

The Weekly Dig – August 4, 2017

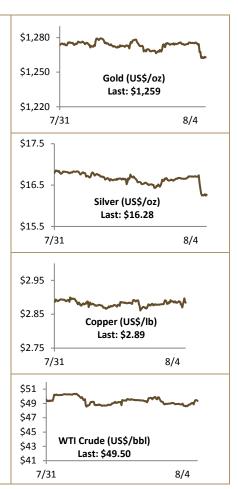
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and the Haywood Mining Team

Q2 Reporting off to a Mixed Start for Precious Metal Stocks

As precious metal mining companies continue to release second quarter financials, Bloomberg consensus targets for the group have dropped an average of 2% across the 30 companies in our precious metals watchlist that have recently released Q2 results. Despite 57% of the group seeing a decrease in their consensus share price target within 5 days of the release of their Q2 results, Bloomberg analysts' average ratings (buy/sell/hold) on 43% of the 30 companies increased (17% down, 40% unchanged). With target prices decreasing on average, and buy/sell/hold ratings becoming more bullish on average, the discrepancy suggests that targets may have been overly optimistic, but that on average analysts see the precious metals names as a better value at their current levels. This may be true, as the TSX Global Gold Index fell 6.1% in CQ2`17. Meanwhile, the price of gold finished down this week for the first time since the beginning of July, as the precious metal fell 0.82% to finish the week at US\$1,259. Still well above July's low of US\$1,209, gold declined late this week with a 1.2% decrease on Friday after pushing the US\$1,280 level on Tuesday. On the precious metal front, silver also experience declines this week as it decreased 2.94% to finish the week at US\$16.28, and Palladium (down 0.55%) finished at US\$878. Platinum, however, (up 2.99%) finished the week higher at US\$964. Base metals had a positive week with copper (up 0.82%), nickel (up 0.53%), lead (up 1.91%), and zinc (up 1.23%) all finishing the week higher at US\$2.88, US\$ 4.63, US\$1.06 and US\$1.27. In addition, iron ore surged 11.53% to finish at US\$74. The S&P/TSX Global Gold Index fell 2.1 points this week to finish at 192.5. Finally, WTI crude, after a 7.98% increase last week, finished the week down 0.42% at US\$49.5 per barrel on Friday.

DIGGING IN...

Junior Explorer - Weekly Vantage Point: News from the Junior sector this week included a site visit of Fireweed Zinc Ltd. (FWZ-V), a prospecting and geological mapping update from Aurion Resources Ltd. (AU-V), and an exploration update from K92 Mining Inc. (KNT-V)4 Haywood Research – The Week in Review: Publications from the Haywood Research team this week included Q2/17 operations update from B2Gold Corp. (BTO-T), a target price revision for Capstone Mining Corp. (CS-T), a feasibility study from Trek Mining Inc. (TREK-V), Q2/17 production and financial results from Endeavour Mining Corp. (EDV-T), a July 2017 operations and sales update from Mountain Province Diamonds Inc. (MPVD-T), Q2/17 financial results from DIRTT Environmental Solutions Ltd. (DRT-T), Q2/17 financial results from Asanko Gold Inc. (AKG-T), Q2/17 financial results from Alamos Gold Inc. (AGI-T), Q2/17 financial results from Hudbay Minerals Inc. (HBM-T), Q2/17 financial results from Lucara Diamond Corp. (LUC-T), Q2/17 financial results from Capstone Mining Corp. (CS-T), PEA results from NexGen Energy Ltd. (NXE-T), drilling results from Liberty Gold Corp. (LGD-T), a site visit of Detour Gold Corporation (DGC-T), drill program results from Denison Mines Corp. (DML-T), drilling results from Osisko Mining Inc. (OSK-T), a Mineral Resource Estimate from Pure Gold Mining Inc. (PGM-V), Q2/17 cash flow from Richmont Mines Inc. (RIC-T), and Q2/17 financial results from Osisko Gold Royalties Ltd. (OR-T)8 The Dig is intended to provide general information only and it is written for an institutional audience. It is not a solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable is not guaranteed against errors or omissions. For Canadian residents: Haywood Securities Inc. is a Canadian registered broker-dealer and a member of the Investment Industry Regulatory Organization of Canada, the Toronto Stock Exchange, the Toronto Venture Exchange and the Canadian Investor Protection Fund. Any Canadian client that wishes further information about anything contained herein should contact a qualified salesperson of Haywood Securities Inc. For U.S. residents: The Dig is distributed in the United States by Haywood Securities (USA) Inc.





Metals Sector Macro

Macroeconomic News

United States

The <u>Chicago Purchasing Managers Index (PMI)</u> sample reported a decline in July as it fell to 58.9, following a 3-year high of 65.7 in June, and finishing below surveyed expectations of 60.0 for the month. July's index, which slowed nearly 7 points, is still far past the breakeven 50 to indicate very strong monthly growth. New orders, which were above 70 in June, fell to 60.3. Also, the order backlogs indicator fell 4.9 points to 57.9 in July from June's 23-year high, and the supplier deliveries component went down 1.3 points to 61.5, the first fall in 5 months. Output also slowed, but is still over 60.

<u>Personal Spending</u> edged up 0.1% month over month in June of 2017, following an upwardly revised 0.2% increase in May and in line with market expectations. A rise in services spending offset declines in purchases of both durable and nondurable goods. Meanwhile, <u>personal income</u> was flat in June following May's downwardly revised 0.3% gain. June displayed the worst performance in 7 months and finished well below surveyed expectations of a 0.4% gain.

The Markit U.S. Manufacturing PMI continued to report moderate growth as it recorded 53.3 in July. A rebound in new orders helped drive July's growth. However, the lack of inflation pressures remains a continued concern. New orders moved up from June's 9-month low, and output was recorded to have improved. Inventories were also up, and business confidence is back at a 6-month high.

The <u>Institute of Supply Management (ISM) Manufacturing Index</u> fell to 56.3 in July of 2017 from 57.8 in June, which was the highest since August 2014. Figures came slightly below market expectations of 56.5 owing to a slowdown in new orders, production, and employment. However, even with the slight decline, new orders continued to post unusually strong growth, at 60.4 in July, with backlog orders also unusually strong, at 55.0. Production remained over 60 at 60.6, with inventories steady and delivery times slowing moderately.

Construction Spending fell an unexpected 1.3% in June, following an upwardly revised 0.3% gain in May. June's US\$1.21 trillion is the lowest level since September 2016, and came below surveyed expectations of a 0.4% gain for the month. Investment spending in public projects shrank 5.4%, the biggest decline since March 2002, as outlays on educational projects fell 5.5%, and highway construction spending fell 6.6%. Residential spending in June fell 0.2%, as a setback for multifamily units offset a respectable 0.3% gain for the important single-family category.

According to the Mortgage Bankers Association (MBA), <u>mortgage applications</u> fell 2.8% in the week ended July 28, after the prior week's 0.4% gain. Refinancing applications fell 3.8%, while applications to purchase a home decreased by a seasonally adjusted 2.0%. The average fixed 30-year mortgage rate remained unchanged at 4.17%.

<u>ADP Employment Change</u> came below surveyed expectations of 190,000 as private businesses hired an additional 178,000 workers in July 2017, compared with an upwardly revised 191,000 in June. The service-providing sector added 174,000 jobs, and the goods-producing sector added 4,000. Midsized companies were the ones hiring the highest number of workers (83,000), followed by small (50,000) and large (45,000) firms.

<u>Initial Jobless Claims</u> declined by 5,000 for the week ending July 29 and came in at 240,000, compared with consensus estimates of 242,000. The 4-week average decreased by 2,500 from the previous week's average to the 241,750 level. <u>Continuing claims</u>, where data lag by a week, rose by 3,000 to 1.968 million. Meanwhile, the unemployment rate for insured workers (which excludes job leavers and re-entrants) remained low at an unchanged 1.4%.



Canada

The seasonally adjusted Markit Canada Manufacturing PMI increased to 55.5 in July, following June's 54.7. The reading pointed to the fastest growth in production since March. July's index growth was driven by a robust increase in new orders and a solid rise in employment. However, inventory growth remained marginal, despite improved business confidence resulting in a rise in input buying. Meanwhile, July's input inflation slowed to a 9-month low.

Employment in Canada rose by 10,900 in July, falling short of surveyed expectations of a 12,500 increase and well below the prior months gain of 45,300. Full time employment increased by 35,100 while part-time employment declined by 24,300. In July, there were more people working in wholesale and retail trade (+21,700); information culture and recreation (+18,300); manufacturing (+14,000); transportation (8,400) and natural resources (8,000). However, there were fewer people working in agriculture and public administration (-10,300).

Meanwhile, the number of unemployed persons fell by 23,000 and the <u>unemployment rate</u> decreased to 6.3% in July following 6.5% in June. July's rate beat surveyed expectations of 6.5% and is the lowest jobless rate since October of 2008.



Junior Explorer: Weekly Vantage Point

News from the Junior sector this week included:

Mining Flashes

Other News

- Fireweed Zinc Ltd. (FWZ-V)
- Aurion Resources Ltd. (AU-V)
- K92 Mining Inc. (KNT-V)

None

<u>Fireweed Zinc Ltd. (FWZ-V, \$0.84, [Not Rated]) – Site Visit: Good Start for Fireweed at Macmillan Pass</u>

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Early Days But Macmillan Pass Looking Promising — We recently visited Fireweed Zinc's (FWZ-V) Macmillan Pass lead-zinc-silver project in the Yukon Territory. Macmillan Pass is under an option agreement whereby Fireweed can acquire 100% of the project from Hudbay Minerals (HBM-T, Buy, TP \$11.00) for \$1 million over 2 years, plus 15% of Fireweed's issued and outstanding shares on exercise of the option. Macmillan Pass is host to two sedimentary-exhalative (SEDEX) style lead-zinc-silver deposits—the Tom and Jason deposits—both of which contain a combined 6.43 million tonnes grading 6.33% zinc, 5.05% lead, and 56.55 grams per tonne (g/t) silver (indicated) and 24.5 million tonnes grading 6.71% zinc, 3.48% lead, and 33.86 g/t silver (inferred). We note that SEDEX deposits account for approximately half the world's zinc production, with world-class examples including Mount Isa-Century in Australia and Red Dog in Alaska.

After listing on the TSX-V earlier this year with a \$4 million Initial Public Offering, the Company has embarked on a 2,000-metre drill program that will be incorporated into an updated resource estimate and additional metallurgical studies, plus mapping and relogging of historical drill core. Preliminary metallurgical test work completed by Hudbay returned recoveries of 83% for lead, 73% for silver (lead concentrate), 79% zinc, and 12% silver (zinc concentrate). Fireweed currently has ~\$4 million in the bank and expects to drill ~2,000 metres in a program designed to confirm assay results from historical drilling and tighten drill spacing in areas to convert inferred resources to indicated.

See Haywood Securities for the full report

<u>Aurion Resources Ltd. (AU-V, \$1.89, [Not Rated]) – Extension of Aamurusko Gold Prospect to Greater</u> Than 1.4 Kilometres

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Aurion Resources provided an update on its ongoing prospecting and geological mapping at its 100% owned Risti project. The project is located in Northern Finland and covers 14,000 hectares of untested ground containing several high-grade boulder fields. The Aamurusko gold prospect has been the Company's primary focus following the discovery of high-grade gold-mineralized boulders in 2016, with 133 samples returning an average grade of 74.0 g/t gold. An additional 499 samples have been obtained to date, with recent results extending the high-grade Aamurusko prospect to more than 1.4 kilometres within a greater than 2.5-kilometre-wide northeast-southwest-trending corridor, and identifying multiple new quartz vein (block) trends on its 100% owned Risti project. The limits of these dimensions are reportedly constrained only by overburden cover and remain open to the southwest, west, and east.

8/4/17





Highlights include:

- 32 new quartz blocks assayed greater than 1 ounce per tonne (oz/t) gold up to 81.4 oz/t
- Main Aamurusko trend extended to 1.4 kilometres,
- Multiple quartz vein (block) trends identified within a 2.5-kilometre-wide east-west corridor
- Drilling to commence on or about September 5.

See Haywood Securities for the full report

<u>K92 Mining Inc. (KNT-V, \$0.64, [Not Rated]) – Production, Development, and Exploration Update at</u> Irumafimpa and Kora

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The Company has reportedly started to ship gold-copper concentrates from its Irumafimpa deposit, with 450 tonnes of concentrate shipped in July, and a further 250 tonnes sent to port and awaiting shipment. These concentrates were derived from mining development areas, with production stope area mining now started. Longhole stope production started on the RL1235-RL1250 area and will supplement development area production and remnant stope production to potentially obtain commercial production in September 2017.

Additional production stopes (1205S, 1220S, and 1235S) are in the planning and design phase and are anticipated to be exploited by a combination of longhole stoping and cut-and-fill mining methods. Further, development work above the 1250 mRL level is planned for this quarter, and anticipated to supply a portion of the mill feed with stoping from the 1250 mRL and 1265 mRL levels, anticipated to start in Q4/17.

Grade-control drilling below the 1205 mRL has reportedly encountered gold-copper mineralization immediately below the stope that could be minable and remains open to depth. A total of 7,000 metres of grade-control drilling has been completed at Irumafimpa, and equates to around 3 months of production. The current mine plan at Irumafimpa is based on a 3-year mine plan, outlining a total of 13,645 tonnes grading 6.69 g/t gold (2,935 ounces) of production per quarter.

See Haywood Securities for the full report

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Performance of Companies Included in Junior X and Notable News Flow

		Close Price	M arket Capitalization	Cash at Quarter End	Weekly Performance	QTD Performance	QTD Performance vs. TSXV Index
Company	Ticker	(C\$)	(C\$M)	(C\$M)	Weeking i enormance	Q1D1 onormanos	vs. renv maen
Junior Exploration Names							
Aurion Resources Ltd.	TSXV:AU	1.90	117.41	12.00	5.6%	1.6%	0.9%
Auryn Resources Inc.	TSX:AUG	3.41	262.14	36.00	(2.0)%	2.4%	1.7%
Calibre Mining Corp.	TSXV:CXB	0.14	43.77	5.00	3.7%	(6.7)%	(7.4)%
Cordoba Minerals Corp.	TSXV:CDB	0.64	144.94	12.84	(5.9)%	(15.8)%	(16.5)%
Fireweed Zinc Ltd.	TSXV:FWZ	0.82	14.56	4.10	(2.4)%	(3.5)%	(4.3)%
Hannan Metals Ltd.	TSXV:HAN	0.30	8.24	0.80	(3.2)%	0.0%	(0.7)%
IDM Mining Ltd.	TSXV:IDM	0.13	46.68	16.57	(3.7)%	(3.7)%	(4.4)%
Jaxon Minerals Inc.	TSXV:JAX	0.42	20.21	0.24	(8.7)%	13.5%	12.8%
Kootenay Silver Inc	TSXV:KTN	0.24	41.93	4.80	(4.0)%	(4.0)%	(4.7)%
Novo Resources Corp.	TSXV:NVO	2.82	331.47	0.00	5.6%	52.4%	51.7%
Osprey Gold Development Ltd.	TSXV:OS	0.24	6.32	0.20	(4.0)%	0.0%	(0.7)%
Redstar Gold Corp.	TSXV:RGC	0.13	37.27	0.00	(3.8)%	(3.8)%	(4.6)%
Regulus Resources Inc.	TSXV:REG	1.56	107.08	10.60	2.6%	(1.3)%	(2.0)%
Reunion Gold Corporation	TSXV:RGD	0.14	26.24	5.72	0.0%	0.0%	(0.7)%
Vendetta Mining Corp.	TSXV:VTT	0.30	32.43	4.39	17.6%	1.7%	1.0%
Other Companies in the News							

No other news for the week

Source: Capital IQ and Haywood Securities



Key Catalysts for Companies Featured in the Last Junior Exploration Report

Company Junior Exploration Names	Ticker	Catalysts
Antier Gold Inc.	TSXV:ANTL	 Q3- 2017 drill program results Regional soil and basal till sampling, prospecting and excavator trenching to commence in Spring 2017 Targeted 20+ targets for fall 2017 drill program
Aurion Resources Ltd.	TSXV:AU	 Drill results from Kutuvuoma (H2/17) Start of drill program at Risti (H2/17) Prospecting and drilling results from other projects (H2/17)
Auryn Resources Inc.	TSX:AUG	 Drilling at Homestake (15,000 metre)- Q3 2017 Drilling at Committee Bay (25,000 metre) Q2-Q3 2017 Drilling at Sombrero (5,000 metre) Q3-Q4 2017 Drilling at Banos del Indio (5,000 metre)- Q4 2017 Drilling at Huilacollo (5,000 metre) Q3-Q4 2017
Calibre Mining Corp.	TSXV:CXB	 Maiden drilling program started- H1 2017 Phase 4 resource delineation- Q1 2017 Additional diamond drilling is scheduled for- H2 2017
Cordoba Minerals Corp.	TSXV:CDB	• Further drill results from Alacran (18,000 metre program)- Q2 2017
IDM Mining Ltd.	TSXV:IDM	Resource expansion and exploration drilling -throughout 2017 Feasibility study- Q2 2017 Permitting: -Application of Environmental Assessment Certificate and Environmental Impact Statement- Q2 2017 -Regulatory review (210 day period. 45 day ministers decision) Q3-Q4 2017 -EA certificate Q1-Q2 2018 Construction- Q2 2018 Commencement of production- Q2 2019
Kenadyr Mining (Holdings) Corp.	TSXV:KEN	Results from 2017 drill program H2/2017 Trenching/channel sampling and soil geochemistry results H2/2017
Monarques Gold Corporation	TSXV:MQR	 Drill Results and increased resources at Coroinor Gold (H2/17) Data compilation and exportation announcements at Beacon (H2/17)
Nighthawk Gold Corp.	TSXV:NHK	• Resource estimate- Q2 2017 • Commence phase 1 of 25,000m drill program- Q1 2017
Plateau Uranium Inc.	TSXV:PLU	 Results of ongoing drilling – April-May 2017 Comminution/upgrading test work on Macusani ore - May Continued results of ongoing metallurgical work on lithium and uranium extraction in Peru and Australia - Q2 2017 Environmental and permitting progress - Q2 2017 Uranium and lithium precipitation/production process work with CAPEX and OPEX for U-Li co-production – Q2-Q3 2017 Potential commencement of feasibility study – Q3 2017
Pure Gold Mining Inc.	TSXV:PGM	 4 drill rigs active and focused on resource expansion in McVeigh, Austin, and A3 targets at Madsen Mine- 2017 Resource update- H2 2017 Commencement of Underground drilling anticipated by end of- Q2 2017
Purepoint Uranium Group Inc.	TSXV:PTU	 Continue Hook Lake Diamond drill program focused on Spitfire and Hornet - Q2 2017 Balance of results from the 12,000 metre, 30 hole 2017 drill program (20 holes complete) Potential announcement of additional exploration work toward year-end
Red Eagle Exploration Limited	TSXV:XR	Start of drill program (Q2/17) Drill and Exploration results (Q3/17) Initial resource on Vetas (Q1/18)
Regulus Resources Inc.	TSXV:REG	 Commence 15-18,000 metres drilling program at AntaKori Q1-Q2 2017 Revise resource estimate by- Q4 2017 Drilling program at Golden Bre JV in Nevada-delayed due to Sage Grouse protection-Mid 2017
Rupert Resources Ltd.	TSXV:RUP	 Commence initial production of 35,000 ounces per year at Pahtavaara in H2/17 Drilling of near mine exploration targets and definition drilling (ongoing)
Vendetta Mining Corp.	TSXV:VTT	 2nd updated mineral resource estimate- Q2 2017 New regional copper discovery ground EM survey and drilling- Q2 2017 Pegmont lead-zinc resource drilling to continue Q1-Q2 2017 Environmental baseline studies commencing- Q2 2017 PEA completion- Q1 2018

Source: Haywood Securities



Haywood Research: The Week in Review

Publications from the Haywood Research team for the week included the following:

- Q2/17 operations updated from B2Gold Corp. (BTO-T)
- Target price revision for Capstone Mining Corp. (CS-T)
- Feasibility study from Trek Mining Inc. (TREK-V)
- Q2/17 production and financial results from Endeavour Mining Corp. (EDV-T)
- July 2017 operations and sales update from Mountain Province Diamonds Inc. (MPVD-T)
- Q2/17 financial results from Asanko Gold Inc. (AKG-T)
- Q2/17 financial results from Alamos Gold Inc. (AGI-T)
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- Drill program results from Denison Mines Corp. (DML-T)
- Drilling results from Osisko Mining Inc. (OSK-T)
- Mineral Resource Estimate from Pure Gold Mining Inc. (PGM-V)
- Q2/17 Cash flow from Richmont Mines Inc. (RIC-T)
- Q2/17 financial results from Osisko Gold Royalties Ltd. (OR-T)

Research Reports:

<u>B2Gold Corp. (BTO-T, \$3.36, [Buy Rating, \$5.00 Target Price]) – Q2/17 Operations Light on Soft Production from Nicaragua Leading to Guidance Revision</u>

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Q2/17 Production and Sales – Production of 121,448 ounces of gold was 7% lower than our estimate of 130,968 ounces of gold. Overall, we find that grade and mill performances at Nicaragua operations led to lower production, and were marginally offset by higher throughputs at Masbate and Otjikoto. Gold recoveries across all mines were in line or better than expected. Sales of US\$164.7 million (131.7 thousand ounces [koz] at an average price of US\$1,247 per ounce (/oz) of gold) was a little higher than our estimates of US\$161.8 million, as the Company sold ounces out of inventory. 2017 guidance was revised down to 530 koz to 570 koz of gold (was 545 koz to 595 koz) on soft Nicaragua performance.

Operations Summary - Masbate – Production of 49.9 koz of gold was 11% higher than our estimate of 45.0 koz of gold based predominately on higher throughput than expected (1.82 million tonnes [Mt] vs 1.73 Mt), which was aided by the presence of higher than expected oxide material from the Colorado Pit that facilitated material blending and average gold recoveries (75.9% vs 74.0%). Average head grades were in line (1.12 g/t vs 1.10 g/t gold).

Otjikoto – Production of 41.2 koz of gold was 2% lower than our 42.0 koz estimate, as higher throughput (867 kilotonnes [kt] vs 820 kt), and gold recoveries (98.6% vs 98%) almost offset lower than expected average head grades (1.50 g/t of gold vs 1.63 g/t of gold).

Libertad – Production of 22.6 koz of gold was 25% lower than our estimate of 30.1 koz of gold, which was mainly driven by 23% lower head grades (1.37 g/t vs 1.76 g/t gold), as mill throughput and gold





recoveries were around our estimates. Jabali Antenna is projected to start production in early 2018, with the San Juan and San Diego open pits (pending permitting) expected to be in production in Q3/17.

El Limón – Production of 7.7 koz of gold was 44% lower than our estimates (13.9 koz) and was mainly driven by lower head grades (2.43 g/t vs 3.80 g/t gold) on drawing from lower grade stockpiles after reduced production from Santa Pancha underground stemming from water-control issues. Lower ore availability also led to lower mill throughput (106.4 kt vs 123 kt). Gold recoveries of 93.2% were in line with expectations.

See Haywood Securities for the full report

<u>Capstone Mining Corp. (CS-T, \$1.17, [Buy Rating, \$1.50 Target Price]) – Q2 Results Ahead of Expectations; Raising Target Price</u>

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Financial Results Benefit from Increased By-product Sales – Capstone Mining reported Q2/17 earnings per share (EPS) of US\$0.03 and cash flow per share (CFPS) of US\$0.07, compared with our estimates of a loss of US\$0.04 for EPS and US\$0.03 for CFPS, and consensus of a loss of US\$0.02 and US\$0.05 respectively. In Q1/17, the Company reported an EPS loss of US\$0.02 and CFPS of US\$0.06. Revenues were down quarter over quarter (QoQ) (10%) on a decline in realized commodity prices: copper (4.5%) and zinc (29%). However, earnings before interest, taxes, depreciation, and amortization (EBITDA) were up 3.8%, cash flow up 7.3%, and earnings relatively flat QoQ.

Debt Is High, But Coming Down – Cash declined to US\$82 million from US\$109 million in Q1/17, primarily as the result of a US\$10 million repayment on the revolving credit facility and a working-capital draw of US\$22 million. With the repayment, total debt declined slightly to US\$294 million, for a net debt position of US\$212 million (+\$16 million from Q1/17).

Production Guidance Reiterated, Operating-Cost Guidance Increased US\$0.15 to US\$0.20 per Pound – The Company reiterated its 2017 guidance of 94,000 tonnes (±5%) of copper and increased 2017 C1 cash cost, All-in cost, and fully loaded all-in cost guidance by US\$0.15 to US\$0.20 per pound.

50% of H2/17 Production Unhedged, No Hedges Beyond 2017 – At the end of the quarter, the Company had 24,000 Mt of zero-cost collar copper contracts outstanding with exercise prices of US\$2.28 per pound (/lb) for the put and US\$2.53/lb on the call. We estimate the derivative loss at US\$3.2 million for H2/17.

See Haywood Securities for the full report

<u>Trek Mining Inc. (TREK-V, \$1.14, [Buy Rating, \$3.00 Target Price]) – Aurizona Updated Feasibility Study</u> Delivers Lower Capex

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Feasibility Study Highlights Lower Capex on Mostly Contract Mining – Trek announced the results of an updated feasibility study (FS) for its 100% owned Aurizona gold mine located in northeastern Brazil. Most metrics came in line with our expectations, while capital costs were lower than we were modelling (US\$131 million vs US\$175 million), and operating costs were higher (US\$691/oz vs US\$600/oz). Capex was US\$15 million lower with the move to contract mining. The feasibility highlighted economics similar to the last FS, delivering average annual production of 136,000 ounces





of gold over a 6.5-year mine life, an after-tax net present value (NPV)5% of US\$197 million at a US\$1,250/oz gold price assumption, and an after-tax internal rate of return (IRR) of 34%. The FS was prepared by Lycopodium Minerals Canada, which has a lot of experience in engineering plants of this size.

