40	$40	$40	**$40**
Total Zinc Cash Cost (NoC; IR), US$/lb	**$0.40**	**$0.30**	**$0.30**	**$0.35**	**$0.50**	**$0.55**

NoC = net of credits; ER = excluding royalties; IR = including royalties.

Caribou Production Profile (100% owned)

	2016	2017	2018	2019	2020	RLOM
Ore Tonnes Milled, millions	1.0	1.1	1.1	1.1	1.1	**4.9**
Ore Tonnes Milled, tonnes per day	2,700	3,000	3,000	3,000	3,000	**3,000**
Zinc Grade Milled, %	6.0%	6.2%	6.1%	6.2%	6.2%	**6.1%**
Lead Grade Milled, %	2.5%	2.6%	2.5%	2.5%	2.4%	**2.5%**
Zinc Recovery, %	80%	84%	84%	84%	84%	**84%**
Lead Recovery, %	60%	65%	65%	65%	65%	**65%**
Payable Zinc Production, Mlb	**89**	**107**	**104**	**107**	**107**	**475**
Payable Lead Production, Mlb	**32**	**38**	**37**	**38**	**37**	**166**
Payable Silver Production, Moz	**0.7**	**0.8**	**0.8**	**0.8**	**0.7**	**3.5**
Total On-Site Operating Cost, C$/tonne milled	$125	$105	$105	$95	$95	**$95**
Total Zinc Cash Cost (NoC; IR), US$/lb	**$0.90**	**$0.55**	**$0.50**	**$0.55**	**$0.60**	**$0.55**

NoC = net of credits; ER = excluding royalties; IR = including royalties.

Halfmile/Stratmat Production Profile (100% owned)

	RLOM	2017	2018	2019	2020	2021
Ore Tonnes Milled, millions	**18.2**	-	-	-	1.4	1.4
Ore Tonnes Milled, tonnes per day	**4,000**	-	-	-	4,000	4,000
Zinc Grade Milled, %	**6.2%**	-	-	-	5.9%	5.9%
Lead Grade Milled, %	**2.1%**	-	-	-	2.1%	2.1%
Zinc Recovery, %	**85%**	-	-	-	85%	85%
Lead Recovery, %	**70%**	-	-	-	70%	70%
Payable Zinc Production, Mlb	**1,793**	**-**	**-**	**-**	**135**	**135**
Payable Lead Production, Mlb	**563**	**-**	**-**	**-**	**44**	**44**
Payable Silver Production, Moz	**4.4**	**-**	**-**	**-**	**0.3**	**0.3**
Total On-Site Operating Cost, C$/tonne milled	**$90**	-	-	-	$90	$90
Total Zinc Cash Cost (NoC; IR), US$/lb	**$0.60**	**-**	**-**	**-**	**$0.60**	**$0.60**

NoC = net of credits; ER = excluding royalties; IR = including royalties.

Corporate Production Profile

	2016	2017	2018	2019	2020	RLOM
Zinc Production (in concentrate), Mlb	173	183	180	230	406	**3,580**
Lead Production (in concentrate), Mlb	59	61	59	77	108	**915**
Payable Zinc Production, Mlb	**147**	**156**	**153**	**196**	**345**	**3,043**
Payable Lead Production, Mlb	**56**	**58**	**56**	**73**	**103**	**870**
Zinc Sales, Mlb	149	156	153	195	345	**3,045**
Lead Sales, Mlb	56	58	56	72	103	**870**
Total Zinc Cash Cost (net of credits), US$/lb	**$0.70**	**$0.45**	**$0.40**	**$0.45**	**$0.60**	**$0.60**

Hedge Position

	2016	2017	2018	2019	2020	RLOM
Forward Gold Sales, oz	-	-	-	-	-	-
Forward Gold Sales Price, US$/oz	-	-	-	-	-	-
Forward Silver Sales, koz	-	-	-	-	-	-
Forward Silver Sales Price, US$/oz	-	-	-	-	-	-

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Share Capital Dilution

	Number	Price	Proceeds	Expiry
Warrants	8.0M	C$0.06	US$0.4M	April 2017 - December 2020
Options	10.1M	C$0.75	US$5.9M	May 2018 - Jan 2020
Warrants + Options	18.1M	C$0.45	US$6.3M	

C$/US$ FX Rate: 1.30

Recent Equity Financings

June 10, 2016 - C$675k equity financing (debt settlement; 1.3M shares @ C$0.514 per share)
June 6, 2016 - C$2.5M equity financing (future services; 4.2M shares @ C$0.59 per share)
April 26, 2016 - C$3.0M private placement flow through financing (8.2M shares @ C$0.365 per share)
April 7, 2016 - C$1.4M equity financing (debt settlement; 4.1M shares @ C$0.34 per share)
March 16, 2016 - C$15.0M market offering (406.7M shares @ C$0.32 per share)
February 29, 2016 - C$1.5M FT financing (4.1M shares @ C$0.34 per share)

Major Shareholders

	O/S (millions)	O/S (%)	F/D (millions)	F/D (%)
IA Michael Investments	27.9	7%	27.9	7%
MMC Holding	18.7	5%	18.7	4%
JP Morgan Chase	15.5	4%	15.5	4%
Management and Directors	3.0	1%	13.1	3%
Total	399.1	16%	424.6	18%

Corporate NAV Summary and Sensitivity

	Haywood Model	$0.75	$1.00	$1.25	$1.50	Spot
Forecast Zinc Price, US$/lb		**$0.75**	**$1.00**	**$1.25**	**$1.50**	**$1.01**
Forecast Lead Price, US$/lb		**$0.65**	**$0.90**	**$1.15**	**$1.40**	**$0.83**
Forecast Gold Price, US$/oz		**$1,000**	**$1,200**	**$1,400**	**$1,600**	**$1,336**
Forecast Silver Price, US$/oz		**$12.50**	**$15.00**	**$17.50**	**$20.00**	**$19.71**
Forecast C$/US$ FX Rate		**1.30**	**1.20**	**1.10**	**1.00**	**1.30**
Corporate Adjustments, US$M		($281)	($281)	($281)	($281)	($281)
Santander After-Tax Project NAV10%, US$M		$176	($26)	$97	$191	$280	$109
Caribou After-Tax Project NAV10%, US$M		$150	($18)	$88	$149	$198	$108
Halfmile/Stratmat After-Tax Project NAV10%, US$M		$250	($43)	$155	$280	$387	$178
Additional Exploration Credit, US$M		$48	$48	$48	$48	$48	$48
Corporate NAV, US$M		**$343**	**($320)**	**$108**	**$387**	**$632**	**$162**
Corporate Adjustments, C$ / F/D share		($0.86)	($0.86)	($0.79)	($0.73)	($0.66)	($0.86)
Santander After-Tax Project NAV10%, C$ / F/D share		$0.54	($0.08)	$0.27	$0.49	$0.66	$0.33
Caribou After-Tax Project NAV10%, C$ / F/D share		$0.46	($0.06)	$0.25	$0.39	$0.47	$0.33
Halfmile/Stratmat After-Tax Project NAV10%, C$ / F/D share		$0.76	($0.13)	$0.44	$0.72	$0.91	$0.54
Additional Exploration Credit, C$ / F/D share		$0.15	$0.15	$0.14	$0.12	$0.11	$0.15
Corporate NAV, C$ / F/D share		**$1.05**	**($0.98)**	**$0.30**	**$1.00**	**$1.49**	**$0.49**
Current Price / Corporate NAV		**0.9x**	**-**	**3.0x**	**0.9x**	**0.6x**	**1.8x**
Target Price / Corporate NAV		**1.2x**	-	4.1x	1.2x	0.8x	**2.5x**
2016E CFPS, US$		**$0.08**	$0.04	$0.12	$0.18	$0.23	**$0.13**
2017E CFPS, US$		**$0.20**	$0.03	$0.15	$0.23	$0.32	**$0.16**

Model shares F/D (fully financed): 425M

Corporate Metal Inventory - Model Mineable, Reserve, and Resource

	Tonnes (000's)	Zn Grade (%)	ZnEq Grade (%)	Zinc (Mlb)	ZnEq (Mlb)	EV/lb ZnEq (US$/lb)
Santander Model Mineable (100%)	13,187	4.27%	6.38%	1,241	1,856	-
Santander Model Payable (100%)	-	-	-	955	1,382	-
Caribou Model Mineable (100%)	6,152	6.05%	12.77%	821	1,732	-
Caribou Model Payable (100%)	-	-	-	590	949	-
Halfmile/Stratmat Model Mineable (100%)	18,271	6.17%	9.66%	2,485	3,891	-
Halfmile/Stratmat Model Payable (100%)	-	-	-	1,796	2,635	-
Total Model Mineable	**37,609**	**5.48%**	**9.02%**	**4,547**	**7,479**	**$0.043**
Total Model Payable	**-**	**-**	**-**	**3,341**	**4,965**	**$0.065**
Santander P&P Reserve (100%)	-	-	-	-	-	-
Caribou P&P Reserve (100%)	-	-	-	-	-	-
Halfmile/Stratmat P&P Reserve (100%)	-	-	-	-	-	-
Total P&P Reserve	**-**	**-**	**-**	**-**	**-**	**-**
Santander M&I Resource (100%)	7,920	3.44%	5.60%	600	978	-
Caribou M&I Resource (100%)	7,230	6.99%	15.12%	1,114	2,410	-
Halfmile/Stratmat M&I Resource (100%)	6,262	8.13%	12.11%	1,122	1,672	-
Total M&I Resource	**21,412**	**6.01%**	**10.72%**	**2,837**	**5,059**	**-**
Santander Inferred Resource (100%)	13,845	4.62%	5.93%	1,410	1,810	-
Caribou Inferred Resource (100%)	3,660	6.95%	15.12%	561	1,220	-
Halfmile/Stratmat Inferred Resource (100%)	11,602	6.41%	10.83%	1,641	2,771	-
Total Inferred Resource	**48,857**	**3.95%**	**7.21%**	**4,252**	**7,769**	**-**
Santander Reserve and Resource (100%)	21,765	4.19%	5.81%	2,010	2,787	-
Caribou Reserve and Resource (100%)	10,890	6.98%	15.12%	1,675	3,630	-
Halfmile/Stratmat Reserve and Resource (100%)	17,864	7.02%	11.28%	2,763	4,443	-
Total Reserve and Resource	**70,269**	**4.58%**	**8.28%**	**7,088**	**12,829**	**$0.025**

Measured and indicated resource is additional to proven and probable reserve.

Trevali Mining Corp. Consensus Estimate Summary (Reuters data sourced via Capital IQ)

	Analysts	Mean EPS	High / Low	Haywood vs. Cons.	Mean CFPS	High / Low	Haywood vs. Cons.
2016 Consensus Estimate	4	**US$0.04**	US$0.17 / US$0.03	-	**US$0.11**	US$0.12 / US$0.10	-
2017 Consensus Estimate	2	**US$0.06**	US$0.08 / US$0.04	(174%)	**US$0.24**	US$0.26 / US$0.21	(66%)
	Analysts	**SO Rating**	**SP Rating**	**SU Rating**	**Mean Target**	**High / Low**	**Haywood vs. Cons.**
Consensus Valuation	6	6	-	-	**US$0.92**	US$1.25 / US$0.75	36%

Peer-Group Comparables (Haywood Securities estimates)

	Share Price	Corp NAV	Price / NAV	2016E CFPS	Price / CFPS	2017E CFPS	Price / CFPS
Trevali Mining Corp. (TV-T)	C$0.91	C$1.05	**0.9x**	US$0.08	**8.6x**	US$0.20	**3.6x**
Capstone Mining Corp. (CS-T)	C$0.85	C$1.14	**0.7x**	US$0.25	**2.6x**	US$0.20	**3.4x**
Copper Mountain Mining Corp. (CUM-T)	C$0.51	C$0.07	**6.9x**	US$0.23	**1.7x**	US$0.23	**1.7x**
Foran Mining Corp. (FOM-V)	C$0.22	C$0.25	**0.8x**	(US$0.01)	**-**	(US$0.01)	**-**
Highland Copper Co. (HI-V)	C$0.11	C$0.15	**0.7x**	(US$0.02)	**-**	(US$0.00)	**-**
HudBay Minerals Inc. (HBM-T)	C$6.04	C$7.48	**0.8x**	US$1.30	**3.5x**	US$1.40	**3.3x**
Lundin Mining Corp. (LUN-T)	C$5.55	C$5.30	**1.0x**	US$0.59	**7.1x**	US$0.65	**6.5x**
Nevsun Resources Ltd. (NSU-T)	C$4.29	C$6.15	**0.7x**	US$0.25	**13.2x**	US$0.10	**-**
NovaCopper Inc. (NCQ-T)	C$0.78	C$1.00	**0.8x**	(US$0.09)	**-**	(US$0.22)	**-**
Royal Nickel Corp. (RNX-T)	C$0.40	C$0.75	**0.5x**	US$0.05	**6.1x**	US$0.15	**2.1x**
Talon Metals Corp. (TLO-T)	C$0.09	C$0.25	**0.4x**	(US$0.01)	**-**	(US$0.01)	**-**
Peer-Group Average (producers)			**1.8x**		**5.7x**		**2.8x**
Peer-Group Average (developers)			**0.5x**		**-**		**-**
Peer-Group Average (all)			**1.3x**		**5.7x**		**3.4x**

2016E C$/US$ FX Rate: 1.32
2017E C$/US$ FX Rate: 1.30

Modelled Equity Financings

	Year	Quarter	Amount (US$M)	Price (C$/share)	Shares (millions)
Current O/S Share Capital					399
Current F/D Share Capital					425
Modelled Interim Equity Financing	**-**	**-**	**-**	**-**	**-**
Modelled Santander Equity Financing	**-**	**-**	**-**	**-**	**-**
Modelled Fully Financed F/D Share Capital					425

Source: Trevali Mining, Capital IQ, and Haywood Securities

Santander Continues to Deliver – Caribou Production Now Commercial

Trevali recently reported Q2/16A financials headlined by concentrate sales revenue of $28.9 million and income from Santander mine operations of $5.2 million (underpinning a net loss of $0.3 million; earnings per share [EPS] of $0.00). Q2/16A revenue continued to reflect relatively weak average zinc and lead metal prices, which have subsequently rallied since quarter-end (see below). **Cash flow from operations before working-capital changes totalled $8.5 million during the quarter, translating into Q2/16A CFPS of $0.02—beating IBES analyst consensus and Haywood's expectations (both at $0.01)**. Trevali's CFPS continues to reflect record performance at the Company's 100% owned Santander zinc-lead-silver mine in Peru, where commercial production, from an accounting point of view, was declared on January 1, 2014.

The Q2/16A financials were driven by previously reported Santander production of 15.2 million pounds of zinc, 5.6 million pounds of lead, and 222,121 ounces of silver (payable; refer to *Radar Screen,* July 20, 2016). **The record quarterly zinc production figure in part prompted Trevali to increase Santander's 2016E zinc production guidance to 57 million to 60 million pounds of payable zinc (from 52 million to 55 million pounds). We previously adjusted our model accordingly, which includes 58 million pounds of payable zinc production this year (previously 53 million pounds), in turn boosting 2016E CFPS in our model to US$0.10 (from US$0.08) at Haywood's 2016E forecast average zinc price of US$0.80 per pound (note, the metal has averaged US$0.85 per pound year to date; refer to *Radar Screen*; July 20, 2016)**.

Santander's Q2/16 production profile was underpinned by a third consecutive quarter of record mill throughput (~2,408 tonnes per day; versus Santander's 2,000-tonne-per-day nameplate capacity) and strong zinc head grades, which averaged 4.16% (versus 3.93% in Q1/16). 2016E Santander production guidance includes an average zinc head grade of 4.2% to 4.4% (4.3% in Haywood model, versus a 2015A average zinc head grade of 4.14%). We note that the recent discovery of the Oyon Mantos at Santander's Magistral North deposit stands to bolster head grades by early next year, with drill-hole assay result highlights from the new zone that include 7.30 metres grading 8.73% zinc, 6.22% lead, and 117 grams per tonne silver (including 4.15 metres grading 12.46% zinc, 9.35% lead, and 142 grams per tonne silver; refer to *Radar Screen*, April 8, 2016).

Santander's total zinc cash cost averaged US$0.47 per payable pound net of credits in Q2/16 (compared with US$0.36 per pound in Q1/16), continuing to position the mine in the ~lower third of the C1 zinc cash-cost curve. The cost increase over Q1/16 reflects in part higher on-site operating costs (US$0.08-per-pound differential) and lower by-product credits (US$0.10-per-pound differential), partially offset by lower off-site treatment charges (~US$0.08-per-pound differential). **A Q2/16A on-site operating cost of US$35.64 per tonne milled is up from US$32.22 per tonne milled in Q1/16, but still notably below a 2015A average cost of US$42.65 per tonne (including US$38.70 per tonne in Q4/15) and well within the lower end of reiterated 2016E cost guidance (US$35 to US$38 per tonne milled;** lowered form US$40 to US$43 per tonne milled in May). Santander's H1/16A cost profile reflects increased throughput and the implementation of site-wide business initiatives to lower fixed costs. **Our model includes an on-site operating cost of US$40 per tonne milled at Santander this year, which translates into an average total zinc cash cost of US$0.40 per pound net of credits**.

We anticipate Santander's (and Caribou's) total cash-cost profile will benefit further over the coming quarters from decreasing off-site zinc treatment charges. **We note that a recent drop in benchmark terms (to ~US$190 per dry metric ton (DMT) from ~US$245 in 2015) provides a leading indicator that refiners are looking to secure concentrate ahead of an anticipated supply deficit (refer to *Radar Screen*, May 31, 2016)**. Trevali anticipates that lower treatment charges stand to reduce Santander's average total zinc cash cost by up to ~10% (all other considerations aside).

Trevali Financial Summary and Outlook

Commodity Prices	2013A	Q1/14A	Q2/14A	Q3/14A	Q4/14A	2014A	Q1/15A	Q2/15A	Q3/15A	Q4/15A	2015A	Q1/16A	Q2/16A	QoQ∆ (%)	YoY∆ (%)	2016E	2017E
Average Zinc Price (spot), US$/lb	$0.87	$0.92	$0.94	$1.05	$1.02	$0.98	$0.94	$0.99	$0.84	$0.73	$0.87	$0.76	$0.87	14%	(12%)	$0.80	$1.00
Average Zinc Price (realized), US$/lb	-	$0.92	$0.92	$1.02	$0.97	$0.96	$0.93	$0.95	$0.78	$0.70	$0.84	$0.82	$0.89	9%	(6%)	$0.80	$1.00
Average Lead Price (spot), US$/lb	$0.97	$0.95	$0.95	$0.99	$0.91	$0.95	$0.82	$0.88	$0.78	$0.76	$0.81	$0.79	$0.78	(1%)	(11%)	$0.75	$0.95
Average Copper Price (spot), US$/lb	$3.32	$3.19	$3.08	$3.17	$3.01	$3.11	$2.65	$2.74	$2.39	$2.22	$2.50	$2.12	$2.15	1%	(22%)	$2.25	$2.25
Average Gold Price (spot), US$/oz	$1,411	$1,292	$1,290	$1,282	$1,199	$1,266	$1,220	$1,194	$1,125	$1,104	$1,160	$1,182	$1,258	6%	5%	$1,300	$1,450
Average Silver Price (spot), US$/oz	$23.85	$20.45	$19.66	$19.71	$16.54	$19.07	$16.74	$16.44	$14.93	$14.77	$15.71	$14.88	$16.81	13%	2%	$18.00	$24.00
C$/US$ FX Rate	1.03	1.10	1.09	1.09	1.14	1.10	1.24	1.23	1.31	1.34	1.28	1.37	1.29	(6%)	5%	1.32	1.30
Balance Sheet	**2013A**	**Q1/14A**	**Q2/14A**	**Q3/14A**	**Q4/14A**	**2014A**	**Q1/15A**	**Q2/15A**	**Q3/15A**	**Q4/15A**	**2015A**	**Q1/16A**	**Q2/16A**	**QoQ∆ (%)**	**YoY∆ (%)**	**2016E**	**2017E**
Cash (incl. restricted), US$M	$37.2	$29.0	$42.3	$39.4	$21.7	$22.4	$18.8	$26.3	$12.3	$10.8	$11.3	$19.5	$11.3	(42%)	(57%)	$7	$35
Working Capital, US$M	($4.8)	($3.9)	$50.1	$41.6	$28.5	$29.5	$18.7	$28.9	$3.6	$7.1	$7.4	$15.1	$14.2	(6%)	(51%)	$7	$23
Long-term Debt, US$M	$18.7	$20.0	$60.4	$60.9	$58.4	$60.5	$55.5	$55.1	$46.8	$60.2	$62.8	$57.1	$58.9	3%	7%	$59	$42
Shareholders Equity, US$M	$247.7	$235.4	$233.9	$240.5	$228.9	$237.2	$219.4	$247.4	$235.5	$228.5	$238.7	$230.0	$250.5	9%	1%	$244	$276
Financial Results (GAAP)	**2013A**	**Q1/14A**	**Q2/14A**	**Q3/14A**	**Q4/14A**	**2014A**	**Q1/15A**	**Q2/15A**	**Q3/15A**	**Q4/15A**	**2015A**	**Q1/16A**	**Q2/16A**	**QoQ∆ (%)**	**YoY∆ (%)**	**2016E**	**2017E**
Reported Revenue, US$M	-	$21.9	$18.2	$25.7	$19.5	$85.6	$20.9	$24.8	$20.7	$17.1	$83.2	$19.6	$22.5	14%	(10%)	$203	$261
Operating Expense, US$M	-	($8.7)	($8.0)	($9.1)	($7.8)	($33.7)	($8.7)	($8.9)	($7.5)	($8.8)	($33.9)	($6.1)	($8.1)	31%	(7%)	($173)	($172)
Corporate G&A, US$M	($5.1)	($1.1)	($1.3)	($1.3)	($1.4)	($5.1)	($1.2)	($1.4)	($1.3)	($0.9)	($4.6)	($0.9)	($1.1)	25%	(6%)	($5)	($5)
Earnings, US$M	**($15.0)**	**$0.6**	**($4.1)**	**$1.5**	**($4.1)**	**($6.4)**	**($2.3)**	**$0.2**	**($2.6)**	**($6.2)**	**($11.2)**	**$0.6**	**($0.3)**	**(143%)**	**(89%)**	**$31**	**$78**
EPS, US$	**($0.07)**	**$0.00**	**($0.01)**	**$0.01**	**($0.01)**	**($0.02)**	**($0.01)**	**$0.00**	**($0.01)**	**($0.02)**	**($0.04)**	**$0.00**	**($0.00)**	**(137%)**	**(92%)**	**($0.04)**	**$0.07**
Cash Flow Before W/C Changes, $M	**($5.2)**	**$4.1**	**$3.0**	**$6.0**	**$2.5**	**$15.6**	**$2.6**	**$7.2**	**$4.9**	**($0.9)**	**$13.5**	**$5.8**	**$6.6**	**14%**	**156%**	**$31**	**$78**
CFPS (before W/C changes), US$	**($0.02)**	**$0.01**	**$0.01**	**$0.02**	**$0.01**	**$0.06**	**$0.01**	**$0.02**	**$0.02**	**($0.00)**	**$0.04**	**$0.02**	**$0.02**	**(2%)**	**86%**	**$0.08**	**$0.20**
CAPEX, US$M	($25.0)	($8.0)	($4.2)	($11.8)	($11.5)	($35.8)	($8.5)	($16.2)	($13.2)	($10.4)	($48.2)	($1.4)	($14.8)	950%	74%	($29)	($22)
Cash Flow from Investing, US$M	($30.0)	($9.1)	($6.6)	($10.6)	$1.4	($24.7)	($11.9)	($18.9)	($15.2)	($8.5)	($54.2)	$0.8	($15.5)	(2,087%)	30%	($27)	($22)
Cash Flow from Financing, US$M	$66.4	($0.0)	$14.5	($2.2)	($4.9)	$7.2	$3.5	$21.1	($3.4)	$4.9	$25.3	$11.1	($0.9)	(108%)	(125%)	$3	($28)
Free Cash Flow, US$M	$31.7	($7.6)	$11.1	($2.0)	($11.3)	($10.3)	($5.4)	$5.6	($12.9)	($1.2)	($14.3)	$11.6	($10.0)	(187%)	85%	($4)	$28
FCFPS, US$	$0.14	($0.03)	$0.04	($0.01)	($0.04)	($0.04)	($0.02)	$0.02	($0.04)	($0.00)	($0.05)	$0.03	($0.03)	(175%)	34%	($0.01)	$0.07
Average Shares O/S, millions	218.9	279.3	279.5	279.7	282.6	280.3	283.1	294.2	319.6	324.8	305.4	336.8	390.6	16%	38%	381	399

Source: Trevali Mining and Haywood Securities

Santander Quarterly Production Summary and Outlook

Santander Production	2013A	Q1/14A	Q2/14A	Q3/14A	Q4/14A	2014A	Q1/15A	Q2/15A	Q3/15A	Q4/15A	2015A	Q1/16A	Q2/16A	QoQ∆ (%)	YoY∆ (%)	2016E	2017E
Ore Milled, tonnes 000's	252	174	175	174	186	709	185	190	197	205	788	209	219	5%	18%	800	800
Ore Milled, tonnes per day	1,369	1,931	1,927	1,892	2,020	1,943	2,060	2,093	2,144	2,228	2,159	2,299	2,408	5%	17%	2,150	2,150
Zinc Grade Milled, %	4.29%	4.76%	4.20%	4.40%	3.65%	4.24%	4.03%	4.27%	4.45%	3.80%	4.14%	3.93%	4.16%	6%	3%	4.3%	3.6%
Lead Grade Milled, %	1.60%	1.90%	1.42%	2.11%	2.12%	1.89%	2.13%	2.47%	2.11%	1.68%	2.09%	1.66%	1.39%	(16%)	(35%)	1.7%	1.3%
Silver Grade Milled, g/t	52.5	67.5	49.4	55.2	53.5	56.2	56.6	63.4	61.4	47.3	56.9	41.1	41.1	-	(27%)	56	43
Zinc Recovery (in zinc concentrate), %	80%	87%	88%	88%	88%	88%	90%	90%	90%	90%	90%	89%	90%	1%	-	90%	90%
Lead Recovery (in lead concentrate), %	80%	86%	84%	83%	88%	85%	90%	88%	89%	88%	89%	88%	87%	(1%)	(3%)	88%	88%
Silver Recovery (in concentrates), %	68%	74%	70%	74%	80%	75%	80%	78%	77%	75%	77%	76%	73%	(4%)	(9%)	75%	75%
Zinc Concentrate Production, DMT	17,860	15,640	13,048	13,466	12,050	54,204	13,430	14,706	15,954	14,141	58,232	14,480	16,601	15%	24%	61,920	52,128
Zinc Concentrate Zinc Grade, %	-	50%	49%	50%	50%	50%	50%	50%	50%	49%	50%	49%	49%	-	(2%)	50%	50%
Lead Concentrate Production, DMT	5,940	4,510	3,680	5,370	5,815	19,375	5,925	7,080	6,610	5,347	24,962	5,469	4,865	(11%)	(18%)	20,379	16,640
Lead Concentrate Lead Grade, %	-	58%	57%	56%	56%	57%	60%	59%	56%	57%	58%	56%	55%	(2%)	(8%)	57%	55%
Lead Concentrate Silver Grade, g/t	-	1,895	1,675	1,337	1,498	1,599	1,407	1,343	1,432	1,361	1,388	1,204	1,358	13%	(3%)	1,244	1,244
Zinc Production (in zinc concentrate), Mlb	19.1	17.2	14.1	14.8	13.3	58.3	14.8	16.2	17.6	15.3	64.2	15.6	17.9	15%	21%	68	57
Lead Production (in lead concentrate), Mlb	7.1	5.8	4.6	6.6	7.2	25.1	7.8	9.2	8.2	6.7	31.9	6.8	5.9	(13%)	(25%)	26	20
Copper Production (in copper concentrate), Mlb	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver Production (in concentrates), Moz	0.3	0.3	0.2	0.2	0.3	1.0	0.3	0.3	0.3	0.2	1.1	0.2	0.2	0%	(21%)	1.1	0.8
Operating Cost, US$/tonne milled	-	$50.17	$45.12	$52.05	$43.12	$47.33	$48.88	$44.95	$38.67	$38.70	$42.65	$32.22	$35.64	11%	(27%)	$40	$35
Zinc Production (payable), Mlb	-	14.6	12.0	12.6	11.2	50.4	12.5	13.7	14.8	13.1	54.1	13.7	15.2	11%	21%	58	49
Lead Production (payable), Mlb	-	5.5	4.4	6.3	7.1	23.3	7.4	8.7	7.8	6.3	30.2	6.4	5.6	(13%)	(25%)	24	19
Silver Production (payable), Moz	-	0.3	0.2	0.2	0.2	0.9	0.3	0.3	0.3	0.2	1.1	0.2	0.2	0%	(13%)	1.0	0.8
Total Zinc Cash Cost (net of credits), US$/lb payable	-	$0.36	$0.54	$0.63	$0.45	$0.49	$0.49	$0.39	$0.48	$0.62	$0.48	$0.36	$0.47	32%	(5%)	$0.40	$0.30
Zinc Production (sold), Mlb	-	12.7	11.8	13.6	11.0	49.0	11.8	13.2	15.2	12.6	52.9	13.0	15.2	17%	29%	60	49
Lead Production (sold), Mlb	-	5.2	4.2	6.4	6.8	22.6	7.3	8.7	8.0	6.5	30.4	6.3	5.7	(10%)	(21%)	24	19
Copper Production (sold), Mlb	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver Production (sold), Moz	-	0.2	0.2	0.2	0.2	0.9	0.2	0.3	0.3	0.2	1.1	0.2	0.2	6%	(9%)	1.0	0.8

Total zinc cash costs excludes consideration for sustaining capital costs.