EPCM Awarded, Permits Expected Soon – Trek will now focus on engineering, procurement, and construction management (EPCM) activities and has awarded the project work to Ausenco Engineering Canada. Since Aurizona was placed on care and maintenance in Q3/15, licences and permits have been maintained. However, the existing Licence to Operate requires amendment for the increased throughput from 5,500 to 8,000 tpd. Trek expects to receive the Licence to Install in Q3/17, which will allow full construction to commence and achieve the Company's target of first gold pour by the end of 2018, following a 16- to 18-month construction window. The next step will be to finalize a debt package in the US\$75 million range by the end of Q3. Trek has around US\$75 million in cash (Haywood estimate) currently and US\$30 million of convertible debt.

Updating Our Assumptions – We have updated our formal valuation to reflect the results of the updated FS. The most notable change is a reduction in our initial capex estimate from US\$175 million, to US\$150 million, still above the Company estimate of US\$131 million. We also adjusted our equity financing assumption, reducing the amount of equity financing needed from US\$60 million to US\$25 million, while also reducing our equity issuance price from \$2.00 to \$1.10 per share, to be more in line with the current share price. Our target price, which continues to be based on a 1.0x net asset value (NAV) multiple, remains unchanged at \$3.00. We maintain our BUY rating.

See Haywood Securities for the full report

Endeavour Mining Corp. (EDV-T, \$23.74, [Buy Rating, \$35.00 Target Price]) – Q2/17 Operations Return Solid Performance As Houndé Eyes Near-Term Production

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Q2/17 Operations – Consolidated production of 152.3 koz of gold at an AISC of US\$897/oz is modestly lower than our expectations of 160 koz of gold at an AISC of US\$872/oz. Agbaou delivered 45.5 koz of gold at a cash cost of US\$528/oz and AISC of US\$606/oz, which was consistent with our expectations on comparable head grades and gold recoveries, although mill throughput was higher than estimated, and presumably the positive gold balance will be realized in future sales. Mining costs and processing plus general and administrative (G&A) costs were in line. Tabakoto delivered 41.3 koz of gold production at a cash cost of US\$802/oz and AISC of US\$1,054/oz, which was better than our estimates (e.g., 38 koz of gold at a cash cost of US\$1,097/oz) on lower mining, processing, and G&A unit costs. Nzema delivered production of 27.2 koz of gold at a cash cost of US\$838/oz, which was in line with our estimates of 27.8 koz of gold, with cash cost in line with our estimate of US\$819/oz. Ity produced 14.1 koz of gold, which was significantly less than our expectations on lower ore tonnes stacked (243 kt vs 304 kt) owing to episodic heavy rainfall later in the quarter (and extending into Q3/17). Lower production translated into cash cost being higher than expected at US\$625/oz (vs US\$554/oz), with AISC coming in at US\$780/oz. Karma underperformed our expectations and produced 24.2 koz of gold (vs 29 koz of gold at a cash cost of US\$608/oz) at a cash cost of US\$657/oz and AISC at US\$755/oz on lower QoQ ore stacking (852 kt vs 954 kt) and to a lesser degree lower than anticipated gold recoveries (83% vs 87%). Q2/17 delivered revenues of \$185.5 million and adjusted EBITDA of \$66 million, and operating cash flow (before changes in working capital) of US\$0.57 per share, which was lower than our estimates for EBITDA of \$75 million and operating cash flow of \$0.63 per share based primarily on lower gold sales, and to a lesser extent lower average gold prices.



Mountain Province Diamonds Inc. (MPVD-T, \$4.89, [Buy Rating, \$6.30 Target Price]) – July 2017 Operations and Sales Update Show High Production and Margin Potential

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Operations and Sales Summary – July production data for Gahcho Kué show that the processing plant continues to outperform nameplate throughput and diamond production. July reported plant throughput was 314 kt (~3.7 million tonnes per annum [Mtpa]), with concurrent diamond production of 669 thousand carats [kct] (or ~7.9 million carats [Mct] per year). These high levels of production were aided by the high-grade nature of the kimberlite feed (2.13 carats per tonne [ct/t]).

The Gahcho Kué plant continues to impress on both material throughput and diamond production since the declaration of commercial production (see table and figure below), and has on average well exceeded the nominal 3.0 Mt per year nameplate capacity since April. Furthermore, processing grades continue to well exceed expectations, with July average head grades lifting to 2.13 ct/t.

July sales data showed that 290 kct were sold at an average price of US\$72/ct for revenues of US\$20.9 million. We note that the sale excluded Fancies and Specials that were earlier sold in June, and if integrated into this batch would rebalance the average to US\$87/ct, in line with our expectations of US\$89/ct. Importantly, with these sales data, average revenue per tonne for April is estimated at C\$225/t.

With 3.15 Mct produced year to date (to the end of July), we project that the operation's performance will easily exceed the upper end of management's guidance for 2017 of 4.4 Mct. We currently estimate production of 4.8 Mct in 2017, and await Q2/17 financials to be published on August 9.

See Haywood Securities for the full report

<u>Asanko Gold Inc. (AKG-T, \$1.11, [Hold Rating, \$2.00 Target Price]) – Q2/17 Financials Beat Estimates</u> <u>but Overshadowed by 2017 Guidance Revision</u>

Geordie Mark, PhD, FAusIMM, gmark@haywood.com; Alvin Islam, GIT, aislam@haywood.com

Q2/17 Financials: The Company reported revenues of US\$60 million, EBITDA of US\$25 million, and operating cash flow (before changes in working capital) of US\$26.7 million (US\$0.13/sh), which exceeded our estimates of EBITDA of US\$25 million, and operating cashflow (before changes in working capital) of US\$13 million (US\$0.06/sh)...

Q2/17 Operations: Gold production of 46,017 ounces together with sales totalling 48,461 ounces gold. Operations data showed a dip in processing rates with processing of 887 kt of ore material (\sim 9,747 tpd). Average mill head grade of 1.68 g/t gold. Gold recoveries continue to be stable at 94.1%. Mining strip ratios in Q2/17 were 6.2:1 with the exploitation of 1.048 Mt of ore grading 1.5 g/t gold...

Revised Guidance: The Company has reduced the full year production and AISC guidance respectively to 205-225 Koz (previously 230-240 Koz) and US\$920-US\$960/oz (previously US\$880-US\$920/oz) reportedly due to a number of factors, including artisanal workings occurring to a greater than expected depth at Akwasiso, and the consequent less extensive nature of upper oxide gold mineralization than originally interpreted, as well as elevated mine dilution and ore loss experienced at Nkran. Such variances are now projected to translate to lower mining rates from Akwasiso, which are expected to be augmented by Dynamite Hill feed in late Q4/17.





2017 Forecasts: We have revised our 2017 guidance to 212 koz of gold at a cash operating cost of \$727/oz and AISC of US\$942 per ounce. Our forecasts drive revenues of US\$262 million, EBITDA of US\$94 million, and OCFPS of US\$0.44 per share.

Target Price, Ratings: We have reduced our target to \$2.00 and our rating to Hold on the consideration that sentiment will remain poor until such stage that management can demonstrate that operations are performing to the revised plan and that mining activities at Akwasiso, Dynamite Hill and Nkran are delivering to plan and executing planned improvements to mitigate reported levels of ore dilution and ore loss.

See Haywood Securities for the full report

Alamos Gold Inc. (AGI-T, \$9.66, [Buy Rating, \$11.50 Target Price]) – Q2/17 Results Beat Consensus... Record YTD Production, and More to Come

Kerry Smith, MBA, PEng, ksmith@haywood.com; Danny Ochoa, PEng, CFA, dochoa@haywood.com

Q2/17 Cash Flow Beats Consensus - Alamos reported Q2/17 cash flow (before non-cash working-capital changes) of US\$45.1 million, or US\$0.15 per share, above our estimate of US\$0.14 per share, and consensus at US\$0.12 per share. The three operations generated US\$18.2 million of free cash flow for the quarter. In Q2/17, Alamos produced a record 105,900 ounces of gold, above our estimate of 98,715 ounces, and above Q1 at 96,200 ounces...

Development Projects on Track - La Yaqui construction is on budget and on schedule, with US\$5.5 million (US\$10.8 million year to date [YTD]) spent in Q2 and on track to start production in Q3. During the quarter, activities included construction of the independent leach pad, pre-stripping, and stockpiling ore from the open pit, with about 120,000 tonnes grading 1.3 grams per tonne (g/t) already stockpiled.

Now a Debt-Free Balance Sheet - At quarter end, the Company's cash balance stood at US\$134 million, down from US\$479 million on March 31. However, during Q1, Alamos repaid its outstanding US\$315 million senior secured debt that was due in 2020 using proceeds from the US\$250 million bought-deal financing that was completed during Q1. Retirement of these notes saves US\$24.4 million in annual interest costs and has eliminated US\$72 million of interest over the term to maturity.

2017 Guidance Unchanged - Full-year production guidance remains unchanged at between 400,000 and 430,000 ounces of gold (202,100 ounces produced YTD) at a total cash cost of US\$765/oz and AISC of US\$940/oz. Production and costs are expected to improve in H2/17, and Company guidance should be easily achievable. We model 420,000 ounces of gold production at a total cash cost of US\$745/oz and AISC of US\$935/oz and expect our estimate will be slightly conservative.

See Haywood Securities for the full report

Hudbay Minerals Inc. (HBM-T, HBM-N, \$9.71, [Buy Rating, \$12.00 Target Price]) – Back on Track; Raising Target to \$12

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Financial results were good. Hudbay reported Q2/17 EPS of US\$0.11 and CFPS of US\$0.52, compared to our estimates of US\$0.16 for EPS and US\$0.54 for CFPS, and to consensus of US\$0.14 and US\$0.50, respectively. In Q1/17, the Company reported an EPS loss of US\$0.01 and CFPS of US\$0.34. Despite





slightly lower metals prices, revenues were up QoQ (+28.3%) on higher sales of copper (+48.6%) and zinc (+ 9.7%), contributing to higher EBITDA (+39%) and cash flow (+54%).

Debt remains high, but improving. Hudbay ended Q2/17 with net debt of US\$950m and total liquidity of US\$497m, including US\$153m in cash, an improvement from Q1/17 levels of net debt of US\$1,035m and total liquidity of US\$433m. The Company extended the debt maturity, and lowered interest costs, while repaying US\$63m.

Strong production. In Q2/17, the Company recovered from a weak Q1/17, producing 40.8 kt of copper (+18% QoQ), 34.9 kt of zinc (+14% QoQ), 26.7 koz gold (+29% QoQ) and 810.3 koz of silver (+10% QoQ) at a cash cost of US\$0.85/lb (US\$0.88/lb in Q1/17) and an AISC of US\$1.49/lb (US\$1.46/lb in Q1/17). The results came in line with our production estimates, while cash cost and AISC were above our estimate. Relative to previous quarters, copper production from Peru is trending down as grades decrease, but zinc output is rising as Lalor expands capacity.

Reiterating Guidance. Management reiterated 2017 production and operating cost guidance: 132.5 - 157.5 kt of copper, 125 - 150 kt of zinc and 145 - 175 koz of precious metals. Combined unit operating costs are expected to be C\$88 - C\$108/t for the Manitoba Operations and US\$7.20 – US\$8.80/t for Constancia.

See Haywood Securities for the full report

<u>Lucara Diamond Corp. (LUC-T, \$2.73, [Buy Rating, \$3.50 Target Price]) – Q2/17 Financials Beat Expectations on High Carat Value</u>

Geordie Mark, PhD, FAusIMM, gmark@haywood.com; Alvin Islam, GIT, aislam@haywood.com

Q2/17 Financials: Lucara reported revenues of US\$80 million on the sale of 59.6 kct at an average price of US\$1,336 per carat. EBITDA for the quarter is estimated at US\$52 million and operating cash flow (before changes in WC) were \$0.12 per share. These results were in line with our expectation for revenues of US\$81 million, however exceeded our expectations for EBITDA of US\$45million and operating cash flow (before changes in WC) of US\$0.09/sh...

Q2/17 Operations: Diamond production totaled 58 kct at an operating cost of US\$247/ct assuming direct operating costs of ~US\$30/t processed. Diamond recoveries were lower than our estimate of 81 kct that was driven by lower actual plant throughput (514 kt vs 623 kt) and the processing of lower grade material (11 cpht vs 13 cpht) on processing more lower grade South Lobe stockpile material...

2017 Guidance: Production guidance lowered marginally to 260-275 kct (was 265-285 kct), but revenue guidance of \$200-220 million (excluding sale of Lesedi La Rona) maintained due to higher average diamond pricing on processing South Lobe material. The revision stemmed from a reduction in ore mined forecasts to 1.8-2.0 Mt (2.4-2.7 Mt), which will be offset by processing of South Lobe stockpiled material.

2017 Forecasts: Revenues of US\$298 million delivering cashflow of \$124 million. Diamond sales of 273 kct at US1,093/ct, and an operating cost of US\$357/ct.



Radar Flashes:

<u>Capstone Mining Corp. (CS-T, \$1.17, [Buy Rating, \$1.40 Target Price]) – Results Ahead of Expectations; Increased 2017 Operating-Cost Guidance</u>

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Financial Results Benefit from Increased By-product Sales – Capstone Mining reported Q2/17 EPS of US\$0.03 and CFPS of US\$0.07, compared with our estimates of a loss of US\$0.04 for EPS and US\$0.03 for CFPS, and consensus of a loss of US\$0.02 and US\$0.05 respectively. In Q1/17, the Company reported an EPS loss of US\$0.02 and CFPS of US\$0.06.

Debt Is High, But Coming Down – Cash declined to US\$82 million from US\$109 million in Q1/17, primarily as the result of a US\$10 million repayment on the revolving credit facility and a working-capital draw of US\$22 million. With the repayment, total debt declined slightly to US\$294 million, for a net debt position of US\$212 million (+\$16 million from Q1/17).

Production Guidance Reiterated, Operating-Cost Guidance Increased U\$\\$0.15 to U\$\\$0.20 per Pound — The Company reiterated its 2017 guidance of 94,000 tonnes (±5%) of copper and increased 2017 C1 cash cost. All-in cost and fully loaded all-in-cost guidance increased by U\$\\$0.15 to U\$\\$0.20 per pound.

Previous Reported Production – Earlier this month, Capstone released Q2/17 production results. At Pinto Valley, grade, recoveries, and production were as planned, and throughput averaged 58,700 tpd. Copper production at Cozamin came in 18% above our estimate at 4.1 kt, which was driven by higher grade (1.85% coper vs our 1.57% copper). At Minto, copper production came in 13% below our estimate at 4.4 kt (vs our 5.1 kt) owing to mine sequencing changes to support a mine-life extension.

See Haywood Securities for the full report

NexGen Energy Ltd. (NXE-T, \$3.20, [Buy Rating, \$6.00 Target Price]) – PEA Confirms Arrow Has Potential to Become Lowest Cost Uranium Mine Globally

Colin Healey, MBA | chealey@haywood.com, Aazan Habib, ahabib@haywood.com

NexGen has released highly positive results of a Preliminary Economic Assessment (PEA) of the Arrow deposit on its wholly owned Rook 1 project. Results of the PEA are very impressive, showing Arrow could become one of the largest and lowest cost uranium producers globally, and generate a positive NPV well below the current term uranium price. Although the PEA is similar in scope to our mining concept (mine life / average output), it significantly improves on our economics, highlighted by extremely low life-of-mine average opex of US\$6.70/lb of U_3O_8 , and just a US\$4.42/lb average for the first 5 years of operation. Unit operating costs are less than 18% of current term market pricing, managing rapid payback of capex even under price scenarios below the current term price.

Reiterating Great Entry Point – We believe there is a huge opportunity in NexGen shares for investors looking to gain exposure to one of the best undeveloped projects globally, in any commodity, trading at 0.5x our corporate NAVPS, and < 0.3x the PEA base-case project NAV. The PEA establishes a baseline for the very robust prospective economics of Arrow, with potential to improve further, with the preliminary feasibility study (PFS) expected in mid-2018. NexGen has completed a massive amount of drilling since the March 2017 resource (which underpins the PEA). This drilling has demonstrated material resource growth potential at Arrow, and as such, the mineral inventory in our mining concept incorporates some of our deemed success of that work, including additional high-grade tonnes not yet defined as 'resources' at Arrow and not captured in the PEA.



<u>Liberty Gold Corp. (LGD-T, \$0.455, [Buy Rating, \$1.00 Target Price]) – Initial Results from Mineral</u> Mountain Target at Goldstrike Project

Mick Carew, PhD | mcarew@haywood.com, Emma Boggio, MSA, CPA, CA, eboggio@haywood.com

Liberty Gold announced initial drilling results from the Mineral Mountain Target at its 100% controlled Goldstrike oxide gold project in southwestern Utah. Goldstrike is a Carlin-style, sediment-hosted gold property and was host to a past-producing mine. The historic Goldstrike mine operated from 1988 to 1994, with 209,000 ounces of gold produced from 12 shallow pits, at an average grade of 1.2 g/t gold. The Mineral Mountain target is northwest of the historic mine trend, and remains largely untested. The current drill program is spread out along the 1-kilometre strike length of the target's exposed Claron Formation and felsic intrusive rocks.

Highlights from the Mineral Mountain Target Include:

- PGS253: 13.7 metres grading 1.02 g/t gold from a downhole depth of 45.7 metres, and 10.7 metres grading 0.74 g/t gold from a downhole depth of 108.2 metres,
- PGS255: 25.9 metres grading 1.16 g/t gold from surface, including 4.6 metres grading 3.48 g/t gold,
- PGS264: 6.1 metres grading 0.58 g/t gold from a downhole depth of 18.3 metres, and 7.6 metres grading 0.51 g/t gold from a downhole depth of 45.7 metres, and
- PGS265: 28.9 metres grading 0.79 g/t gold from a downhole depth of 50.3 metres, including 4.6 metres grading 1.97 g/t gold.

See Haywood Securities for the full report

<u>Detour Gold Corporation (DGC-T, \$15.67, [Buy Rating, \$28.00 Target Price]) – DGC Site Visit: Opinions</u> and Comments

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Mining on Budget and Expected to Ramp-up – The pit is much wider now, and tonnages from the pit will continue to increase, owing to the wider benches and the additional shovel and two trucks operating, with another truck and two more shovels to be added by year-end. The budget for 2017 is 100 Mt of material moved, and for the 6-month period the pit has mined 47 Mt. The pit should at least meet budget this year.

Mill Running Well, More Improvements Expected – The mill continues to run very well, with the plant averaging about 59,000 tpd in H1/17. The mill is now comfortably hitting the target of 2,850 tonnes per operating hour (tpoh), or 63,000 tpd / 23 Mt per year, assuming its design mechanical availability of 92% (note, it was 2,866 tpoh in H1, or 1% above design, although current mechanical availability is lower than design). The next hurdle is to increase the plant availability from 86% currently to 92% to get to this 63,000 tpd rate by 2021, as per the plan.

Mill Recovery Continues to Improve – The plant gold recovery is now 89%, and the target is 92% by 2022 from incremental operational improvement and some design modifications. The lead nitrate and extra oxygen are now running (expect to get +2%), and reducing gold in solution losses, improved carbon screens to prevent gold losses on fine carbon, and grinding optimization are expected to add another 1.5% to recovery. These big plants always see incremental improvement, and we could expect 92% to 93% as a realistic target by 2021.



<u>Denison Mines Corp. (DML-T, C\$0.63; DNN-US, US\$0.51, [Buy Rating, \$1.80 Target Price]) – Early Results of Summer Drill Program at Waterbury Show Potential</u>

Colin Healey, MBA | chealey@haywood.com, Aazan Habib, ahabib@haywood.com

Initial Intercept Provides Solid Start to Summer Drill Program — WAT-17-443 intersected the sub-Athabasca unconformity at 212 metres, with the mineralization intersected at ~70 metres vertically below the unconformity in semi-pelitic gneiss. The mineralization reportedly had the typical features of a basement-hosted uranium deposit in the Athabasca basin, including strong hematite alteration, bleaching, and faulting. The high-grade mineralization, although occurring over a short interval, was found in close proximity to a broader mineralized interval. The hole was oriented steeply to the southeast (73° dip), and the true thickness of mineralization is 'to be determined'. With just one hole in the ground, the zone remains open in all directions, and follow-up drilling will provide further colour on the potential of this new area.

Review of Waterbury Lake Property – The project is jointly owned by Denison Mines (63.63%, DML-T) and the Korea Waterbury Uranium Limited Partnership (36.37%, private), which consists of a consortium in which Korea Hydro & Nuclear Power is the majority holder. The property includes the J-Zone deposit, located near Rio Tinto's (RIO-LN; not rated) Roughrider deposit and within 20 kilometres of the McClean Lake mill. In Q1/17, nine drill holes totalling 4,803 metres were completed along the Hamilton Lake trend that confirmed strike continuity of a graphitic fault zone in the basement rocks. The 2017 exploration program was extended to include a summer drill program of ~2,650 metres across six holes to test an area ~1.5 kilometres north of the J-Zone deposit that was found to have geological similarities.

See Haywood Securities for the full report

Osisko Mining Inc. (OSK-T, \$4.47, [Buy Rating, \$6.50 Target Price]) – Additional Positive Drilling Results Further Extend Underdog Corridor

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Osisko Mining announced additional drill results from its ongoing 400,000-metre drill program at its 100% owned Windfall Lake gold project located in Urban Township, Québec. The latest drill results consist of 35 intercepts in 22 drill holes focused on infill and expansion drilling in the Underdog, Caribou, and Zone 27 Corridors. Currently, the Company has 24 drills active on the Windfall project.

Underdog Corridor Assay Highlights:

- Drill Hole OSK-OBM-16-609: 7.7 metres grading 63.20 g/t gold (uncut) from a downhole depth of 654.3 metres, including 2.0 metres grading 222.0 g/t gold (uncut)
- Drill Hole OSK-W-17-847: 12.0 metres grading 8.44 g/t gold from a downhole depth of 1,162.0 metres, including 1.0 metre grading 32.90 g/t gold, and 3.0 metres grading 20.40 g/t gold from a downhole depth of 1,208.0 metres
- Drill Hole OSK-W-17-854-W2: 3.5 metres grading 18.60 g/t gold from a downhole depth of 795.7 metres, including 0.5 metres grading 80.30 g/t gold



<u>Pure Gold Mining Inc. (PGM-V, \$0.55, [Buy Rating, \$1.00 Target Price]) – Expanded Mineral Resource</u> Estimate for the Madsen Gold Project

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Pure Gold announced a new mineral resource estimate for its 100% owned Madsen gold project. The project is located in the prolific Red Lake mining district in northwestern Ontario. The current resource update represents mineralization at the Madsen deposit only. However, the Company intends to issue a further update towards the end of the year in order to include estimates for Madsen's satellite deposits, including Russet South and the Fork Zone.

The current estimate reported 1,648,000 ounces of gold in the indicated category and 178,000 ounces of gold in the inferred category at the Madsen mine. This mineralized zone encompasses the Austin, South Austin, 8 Zone, McVeigh, and A3 domains (Table 3). The recent estimate represents a 48% increase to indicated resource ounces at a cutoff grade of 4 g/t gold (Table 2). The Company was able not only to move much of its previously inferred resource to the indicated category, but also to further expand its global resource base. A portion of this expansion was driven by an increase in the overall grade. Notably, in the 8 Zone, the grade increased from 132,000 ounces of gold (indicated) at an average grade of 12.21 g/t gold to 253,000 ounces of gold (indicated) at an average grade of 20.8 g/t gold.

See Haywood Securities for the full report

Richmont Mines Inc. (RIC-T, \$10.25, [Buy Rating, \$14.00 Target Price]) - Solid Q2/17 CFPS Beats Consensus

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Strong Balance Sheet to Fund Development – During the quarter, the Company generated free cash flow of \$19.2 million after total capex spending of \$11.3 million. The Company's cash balance increased to \$95.9 million, up from \$75.2 million the previous quarter. Year to date, sustaining capital has totalled \$10.4 million, well below the Company's annual guidance of \$25 million to \$29 million, and expansion capital has totalled \$11.9 million, also below the Company's annual guidance of \$33 million to \$35 million. We expect capital expenditures to ramp-up in H2/17, but remain within the guidance range.

Island Mine: Underground Production Over 1,000 tpd Now and Running Very Well – During the quarter, the Island mine in Ontario produced 26,110 ounces of gold at a cash cost of \$580/oz (US\$431/oz), compared with 23,772 ounces at \$668/oz (US\$504/oz) in Q1/17, and above our model of 23,700 ounces at a cash cost of \$710/oz (US\$530). Mine productivity for the quarter averaged 1,148 tpd, up from 1,019 tpd in Q1/17, while mill throughput averaged 940 tpd this quarter vs the original design of 800 tpd, and subsequently increased to 900 tpd. Average grades during the quarter increased to 9.73 g/t gold, a 6% increase from 9.18 g/t gold in Q1/17.

Positioned to Beat Guidance – Year to date, production has totalled 60,650 ounces at an average cash cost of \$754 and AISC of \$1,031/oz, positioning the Company to achieve the top end of production guidance for the year of between 110,000 and 120,000 ounces, and come in below cash-cost guidance for the year of between \$835 and \$885/oz. At Island, production year to date has totalled 49,882 ounces, and the mine is on track to easily beat annual guidance of between 87,000 and 93,000 ounces.



Osisko Gold Royalties Ltd. (OR-T, \$15.77, [Buy Rating, \$19.50 Target Price]) – Osisko Delivers Strong Q2/17 Results...Guidance Updated for Orion Acquisition

Kerry Smith, MBA, PEng, ksmith@haywood.com; Danny Ochoa, PEng, CFA, dochoa@haywood.com

Q2/17 CFPS Beats Consensus - During the quarter Osisko reported Cash flow from Operations (before working capital changes) of \$13.7 million, or CFPS of US\$0.13/sh, above consensus at \$0.12/share, and just shy of our estimate of \$0.14. During the quarter 10,863 gold equivalent ounces were received, just below our estimate of 11,000 GEO for the quarter. During the quarter, strong production at the Canadian Malartic Mine, due to higher realized grades, resulted in record quarterly production...