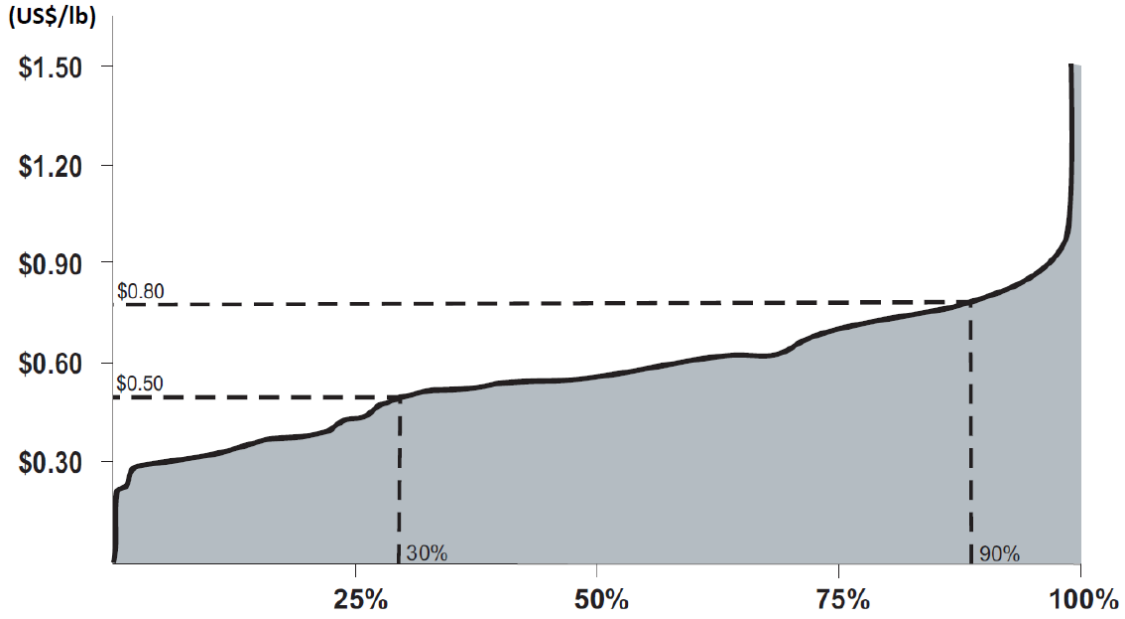
Source: Trevali Mining and Haywood Securities

Santander Total Cash-Cost Presentation – Treatment Comparison

	Q1/14A	Q2/14A	Q3/14A	Q4/14A	2014A	Q1/15A	Q2/15A	Q3/15A	Q4/15A	2015A	Q1/16A	Q1/16A	Haywood Model 2016E	Haywood Model 2017E
Average Realized Zinc Price, US$/lb	$0.92	$0.92	$1.02	$0.97	**$0.96**	$0.93	$0.95	$0.78	$0.70	**$0.84**	$0.82	$0.89	$0.80	$1.00
Average Realized Lead Price, US$/lb	$0.97	$0.95	$1.00	$0.88	**$0.95**	$0.81	$0.82	$0.73	$0.74	**$0.77**	$0.82	$0.78	$0.75	$0.95
Average Realized Silver Price, US$/oz	$20.44	$19.55	$19.79	$16.72	**$18.99**	$16.43	$16.33	$14.80	$15.11	**$15.67**	$15.32	$17.09	$18.00	$24.00
C$/US$ FX Rate	$1.10	$1.10	$1.09	$1.10	**$1.10**	$1.23	$1.23	$1.27	$1.33	**$1.28**	$1.37	$1.28	$1.32	$1.30
Ore Milled, tonnes 000's	174	175	174	186	**709**	185	190	197	205	**788**	209	219	800	800
Payable Zinc Production, Mlb	14.6	12.0	12.6	11.2	**50.4**	12.5	13.7	14.8	13.1	**54.1**	13.7	15.2	58	49
Payable Lead Production, Mlb	5.5	4.4	6.3	7.1	**23.3**	7.4	8.7	7.8	6.3	**30.2**	6.4	5.6	24	19
Payable Silver Production, koz	269	187	218	242	**915**	255	290	286	224	**1,056**	221	222	997	763
Payable Zinc Equivalent Production, Mlb	26.2	20.5	22.9	21.8	**91.5**	23.5	26.2	27.5	24.5	**101.6**	24.2	24.2	103	85
On-Site Production Costs, US$M	**$8.8**	**$7.9**	**$9.1**	**$8.1**	**$33.7**	**$8.7**	**$8.9**	**$7.7**	**$8.8**	**$33.8**	**$6.2**	**$8.1**	**$30**	**$28**
On-Site Cash Cost, US$/tonne milled	**$50.17**	**$45.12**	**$52.05**	**$43.12**	**$47.33**	**$48.88**	**$44.95**	**$38.67**	**$38.70**	**$42.65**	**$32.22**	**$35.64**	**$40**	**$35**
On-Site Cash Cost, US$/lb Zn payable, net of credits	($0.14)	$0.01	($0.12)	($0.20)	**($0.11)**	($0.12)	($0.22)	($0.15)	$0.06	**($0.11)**	($0.18)	($0.00)	($0.15)	($0.20)
On-Site Cash Cost, US$/lb ZnEq payable	$0.33	$0.39	$0.40	$0.37	**$0.37**	$0.37	$0.34	$0.28	$0.36	**$0.33**	$0.25	$0.33	$0.30	$0.35
Smelting, Refining, and Freight Costs, US$M	$6.8	$5.9	$8.7	$6.9	**$28.2**	$6.9	$8.3	$8.7	$7.5	**$31.0**	$7.1	$6.7	$26	$20
Royalty Expenses, US$M	$0.4	$0.6	$0.7	$0.5	**$2.2**	$0.8	$0.0	$0.7	($0.1)	**$1.3**	$0.3	$0.4	$2	$3
Total Production Costs, US$M	**$16.0**	**$14.4**	**$18.5**	**$15.4**	**$64.1**	**$16.4**	**$17.2**	**$17.1**	**$16.3**	**$66.1**	**$13.5**	**$15.2**	**$58**	**$50**
Total Cash Cost, US$/lb Zn payable, net of credits	**$0.36**	**$0.54**	**$0.63**	**$0.45**	**$0.49**	**$0.49**	**$0.39**	**$0.48**	**$0.62**	**$0.48**	**$0.36**	**$0.47**	**$0.40**	**$0.30**
Total Cash Cost, US$/lb ZnEq payable	**$0.61**	**$0.70**	**$0.81**	**$0.70**	**$0.70**	**$0.70**	**$0.66**	**$0.62**	**$0.66**	**$0.65**	**$0.56**	**$0.63**	**$0.60**	**$0.60**
Sustaining Capital Costs, US$M	$2.2	$3.8	$3.0	$2.2	**$11.1**	$2.5	$2.6	$3.1	$2.6	**$10.8**	$2.0	$2.0	$11	$11
Total Production Costs (incl. Sustaining Capex), US$M	**$18.2**	**$18.1**	**$21.5**	**$17.6**	**$75.3**	**$18.9**	**$19.8**	**$20.2**	**$18.9**	**$76.9**	**$15.6**	**$17.2**	**$69**	**$61**
Total All-In Cash Cost (incl. Sustaining Capex), US$/lb Zn payable, net of credits	**$0.51**	**$0.85**	**$0.87**	**$0.65**	**$0.71**	**$0.69**	**$0.58**	**$0.69**	**$0.83**	**$0.69**	**$0.51**	**$0.60**	**$0.60**	**$0.55**
Total All-In Cash Cost (incl. Sustaining Capex), US$/lb ZnEq payable	**$0.69**	**$0.88**	**$0.94**	**$0.81**	**$0.82**	**$0.80**	**$0.76**	**$0.73**	**$0.77**	**$0.76**	**$0.64**	**$0.71**	**$0.70**	**$0.75**

Source: Trevali Mining and Haywood Securities

C1 Zinc Cash-Cost Curve (net of by-product credits)



Source: Wood Mackenzie

Trevali's balance sheet includes a 'Due to related parties' line item, which primarily reflects a payable to Glencore for mine development and operating expenses (which incurs 8% interest). The balance continued to drop steadily quarter over quarter through September 31, 2014 (to $5.3 million; down from $12.1 million at June 30, 2014, and $17.7 million at March 31, 2014). The figure subsequently increased modestly to $7.5 million on December 31, 2014. However, the change was largely attributable to a weaker C$ foreign exchange rate (note, the payable to Glencore is denoted in US$, but Trevali reports its financial results in C$). Going forward, Trevali anticipates the 'Due to related parties' balance (in particular the component payable to Glencore) will moderate around the ~$5 million level, reflecting considerations associated with the time lag between Santander's operating expenses (initially covered by Glencore) and subsequent payment (reimbursement) to the Major. **As of June 30, 2016, the Glencore-specific portion of the balance sheet line item stood at $3.3 million (versus $4.2 million at June 30, 2015, $4.5 million at September 30, 2015, $4.0 million at December 31, 2015, and $3.3 million as of March 31, 2016)**.

Reiterated 2016E Production Guidance

Santander's reiterated 2016E payable production guidance is headlined by 57 million to 60 million pounds of zinc, 22 million to 25 million pounds of lead, and 0.8 million to 1.0 million ounces of silver. **The implementation of site-wide business initiatives to lower fixed costs (on the back of record mill throughput) is clearly bearing fruit, as is evidenced by an H1/16A average on-site operating cost of US$33.91 per tonne milled—well below a 2015A average cost of US$42.65 per tonne (including US$38.70 per tonne in Q4/15). Lower cost performance prompted Trevali to decrease Santander's 2016E average on-site operating cost guidance to between US$35 and US$38 per tonne milled last May (from US$40 to US$43 per tonne milled)**. Our model continues to reflect the midpoint of Trevali's 2016E payable production guidance in conjunction with an arguably conservative revised on-site operating cost of US$40 per tonne, which translates into a 2016E average total zinc cash cost of US$0.40 per pound net of credits at Santander.

Trevali fast-tracked Santander into production through a toll-milling and offtake agreement with Glencore, in lieu of a National Instrument 43-101 compliant technical study outlining the details (annualized mine plan / head-grade profile) of a modern mining operation. Furthermore, the recent discovery of the higher grade Rosa Zone, Fatima Zone, and Oyon Mantos (see below), has prompted the Company to augment its (near-term) mine planning, for which detailed data are not publicly available. Following a contemplated ~US$20 million mill expansion to +4,000 tonnes per day in +2018 (US$30 million / 2018 in Haywood model; functional in early 2019; likely funded, in part, by a lease-back agreement with Glencore), the project is poised to produce ~80 million pounds of zinc per annum. **We note the potential expansion remains contingent on a higher metal price environment and continued exploration success at the project (see below)**.

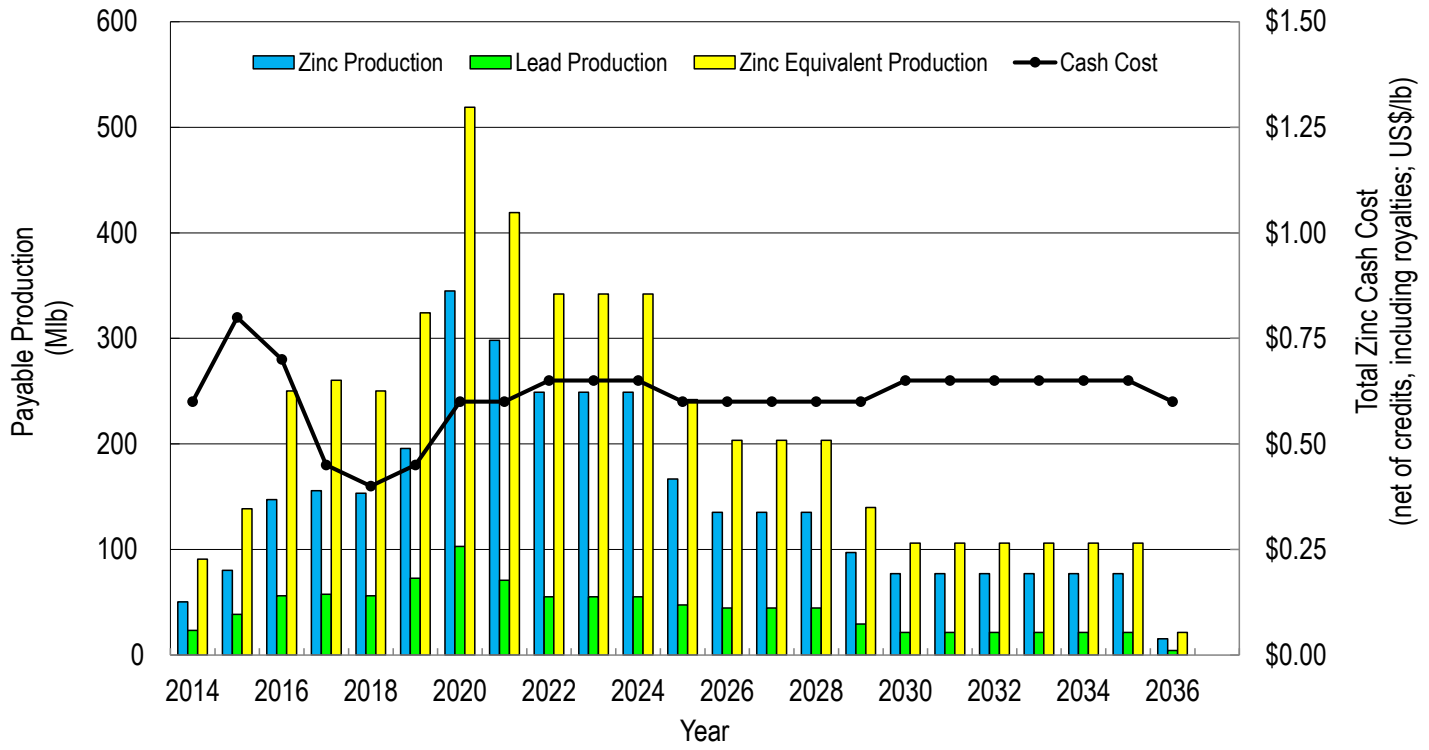
Trevali is more than a one-trick pony. Last month the Company declared commercial production (as of July 1, 2016) at its 100% owned Caribou zinc mine in the Bathurst mining camp of northern New Brunswick. **Trevali's formal guidance now includes 37 million to 41 million pounds of payable zinc production from Caribou in H2/16—note, the mine produced 37 million pounds in concentrate during H1/16 (which was capitalized). This guidance trumps Santander's production profile over the same period, even though the Canadian mine is not fully ramped-up yet (note, the mine's steady-state profile is headlined by ~93 million pounds of annual zinc production)**. Our model includes 89 million pounds of payable zinc production at an average total cash cost of US$0.90 per pound net of credits from Caribou this year, increasing to 107 million pounds at US$0.55 per pound in 2017. **It also includes 147 million pounds of payable zinc production this year from Santander and Caribou combined at an average total cash cost of US$0.70 per pound net of credits. This production profile generates 2016E CFPS of US$0.08 at Haywood's 2016E forecast zinc price of US$0.80 per pound (increasing to US$0.20 at US$1.00 per pound of zinc in 2017E)**.

Santander Production Results and Guidance

	2014A	Q1/15A	Q2/15A	Q3/15A	Q4/15A	2015A	Q1/16A	Q2/16A	January 2016 Trevali 2016E	May 2016 Trevali 2016E	July 2016 Trevali 2016E	Haywood Model 2016E
Milling												
Ore Milled, tonnes 000's	**709**	185	190	197	205	**788**	209	219	-	-	-	**800**
Zinc Grade Milled, %	**4.24%**	4.03%	4.27%	4.45%	3.80%	**4.14%**	3.93%	4.16%	**4.2% - 4.4%**	**4.2% - 4.4%**	**4.2% - 4.4%**	**4.3%**
Lead Grade Milled, %	**1.89%**	2.13%	2.47%	2.11%	1.68%	**2.09%**	1.66%	1.39%	**1.7% - 2.0%**	**1.7% - 2.0%**	**1.7% - 2.0%**	**1.7%**
Silver Grade Milled, oz/ton	**1.64**	1.65	1.85	1.79	1.38	**1.66**	1.20	1.20	**1.5 - 1.8**	**1.5 - 1.8**	**1.5 - 1.8**	**1.6**
Metallurgy												
Zinc Recovery, %	**88%**	90%	90%	90%	90%	**90%**	89%	90%	-	-	-	**90%**
Lead Recovery, %	**85%**	90%	88%	89%	88%	**89%**	88%	87%	-	-	-	**88%**
Silver Recovery, %	**75%**	80%	78%	77%	75%	**77%**	76%	73%	-	-	-	**75%**
Zinc Concentrate Zinc Grade, %	**50%**	50%	50%	50%	49%	**50%**	49%	49%	**50%**	**50%**	**50%**	**50%**
Lead Concentrate Lead Grade, %	**57%**	60%	59%	56%	57%	**58%**	56%	55%	**56 - 58%**	**56 - 58%**	**56 - 58%**	**57%**
Production												
Zinc Production (payable), Mlb	**50.4**	12.5	13.7	14.8	13.1	**54.1**	13.7	15.2	**52 - 55**	**52 - 55**	**57 - 60**	**58**
Lead Production (payable), Mlb	**23.3**	7.4	8.7	7.8	6.3	**30.2**	6.4	5.6	**22 - 25**	**22 - 25**	**22 - 25**	**24**
Silver Production (payable), koz	**915**	255	290	286	224	**1,056**	221	222	**800 - 1,000**	**800 - 1,000**	**800 - 1,000**	**950**
Onsite Operating Costs												
Onsite Operating Cost, US$/t milled	$47.33	$48.88	$44.95	$38.67	$38.70	$42.65	$32.22	$35.64	**$40 - $43**	**$35 - $38**	**$35 - $38**	**$40**

Source: Trevali Mining and Haywood Securities

Trevali Corporate Production Profile (Haywood model)



Zinc Equivalent Production is calculated using Haywood's formal metal price assumptions (refer to *Radar Screen*, July 11, 2016).

Source: Haywood Securities

Balance Sheet Bolstered to Weather Near-Term Metal Pricing Volatility

During Trevali's Q3/15 financial results conference call, Management noted that it was comfortable that Santander and its 100% owned Caribou mine in New Brunswick (commercial production start-up targeted by late Q2/16) could deliver sufficient cash flow at current spot metal pricing over the foreseeable future to cover the Company's (near-term) liquidity requirements. Working in Trevali's favour, Glencore provided a grace period on the Company's $32.4 million finance lease (despite the Major's own financial challenges), deferring payments scheduled over the next year (October 2015 to October 2016). The near-term savings amount to ~US$8 million in our model (note, the grace period is conditional on zinc remaining below US$0.90 per pound; US$1,990 per tonne—the metal has recently rallied and is now US$1.01 per pound).

At the time, we acknowledged that our model was underpinned by +2016 (Santander) production parameters that were arguably conservative relative to 9M/15A performance. Nevertheless, given the 12.5% interest payments on Trevali's Senior Secured Notes (see below), liquidity in our model became a cause for concern in early 2016 at sustained zinc (and lead) pricing at/near recent spot (< US$0.80 per pound of zinc and < US$0.80 per pound of lead; refer to *Radar Screen*, November 18, 2015). In late December, Trevali proceeded to amend (expand and extend) its $52.5 million Senior Secured Notes debt facility with an additional $8.4 million in new notes and received a waiver for the Company's $7.5 million amortization payment, originally scheduled on August 30, 2016, to August 30, 2017 (increasing total 2017 principal repayments to $15.0 million). The senior notes are underpinned by a 12.5% interest rate and are secured against Trevali's Canadian assets, which include the Company's 100% owned Caribou mine in New Brunswick (refer to *Radar Screen*, January 4, 2015). The amendment stood to provide a 1 to 2 quarter financial buffer/lifeline at/near current spot zinc (and lead) pricing, in an effort to address the market's immediate-term concern regarding the Company's financial wellbeing. **Nevertheless, given Santander's all-in breakeven zinc price of ~US$0.80 per pound (and a modestly higher breakeven price for Caribou), Trevali's upside was still contingent on a move in the zinc price—all indications are pointing to +H2/16 for (sustained) higher zinc prices driven by supply pressure, but time will tell**.

In the meantime, the market remains pessimistic on the back of (perceived) high/volatile refined zinc inventories. Earlier this year, we remained cognizant that additional medium-term working-capital funding could be required at/near sustained then-current spot zinc (and lead) pricing (our model included/required a modest US$5 million top-up equity financing priced at $0.35 per share in Q2/16). **Fast forward to March 2016, and Trevali subsequently completed a $15.0 million equity financing (priced at $0.32 per share; ~15% dilution), which now stands to bolster the Company's balance sheet (cash position) through +2017 at +US$0.80 per pound zinc and lead (i.e., well beyond ramp-up initiatives at Caribou and into a period of anticipated higher zinc pricing)**.

We note Trevali reported $15.9 million of free cash flow during Q1/16. However, this figure includes $15.3 million in proceeds from a March 16th equity financing—further demonstrating the Company's ability (or lack thereof) to internally generate meaningful free cash flow at/near recent zinc (and lead) spot prices—noting a Q1/16A average realized zinc price of US$0.82 per pound (acknowledging Caribou was/is still ramping-up; refer to *Radar Screen*, July 7, 2016). **Trevali's Q2/16A financial results include $12.9 million of negative free cash flow, reflecting in part interest payments on the Company's debt facilities ($4.4 million) and capex spending ($19.1 million). We note this latter figure reflects ~$6.3 million in 'actual' capital additions to Caribou—the balance is largely related to the timing of movements in working capital during pre-commercial production at Caribou (the minutia of which is presented in Trevali's Q2/16 financial statements)**. Going forward capital spending at Caribou is expected to average ~$1.5 million per month (namely underground development). Similarly, capital spending at Santander is expected to continue averaging $2 to $3 million per quarter (including a Q2/16A figure of $2.6 million).

Trevali Balance Sheet Sensitivity (quarter in which Company faces a zero cash balance in our model)

Lead Price (US$/lb) \ Zinc Price (US$/lb)	$0.60	$0.65	$0.70	$0.75	$0.80	$0.85	$0.90	$0.95	$1.00	$1.05
$0.60	Q4/16	Q4/16	Q4/16	Q4/16	Q3/17	-	-	-	-	-
$0.65	Q4/16	Q4/16	Q4/16	Q2/17	Q3/17	-	-	-	-	-
$0.70	Q4/16	Q4/16	Q4/16	Q3/17	Q3/17	-	-	-	-	-
$0.75	Q4/16	Q4/16	Q1/17	Q3/17	-	-	-	-	-	-
$0.80	Q4/16	Q4/16	Q2/17	Q3/17	-	-	-	-	-	-
$0.85	Q4/16	Q4/16	Q3/17	Q3/17	-	-	-	-	-	-
$0.90	Q4/16	Q1/17	Q3/17	-	-	-	-	-	-	-
$0.95	Q4/16	Q3/17	Q3/17	-	-	-	-	-	-	-
$1.00	Q4/16	Q3/17	-	-	-	-	-	-	-	-
$1.05	Q1/17	Q3/17	-	-	-	-	-	-	-	-

Source: Haywood Securities

Trevali's June 30, 2016, $18.3 million working-capital position includes $9.3 million in unrestricted cash (down from $22.2 million at March 31, 2016; see above). An additional restricted cash balance of $5.2 million includes $40,000 related to operations in Canada and $5.2 million held in a Peruvian general sales tax (IGV) restricted account. Trevali receives IGV from its sales of concentrate in Peru; 10% of the amount received is deposited directly by the vendor in a restricted account. Trevali is allowed to apply every quarter to the Peruvian tax authority to release the funds from the restricted account.

During Q2/16 the Company closed a $3.0 million flow-through private placement priced at $0.365 per share (8.2 million shares) and settled $1.4 million in debt by issuing 4.1 million shares priced at $0.34 per share. **The Company's June 30, 2016, balance sheet also includes $75.8 million of long-term debt**. We continue to believe timely execution at Santander and Bathurst will be key to maintaining market confidence (especially given the market's current sentiment towards the resource sector; albeit improving). **With zinc production from two mines expected to ramp-up to +170 million pounds per annum by ~2019, we believe the Company is poised to become a (the) marquee mid-tier pure-play zinc producer in a market facing a significant medium-term supply issue. Hence, we would not be surprised to see the Company garner a premium market valuation on the back of higher zinc pricing.**

However, given the weak zinc (and lead) pricing environment (albeit now improving), which is underpinned by relatively high (albeit decreasing) inventory levels, the market's focus has shifted to Trevali's near-term balance sheet vitality (or lack thereof; refer to *Radar Screen*, May 13, 2016).