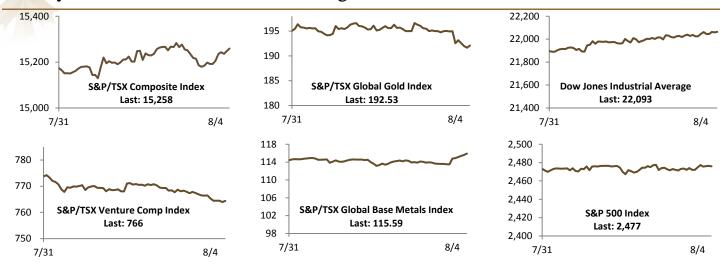
Cash Balance Declines Due to Investment Acquisitions...Orion Acquisition to be Reflected in Q3 - During the quarter Osisko's cash balance decreased to, \$349 million, down from \$424 million on March 31, 2017 due to \$68.3 million used to acquire investments including the acquisition of additional shares of Barkerville Gold mines for \$38.9 million taking their interest in the Company to 33.4%, and acquisition of an additional 0.75% NSR on the Cariboo gold project from Barkerville for \$12.5 million...

Orion Transaction Overwhelmingly Approved - On Monday, the Orion transaction was overwhelming approved with 99.6% of votes cast in favor of the issuance of shares required to complete the acquisition of the Orion portfolio consisting of 74 royalties, streams, and precious metals offtakes. The acquisition closed on the same day.

2017 Guidance Revised to Account for Orion Acquisition - With the Orion transaction closed, Osisko has updated its 2017 guidance to include the acquired assets. The Company now estimates attributable gold equivalent ounces of between 55,300 and 65,000 ounces, up from between 43,300 to 46,100 ounces previously. We previously incorporated the Orion portfolio into our formal valuation in anticipation of the deal closing and model 60,000 ounces of gold equivalent ounces this year.



Weekly Commodities / Indices / Exchange Rates



Source: Haywood Securities

Metal and Currency Prices for the Week

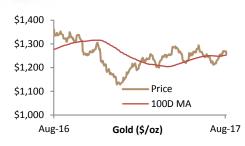
	Name	Close	1Wk ∆	%	5 Day Trend	52W H/L	1W H/L		Name	Close	1Wk ∆	%	5 Day Trend	52W H/L	1W H/L
	Gold Spot	1,259	(10.29)	(0.82)%		1,365	1,270	S	TSX	15,258	129	0.85%		15,943	15,266
ALS	US\$/oz				\	1,123	1,259	픨						14,319	15,129
<u> </u>	Silver Spot	16.28	(0.48)	(2.94)%		20.49	16.83	NDICIES	TSXV	766	(6.89)	(0.90)%	\	849	773
Σ	US\$/oz					15.19	16.28	=	1				~	711	766
PRECIOUS	Platinum Spot	964	28.79	2.99%		1,195	964		Canadian Dollar	1.26	0.02	1.71%		1.38	1.26
Ö	US\$/oz					890	935							1.24	1.24
R	Palladium Spot	878	(4.82)	(0.55)%		928	896		Euro	1.18	0.00	0.21%	\sim	1.19	1.19
	US\$/oz					612	878						/ ~ /	1.03	1.18
	Copper Future	2.88	0.02	0.82%	^	2.88	2.88		China Renminbi	6.73	(0.01)	(0.12)%		6.96	6.74
	US\$/lb					2.07	2.86						\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	6.62	6.72
	Nickel Spot	4.63	0.02	0.53%		5.32	4.69		Mexican Peso	17.90	0.12	0.67%		22.04	17.90
	US\$/Ib					3.95	4.61							17.45	17.78
ALS	Lead Spot	1.06	0.02	1.91%		1.12	1.06		Peruvian Sol	3.25	(0.00)	(0.01)%	\ /	3.45	3.25
MET	US\$/lb					0.81	1.04							3.23	3.24
2	Zinc Spot	1.27	0.02	1.23%	/	1.35	1.27	ES	S. African Rand	13.42	0.39	2.91%	~/	14.75	13.42
BASE	US\$/Ib				//	0.95	1.26	RATES						12.31	13.03
	Aluminum Spot	0.86	0.00	0.24%	^ \	0.89	0.86	NGE	Australian Dollar	0.79	(0.01)	(0.72)%	~	0.81	0.80
	US\$/Ib					0.70	0.85	Ž						0.72	0.79
	Iron Ore Spot	74	8.58	11.53%		140	79	EXCHA	Japanese Yen	110.7	0.01	0.01%	\ \ / \	118.7	110.7
	US\$/t					78	78	Ä	i					99.5	110.1
	Newcastle Coal	89	4.80	5.39%		106	89		Chilean Peso	650	(3.64)	(0.56)%	\^	682	654
	US\$/t				/	73	84							636	649
	Uranium Spot	20.40	(0.10)	(0.49)%	\	27	21		British Pound	1.30	(0.01)	(0.71)%		1.34	1.32
_	US\$/Ib					18	20							1.18	1.30
ő	WTI	50	(0.21)	(0.42)%	\wedge	58	50		Swiss Franc	0.97	0.00	0.41%	~/	1.03	0.97
ENERGY	US\$/bbl					42	49						~~	0.94	0.97
ш	Brent	52	0.12	0.23%	^ • •	60	53		Turkish Lira	3.53	(0.00)	(0.00)%		3.94	3.54
	US\$/bbl					45	52						\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2.91	3.52
	Henry Hub	2.78	(0.16)	(5.72)%	\	3.60	2.94		Indian Rupee	63.58	(0.57)	(0.90)%		68.86	64.19
	US\$/MMBtu		, -,	. ,		2.75	2.78		•		. ,		_	63.57	63.58
_								_							

Source: Haywood Securities



Commodities and ETFs: A Week in Action

Gold - 1-Year US\$/oz (left) and Total ETF Holdings (right)





- Spot: Loss (-0.8%) for the week
- ETF Holdings: 66,350,394 ounces, down 84,316 ounces for the week

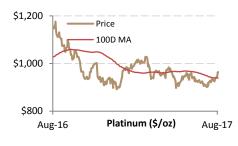
Silver - 1-Year US\$/oz (left) and Total ETF Holdings (right)





- Spot: Gain (+2.1%) for the week
- ETF Holdings: 673,344,002 ounces, down 5,021,478 ounces for the week

Platinum - 1-Year US\$/oz (left) and Total ETF Holdings (right)





- Spot: Gain (+3.1%) for the week
- ETF Holdings: 2,511,638 ounces, up 26,508 ounces for the week



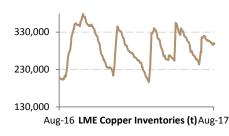




- Spot: Loss (-0.5%) for the week
- ETF Holdings: 1,489,161 ounces, up 54,993 ounces for the week

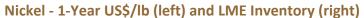
Copper - 1-Year US\$/lb (left) and LME Inventory (right)

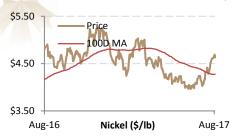


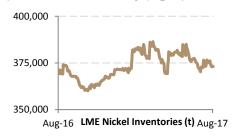


- Futures: Gain (+0.8%) for the week
- LME Copper: 257,150 tonnes, down 6,625 tonnes for the week









- Spot: Gain (+0.5%) for the week
- LME Nickel: 373,086 tonnes, down 1,392 tonnes for the week

• Lead - 1-Year US\$/lb (left) and LME Inventory (right)

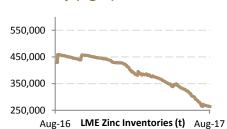




- Spot: Gain (+1.9%) for the week
- LME Lead: 151,000 tonnes, down 3,100 tonnes for the week

Zinc - 1-Year US\$/lb (left) and LME Inventory (right)





- Spot: Gain (+1.2%) for the week
- LME Zinc: 264,000 tonnes, down 1,975 tonnes for the week

Iron – 1-Year US\$/t 62% Fe (left) and 1-Year US\$/t Newcastle (right)

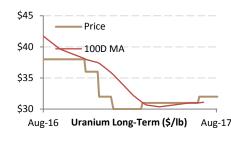




- Newcastle Thermal Futures: Gain (+5.3%) for the week
- 62% Fe Iron Ore: Gain (+12.4%) for the week

Uranium – 1-Year US\$/lb Short-Term (left) and Long-Term (right)





- Uranium Spot: Loss (-0.6%) for the week
- Uranium Long-Term: Unchanged

Source: Bloomberg, UxC Consulting, and Haywood Securities



Equities: Weekly Performances

S&P TSX Global Mining Index – Top and Bottom Performance (upper) and Constituent Performance (lower)

		1W	k			1Wk	
Top Companies	Close	\$Δ	%Δ	Bottom Companies	Close	\$Δ	%∆
Constellium N.V	10.05	1.85	23%	Asanko Gold Inc.	1.11	(0.47)	(30)%
Alamos Gold Inc.	9.66	0.84	10%	Endeavour Silver Corp.	2.91	(0.92)	(24)%
Sibanye Gold Limited	5.53	0.45	9%	First Majestic Silver Corp.	7.89	(2.32)	(23)%
New Gold Inc.	4.31	0.31	8%	Century Aluminum Company	13.25	(3.56)	(21)%
Teck Resources Limited	28.26	1.90	7%	Eldorado Gold Corporation	2.33	(0.47)	(17)%
Aluminum Corporation Of China Limited	16.25	0.96	6%	Fortuna Silver Mines Inc.	5.55	(0.77)	(12)%
Alcoa Corporation	37.42	1.78	5%	Wesdome Gold Mines Ltd.	2.21	(0.26)	(11)%
Lundin Mining Corporation	9.08	0.39	4%	Richmont Mines Inc.	9.63	(1.09)	(10)%
Lucara Diamond Corp.	2.75	0.11	4%	Guyana Goldfields Inc.	4.59	(0.51)	(10)%
Vedanta Limited	18.11	0.72	4%	AngloGold Ashanti Limited	9.14	(0.99)	(10)%

			1Wk		52Wk					1Wk		52Wk	
Ticker	Company	Close	\$Δ	%∆	High	Low	Ticker	Company	Close	\$∆	%∆	High	Low
TSX:AEM	Agnico Eagle Mines Limited	56.62	(2.23)	(4)%	77.92	46.91	TSX:IVN	Ivanhoe Mines Ltd.	4.76	(0.03)	(1)%	5.47	1.39
TSX:ASR	Alacer Gold Corp.	2.14	0.07	3%	3.79	1.75	NasdaqGS:KALU	Kaiser Aluminum Corporation	96.77	2.38	3%	98.72	69.41
TSX:AGI	Alamos Gold Inc.	9.66	0.84	10%	12.20	7.86	TSX:K	Kinross Gold Corporation	5.29	0.05	1%	7.23	3.87
NYSE:AA	Alcoa Corporation	37.42	1.78	5%	39.78	20.00	TSX:KL	Kirkland Lake Gold Ltd.	12.76	(0.42)	(3)%	13.31	6.33
NasdaqGS:ARLP	Alliance Resource Partners, L.P.	19.35	(0.70)	(3)%	26.65	18.15	TSX:KDX	Klondex Mines Ltd.	3.79	(0.22)	(5)%	7.95	3.84
TSX:ALS	Altius Minerals Corporation	11.04	(0.07)	(1)%	14.06	9.01	TSX:LUC	Lucara Diamond Corp.	2.75	0.11	4%	4.39	2.60
NYSE:ACH	Aluminum Corporation Of China Limited	16.25	0.96	6%	16.91	8.77	TSX:LUN	Lundin Mining Corporation	9.08	0.39	4%	9.22	4.91
NYSE:AU	AngloGold Ashanti Limited	9.14	(0.99)	(10)%	22.53	9.28	TSX:MAG	MAG Silver Corp.	15.81	(1.03)	(6)%	23.32	12.75
NYSE:ARCH	Arch Coal, Inc.	75.61	2.29	3%	86.47	59.05	TSX:MDI	Major Drilling Group International Inc.	8.09	(0.13)	(2)%	8.69	5.72
TSX:AR	Argonaut Gold Inc.	2.19	(0.08)	(4)%	4.00	1.48	NYSE:MTRN	Materion Corporation	39.00	(0.05)	(0)%	41.23	26.65
TSX:AZ	Arizona Mining Inc.	3.27	(0.07)	(2)%	3.49	1.58	NYSE:MUX	McEwen Mining Inc.	2.38	(0.24)	(9)%	4.81	2.41
TSX:AKG	Asanko Gold Inc.	1.11	(0.47)	(30)%	6.09	1.09	TSX:MPVD	Mountain Province Diamonds Inc.	4.73	(0.30)	(6)%	7.18	3.56
TSX:BTO	B2Gold Corp.	3.05	(0.31)	(9)%	4.74	2.69	TSX:NSU	Nevsun Resources Ltd.	3.40	0.11	3%	4.63	2.83
TSX:ABX	Barrick Gold Corporation	21.02	0.03	0%	28.77	18.52	TSX:NGD	New Gold Inc.	4.31	0.31	8%	7.87	3.11
NYSE:BHP	BHP Billiton Limited	41.21	0.07	0%	41.79	29.30	NYSE:NEM	Newmont Mining Corporation	36.15	(0.91)	(2)%	46.07	30.19
NYSE:BBL	BHP Billiton plc	35.87	(0.02)	(0)%	37.44	25.61	TSX:NXE	NexGen Energy Ltd.	3.07	0.03	1%	4.45	1.42
TSX:CCO	Cameco Corporation	12.78	(0.33)	(3)%	17.65	9.88	TSX:NDM	Northern Dynasty Minerals Ltd.	1.78	(0.04)	(2)%	4.54	0.67
TSX:CG	Centerra Gold Inc.	6.81	0.11	2%	8.32	5.56	TSX:NG	NovaGold Resources Inc.	5.40	(0.26)	(5)%	9.14	5.09
NasdagGS:CENX	Century Aluminum Company	13.25	(3.56)	(21)%	19.08	5.53	TSX:OGC	OceanaGold Corporation	3.45	0.06	2%	5.11	3.24
TSX:CGG	China Gold International Resources Corp. Ltd.	1.93	0.03	2%	3.67	1.82	TSX:OR	Osisko Gold Royalties Ltd.	15.77	0.02	0%	18.17	11.90
NYSE:CLD	Cloud Peak Energy Inc.	3.23	(0.12)	(4)%	8.04	2.91	TSX:OSK	Osisko Mining Inc.	4.57	0.12	3%	5.65	2.03
NYSE:CDE	Coeur Mining, Inc.	7.77	(0.45)	(5)%	16.41	7.30	TSX:PAAS	Pan American Silver Corp.	20.27	(0.74)	(4)%	27.99	18.70
NYSE:BVN	Compañía de Minas Buenaventura S.A.A.	12.12	(0.38)	(3)%	16.45	9.87	TSX:PG	Premier Gold Mines Limited	3.24	(0.14)	(4)%	4.97	1.87
NYSE:CMP	Compass Minerals International, Inc.	67.90	(1.20)	(2)%	84.40	62.70	TSX:PVG	Pretium Resources Inc.	11.30	(0.73)	(6)%	16.48	9.17
NYSE:CNX	CONSOL Energy Inc.	15.54	(1.37)	(8)%	22.34	13.55	NasdagGS:GOLD		94.17	1.45	2%	113.25	67.54
NYSE:CSTM	Constellium N.V	10.05	1.85	23%	9.20	4.85	TSX:RIC	Richmont Mines Inc.	9.63	(1.09)	(10)%	15.01	7.36
TSX:CNL	Continental Gold Inc.	3.19	(0.26)	(8)%	5.75	2.62	NYSE:RIO	Rio Tinto plc	46.83	0.22	0%	47.51	29.62
TSX:DGC	Detour Gold Corporation	15.52	(0.28)	(2)%	35.40	13.24	NasdagGS:RGLD	•	85.27	(1.34)	(2)%	87.90	60.21
TSX:DDC	Dominion Diamond Corporation	17.87	0.32	2%	18.27	10.47	TSX:SSL	Sandstorm Gold Ltd.	4.97	(0.23)	(4)%	8.73	4.29
TSX:ELD	Eldorado Gold Corporation	2.33	(0.47)	(17)%	5.63	2.31	NYSE:SA	Seabridge Gold Inc.	11.15	(0.45)	(4)%	13.73	7.35
TSX:EDV	Endeavour Mining Corporation	22.74	(1.02)	(4)%	28.81	17.37	TSX:SMF	SEMAFO Inc.	2.79	(0.24)	(8)%	7.19	2.68
TSX:EDR	Endeavour Silver Corp.	2.91	(0.92)	(24)%	7.75	3.04	NYSE:SBGL	Sibanye Gold Limited	5.53	0.45	9%	20.97	4.43
NasdaqGS:GSM	Ferroglobe PLC	12.75	(0.16)	(1)%	13.11	7.67	TSX:SVM	Silvercorp Metals Inc.	3.58	(0.02)	(1)%	5.90	2.82
TSX:FR	First Majestic Silver Corp.	7.89	(2.32)	(23)%	24.96	8.89	NYSE:SCCO	Southern Copper Corporation	38.72	(0.74)	(2)%	39.94	24.90
TSX:FM	First Quantum Minerals Ltd.	13.42	(0.04)	(0)%	17.55	9.63	TSX:SWY	Stornoway Diamond Corporation	0.80	(0.01)	(1)%	1.33	0.69
TSX:FVI	Fortuna Silver Mines Inc.	5.55	(0.77)	(12)%	12.45	5.61	TSX:THO	Tahoe Resources Inc.	6.62	(0.36)	(5)%	22.13	6.36
TSX:FNV	Franco-Nevada Corporation	92.50	2.27	3%	105.69	71.44	TSX:TECK.B	Teck Resources Limited	28.26	1.90	7%	35.67	19.27
NYSE:FCX	Freeport-McMoRan Inc.	14.41	(0.19)	(1)%	17.06	9.24	TSX:TMR	TMAC Resources Inc.	11.39	(0.11)	(1)%	20.18	10.68
NYSE:GFI	Gold Fields Limited	3.99	(0.15)	(1)%	6.60	2.60	TSX:TXG	Torex Gold Resources Inc	20.51	(2.05)	(9)%	35.17	17.05
TSX:G	Goldcorp Inc.	15.89	(0.05)	(2)%	25.17	15.95	TSX:TV	Trevali Mining Corporation	1.26	(0.05)	(4)%	1.57	0.85
TSX:GSC	Golden Star Resources Ltd.	0.86	0.02	2%	1.33	0.76	TSX:TRQ	Turquoise Hill Resources Ltd.	4.14	0.15	4%	5.03	3.25
TSX:GUY	Guvana Goldfields Inc.	4.59	(0.51)	(10)%	9.68	4.10	NYSE:VEDL	Vedanta Limited	18.11	0.13	4%	17.86	9.42
NYSE:HMY	Harmony Gold Mining Company Limited	1.73	(0.04)	(2)%	4.70	1.56	TSX:WPM	Wheaton Precious Metals Corp.	24.76	(0.74)	(3)%	40.80	22.63
	, , , ,		. ,	. ,			TSX:VVPIVI	· ·		, ,	. ,		2.84
NYSE:HL	Hecla Mining Company	5.00	(0.38)	(7)%	7.64	4.61	ISX:YKI	Yamana Gold Inc.	3.12	(0.11)	(3)%	7.64	2.84

Source: Capital IQ and Haywood Securities



Upcoming Macroeconomic News

Date	Event	Period	Survey	Prior	Revised	Relevance
United States	5					
08/07/2017	Consumer Credit	Jun	\$16.000b	\$18.410b		45
08/07/2017	Mortgage Delinquencies	2Q		4.71%		36
08/07/2017	MBA Mortgage Foreclosures	2Q		1.39%		26
08/08/2017	NFIB Small Business Optimism	Jul	103.8	103.6		64
08/08/2017	JOLTS Job Openings	Jun		5666		27
08/09/2017	MBA Mortgage Applications	4-Aug		-2.80%		92
08/09/2017	Nonfarm Productivity	2Q P	0.80%	0.00%		46
08/09/2017	Unit Labor Costs	2Q P	1.00%	2.20%		41
08/09/2017	Wholesale Trade Sales MoM	Jun		-0.50%		16
08/09/2017	Wholesale Inventories MoM	Jun F	0.60%	0.60%		82
08/10/2017	Initial Jobless Claims	5-Aug		240k		98
08/10/2017	Continuing Claims	29-Jul		1968k		69
08/10/2017	PPI Final Demand MoM	Jul	0.10%	0.10%		87
08/10/2017	PPI Ex Food and Energy MoM	Jul	0.20%	0.10%		70
08/10/2017	PPI Ex Food, Energy, Trade MoM	Jul	0.20%	0.20%		11
08/10/2017	PPI Final Demand YoY	Jul	2.30%	2.00%		70
08/10/2017	PPI Ex Food and Energy YoY	Jul	2.10%	1.90%		68
08/10/2017	PPI Ex Food, Energy, Trade YoY	Jul		2.00%		10
08/10/2017	Bloomberg Consumer Comfort	6-Aug		49.6		69
08/10/2017	Monthly Budget Statement	Jul		-\$90.2b		77
08/11/2017	CPI MoM	Jul	0.20%	0.00%		96
08/11/2017	CPI Ex Food and Energy MoM	Jul	0.20%	0.10%		77
08/11/2017	CPI YoY	Jul	1.80%	1.60%		67
08/11/2017	CPI Ex Food and Energy YoY	Jul	1.70%	1.70%		56
08/11/2017	CPI Core Index SA	Jul		251.627		44
08/11/2017	CPI Index NSA	Jul	244.918	244.955		40
08/11/2017	Real Avg Weekly Earnings YoY	Jul		1.10%	1.20%	8
08/11/2017	Real Avg Hourly Earning YoY	Jul		0.80%	0.90%	4

Date	Event	Period	Survey	Prior	Revised	Relevance
Canada						
08/08/2017	Housing Starts	Jul	205.0k	212.7k	213.2k	82
08/08/2017	Bloomberg Nanos Confidence	4-Aug		59.5		11
08/09/2017	Building Permits MoM	Jun		8.90%		73
08/10/2017	New Housing Price Index MoM	Jun		0.70%		69
08/10/2017	New Housing Price Index YoY	Jun		3.80%		22