In late May 2014, Trevali announced a $52.5 million debt facility (52,500 unit private placement Senior Secured Notes offering) that is secured by the Company's Canadian assets. Each unit includes a $1,000 principal Senior Secured Note bearing 12.5% annual interest due on May 30, 2019, and 123.2 common-share purchase warrants exercisable at $1.26 per share expiring on May 30, 2019 (6.5 million total warrants to be issued; 2% potential dilution). The units were offered through a private placement at $980 per unit for aggregate proceeds of $51.5 million. The proceeds have been used to repay a $30 million mezzanine debt facility with RMB Resources (due on June 30, 2014), repay a US$2 million convertible note (to Glencore Xstrata), and finance the remaining initial capital costs at Caribou (start-up of commercial production targeted by the end of Q2/16). As anticipated, the financing did not include a prepaid precious metals (i.e., silver streaming) component, which was previously contemplated as part of Trevali's plans to fund remaining initial capital costs at Caribou (refer to *Radar Screen*, December 12, 2013). Hence, the Company's operating-cost profile stands to fully benefit from silver by-product credits. Trevali's prior financing plans were centred on RMB as the lead financier, which in part prompted the completion of a Preliminary Economic Assessment for Caribou (refer to *Radar Screen*, May 14, 2014). However, it now appears the Company was able to secure better financing terms elsewhere. Nevertheless, the $52.5 million Senior Secured Notes facility was still arguably expensive and includes principal repayments of $15.0 million in 2017 and $7.5 million in 2018, with the remaining $30.0 million in principal repayable in 2019.

We maintain a bullish medium-term outlook on the zinc price (refer to *Radar Screen*, May 31, 2016) and acknowledge that the Senior Secured Notes offering provided the formal security beyond June 30, 2014, that Trevali previously lacked. Our market outlook is underpinned by a number of recent key mine shutdowns (accounting for +10% of global supply), including Century and Lisheen, and by a lack of new significant advanced-stage projects positioned to replace them (including a delayed/decreased production outlook at Dugald River). Production cutbacks recently announced (pending) by Glencore and Nyrstar stand to further stress near-term mine supply fundamentals (refer to *Radar Screen*, November 3, 2015). Despite arguably lofty (volatile) inventory levels and concerns about the Chinese growth rate, we look to a recent increase in London Metal Exchange (LME) inventory drawdown rates (inventory levels dropped to ~380,000 tonnes in Q2/16) and lower spot and international benchmark treatment charges as indications of a tightening market. More recently, LME inventories have increased to ~458,000 tonnes. However, the zinc price has remained relatively strong (current spot at US$1.01 per pound versus a H1/16A average price of US$0.82 per pound). In addition, we would argue that unlike copper, the list of good zinc-focused equity names can be counted on one hand, a situation which will likely attract additional market attention to Trevali. Hence, successful project execution in conjunction with anticipated medium-term zinc price strength should garner a higher (premium) valuation.

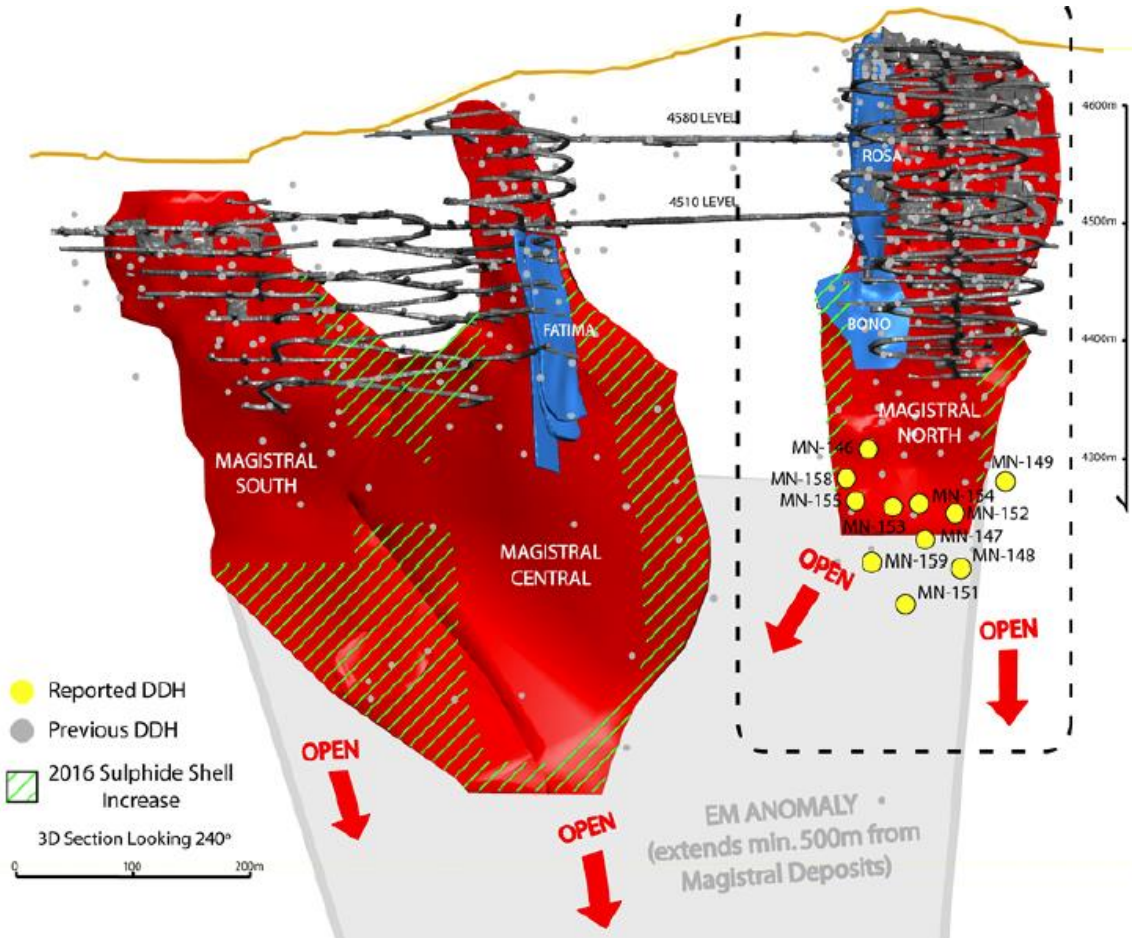
Santander Exploration also Continues to Bear Fruit

Last month Trevali released additional drill-hole assay results from the Company's 2016 underground exploration program at Santander. The drilling was designed to further test the down dip extension of recently discovered mineralization in the hanging wall of the Magistral North deposit (refer to *Radar Screen*, December 1, 2015). Eleven additional holes continued to intersect multiple stacked mineralized massive sulphide replacement zones, or mantos, both within the main Magistral North body as well as in the newly discovered Oyon mantos (refer to *Radar Screen*, July 20, 2016). The intercepts are near existing mine infrastructure and Trevali plans to incorporate them quickly into Santander's near-term (2016-2017) mine plan. **Mineralization in both the Magistral North deposit and the new Oyon mantos remains open for expansion and further underground drilling is in progress. However, work to date continues to demonstrate Santander's geological pedigree as one of the larger end-members of the carbonate replacement deposit (CRD) type (refer to Appendix / *Radar Screen*, November 3, 2015)**.

In December 2015, a new thick zone of vein and replacement mineralization was drill-intersected in the hanging wall of the main Magistral North deposit (DDH MN-127 returned 19.3 metres grading 4.3% zinc, 1.99% lead, and 109 grams per tonne silver). The intercept was interpreted to represent the downdip continuation of a subparallel, silver-rich structure penetrating and replacing Oyon Formation sediments, which previously was considered an unfavourable host unit.

Recent additional follow-up expansion and definition drilling continues to delineate/expand the new Oyon mantos mineralized zone in the hanging wall to the main Magistral North deposit. The Oyon Zone contains multiple stacked lenses (or mantos) of replacement mineralization and veining that vary from 1 to +20 metres in thickness, have a modelled strike length of approximately 100 metres, and a currently defined dip length of approximately 200 metres (previously 180 metres). **Average grades from many of the recent intercepts are higher than typical Santander mill-feed grades (note, the mine's 2016E production guidance is in part underpinned by average zinc, lead, and silver grades of 4.2% to 4.4%, 1.7% to 2.0%, and 47 to 56 grams per tonne respectively)**.

Santander Long Section (looking west)



Source: Trevali Mining

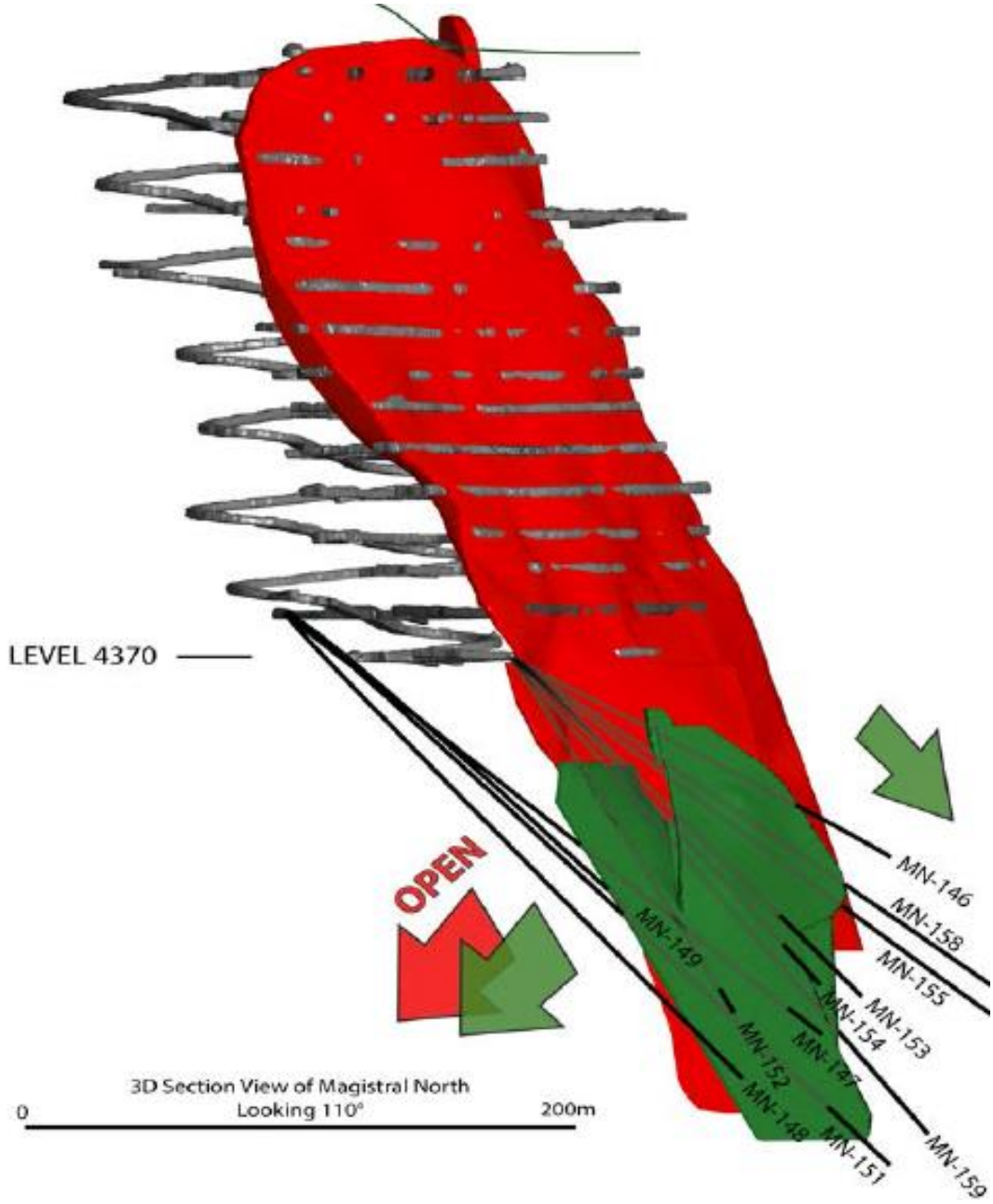
Zinc to lead/silver metal ratios remain high, in the 1:1 to 2:1 range, which suggests drilling to date has intersected the upper-portions of the mineralized system—this interpretation would suggest that additional depth potential remains. Initial targeting also suggests that similar style (lead-silver rich) mineralization may exist in the hanging wall of the Magistral Central (and Fatima Zone) deposit, where current exploration efforts are focused.

Recent assay result highlights include (noting all eleven recently released holes intersected significant mineralization):

- Hole MN-149: 10.00 metres grading 4.34% zinc, 4.74% lead, and 171 grams per tonne silver
- Hole MN-151: 15.15 metres grading 6.00% zinc, 2.20% lead, and 287 grams per tonne silver
- Hole MN-159: 5.15 metres grading 8.97% zinc, 6.04% lead, and 281 grams per tonne silver

For reference, the Magistral North deposit hosts a 2.36 million tonne National Instrument 43-101 compliant indicated resource grading 2.89% zinc, 2.47% lead, 0.07% copper, and 57 grams per tonne silver, plus a 0.62 million tonne inferred resource grading 3.04% zinc, 2.45% lead, 0.08% copper, and 40 grams per tonne silver (dated July 2012).

Three-Dimensional Magistral North Section (looking southeast; Oyon Mantos depicted in green)



Source: Trevali Mining

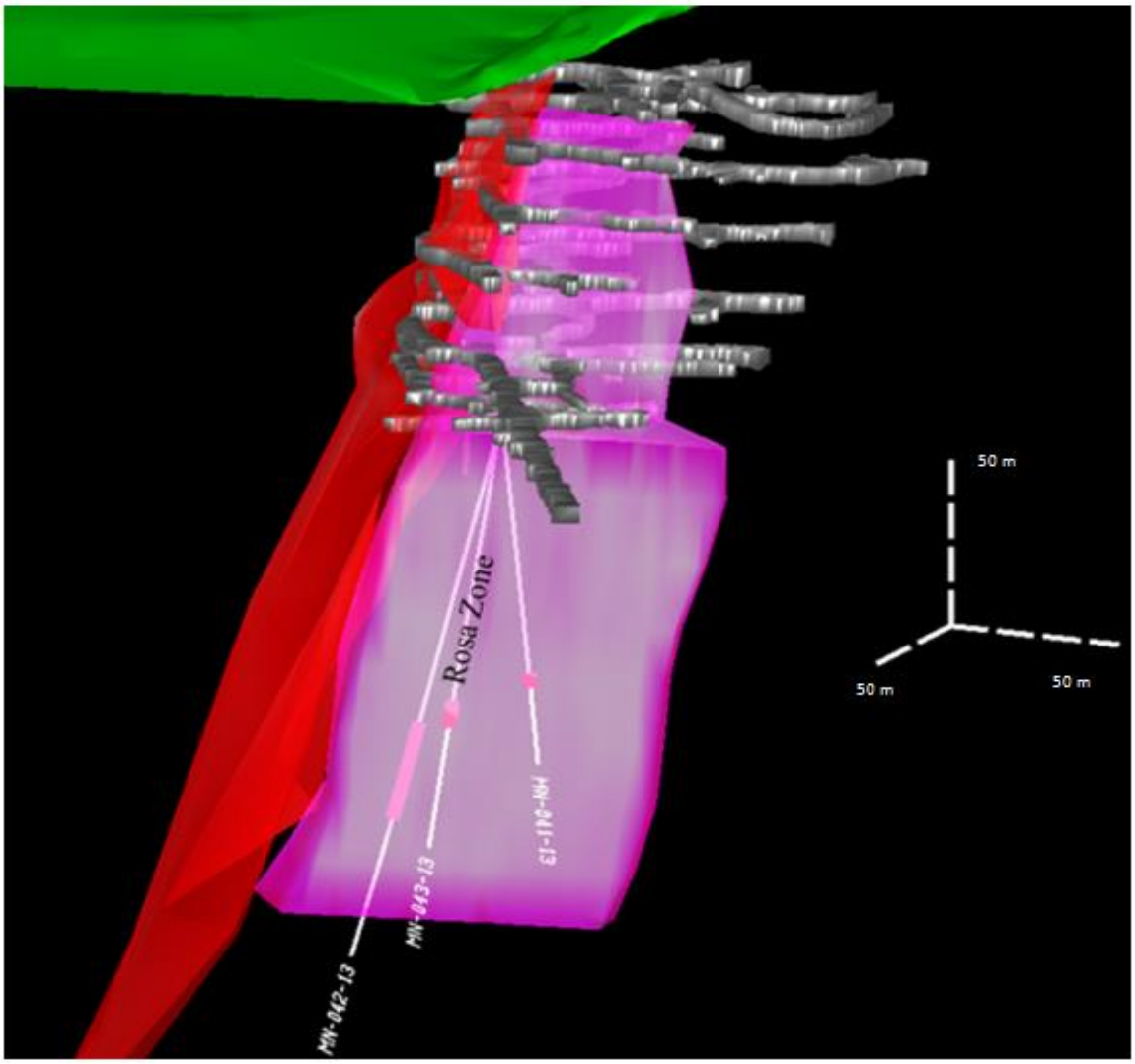
The Santander mine consists of five deposits (Magistral Central, Magistral South, Magistral North, Puajanca South, and Santander Pipe), with combined resources totalling 6.3 million tonnes in the indicated category grading 3.62% zinc, 1.30% lead, 0.07% copper, and 43 grams per tonne silver, plus 13.8 million tonnes in the inferred category grading 4.62% zinc, 0.40% lead, 0.11% copper, and 21 grams per tonne silver. **Hence, like the Rosa and Fatima Zones at Magistral North and Central respectively (refer to *Radar Screen*, May 13, 2016), recently discovered Oyon Mantos mineralization offers readily accessible higher grade resource potential that could provide greater operational flexibility (mill-feed grade control) at Santander**. A 3,000 metre underground drill program is currently underway to convert inferred resources to higher confidence categories and continue testing/defining Magistral's recently discovered higher grade zones, which remain open at depth.

Expedited High-Grade Development in Santander's Rosa Zone…

Trevali has expedited development of the recently discovered high-grade Rosa Zone at the Magistral North deposit, part of the Company's Santander mine. **Given positive drill results (refer to *Radar Screen*, October 9, 2013) and the Rosa Zone's proximity to established underground mine infrastructure, Trevali has proceeded to develop the discovery on four sublevels in lieu of formal resource definition (note that the Company also went on to develop Santander without a National Instrument 43-101 compliant mine plan)**. Additional capital costs associated with the development to date have been negligible given the Rosa Zone's proximity to Magistral North's main ramp.

Based on currently available information, the Rosa Zone appears to be a wedge-shaped body that extends up to 100 metres in length (along strike), measures 3 to +15 metres in width, has been traced at more than 200 metres vertically from surface, and remains open at depth (i.e., potentially a +170,000-tonne zone; Haywood estimate, not National Instrument 43-101 compliant, derived in part from Magistral North's National Instrument 43-101 resource density of 2.88 g/cm^3—an arguably conservative figure given the zone's higher [lead] grades). Furthermore, current results suggest that the zone's grade and thickness increase at depth (high-grade results include a 9.7-metre intersection grading 8.3% zinc, 7.9% lead, and 163 grams per tonne silver in drill hole MN-043-13).

Three-Dimensional Rosa Zone Model



Source: Trevali Mining

Deep drilling has also intersected a subparallel replacement or manto zone that returned high zinc and lead values over potentially mineable intervals, including a 6.0-metre intersection grading 5.4% zinc, 6.1% lead, and 59 grams per tonne silver in drill hole MN-042-13. All mineralization remains open for expansion. The Rosa Zone is oriented obliquely (~80 degrees) to primary mineralized structures at Magistral North and is thought to represent a later phase of replacement mineralization along a conjugate fault. As a result of this orientation, historically the Rosa Zone was underexplored.

…Success That Has Been Duplicated by the Discovery of the Fatima Zone

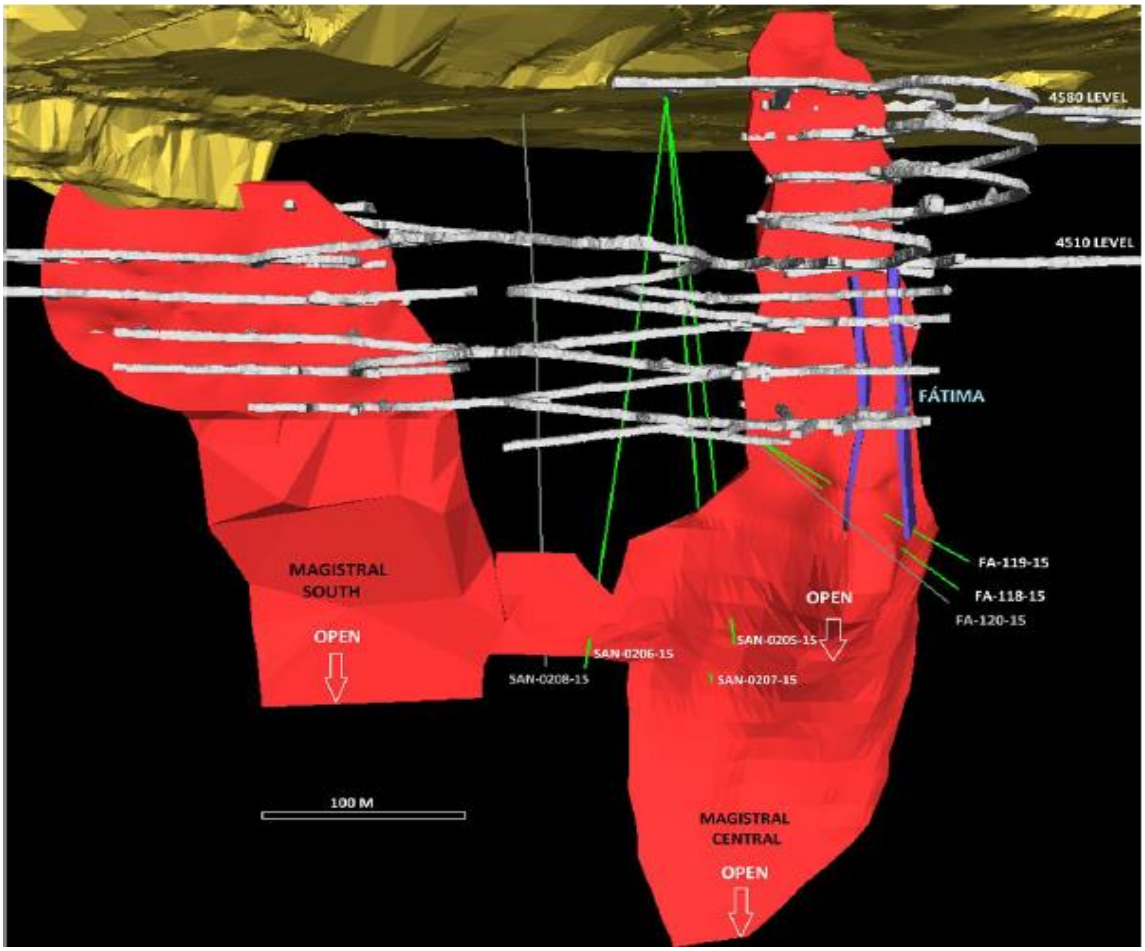
In June 2014, Trevali announced the discovery of additional high-grade polymetallic mineralization at Santander. The Fatima North and South Zones were intersected in the footwall of the Magistral Central deposit and appear to run obliquely (80 to 85 degrees) to it. This orientation is similar to the spatial relationship between the Rosa Zone and Magistral North deposit, which negated detection during previous exploration efforts. Last fall, the Company announced assay results from five holes completed as part of the Company's 6,000-metre 2015 underground drill program at Santander (refer to *Radar Screen*, September 28, 2015). **The drilling, which targeted downdip extensions of the Fatima Zone and the Magistral Central deposit, intersected significant high-grade lead-silver-zinc mineralization that remains open in multiple directions.** Drilling from both surface and underground is ongoing. **However, work to date has already demonstrated Santander's geological pedigree as one of the larger end-members of the carbonate replacement deposit (CRD) type (refer to *Radar Screen*, November 3, 2015)**. Both the Rosa and Fatima Zones are interpreted to represent a later stage overprinting phase of lead-silver-rich replacement mineralization along a set of roughly east-west-trending feeder structures/veins that extend towards the Company's nearby Puajanca prospect.

Fatima North has been better defined to date, spanning ~60 metres along strike (east-west), ranging from 5 to 15 metres wide, and extending at least 150 metres in the downdip direction; the seemingly smaller (2- to 3-metre wide) but higher grade Fatima South Zone appears to converge towards Fatima North at depth. **Highlights from two more recent drill holes targeting the Fatima Zone include 14.8 metres grading 9.07% zinc, 0.50% lead, and 69 grams per tonne silver in hole FA-119-15, and 42.15 metres grading 8.32% zinc, 1.96% lead, and 121 grams per tonne silver in hole FA-118-15, including 14.35 metres grading 8.15% zinc, 2.66% lead, and 152 grams per tonne silver where the hole intersected a region of broad massive sulphide mineralization within the Magistral Central Zone**. The results suggest potential continuity between the Fatima North and South Zones at depth, where the two zones may merge into a single mineralized area. However, additional drilling is required to test this hypothesis. **Fatima's proximity to existing underground infrastructure enabled Trevali to start mining the zone in Q2/15, demonstrating the Company's ability to convert exploration success into actual production quickly (within ~12 months of discovery)**.

For reference, the Magistral Central-South deposit hosts 3.69 million tonnes of National Instrument 43-101 compliant indicated resources grading 4.18% zinc, 0.52% lead, 0.08% copper, and 35 grams per tonne silver, plus 4.79 million tonnes of inferred resource grading 4.62% zinc, 0.22% lead, 0.08% copper, and 20 grams per tonne silver. The Santander mine consists of five deposits (Magistral Central, Magistral South, Magistral North, Puajanca South, and Santander Pipe), with combined resources totalling 6.3 million tonnes in the indicated category grading 3.62% zinc, 1.30% lead, 0.07% copper, and 43 grams per tonne silver, plus 13.8 million tonnes in the inferred category grading 4.62% zinc, 0.40% lead, 0.11% copper, and 21 grams per tonne silver. **Hence, like Rosa, recently discovered mineralization at Fatima offers higher grade resource potential that could provide greater operational flexibility (mill-feed grade control) at Santander**.

The Fatima discovery confirms Trevali's exploration model that zones like Rosa may be associated with Santander's other deposits (e.g., Magistral Central and possibly Magistral South). The Rosa and Fatima Zones' discovery, coupled with their interpretation to represent a later phase of high-grade feeder mineralization, is indicative of a large, long-lived CRD system at Santander.

3D Magistral South / Magistral Central Model (looking west; note Fatima Zones in purple)

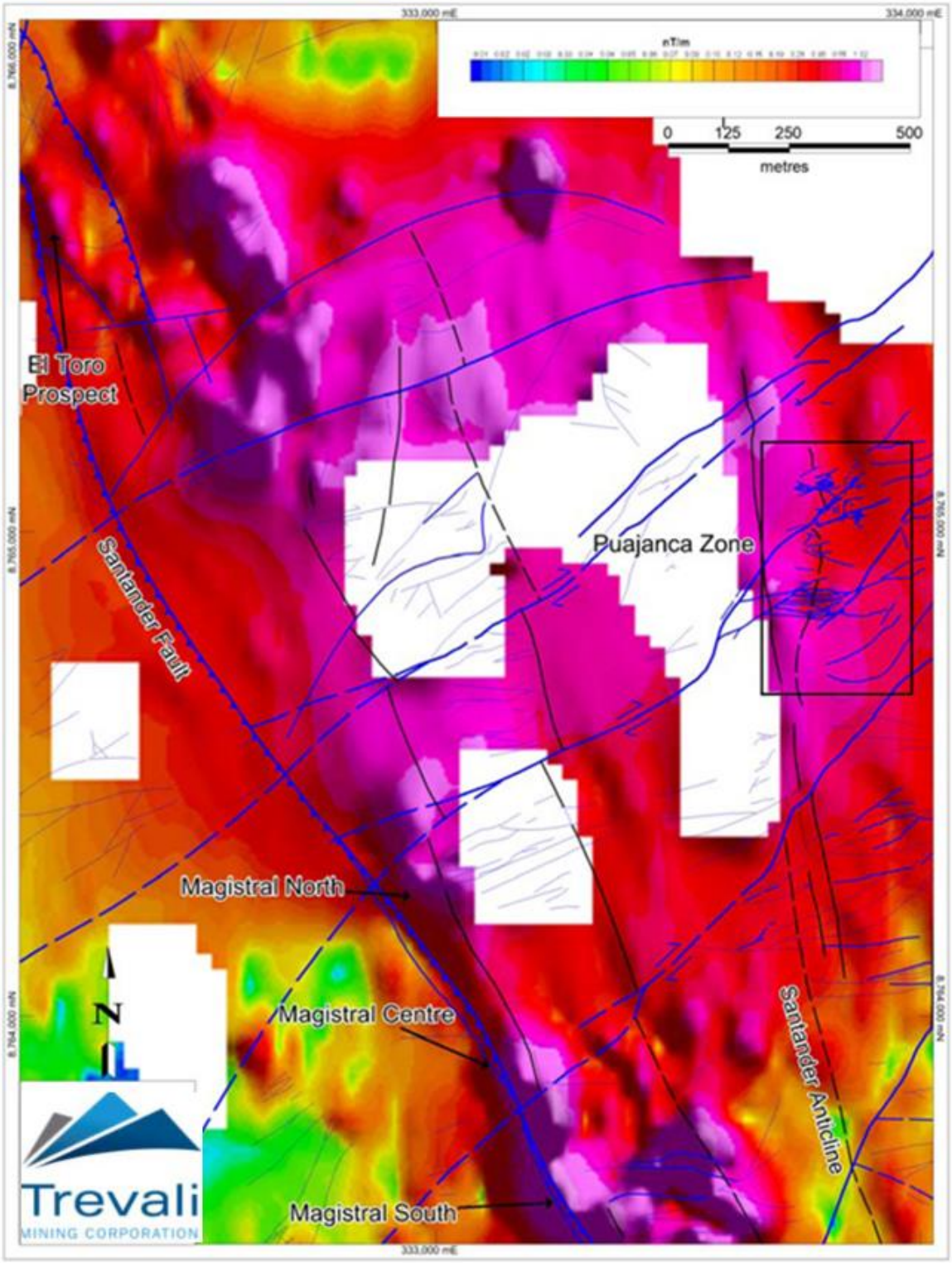


Source: Trevali Mining

Furthermore, the Rosa and Fatima Zones trend towards the Company's Puajanca South deposit and Puajanca North prospect. There, sampling has returned bonanza-grade silver mineralization of up to 1.2 metres grading 39.9 ounces per ton silver, 83% lead, and 18.4% zinc within an aggregate of 1.45 kilometres of northeast- to east-west-trending veining that averages 1 metre in width and returned 5.3 ounces per ton silver, 14.3% lead, and 2.0% zinc. Trevali believes metal ratios (lead values significantly higher than zinc), mineral system analysis, and alteration assemblages in the area indicate that structures in the Puajanca Zone are located in the uppermost portions of a fertile and well-preserved polymetallic mineralizing system. Mineralization to date is spatially associated with a significant geophysical anomaly interpreted to represent a large magmatic system, which drove the high-level CRD mineralization on the property (refer to *Radar Screen*, November 3, 2015).

Earlier this year Trevali also announced remaining assay results from a ~6,000-metre (predominantly) underground 2015 exploration drill program, which tested Santander's deeper levels below currently defined resources. **The drilling intersected zinc grades materially higher than those associated with current (nearby) mining operations and suggests the Magistral Central and South zones merge at depth (where mineralization grade and thickness appear to be increasing; now supported by Q1/16 drilling—see below)**. The area sits above and is spatially associated with a very large, strong geophysical anomaly (downhole electromagnetic anomaly that underpins a modelled conductive plate 300 by 300 metres). This anomaly extends at least 150 to 200 metres deeper than current drilling and remains open in multiple directions.

Santander Geophysics Map



Source: Trevali Mining

Commercial Production Declared at Caribou

Trevali is more than a one-trick pony. Last month the Company declared 'commercial' production (as of July 1, 2016) at its 100% owned Caribou zinc mine in the Bathurst mining camp of northern New Brunswick. The achievement follows a successful commissioning campaign underpinned by notable month-over-month performance improvement through the end of Q2/16. **Restart initiatives began in Q2/15 and the declaration of commercial production should coincide well with an anticipated zinc market rally in +H2/16. Trevali's formal guidance now includes 37 to 41 million pounds of payable zinc production from Caribou in H2/16, noting the mine produced 37 million pounds in concentrate during H1/16 (which was capitalized)—trumping Santander's production profile over the same period even though the Canadian mine is not fully ramped-up yet (noting the mine's steady-state profile is headlined by ~93 million pounds of annual zinc production)**. Our model includes 89 million pounds of payable zinc production at an average total cash cost of US$0.90 per pound net of credits from Caribou this year—increasing to 107 million pounds at US$0.55 per pound in 2017.

Lightning prompted an unscheduled mill shut-down at Caribou in late May, limiting throughput during the month to 53,038 tonnes (versus 60,032 tonnes in April). **Throughput improved significantly in June, posting a record figure of 73,176 tonnes, which translates into an average daily throughput figure of 2,867 tonnes per operating day (versus Caribou's 3,000 tonne per calendar day nameplate capacity)**. Caribou's average zinc recovery increased to 78% and 80% during May and June respectively—up notably from 71% in Q1/16 and 74% in April. **Metallurgy continued to improve following the declaration of commercial Production as of July 1, 2016—noting zinc recovery last month averaged ~82% (to a ~50% zinc concentrate). Ongoing initiatives are designed, in part, to bolster recoveries further towards PEA design levels (84% to a concentrate grading 50% zinc; targeted by late Q3/16)**. The recent improvements reflect the implementation of a progressively smaller primary grind size (at higher throughput rates), which has decreased from 41 microns in January to ~35 microns currently (noting a 'final' target of ~30 to 35 microns). Further optimization of the No. 1 ball mill charge (smaller media) and efforts to improve plant process water quality (calcium content management) are expected to enhance recoveries further (refer to *Radar Screen*, May 13, 2016). In addition, the installation of newly designed SAG mill lifters and shell liners is now underway and expected to continue through the summer during scheduled maintenance shut downs.

Given Caribou's history, we continue to view the operation's metallurgical performance in the context of optimized grind size as a (the) critical ramp-up consideration (see below). Process mineralogical reports to date indicate a high degree of liberated sphalerite (~89%). In addition, only ~3% of liberated galena appears to be reporting to tails—highlighting excellent performance; Caribou's IsaMills are performing well.

With Caribou's zinc circuit now essentially de-risked, Trevali has shifted its focus to debottlenecking underground operations, which has included the recent implementation of a production drill/blast QA/QC program. Fleet availability is also expected to improve going forward following the arrival of a new underground scoop in early June. Stope drawpoint extraction rates continue to exceed PEA target rates by up to four times, reflecting innovative design initiatives (refer to *Radar Screen*, May 13, 2016). **The Company is targeting an increase in underground production rates to ~2,700 tonnes per day in +Q3/16 (versus ~1,842 tonnes per day in May and ~2,423 tonnes per day during June/currently; noting the Caribou mill is underpinned by a 3,000 tonne per day nameplate capacity)**. Year-to-date block model reconciliation has been very high at 97% correlation, and dilution remains below design levels resulting in the delivery of increased metal units to the mill. A 10,000-metre resource conversation drill program is underway, which will ensue through year-end. Furthermore, mineralization remains open for expansion at depth and to the northwest.

Caribou Production Summary

	Q3/15A	Q4/15A	Q1/16A	April 2016	May 2016	June 2016	Q2/16A	Trevali H2/16E	Trevali 2016E	Haywood 2016E	Commercial (LOM)
Tonnes Mined, 000's	114	166	191	59	57	73	188	-	-	994	**6,152**
Annualized Mining Rate, Mtpa	0.5	0.7	0.8	0.7	0.7	0.9	0.8	-	-	1.0	**1.1**
Average Tonnes Mined, tonnes per calendar day	**1,243**	**1,802**	**2,099**	**1,952**	**1,842**	**2,423**	**2,070**	**-**	**-**	**2,723**	**3,000**
Mill Throughput, tonnes 000's	203	166	201	60	53	73	186	-	-	994	**6,152**
Annualized Mill Throughput, Mtpa	0.8	0.7	0.8	0.7	0.6	0.9	0.7	-	-	1.0	**1.1**
Average Mill Throughput, tonnes per calendar day	**2,211**	**1,800**	**2,205**	**2,001**	**1,711**	**2,439**	**2,047**	**-**	**-**	**2,723**	**3,000**
Average Zinc Head Grade, %	**4.8%**	**5.9%**	**5.9%**	**6.1%**	**5.7%**	**5.9%**	**5.9%**	**5.9% - 6.2%**	**-**	**6.0%**	**6.1%**
Average Lead Head Grade, %	**1.8%**	**2.2%**	**2.6%**	**3.0%**	**2.6%**	**2.4%**	**2.7%**	**2.5% - 2.7%**	**-**	**2.5%**	**1.5%**
Average Silver Head Grade, g/t	54.9	65.1	62.2	84.0	71.5	74.6	77.8	65 - 70	-	71	**68**
Average Zinc Metallurgical Recovery, %	**61%**	**71%**	**71%**	**74%**	**78%**	**80%**	**77%**	**-**	**-**	**80%**	**84%**
Average Lead Metallurgical Recovery, %	**41%**	**57%**	**58%**	**57%**	**58%**	**55%**	**57%**	**-**	**-**	**60%**	**65%**
Average Silver Metallurgical Recovery, %	21%	29%	38%	32%	31%	30%	31%	-	-	35%	**38%**
Zinc Concentrate Production, DMT	12,464	14,616	17,732	5,832	5,041	7,282	18,155	-	-	99,358	**631,200**
Annualized Zinc Concentrate Production, DMTpa 000's	49	58	71	71	59	89	73	-	-	99	**100**
Zinc Concentrate Zinc Grade, %	**49%**	**48%**	**48%**	**46%**	**47%**	**47%**	**47%**	**-**	**-**	**48%**	**50%**
Zinc Concentrate Silver Grade, g/t	134	151	124	165	159	146	156	-	-	-	**126**
Lead-Silver Concentrate Production, DMT	4,240	5,230	7,586	2,634	1,968	2,446	7,048	-	-	36,142	**220,900**
Annualized Lead-Silver Concentrate Production, DMTpa 000's	17	21	30	32	23	30	28	-	-	36	**30**
Lead-Silver Concentrate Lead Grade, %	**36%**	**40%**	**39%**	**40%**	**40%**	**43%**	**41%**	**-**	**-**	**42%**	**45%**
Lead-Silver Concentrate Silver Grade, g/t	552	607	631	607	619	669	631	-	-	681	**655**
Contained Zinc Production, Mlb	**13.4**	**15.3**	**18.7**	**6.0**	**5.2**	**7.6**	**18.8**	**-**	**-**	**105**	**696**
Contained Lead Production, Mlb	**3.3**	**4.6**	**6.6**	**2.3**	**1.8**	**2.1**	**6.2**	**-**	**-**	**33**	**131**
Contained Silver Production, koz	129	173	225	52	38	53	142	-	-	791	**5,036**
Payable Zinc Production, Mlb	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**37 - 41**	**-**	**89**	**-**
Payable Lead Production, Mlb	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**14 -15**	**-**	**32**	**-**
Payable Silver Production, koz	-	-	-	-	-	-	-	380 - 420	-	696	**-**

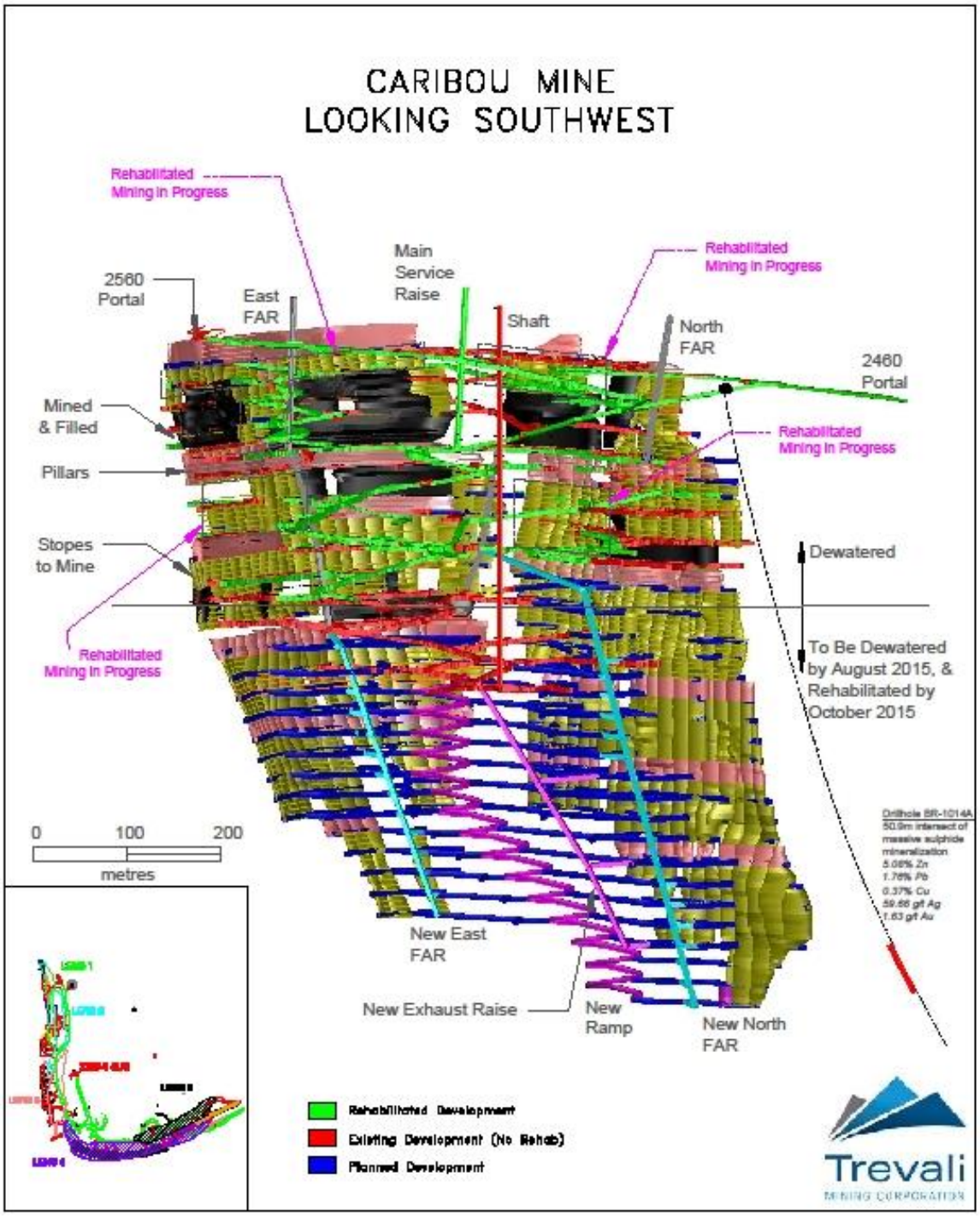
Commercial (LOM) data as per Caribou's May 2015 PEA Technical Report.

Source: Trevali Mining and Haywood Securities

Caribou produced more zinc and lead concentrates than Santander in Q1/16, and it is not fully ramped-up yet, noting the mine's steady-state profile is headlined by ~93 million pounds of annual zinc production (refer to *Radar Screen*, May 13, 2016). Once zinc and lead recoveries have been optimized (noting May 2014 PEA design target recovery rates of 84% and 65% respectively), Trevali plans to further modify Caribou's processing flowsheet through the introduction of a ~$5.4 million (including contingencies; ~$3.8 million spent to date) copper flotation circuit. The additional circuit stands to boost by-product credits, which should further buffer the project's profit margin (note that Caribou's copper production accounts for ~5% of the mine's life-of-mine revenue in our model, versus ~62% and ~21% for zinc and lead respectively). Even so, we remain cognizant that a froth flotation operation producing three separate concentrates (zinc, lead, and copper) will likely take additional time to optimize following production start-up.

Preliminary plant-based copper recovery tests conducted during September, utilizing reagents available on-site (i.e., not optimized), recovered 65% of the copper from the lead-cleaner tailings to produce a 25.5% copper concentrate. This percentage is well above expectations in the Preliminary Economic Assessment (PEA), which include a 45% recovery to produce a 20% copper concentrate. Mill commissioning (and cost optimization) efforts at Caribou stand to benefit from lessons learned during a very successful start-up campaign at Trevali's Santander mine in Peru during late 2013 (refer to *Radar Screen*, February 21, 2014). Mineralization at Caribou is more complex (fine grained), which has prompted the Company to adopt a phased commissioning plan. The plan has utilized lower grade feed to initially establish the operation's zinc and lead-silver circuits, followed by copper-gold circuit commissioning later this year (note that Caribou's copper production accounts for ~5% of the mine's life-of-mine revenue in our model, versus ~65% and ~21% for zinc and lead respectively).

Caribou Mine Underground Production and Development Plan



Source: Trevali Mining

Trevali processed Caribou's low-grade surface stockpile through Q1/16, which stood at ~60,000 tonnes last summer (refer to *Radar Screen*, September 10, 2015). Going forward, mine planning includes a sustained ~30,000 to 40,000 tonne run-of-mine surface stockpile (grading +6% zinc and ~2% lead) to support ongoing milling activities.

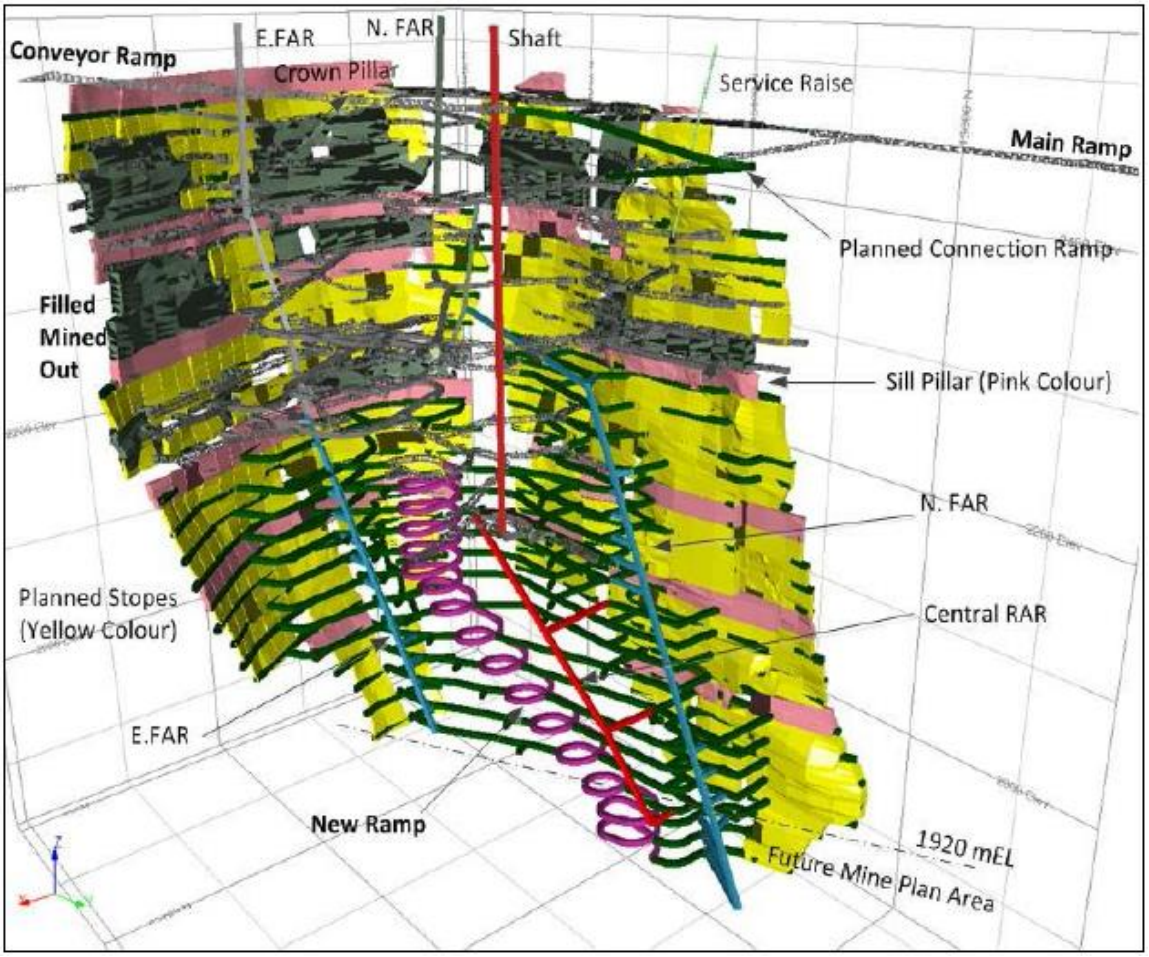
Paste Backfill Opportunity Considerations

Trevali is (passively) working to complete a paste backfill (i.e., cemented tailings) study for Caribou, which conceivably would add 1 to 2 years of production to the operation's 6.3-year PEA mine plan through the recovery (+75%) of mineralized sill pillars currently modelled as waste. Caribou's June 2014 PEA mine plan (SRK) includes 1.9 million tonnes of mineralization utilized as ground support in the form of sill pillars, of which 601,000 tonnes are extracted over the project's 6.3-year mine life (refer to *Radar Screen*, May 20, 2014). However, initial results from the first two phases of paste backfill test work, headed by Kovit Engineering (a Sudbury-based specialist in the field), indicate that the implementation of paste backfill technology in place of dry waste-rock backfill at Caribou would result in the additional recovery of 717,000 tonnes (54%) to 1.33 million tonnes (100%) of mineralized material currently locked in sill pillars and excluded from the project's PEA production plan (which is underpinned by 6.15 million tonnes of mill feed grading 6.11% zinc, 2.49% lead, 0.34% copper, 67.8 grams per tonne silver, and 0.86 grams per tonne gold). **Hence, the use of paste backfill at Caribou stands to meaningfully extend the mine's current 6.3-year life (by ~12% to 22%)**. In addition to longer mine life, the use of paste backfill also stands to (1) increase mill head grades (through lower waste-rock dilution, from the current 16% in Caribou's PEA mine plan to between 8% and 10%), (2) improve operational efficiencies: cycle times (decreased by 25% to 30%), re-handling of material, mining fleet requirements, and ventilation requirements), and (3) reduce surface tailings volumes (conservatively estimated by 40% to 50%), in turn increasing the permitted life of the mine's tailings impoundment on surface.

Preliminary estimates peg the initial capital cost for a new tailings-sand backfill plant (installed; including underground distribution systems) at $9 million to $12 million (including a 30% contingency; directly in line with our previous expectations, refer to *Radar Screen*, April 2, 2015). Operating costs for the paste plant are estimated at $8.50 per tonne, versus $13.50 per tonne for dry backfill in Caribou's current PEA mine plan. We note that the inclusion of a US$10 million paste backfill plant designed to facilitate the extraction of an additional 1.0 million tonnes of Caribou's resource currently locked in the mine plan's sill pillars would increase Caribou's after-tax project NAV10% by about US$15 million in our model. Furthermore (arguably more importantly), Caribou's life-of-mine average total zinc cash cost would drop to ~US$0.50 per pound net of credits in our model (from US$0.55 per pound currently). We note that this preliminary analysis does not take into consideration the potential for improved head grade.

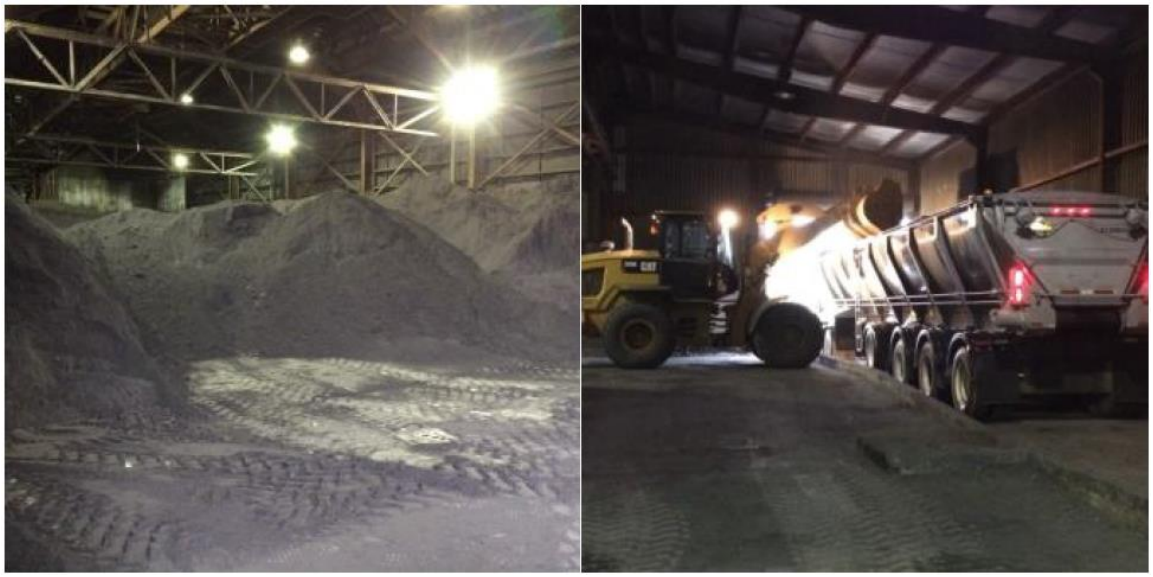
The paste backfill study builds on Caribou's upside potential recently illustrated by a proof-of-concept 200-metre step-out drill hole, which returned 50.90 metres of massive sulphides grading 5.08% zinc, 1.76% lead, 0.37% copper, 1.63 grams per tonne gold, and 59.66 grams per tonne silver (see below, refer to *Radar Screen*, April 16, 2015). **Trevali plans to update Caribou's June 2014 PEA mine plan with the results of the paste backfill study (SRK) in due course, noting (1) capital preservation is to be considered in the context of current market conditions, and (2) the upper levels (i.e., current focus) of Caribou's mine plan do not stand to significantly benefit from paste backfill**. Phase III test work will involve more detailed follow-up and optimization of sand-paste characteristics, detailed geological fieldwork on several sand deposits located on the Caribou property (four of which have been identified from the Geological Survey of New Brunswick databases and records), and larger scale test work using fresh tailings from the Caribou plant once commissioning commences and ongoing mine-plan optimization of potential additional tonnages becomes available. Contingent on the above results, the detailed stope optimization, cost-benefit analysis, and detailed engineering will follow. Note that results to date from 7- and 90-day cure tests have been positive; 180-day results are pending.