Source: Bloomberg



Precious Metals Comparables - Consensus Estimates

Company	Symbol	Price	Shares O/S (millions)	Market Capitalization (millions)	Cash (millions)	Working Capital (millions)	Debt (millions)	Enterprise Value (millions)	2017E CFPS	2018E CFPS	Number of Estimates	P/CF 2017E	Ratio 2018E	EV/CF 2017E	Ratio 2018E	EV/EBIT 2017E	DA Ratio 2018E
Senior Precious Metals Produc	ers																
Agnico Eagle Mines Limited	TSX:AEM	C\$ 56.55	229.3	US\$ 10,274	US\$ 1,080	US\$ 1,339	US\$ 1.372	US\$ 10,306	US\$ 3.24	US\$ 3.57	5	13.8x	12.5x	13.9x	12.6x	11.8x	11.5x
AngloGold Ashanti Limited	NYSE:AU	C\$ 11.49	408.9	US\$ 3,722	US\$ 220	US\$ 406	US\$ 2,144	US\$ 5,460	US\$ 2.60	US\$ 2.88	6	3.5x	3.2x	5.1x	4.6x	3.5x	4.6x
Barrick Gold Corporation	TSX:ABX	C\$ 21.02	1166.0	US\$ 19,416	US\$ 2,926	US\$ 3,957	US\$ 7,284	US\$ 22,743	US\$ 2.15	US\$ 2.23	10	7.7x	7.5x	9.1x	8.7x	5.7x	5.5x
Compañía de Minas Buenaventura		C\$ 15.30	254.0	US\$ 3,078	US\$ 151	US\$ 114	US\$ 272	US\$ 3,237	US\$ 1.12	US\$ 1.58	1	10.8x	7.6x	11.4x	8.0x	9.6x	6.2x
Eldorado Gold Corporation	TSX:ELD	C\$ 2.33	792.3	US\$ 1,462	US\$ 799	US\$ 927	US\$ 593	US\$ 1,128	US\$ 0.15	US\$ 0.36	9	12.3x	5.1x	9.5x	3.9x	5.8x	7.0x
Fresnillo PLC	LSE:FRES	C\$ 23.97	736.9	US\$ 13,996	US\$ 885	US\$ 1,339	US\$ 798	US\$ 13,455	US\$ 1.08	US\$ 1.39	4	17.5x	13.7x	16.8x	13.1x	13.1x	12.0x
Gold Fields Limited	NYSE:GFI	C\$ 4.93	820.6	US\$ 3,207	US\$ 527	US\$ 193	US\$ 1,505	US\$ 4,519	US\$ 1.10	US\$ 1.18	6	3.6x	3.3x	5.0x	4.7x	3.6x	4.3x
Goldcorp Inc.	TSX:G	C\$ 15.89	866.9	US\$ 10,913	US\$ 123	US\$ 51	US\$ 2,066	US\$ 12,928	US\$ 1.41	US\$ 1.63	15	8.9x	7.7x	10.5x	9.1x	8.9x	8.8x
Kinross Gold Corporation	TSX:K	C\$ 5.29	1247.0	US\$ 5,226	US\$ 1,061	US\$ 1,710	US\$ 1,735	US\$ 5,250	US\$ 0.75	US\$ 0.83	14	5.6x	5.1x	5.6x	5.1x	4.7x	4.3x
Newcrest Mining Limited	ASX:NCM	C\$ 20.34	766.2	US\$ 12,344	US\$ 248	US\$ 479	US\$ 2,016	US\$ 13,881	US\$ 1.48	US\$ 1.71	8	10.9x	9.4x	12.2x	10.6x	10.1x	9.7x
Newmont Mining Corporation	NYSE:NEM	C\$ 45.63	533.3	US\$ 19,278	US\$ 3,166	US\$ 3,526	US\$ 4,035	US\$ 19,787	US\$ 4.07	US\$ 4.14	9	8.9x	8.7x	9.1x	9.0x	6.8x	7.9x
Randgold Resources Limited	LSE:RRS	C\$ 116.83	94.0	US\$ 8,701	US\$ 573	US\$ 756	US\$ 3	US\$ 7,948	US\$ 5.84	US\$ 5.92	4	15.9x	15.6x	14.5x	14.3x	14.5x	11.5x
Yamana Gold Inc.	TSX:YRI	C\$ 3.12	948.2	US\$ 2,344	US\$ 231	US\$ 63	US\$ 1,600	US\$ 3,880	US\$ 0.49	US\$ 0.73	15	5.0x	3.4x	8.3x	5.6x	6.0x	6.7x
Group Average - Senior Produ	cers											9.6x	7.9x	10.1x	8.4x	8.0x	7.7x
Group Average - Senior Produ		ng high/low)										9.4x	7.6x	9.9x	8.3x	7.8x	7.6x
Intermediate Precious Metals Pr	roducers																
Acacia Mining plc	LSE:ACA	C\$ 2.91	410.1	US\$ 946	US\$ 176	US\$ 390	US\$ 57	US\$ 613	US\$ 0.78	US\$ 1.16	5	3.0x	2.0x	1.9x	1.3x	1.5x	1.8x
Alamos Gold Inc.	TSX:AGI	C\$ 9.66	255.5	US\$ 1,955	US\$ 403	US\$ 494	US\$ 313	US\$ 1,774	US\$ 0.57	US\$ 0.67	10	13.4x	11.4x	12.1x	10.4x	12.3x	10.2x
B2Gold Corp.	TSX:BTO	C\$ 3.05	977.1	US\$ 2,361	US\$ 103	US\$ 62	US\$ 507	US\$ 2,805	US\$ 0.21	US\$ 0.50	11	11.7x	4.9x	13.9x	5.8x	8.8x	11.5x
Centamin Plc	LSE:CEY	C\$ 2.55	1150.0	US\$ 2,327	US\$ 297	US\$ 392		US\$ 1,935	US\$ 0.25	US\$ 0.24	5	8.1x	8.5x	6.7x	7.1x	5.2x	6.0x
Centerra Gold Inc.	TSX:CG	C\$ 6.81	291.3	US\$ 1,571	US\$ 101.3	US\$ 704.0	US\$ 333.6	US\$ 1,201.0	US\$ 1.69	US\$ 1.36	8	3.2x	4.0x	2.4x	3.0x	2.8x	2.3x
Detour Gold Corporation	TSX:DGC	C\$ 15.52	174.7	US\$ 2,148	US\$ 128	(US\$ 155)	-	US\$ 2,303	US\$ 1.49	US\$ 1.91	16	8.2x	6.5x	8.8x	6.9x	9.6x	8.9x
Endeavour Mining Corporation	TSX:EDV	C\$ 22.74	96.5	US\$ 1,739	US\$ 84.9	US\$ 88.1	US\$ 246.7	US\$ 1,897.7	US\$ 2.41	US\$ 3.71	5	7.5x	4.9x	8.2x	5.3x	8.0x	7.7x
Guyana Goldfields Inc.	TSX:GUY	C\$ 4.59	173.0	US\$ 629	US\$ 117.6	US\$ 126.1	US\$ 49.3	US\$ 552.4	US\$ 0.44	US\$ 0.63	6	8.3x	5.8x	7.3x	5.1x	6.4x	7.0x
Harmony Gold Mining Company L	ir NYSE:HMY	C\$ 2.13	439.4	US\$ 741	US\$ 89	US\$ 219	US\$ 110	US\$ 632	US\$ 0.67	US\$ 0.99	5	2.5x	1.7x	2.1x	1.4x	1.9x	1.9x
Hecla Mining Company	NYSE:HL	C\$ 6.31	399.0	US\$ 1,995	US\$ 202	US\$ 178	US\$ 502	US\$ 2,319	US\$ 0.49	US\$ 0.60	7	10.3x	8.3x	11.9x	9.6x	9.7x	9.5x
IAMGOLD Corporation	TSX:IMG	C\$ 6.62	464.7	US\$ 2,437	US\$ 1,073	US\$ 720	US\$ 394	US\$ 2,111	US\$ 0.65	US\$ 0.71	14	8.0x	7.4x	7.0x	6.4x	6.6x	6.1x
Kirkland Lake Gold Ltd.	TSX:KL	C\$ 12.76	209.3	US\$ 2,115	US\$ 267.4	US\$ 161.0	US\$ 0.0	US\$ 1,954.4	US\$ 1.50	US\$ 1.80	6	6.7x	5.6x	6.2x	5.2x	12.1x	5.6x
New Gold Inc.	TSX:NGD	C\$ 4.31	576.2	US\$ 1,967	US\$ 199	US\$ 246	US\$ 880	US\$ 2,601	US\$ 0.49	US\$ 0.72	12	7.0x	4.8x	9.2x	6.3x	8.7x	7.9x
OceanaGold Corporation	TSX:OGC	C\$ 3.45	615.0	US\$ 1,681	US\$ 82	US\$ 6	US\$ 200	US\$ 1,875	US\$ 0.53	US\$ 0.56	12	5.1x	4.9x	5.7x	5.4x	6.7x	5.0x
Pretium Resources Inc.	TSX:PVG	C\$ 11.30	180.8	US\$ 1,619	US\$ 172	US\$ 88	US\$ 674	US\$ 2,205	US\$ 0.38	US\$ 2.00	5	23.8x	4.5x	32.5x	6.1x	-	40.1x
SEMAFO Inc.	TSX:SMF	C\$ 2.79	324.9	US\$ 718	US\$ 255	US\$ 268	US\$ 57	US\$ 507	US\$ 0.25	US\$ 0.46	9	8.8x	4.8x	6.2x	3.4x	3.4x	5.6x
TMAC Resources Inc.	TSX:TMR	C\$ 11.39	84.0	US\$ 758	US\$ 22	US\$ 16	US\$ 71	US\$ 813	US\$ 0.43	US\$ 1.65	5	21.1x	5.5x	22.7x	5.9x	-	15.3x
Torex Gold Resources Inc	TSX:TXG	C\$ 20.51	79.8	US\$ 1,297	US\$ 94	US\$ 121	US\$ 394	US\$ 1,569	US\$ 2.26	US\$ 2.56	7	7.2x	6.3x	8.7x	7.7x	9.4x	6.6x
Group Average - Intermediate	Producers											9.1x	5.6x	9.6x	5.7x	7.1x	8.8x
Group Average - Intermediate	Producers (ex	cluding high/l	low)									8.6x	5.5x	8.7x	5.7x	0.6x	7.3x
Junior Precious Metals Produce	ers																
Alacer Gold Corp.	TSX:ASR	C\$ 2.14	293.1	US\$ 497	US\$ 201	US\$ 239	US\$ 126	US\$ 384	US\$ 0.29	US\$ 0.27	8	5.9x	6.2x	4.5x	4.8x	10.6x	4.2x
Alio Gold Inc.	TSX:ALO	C\$ 4.86	43.6	US\$ 168	US\$ 39.2	US\$ 41.0	US\$ 0.0	US\$ 126.9	US\$ 0.71	US\$ 0.80	11	5.4x	4.8x	4.1x	3.6x	2.9x	4.7x
Argonaut Gold Inc.	TSX:AR	C\$ 2.19	177.0	US\$ 307	US\$ 55.2	US\$ 99.3	US\$ 0.0	US\$ 207.7	US\$ 0.26	US\$ 0.41	7	6.7x	4.3x	4.5x	2.9x	5.1x	4.5x
Asanko Gold Inc.	TSX:AKG	C\$ 1.11	203.4	US\$ 179	US\$ 54.9	US\$ 74.7	US\$ 156.3	US\$ 260.5	US\$ 0.42	US\$ 0.50	7	2.1x	1.8x	3.0x	2.6x	3.7x	2.8x
Brio Gold Inc.	TSX:BRIO	C\$ 1.95	112.5	US\$ 174	US\$ 12	US\$ 18	US\$ 48	US\$ 204	US\$ 0.40	US\$ 1.10	4	3.8x	1.4x	4.5x	1.6x	2.8x	3.5x
Dundee Precious Metals Inc.	TSX:DPM	C\$ 2.67	178.5	US\$ 377	US\$ 19.9	US\$ 37.0	US\$ 0.0	US\$ 340.4	US\$ 0.51	US\$ 0.64	1	4.2x	3.3x	3.8x	3.0x	5.7x	3.7x
Golden Star Resources Ltd.	TSX:GSC	C\$ 0.86	376.2	US\$ 256	US\$ 25.9	US\$ (45.0)	US\$ 86.0	US\$ 387.3	US\$ 0.17	US\$ 0.21	2	4.1x	3.2x	6.2x	4.8x	27.0x	5.3x
Highland Gold Mining Limited	AIM:HGM	C\$ 2.41	311.9	US\$ 596	US\$ 8.7	US\$ 34.1	US\$ 164.6	US\$ 726.0	US\$ 0.40	US\$ 0.47	2	4.8x	4.1x	5.9x	5.0x	5.4x	4.7x
McEwen Mining Inc.	TSX:MUX	C\$ 3.02	0.0	US\$ 0	US\$ 35.9	US\$ 47.0	US\$ 0.0	US\$ (47.0)		-	0			-			
Primero Mining Corp.	TSX:P	C\$ 0.46	63.2	US\$ 23	US\$ 15.6	US\$ (14.5)	US\$ 46.5	US\$ 83.8	US\$ 0.20	US\$ 0.36	7	1.8x	1.0x	6.8x	3.6x	2.4x	2.0x
Richmont Mines Inc.	TSX:RIC	C\$ 9.63	615.0	US\$ 4,692	US\$ 73.8	US\$ 62.6	US\$ 4.4	US\$ 4,633.8	US\$ 0.92	US\$ 0.95	10	8.3x	8.1x	8.2x	8.0x	3.2x	3.3x
Roxgold Inc.	TSX:ROXG	C\$ 1.09	371.4	US\$ 321	US\$ 52.3	US\$ 38.6	US\$ 41.1	US\$ 323.3	US\$ 0.17	US\$ 0.22	8	5.0x	3.9x	5.1x	3.9x	16.4x	4.7x
Teranga Gold Corporation	TSX:TGZ	C\$ 3.18	107.3	US\$ 270	US\$ 82.4	US\$ 64.6	US\$ 14.1	US\$ 219.9	US\$ 0.66	US\$ 0.60	4	3.8x	4.2x	3.1x	3.4x	2.1x	2.4x
Wesdome Gold Mines Ltd.	TSX:WDO	C\$ 2.21	133.9	US\$ 234	US\$ 17.5	US\$ 13.7	US\$ 0.0	US\$ 220.6	US\$ 0.16	US\$ 0.23	6	11.0x	7.8x	10.4x	7.3x	17.7x	8.9x
Group Average - Junior Produ Group Average - Junior Produ		a biab#\										5.2x	4.2x	5.4x	4.2x	8.1x	4.2x
		ia nian/low)										4.9x	4.1x	5.2x	4.1x	6.9x	4.0x



Other Precious Metals Comparables - Consensus Estimates

			Shares	Market		Working		Enterprise	*****	22425		D/OF	D. II.	FWO	D.F.	EWEDIT.	DA D. I'.
Company	Symbol	Price	O/S (millions)	Capitalization (millions)	Cash (millions)	Capital (millions)	Debt (millions)	Value (millions)	2017E CFPS	2018E CFPS	Number of Estimates	2017E	Ratio 2018E	2017E	Ratio 2018E	2017E	DA Ratio 2018E
PGM Producers																	
Impala Platinum Holdings Limited	JSE:IMP	C\$ 3.64	709.7	US\$ 2,046	US\$ 390	US\$ 828	US\$ 582	US\$ 1,801	US\$ 0.30	US\$ 0.44	4	9.6x	6.5x	8.5x	5.8x	6.4x	7.0x
Lonmin plc	LSE:LMI	C\$ 1.46	282.4	US\$ 328	US\$ 229	US\$ 472	US\$ 154	US\$ 10	US\$ 0.04	US\$ 0.35	5	26.6x	3.3x	0.8x	0.1x	0.1x	0.4x
North American Palladium Ltd.	TSX:PDL	C\$ 5.27	58.1	US\$ 243	US\$ 13	US\$ 7	US\$ 34	US\$ 270	-		0			-		-	
Group Average - PGM Producers	S											18.1x	4.9x	4.6x	2.9x	3.3x	3.7x
Silver Producers																	
Americas Silver Corporation	TSX:USA	C\$ 3.80	39.8	US\$ 120	US\$ 18	US\$ 25	US\$ 14	US\$ 109	US\$ 0.37	US\$ 0.70	1	8.1x	4.3x	7.4x	3.9x	7.9x	13.7x
Aurcana Corporation	TSXV:AUN	C\$ 0.25	84.7	US\$ 17	US\$ 3	US\$ 2	-	US\$ 14	-	-	0	-	-	-		-	
Coeur Mining, Inc.	NYSE:CDE	C\$ 9.81	181.5	US\$ 1,410	US\$ 250	US\$ 365	US\$ 245	US\$ 1,290	US\$ 1.01	US\$ 1.36	3	7.7x	5.7x	7.0x	5.2x	5.6x	6.3x
Endeavour Silver Corp.	TSX:EDR	C\$ 2.91	127.5	US\$ 294	US\$ 52	US\$ 75	-	US\$ 219	US\$ 0.16	US\$ 0.35	5	14.3x	6.6x	10.6x	4.9x	5.8x	10.5x
First Majestic Silver Corp.	TSX:FR	C\$ 7.89	165.1	US\$ 1,032	US\$ 138	US\$ 131	US\$ 29	US\$ 929	US\$ 0.49	US\$ 0.85	2	12.8x	7.3x	11.5x	6.6x	8.2x	11.8x
Fortuna Silver Mines Inc.	TSX:FVI	C\$ 5.55	159.5	US\$ 701	US\$ 191	US\$ 183	US\$ 40	US\$ 557	US\$ 0.50	US\$ 0.57	4	8.7x	7.7x	7.0x	6.2x	6.5x	4.9x
Hecla Mining Company	NYSE:HL	C\$ 6.31	399.0	US\$ 1,995	US\$ 202	US\$ 178	US\$ 502	US\$ 2,319	US\$ 0.49	US\$ 0.60	7	10.3x	8.3x	11.9x	9.6x	9.7x	9.5x
Mandalay Resources Corporation	TSX:MND	C\$ 0.35	451.3	US\$ 123	US\$ 59	US\$ 39	US\$ 1	US\$ 85	US\$ 0.08	US\$ 0.14	3	3.6x	2.0x	2.5x	1.4x	1.7x	2.0x
Pan American Silver Corp.	TSX:PAAS	C\$ 20.27	153.1	US\$ 2,459	US\$ 205	US\$ 423	US\$ 57	US\$ 2,093	US\$ 1.34	US\$ 1.82	9	11.9x	8.8x	10.2x	7.5x	7.5x	8.8x
Silvercorp Metals Inc.	TSX:SVM	C\$ 3.58	167.9	US\$ 476	US\$ 102	US\$ 81		US\$ 396	US\$ 0.42	US\$ 0.33	1	6.8x	8.6x	5.6x	7.1x	9.6x	-
Tahoe Resources Inc.	TSX:THO	C\$ 6.62	312.3	US\$ 1,638	US\$ 175	US\$ 252	US\$ 35	US\$ 1,421	US\$ 0.81	US\$ 1.08	14	6.4x	4.9x	5.6x	4.2x	3.6x	4.8x
Americas Silver Corporation	TSX:USA	C\$ 3.80	39.8	US\$ 120	US\$ 18	US\$ 25	US\$ 14	US\$ 109	US\$ 0.37	US\$ 0.70	1	8.1x	4.3x	7.4x	3.9x	7.9x	13.7x
Group Average - Silver Producer	's											9.1x	6.4x	7.9x	5.5x	6.7x	8.6x
Group Average - Silver Producer	s (excluding hig	Jh/low)										9.0x	6.4x	8.0x	5.5x	7.0x	8.1x
Diamond Producers																	
Dominion Diamond Corporation	NYSE:DDC	C\$ 17.82	81.9	US\$ 1,157	US\$ 131	US\$ 401	-	US\$ 756	US\$ 1.32	US\$ 5.12	3	10.7x	2.8x	7.0x	1.8x	3.0x	4.7x
Lucara Diamond Corp.	TSX:LUC	C\$ 2.75	382.6	US\$ 833	US\$ 63	US\$ 78		US\$ 755	US\$ 0.29	US\$ 0.21	1	7.5x	10.3x	6.8x	9.4x	4.0x	4.7x
Mountain Province Diamonds Inc.	TSX:MPVD	C\$ 4.73	160.2	US\$ 600	US\$ 14	(US\$ 8)	US\$ 297	US\$ 905	US\$ 0.29	US\$ 1.13	3	12.8x	3.3x	19.3x	5.0x	103.9x	10.4x
Petra Diamonds Limited	LSE:PDL	C\$ 1.53	520.6	US\$ 632	US\$ 37	(US\$ 40)	US\$ 473	US\$ 1,145	US\$ 0.29	US\$ 0.42	4	4.2x	2.9x	7.6x	5.2x	7.1x	6.2x
Stornoway Diamond Corporation	TSX:SWY	C\$ 0.80	828.9	US\$ 525	US\$ 54	US\$ 40	US\$ 144	US\$ 630	US\$ 0.08	US\$ 0.10	4	7.8x	6.2x	9.4x	7.4x		6.8x
Group Average - Diamond Produ	icers											8.6x	5.1x	10.0x	5.7x	29.5x	6.6x
Royalty Companies																	
Anglo Pacific Group plc	LSE:APF	C\$ 1.94	180.0	US\$ 277	US\$ 7	US\$ 20	US\$ 8	US\$ 265	US\$ 0.22	US\$ 0.18	3	6.9x	8.7x	6.6x	8.3x	11.6x	5.4x
Altius Minerals Corporation	TSX:ALS	C\$ 11.04	43.3	US\$ 379	US\$ 25	US\$ 19	US\$ 49	US\$ 409	US\$ 0.44	US\$ 0.59	2	19.8x	14.7x	21.3x	15.9x	21.3x	14.8x
Franco-Nevada Corporation	TSX:FNV	C\$ 92.50	180.7	US\$ 13,243	US\$ 283	US\$ 356	-	US\$ 12,887	US\$ 2.59	US\$ 2.74	13	28.3x	26.8x	27.5x	26.0x	26.7x	25.4x
Maverix Metals Inc.	TSXV:MMX	C\$ 1.50	145.4	US\$ 173	US\$ 5	US\$ 5	-	US\$ 168	US\$ 0.08	US\$ 0.11	2	15.0x	11.1x	14.6x	10.8x		13.2x
Osisko Gold Royalties Ltd.	TSX:OR	C\$ 15.77	157.0	US\$ 1,961	US\$ 269	US\$ 254	US\$ 36	US\$ 1,743	US\$ 0.48	US\$ 0.53	8	26.0x	23.4x	23.1x	20.8x	49.7x	28.7x
Royal Gold, Inc.	US:RGLD	C\$ 107.64	65.3	US\$ 5,572	US\$ 88	US\$ 109	US\$ 636	US\$ 6,098	US\$ 4.13	US\$ 4.60	9	20.6x	18.5x	22.6x	20.3x	23.1x	19.2x
Sandstorm Gold Ltd.	TSX:SSL	C\$ 4.97	184.8	US\$ 728	US\$ 5	US\$ 57		US\$ 671	US\$ 0.27	US\$ 0.25	10	14.7x	15.7x	13.5x	14.5x	16.3x	15.0x
Wheaton Precious Metals Corp.	TSX:WPM	C\$ 24.76	441.8	US\$ 8,666	US\$ 115	US\$ 75	US\$ 1,064	US\$ 9,655	US\$ 1.25	US\$ 1.38	13	15.7x	14.2x	17.5x	15.8x	16.5x	16.6x
Group Average - Royalty Compa		hiah/low)										18.7x 19.2x	17.0x 16.7x	18.5x 19.0x	16.7x 16.4x	24.8x 21.8x	17.4x 17.5x
Group Average - Royalty Compa	illes (excluaing i	nign/low)										19.2X	10./X	19.UX	10.4X	21.8X	17.5X

All data sourced from Capital IQ

Source: Capital IQ and Haywood Securities



Base Metals Comparables - Consensus Estimates

			Shares	Market		Working		Enterprise									
Company	Symbol	Price	0/S	Capitalization	Cash	Capital	Debt	Value	2017E	2018E	Number of		Ratio	EV/CF			DA Ratio
			(millions)	(millions)	(millions)	(millions)	(millions)	(millions)	CFPS	CFPS	Estimates	2017E	2018E	2017E	2018E	2017E	2018E
Large-Cap Base Metals Producers																	
Anglo American plc	LSE:AAL	C\$ 20.91	1404.5	US\$ 23,262	US\$ 7,408	US\$ 6,816	US\$ 11,002	US\$ 27,448	US\$ 4.17	US\$ 4.39	6	4.0x	3.8x	4.7x	4.5x	4.7x	3.6x
Antofagasta plc	LSE:ANTO	C\$ 15.50	985.9	US\$ 12,106	US\$ 2,049	US\$ 1,881	US\$ 2,201	US\$ 12,426	US\$ 1.33	US\$ 1.42	11	9.2x	8.7x	9.5x	8.9x	8.0x	6.4x
BHP Billiton Limited	ASX:BHP	C\$ 25.72	5322.4	US\$ 108,430	US\$ 14,090	US\$ 9,502	US\$ 32,467	US\$ 131,395	US\$ 3.00	US\$ 3.05	4	6.8x	6.7x	8.2x	8.1x	11.0x	6.3x
First Quantum Minerals Ltd.	TSX:FM	C\$ 13.42	689.4	US\$ 7,329	US\$ 1,407	US\$ 719	US\$ 4,749	US\$ 11,359	US\$ 1.51	US\$ 2.03	11	7.0x	5.2x	10.9x	8.1x	11.1x	10.2x
Freeport-McMoRan Inc.	NYSE:FCX	C\$ 18.19	1446.8	US\$ 20,849	US\$ 4,667	US\$ 5,473	US\$ 13,138	US\$ 28,514	US\$ 2.55	US\$ 3.08	6	5.6x	4.7x	7.7x	6.4x	6.0x	5.6x
Glencore Plc	LSE:GLEN	C\$ 5.56	14250.3	US\$ 62,750	US\$ 2,642	US\$ 45	US\$ 22,862	US\$ 85,567	US\$ 0.69	US\$ 0.71	8	6.4x	6.2x	8.7x	8.4x	8.7x	6.2x
KGHM Polska Miedz Spólka Akcyjna	WSE:KGH	C\$ 41.96	200.0	US\$ 6,648	US\$ 157	US\$ 130	US\$ 1,410	US\$ 7,928	US\$ 5.40	US\$ 6.22	4	6.2x	5.3x	7.3x	6.4x	6.6x	4.9x
Rio Tinto plc	LSE:RIO	C\$ 58.35	1791.3	US\$ 82,800	US\$ 8,099	US\$ 5,578	US\$ 14,679	US\$ 91,901	US\$ 6.63	US\$ 6.46	5	7.0x	7.2x	7.7x	7.9x	7.0x	5.3x
Teck Resources Limited	TSX:TECK.B	C\$ 28.26	577.8	US\$ 12,939	US\$ 651	US\$ 1,576	US\$ 4,850	US\$ 16,213	US\$ 6.30	US\$ 4.71	7	3.6x	4.8x	4.5x	6.0x	5.8x	3.9x
Vale S.A.	NYSE:VALE	C\$ 12.66	5153.4	US\$ 49,314	US\$ 5,855	US\$ 9,278	US\$ 27,463	US\$ 67,499	US\$ 1.80	US\$ 1.69	2	5.5x	5.9x	7.3x	7.7x	6.0x	4.8x
Group Average - Large-Cap Produ	icers											6.1x	5.8x	7.6x	7.2x	7.5x	5.7x
Group Average - Large-Cap Produ		a hiah/low)										6.1x	5.7x	7.6x	7.4x	7.4x	5.4x
Group Average - Large-Cap Frou	acers (excludin	ig mgm/low)										0.11	J./ A	7.08	7.48	7.44	J.4A
Mid Tier Base Metals Producers																	
Capstone Mining Corp	TSX:CS	C\$ 1.13	391.3	US\$ 350	US\$ 82	US\$ 157	US\$ 294	US\$ 487	US\$ 0.25	US\$ 0.37	11	3.6x	2.4x	5.0x	3.4x	3.3x	3.8x
Cliffs Natural Resources Inc.	NYSE:CLF	C\$ 9.66	296.5	US\$ 2,268	US\$ 322	US\$ 495	US\$ 1,612	US\$ 3,385	US\$ 1.58	US\$ 0.87	1	4.8x	8.8x	7.2x	13.1x	10.0x	5.7x
Hudbay Minerals Inc.	TSX:HBM	C\$ 9.38	237.3	US\$ 1,763	US\$ 154	US\$ 86	US\$ 1,086	US\$ 2,763	US\$ 1.92	US\$ 1.99	11	3.9x	3.7x	6.1x	5.9x	6.2x	4.9x
Imperial Metals Corporation	TSX:III	C\$ 3.53	93.6	US\$ 262	US\$ 5	(US\$ 161)	US\$ 516	US\$ 939	US\$ 0.82	US\$ 1.04	3	3.4x	2.7x	12.2x	9.6x	11.2x	11.4x
KAZ Minerals plc	LSE:KAZ	C\$ 11.96	446.5	US\$ 4,231	US\$ 1,108	US\$ 866	US\$ 3,446	US\$ 6,811	US\$ 1.23	US\$ 1.45	7	7.7x	6.6x	12.4x	10.6x	22.0x	8.6x
Lundin Mining Corporation	TSX:LUN	C\$ 9.08	727.0	US\$ 5,229	US\$ 2,051	US\$ 2,128	US\$ 988	US\$ 4,090	US\$ 0.97	US\$ 0.95	13	7.4x	7.6x	5.8x	5.9x	7.0x	4.4x
MMG Limited	HKSE:1208	C\$ 0.59	7948.9	US\$ 3,701	US\$ 553	US\$ 422	US\$ 9,516	US\$ 12,795	US\$ 0.18	US\$ 0.18	1	2.6x	2.6x	9.0x	9.0x	15.6x	5.8x
Nevsun Resources Ltd.	TSX:NSU	C\$ 3.40	302.0	US\$ 813	US\$ 167	US\$ 190		US\$ 623	US\$ 0.15	US\$ 0.25	6	17.6x	10.9x	13.5x	8.4x	6.0x	8.8x
Nyrstar NV	ENXTBR:NYR	C\$ 8.51	93.6	US\$ 632	US\$ 167	(US\$ 201)	US\$ 1,063	US\$ 1,896	US\$ 0.29	US\$ 1.28	2	23.4x	5.3x	70.4x	15.8x	8.4x	6.2x
OZ Minerals Limited	ASX:OZL	C\$ 8.53	298.7	US\$ 2,018	US\$ 474	US\$ 556		US\$ 1,461	US\$ 0.85	US\$ 0.97	6	8.0x	7.0x	5.8x	5.1x	4.7x	4.2x
Sherritt International Corporation	TSX:S	C\$ 0.84	294.6	US\$ 195	US\$ 211	US\$ 358	US\$ 1,688	US\$ 1,525	US\$ 0.08	US\$ 0.12	2	8.0x	5.6x	62.2x	43.6x	83.7x	11.9x
Turquoise Hill Resources Ltd.	TSX:TRQ	C\$ 4.14	2012.3	US\$ 6,600	US\$ 1,379	US\$ 2,735	US\$ 4,135	US\$ 7,999	US\$ 0.05	US\$ 0.04	2	65.6x	75.7x	79.5x	91.7x	21.5x	45.0x
Vedanta Resources plc	LSE:VED	C\$ 12.30	285.9	US\$ 2,786	US\$ 9,697	(US\$ 1,588)	US\$ 10,570	US\$ 14,944	US\$ 8.96	US\$ 11.94	1	1.1x	0.8x	5.8x	4.4x	6.4x	4.8x
Western Areas Ltd	ASX:WSA	C\$ 2.36	272.8	US\$ 510	US\$ 75	US\$ 87	-	US\$ 423	US\$ 0.20	US\$ 0.22	6	9.6x	8.5x	8.0x	7.0x	14.8x	8.9x
Group Average - Mid Tier Produc	ers											11.9x	10.6x	21.6x	16.7x	15.8x	9.6x
Group Average - Mid Tier Produc		high/low)										8.3x	6.0x	18.2x	11.5x	11.1x	7.0x 7.1x
, ,	ers (excluding	iligii/iow/										0.0%	0.0%	10.24	11.0%	11.18	7.17
Small Cap Base Metals Producers																	
Amerigo Resources Ltd.	TSX:ARG	C\$ 0.69	175.4	US\$ 96	US\$ 23	US\$ 4	US\$ 60	US\$ 151	US\$ 0.11	US\$ 0.15	1	5.0x	3.6x	7.8x	5.8x	42.1x	8.1x
Atalaya Mining plc	AIM:ATYM	C\$ 2.15	116.7	US\$ 198	US\$ 12	(US\$ 21)	-	US\$ 220	US\$ 0.21	US\$ 0.28	2	8.0x	6.1x	8.9x	6.8x	17.7x	3.8x
Copper Mountain Mining Corporation	TSX:CMMC	C\$ 0.99	133.1	US\$ 104	US\$ 23	(US\$ 5)	US\$ 227	US\$ 337	US\$ 0.35	US\$ 0.49	6	2.2x	1.6x	7.2x	5.1x	8.9x	6.2x
Taseko Mines Limited	TSX:TKO	C\$ 1.95	226.1	US\$ 349	US\$ 76	US\$ 86	US\$ 248	US\$ 512	US\$ 0.55	US\$ 0.29	4	2.8x	5.3x	4.1x	7.7x	34.9x	4.2x
Trevali Mining Corporation	TSX:TV	C\$ 1.26	404.1	US\$ 404	US\$ 24	US\$ 9	US\$ 39	US\$ 433	US\$ 0.21	US\$ 0.30	6	4.7x	3.3x	5.0x	3.5x	8.8x	2.4x
Group Average - Small Cap Produ	cers											4.5x	4.0x	6.6x	5.8x	22.5x	4.9x
Group Average - Small Cap Produ	cers (excluding	g high/low)										4.1x	4.1x	6.7x	5.9x	20.5x	4.7x
,		J J ,															

All data sourced from Capital IQ



Iron Comparables - Consensus Estimates

		Bloomberg			Shares	Market	Daily				Enterprise		CFPS (Lo	C)		P/CFPS			P/EPS		[EV/EBIT D	Α
		Consensus	Implied		Outstanding	Capitalization	Volume	Weekly		Debt	Value												
Company (Ticker)	Share Price	Target	Return	β	(millions)	(millions)	(millions)	Liquidity	WACC	(millions)	(millions)	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
Diversified Mining Houses																							
VALE SA (VALE3-BZ)	R\$ 31.23	R\$ 40.26	28.9%	1.52	3,217	R\$ 159,219	5.7	0.8%	17.0%	R\$ 95,563	R\$ 237,167	6.41	5.37	5.50	4.9x	5.8x	5.7x	9.2x	10.9x	10.3x	5.2x	5.8x	5.8x
BHP BILLIT ON (BHP-AU)	A\$ 25.72	A\$ 26.85	4.4%	1.62	3,212	A\$ 130,017	10.3	1.3%	10.5%	A\$ 36,421	A\$ 128,925	3.61	3.41	3.45	7.1x	7.5x	7.4x	15.1x	17.5x	17.9x	6.2x	6.7x	6.7x
RIO TINTO (RIO-AU)	A\$ 65.24	A\$ 70.68	8.3%	1.26	424	A\$ 107,397	2.6	2.7%	13.5%	A\$ 17,630	A\$ 99,299	8.56	8.02	8.24	7.6x	8.1x	7.9x	12.3x	15.0x	14.7x	5.8x	6.6x	6.4x
Group Average - Diversifed Mining														Avg>	6.5x	7.2x	7.0x	12.2x	14.4x	14.3x	5.7x	6.4x	6.3x
Producers																							
KUMBAIRON (KIO-SJE)	ZAR 20,530	ZAR 17,307	(15.7)%	1.85	322	ZAR 66,124	0.8	1.0%	10.3%	ZAR 4,500	ZAR 62,719	3639	2153	1735	5.6x	9.5x	11.8x	8.4x	12.3x	14.7x	4.0x	5.3x	6.0x
FORTESCUE METALS (FMG-AU)	A\$ 5.71	A\$ 5.66	(0.8)%	1.71	3,114	A\$ 17,780	29.3	4.2%	11.0%	A\$ 6,771	A\$ 18,108	1.47	0.87	1.02	3.9x	6.6x	5.6x	6.5x	11.6x	13.1x	3.7x	5.3x	5.8x
CLIFFS NATURAL (CLF-US)	US\$ 7.65	US\$ 6.88	(10.1)%	1.97	297	US\$ 2,268	13.3	20.2%	10.6%	US\$ 2,231	US\$ 3,731							8.4x	9.4x	13.9x	6.7x	7.6x	9.6x
MMX MINERACAO (MMXM3-BRZ)	R\$ 3.59			0.69	6	R\$ 23	0.0	11.1%	11.9%	R\$ 134	R\$ 154												
FERREXPO PLC (FXPO-LSE)	GBp 248	GBp 185.00	(25.5)%	1.41	589	GBp 1,461	4.9	4.1%	7.6%	GBp 734	GBp 2,386	49.49	35.40	41.37	5.0x	7.0x	6.0x	5.8x	8.6x	11.0x	4.9x	6.5x	7.8x
MOUNT GIBSON (MGX-AU)	A\$ 0.44	A\$ 0.41	(5.7)%	0.82	1,097	A\$ 477	4.7	1.9%	8.1%	A\$ 0	A\$ 30	0.02	(0.00)	0.04	24.2x		10.1x	19.8x					
GRANGE RESOURCES (GRR-AU)	A\$ 0.14			0.93	1,157	A\$ 162	1.9	0.6%	8.5%	A\$ 9	A \$ 5												
BC IRON (BCI-AU)	A\$ 0.18	A\$ 0.33	83.3%	2.05	393	A\$ 71	1.4	3.5%	16.4%	A\$ 2	A\$ 38												
Group Average - Producers														Avg>	9.7x	7.7x	8.4x	9.8x	10.5x	13.2x	4.8x	6.2x	7.3x
Advanced Development / Exploration (Selection	ct Group)																						
SUNDANCE RESOURCES (SDL-AU)	A\$ 0.00			1.05	7,102	A\$ 28.4	3.7	0.2%	3.4%	A\$ 97	A\$ 105												
NEW MILLENNIUM (NML-T)	C\$ 0.14			1.03	181	C\$ 24.4	0.1	0.1%	11.2%	C\$ 0	C\$ 12												
ZANAGA IRON (ZIOC-LSE)	GBp 6			0.24	279	GBp 16.2	0.8	1.1%	5.3%	GBp 0	GBp 16												
CENTURY GLOBAL (CNT-T)	C\$ 0.19				98	C\$ 18.2	0.0	0.0%	10.9%	C\$ 0	C\$ 13												
CHAMPION IRON (CIA-T)	C\$ 0.97			1.69	387	C\$ 375.5	0.3	0.3%	12.1%	C\$ 44	C\$ 408												
BLACK IRON (BKI-T)	C\$ 0.09			(0.30)	160	C\$ 13.6	0.2	0.2%	-0.8%	C\$ 0	C\$ 6												
OCEANIC IRON (FEO-T)	C\$ 0.09			0.66	50	C\$ 4.5	0.1	2.3%	7.1%	C\$ 2	C\$ 6												
MACARTHUR MINERALS (MMS-T)	C\$ 0.06			1.04	148	C\$ 8.9	0.4	1.0%	11.9%	C\$ 0	C\$ 9												
Group Average - Developers / Explorers	•		•		•	•		,	•				•	Avg>		•			•	,		•	

All data sourced from Bloomberg



Uranium Comparables - Consensus Estimates

	п	Consensus	Targets			In-Situ (Comps - EV/Ib U3O8	NAVCo	nmns		(ash Flo	w Comn	c			F	arning	s Comps		_
		IBES	rargets	Shares	Market		Total Reserves	IBES	лірз		CFPS (Lo		w Comp	P/CFPS		E	PS (LoC)			P/EPS	
Company (Ticker)	Share (Consensus	Implied		Capitalization		& Resources USD EV		s Price/								- (,				
	Price		Return	(millions)	(millions)	(millions)	(M lb) Resource		Nav	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
	\$12.78	\$15.36	20%	396	\$5,058	\$4,967	()	\$14.92	0.86x		\$1.13		13.1x	11.3x		\$0.44			29.1x		
Paladin Energy (PDN-T)	\$0.05			1,713	\$77.1	\$410.6		\$0.05	0.83x	\$0.01	(\$0.03)		6.7x				(\$0.06)				
Uranium Energy (UEC-US)	\$1.46	\$2.93	100%	139	\$202.5	\$196.1		\$2.93	0.50x	(\$0.16)		(\$0.15)				(\$0.16)	(\$0.11)	(\$0.07)			
Energy Fuels (UUUU-US)	\$1.74	\$4.27	145%	71	\$124.2	\$138.6		\$3.90	0.45x	\$0.05	(\$0.08)	(\$0.07)	34.8x			(\$0.51)	(\$0.34)	(\$0.36)			
UR-Energy Inc. (URE-T)	\$0.78	\$1.73	121%	146	\$113.8	\$105.0		\$1.97	0.40x	\$0.03		\$0.08	29.6x		9.8x			(\$0.00)		14.4x	
Peninsula Energy (PEN-AU)	\$0.38	\$0.86	129%	231	\$86.5	\$93.9		\$1.01	0.37x	(\$0.03)		\$0.03			12.2x	(\$0.07)	(\$0.03)	\$0.00			115.4
Energy Resources (ERA-AU) Group Average - Producers	\$0.54			518	\$279.6	(\$105.3)		\$0.53	1.02x 0.63x	\$0.02	(\$0.03)	(\$0.06)	27.0x 22.2x	11.3x	10.3x	(\$0.37)	(\$0.05)	(\$0.08)	29.1x	28.9x	67.9
Gloup Average - Flouucers				L		L		_	U.U3X	l			22.28	11.38	10.38	l I			27.18	20.78	07.77
NexGen Energy (NXE-T)	\$3.07	\$5.28	72%	338	\$1,038	\$848.7		\$6.06	0.51x		(\$0.03)						(\$0.09)				
Denison Mines (DML-T)	\$0.60	\$0.92	54%	559	\$335.5	\$224.0		\$0.97	0.62x		\$0.01			45.0x			(\$0.02)				
Fission Uranium (FCU-T)	\$0.74	\$1.67	125%	485	\$358.6	\$248.8		\$1.79	0.41x		(\$0.02)						(\$0.02)				
Berkeley Energia (BKY-AU) GoviEx Uranium (GXU-V)	\$0.78 \$0.23	\$1.29	67%	255 322	\$197.2 \$74.0	\$122.0 \$63.2				(\$0.03)	(\$0.05)	(\$0.05)				(\$0.03)	(\$0.05)	\$0.12			6.6x
Toro Energy (TOE-AU)	\$0.23	\$0.04	25%	2,008	\$74.0	\$63.2 \$55.0		\$0.07	0.46x												
UEX Corporation (UEX-T)	\$0.03	\$0.40	100%	319	\$63.8	\$45.4		\$0.51	0.40x	(\$0.03)	(\$0.02)	(\$0.02)				(\$0.03)	(\$0.02)	(\$0.02)			
Vimy Resources (VMY-AU)	\$0.15	\$0.46	206%	317	\$47.5	\$39.1		\$0.45	0.33x		(\$0.02)						(\$0.02)				
Deep Yellow (DYL-AU)	\$0.13	\$0.40	20070	190	\$51.4	\$38.8		\$0.43	0.33X	(\$0.02)	(\$0.02)	(\$0.01)				(\$0.03)	(\$0.00)	(\$0.01)			
A-Cap Resources (ACB-AU)	\$0.06			872	\$48.8	\$34.0															
Summit Resources (SMM-AU)	\$0.21			218	\$45.8	\$35.2															
Western Uranium (WUC-L)	\$1.09			20	\$21.3	\$16.6															
Energy Metals (EME-AU)	\$0.09			210	\$18.0	(\$2.0)															
Group Average - Developers						L			0.45x	<u> </u>				45.0x		l					6.6x
Aurania Resources (ARU-V)	\$2.25			27	\$61.5	\$49.3															
Mega Uranium (MGA-T)	\$0.20			293	\$57.1	\$44.2				[[
Laramide Resources (LAM-T)	\$0.35	\$0.60	71%	115	\$40.2	\$38.9		\$0.72	0.49x												
IsoEnergy Ltd. (ISO-V)	\$0.70			45	\$31.5	\$21.4															
Kivalliq Energy (KIV-V)	\$0.12	\$0.15	30%	247	\$28.4	\$20.1		\$0.16	0.72x												
Skyharbour Resources (SYH-V)	\$0.49			54	\$26.0	\$18.8															
Globex Mining (GMX-T)	\$0.52			51	\$26.7	\$19.6															
Bannerman Resources (BMN-AU) Forsys Metals (FSY-T)	\$0.03 \$0.13			850 147	\$24.6 \$18.4	\$15.9 \$14.2															
Plateau Uranium (PLU-V)	\$0.13			58	\$20.3	\$14.7															
Fission 3.0 (FUU-V)	\$0.07			220	\$15.4	\$10.5															
Purepoint Uranium (PTU-V)	\$0.07			189	\$12.3	\$7.1															
Azimut Exploration (AZM-V)	\$0.29			45	\$13.2	\$8.8															
Blue Sky (BSK-V)	\$0.12			83	\$9.6	\$7.0															
U3O8 Corp. (UWE-T)	\$0.03			346	\$8.6	\$6.7															
Marenica Energy (MEY-AU)	\$0.13			42	\$5.3	\$5.4															
Cauldron Energy (CXU-AU)	\$0.03			329	\$10.9	\$4.5															
CanAlaska Uranium (CW-V)	\$0.37			27	\$10.1	\$6.6				[[
X-Terra Resources (XTT-V) Avrupa Minerals (AVU-V)	\$0.32 \$0.10			24 87	\$7.7 \$8.7	\$6.0 \$6.9															
Melkior Resources (MKR-V)	\$0.10			144	\$8.7 \$6.5	\$6.9				[[
Anfield Resources (ARY-V)	\$0.05			164	\$9.0	\$6.6				[[
Tajiri Resources (TAJ-V)	\$0.14			51	\$7.0	\$4.9				[[
Eros Resources (ERC-V)	\$0.17			48	\$8.0	\$4.4															
Zadar Ventures (ZAD-V)	\$0.08			88	\$7.0	\$4.8				[[
Aben Resources (ABN-V)	\$0.20			49	\$9.8	\$7.4				[[
enCore Energy (:EU-V)	\$0.05			111	\$5.6	\$2.8															
Pele Mountain (GEM-V)	\$0.02			21	\$0.4	\$3.1				[[
92 Resources (NTY-V)	\$0.08			56	\$4.5	\$2.7				[[
Uracan Resources (URC-V) Montero Mining (MON-V)	\$0.04 \$0.17			106 11	\$3.7 \$1.7	\$3.0 \$1.9				[[
Benton Resources (BEX-V)	\$0.17			79	\$1.7 \$5.6	\$1.9															
Forum Uranium (FDC-V)	\$0.07			75	\$4.1	\$2.4				[[
Tarku Resources (TKU-V)	\$0.04			55	\$2.2	\$1.7				[[
Roughrider Exploration (REL-V)	\$0.07			37	\$2.6	\$1.7				[[
Uravan Minerals (UVN-V)	\$0.05			42	\$2.1	\$1.5															
Aldever Resources (ALD-V)	\$0.04			41	\$1.6	\$1.0				[[
Spruce Ridge (SHL-V)	\$0.02			73	\$1.1	\$1.1															
Elysee Development (ELC-V)	\$0.33			22	\$7.2	(\$3.5)				[[
						L		⅃ ҍ	0.60x	П											
Group Average - Explorers																					
- · · · - · · · · · · · · · · · · · · ·																					
Group Average - Explorers NVENTORY FUNDS Uranium Participation (U-T)	\$3.65	\$4.42	21%	121	\$441.10	\$346.0	15.5 \$22.33	\$4.80	0.76x												



Coal Comparables – Consensus Estimates

Large Cap USA		Bloomberg			Shares	Market	Daily				Enterprise	(CFPS (Lo	C)		P/CFPS			P/EPS		l	EV/EBIT DA	Ą
			Implied		Outstanding	Capitalization	Volume	Weekly		Debt	Value												
Company (Ticker)	Share Price	Target	Return	β	(millions)	(millions)	(millions)	Liquidity	WACC	(millions)	(millions)	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
Large Cap USA																							
CONSOL ENERGY (CNX-US)	US\$ 15.54	US\$ 21.18	36.3%	1.70	230	US\$ 3,575	3.0	8.7%		US\$ 2,774	US\$ 6,060	3.03	3.93	4.67	5.1x	4.0x	3.3x	25.4x	18.1x	15.5x	6.6x	5.3x	4.9x
FORESIGHT ENERGY (FELP-US)	US\$ 4.40	US\$ 5.25	19.3%	1.65	76	US\$ 619	0.0	0.1%		US\$ 1,391	US\$ 1,983										7.0x	7.2x	7.1x
CORSACOAL (CSO-V)	C\$ 1.50	C\$ 4.25	183.3%	1.69	95	C\$ 142	0.1	0.2%	13.9%	C\$ 43	C\$ 157							1.4x	1.4x	2.0x	2.3x	1.7x	1.9x
WESTMORELAND COAL (WLB-US)	C\$ 3.14	C\$ 7.33	133.5%	0.79	19	C\$ 59	0.3	8.2%	4.3%	C\$ 1,109	C\$ 1,074	6.67			0.5x						4.3x	5.4x	5.4x
WALTER ENERGY (WLT-US)	US\$ 0.04			1.46	81	US\$ 3	0.1	0.5%	12.4%	US\$ 3,136	US\$- 179												
CLOUD PEAK (CLD-US)	US\$ 3.23	US\$ 3.98	23.3%	1.50	75	US\$ 243	1.1	6.7%	6.9%	US\$ 483	US\$ 574	0.79	0.55	0.54	4.1x	5.9x	6.0x				5.9x	6.1x	6.5x
Group Average - Large Cap USA														Avg>	3.2x	4.9x	4.7x	10.6x	10.8x	13.3x	4.9x	5.1x	5.3x
Limitied Partnerships																							
ALLIANCE RESOURCE (ARLP-US)	US\$ 19.35	US\$ 27.17	40.4%	1.16	75	US\$ 1,443	0.3	3.2%	8.4%	US\$ 662	US\$ 1,971							6.6x	8.9x	9.4x	3.2x	3.3x	3.4x
NATURAL RESOURCE (NRP-US)	US\$ 28.50	US\$ 36.00	26.3%	1.24	12	US\$ 349	0.0	1.1%	4.7%	US\$ 1,126	US\$ 1,578	10.15	11.32	11.77	2.8x	2.5x	2.4x	5.5x	4.6x	4.2x	7.4x	7.3x	7.6x
Group Average - Limited Partnerships	5													Avg>				6.1x	6.7x	6.8x	5.3x	5.3x	5.5x
Large Cap Non-North America																		-			-		
NEW HOPE (NHC-AU)	A\$ 1.56	A\$ 1.85	18.8%	0.79	831	A\$ 1,296	0.2	0.0%	7.9%		A\$ 1,160	0.32	0.30	0.25	4.9x	5.2x	6.2x	8.8x	7.4x	10.8x	3.7x	3.4x	4.9x
WHITEHAVEN COAL (WHC-AU)	A\$ 3.15	A\$ 3.16	0.5%	1.79	1,026	A\$ 3,232	8.2	4.7%	12.1%	A\$ 961	A\$ 3,861	0.57	0.62	0.52	5.5x	5.1x	6.1x	8.6x	9.4x	11.1x	5.3x	5.8x	6.6x
BANPU PUBLIC (BANPU-SET)	₿ 16.90	B 22.21	31.4%	1.63	5.162	₿ 87,237	64.9	5.5%	7.6%	B 114.111	B 201,493	2.60	2.74	2.30	6.5x	6.2x	7.3x	9.3x	10.0x	9.3x	8.1x	9.6x	9.3x
CHINA COAL (1898-HK)	HK\$ 4.20	HK\$ 4.35	3.5%	1.23	4,107	HK\$ 85,532	20.4	5.3%	5.8%	HK\$ 98,178	HK\$ 168,731	0.93	0.97	1.05	3.9x	3.7x	3.4x	11.1x	12.9x	12.2x	9.3x	9.6x	9.8x
CHINA SHENHUA (1088-HK)	HK\$ 19.84	HK\$ 20.73	4.5%	1.31	3,399	HK\$ 394,610	25.3	4.7%	8.3%	HK\$ 105,981	HK\$ 433,235	3.60	3.44	3.48	4.7x	5.0x	4.9x	9.5x	10.4x	10.4x	4.9x	5.0x	4.9x
COAL OF (CZA-AU)	A\$ 0.04				2,818	A\$ 110	0.0	0.0%	9.3%	A\$ 0	A\$ 81												
NINE ENTERTAINMENT (NEC-AU)	A\$ 1.54	A\$ 1.30	(15.6)%	1.08	871	A\$ 1,342	5.6	2.3%	8.4%	A\$ 220	A\$ 1,519	0.13	0.16	0.14	11.8x	9.7x	10.9x	11.8x	12.3x	13.3x	7.5x	7.9x	8.4x
YANZHOU COAL (1171-HK)	HK\$ 7.88	HK\$ 7.26	(7.9)%	1.36	1,952	HK\$ 62,825	17.9	6.7%	4.7%	HK\$ 65,578	HK\$ 103,790	2.09	1.86	2.01	3.2x	3.6x	3.4x	7.1x	9.1x	8.0x	7.8x	9.9x	9.4x
Group Average - Large Cap Non-North	n-America													Avg>	5.8x	5.5x	6.0x	9.5x	10.2x	10.7x	5.7x	7.3x	7.6x
Developer/Explorers																							
EAST ENERGY (EER-AU)	A\$ 0.01				356	A\$ 2.5	0.0	0.0%	4.2%	A\$ 23	A\$ 26												
FORTUNE MINERALS (FT -T)	C\$ 0.23	C\$ 0.35	55.6%	0.64	300	C\$ 67.5	0.6	0.8%	7.3%	C\$ 5	C\$ 66												
JAMESON RESOURCES (JAL-AU)	A\$ 0.10				251	A\$ 24.1	0.0	0.1%	9.3%	A\$ 0	A\$ 22												
Group Average - Developers / Explore	rs													Avg>									
Sundry Companies																							
ADARO ENERGY (ADRO-JKSE)	¥ 1,870	¥ 2,026	8.3%	1.69	31,986	¥ 59,813,749	37.9	0.6%	12.0%	¥ 1,434	¥ 5,359	0.02	0.02	0.02	6.4x	6.1x	6.1x	10.8x	10.8x	10.8x	4.9x	4.7x	4.6x
NLC INDIA (NEYVELILIG-NSEI)	₹ 98.40			0.86	1,678	₹ 165,087	0.2	0.1%	8.5%	₹ 113,478	₹ 280,155												
SOUTHGOBIRESOURCES (SGQ-T)	C\$ 0.25			0.96	273	C\$ 68	0.0	0.0%	5.7%	C\$ 118	C\$ 164												
TAMBANG BATUBARA (PTBA-JKSE)	¥ 13,525	¥ 15,284	13.0%	1.28	2,304	¥ 31,163,383	3.1	0.5%	12.0%	¥ 2,368,524	¥ 29,007,794	1659.03	1658.26	1695.15	8.2x	8.2x	8.0x	9.1x	9.3x	8.7x	6.3x	6.5x	5.9x
Group Average - Sundry Companies														Avg>	7.3x	7.1x	7.0x	8.3x	10.8x	9.8x	7.9x	8.2x	5.3x