Caribou Mine Model (yellow: planned stopes; pink: sill pillars; grey: previously mined stopes)



Source: Trevali Mining

Caribou Zinc Concentrate Warehouse (left) and Zinc Concentrate Truck Load-Out (right)



Source: Trevali Mining

Caribou shipped its first zinc concentrate in July 2015, and concentrate production to date has averaged ~50% zinc, in line with design specifications. Initial concentrate shipments (i.e., sales) began in Q3/15 (capitalized against project expenditures until commercial production was declared as of July 1, 2016). Despite the low metal price, the mine's operating-cost profile to date has benefited from the weak C$/US$ foreign exchange rate.

Caribou Delivers 50.9-Metre Step-out Massive Sulphide Intersection

During early Q2/15, step-out drilling results from Caribou confirmed significant volcanogenic massive sulphide (VMS) mineralization ~200 metres outside the deposit's current National Instrument 43-101 compliant resource estimate (7.23 million tonnes measured and indicated grading 6.99% zinc, 2.93% lead, 0.43% copper, 0.9 grams per tonne gold, and 84.4 grams per tonne silver, and an additional 3.66 million tonnes inferred grading 6.95% zinc, 2.81% lead, 0.32% copper, 1.2 grams per tonne gold, and 78.3 grams per tonne silver), which remains open for expansion (refer to *Radar Screen*, April 16, 2015).

Drill hole BR-1014A, designed to test the northwest downplunge extension of the Caribou mineral horizon at intermediate depths, returned a 50.90-metre intersection of massive sulphides grading 5.08% zinc, 1.76% lead, 0.37% copper, 1.63 grams per tonne gold, and 59.66 grams per tonne silver starting at a vertical depth of ~550 metres. This intersection includes several higher grade intervals including the following:

- **5.00 metres** grading **6.69% zinc**, **2.86% lead**, 0.30% copper, 1.95 grams per tonne gold, and 88.16 grams per tonne silver
- **5.00 metres** grading **7.28% zinc**, **2.41% lead**, 0.38% copper, 2.09 grams per tonne gold, and 81.98 grams per tonne silver
- **3.30 metres** grading **6.15% zinc**, **2.40% lead**, 0.41% copper, 1.83 grams per tonne gold, and 71.72 grams per tonne silver.

Furthermore, drill hole BR-1014A also intersected **2.30 metres** grading 0.80% zinc, 0.08% lead, **1.40% copper**, 0.20 grams per tonne gold, and 24.65 grams per tonne silver directly beneath the 50.9-metre intersection of massive sulphides noted above, potentially indicative of a footwall-feeder style of mineralization. The grades in drill hole BR-1014A are comparable to the average grades of Caribou's resource envelope. **Hence, we look to the significant step-out intersection of massive sulphides in drill hole BR-1014A as an initial move towards extending Caribou's current ~6-year underground mine life**.

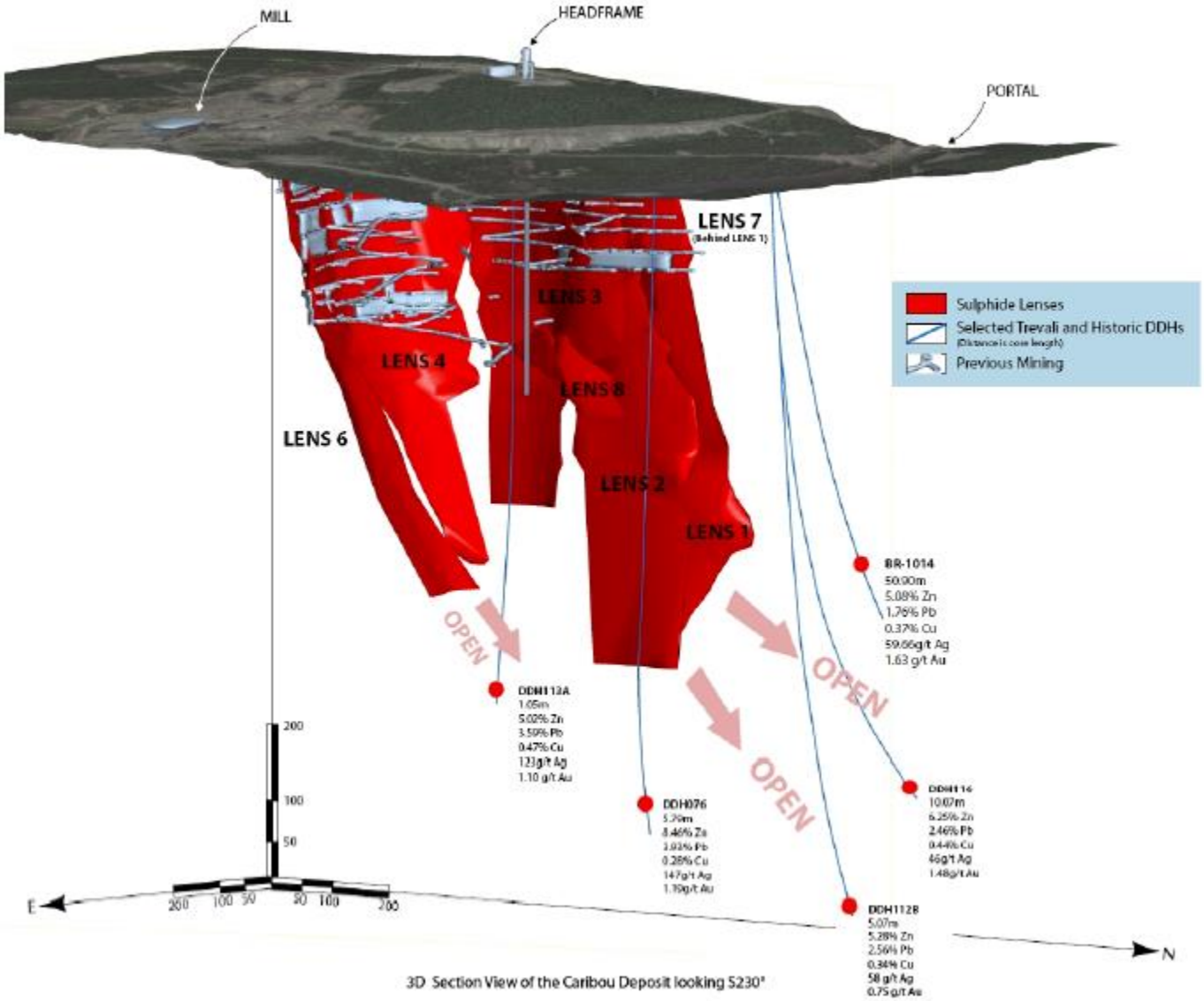
Caribou Exploration Drilling Results

Drill Hole		From - To (m)	Interval (m)	Zn(%)	Pb (%)	Cu (%)	Ag (g/t)	Au (g/t)
BR-1014A		**607.20 - 658.10**	**50.90**	**5.08**	**1.76**	**0.37**	**59.66**	**1.63**
	incl.	630.80 - 635.80	5.00	6.69	2.86	0.30	88.16	1.95
	and	641.80 - 646.80	5.00	7.28	2.41	0.38	81.98	2.09
	and	654.80 - 658.10	3.30	6.15	2.40	0.41	71.72	1.83
		659.80 - 662.10	**2.30**	**0.80**	**0.08**	**1.40**	**24.65**	**0.20**

Source: Trevali Mining and Haywood Securities

Trevali's ongoing mine optimization initiatives at Caribou include a 10,000 metre 2016 drill program designed to focus on resource definition/conversion during H1/16 and resource expansion in H2/16. Current drilling is centered on adding two additional mining zones to Caribou's production profile this quarter.

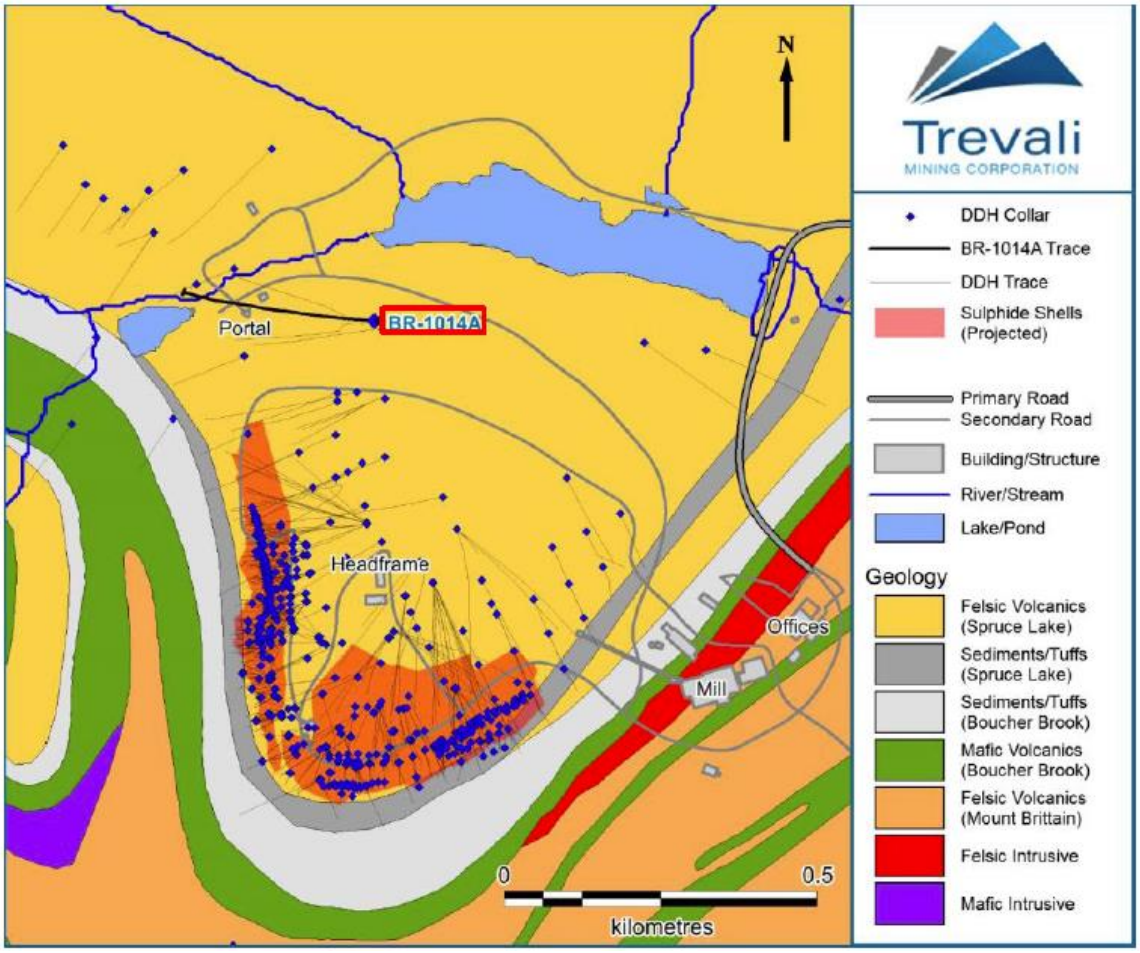
Caribou Exploration Potential



3D Section View of the Caribou Deposit looking S230°

Source: Trevali Mining

Caribou Geology Map



Source: Trevali Mining

Caribou PEA Recap

During Q2/14 Trevali released the results of a Preliminary Economic Assessment (PEA) for Caribou (refer to *Radar Screen*, May 13, 2014). The study, headed by SRK, represents the Company's first National Instrument 43-101 compliant mine plan for the project. **Established infrastructure associated with the world-class Bathurst mining camp (and past-producing Caribou mine) has positioned the project for an expedited restart**. Construction/commissioning initiatives, currently on schedule, began in late Q2/14. **Following additions to Trevali's Canadian 'property, plant, and equipment' assets of ~$80 million in 2015, and an additional ~$10 million of capital spending this year (including $1.5 million in remaining expenditures pertaining to Caribou's copper circuit), it appears that Caribou's initial capital cost will total ~$50 million (net of consideration associated with pre-commercial concentrate sales; note, the mine made its first zinc concentrate shipment in July). This capital cost is above Caribou's original initial estimate of $36 million (which did not include consideration for expert consulting pertaining, in part, to IsaMill implementation)**. Funds from a US$30 million mezzanine debt facility announced in May 2013 (repaid in June 2014) enabled Trevali to order Caribou's semi-autogenous grinding (SAG) mill, the project's critical-path item that is now on-site and operational.

Caribou's key PEA metrics include the following:

- A 6.2 million-tonne mineable resource grading 6.11% zinc, 2.49% lead, 0.34% copper, 67.9 grams per tonne silver, and 0.86 grams per tonne gold, which includes ~1 million tonnes of inferred resource. These grades incorporate ~20% modelled mine dilution. **However, SRK believes dilution could be reduced to < 15%, which in turn would boost head grades by ~4.3%. Furthermore, the installation of a paste backfill system (conceptually envisioned in ~2017 at a capital cost of ~$9 million to $12 million) could increase sill pillar recovery to +54% (from 27% in the PEA), adding +717,000 tonnes of ore feed to Caribou's mine plan**. We note a paste backfill system (versus waste-rock backfill as envisioned in the PEA) would also likely reduce backfill operating costs to ~$8.50 per tonne (from $13.50 per tonne) given that the paste option could be employed through a slurry pipeline.

- A 6.3-year ramp-accessed underground/standard froth flotation operation producing three separate concentrates; namely, 84% zinc recovery to a concentrate grading 50% zinc, 65% lead recovery to a concentrate grading 45% lead, and 45% copper recovery to a concentrate grading 20% copper. Gold and silver by-product credits (37.5% and 10.6% recovery respectively) report to the copper and lead concentrates. **Trevali anticipates metallurgical (reagent) optimization work will bear fruit going forward, considering Caribou's historical average lead recovery of 68% to 72%. The Company also believes it can improve average copper and silver recovery to ~50% and ~45% respectively, noting that no precious metal metallurgical optimization has been done to date**.

- Life of mine (LOM) average annual payable production of 93 million pounds of zinc, 33 million pounds of lead, 3 million pounds of copper, 730,000 ounces of silver, and 1,500 ounces of gold. This production profile is lower than we had previously modelled, which included > 135 million pounds of annual payable zinc production. The difference reflects primarily lower mill throughput (and average modelled head grade) stemming from a Caribou-only operation (our previous model included supplemental mill feed from the Halfmile mine; see below).

- **A pre-production initial capital cost of $36 million (now ~$50 million)**. We note the PEA envisions contract mining during the initial years of production, which subsequently switches to owner-operated mining. Hence, the project's underground mobile fleet is listed as a $22 million sustaining-capital item (which will likely be leased over a significant portion of Caribou's mine life). The PEA initial capital-cost estimate adds to ~$90 million in historical tax pools that Trevali can use at the project.

- A LOM average total zinc cash cost of US$0.46 per pound net of credits (and excluding royalties, underpinned by an average on-site operating cost of $75 per tonne milled, versus $110 per tonne milled in our previous model). **The project's PEA LOM average total zinc cash cost net of credits and including royalties is US$0.50 per pound, arguably positioning Caribou within the upper half of the zinc cash-cost curve**. We note the PEA cost estimates are underpinned by quotes from equipment suppliers (e.g., CAT) and multiple potential mine contractors.

- An $89 million after-tax project NAV8% (57% internal rate of return [IRR]; 2.1-year payback) at US$1.00 per pound of zinc and lead, US$3.00 per pound of copper, US$21.00 per ounce of silver, US$1,200 per ounce of gold, and a C$ exchange rate of US$0.95.

The PEA mine plan is based on the reactivation of the 3,000-tonne-per-day Caribou mill complex. We had previously modelled a slightly larger 3,500-tonne-per-day operation that processed ore from the Caribou mine as well as supplemental feed from Trevali's 100% owned Halfmile underground mine, also located in the Bathurst camp. Our previously modelled higher throughput in part reflected Halfmile's coarser grinding requirements (refer to *Radar Screen*, February 11, 2013).

However, Trevali (now) believes that it can quickly establish 10 to 11 working faces at Caribou to fill the mill's capacity (now essentially done), thereby negating +$15 per tonne in haulage costs associated with trucking Halfmile ore to the processing facility. The Company's development plans have included changing the existing ramp from 3.5 by 3.5 metres to +4.5 by 4.5 metres, which will facilitate the use of 45-tonne underground haul trucks (versus 30-tonne trucks used historically). We note that rehabilitation to date has encountered larger than expected drifts, which have decreased slashing requirements. **Nevertheless, we remain cognizant of the near-term flexibility Halfmile could provide. The established underground mine could likely be restarted within ~8 weeks, providing supplemental (batch) feed to the Caribou mill while the Caribou mine ramps-up to full-scale capacity (see below)**.

Caribou Metallurgy—a 'Show Me' Story

Until last May, the Caribou mill sat in a production-ready state (under the ownership of Blue Note Mining Inc.) following the suspension of commercial activities in October 2008 during the global financial crisis. Blue Note acquired Caribou from Breakwater in August 2006, and proceeded to upgrade the mill's technology through the installation of IsaMills that facilitate ultrafine grinding to improve metallurgical recovery (which Breakwater struggled with). Blue Note restarted production in May 2007. However, despite the mill upgrades, metallurgical performance remained weak through the remainder of the year (zinc and lead recovery averaged 55% and 54% respectively in 2007, versus targets of 80% and 65% respectively). The mine subsequently declared commercial production on January 1, 2008, and metallurgical performance improved through October 17, 2008, when the operation was placed on care and maintenance in the wake of the global financial crisis. For the year 2008, average zinc and lead recoveries increased to 78% and 68% respectively (including 84% and 72% respectively in Q3/08). **However, Breakwater's metallurgical issues, compounded by Blue Note's lengthy ramp-up and subsequently short-lived commercial production profile are still fresh in the minds of many investors. Hence, we would not be surprised to see the market discount Caribou's production profile until Trevali demonstrates steady-state design performance (on the back of an optimized grind—arguably Caribou's previous Achilles Heel)**. Trevali plans to further modify Caribou's processing flowsheet through the introduction of a ~$5.4 million copper flotation circuit that will boost by-product credits, which should further buffer the project's profit margin. Even so, we remain cognizant that a froth flotation operation producing three separate concentrates (zinc, lead, and copper) will likely take additional time to optimize following production start-up.

Historical Caribou Mill Performance (2007/2008)

Period	Mill throughput (tonnes)	Average daily mill throughput (tonnes)	Average Zn recovery (%)	Average Pb recovery (%)	Average Ag recovery (%)	Average Zn conc. grade (%)	Average Pb conc. grade (%)	Average Ag grade in Pb conc. (g/t)	Contained Zn production (lbs)	Contained Pb production (lbs)	Contained Ag production (oz)
Q3-2008	266,933	2,960	83.6	72.2	42.6	50.4	42.5	514	29,628,585	15,093,225	266,500
Q2-2008	247,951	2,750	77	67.7	37.7	50.3	43.8	534	25,796,295	13,959,855	248,700
Q1-2008	220,835	2,450	72.3	61.4	33.8	48.4	43.6	591	20,292,615	11,146,275	220,500
Q4-2007	178,124	1,936	60.6	58	37	49	41	633	14,713,965	9,183,825	206,500
Q3-2007	n/a	1,300	39.9	44.9	n/a	47.8	38	701	5,369,175	3,788,190	n/a

Source: Trevali Mining

During a site visit to Caribou (refer to *Radar Screen*, September 26, 2014), it became apparent from discussions with key technical staff with working knowledge of Caribou's past operations that Breakwater and Blue Note were consumed by numerous design issues, which distracted from any optimization initiatives. We note (1) mine production was limited by shaft capacity, which is no longer an issue given Trevali's plans to utilize a production decline, (2) a lack of communication between the crusher station and primary grinding circuit caused storage problems within the coarse-ore stockpile (in particular freezing of the pile during winter months), (3) a second hand SAG mill being used was beyond its 'best before date' (1950s era piece of equipment; Trevali has replaced the unit with a new SAG mill), and (4) blending ore feed from Caribou and Restigouche complicated metallurgy (versus Trevali's plans to process ore from only the Caribou deposit).

Caribou utilizes IsaMills to grind ore ultrafine (to < 12 microns) before final flotation, previously deemed necessary as part of a +US$100 million overhaul completed in 2007 to improve metallurgical recoveries given the Caribou deposit's very fine-grained mineralization. However, Halfmile (and Stratmat) mineralization is not as fine, and Trevali believes it could increase the necessary grind size, in turn boosting mill throughput associated with potential supplementary ore feed from Halfmile. (The Halfmile-Stratmat October 2010 PEA processing flowsheet includes a primary grind target of 70% to 80% passing 400-mesh [37 microns].) Caribou's back-end flotation circuit was originally designed with excess capacity and should therefore be sufficient to maintain adequate metallurgical recovery at higher throughput rates.

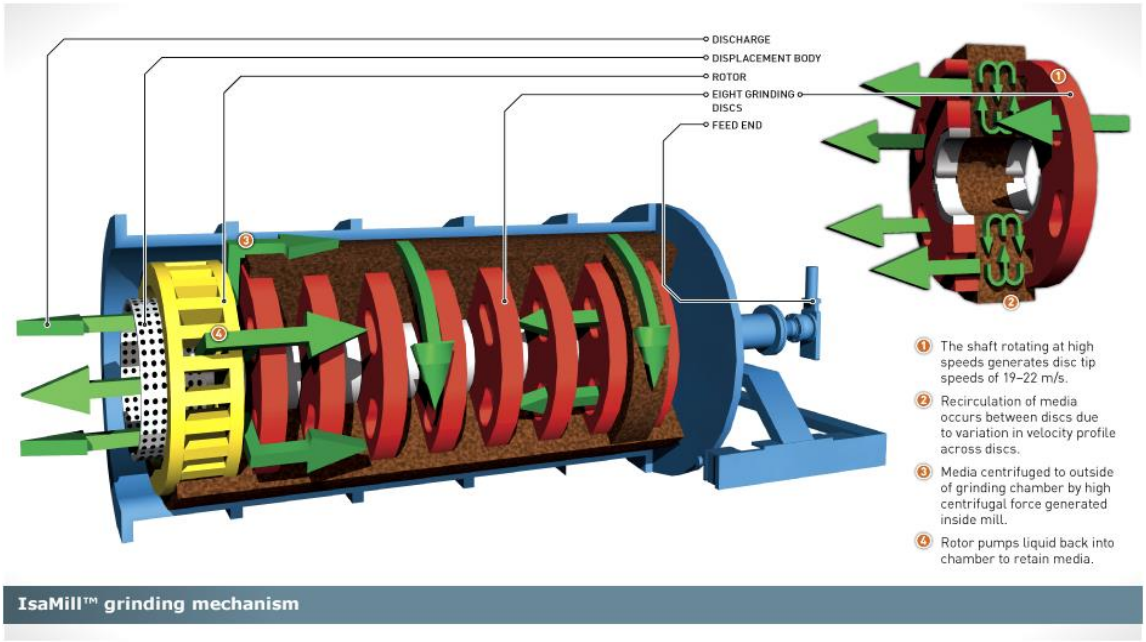
We realize that production involving ore feed from Caribou and Halfmile would likely require batch processing given the deposits' contrasting grinding requirements. Arguably, doing so would add a layer of complexity to a restart story that is already under market scrutiny for its historical metallurgical challenges. Furthermore, exploration initiatives at Stratmat continue to bear fruit (refer to *Radar Screen*, May 20, 2015). This success has, in part, prompted Trevali to focus its base-case (conceptual) production planning from Halfmile and Stratmat through a second (new) mill, likely erected at/near Xstrata's brownfields Heath Steele site (which includes paved highway, water, and power access, as well as +3 years of additional tailings storage capacity in an existing impoundment; refer to *Radar Screen*, April 1, 2016). However, in light of resource definition, engineering, and permitting considerations, this second mill would likely not be operational until (at least) ~2020. Our pre-Caribou PEA model included production from Stratmat ore through the Caribou mill beginning in 2029 (following the exhaustion of Caribou mill feed at 1,500 tonnes per day). However, we subsequently modelled the construction of a new 4,000-tonne-per-day internally funded $150 million mill complex at Heath Steele to process production from Halfmile and Stratmat beginning in 2020 (through 2036; see below). We look to a new standalone Halfmile-Stratmat mine plan later this year to refine our model. Associated work on the PEA-level mine plan began last quarter and is expected to cost ~$350,000 (primarily focused on modelling updates; no additional drilling required).

Metallurgical considerations aside, Caribou's PEA mine plan includes 852,000 tonnes of ore throughput in 2015, equivalent to ~78% of the project's nameplate capacity (1.1 million tonnes per annum). Not surprisingly, this figure has proven to be optimistic, noting the project processed 369,006 tonnes of ore last year. Working in the Company's favour is access to a (very) skilled labour pool (including high-level technical management) following closure of Xstrata's nearby Brunswick No. 12 mine in 2013.