All data sourced from Bloomberg



Senior/Intermediate Gold Producers - EV/oz Comparables

	Symbol	Market	Working	Enterprise	Ive Au Au Au Au A						F	Reserves	;		Reserves		R	esource					Glo	obal
		Capitalization	Capital	Value	Au	Au	AuEq	AuEq	% Au	Au	Au	AuEq	AuEq	% Au	EV/oz	Au	Au	AuEq	AuEq	% Διι	% Au	% AuEq	EV/oz	EV/oz
		(millions)	(millions)	(millions)	(Moz)	(g/t)	(Moz)	(g/t)	/0 Au	(Moz)	(g/t)	(Moz)	(g/t)	/0 Au	Au	(Moz)	(g/t)	(Moz)	(g/t)	/0 Au	Inferred	Inferred	Au	AuEq
Agnico Eagle Mines Limited	NYSE:AEM	US \$10,274	US \$1,339	US \$10,311	53.9	1.95	59.5	2.15	90%	19.9	2.31	21.4	2.48	93%	US \$517	33.9	1.79	38.2	2.01	89%	51%	54%	US \$191	US \$173
AngloGold Ashanti Limited	JSE:ANG	US \$3,722	US \$406	US \$5,460	214.7	1.34	240.2	1.50	89%	50.1	0.91	52.3	0.95	96%	US \$109	164.7	1.57	187.9	1.79	88%	31%	35%	US \$25	US \$23
B2Gold Corp.	TSX:BTO	US \$2,361	US \$62	US \$2,805	22.5	0.74	28.5	0.94	79%	6.9	1.34	6.9	1.34	100%	US \$406	15.6	0.62	21.6	0.86	72%	46%	57%	US \$125	US \$98
Barrick Gold Corporation	TSX:ABX	US \$19,416	US \$3,957	US \$22,821	193.3	0.79	312.1	1.27	62%	93.2	1.20	125.8	1.62	74%	US \$245	100.1	0.60	186.3	1.11	54%	34%	34%	US \$118	US \$73
Compañía de Minas Buenaventura S.A.A.	NYSE:BVN	US \$3,078	US \$114	US \$3,678	22.1	0.21	105.9	1.00	21%	3.6	0.11	25.7	0.81	14%	US \$1,028	15.7	0.26	71.4	1.16	22%	30%	24%	US \$167	US \$35
Detour Gold Corporation	TSX:DGC	US \$2,148	US (\$155)	US \$2,303	21.5	0.96	21.5	0.96	100%	16.5	0.97	16.5	0.97	100%	US \$140	5.1	0.96	5.1	0.96	100%	23%	23%	US \$107	US \$107
Eldorado Gold Corporation	TSX:ELD	US \$1,462	US \$927	US \$1,128	38.0	0.83	54.0	1.18	70%	18.4	1.23	26.3	1.76	70%	US \$61	19.6	0.64	27.6	0.90	71%	55%	55%	US \$30	US \$21
Gold Fields Limited	JSE:GFI	US \$3,207	US \$193	US \$4,580	105.7	2.01	125.7	2.39	84%	47.6	2.81	48.7	2.87	98%	US \$96	58.1	1.63	77.1	2.16	75%	48%	56%	US \$43	US \$36
Goldcorp Inc.	TSX:G	US \$10,913	US \$51	US \$13,173	111.6	0.69	196.1	1.21	57%	52.0	0.67	101.0	1.30	52%	US \$253	65.8	0.78	101.3	1.20	65%	36%	39%	US \$118	US \$67
Harmony Gold Mining Company Limited	JSE:HAR	US \$741	US \$223	US \$628	81.2	1.04	111.9	1.43	73%	23.7	0.66	36.1	1.01	66%	US \$26	57.5	1.35	74.9	1.76	77%	36%	38%	US \$8	US \$6
IAMGOLD Corporation	TSX:IMG	US \$2,437	US \$720	US \$2,111	32.9	1.23	33.3	1.24	99%	14.4	1.21	14.4	1.21	100%	US \$147	18.6	1.24	18.9	1.26	98%	44%	45%	US \$64	US \$63
Kinross Gold Corporation	TSX:K	US \$5,226	US \$1,710	US \$5,250	59.0	0.71	60.3	0.73	98%	25.2	0.73	25.4	0.74	99%	US \$209	34.6	0.71	35.5	0.73	97%	16%	15%	US \$89	US \$87
New Gold Inc.	TSX:NGD	US \$1,967	US \$246	US \$2,601	23.3	0.75	31.7	1.01	74%	14.7	0.78	18.2	0.97	81%	US \$177	8.6	0.69	13.4	1.08	64%	24%	28%	US \$111	US \$82
Newmont Mining Corporation	NYSE:NEM	US \$19,278	US \$3,526	US \$19,802	124.0	0.79	167.4	1.07	74%	68.6	0.96	75.5	1.05	91%	US \$289	55.3	0.65	91.8	1.09	60%	29%	20%	US \$160	US \$118
Randgold Resources Limited	LSE:RRS	US \$8,701	US \$756	US \$7,948	25.6	3.35	25.6	3.35	100%	14.5	3.85	14.5	3.85	100%	US \$548	11.1	2.86	11.1	2.86	100%	53%	53%	US \$310	US \$310
RTG Mining Inc.	TSX:RTG	US \$19	US \$9	US \$11	0.4	1.64	0.9	3.75	44%	0.2	2.04	0.5	5.21	39%	US \$52	0.2	1.34	0.3	2.61	51%	84%	80%	US \$28	US \$12
Tahoe Resources Inc.	TSX:THO	US \$1,638	US \$252	US \$1,434	18.2	0.68	30.3	1.14	60%	4.0	0.48	10.1	1.23	39%	US \$363	14.2	0.77	20.2	1.10	70%	55%	43%	US \$79	US \$47
Yamana Gold Inc.	TSX:YRI	US \$2,344	US \$63	US \$3,880	59.0	0.54	117.9	1.07	50%	20.6	0.39	-	-	-	US \$189	40.5	0.71	-	-	_	40%	-	US \$66	US \$33
Group Average - Total					# Compa	nies: 1	8								US \$270								US \$102	US \$77

Equivalency assumptions (US\$ / 08-04-17): \$1,259/oz Au, \$16.27/oz Ag, \$964/oz Pt, \$878/oz Pd, \$2.88/lb Cu, \$1.27/lb Zn, \$1.06/lb Pb, \$4.63/lb Ni, \$7.82/lb Mo, \$26.76/lb Co, \$8,275/l Sb, \$20.38/lb U3O8, \$0.20/lb Sn, \$93.00/l HCC, \$74.21/l 62% Fe Source: SNL Financial retrieved on August 4, 2017

		Market	Working	Enterprise	Glo	bal Res	erves &					Reserve	es		Reserves					nferred)		Glo	obal
Company	Symbol	Capitalization	Capital	Value	Au	Au	AuEq	AuEq	% Au	Au	Au	AuEq	AuEq	% Au	EV/oz	Au	Au	AuEq	AuEq	% Au	% Au	EV/oz	EV/oz
		(millions)	(millions)	(millions)	(Moz)	(g/t)	(Moz)	(g/t)	/0 Au	(Moz)	(g/t)	(Moz)	(g/t)	/0 Au	Au	(Moz)	(g/t)	(Moz)	(g/t)	/0 Au	Inferred	Au	AuEq
Alamos Gold Inc.	TSX:AGI	US \$2,288	US \$258	US \$2,033	21.6	1.21	22.3	1.25	97%	7.7	1.30	8.1	1.36	96%	US \$264	13.9	1.17	14.3	1.20	98%	33%	US \$94	US \$91
Argonaut Gold Inc.	TSX:AR	US \$307	US \$99	US \$208	9.6	0.70	10.5	0.76	91%	3.3	0.81	3.3	0.81	100%	US \$63	6.3	0.65	7.2	0.74	87%	26%	US \$22	US \$20
Centamin Plc	LSE:CEY	US \$2,327	US \$392	US \$1,935	11.4	1.19	11.4	1.19	100%	4.4	1.08	4.4	1.08	100%	US \$440	7.0	1.27	7.0	1.27	100%	40%	US \$169	US \$169
China Gold International Resources Corp. Ltd.	TSX:CGG	US \$606	US (\$337)	US \$1,545	9.7	0.15	63.3	0.96	15%	5.0	0.28	24.1	1.37	21%	US \$310	4.7	0.10	39.2	0.82	12%	28%	US \$160	US \$24
Evolution Mining Limited	ASX:EVN	US \$2,946	US \$69	US \$3,288	18.3	0.95	22.6	1.16	81%	7.9	1.24	8.1	1.27	97%	US \$418	10.5	0.83	14.5	1.14	72%	34%	US \$179	US \$146
Medusa Mining Limited	ASX:MML	US \$49	US \$34	US \$16	1.4	4.13	1.4	4.13	100%	0.4	7.00	0.4	7.00	100%	US \$43	0.4	1.74	0.4	1.74	100%	103%	US \$12	US \$12
Northern Star Resources Limited	ASX:NST	US \$2,245	US \$216	US \$2,036	8.5	3.26	21.1	8.11	40%	1.7	5.24	1.7	5.24	100%	US \$1,165	6.7	3.02	19.3	8.65	35%	58%	US \$240	US \$97
OceanaGold Corporation	TSX:OGC	US \$1,681	US \$6	US \$1,920	15.2	1.53	16.6	1.67	92%	4.9	1.42	5.8	1.68	85%	US \$390	10.3	1.59	10.7	1.66	96%	39%	US \$126	US \$116
Primero Mining Corp.	TSX:P	US \$69	US (\$15)	US \$191	6.6	0.82	10.4	1.28	64%	1.3	1.12	2.2	1.85	61%	US \$143	5.2	0.76	8.2	1.19	64%	25%	US \$29	US \$18
Regis Resources Limited	ASX:RRL	US \$1,560	US \$86	US \$1,476	9.7	0.92	9.7	0.92	100%	2.5	1.14	2.5	1.14	100%	US \$592	7.2	0.86	7.2	0.86	100%	28%	US \$152	US \$152
Resolute Mining Limited	ASX:RSG	US \$628	US \$291	US \$353	11.5	1.40	11.5	1.40	100%	5.2	1.50	5.2	1.50	100%	US \$69	6.4	1.32	6.4	1.32	100%	39%	US \$31	US \$31
SEMAFO Inc.	TSX:SMF	US \$718	US \$268	US \$507	7.8	2.76	7.8	2.76	100%	2.7	3.31	2.7	3.31	100%	US \$187	5.1	2.54	5.1	2.54	100%	47%	US \$65	US \$65
Group Average - Total			•		# Comp	anies: 1	12								US \$340							US \$106	US \$78

Equivalency assumptions (US\$ / 08-04-17): \$1,259/oz Au, \$16.27/oz Ag, \$964/oz Pt, \$878/oz Pd, \$2.88/lb Cu, \$1.27/lb Zn, \$1.06/lb Pb, \$4.63/lb Ni, \$7.82/lb Mo, \$26.76/lb Co, \$8,275/t Sb, \$20.38/lb U3O8, \$0.20/lb Sn, \$93.00/t HCC, \$74.21/t 62% Fe Source: SNL Financial retrieved on August 4, 2017

8/4/17



Junior Gold Producers - EV/oz Comparables

		Market	Working	Enterprise	Glo	bal Res	erves &	Resour	ces			Reserve	S		Reserves		Resou	rces (M	&I and I	nferred)		Glo	obal
Company	Symbol	Capitalization	Capital	Value	Au	Au	AuEq	AuEq	% Au	Au	Au	AuEq	AuEq	% Au	EV/oz	Au		AuEq	AuEq	% Au	% Au	EV/oz	EV/oz
		(millions)	(millions)	(millions)	(Moz)	(g/t)	(Moz)	(g/t)		(Moz)	(g/t)	(Moz)	(g/t)		Au	(Moz)		(Moz)	(g/t)		Inferred	Au	AuEq
Alacer Gold Corp.	TSX:ASR	US \$497	US \$239	US \$384	7.6	0.39	18.1	0.94	42%	3.7	2.07	5.2	2.90	72%	US \$104	3.9	0.22	12.9	0.74	30%	52%	US \$51	US \$21
Asanko Gold Inc.	TSX:AKG	US \$179	US \$75	US \$261	7.3	1.45	7.3	1.45	100%	4.6	1.58	4.6	1.58	100%	US \$57	2.7	1.26	2.7	1.26	100%	22%	US \$36	US \$36
Avnel Gold Mining Limited	TSX:AVK	US \$125	US \$13	US \$112	2.7	4.11	2.7	4.11	100%	1.6	2.81	1.6	2.81	100%	US \$71	1.2	11.05	1.2	11.05	100%	21%	US \$41	US \$41
Azumah Resources Limited	ASX:AZM	US \$12	US \$1	US \$11	1.9	1.55	1.9	1.55	100%	0.6	2.14	0.6	2.14	100%	US \$20	1.3	1.38	1.3	1.38	100%	47%	US \$6	US \$6
Banro Corporation	TSX:BAA	US \$42	US (\$262)	US \$359	12.1	1.60	12.1	1.60	100%	3.2	2.03	3.2	2.03	100%	US \$113	8.9	1.49	8.9	1.49	100%	57%	US \$30	US \$30
Beadell Resources Limited	ASX:BDR	US \$195	US \$9	US \$191	4.0	0.44	16.3	1.82	24%	1.6	1.74	-	-	-	US \$122	-	-	-	-	-	-	US \$48	US \$12
Dundee Precious Metals Inc.	TSX:DPM	US \$377	US \$37	US \$340	11.1	0.43	20.6	0.79	54%	3.0	3.36	4.1	4.58	73%	US \$114	8.1	0.32	16.5	0.66	49%	51%	US \$31	US \$17
Endeavour Mining Corporation	TSX:EDV	US \$1,739	US \$88	US \$1,906	14.8	1.64	14.8	1.64	100%	6.1	1.65	6.1	1.65	100%	US \$315	8.7	1.64	8.7	1.64	100%	41%	US \$129	US \$129
Golden Star Resources Ltd.	TSX:GSC	US \$256	US (\$45)	US \$387	8.3	3.26	8.3	3.26	100%	1.7	3.05	1.7	3.05	100%	US \$225	6.5	3.32	6.5	3.32	100%	46%	US \$47	US \$47
Goldgroup Mining Inc.	TSX:GGA	US \$12	US (\$1)	US \$13	0.5	0.76	0.9	1.45	53%	-	-	-	-	-	-	0.5	0.76	0.9	1.45	53%	41%	US \$28	US \$15
Goldquest Mining Corp.	TSXV:GQC	US \$91	US \$22	US \$69	2.2	2.60	3.4	3.99	65%	0.8	3.72	1.2	5.15	72%	US \$82	1.4	2.19	2.1	3.31	66%	16%	US \$31	US \$20
Kirkland Lake Gold Ltd.	TSX:KL	US \$2,115	US \$125	US \$2,017	17.0	4.17	17.0	4.17	100%	3.7	7.57	-	-	-	US \$545	13.3	3.71	-	-	-	40%	US \$118	US \$118
Klondex Mines Ltd.	TSX:KDX	US \$532	US \$23	US \$529	3.8	1.83	4.0	1.90	96%	0.6	6.46	0.6	6.85	94%	US \$914	3.2	1.62	3.4	1.67	97%	57%	US \$138	US \$133
Mandalay Resources Corporation	TSX:MND	US \$123	US \$39	US \$85	1.7	0.85	4.0	2.01	42%	0.8	1.97	1.0	2.56	77%	US \$110	0.9	0.57	3.0	1.88	30%	40%	US \$51	US \$21
Metanor Resources Inc.	TSXV:MTO	US \$50	US \$5	US \$45	1.7	1.53	1.7	1.53	100%	0.2	7.37	0.2	7.37	100%	US \$224	1.5	1.38	1.5	1.38	100%	79%	US \$26	US \$26
Minera IRL Limited	BVL:MIRL	US \$16	US (\$68)	US \$85	2.6	2.62	2.6	2.63	100%	1.0	3.38	1.0	3.38	100%	US \$85	1.6	2.30	1.6	2.31	100%	73%	US \$33	US \$33
Orosur Mining Inc.	TSX:OMI	US \$18	US \$5	US \$13	1.6	0.68	2.5	1.04	65%	0.1	1.43	0.1	1.43	100%	US \$105	1.5	0.65	2.4	1.03	63%	5%	US \$8	US \$5
Orvana Minerals Corp.	TSX:ORV	US \$34	US \$5	US \$37	3.3	2.43	4.1	2.94	82%	0.4	3.03	0.5	4.11	74%	US \$106	3.1	2.38	3.7	2.85	83%	45%	US \$11	US \$9
Perseus Mining Limited	ASX:PRU	US \$246	US \$63	US \$183	16.1	1.26	16.1	1.26	100%	6.4	1.47	6.4	1.47	100%	US \$29	9.8	1.15	9.8	1.15	100%	37%	US \$11	US \$11
Richmont Mines Inc.	TSX:RIC	US \$482	US \$64	US \$422	5.0	3.81	5.0	3.82	100%	0.8	9.00	0.8	9.00	100%	US \$530	4.2	3.44	4.2	3.45	100%	62%	US \$85	US \$84
Roxgold Inc.	TSX:ROXG	US \$321	US \$39	US \$329	1.2	15.75	1.2	15.75	100%	0.6	11.46	0.6	11.46	100%	US \$552	0.6	25.33	0.6	25.33	100%	87%	US \$278	US \$278
Rubicon Minerals Corporation	TSX:RMX	US \$68	US \$25	US \$53	0.4	6.39	0.4	6.39	100%	-	-	-	-	-	-	0.4	6.39	0.4	6.39	100%	74%	US \$128	US \$128
Shanta Gold Limited	AIM:SHG	US \$37	US \$22	US \$67	3.2	2.90	3.2	2.90	100%	0.7	4.60	0.7	4.60	100%	US \$90	2.4	2.60	2.4	2.61	100%	56%	US \$21	US \$21
Teranga Gold Corporation	TSX:TGZ	US \$270	US \$65	US \$220	8.6	1.52	8.6	1.52	100%	3.2	1.40	3.2	1.40	100%	US \$69	5.4	1.60	5.4	1.60	100%	29%	US \$26	US \$26
Alio Gold Inc.	TSX:ALO	US \$168	US \$41	US \$127	3.1	0.91	3.1	0.93	99%	1.9	0.89	2.0	0.90	99%	US \$65	1.1	0.96	1.2	0.97	99%	8%	US \$41	US \$40
Torex Gold Resources Inc	TSX:TXG	US \$1,297	US \$121	US \$1,569	8.6	2.65	11.9	3.66	72%	3.3	2.57	3.4	2.62	98%	US \$476	5.3	2.69	8.5	4.34	62%	85%	US \$183	US \$132
Wesdome Gold Mines Ltd.	TSX:WDO	US \$234	US \$14	US \$226	6.3	1.41	6.3	1.41	100%	0.4	5.00	-	-	-	US \$506	5.9	1.34		-	-	58%	US \$36	US \$36
Group Average - Total					# Comp	anies: 2	27								US \$225							US \$62	US \$55

 $Equivalency\ assumptions\ (US\$/08-04-17):\$1,259/oz\ Au,\$16.27/oz\ Ag,\$964/oz\ Pt,\$878/oz\ Pd,\$2.88/lb\ Cu,\$1.27/lb\ Zn,\$1.06/lb\ Pb,\$4.63/lb\ Ni,\$7.82/lb\ Mo,\$26.76/lb\ Co,\$8,275/t\ Sb,\$20.38/lb\ U3O8,\$0.20/lb\ Sn,\$93.00/t\ HCC,\$74.21/t\ 62\%\ Fe$

Source: SNL Financial retrieved on August 4, 2017



Gold Development-Stage Companies (Engineering Study Complete) – EV/oz Comparables

Company		Market	Working	Enterprise	Glob	al Rese	erves & F	Resourc	es		F	Reserve	:S		Reserves		Reso	urces (M	&l and	Inferred)	Glo	obal
, ,	Symbol	Capitalization	9	Value	Au	Au	AuEq	AuEq	% Διι	Au	Au	AuEq	AuEq	% Au	EV/oz	Au	Au	AuEq	AuEq	% Au	% Au	EV/oz	EV/oz
		(millions)	(millions)	(millions)	(Moz)	(g/t)	(Moz)	(g/t)	% Au	(Moz)	(g/t)	(Moz)	(g/t)	% Au	Au	(Moz)	(g/t)	(Moz)	(g/t)	% Au	Inferred	Au	AuEq
African Gold Group, Inc.	TSXV:AGG	US \$16	US (\$2)	US \$17	2.0	1.01	2.0	1.01	100%	0.5	1.25	0.5	1.25	100%	US \$38	1.5	0.96	1.5	0.96	100%	59%	US \$9	US \$9
Almaden Minerals Ltd.	TSX:AMM	US \$111	US \$9	US \$103	2.4	0.42	4.9	0.85	50%	1.3	0.62	2.3	1.10	56%	US \$79	1.1	0.31	2.6	0.70	45%	40%	US \$42	US \$21
Amarillo Gold Corporation	TSXV:AGC	US \$21	US (\$0)	US \$29	2.1	1.22	2.1	1.22	100%	1.0	1.63		-	-	US \$29	1.1	0.99	-	-	-	57%	US \$14	US \$14
ATAC Resources Ltd.	TSXV:ATC	US \$55	US \$13	US \$42	0.7	2.35	0.7	2.39	99%		-		-	-	-	0.7	2.35	0.7	2.39	99%	28%	US \$62	US \$61
Atlantic Gold Corporation	TSXV:AGB	US \$196	US (\$65)	US \$327	2.0	1.54	2.0	1.54	100%	0.6	1.43	0.6	1.43	100%	US \$541	1.4	1.59	1.4	1.59	100%	73%	US \$164	US \$164
Avesoro Resources Inc.	TSX:ASO	US \$148	US (\$2)	US \$244	2.5	2.48	2.5	2.48	100%	0.8	3.38	0.8	3.38	100%	US \$293	1.7	2.19	1.7	2.19	100%	68%	US \$96	US \$96
Barkerville Gold Mines Ltd.	TSXV:BGM	US \$260	US \$1	US \$260	3.9*		3.9		100%						-	3.9*		3.9		100%		US \$67	US \$67
Belo Sun Mining Corp	TSX:BSX	US \$206	US \$51	US \$156	6.8	1.04	6.8	1.04	100%	3.8	1.02	3.8	1.02	100%	US \$41	3.0	1.07	3.0	1.07	100%	52%	US \$23	US \$23
Chaarat Gold Holdings Limited	AIM:CGH	US \$83	US \$3	US \$79	7.1	2.53	7.2	2.57	98%	-	-	-	-	-	-	7.1	2.53	-	-	-	15%	US \$11	US \$11
Chalice Gold Mines Limited	ASX:CHN	US \$33	US \$46	US (\$13)	0.2	4.10	0.2	4.10	100%						-	0.2	4.10	0.2	4.10	100%	83%	-	-
Chesapeake Gold Corp.	TSXV:CKG	US \$120	US \$18	US \$103	19.8	0.49	31.2	0.78	64%	18.3	0.52	28.8	0.81	63%	US \$6	1.5	0.33	2.4	0.51	66%	53%	US \$5	US \$3
Continental Gold Inc.	TSX:CNL	US \$475	US \$144	US \$376	9.1	9.91	9.7	10.56	94%	3.7	8.41	3.8	8.73	96%	US \$101	5.4	11.31	5.8	12.26	92%	86%	US \$41	US \$39
Dacian Gold Limited	ASX:DCN	US \$331	US \$19	US \$312	3.3	2.31	3.3	2.31	100%	1.2	2.01	1.2	2.01	100%	US \$260	2.1	2.52	2.1	2.52	100%	53%	US \$94	US \$94
Dalradian Resources Inc.	TSX:DNA	US \$297	US \$25	US \$272	4.4	10.74	4.4	10.74	100%	1.4	8.54	1.4	8.54	100%	US \$189	3.0	12.28	3.0	12.28	100%	78%	US \$62	US \$62
	TSX:XRC	US \$141	US \$10	US \$131	25.1	0.49	40.1	0.78	62%			-	-	-	-	25.1	0.49	-		-	7%	US \$5	US \$3
Falco Resources Ltd.	TSXV:FPC	US \$147	US \$14	US \$140	5.6	1.54	9.6	2.62	59%	-		-	-		-	5.6	1.54		-		19%	US \$25	US \$15
First Mining Finance Corp.	TSX:FF	US \$262	US \$27	US \$237	12.4	1.49	12.8	1.54	97%	-	-	-		-	-	12.4	1.49	12.8	1.54	97%	41%	US \$19	US \$19
Gabriel Resources Ltd.	TSX:GBU	US \$87	US \$41	US \$92	16.4	1.05	17.4	1.11	95%	8.1	1.46	8.6	1.55	94%	US \$11	8.3	0.83	8.7	0.87	95%	27%	US \$6	US \$5
Gold Road Resources Limited	ASX:GOR	US \$446	US \$279	US \$167	3.4	1.11	3.5	1.15	97%	1.8	1.20	1.8	1.20	100%	US \$95	1.6	1.03	1.7	1.10	94%	60%	US \$50	US \$48
Golden Queen Mining Co. Ltd.	TSX:GQM	US \$53	US \$1	US \$87	0.9	0.53	1.1	0.65	82%	0.5	0.66	0.6	0.80	82%	US \$176	0.4	0.43	0.5	0.52	82%	30%	US \$97	US \$79
Guyana Goldfields Inc.	TSX:GUY	US \$629	US \$126	US \$552	8.6	2.94	8.6	2.94	100%	3.5	2.99	3.5	2.99	100%	US \$156	5.1	2.91	5.1	2.91	100%	41%	US \$64	US \$64
	AIM:HUM	US \$125	US \$22	US \$118	6.3	1.63	6.3	1.63	100%	0.6	3.14	0.6	3.14	100%	US \$207	5.8	1.56	5.8	1.56	100%	53%	US \$19	US \$19
	TSX:ITH	US \$82	US \$6	US \$76	12.6	0.68	12.6	0.68	100%	9.0	0.71	-	-	-	US \$8	3.6	0.60	-	-	-	31%	US \$6	US \$6
INV Metals Inc.	TSX:INV	US \$70	US \$24	US \$46	3.1	3.34	3.9	4.20	79%	1.9	4.98	2.2	5.79	86%	US \$25	1.2	2.23	1.7	3.13	71%	44%	US \$15	US \$12
K92 Mining Inc.	TSXV:KNT	US \$67	US (\$5)	US \$75	1.4	8.22	2.0	11.49	72%	-	-	-	-	-	-	1.4	8.22	2.0	11.49	72%	84%	US \$52	US \$37
KEFI Minerals Plc	AIM:KEFI	US \$20	US \$2	US \$19	1.6	1.86	1.6	1.86	100%	8.0	2.12	0.8	2.12	100%	US \$24	0.8	1.65	0.8	1.65	100%	21%	US \$12	US \$12
Lundin Gold Inc.	TSX:LUG	US \$438	US (\$19)	US \$476	9.5	8.33	9.7	8.49	98%	4.8	9.67	4.9	9.84	98%	US \$99	4.7	7.29	4.8	7.44	98%	46%	US \$50	US \$49
Lupaka Gold Corp.	TSXV:LPK	US \$13	US (\$2)	US \$15	2.8	1.17	3.2	1.35	86%		-	-	-	-	-	2.8	1.17	3.2	1.35	86%	42%	US \$6	US \$5
Lydian International Limited	TSX:LYD	US \$198	US \$87	US \$184	4.8	0.69	5.1	0.74	94%	2.6	0.79	2.8	0.84	94%	US \$71	2.1	0.60	2.3	0.64	93%	60%	US \$39	US \$36
Metals Exploration Plc	AIM:MTL	US \$84	US (\$54)	US \$167	1.7	1.62	2.0	1.89	86%	0.9	1.86	1.0	2.09	89%	US \$187	0.8	1.43	1.0	1.71	83%	82%	US \$97	US \$83
Midas Gold Corp.	TSX:MAX	US \$114	US \$31	US \$102	6.5	1.57	7.2	1.73	91%	4.6	1.60	5.1	1.78	90%	US \$22	2.0	1.49	2.1	1.63	92%	55%	US \$16	US \$14
•	TSX:ME	US \$27	US \$5	US \$21	4.3	1.17	4.3	1.17	100%	-	-	-	-	-	-	4.3	1.17	4.3	1.17	100%	75%	US \$5	US \$5
NewCastle Gold Ltd.	TSX:NCA	US \$140	US \$2	US \$138	7.4	2.21	7.4	2.21	100%	-	-		-	-	-	7.4	2.21	7.4	2.21	100%	42%	US \$19	US \$19
NovaGold Resources Inc.	TSX:NG	US \$1,376	US \$93	US \$1,370	34.1	0.70	65.2	1.34	52%	22.4	0.89	39.2	1.56	57%	US \$61	11.7	0.49	26.0	1.10	45%	56%	US \$40	US \$21
Orca Gold Inc.	TSXV:ORG	US \$50	US \$4	US \$46	1.6	1.80	1.6	1.80	100%		-		-	-	-	1.6	1.80	1.6	1.80	100%	23%	US \$28	US \$28
Orezone Gold Corporation	TSXV:ORE	US \$85	US \$16	US \$69	5.6	0.71	5.6	0.71	100%		-	•	-	-	-	5.6	0.71	5.6	0.71	100%	18%	US \$12	US \$12
Ho Chi Minh City Investment Fund	0	US \$0	US \$0	US \$0	- 10.0	- 1 /7	10.0	1.70	- 000/	-	- 117	-	1.10	- 000/	-	-	1.07	-	1.00	- 000/	-	-	-
Premier Gold Mines Limited	TSX:PG	US \$517	US \$141	US \$417	10.8	1.67	10.9	1.70	99%	2.8	1.17	2.9	1.19	98%	US \$148	8.0	1.97	8.0	1.99	99%	50%	US \$39	US \$38
Pretium Resources Inc.	TSX:PVG	US \$1,619	US \$88	US \$2,205	49.0	0.68	63.4	0.88	77%	8.7	14.63	9.1	15.32	95%	US \$253	40.3	0.57	54.3	0.76	74%	32%	US \$45	US \$35
3 3 1	TSX:R	US \$61	US (\$26)	US \$132	0.6	3.35	0.6	3.35	100%	0.4	5.19	0.4	5.19	100%	US \$327	0.2	1.98	0.2	1.98	100%	64%	US \$216	US \$216
Sabina Gold & Silver Corp.	TSX:SBB	US \$383	US \$34	US \$349	7.2	6.21	7.2	6.21	100%	2.5	6.30	2.5	6.30	100%	US \$139	4.7	6.16	4.7	6.16	100%	40%	US \$49	US \$49
Sandspring Resources Ltd.	TSXV:SSP	US \$34	US \$1	US \$33	10.4	0.85	11.8	0.96	88%	4.1	1.00	4.6	1.12	89%	US\$8	6.3	0.77	7.1	0.87	89%	53%	US \$3	US \$3
Seabridge Gold Inc.	TSX:SEA ASX:SIH	US \$636 US \$20	US \$5	US \$631 US \$21	98.2 1.1	0.49	188.5	0.93	52% 100%	45.3	0.61 2.41	72.1	0.98	63% 100%	US\$14	53.0	0.41 2.73	116.4	0.90	46% 100%	71% 43%	US \$6 US \$19	US \$3 US \$19
Sihayo Gold Limited		US \$20 US \$49	US (\$1) US \$16	US \$21 US \$32	1.1	2.00	1.1	7.63	100%	0.4	2.41	0.4	2.41	100%	US \$50	0.7	2.13	0.7	2.13	100%	45%	02 \$14	US \$33
Solitario Zinc Corp. Sulliden Mining Capital Inc.	AMEX:XPL TSX:SMC	US \$49 US \$8	US \$16 US \$11	US \$32 US (\$2)	1.4	1.20	1.0	1.37	87%		•	•	•	•	-	1.4	1.20	1.7	1.37	87%	26%		US \$33
Terraco Gold Corp.	TSXV:TEN	US \$8 US \$11	US \$11	US (\$2) US \$17	1.4	0.70	1.7	0.70	100%					-	-	1.4	0.70	1.7	0.70	100%	2 6 %	US \$17	US \$17
	AIM:VAST	US \$17		US \$17	2.4	1.31				0.4	1.02	1.0	2.75		IIC 62E		1.21	2.1	1.38	87%	55%	US \$17	US \$6
Vast Resources plc Victoria Gold Corp.	TSXV:VIT	US \$17 US \$209	US (\$0) US \$47	US \$162	4.5	0.65	3.1 4.6	1.70 0.66	77% 99%	0.6 2.7	1.83 0.67	1.0 2.7	3.25 0.67	56% 100%	US \$35 US \$61	1.8	0.61	1.9	0.63	98%	30%	US \$36	US \$35
	I JAV. VII	UJ \$2U7	U3 \$47	U3 \$ 10Z	# Compar			0.00	77/0	2.1	0.07	2.1	0.07	100/0	US \$117	1.7	0.01	1.9	0.03	70 /0	JU //0	US \$38	US \$36
Group Average - Total	n ounces														02 \$11/								
Group Average - 0 - 20 millio					# Compar		5															US \$40	US \$38
Group Average - 20 - 50 milli					# Compar																	US \$30	US \$3
Group Average - +50 million	ounces				# Compar	nies: 1																US \$6	US \$20

Equivalency assumptions (US\$ / 08-04-17): \$1,259/oz Au, \$16.27/oz Ag, \$964/oz Pt, \$878/oz Pd, \$2.88/lb Cu, \$1.27/lb Zn, \$1.06/lb Pb, \$4.63/lb Ni, \$7.82/lb Mo, \$26.76/lb Co, \$8,275/t Sb, \$20.38/lb U3O8, \$0.20/lb Sn, \$93.00/t HCC, \$74.21/t 62% Fe Source: SNL Financial retrieved on August 4, 2017



Gold Exploration-Stage Companies (Resource Only) - EV/oz Comparables

		Market	Working	Enterprise	Glob	al Res	erves 8	& Reso	ırces		R	eserve	S			Resour	ces (M	&I and	Inferred)	Glo	obal
Company	Symbol	Capitalization	9	Value	Au	Au	AuEq	AuEq	% Au	Au	Au	AuEq	AuEq	% Au	Au	Au	AuEq			% Au	EV/oz	EV/oz
. ,	,	(millions)	(millions)	(millions)	(Moz)	(g/t)	(Moz)	(g/t)	% Au	(Moz)	(g/t)	(Moz)	(g/t)	% Au	(Moz)	(g/t)	(Moz)	(g/t)	% Au	Inferred	Au	AuEq
Alexandria Minerals Corporation	TSXV:AZX	US \$25	US \$5	US \$19	1.6	1.82	2.1	2.45	74%	-	-	-	-	-	1.6	1.82	2.1	2.45	74%	41%	US \$12	US \$9
Antler Gold Inc.	TSXV:ANTL	US \$12	US \$1	US \$8	-	-			-		-	-	-		-			-	-	-	-	-
Atacama Pacific Gold Corporation	TSXV:ATM	US \$46	US \$3	US \$43	5.9	0.37	5.9	0.37	100%	3.7	0.40	3.7	0.40	100%	2.1	0.33	2.1	0.33	100%	29%	US \$7	US \$7
Auris Minerals Limited	ASX:AUR	US \$26	US \$2	US \$25	-	-	0.2	1.83	-	-	-	-			-	-	0.2	1.83	-	-		US \$123
Auryn Resources Inc.	TSX:AUG	US \$208	US \$26	US \$178	2.3	5.73	2.6	6.53	88%						2.3	5.73	- 11	1.40	- 510/	72%	US \$78	US \$68
Balmoral Resources Ltd	TSX:BAR	US \$64	US \$6	US \$56	0.6	0.76	1.1	1.48	51%	-	•	•	•	-	0.6	0.76	1.1	1.48	51%	68%	US \$101	US \$52
Bellhaven Copper & Gold Inc.	TSXV:BHV	US \$10	US (\$0)	US \$10	-	-	-		-	-				-	-	-	-	-	-	-		
Calibre Mining Corp.	TSXV:CXB	US \$35	US \$4	US \$30	1.9	0.99	2.6	1.38	72%					-	1.9	0.99	2.6	1.38	72%	98%	US \$16	US \$11
Cardinal Resources Limited	ASX:CDV	US \$180	US \$9	US \$171	4.6	1.14	4.6	1.14	100%	-	-	-	-	-	4.6	1.14	4.6	1.14	100%	80%	US \$37	US \$37
Columbus Gold Corp.	TSX:CGT	US \$79	US (\$4)	US \$75	3.4	0.78	4.1	0.94	83%	1.2	1.58	1.2	1.58	100%	2.2	0.61	2.8	0.80	76%	55%	US \$22	US \$18
Condor Gold PLC	AIM:CNR	US \$41	US \$1	US \$40	3.7	3.08	4.1	3.34	92%	0.7	3.04	0.7	3.11	98%	3.1	3.09	3.4	3.39	91%	65%	US \$11	US \$10
Coral Gold Resources Ltd.	TSXV:CLH	US \$13	US (\$0)	US \$13	-	-	•	-	-	•	-	-	-	-	-		•	-		-	-	-
Cordoba Minerals Corp.	TSXV:CDB	US \$115	US \$1	US \$113	0.2	0.37	0.9	1.47	25%		-	-	-		0.2	0.37	0.9	1.47	25%	100%	US \$499	US \$127
Corvus Gold Inc.	TSX:KOR	US \$62	US \$1	US \$61	1.8	0.26	1.9	0.28	95%		-	-	-		1.8	0.26	1.9	0.28	95%	64%	US \$35	US \$33
Eastmain Resources Inc.	TSX:ER	US \$48	US \$3	US \$43	1.8	4.37	1.8	4.37	100%	-	-	-	-	-	1.8	4.37	1.8	4.37	100%	34%	US \$24	US \$24
Eco Oro Minerals Corp	TSX:EOM	US \$43	US \$8	US \$30	3.5	4.38	3.7	4.61	95%		-	-	-	-	3.5	4.38	3.7	4.61	95%	37%	US \$9	US \$8
EMX Royalty Corporation	TSXV:EMX	US \$77	US \$8	US \$70		-			-	-	•	•	•		-	-	-	-	-	-		
GobiMin Inc.	TSXV:GMN	US \$20	US \$30	US (\$10)	2.9	1.49	2.9	1.50	99%	-	-	-	-		2.9	1.49	2.9	1.50	99%	63%	-	-
Gold Standard Ventures Corp	TSXV:GSV	US \$393	US \$40	US \$352	2.1	0.56	2.2	0.60	93%	-		-	-		2.1	0.56	2.2	0.60	93%	70%	US \$169	US \$157
Golden Reign Resources Ltd.	TSXV:GRR	US \$34	US \$4	US \$30	0.9	7.81	1.0	7.98	98%	-	-	-	-	-	0.9	7.81	1.0	7.98	98%	84%	US \$32	US \$31
Granada Gold Mine Inc.	TSXV:GGM	US \$18	US (\$3)	US \$19	5.0	1.23	5.1	1.24	99%	-	-	-	-	-	5.0	1.23	5.1	1.24	99%	69%	US \$4	US \$4
Harte Gold Corp.	TSX:HRT	US \$255	US \$12	US \$237	0.5	9.47	0.5	9.47	100%	-	-	-	-		0.5	9.47	0.5	9.47	100%	33%	US \$499	US \$499
IDM Mining Ltd.	TSXV:IDM	US \$37	US \$14	US \$19	0.6	8.41	0.7	8.70	97%	-	-	-	-	-	0.6	8.41	-	-	-	10%	US \$29	US \$28
Kasbah Resources Limited	ASX:KAS	US \$13	US \$1	US \$10	0.2	0.55	0.3	0.63	87%	-	-	0.0	0.09		0.2	0.90	0.2	0.97	93%	-	US \$45	US \$40
Kenadyr Mining (Holdings) Corp.	TSXV:KEN	US \$19	US \$9	US \$13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Lexam VG Gold Inc.	TSX:LEX	US \$39	US \$1	US \$39	-	-	-		-		-	-	-	-	-			-	-	-	-	-
Lincoln Mining Corporation	TSXV:LMG	US \$1	US (\$3)	US \$5	0.2	2.14	0.2	2.14	100%	-	-	-	-	-	0.2	2.14	0.2	2.14	100%	54%	US \$31	US \$31
Lion One Metals Limited	TSXV:LIO	US \$51	US \$25	US \$26	0.7	0.09	14.9	1.91	5%		-	-	-	-	0.7	0.09	14.9	1.91	5%	60%	US \$35	US \$2
Marathon Gold Corporation	TSX:MOZ	US \$115	US \$4	US \$111	2.2	2.06	2.2	2.06	100%	-	-	-	-	-	2.2	2.06	2.2	2.06	100%	35%	US \$50	US \$50
Monarques Gold Corporation	TSXV:MQR	US \$40	US \$6	US \$32	0.5	7.73	0.5	7.73	100%	0.1	6.77	0.1	6.77	100%	0.3	8.13	0.3	8.13	100%	50%	US \$69	US \$69
New Pacific Metals Corp.	TSXV:NUAG	US \$134	US \$16	US \$118	0.5	6.12	0.6	7.30	84%	-	-	-	-	-	0.5	6.12	0.6	7.30	84%	45%	US \$232	US \$194
Nighthawk Gold Corp.	TSX:NHK	US \$133	US \$29	US \$103	2.4	1.74	2.4	1.74	100%	-	-	-	-		2.4	1.74	2.4	1.74	100%	88%	US \$43	US \$43
Orex Minerals Inc.	TSXV:REX	US \$11	US \$4	US \$9	0.1	0.32	0.3	1.51	21%	-	-	-	-	-	0.1	0.32	0.3	1.51	21%	47%	US \$137	US \$29
Osisko Mining Inc.	TSX:OSK	US \$679	US \$122	US \$556	7.4	2.21	7.4	2.21	100%		-	-	-	-	7.4	2.21	7.4	2.21	100%	42%	US \$75	US \$75
Liberty Gold Corp.	TSX:LGD	US \$50	US \$10	US \$49	2.0	0.36	4.4	0.79	46%		-	-	-	-	2.0	0.36	4.4	0.79	46%	35%	US \$24	US \$11
Puma Exploration Inc.	TSXV:PUM	US \$11	US (\$0)	US \$11	0.1	0.46	1.8	6.26	7%	-					0.1	0.46	1.7	6.11	8%	5%	US \$83	US \$6
Pure Gold Mining Inc.	TSXV:PGM	US \$83	US \$10	US \$70	1.2	9.47	1.2	9.47	100%	-			-		1.2	9.47	1.2	9.47	100%	24%	US \$57	US \$57
Red Eagle Exploration Limited	TSXV:XR	US \$27	US \$0	US \$26					-						-				-	-		-
Red Pine Exploration Inc.	TSXV:RPX	US \$20	US \$3	US \$16	0.7	1.75	0.7	1.75	100%						0.7	1.75	0.7	1.75	100%	96%	US \$24	US \$24
Regulus Resources Inc.	TSXV:REG	US \$85	US \$8	US \$76	5.7	0.37	19.0	1.23	30%						5.7	0.37	19.0	1.23	30%	89%	US \$13	US \$4
Rupert Resources Ltd.	TSXV:RUP	US \$79	US \$7	US \$76	0.2	1.74	0.2	1.74	100%	0.1	1.70	0.1	1.70	100%	0.1	1.77	0.1	1.77	100%	100%	US \$471	US \$471
Rye Patch Gold Corp.	TSXV:RPM	US \$71	US (\$4)	US \$84	4.4	0.42	4.9	0.47	89%	-	-	-	-	-	4.4	0.42	4.9	0.47	89%	29%	US \$19	US \$17
Sarama Resources Ltd	TSXV:SWA	US \$17	US (\$1)	US \$16	0.7	1.67	0.7	1.67	100%						0.7	1.67	0.7	1.67	100%	100%	US \$22	US \$22
Spanish Mountain Gold Ltd	TSXV:SPA	US \$22	US \$2	US \$20	8.0	0.33	8.2	0.34	98%						8.0	0.33	8.2	0.34	98%	51%	US \$2	US \$2
Teras Resources Inc.	TSXV:TRA	US \$15	US \$1	US \$14	1.1	0.48	1.3	0.55	87%						1.1	0.33	0.2	0.04	7070	10%	US \$12	US \$11
TMAC Resources Inc.	TSX:TMR	US \$758	US \$17	US \$866	5.9	8.72	5.9	8.72	100%	3.5	7.69				2.4	10.83				59%	US \$146	US \$146
	TSX:TWR	US \$758 US \$59		US \$63	1.6	1.88	1.9	2.25	83%	3.0	1.09				1.6	1.88				24%	US \$146 US \$40	US \$146
Treasury Metals Inc.			US (\$6) US \$1	US \$31	1.0	0.07			12%						1.0							US \$34 US \$2
TriMetals Mining Inc.	TSX:TMI	US \$31		US \$31 US \$26	1.9	0.07	15.7	0.61				-	-		1.9	0.07		-		40%	US \$16	
Vendetta Mining Corp.	TSXV:VTT	US \$26	US (\$0)		1.0	0.53		5.27	- 000/	- 0 /	0.50			-	- 0 /					170/	LIC 617	US \$19
West Kirkland Mining Inc.	TSXV:WKM	US \$19	US \$0	US \$19	1.2	0.53	1.3	0.60	88%	0.6	0.58	-	-	-	0.6	0.49		-		17%	US \$17	US \$15
Group Average - Total					# Com	panies	: 41														US \$79	US \$61

Equivalency assumptions (US\$ / 08-04-17): \$1,259/oz Au, \$16.27/oz Ag, \$964/oz Pt, \$878/oz Pd, \$2.88/lb Cu, \$1.27/lb Zn, \$1.06/lb Pb, \$4.63/lb Ni, \$7.82/lb Mo, \$26.76/lb Co, \$8,275/t Sb, \$20.38/lb U3O8, \$0.20/lb Sn, \$93.00/t HCC, \$74.25 Source: SNL Financial retrieved on August 4, 2017



Silver - EV/oz Comparables

		Market	Working	Enterprise	Glo	bal Res		Resour				Reserve	S		Reserves		Resou	ırces (M	&I and I	nferred)		Glo	obal
Company	Symbol	Capitalization	Capital	Value	Ag	Ag	AgEq	AgEq	ωΔα	Ag	Ag	AgEq	AgEq	% Ag	EV/oz	Ag	Ag	AgEq	AgEq	% Ag	% Ag	EV/oz	EV/oz
		(millions)	(millions)	(millions)	(Moz)	(g/t)	(Moz)	(g/t)	70 Mg	(Moz)	(g/t)	(Moz)	(g/t)	70 Mg	Ag	(Moz)	(g/t)	(Moz)	(g/t)	70 Ag	Inferred	Ag	AgEq
Alexco Resource Corp.	TSX:AXR	US \$129	US \$19	US \$110	76	475	139	864	55%	-	-	-	-	-	-	76	475	139	864	55%	24%	US \$1.45	US \$0.79
Americas Silver Corporation	TSX:USA	US \$120	US \$25	US \$109	118	137	301	349	39%	31	185	-	-	-	US \$3.50	87	125	-	-	-	39%	US \$0.92	US \$0.36
Arizona Mining Inc.	TSX:AZ	US \$782	US \$3	US \$779	435	82	2,109	397	21%	-	-	-	-	-	-	435	82	2,109	397	21%	28%	US \$1.79	US \$0.37
Athena Silver Corp	OTCPK:AHNR	US \$3	US (\$2)	US \$6	43	67	43	67	100%	-	-		-	-	-	43	67	43	67	100%	-	US \$0.13	US \$0.13
Bear Creek Mining Corporation	TSXV:BCM	US \$188	US \$27	US \$161	523	41	1,168	91	45%	291	52	-	-	-	US \$0.55	232	32	-	-	-	33%	US \$0.31	US \$0.14
Defiance Silver Corp.	TSXV:DEF	US \$24	US \$0	US \$24	17	182	18	192	95%	-	-			-	-	17	182	18	192	95%	100%	US \$1.39	US \$1.31
Dolly Varden Silver Corporation	TSXV:DV	US \$15	US \$5	US \$10	43	333	43	333	100%	-	-	-	-	-	-	43	333	43	333	100%	25%	US \$0.24	US \$0.24
Golden Arrow Resources Corporation	TSXV:GRG	US \$45	US \$7	US \$38	51	93	94	170	55%	17	148	25	217	68%	US \$2.26	18	58	53	171	34%	59%	US \$0.74	US \$0.40
Golden Minerals Company	AMEX:AUMN	US \$47	US \$3	US \$44	82	159	114	222	72%	-	-	-	-	-	-	82	159	114	222	72%	40%	US \$0.54	US \$0.39
Mineworx Technologies Ltd.	TSXV:MWX	US \$18	US \$1	US \$16	22	9	398	158	6%	-	-		-	-	-	22	9	398	158	6%	-	US \$0.73	US \$0.04
Investigator Resources Limited	ASX:IVR	US \$15	US \$3	US \$13	42	140	50	167	84%	-	-	-	-	-	-	42	140	-	-	-	45%	US \$0.30	US \$0.25
Kootenay Silver Inc	TSXV:KTN	US \$33	US \$5	US \$29	76	62	123	100	62%	-	-	-	-	-		76	62	123	100	62%	19%	US \$0.38	US \$0.23
Levon Resources Ltd.	TSX:LVN	US \$35	US \$8	US \$27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MacPhersons Resources Limited	ASX:MRP	US \$48	US \$6	US \$42	20	35	62	107	33%	8	178	16	348	51%	US \$5.07	12	22	46	86	26%	29%	US \$2.07	US \$0.68
MAG Silver Corp.	TSX:MAG	US \$1,011	US \$134	US \$878	114	50	501	220	23%	-	-	-	-	-	-	114	50	501	220	23%	68%	US \$7.71	US \$1.75
Minco Silver Corporation	TSX:MSV	US \$48	US \$41	US \$8	162	158	263	257	62%	50	189	63	239	79%	US \$0.15	112	148	200	263	56%	52%	US \$0.05	US \$0.03
MK2 Ventures Ltd.	TSXV:MK.H	US \$3	US \$0	US \$3	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
Silver Bear Resources Plc	TSX:SBR	US \$28	US (\$7)	US \$107	60	720	61	726	99%	-	-	-	-	-		60	720	61	726	99%	41%	US \$1.76	US \$1.75
Silver Bull Resources, Inc.	OTCPK:SVBL	US \$15	US \$0	US \$14	91	48	496	261	18%	-	-			-	-	91	48	496	261	18%	0%	US \$0.16	US \$0.03
Group Average - Total					# Comp	anies: 1	17								US \$2.31							US \$1.22	US \$0.52