Three M1000 IsaMills Installed at Trevali's Caribou Mill

Source: Trevali Mining

IsaMill Schematic Cutaway

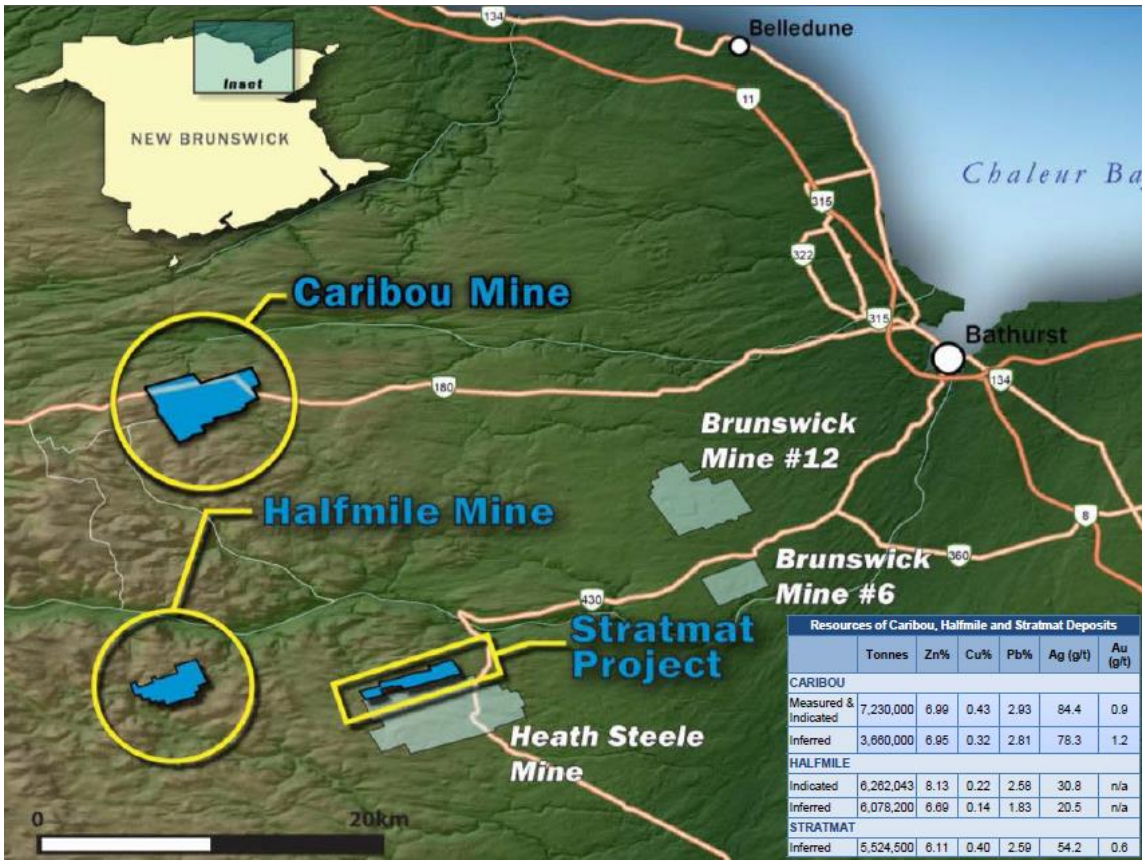


Source: www.isamill.com

Halfmile-Stratmat – Bathurst's Second Chapter

Looking further ahead, Trevali's base-case (conceptual) planning now includes production from Halfmile and Stratmat through a second (new) mill, likely erected at/near Xstrata's brownfields Heath Steele site (which includes paved highway, water, and power access, as well as +3 years of additional tailings storage capacity in an existing impoundment). However, in light of resource definition, engineering, and permitting considerations, this second mill would likely not be operational until (at least) ~2020. Our pre-Caribou PEA model included production from Stratmat ore through the Caribou mill beginning in 2029 (following the exhaustion of Caribou mill feed at 1,500 tonnes per day). **However, we have now modelled the construction of a new 4,000-tonne-per-day internally funded $150 million mill complex at Heath Steele to process production from Halfmile and Stratmat beginning in 2020 (through 2036; see below**). **We look to the completion of a new standalone Halfmile-Stratmat mine plan later this year to refine our model**. The PEA will utilize hard cost data from Caribou. SRK was retained to provide an updated National Instrument 43-101 compliant resource estimate for Stratmat in Q2/15, which will feed into subsequent mine planning work. Stratmat mineralization is coarser grained than Halfmile and Caribou, which bodes well for favourable metallurgy. Associated metallurgical test work is ongoing.

Bathurst Project Location Map



Source: Trevali Mining

Comparable advanced-stage volcanogenic massive sulphide (VMS) projects are underpinned by $100 million to $300 million initial capital-cost estimates. For example, Glencore Xstrata's 100% owned Bracemac-McLeod project in Quebec includes a US$116 million initial capital-cost estimate (September 2010 feasibility study: ramp-accessed underground mine, 2,500-tonne-per-day mill, located within an established mining camp). Similarly, Capstone's (CS-T) 100% owned Kutcho project in northern British Columbia includes a $187 million initial capital-cost estimate (February 2011 PEA: ramp-accessed underground mine, 2,500-tonne-per-day mill, relatively remote location). Foran (FOM-V) also recently tabled a PEA mine plan for its McIlvenna Bay project in Saskatchewan, which includes a $249 million initial capital-cost estimate for the 5,000-tonne-per-day underground operation utilizing standard froth flotation processing. Our valuation is based on Haywood's formal commodity price forecast, which includes long-term (+2019) zinc, lead, and copper prices of US$1.15 per pound, US$1.10 per pound, and US$3.00 per pound respectively (refer to *Radar Screen*, July 11, 2016). **At these prices, our model generates a pre-financed after-tax Halfmile-Stratmat project NAV10% of US$110 million (after-tax internal rate of return [IRR] of 11%; 2018 forward basis)**.

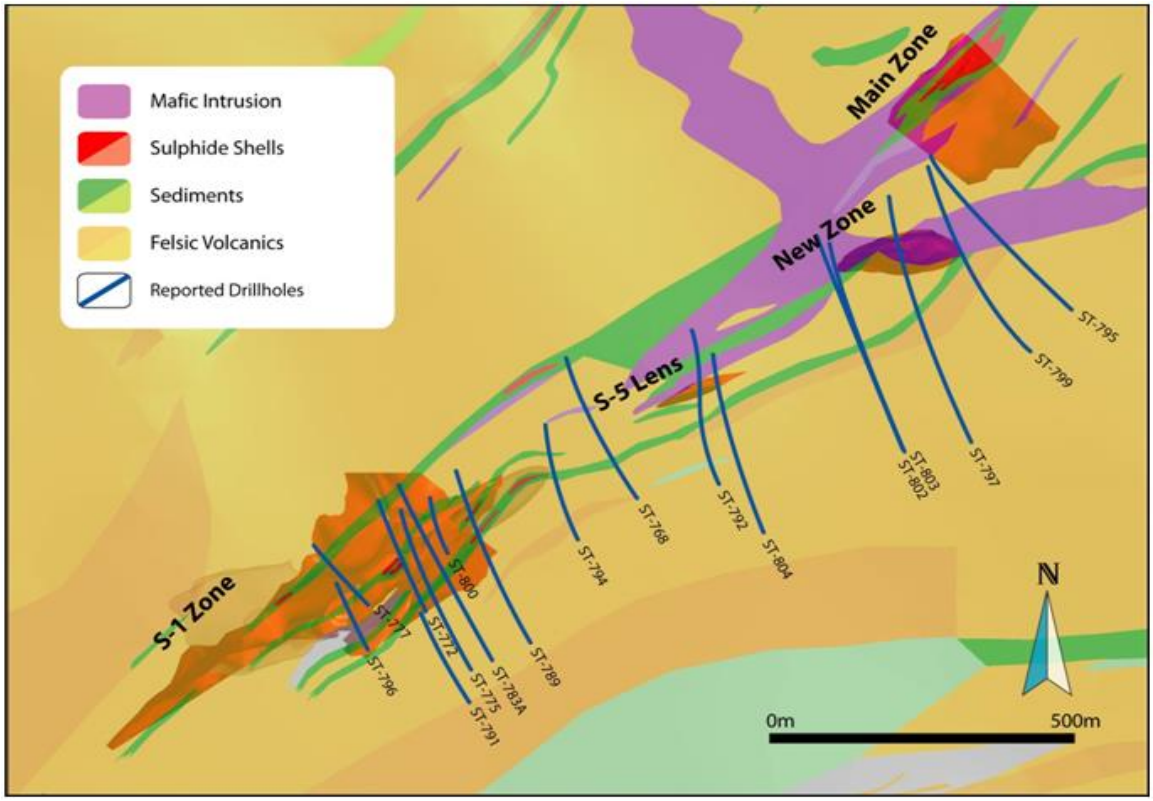
Stratmat Drill Program Delivers

Trevali (through SRK) completed an updated resource estimate for Stratmat in Q2/15, which will feed into an eventual new standalone Halfmile-Stratmat mine plan (refer to *Radar Screen*, May 20, 2015). The updated National Instrument 43-101 compliant resource estimate includes an indicated resource of 4.70 million tonnes grading 5.31% zinc, 2.07% lead, 0.41% copper, 0.59 grams per tonne gold, and 48.52 grams per tonne silver, and an additional inferred resource of 2.40 million tonnes grading 4.76% zinc, 2.07% lead, 0.70% copper, 0.42 grams per tonne gold, and 38.82 grams per tonne silver (at a 5.0% zinc-equivalent cutoff grade). Combined, the total resource inventory contains ~1.62 billion tonnes of in situ zinc equivalent (based on Haywood's long-term metal price forecast)—a 13% increase from Stratmat's previous 2009 inferred (only) 5.5 million-tonne resource estimate, which contained ~1.44 billion pounds.

The Stratmat VMS deposit consists of at least five discrete mineralized zones that span a distance of +2 kilometres. **The multi-lens, multi-zone deposit remains open for expansion at depth, where exploration potential remains high**. Stratmat's updated resource estimate includes high-grade sulphide mineralization in the recently discovered S-1 (and S-0) Zone, S-5 Lens, and New Zone, which represent three new mineralized bodies identified by Trevali last year through exploration infill and step-out drilling (30,000 metres) outside the project's 2009 National Instrument 43-101 compliant inferred resource envelope noted above (refer to *Radar Screen*, March 3, 2015). The targets were identified through compilation of historical data, 3D geological modelling, and downhole electromagnetics (DHEM).

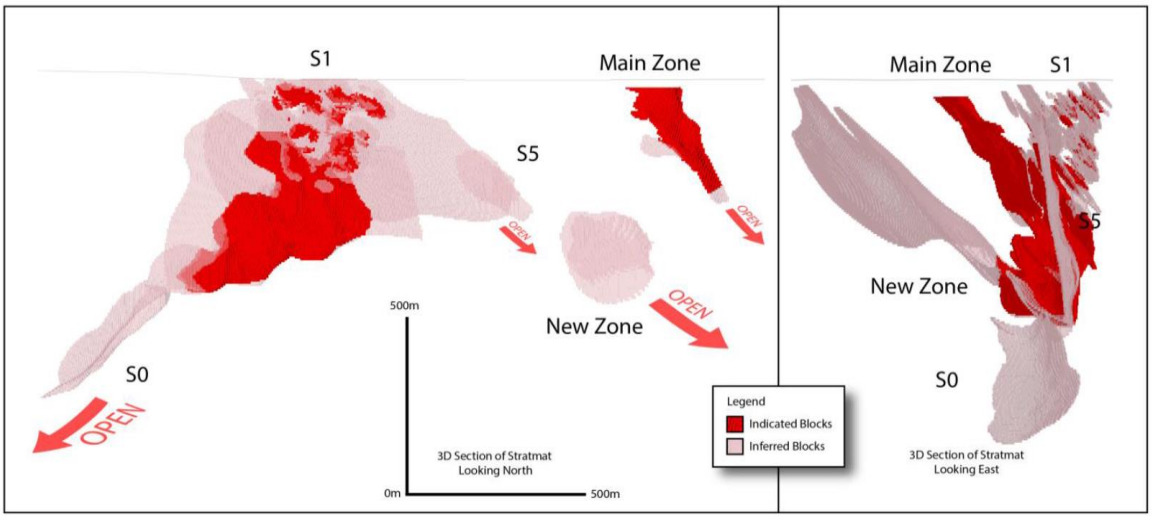
Recent drill results from the S-1 Zone include multiple sulphide horizons over an interval of 75 metres, including 17.09 metres grading 5.94% zinc, 3.02% lead, 0.54% copper, 83.29 grams per tonne silver, and 0.58 grams per tonne gold in hole ST-800, and 12.70 metres grading 7.17% zinc, 2.77% lead, 0.26% copper, 77.70 grams per tonne silver, and 0.76 grams per tonne gold in hole ST-796, while recent follow-up drilling in the New Zone returned an 18.20-metre intersection grading 3.00% copper in hole ST-797 (refer to *Radar Screen*, March 3, 2015). In the S-5 Lens, drill hole ST-804 followed-up on previous drill hole ST-785 that intercepted multiple lenses of massive sulphides and high-grade zinc, lead, silver, copper, and gold mineralization. Hole ST-804 intersected 20.15 metres of massive sulphide within the S-5 Lens grading 2.84% copper and 1.02 grams per tonne gold, as well as 12.37 metres of 8.52% zinc and 3.63% lead within the hanging wall to the mineralized body. These hanging wall intercepts may suggest stacked VMS mineralization, and are interpreted to be continuous, with mineralization intersected by previously reported drill holes ST-785 and ST-793.

Stratmat Geology and Drill-Hole Location Map



Source: Trevali Mining

Stratmat 3D Deposit Model



Source: Trevali Mining

Based on drilling to date, the S-5 Lens has been traced over ~80 metres in strike length, 160 metres in depth extent, and 16 metres in thickness, and remains open for expansion downdip and to the east. **Funds from a $5.1 million non-brokered flow-through equity financing completed in Q1/15 (4,436,957 common shares priced at $1.15 per share, 4-month hold, 1.6% dilution) are being used to continue advancing the Stratmat and Halfmile projects towards a production decision (refer to *Radar Screen*, March 3, 2015)**.

Capital Structure

Trevali's Capital Structure

	Number	Strike (C$)	Value (US$)	Expiry Date
Total Shares O/S	**399,127,807**			
Warrants	500,000	$1.04	$401,544	April 9, 2017
	7,502,880	$0.37	$2,132,093	December 30, 2020
Total Warrants	**8,002,880**	**$0.06**	**$401,544**	
Options	855,000	$0.77	$508,378	May 1, 2018
	927,136	$0.62	$443,880	May 31, 2018
	66,650	$0.72	$37,056	August 30, 2018
	1,187,700	$1.01	$926,314	June 24, 2019
	258,166	$1.29	$257,169	August 15, 2019
	3,816,000	$0.45	$1,326,023	June 1, 2021
Total Options	**10,067,255**	**$0.75**	**$5,850,405**	
Total Warrants + Options	**18,070,135**	**$0.45**	**$6,251,949**	
Deferred Share Units	1,374,260			
Restricted Shares	3,941,895			
Bonus Shares	2,116,433			
Total Shares F/D	**424,630,530**			

Major Shareholders	Number (O/S) (millions)	% (O/S)	Number (F/D) (millions)	% (F/D)
IA Michael Investments	27.9	7.0%	27.9	6.6%
JP Morgan Chase	15.0	3.8%	15.0	3.5%
Blackrock	9.6	2.4%	9.6	2.3%
Oppenheimer	9.5	2.4%	9.5	2.2%
New City	9.4	2.4%	9.4	2.2%
Management and Directors	3.6	0.9%	21.1	5.0%
Total Major Shareholders	**75.0**	**18.8%**	**92.5**	**21.8%**

Recent Equity Financings

June 10, 2016 - C$675k equity financing (debt settlement; 1.3M shares @ C$0.514 per share)
June 6, 2016 - C$2.5M equity financing (future services; 4.2M shares @ C$0.59 per share)
April 26, 2016 - C$3.0M private placement flow through financing (8.2M shares @ C$0.365 per share)
April 7, 2016 - C$1.4M equity financing (debt settlement; 4.1M shares @ C$0.34 per share)
March 16, 2016 - C$15.0M market offering (406.7M shares @ C$0.32 per share)
February 29, 2016 - C$1.5M FT financing (4.1M shares @ C$0.34 per share)
January 15, 2016 - C$56k equity financing (debt settlement; 156,600 shares @ C$0.36 per share)
Q4/15 - C$0.5M private placement flow through financing (0.9M shares @ C$0.55 per share)
Q4/15 - C$3.3M private placement flow through financing (5.1M shares @ C$0.65 per share)
June 11, 2015 - C$30.6M bought deal public offering (30.0M shares @ C$1.02 per share)
March 2, 2015 - C$5.1M non-brokered FT financing (4.4M FT shares @ C$1.15 per share)
November 28, 2013 - C$46.0M bought deal private placement (55.4M shares @ C$0.83 per share)
June 12, 2013 - C$10.9M bought deal private placement (18.2M shares @ C$0.60 per share)
March 28, 2013 - C$5.0M bought deal FT private placement (5.0M FT shares @ C$1.00 per share)
July 25, 2012 - C$15.5M bought deal FT private placement (15.0M FT shares @ C$1.03 per share)
March 2, 2012 - US$18M non-brokered private placement to Glencore (12.6M shares @ C$1.42 per share)
November 15, 2011 - C$2.3M brokered private placement (2.6M units @ C$0.90; 1 share + 1/2 warrant @ C$1.10 per share)
November 10, 2011 - C$30.0M underwritten offering (10.0M FT share @ $1.00 + 22.3M units @ $0.90; 1 share + 1/2 warrant @ C$1.10 per share)
August 26, 2011 - US$10.4M private placement (7.9M share @ US$1.32 per share)

Share Price:	*$0.91*
C$/US$ FX Rate:	*1.30*

Source: Trevali Mining, Bloomberg, and Capital IQ

Valuation

Our valuation is based on Haywood's formal commodity price forecast, which includes a long-term (+2019) zinc price of US$1.15 per pound (refer to *Radar Screen*, July 11, 2016). Cognizant that Trevali's 2016 profile is underpinned by ramp-up initiatives at Caribou, our target price of $1.25 per share is based on a 5.0x multiple to 2017E CFPS of US$0.20. That said, our Company model also generates a fully financed after-tax corporate NAV10% of $1.05 per share, which includes the following:

- $0.54 per share attributable to the Santander project in Peru (10% discount rate; 100% project interest)
- $0.46 per share attributable to the Caribou project in New Brunswick (10% discount rate; 100% project interest)
- $0.76 per share attributable to the Halfmile-Stratmat project in New Brunswick (10% discount rate; 100% project interest)
- $0.15 per share attributable to resource and exploration upside potential
- ($0.86) per share attributable to corporate adjustments.

NAV Valuation Breakdown and Sensitivity

Long-term Zinc Price Forecast, US$/lb Long-term Lead Price Forecast, US$/lb Long-term Gold Price Forecast, US$/oz Long-term Silver Price Forecast, US$/oz Long-term C$/US$ FX Rate Fully Financed F/D Shares, millions	Haywood Model 425	$0.75 $0.65 $1,000 $12.50 1.30 425	$1.00 $0.90 $1,200 $15.00 1.20 425	$1.25 $1.15 $1,400 $17.50 1.10 425	$1.50 $1.40 $1,600 $20.00 1.00 425	$1.75 $1.65 $1,800 $22.50 0.90 425	Spot Price 425
Corporate Adjustments (fully financed)							
Corporate Adjustments, US$M	**($281)**	($281)	($281)	($281)	($281)	($281)	**($281)**
Corporate Adjustments, C$ per F/D share	**($0.86)**	($0.86)	($0.79)	($0.73)	($0.66)	($0.60)	**($0.86)**
Santander Project							
After-Tax Project NAV10%, US$M	**$176**	($26)	$97	$191	$280	$368	**$109**
After-Tax Project NAV10%, C$ per F/D share	**$0.54**	($0.08)	$0.27	$0.49	$0.66	$0.78	**$0.33**
Caribou Project							
After-Tax Project NAV10%, US$M	**$150**	($18)	$88	$149	$198	$244	**$108**
After-Tax Project NAV10%, C$ per F/D share	**$0.46**	($0.06)	$0.25	$0.39	$0.47	$0.52	**$0.33**
Halfmile/Stratmat Project							
After-Tax Project NAV10%, US$M	**$250**	($43)	$155	$280	$387	$486	**$178**
After-Tax Project NAV10%, C$ per F/D share	**$0.76**	($0.13)	$0.44	$0.72	$0.91	$1.03	**$0.54**
Subtotal Valuation (corporate adjustments + projects)							
Subtotal After-Tax Corporate NAV10%, US$M	**$295**	**($369)**	**$59**	**$338**	**$584**	**$817**	**$114**
Subtotal After-Tax Corporate NAV10%, C$ per F/D share	**$0.90**	**($1.13)**	**$0.17**	**$0.88**	**$1.38**	**$1.73**	**$0.35**
Resource + Exploration Upside Credit							
Resource Credit, US$M	**$23**	$23	$23	$23	$23	$23	**$23**
Resource Credit, C$ per F/D share	**$0.07**	$0.07	$0.07	$0.06	$0.05	$0.05	**$0.07**
Regional Exploration Upside Credit, US$M	**$25**	$25	$25	$25	$25	$25	**$25**
Regional Exploration Upside Credit, C$ per F/D share	**$0.08**	$0.08	$0.07	$0.06	$0.06	$0.05	**$0.08**
Total Resource + Exploration Upside Credit, US$M	**$48**	$48	$48	$48	$48	$48	**$48**
Total Resource + Exploration Upside Credit, C$ per F/D share	**$0.15**	$0.15	$0.14	$0.12	$0.11	$0.10	**$0.15**
Total Valuation (base case + resource/exploration)							
Total After-Tax Corporate NAV10%, US$M	**$343**	**($320)**	**$108**	**$387**	**$632**	**$865**	**$162**
Total After-Tax Corporate NAV10%, C$ per F/D share	**$1.05**	**($0.98)**	**$0.30**	**$1.00**	**$1.49**	**$1.83**	**$0.49**
Implied Target Price @ 1.0x After-Tax Corporate NAV10%, C$	**$1.05**	**$0.00**	**$0.30**	**$1.00**	**$1.50**	**$1.85**	**$0.50**
2016E CFPS, US$	**$0.08**	$0.04	$0.12	$0.18	$0.23	$0.28	**$0.13**
2017E CFPS, US$	**$0.20**	$0.03	$0.15	$0.23	$0.32	$0.38	**$0.16**

Haywood model is based on a forecast zinc price of US$0.80/lb in 2016, US$1.00/lb in 2017, US$1.20/lb in 2018, and US$1.15/lb thereafter.
Haywood model is based on a forecast lead price of US$0.75/lb in 2016, US$0.95/lb in 2017, US$1.15/lb in 2018, and US$1.10/lb thereafter.
Haywood model is based on a forecast gold price of US$1,300/oz in 2016 and US$1,450/oz thereafter.
Haywood model is based on a forecast silver price of US$18.00/oz in 2016 and US$24.00/oz thereafter.
Haywood model is based on a current C$/US$ FX rate of 1.30 and a long-term C$/US$ FX rate of 1.15.
Spot pricing is based on metals prices of US$1.01/lb zinc, US$0.83/lb lead, US$1,336/oz gold, US$19.71/oz silver, and a C$/US$ FX rate of 1.30.

Source: Haywood Securities

Santander Generates $0.54 per Share in Fully Financed After-Tax Project NAV10%

Trevali has restarted production at its 100% owned brownfields Santander zinc-lead-silver project in west-central Peru. Commissioning of the processing plant in Q3/13 set the stage for a ramp-up towards full-scale commercial production (2,000 tonnes per day) in early Q1/14 (refer to *Radar Screen*, February 21, 2014). Santander comprises the Magistral North, Central, and South deposits (including the recently discovered high-grade Rosa Zone; refer to *Radar Screen* October 9, 2013), the Puajanca deposit, and the past-producing Santander Pipe mine. Combined, they host 6.3 million tonnes of indicated resource grading 3.6% zinc, 1.3% lead, 0.07% copper, and 43 grams per tonne silver, and an additional 13.8 million tonnes of inferred resources grading 4.6% zinc, 0.4% lead, 0.11% copper, and 21 grams per tonne silver. Current planning is based on an initial 2,000-tonne-per-day operation, with a subsequent expansion to +4,000 tonnes per day (contemplated in +2018; 2018 in Haywood model, functional in early 2019). The project is underpinned by a toll-milling (lease to own) and offtake agreement with Glencore International Plc. Glencore has agreed to provide a 2,000-tonne-per-day processing plant, as well as contract mining and milling services in exchange for LOM concentrate offtake rights (100%) at benchmark terms. The ~US$44 million, used 8-year-old froth flotation plant has been sourced from the Rosaura mine, located approximately 60 kilometres from Santander. The project has not been the subject of a publicly available National Instrument 43-101 compliant technical report (i.e., mine plan). As a result, our formal valuation is based on parameters derived from conceptual Company guidance and peer-group comparables. Trevali expects Santander will support a ~20-year ramp-accessed underground mining operation. Mining will focus on the Magistral North, Central, and South deposits. Additional production could be sourced from the Santander Pipe (below historical underground workings that extended to 480 metres depth) and/or through the discovery/development of other exploration targets on the property. At initial full-scale production (2,000 tonnes per day), the project is expected to yield approximately 40 million pounds of zinc and 18 million pounds of lead (in separate concentrates) per annum. Trevali is contemplating plans to expand mill throughput capacity to +4,000 tonnes per day in +2018 (2018 in Haywood model; functional in early 2019), increasing annual zinc and lead production to ~80 million pounds and ~35 million pounds respectively. We note this production profile also includes significant silver credits, which translate into a remaining LOM average total zinc cash cost of US$0.55 per pound net of by-product credits in our model (<US$0.40 per pound average over the next ~5 years). Our modelled mine plan, based in part on concentrate production start-up in H2/13, generates a US$176 million after-tax project NAV10% ($0.54 per fully financed share; 2017 forward basis) and a 21% after-tax internal rate of return at Haywood's metal price forecast, which includes long-term zinc and lead prices of US$1.15 per pound and US$1.10 per pound respectively.

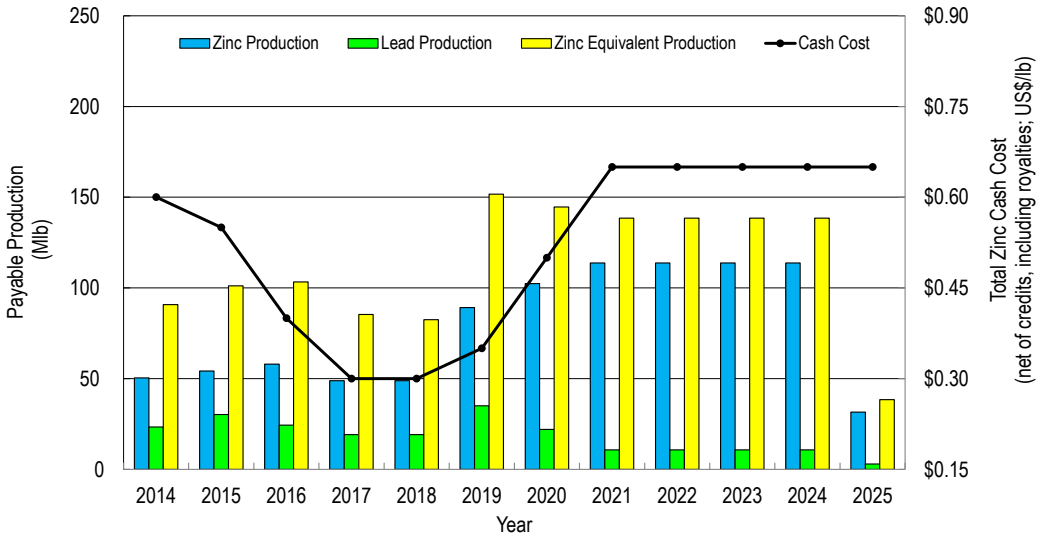
Santander Project Parameters (Haywood model)

Santander Mineable Resource	
Mineable Resource (100% basis), tonnes 000's	13,187
Mineable Resource Zinc Grade, %	4.3%
Mineable Resource Lead Grade, %	0.9%
Mineable Resource Silver Grade, g/t	34
Timing	
Production Start-up (milling), year	H2/13
Mine Life, years	13
Mine / Mill Type	owner operated underground mining / froth flotation
Production	
Nameplate Ore Throughput (mill; 100% basis), Mtpa	1.5
Nameplate Ore Throughput (mill; 100% basis), tpd	4,000
LOM Average Zinc Head Grade, %	4.3%
LOM Average Lead Head Grade, %	0.9%
LOM Average Silver Head Grade, g/t	33.9
LOM Average Zinc Concentrate Zinc Grade, %	50%
LOM Average Lead Concentrate Lead Grade, %	55%
LOM Average Lead Concentrate Silver Grade, g/t	1244
LOM Average Zinc Recovery to Zinc Concentrate, %	90%
LOM Average Lead Recovery to Lead Concentrate, %	88%
LOM Average Silver Recovery to Lead Concentrate, %	75%
LOM Annual Average Zinc Production (payable; 100% basis), Mlb	73
LOM Annual Average Lead Production (payable; 100% basis), Mlb	17
LOM Annual Average Silver Production (payable; 100% basis), Moz	0.8
LOM Total Zinc Production (payable; 100% basis), Mlb	955
LOM Total Lead Production (payable; 100% basis), Mlb	226
LOM Total Silver Production (payable; 100% basis), Moz	10.1
Operating Costs	
LOM Average Operating Cost (on-site), US$/tonne milled	$40
LOM Average Total Cash Cost (net of credits; including royalties), US$/lb Zn payable	$0.55
Capital Costs	
Initial Capital Cost (100% basis), $M	$45
Expansion Capital Cost (100% basis), $M	$30
LOM Total Capital Cost (incl. sustaining capital and closure costs; 100% basis), $M	$180
Project Valuation	
Long-term Forecast Zinc Price, US$/lb	$1.15
Long-term Forecast Lead Price, US$/lb	$1.10
Long-term Forecast Silver Price, US$/oz	$24.00
Project NAV Discount Rate, %	10%
Pre-Tax Project NAV (100% basis), US$M	$105
Pre-Tax Project IRR (100% basis), %	27%
After-Tax Project NAV (100% basis), US$M	$61
After-Tax Project IRR (100% basis), %	21%

Haywood project valuation is based on a 2011 forward basis.

Source: Trevali Mining and Haywood Securities

Santander Production Profile (Haywood model)



Zinc Equivalent Production is calculated using Haywood's formal metal price assumptions (refer to *Radar Screen*, July 11, 2016).

Source: Haywood Securities

Bathurst Generates $1.22 per Share in Fully Financed After-Tax Projects NAV10%

Trevali's 100% owned Bathurst project in New Brunswick comprises three zinc deposits (Halfmile, Stratmat, and Caribou) and the Caribou mill complex. Established infrastructure associated with the world-class Bathurst mining camp has positioned the project for an expedited restart which is now underway at Caribou. Previous owner Kria Resources Ltd. completed a Preliminary Economic Assessment (PEA) in October 2010 (headed by Wardrop), detailing a combined Halfmile and Stratmat underground mining operation, coupled with a 4,000-tonne-per-day mill/concentrator located at the adjacent Heath Steele property. However, the Company's acquisition of the nearby Caribou mine and mill complex has added another dynamic to the Bathurst story. Caribou is located approximately 20 kilometres from Halfmile, with a nameplate capacity of 3,000 tonnes per day and is now the focus of Trevali's Canadian production efforts.

Caribou's production profile is underpinned by a May 2014 National Instrument 43-101 compliant PEA headed by SRK. The study details a 6.3-year ramp-accessed underground operation underpinned by a 6.2 million-tonne mineable resource grading 6.11% zinc, 2.49% lead, 0.34% copper, 67.9 grams per tonne silver, and 0.86 grams per tonne gold. The PEA mine plan is based around the reactivation of the 3,000 tonne per day Caribou mill complex, which will include the addition of a copper circuit. Annual payable metal production is expected to average 93 million pounds of zinc, 33 million pounds of lead, 3 million pounds of copper, 730,000 ounces of silver, and 1,500 ounces of gold at an average total zinc cash cost of US$0.46 per pound net of credits and excluding royalties (underpinned by an average on-site operating cost of $75 per tonne milled, versus ~US$0.55 per pound / $95 per tonne milled in our model). Pre-production initial capital costs are (were) estimated at $36 million (~US$50 million in Haywood model; of which all but ~$1.5 million pertaining to Caribou's copper circuit has been spent to date). Our modelled Caribou mine plan generates a $150 million after-tax project NAV10% ($0.46 per fully diluted share; 2017 forward basis, which excludes sunk capital cost consideration) at Haywood's formal metal price forecast, which includes long-term (+2019) zinc, lead, and copper prices of US$1.15 per pound, US$1.10 per pound, and US$3.00 per pound respectively (refer to *Radar Screen*, July 11, 2016). We note the PEA mine plan generates an $89 million after-tax project NAV8% (57% IRR; 2.1-year payback) at US$1.00 per pound of zinc and lead, US$3.00 per pound of copper, US$21.00 per ounce of silver, US$1,200 per ounce of gold, and a C$ exchange rate of US$0.95.

Caribou Project Parameters (Haywood model)

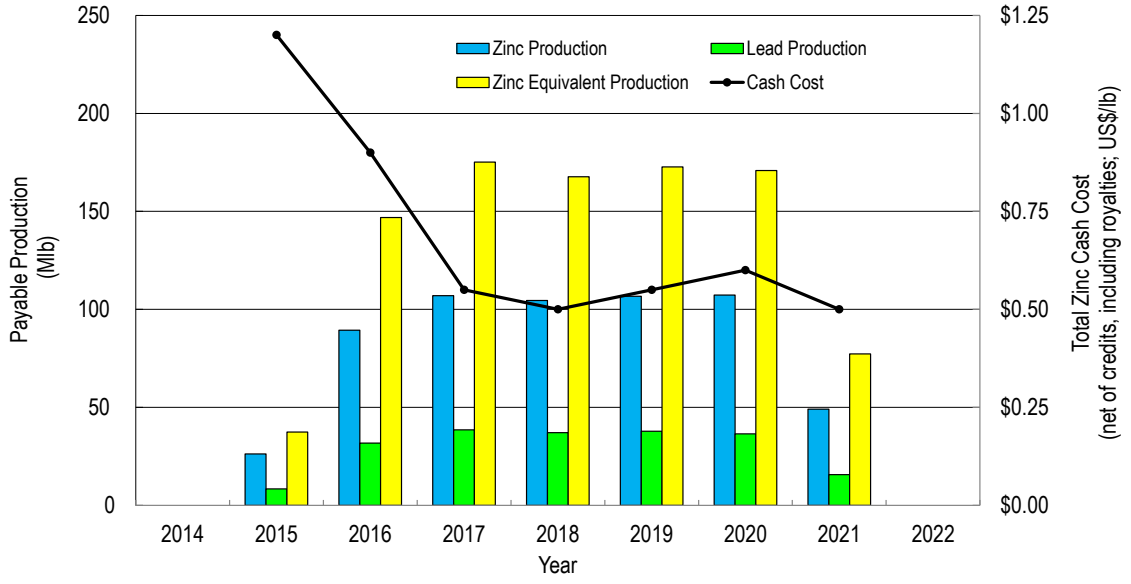
	May 2014 PEA Summary Results	Haywood Model	Haywood vs. May 2014 PEA Δ Parameter (%)
Caribou Mineable Resource			
Mineable Resource (100% basis), tonnes 000's	6,152	6,152	-
Mineable Resource Zinc Grade, %	6.11%	6.1%	-
Mineable Resource Lead Grade, %	2.49%	2.5%	-
Mineable Resource Copper Grade, %	0.34%	0.3%	-
Mineable Resource Gold Grade, g/t	0.86	0.8	-
Mineable Resource Silver Grade, g/t	67.89	67.8	-
Timing			
Commercial Production Start-up (milling), year	H1/15	2015	-
Mine Life, years	6.3	6	-
Mine / Mill Type	owner operated underground mining / froth flotation	owner operated underground mining / froth flotation	-
Production			
Nameplate Ore Throughput (mill; 100% basis), Mtpa	1.1	1.1	-
Nameplate Ore Throughput (mill; 100% basis), tpd	3,000	3,000	-
LOM Average Zinc Head Grade, %	6.11%	6.0%	-
LOM Average Lead Head Grade, %	2.49%	2.5%	-
LOM Average Copper Head Grade, %	0.34%	0.3%	-
LOM Average Gold Head Grade, g/t	0.86	0.8	-
LOM Average Silver Head Grade, g/t	67.89	67.4	-
LOM Average Zinc Concentrate Zinc Grade, %	50%	50%	-
LOM Average Lead Concentrate Lead Grade, %	45%	45%	-
LOM Average Copper Concentrate Copper Grade, %	20%	20%	-
LOM Average Zinc Recovery to Zinc Concentrate, %	84%	84%	-
LOM Average Lead Recovery to Lead Concentrate, %	65%	65%	-
LOM Average Copper Recovery to Copper Concentrate, %	45%	45%	-
LOM Annual Average Zinc Production (payable; 100% basis), Mlb	93.0	93	-
LOM Annual Average Lead Production (payable; 100% basis), Mlb	32.5	33	-
LOM Annual Average Copper Production (payable; 100% basis), Mlb	3.1	3	-
LOM Annual Average Gold Production (payable; 100% basis), koz	1.5	1.5	-
LOM Annual Average Silver Production (payable; 100% basis), koz	730	730	-
LOM Total Zinc Production (payable; 100% basis), Mlb	584.5	585	-
LOM Total Lead Production (payable; 100% basis), Mlb	204.5	205	-
LOM Total Copper Production (payable; 100% basis), Mlb	19.5	20	-
LOM Total Gold Production (payable; 100% basis), koz	10.0	10.0	-
LOM Total Silver Production (payable; 100% basis), koz	4,600	4,600	-
Operating Costs			
LOM Average Operating Cost (on-site), $/tonne milled	$74.77	$100	34%
LOM Average On-Site Cash Cost (excluding royalties), US$/lb ZnEq payable	$0.46	-	-
LOM Average Total Cash Cost (including royalties), US$/lb Zn payable, net of credits	-	$0.55	-
Capital Costs			
Initial Capital Cost (100% basis), $M	$36	$50	38%
LOM Total Capital Cost (incl. sustaining capital and closure costs; 100% basis), $M	$125	$165	32%
Project Valuation			
Long-term Forecast Zinc Price, US$/lb	$1.03	$1.15	12%
Long-term Forecast Lead Price, US$/lb	$0.92	$1.10	20%
Long-term Forecast Copper Price, US$/lb	$3.03	$3.00	(1%)
Long-term Forecast Gold Price, US$/oz	$888	$1,450	63%
Long-term Forecast Silver Price, US$/oz	$15.08	$24.00	59%
Project NAV Discount Rate, %	5% 8%	10%	100% 25%
Pre-Tax Project NAV (100% basis), US$M	$150 $128	$30	(80%) (77%)
Pre-Tax Project IRR (100% basis), %	69%	16%	(76%)
After-Tax Project NAV (100% basis), US$M	$106 $89	$0	(100%) (100%)
After-Tax Project IRR (100% basis), %	57%	10%	(82%)

Haywood project valuation is based on a 2013 forward basis.

Haywood Model initial capital costs do not include consideration for the $22M acquisition of the Caribou mine/mill complex from Maple Minerals completed in November 2012.

Source: Trevali Mining and Haywood Securities

Caribou Production Profile (Haywood model)



Zinc Equivalent Production is calculated using Haywood's formal metal price assumptions (refer to *Radar Screen*, January 12, 2016).

Source: Haywood Securities

Looking further ahead, Trevali's base-case (conceptual) planning now includes production from Halfmile and Stratmat through a second (new) mill, likely erected at/near Xstrata's brownfields Heath Steele site (which includes paved highway, water, and power access, as well as +3 years of additional tailings storage capacity in an existing impoundment). However, in light of resource definition, engineering, and permitting considerations, this second mill would likely not be operational until (at least) ~2020. **Hence, we have modelled the construction of a new 4,000-tonne-per-day internally funded $150 million mill complex at Heath Steele to process production from Halfmile and Stratmat beginning in 2020 (through 2036). We look to the completion of a new 'standalone' Halfmile-Stratmat mine plan later this year to refine our model**.

We note comparable advanced-stage volcanogenic massive sulphide (VMS) projects are underpinned by $100 million to $200 million initial capital-cost estimates. For example, Glencore Xstrata's 100% owned Bracemac-McLeod project in Quebec includes a US$116 million initial capital-cost estimate (September 2010 feasibility study; ramp-accessed underground mine; 2,500-tonne-per-day mill; located within an established mining camp). Similarly, Capstone's (CS-T, Buy Rating, $1.00 TP) 100% Kutcho project in northern British Columbia includes a $187 million initial capital-cost estimate (February 2011 preliminary feasibility study; ramp-accessed underground mine; 2,500-tonne-per-day mill; relatively remote location). Foran (FOM-V, Buy Rating, $0.25 TP) also recently tabled a PEA mine plan for its McIlvenna Bay project in Saskatchewan, which includes a $249 million initial capital cost estimate for the 5,000 tonne per day underground operation utilizing standard froth flotation processing.

At full-scale production, Trevali's Halfmile-Stratmat operation produces approximately 100 million pounds of zinc, 31 million pounds of lead, 3 million pounds of copper, 4,800 ounces of silver, and 200,000 ounces of gold (payable) per annum at an average total zinc cash cost of US$0.60 per pound net of credits and including royalties in our model (underpinned by an average on-site operating cost of $90 per tonne milled). Our valuation is based on Haywood's formal commodity price forecast, which includes long-term (+2019) zinc, lead, and copper prices of US$1.15 per pound, US$1.10 per pound, and US$3.00 per pound respectively (refer to *Radar Screen*, July 11, 2016). At these prices, our model

generates a pre-financed after-tax Halfmile-Stratmat project NAV10% of US$110 million ($0.34 per current fully diluted share; after-tax IRR of 11%; 2018 forward basis).

Halfmile-Stratmat Project Parameters (Haywood model)

	September 2010 Wardrop PEA	Haywood Model	Haywood vs. Wardrop PEA Δ Parameter (%)
Halfmile Mineable Resource			
Mineable Resource (100% basis), tonnes 000's	11,598	11,598	-
Mineable Resource Zinc Grade, %	6.78%	6.8%	-
Mineable Resource Lead Grade, %	2.05%	2.0%	-
Mineable Resource Copper Grade, %	0.15%	0.1%	-
Mineable Resource Gold Grade, g/t	-	-	-
Mineable Resource Silver Grade, g/t	24.4	24.4	-
Stratmat Mineable Resource			
Mineable Resource (100% basis), tonnes 000's	6,673	6,673	-
Mineable Resource Zinc Grade, %	5.12%	5.1%	-
Mineable Resource Lead Grade, %	2.20%	2.2%	-
Mineable Resource Copper Grade, %	0.37%	0.4%	-
Mineable Resource Gold Grade, g/t	0.5	0.5	-
Mineable Resource Silver Grade, g/t	9.4	9.4	-
Timing			
Commercial Production Start-up (milling), year	-	2020	-
Mine Life, years	20	17	(15%)
Mine / Mill Type	owner operated underground mining / froth flotation	owner operated underground mining / froth flotation	-
Production			
Nameplate Ore Throughput (mill; 100% basis), Mtpa	1.5	1.5	-
Nameplate Ore Throughput (mill; 100% basis), tpd	4,000	4,000	-
LOM Average Zinc Head Grade, %	6.17%	6.2%	-
LOM Average Lead Head Grade, %	2.10%	2.1%	-
LOM Average Copper Head Grade, %	0.23%	0.2%	-
LOM Average Gold Head Grade, g/t	0.2	0.2	-
LOM Average Silver Head Grade, g/t	18.9	18.9	-
LOM Average Zinc Concentrate Zinc Grade, %	53%	53%	-
LOM Average Lead Concentrate Lead Grade, %	46%	45%	(3%)
LOM Average Lead Concentrate Silver Grade, g/t	308	289	(6%)
LOM Average Copper Concentrate Copper Grade, %	20%	29%	44%
LOM Average Copper Concentrate Gold Grade, g/t	-	16.8	-
LOM Average Zinc Recovery to Zinc Concentrate, %	90%	85%	(6%)
LOM Average Lead Recovery to Lead Concentrate, %	85%	70%	(18%)
LOM Average Silver Recovery to Lead Concentrate, %	49%	50%	3%
LOM Average Copper Recovery to Copper Concentrate, %	85%	65%	(24%)
LOM Average Gold Recovery to Copper Concentrate, %	-	50%	-
LOM Annual Average Zinc Production (payable; 100% basis), Mlb	95*	100	5%
LOM Annual Average Lead Production (payable; 100% basis), Mlb	34*	31	(9%)
LOM Annual Average Copper Production (payable; 100% basis), Mlb	4*	3	(15%)
LOM Annual Average Gold Production (payable; 100% basis), koz	-	4.8	-
LOM Annual Average Silver Production (payable; 100% basis), Moz	0.3*	0.2	(5%)
LOM Total Zinc Production (payable; 100% basis), Mlb	1,902*	1,796	(6%)
LOM Total Lead Production (payable; 100% basis), Mlb	684*	564	(18%)
LOM Total Copper Production (payable; 100% basis), Mlb	74*	57	(24%)
LOM Total Gold Production (payable; 100% basis), koz	-	48	-
LOM Total Silver Production (payable; 100% basis), Moz	5.1*	4.4	(15%)
Operating Costs			
LOM Average Operating Cost (on-site), $/tonne milled	$64	$90	42%
LOM Average Total Cash Cost (net of credits; including royalties), US$/lb Zn payable	-	$0.60	-
Capital Costs			
Initial Capital Cost (100% basis), $M	$187	$261	39%
LOM Total Capital Cost (incl. sustaining capital and closure costs; 100% basis), $M	$471	$656	39%
Project Valuation			
Long-term Forecast Zinc Price, US$/lb	$1.03	$1.15	12%
Long-term Forecast Lead Price, US$/lb	$0.92	$1.10	20%
Long-term Forecast Copper Price, US$/lb	$3.03	$3.00	(1%)
Long-term Forecast Gold Price, US$/oz	$888	$1,450	63%
Long-term Forecast Silver Price, US$/oz	$15.08	$24.00	59%
Project NAV Discount Rate, %	8% 10%	10%	25% -
Pre-Tax Project NAV (100% basis), US$M	$253 $184	$195	(23%) 6%
Pre-Tax Project IRR (100% basis), %	21%	15%	(26%)
After-Tax Project NAV (100% basis), US$M	- -	$110	- -
After-Tax Project IRR (100% basis), %	-	11%	-

Haywood project valuation is based on a 2018 forward basis.
Asterisk denotes calculated values.

Source: Trevali Mining and Haywood Securities

Resource Inventory Summary (National Instrument 43-101 compliant)

	Tonnes (000's)	Zn Grade (%)	Pb Grade (%)	Cu Grade (%)	Au Grade (g/t)	Ag Grade (g/t)	ZnEq Grade (%)	Zinc (Mlb)	Lead (Mlb)	Copper (Mlb)	Gold (koz)	Silver (Moz)	ZnEq (Mlb)	EV/lb Zn (US$/lb)	EV/lb ZnEq (US$/lb)
Santander Model Mineable (LOM)	13,187	4.27%	0.92%	0.08%	-	33.7	**6.38%**	1,241	269	23	-	14.3	**1,856**	-	-
Santander Model Payable (LOM)	-	-	-	-	-	-	-	955	226	-	-	10.1	**1,382**	-	-
Caribou Model Mineable (LOM)	6,152	6.05%	2.47%	0.32%	0.8	67.8	**12.77%**	821	335	43	158	13.4	**1,732**	-	-
Caribou Model Payable (LOM)	-	-	-	-	-	-	-	590	206	19	17	4.4	**949**	-	-
Halfmile/Stratmat Model Mineable (LOM)	18,271	6.17%	2.10%	0.23%	0.2	18.9	**9.66%**	2,485	847	91	100	11.1	**3,891**	-	-
Halfmile/Stratmat Model Payable (LOM)	-	-	-	-	-	-	-	1,796	564	57	48	4.4	**2,635**	-	-
Total Model Mineable (LOM)	**37,609**	**5.48%**	**1.75%**	**0.19%**	**0.2**	**32.1**	**9.02%**	**4,547**	**1,451**	**157**	**258**	**38.8**	**7,479**	**$0.071**	**$0.043**
Total Model Payable (LOM)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3,341**	**995**	**76**	**64**	**18.9**	**4,965**	**$0.097**	**$0.065**
Santander P&P Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caribou P&P Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halfmile P&P Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stratmat P&P Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Bathurst Camp P&P Reserve	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total P&P Reserve	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Santander M&I Resource	6,264	3.62%	1.30%	0.07%	-	43.0	**6.35%**	500	180	10	-	8.7	**878**	-	-
Additional Santander M&I Resource (Tailings)	1,656	2.74%	-	-	-	-	**2.74%**	100	-	-	-	-	**100**	-	-
Caribou M&I Resource	7,230	6.99%	2.93%	0.43%	0.9	84.4	**15.12%**	1,114	467	69	207	19.6	**2,410**	-	-
Halfmile M&I Resource	6,262	8.13%	2.58%	0.22%	-	30.8	**12.11%**	1,122	356	30	-	6.2	**1,672**	-	-
Stratmat M&I Resource	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Bathurst Camp M&I Resource	**13,492**	**7.52%**	**2.77%**	**0.33%**	**0.5**	**59.5**	**13.72%**	**2,237**	**823**	**99**	**207**	**25.8**	**4,082**	**-**	**-**
Total M&I Resource	**21,412**	**6.01%**	**2.12%**	**0.23%**	**0.3**	**50.1**	**10.72%**	**2,837**	**1,003**	**109**	**207**	**34.5**	**5,059**	**-**	**-**
Santander Inferred Resource	13,845	4.62%	0.40%	0.11%	-	21.0	**5.93%**	1,410	122	34	-	9.3	**1,810**	-	-
Caribou Inferred Resource	3,660	6.95%	2.81%	0.32%	1.2	78.3	**15.12%**	561	227	26	145	9.2	**1,220**	-	-
Halfmile Inferred Resource	6,078	6.69%	1.83%	0.14%	-	20.5	**9.43%**	896	245	19	-	4.0	**1,264**	-	-
Stratmat Inferred Resource	5,524	6.11%	2.59%	0.40%	0.6	54.0	**12.38%**	744	315	49	107	9.6	**1,507**	-	-
Total Bathurst Camp Inferred Resource	**15,262**	**6.54%**	**2.34%**	**0.28%**	**0.5**	**46.5**	**11.86%**	**2,201**	**787**	**93**	**251**	**22.8**	**3,991**	**-**	**-**
Ruttan Inferred Resource	19,750	1.47%	-	1.17%	-	-	**4.52%**	640	-	509	-	-	**1,969**	-	-
Total Inferred Resource	**48,857**	**3.95%**	**0.84%**	**0.59%**	**0.2**	**20.5**	**7.21%**	**4,252**	**909**	**636**	**251**	**32.2**	**7,769**	**-**	**-**
Total Reserve and Resource	**70,269**	**4.58%**	**1.23%**	**0.48%**	**0.2**	**29.5**	**8.28%**	**7,088**	**1,912**	**745**	**458**	**66.6**	**12,829**	**$0.046**	**$0.025**
Attributable Reserve and Resource	**70,269**	**4.58%**	**1.23%**	**0.48%**	**0.2**	**29.5**	**8.28%**	**7,088**	**1,912**	**745**	**458**	**66.6**	**12,829**	**$0.046**	**$0.025**

Measured and indicated resource is additional to proven and probable reserve.

Halfmile, Caribou, and Stratmat resources are based on a 5% ZnEq cutoff grade.

Santander resources are based on a 3% ZnEq cutoff grade, and Santander Tailings resources are based on a 2% ZnEq cutoff grade.

Ruttan resources are based on a 1% CuEq cutoff grade.

ZnEq = zinc equivalent, EV = enterprise value (market capitalization - working capital + debt).

ZnEq zinc price: US$1.15/lb

ZnEq lead price: US$1.10/lb

ZnEq copper price: US$3.00/lb

ZnEq gold price: US$1,450/oz

ZnEq silver price: US$24.00/oz

Source: Trevali Mining and Haywood Securities

Additional Resource Credits Add $0.15 per Share to Our After-Tax Corporate NAV10%

Our fully financed after-tax corporate NAV10% of US$343 million, or $1.05 per fully diluted share, includes an in situ credit of ~US$0.005 to ~US$0.010 per pound for Trevali's National Instrument 43-101 compliant zinc equivalent resource inventories not included in our Santander and Bathurst modelled mine plans—in line with in situ market valuations received by the Company's peer group of advanced-stage base metals developers and established mid-tier producers. We note Trevali currently trades at ~US$0.025 per pound of in situ zinc equivalent resource, and that both the Santander and Bathurst projects (multiple deposits) remain open for resource expansion in multiple directions. Our formal valuation also includes a modest US$25 million credit for upside potential associated with the Company's significant project portfolio beyond Santander's and Bathurst's current resource base including the past-producing Ruttan copper-zinc volcanogenic massive sulphide (VMS) deposit in northern Manitoba (noting that earlier this quarter the Company finalized the sale of its interest in the past-producing Huampar silver-zinc-lead-gold mine located approximately 80 kilometres southeast of Santander in the southern portion of the Central Peruvian Polymetallic Belt).

Financial Forecast

Financial Forecast

	2016	2017	2018	2019	2020	2021	2022	2023	2023
Forecast Zinc Price, US$/lb	$0.80	$1.00	$1.20	$1.15	$1.15	$1.15	$1.15	$1.15	$1.15
Forecast Lead Price, US$/lb	$0.75	$0.95	$1.15	$1.10	$1.10	$1.10	$1.10	$1.10	$1.10
Forecast Silver Price, US$/oz	$18.00	$24.00	$24.00	$24.00	$24.00	$24.00	$24.00	$24.00	$24.00
C$/US$ FX Rate	1.32	1.30	1.28	1.25	1.15	1.15	1.15	1.15	1.15
Average Shares O/S, millions	381	399	399	399	399	399	399	399	399
Attributable Zinc Sales, Mlb	149	156	153	195	345	298	249	249	249
Attributable Lead Sales, Mlb	56	58	56	72	103	71	55	55	55
Attributable Silver Sales, Moz	1.7	1.6	1.6	2.2	2.1	1.3	1.0	1.0	1.0
Total Zinc Cash Cost (NoC; IR), US$/lb	$0.70	$0.45	$0.40	$0.45	$0.60	$0.60	$0.65	$0.65	$0.65
Gross Sales Revenue, US$M	$203	$261	$300	$371	$597	$482	$393	$393	$393
Net Revenue, US$M	$144	$205	$243	$288	$468	$376	$306	$306	$306
Cost of Sales, US$M	($112)	($114)	($117)	($132)	($248)	($195)	($157)	($161)	($161)
Corporate G&A, US$M	($5)	($5)	($5)	($5)	($5)	($5)	($5)	($5)	($5)
EBITDA, US$M	$26	$89	$119	$140	$201	$171	$132	$132	$132
EV / Consolidated EBITDA	12.6x	3.7x	2.7x	2.3x	1.6x	1.9x	2.5x	2.5x	2.5x
DD&A, US$M	($30)	($32)	($36)	($44)	($82)	($71)	($56)	($56)	($56)
Gain on Derivative Instruments, US$M	-	-	-	-	-	-	-	-	-
Earnings, US$M	($17)	$29	$29	$40	$55	$46	$33	$35	$35
EPS, US$	**($0.04)**	**$0.07**	**$0.07**	**$0.10**	**$0.14**	**$0.11**	**$0.08**	**$0.09**	**$0.09**
Current Price / EPS	**-**	**9.6x**	**9.8x**	**7.3x**	**5.7x**	**6.9x**	**9.6x**	**9.0x**	**9.0x**
Target Price / EPS	-	13.1x	13.5x	10.0x	7.9x	9.5x	13.2x	12.3x	12.3x
Cash Flow Before W/C Changes, US$M	$31	$78	$98	$101	$160	$138	$104	$108	$108
CFPS, US$	**$0.08**	**$0.20**	**$0.25**	**$0.25**	**$0.40**	**$0.35**	**$0.26**	**$0.27**	**$0.27**
Current Price / CFPS	**8.6x**	**3.6x**	**2.9x**	**2.9x**	**2.0x**	**2.3x**	**3.1x**	**2.9x**	**2.9x**
Target Price / CFPS	11.8x	5.0x	4.0x	3.9x	2.7x	3.2x	4.2x	4.0x	4.0x
Capex, US$M	($29)	($22)	($52)	($142)	($52)	($36)	($41)	($36)	($36)
Proceeds from Equity Financing, US$M	$13	-	-	-	-	-	-	-	-
Proceeds from Debt Financing, US$M	-	-	$150	-	-	-	-	-	-
Debt Repayment, US$M	($1)	($17)	($13)	($31)	-	($30)	($30)	($30)	($30)
Free Cash Flow, US$M	$6	$28	$143	($85)	$96	$62	$25	$37	$37
FCPS, US$	$0.02	$0.07	$0.36	($0.21)	$0.24	$0.16	$0.06	$0.09	$0.09

NoC = net of credits; IR = including royalties.

Source: Haywood Securities

2017E CFPS and Implied CFPS-Based Target-Price Sensitivity

	Haywood Model	Sensitivity				Current Spot
2017E Forecast Zinc Price, US$/lb	**$1.00**	**$0.75**	**$1.00**	**$1.25**	**$1.50**	**$1.01**
2017E Forecast Lead Price, US$/lb	**$0.95**	**$0.65**	**$0.90**	**$1.15**	**$1.40**	**$0.83**
2017E Forecast Copper Price, US$/lb	**$2.25**	**$2.25**	**$2.75**	**$3.25**	**$3.75**	**$2.15**
2017E Forecast Gold Price, US$/oz	**$1,450**	**$1,000**	**$1,200**	**$1,400**	**$1,600**	**$1,336**
2017E Forecast Silver Price, US$/oz	**$24.00**	**$12.50**	**$15.00**	**$17.50**	**$20.00**	**$19.71**
2017E Forecast C$/US$ FX Rate	**1.30**	**1.30**	**1.20**	**1.10**	**1.00**	**1.30**
2017E CFPS, US$	**$0.20**	$0.03	$0.15	$0.23	$0.32	**$0.16**
Implied Target Price at 3.0x 2017E CFPS, C$ per share	**$0.75**	$0.15	$0.55	$0.80	$1.00	**$0.65**
Implied Target Price at 4.0x 2017E CFPS, C$ per share	**$1.00**	$0.20	$0.75	$1.05	$1.30	**$0.85**
Implied Target Price at 5.0x 2017E CFPS, C$ per share	**$1.25**	$0.20	$0.90	$1.30	$1.60	**$1.05**
Implied Target Price at 6.0x 2017E CFPS, C$ per share	**$1.50**	$0.25	$1.10	$1.55	$1.95	**$1.25**
				2016E Average Shares O/S:		*399M*

Source: Haywood Securities

Corresponding Santander Production Profile

	2016	2017	2018	2019	2020	2021	2022	2023	RLOM
Ore Tonnes Mined, millions	0.8	0.8	0.8	1.5	1.5	1.5	1.5	1.5	**10.7**
Waste Tonnes Mined, millions	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	**1.1**
Ore Tonnes Milled, millions	0.8	0.8	0.8	1.5	1.5	1.5	1.5	1.5	**10.8**
Ore Tonnes Milled, tonnes per day	2,200	2,200	2,200	4,000	4,000	4,000	4,000	4,000	**4,000**
Zinc Head Grade, %	4.3%	3.6%	3.6%	3.6%	4.2%	4.6%	4.6%	4.6%	**4.3%**
Lead Head Grade, %	1.7%	1.3%	1.3%	1.3%	0.8%	0.4%	0.4%	0.4%	**0.7%**
Silver Head Grade, g/t	56	43	43	43	31	21	21	21	**29**
Zinc Recovery (to zinc concentrate), %	90%	90%	90%	90%	90%	90%	90%	90%	**90%**
Lead Recovery (to lead concentrate), %	88%	88%	88%	88%	88%	88%	88%	88%	**88%**
Silver Recovery (to concentrate), %	75%	75%	75%	75%	75%	75%	75%	75%	**75%**
Zinc Production (in zinc concentrate), Mlb	68	57	57	105	120	134	134	134	**913**
Lead Production (in lead concentrate), Mlb	26	20	20	37	23	11	11	11	**149**
Silver Production (in concentrate), Moz	1.1	0.8	0.8	1.5	1.1	0.7	0.7	0.7	**7.4**
Payable Zinc Production, Mlb	**58**	**49**	**49**	**89**	**102**	**114**	**114**	**114**	**776**
Payable Lead Production, Mlb	**24**	**19**	**19**	**35**	**22**	**11**	**11**	**11**	**141**
Payable Silver Production, koz	**1.0**	**0.8**	**0.8**	**1.4**	**1.0**	**0.7**	**0.7**	**0.7**	**6.9**
On-site Operating Cost, US$/tonne milled	$40	$35	$40	$40	$40	$40	$40	$40	**$40**
Adittional Tolling Charges (Glencore), US$/tonne milled	-	-	-	-	-	-	-	-	**-**
Total On-site Operating Cost, US$/tonne milled	$40	$35	$40	$40	$40	$40	$40	$40	**$40**
Zinc Cash Cost (on-site; NoC; ER), US$/lb	($0.15)	($0.20)	($0.25)	($0.20)	$0.05	$0.25	$0.25	$0.25	**$0.10**
Total Zinc Cash Cost (NoC; IR), US$/lb	**$0.40**	**$0.30**	**$0.30**	**$0.35**	**$0.50**	**$0.65**	**$0.65**	**$0.65**	**$0.55**

NoC = net of credits; ER = excluding royalties; IR = including royalties.

Source: Haywood Securities

Corresponding Caribou Production Profile

	2016	2017	2018	2019	2020	2021	2022	2023	RLOM
Ore Tonnes Mined, millions	1.0	1.1	1.1	1.1	1.1	0.3	-	-	**4.7**
Waste Tonnes Mined, millions	0.1	0.1	0.1	0.1	0.1	0.0	-	-	**0.5**
Ore Tonnes Milled, millions	1.0	1.1	1.1	1.1	1.1	0.5	-	-	**4.9**
Ore Tonnes Milled, tonnes per day	2,700	3,000	3,000	3,000	3,000	1,450	-	-	**3,000**
Zinc Head Grade, %	6.0%	6.2%	6.1%	6.2%	6.2%	5.9%	-	-	**6.1%**
Lead Head Grade, %	2.5%	2.6%	2.5%	2.5%	2.4%	2.2%	-	-	**2.5%**
Copper Head Grade, %	0.3%	0.3%	0.4%	0.4%	0.3%	0.3%	-	-	**0.3%**
Gold Head Grade, g/t	0.6	0.8	0.8	0.8	1.0	1.3	-	-	**0.9**
Silver Head Grade, g/t	71	71	69	71	64	54	-	-	**67**
Zinc Recovery (to zinc concentrate), %	80%	84%	84%	84%	84%	84%	-	-	**84%**
Lead Recovery (to lead concentrate), %	60%	65%	65%	65%	65%	65%	-	-	**65%**
Copper Recovery (to copper concentrate), %	45%	45%	45%	45%	45%	45%	-	-	**45%**
Gold Recovery (to concentrate), %	11%	11%	11%	11%	11%	11%	-	-	**11%**
Silver Recovery (to concentrate), %	35%	38%	38%	38%	38%	38%	-	-	**38%**
Zinc Production (in zinc concentrate), Mlb	105	126	123	126	126	58	-	-	**558**
Lead Production (in lead concentrate), Mlb	33	40	39	40	38	17	-	-	**174**
Copper Production (in copper concentrate), Mlb	3	4	4	4	3	2	-	-	**16**
Gold Production (in concentrate), koz	2.1	2.9	3.2	3.1	3.9	2.3	-	-	**15.3**
Silver Production (in concentrate), Moz	0.8	0.9	0.9	0.9	0.9	0.3	-	-	**4.0**
Payable Zinc Production, Mlb	**89**	**107**	**104**	**107**	**107**	**49**	**-**	**-**	**475**
Payable Lead Production, Mlb	**32**	**38**	**37**	**38**	**37**	**16**	**-**	**-**	**166**
Payable Copper Production, Mlb	**3**	**3**	**4**	**4**	**3**	**2**	**-**	**-**	**16**
Payable Gold Production, koz	**2.0**	**2.7**	**3.0**	**3.0**	**3.7**	**2.2**	**-**	**-**	**14.6**
Payable Silver Production, Moz	**0.7**	**0.8**	**0.8**	**0.8**	**0.7**	**0.3**	**-**	**-**	**3.5**
Total On-site Operating Cost, C$/tonne milled	$125	$105	$105	$95	$95	$75	-	-	**$95**
Zinc Cash Cost (on-site; NoC; ER), US$/lb	$0.55	$0.20	$0.15	$0.05	$0.15	$0.05	-	-	**$0.15**
Total Zinc Cash Cost (NoC; IR), US$/lb	**$0.90**	**$0.55**	**$0.50**	**$0.55**	**$0.60**	**$0.50**	**-**	**-**	**$0.55**

NoC = net of credits; ER = excluding royalties; IR = including royalties.

Source: Haywood Securities

Corresponding Halfmile-Stratmat Production Profile

	RLOM	2017	2018	2019	2020	2021	2022	2023	2023
Halfmile Mine									
Ore Tonnes Mined, millions	**11.6**	-	-	-	0.7	0.7	0.7	0.7	0.7
Waste Tonnes Mined, millions	**1.2**	-	-	-	0.1	0.1	0.1	0.1	0.1
Stratmat Mine									
Ore Tonnes Mined, millions	**6.7**	-	-	-	0.7	0.7	0.7	0.7	0.7
Waste Tonnes Mined, millions	**0.9**	-	-	0.3	0.1	0.1	0.1	0.1	0.1
Ore Tonnes Milled, millions	**18.2**	-	-	-	1.4	1.4	1.4	1.4	1.4
Ore Tonnes Milled, tonnes per day	**4,000**	-	-	-	4,000	4,000	4,000	4,000	4,000
Zinc Head Grade, %	**6.2%**	-	-	-	5.9%	5.9%	5.9%	5.9%	5.9%
Lead Head Grade, %	**2.1%**	-	-	-	2.1%	2.1%	2.1%	2.1%	2.1%
Copper Head Grade, %	**0.2%**	-	-	-	0.3%	0.3%	0.3%	0.3%	0.3%
Gold Head Grade, g/t	**0.2**	-	-	-	0.2	0.2	0.2	0.2	0.2
Silver Head Grade, g/t	**19**	-	-	-	17	17	17	17	17
Zinc Recovery (to zinc concentrate), %	**85%**	-	-	-	85%	85%	85%	85%	85%
Lead Recovery (to lead concentrate), %	**70%**	-	-	-	70%	70%	70%	70%	70%
Copper Recovery (to copper concentrate), %	**65%**	-	-	-	65%	65%	65%	65%	65%
Gold Recovery (to concentrate), %	**50%**	-	-	-	50%	50%	50%	50%	50%
Silver Recovery (to concentrate), %	**50%**	-	-	-	50%	50%	50%	50%	50%
Zinc Production (in zinc concentrate), Mlb	**2,109**	-	-	-	159	159	159	159	159
Lead Production (in lead concentrate), Mlb	**592**	-	-	-	47	47	47	47	47
Copper Production (in copper concentrate), Mlb	**59**	-	-	-	5	5	5	5	5
Gold Production (in concentrate), koz	**50.0**	-	-	-	5.4	5.4	5.4	5.4	5.4
Silver Production (in concentrate), Moz	**5.5**	-	-	-	0.4	0.4	0.4	0.4	0.4
Payable Zinc Production, Mlb	**1,793**	**-**	**-**	**-**	**135**	**135**	**135**	**135**	**135**
Payable Lead Production, Mlb	**563**	**-**	**-**	**-**	**44**	**44**	**44**	**44**	**44**
Payable Copper Production, Mlb	**57**	**-**	**-**	**-**	**5**	**5**	**5**	**5**	**5**
Payable Gold Production, koz	**47.5**	**-**	**-**	**-**	**5.1**	**5.1**	**5.1**	**5.1**	**5.1**
Payable Silver Production, Moz	**4.4**	**-**	**-**	**-**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
Total On-site Operating Cost, C$/tonne milled	**$90**	-	-	-	$90	$90	$90	$90	$90
Zinc Cash Cost (on-site; NoC; ER), US$/lb	**$0.25**	-	-	-	$0.25	$0.25	$0.25	$0.25	$0.25
Total Zinc Cash Cost (NoC; IR), US$/lb	**$0.60**	**-**	**-**	**-**	**$0.60**	**$0.60**	**$0.60**	**$0.60**	**$0.60**

NoC = net of credits; ER = excluding royalties; IR = including royalties.

Source: Haywood Securities

Investment Thesis

Trevali has achieved commercial production at its second zinc mine this year. The Company's 100% owned Bathurst project in New Brunswick comprises three deposits (Halfmile, Caribou, and Stratmat) and the Caribou mill complex. Established infrastructure associated with the world-class Bathurst mining camp has positioned the project for an expedited restart (now well underway), which is anticipated to ramp-up to ~100 million pounds per annum (Haywood model). In addition, the Company's 100% owned Santander mine in Peru ramped-up to nameplate throughput capacity (2,000 tonnes per day) in late September 2013. Following a mill expansion contemplated in +2018 (2018 in Haywood model; functional in early 2019), the operation is expected to produce ~80 million pounds of zinc (in concentrate) per annum. Trevali's production profile extends beyond zinc. Significant by-product lead, copper, gold, and silver credits at Bathurst and Santander account for approximately 32% of the Company's remaining life of mine (RLOM) gross revenue in our model and translate into a corporate life of mine (LOM) average total zinc cash cost of US$0.60 per pound net of by-product credits, positioning the Company near the mid-point of the global zinc cost curve.

With zinc production from two mines anticipated to ramp-up to +170 million pounds per annum by ~2019, we believe that Trevali is poised to become a (the) marquee mid-tier pure-play zinc producer in a market facing a significant medium-term supply issue. This zinc market outlook is underpinned by a number of recent key mine shutdowns (accounting for +10% of global supply), including Century and Lisheen, and a lack of new significant advanced-stage projects positioned to replace them (including a delayed/decreased production outlook at Dugald River). Production cutbacks recently announced (pending) by Glencore and Nyrstar (Middle Tennessee Mines and Clarksville Smelter) stand to further stress near-term mine supply fundamentals. Despite arguably lofty (volatile) inventory levels and concerns about the Chinese growth rate, we look to a recent increase in London Metal Exchange (LME) inventory drawdown rates (inventory levels dropped to ~380,000 tonnes in Q2/16) and lower spot and international benchmark treatment charges as indications of a tightening market. More recently, LME inventories have increased to ~458,000 tonnes. However, the zinc price has remained relatively strong (current spot at US$1.01 per pound versus a H1/16A average price of US$0.82 per pound). In addition, we would argue that, unlike copper, the list of good zinc-focused equity names can be counted on one hand, a situation which will likely attract additional market attention to Trevali.

Trevali's share price, down ~31% since the beginning of September 2014, reflects weakness across the base metals equity market and concern about balance sheet liquidity specific to Trevali. While aware that continued weak metal pricing and/or negative sentiment could weigh further on the Company's near-term market valuation, we look to Trevali's fundamental valuation in the context of anticipated stronger medium-term zinc pricing and the near-term financial buffer a recently completed $15.0 million equity financing has provided.

Santander recently delivered a one-two punch underpinned by record zinc production in Q2/16 and additional high grade exploration results. Ongoing success in Peru follows the declaration of commercial production start-up at Caribou in early July. The Company's timing appears to be coinciding well with improving zinc market sentiment, as the metal's price, up ~6% over the last month, is now convincingly testing the US$1.00 per pound level despite LME inventory volatility over the same period (up ~4%). **Our target price is based on a 5.0x multiple to 2017E CFPS of US$0.20 at a forecast zinc price of US$1.00 per pound. Acknowledging Trevali's base metal producing peers currently trade at +4.0x CFPS, we would argue the Company's relatively unique 'pure play' zinc production profile stands to garner a premium valuation in the context of improving medium-term (+H2/16) zinc pricing/sentiment**.

Risks

Significant Investment Risks

The investment to which this report relates carries various risks which are reflected in our Overall Risk Rating. We consider the following to be the most significant of these investment risks:

- Trevali fast-tracked the development of the Halfmile mine without the publication of an up-to-date National Instrument 43-101 compliant technical report (i.e., mine plan). As a result, our formal valuation is based on project parameters derived from a combination of an (out of date) October 2010 Preliminary Economic Assessment (PEA), conceptual Company guidance, and peer-group comparables. Similarly, a May 2014 PEA, in lieu of a definitive feasibility study, stands to underpin development at Trevali's Caribou operation. Furthermore, Trevali has also fast-tracked the Santander project into production through a toll-milling and offtake agreement with Glencore. Trevali has not published any National Instrument 43-101 compliant technical studies outlining the details of a modern mining operation at Santander. Thus, our formal Santander valuation is based on conceptual Company guidance and peer-group comparables only. Ongoing/future development at Santander also appears to be taking place in lieu of publicly available technical documentation, in part illustrated by Trevali's recent initiative to fast-track underground development on four sublevels at the Rosa Zone. Hence, we consider forecast risk as High.
- Trevali initially fast-tracked the Halfmile mine towards start-up of commercial production through a toll-milling agreement with Glencore Xstrata, which significantly reduced the project's financial risk profile. The Company has since shifted focus to underground development and mine planning ahead of the recently announced restart of its own Caribou mill, which was formally acquired in November 2012. The $22 million purchase price was made in the form of Trevali equity. Outstanding funding to refurbish the mine and mill complex, where commercial production is now underway, is more than covered, in theory, by a $46 million equity financing (November 2013) and $60.9 million debt financing (May 2014; amended in December 2015). Hence, Trevali's commercial production profile in Peru and New Brunswick is fully funded.
- In late December, Trevali proceeded to amend (expand and extend) its $52.5 million Senior Secured Notes debt facility with an additional $8.4 million in new notes and received a waiver for the Company's $7.5 million amortization payment, originally scheduled on August 30, 2016, to August 30, 2017 (increasing total 2017 principal repayments to $15.0 million). The senior notes are underpinned by a 12.5% interest rate and are secured against Trevali's Canadian assets, which include the Company's 100% owned Caribou mine in New Brunswick. The amendment stood to provide a 1 to 2 quarter financial buffer/lifeline at/near current spot zinc (and lead) pricing, in an effort to address the market's immediate-term concern regarding the Company's financial wellbeing. **However, given Santander's all-in breakeven zinc price of ~US$0.80 per pound (and a modestly higher breakeven price for Caribou), Trevali's upside was still contingent on a move in the zinc price—all indications are pointing to +H2/16 for (sustained) higher zinc prices driven by supply pressure, but time will tell**. Fast Forward to March 2016, and Trevali subsequently completed a $15.0 million equity financing, which now stands to bolster the Company's balance sheet (cash position) through +2017 at +US$0.80 per pound zinc and lead (i.e., well beyond ramp-up initiatives at Caribou and into a period of anticipated higher zinc pricing). **Nevertheless, recent market (metal price) weakness continues to test the vitality of Trevali's near-term free-cash-flow profile. Hence, we would not be surprised to see the Company's share price garner market scrutiny underpinned by concern that additional near-term (re)financing could be required ahead of an anticipated (sustained) medium-term zinc price rally**.

Our Risk Profile Parameters ratings and Overall Risk Rating are set out on the cover page and are explained in our Rating Structure section under "Overall Risk Rating" and "Risk Profile Parameters". These ratings are an integral part of our Report.

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Analyst Certification

I, Stefan Ioannou, hereby certify that the views expressed in this report (which includes the rating assigned to the issuer's shares as well as the analytical substance and tone of the report) accurately reflect my/our personal views about the subject securities and the issuer. No part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendations.

Important Disclosures

Of the companies included in the report the following Important Disclosures apply:

	Ticker	Company	1	2	3	4	5	6	7	8
	TSX:CS	Capstone Mining Corp.			X					
	TSX:CUM	Copper Mountain Mining Corporation			X	X				
	TSXV:FOM	Foran Mining Corporation			X			X		
	TSXV:HI	Highland Copper Company Inc.			X			X		
	TSX:HBM	Hudbay Minerals Inc.			X					
	TSX:LUN	Lundin Mining Corporation	X		X			X		
	TSX:NSU	Nevsun Resources Ltd.			X					
	TSX:NCQ	NovaCopper Inc.			X			X		
	TSX:RNX	Royal Nickel Corporation		X	X	X		X		
	TSX:TLO	Talon Metals Corp.			X					
	TSX:TV	Trevali Mining Corporation			X	X				

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Recommendation Rating

BUY –The analyst believes that the security will outperform other companies in their sector on a risk adjusted basis or for the reasons stated in the research report the analyst believes that the security is deserving of a (continued) BUY rating.

HOLD – The analyst believes that the security is expected to perform in line with other companies in their sector on a risk adjusted basis or for the reasons stated in the research report the analyst believes that the security is deserving of a (continued) HOLD rating.

SELL – Investors are advised to sell the security or hold alternative securities within the sector. Stocks in this category are expected to under-perform other companies on a risk adjusted basis or for the reasons stated in the research report the analyst believes that the security is deserving of a (continued) SELL rating.

TENDER – The analyst is recommending that investors tender to a specific offering for the company's stock.

RESEARCH COMMENT – An analyst comment about an issuer event that does not include a rating or recommendation.

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Overall Risk Rating

Very High Risk: Venture type companies or more established micro, small, mid or large cap companies whose risk profile parameters and/or lack of liquidity warrant such a designation. These companies are only appropriate for investors who have a very high tolerance for risk and volatility and who are capable of incurring temporary or permanent loss of a very significant portion of their investment capital.

High Risk: Typically micro or small cap companies which have an above average investment risk relative to more established or mid to large cap companies. These companies will generally not form part of the broad senior stock market indices and often will have less liquidity than more established mid and large cap companies. These companies are only appropriate for investors who have a high tolerance for risk and volatility and who are capable of incurring a temporary or permanent loss of a significant loss of their investment capital.

Medium-High Risk: Typically mid to large cap companies that have a medium to high investment risk. These companies will often form part of the broader senior stock market indices or sector specific indices. These companies are only appropriate for investors who have a medium to high tolerance for risk and volatility and who are prepared to accept general stock market risk including the risk of a temporary or permanent loss of some of their investment capital

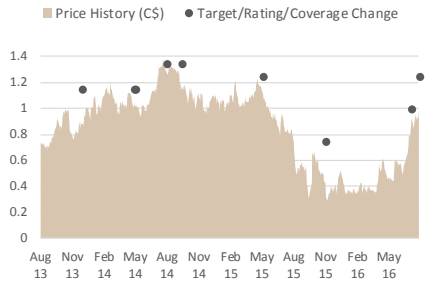
Moderate Risk: Large to very large cap companies with established earnings who have a track record of lower volatility when compared against the broad senior stock market indices. These companies are only appropriate for investors who have a medium tolerance for risk and volatility and who are prepared to accept general stock market risk including the risk of a temporary or permanent loss of some of their investment capital.

Distribution of Ratings (as of August 15, 2016)

	Distribution of Ratings		IB Clients
	%	#	(TTM)
Buy	70.8%	68	84.0%
Hold	8.3%	8	8.0%
Sell	1.0%	1	4.0%
Tender	1.0%	1	0.0%
UR (Buy)	1.0%	1	0.0%
UR (Hold)	1.0%	1	4.0%
UR (Sell)	0.0%	0	0.0%
dropped (TTM)	16.7%	16	0.0%

Price Chart, Rating and Target Price History (as of August 15, 2016)

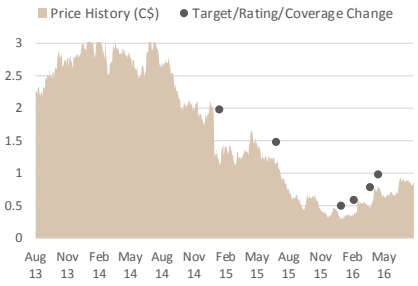
Trevali Mining Corporation (TV-T)



Date	Target(C$)	Rating
8/15/16	$1.25	Buy
7/20/16	$1.00	Buy
11/18/15	$0.75	Buy
5/21/15	$1.25	Buy
9/26/14	$1.35	Buy
8/18/14	UR	Hold
5/20/14	$1.15	Buy
5/14/14	$1.15	UR(Buy)
12/12/13	$1.15	Buy

Initiated Coverage: 02/11/13

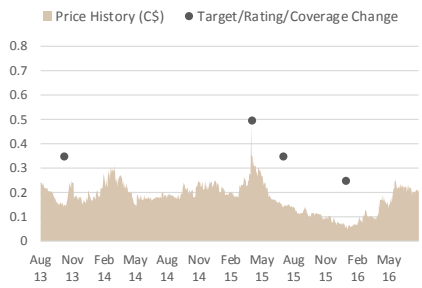
Capstone Mining Corp. (CS-T)



Date	Target(C$)	Rating
4/28/16	$1.00	Buy
4/6/16	$0.80	Buy
2/18/16	$0.60	Buy
1/12/16	$0.50	Buy
7/9/15	$1.50	Buy
1/27/15	$2.00	Buy

Initiated Coverage on 07/10/07 as Sherwood Copper Corp; Name changed to Capstone Mining Corp. 11/25/08

Foran Mining Corp. (FOM-V)



Date	Target(C$)	Rating
1/12/16	$0.25	Buy
7/15/15	$0.35	Buy
4/17/15	$0.50	Buy
10/22/13	$0.35	Buy

Initiated Coverage: 4/17/13

B: Buy; H: Hold; S: Sell; T: Tender; UR: Under Review
Source: Capital IQ and Haywood Securities