Equivalency assumptions (US\$ / 08-04-17): \$1,259/oz Au, \$16.27/oz Ag, \$964/oz Pt, \$878/oz Pd, \$2.88/lb Cu, \$1.27/lb Zn, \$1.06/lb Pb, \$4.63/lb Ni, \$7.82/lb Mo, \$26.76/lb Co, \$8,275/l Sb, \$20.38/lb U3O8, \$0.20/lb Sn, \$93.00/l HCC, \$74.21/l 62% Fe Source: SNL Financial retrieved on August 4, 2017



Copper Non-Producers - EV/lb Comparables

									-				
C	Complete	Dulas	Shares	Market	Working	LTD	Enterprise	Primary /	Copper		rces* - Attributable	EV/lb Cut	Eq** (US\$)
Company	Symbol	Price	O/S (million)	Capitalization (million)	Capital (million)	Value (million)	Value (million)	Secondary Metal	Ratio*** (% Contained)	Reserve (P&P) (CuEq** Mlb)	Resource (Total) (CuEg** Mlb)	Reserve	Eq (US\$) Total
Bellhaven Copper and Gold Inc	TSXV:BHV	C\$ 0.43	28.3	US\$ 10	US\$ (0.4)	US\$ 0.0	US\$ 10	Au / Cu	40%	-	1,036	-	\$0.010
Candente Copper Corp.	TSX:DNT	C\$ 0.07	166.1	US\$ 9	US\$ (1.5)	US\$ 0.0	US\$ 11	Cu / Au	89%	-	12,427	-	\$0.001
Colorado Resources Ltd.	TSXV:CXO	C\$ 0.33	96.3	US\$ 25	US\$ 5.0	US\$ 0.0	US\$ 20	Cu / Au	59%	-	1,165	-	\$0.017
Copper Fox Metals Inc	TSXV:CUU	C\$ 0.14	437.0	US\$ 47	US\$ 0.0	US\$ 0.0	US\$ 47	Cu / Au	68%	2,375	5,648	\$0.020	\$0.008
Coro Mining Corp.	TSX:COP	C\$ 0.11	593.3	US\$ 52	US\$ 0.0	US\$ 0.3	US\$ 52	Cu / Au	84%	195	965	\$0.266	\$0.054
Exeter Resource Corporation	TSX:XRC	C\$ 1.91	93.2	US\$ 141	US\$ 9.4	US\$ 0.0	US\$ 132	Au / Cu	41%	12,504	22,559	\$0.011	\$0.006
Foran Mining Corporation	TSXV:FOM	C\$ 0.29	99.0	US\$ 23	US\$ 0.9	US\$ 0.0	US\$ 22	Cu / Zn	46%	-	1,756	-	\$0.012
Getty Copper Inc.	TSXV:GTC	C\$ 0.03	108.4	US\$ 3	US\$ (0.3)	US\$ 0.7	US\$ 4	Cu / Mo	96%	620	969	\$0.006	\$0.004
Gold Reach Resources Ltd.	TSXV:GRV	C\$ 0.13	47.0	US\$ 5	US\$ 0.1	US\$ 0.0	US\$ 5	Cu / Mo	68%	-	5,444	-	\$0.001
Highland Copper Co Inc.	TSXV:HI	C\$ 0.12	459.1	US\$ 42	US\$ 15.8	US\$ 0.3	US\$ 26	Cu / Ag	96%	871	6,019	\$0.030	\$0.004
Indico Resources Ltd.	TSXV:IDI	C\$ 0.02	147.0	US\$ 2	US\$ 0.0	US\$ 0.0	US\$ 2	Cu / -	100%	-	410	-	\$0.006
Kiska Metals Corporation	TSXV:KSK	C\$ 0.08	131.4	US\$ 8	US\$ 5.9	US\$ 0.0	US\$ 2	Au / Cu	38%	-	2,048	-	\$0.001
Los Andes Copper Limited	TSXV:LA	C\$ 0.40	244.9	US\$ 77	US\$ 3.7	US\$ 0.0	US\$ 73	Cu / Mo	89%	-	12,305	-	\$0.006
Nevada Copper Corp.	TSX:NCU	C\$ 0.53	93.2	US\$ 39	US\$ 2.1	US\$ 155.8	US\$ 193	Cu / Au	91%	5,791	7,917	\$0.033	\$0.024
NGEx Resources Inc.	TSX:NGQ	C\$ 0.86	213.5	US\$ 145	US\$ 5.6	US\$ 0.0	US\$ 140	Cu / Au	76%	-	27,655	-	\$0.005
Northern Dynasty Minerals Ltd.	TSX:NDM	C\$ 1.78	300.5	US\$ 424	US\$ 39.9	US\$ 0.0	US\$ 384	Cu / Au	57%	-	142,635	-	\$0.003
Northisle Copper and Gold Inc.	TSXV:NCX	C\$ 0.13	114.5	US\$ 12	US\$ 0.1	US\$ 0.0	US\$ 12	Cu / Au	51%	-	4,358	-	\$0.003
NovaCopper Inc.	TSX:TMQ	C\$ 1.48	0.0	US\$ 0	US\$ 10.1	US\$ 0.0	US\$ (10)	Cu / Zn	83%	-	9,685	-	-
Panoro Minerals Ltd.	TSXV:PML	C\$ 0.17	258.1	US\$ 34	US\$ 1.8	US\$ 2.0	US\$ 34	Cu / Au	77%	-	10,114	-	\$0.003
Polymet Mining Corp.	TSX:POM	C\$ 0.80	318.7	US\$ 202	US\$ (103.4)	US\$ 0.0	US\$ 305	Cu / Ni	49%	3,145	10,139	\$0.097	\$0.030
Quaterra Resources Inc.	TSXV:QTA	C\$ 0.10	201.0	US\$ 16	US\$ 4.9	US\$ 0.0	US\$ 11	Cu / Ag	96%	-	8,247	-	\$0.001
Redhawk Resources, Inc.	TSX:RDK	C\$ 0.03	160.0	US\$ 4	US\$ (1.2)	US\$ 1.4	US\$ 6	Cu / Mo	92%	-	3,835	-	\$0.002
Regulus Resources Inc	TSXV:REG	C\$ 1.56	68.6	US\$ 85	US\$ 7.5	US\$ 0.0	US\$ 77	Cu / Au	0%	-	-	-	-
Serengeti Resources Inc.	TSXV:SIR	C\$ 0.20	85.2	US\$ 14	US\$ 0.2	US\$ 0.0	US\$ 13	Cu / Au	67%	-	4,153	-	\$0.003
St Augustine Gold and Copper	TSX:SAU	C\$ 0.03	726.8	US\$ 17	US\$ (1.6)	US\$ 0.0	US\$ 19	Cu / Au	58%	2,131	3,263	\$0.009	\$0.006
Tintina Resources Inc.	TSXV:TAU	C\$ 0.11	323.5	US\$ 27	US\$ 2.6	US\$ 0.0	US\$ 24	Cu / Co	86%	-	1,538	-	\$0.016
Western Copper and Gold Cor	TSX:WRN	C\$ 1.52	96.5	US\$ 116	US\$ 4.1	US\$ 0.0	US\$ 112	Cu / Au	45%	10,033	22,599	\$0.011	\$0.005
Group Average - Total												\$0.054	\$0.009

^{*}All reserve and resource data sourced from IntierraRMG, additional data sourced from Capital IQ and Market Q.

^{**}CuEq = copper equivalent. Calculated based on Haywood's formal long-term metal price forecasts.

^{***}Copper Ratio = value of in situ copper / total value of in situ metals.



Nickel Non-Producers - EV/lb Comparables

			Shares	Market	Working	LTD	Enterprise	Primary /	Nickel	Reserves & Resou	rces* - Attributable		
Company	Symbol	Price	O/S	Capitalization	Capital	Value	Value	Secondary	Ratio***	Reserve (P&P)	Resource (Total)	EV/lb NiE	q** (US\$)
			(million)	(million)	(million)	(million)	(million)	Metal	(% Contained)	(NiEq** Mlb)	(NiEq** Mlb)	Reserve	Total
Anfield Nickel Corp.	TSXV:ANF	C\$ 0.39	119.2	US\$ 36	US\$ 16.9	US\$ 0.0	US\$ 19	Ni / Co	99%	2,169	3,616	\$0.009	\$0.005
Asian Mineral Resources Limit	TSXV:ASN	C\$ 0.02	788.9	US\$ 12	US\$ (1.4)	US\$ 0.0	US\$ 14	Ni / Cu	86%	85	146	\$0.164	\$0.095
Canadian Arrow Mines Ltd.	TSXV:CRO	C\$ 0.02	140.0	US\$ 2	US\$ (0.6)	US\$ 0.0	US\$ 3	Ni / Cu	82%	-	141	-	\$0.020
First Point Minerals Corp.	TSXV:FPX	C\$ 0.09	133.8	US\$ 10	US\$ 0.4	US\$ 5.3	US\$ 14	Ni / Cu	182%	-	141	-	\$0.103
Hard Creek Nickel Corporation	TSXV:HNC	C\$ 0.03	43.1	US\$ 1	US\$ 0.0	US\$ 0.0	US\$ 1	Ni / Co	91%	-	9,161	-	\$0.000
Mustang Minerals Corp.	TSXV:MUM	C\$ 0.02	257.6	US\$ 3	US\$ (0.5)	US\$ 0.0	US\$ 4	Co / Ni	38%	2	1,176	\$1.518	\$0.003
Noront Resources Ltd	TSXV:NOT	C\$ 0.32	307.6	US\$ 77	US\$ (8.7)	US\$ 22.3	US\$ 108	Ni / Cu	78%	498	851	\$0.216	\$0.127
North American Nickel Inc.	TSXV:NAN	C\$ 0.08	122.2	US\$ 8	US\$ 1.8	US\$ 0.0	US\$ 6	Ni / Cu	0%	-	-	-	-
Northern Shield Resources Inc	TSXV:NRN	C\$ 0.07	205.2	US\$ 11	US\$ 1.5	US\$ 0.0	US\$ 9	Ni / Cu	0%	-	-	-	-
Poseidon Nickel Limited	ASX:POS	C\$ 0.02	945.1	US\$ 17	US\$ (1.3)	US\$ 14.6	US\$ 33	Ni / Au	98%	171	1,284	\$0.193	\$0.026
Royal Nickel Corporation	TSX:RNX	C\$ 0.19	306.6	US\$ 45	US\$ (31.2)	US\$ 0.3	US\$ 76	Ni / Cu	0%	-	-	-	-
Sama Resources Inc.	TSXV:SME	C\$ 0.14	137.0	US\$ 15	US\$ 1.7	US\$ 0.0	US\$ 13	Ni / Cu	71%	-	195	-	\$0.069
Strongbow Exploration Inc.	TSXV:SBW	C\$ 0.14	61.1	US\$ 7	US\$ 0.7	US\$ 0.8	US\$ 7	Ni / Cu	86%	-	417	-	\$0.016
Talon Metals Corporation	TSX:TLO	C\$ 0.13	129.6	US\$ 13	US\$ 1.2	US\$ 16.8	US\$ 28	Ni/Fe	56%	-	125	-	\$0.228
Group Average - Total												\$0.420	\$0.063

 $^{{}^{\}star}\text{All reserve and resource data sourced from InterraRMG, additional data sourced from Capital IQ and Market Q}.$

Zinc Non-Producers – EV/lb Comparables

			Shares	Market	Working	LTD	Enterprise	Primary /	Zinc		ırces* - Attributable		
Company	Symbol	Price	O/S (million)	Capitalization (million)	Capital (million)	Value (million)	Value (million)	Secondary Metal	Ratio*** (% Contained)	Reserve (P&P) (ZnEg** Mlb)	Resource (Total) (ZnEg** Mlb)	EV/lb ZnE Reserve	Eq** (US\$) Total
Aguila Resources Inc.	TSX:AQA	C\$ 0.24	271.9	US\$ 52	US\$ 1.6	US\$ 0.0	US\$ 50	Au / Zn	19%	(ZITEG WIIS)	1,587	-	\$0.032
Canada Zinc Metals Corp.	TSXV:CZX	C\$ 0.27	163.0	US\$ 34	US\$ 5.6	US\$ 0.0	US\$ 29	Zn / Pb	82%	-	6,096	-	\$0.005
Canadian Zinc Corporation	TSX:CZN	C\$ 0.17	266.1	US\$ 35	US\$ 5.5	US\$ 0.0	US\$ 29	Zn / Pb	40%	2,525	10,077	\$0.012	\$0.003
El Nino Ventures Inc.	TSXV:ELN	C\$ 0.02	61.6	US\$ 1	US\$ 0.1	US\$ 0.0	US\$ 1	Zn / Cu	45%	-	1,357	-	\$0.001
Firestone Ventures Inc.	TSXV:FV	C\$ 0.03	36.8	US\$ 1	US\$ (0.7)	US\$ 0.0	US\$ 2	Zn / Pb	73%	-	454	-	\$0.003
Foran Mining Corporation	TSXV:FOM	C\$ 0.29	99.0	US\$ 23	US\$ 0.9	US\$ 0.0	US\$ 22	Cu / Zn	33%	-	4,962	-	\$0.004
InZinc Mining Ltd.	TSXV:IZN	C\$ 0.11	73.4	US\$ 6	US\$ 0.3	US\$ 0.0	US\$ 6	Zn / Cu	77%	-	3,873	-	\$0.002
Rathdowney Resources Ltd.	TSXV:RTH	C\$ 0.14	161.7	US\$ 18	US\$ 0.8	US\$ 0.0	US\$ 17	Zn / Pb	80%	-	3,437	-	\$0.005
Wolfden Resources Corp.	TSXV:WLF	C\$ 0.15	85.5	US\$ 10	US\$ 0.9	US\$ 0.0	US\$ 9	Au / Zn	29%	-	4,516	-	\$0.002
Group Average - Total				-						-		\$0.012	\$0.006

^{*}All reserve and resource data sourced from InterraRMG, additional data sourced from Capital IQ and Market Q.

^{**}NiEq = nickel equivalent. Calculated based on Haywood's formal long-term metal price forecasts.

^{***}Nickel Ratio = value of in situ nickel / total value of in situ metals.

^{**}ZnEq = Zinc equivalent. Calculated based on Haywood's formal long-term metal price forecasts.

^{***}Zinc Ratio = value of in situ zinc / total value of in situ metals.



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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:AGI	Alamos Gold Inc.			Χ	Χ		Χ		
TSX:AKG	Asanko Gold Inc.			Χ					
TSXV:AGB	Atlantic Gold Corp.		Χ	Χ	Χ		Χ		
TSXV:AU	Aurion Resources Ltd.	Х	Χ						
TSX:AVK	Avnel Gold Mining Limited	Χ		Χ					
TSX:BTO	B2Gold Corp.	Х		Χ					
TSXV:BGM	Barkerville Gold Mines Ltd.		Χ	Χ	Χ				
TSX:ABX	Barrick Gold Corporation			Χ					
TSX:CS	Capstone Mining Corp.			Χ					
TSX:CMMC	Copper Mountain Mining Corp.			Χ					
TSX:DML	Denison Mines Corp.			Χ		Χ	Χ		
TSX:DGC	Detour Gold Corporation	Х		Χ					
TSX:ELD	Eldorado Gold Corporation	Х		Χ					
TSX:EDV	Endeavour Mining Corp.	Х		Х					
TSX:EFR	Energy Fuels Inc.			Χ	Χ		Χ	_	



1	TCVV,FDC	Falso Posoursos Itd	1		l v	l v			1					
	TSXV:FPC	Falco Resources Ltd.			X	Х								
	TSXV:FWZ	Fireweed Zinc		Х	X									
	ASX:GOR	Gold Road Resources Limited			X	.,			1					
	TSX:HRT	Harte Gold Corp.			X	Х								
	TSX:HBM	Hudbay Minerals, Inc.			Х				<u> </u>					
	TSXV:KNT	K92 Mining Inc.			Х	Х								
	TSX:LGD	Liberty Gold Corp.	Х		Χ									
	TSX:LUC	Lucara Diamond Corp.		Χ	Χ									
	TSX:LUG	Lundin Gold Inc.			Χ									
	TSX:LUN	Lundin Mining Corporation			Χ									
	TSX:MOZ	Marathon Gold Corp.	Х	Χ	Χ	Χ								
	TSX:MAX	Midas Gold Corp.		Χ	Χ			Χ						
	TSX:MPVD	Mountain Province Diamonds Inc.	Х	Χ	Χ									
	TSX:NXE	NexGen Energy Ltd.	Х	Χ	Χ									
	TSXV:NCA	NewCastle Gold Ltd.	Х		Х	Χ								
	TSX:NSU	Nevsun Resources Ltd.		Χ	Х									
	TSX:OGC	OceanaGold Corporation			Х									
	TSX:OR	Osisko Gold Royalties Ltd.			Х									
	TSX:OSK	Osisko Mining Corp.			Χ	Χ								
	TSXV:PGM	Pure Gold Mining Inc.	Х	Χ	Χ	Χ								
	TSX:RIC	Richmont Mines Inc.			Х									
	TSXV:ROG	Roxgold Inc.	Х		Х									
	TSX:SBB	Sabina Gold and Silver Corp.			Х	Х								
	TSX:SMF	SEMAFO Inc.			Х									
	TSX:THO	Tahoe Resources Inc.			Х									
	TSX:TML	Treasury Metals Inc.			Х	Х								
	TSXV:TREK	Trek Mining Inc.	Х	Χ	Х	Х	Х							
	TSX:TV	Trevali Mining Corp.	Х		Х	Х								
	AMEX:UEC	Uranium Energy Corp.			Χ	Х		Х						
	TSX:U	Uranium Participation Corporation	Х			Х								
1	The Analyst(s)	preparing this report (or a member of th	e Analy	sts' ho	useho	lds) ha	ve a fi	nancia	linter	est				
1	in this compan	ıy.												
2	As of the end of	of the month immediately preceding this	publica	tion ei	ther H	aywoo	od Secu	ırities,	Inc., c	one				
	of its subsidiar	ies, its officers or directors beneficially o	wned 19	% or m	ore of	this co	ompan	у.						
3		irities, Inc. has reviewed lead projects of	this con	npany	and a	portio	n of th	e expe	nses f	or				
	this travel have	e been reimbursed by the issuer.												
4	Haywood Secu	irities Inc. or one of its subsidiaries has m	anaged	or co-	manag	ged or	partici	pated	as sell	ing				
	group in a pub	lic offering of securities for this company	in the p	past 12	2 mont	hs.								
5		irities, Inc. or one of its subsidiaries has r	eceived	compe	ensatio	on for	investı	ment b	ankin	g				
6		services from this company in the past 12 months Haywood Securities, Inc. or one of its subsidiaries has received compensation for investment banking												
	services from this company in the past 24 months Haywood Securities, Inc. or one of its subsidiaries is restricted on this company at the time of publication													
7	-													
8		urities, Inc. or one of its subsidiaries expe				nds to	seek o	compe	nsatio	n for				
	investment ba	nking services from this company in the i	next thr	ee moi	nths									

Other material conflict of interest of the research analyst of which the research analyst or Haywood Securities Inc. knows or has reason to know at the time of publication or at the time of public appearance:

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Rating Structure

Each company within an analyst's universe, or group of companies covered, is assigned: (i) a recommendation or rating, usually BUY, HOLD, or SELL; (ii) a 12 month target price, which represents an analyst's current assessment of a company's potential stock price over the next year; (iii) an overall risk rating which represents an analyst's assessment of the company's overall investment risk; and (iv) specific risk ratings or risk profile parameters which in their aggregate support an analyst's overall risk rating. These ratings are more fully explained below. Before acting on our recommendation we caution you to confer with your Haywood investment advisor to determine the suitability of our recommendation for your specific investment objectives, risk tolerance and investment time horizon.

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

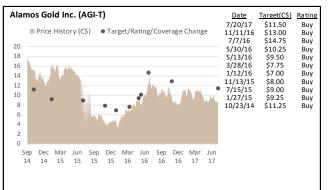


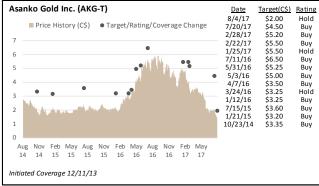
medium tolerance for risk and volatility and who are prepared to accept general stock market risk including the risk of a temporary or permanent loss of some of their investment capital.

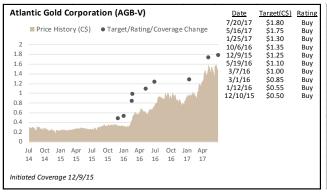
Distribution of Ratings (as of August 4, 2017)

			IB Clients
	%	#	(TTM)
Buy	69.7%	69	100.0%
Hold	8.1%	8	0.0%
Sell	0.0%	0	0.0%
Tender	1.0%	1	0.0%
UR (Buy)	0.0%	0	0.0%
UR (Hold)	0.0%	0	0.0%
UR (Sell)	0.0%	0	0.0%
Dropped (TTM)	21.2%	21	0.0%

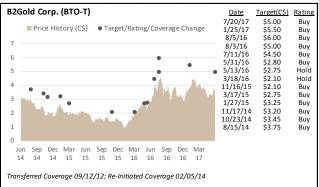
Price Chart, Rating and Target Price History (as of August 4, 2017)





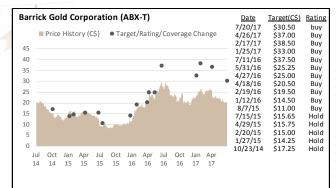




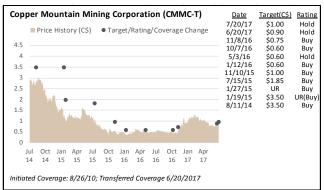




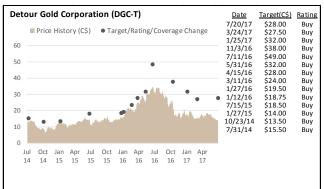


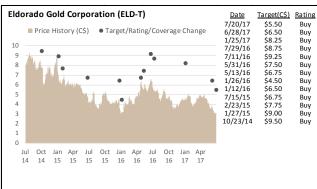


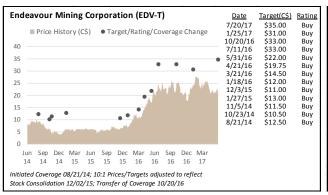






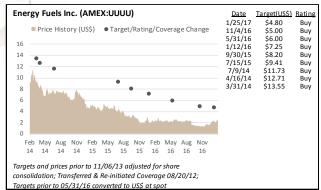


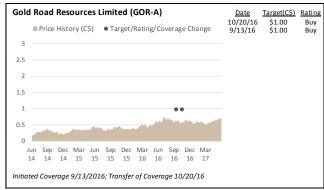


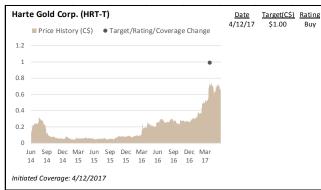


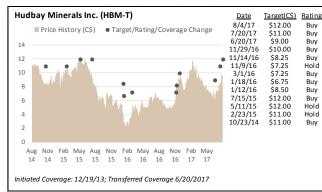


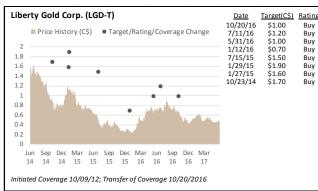


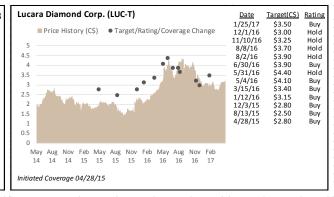


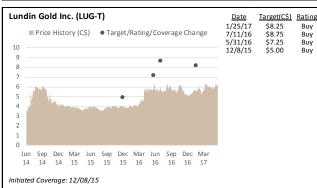


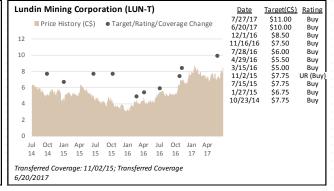




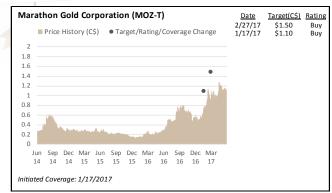


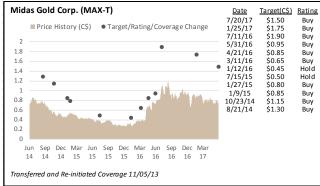


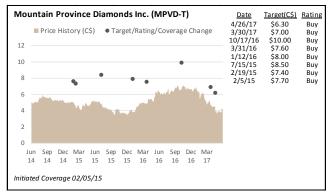


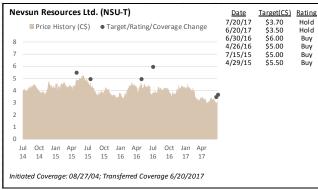


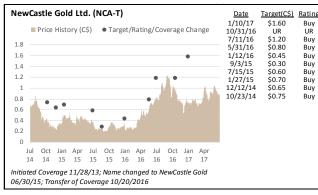


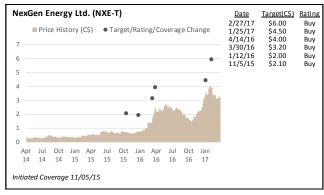


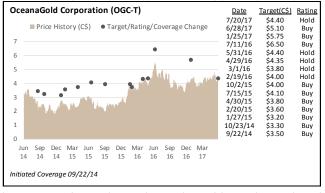


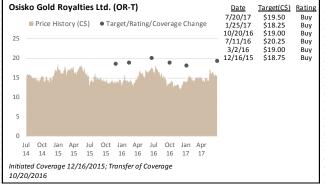




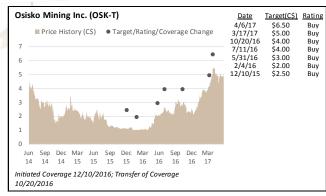


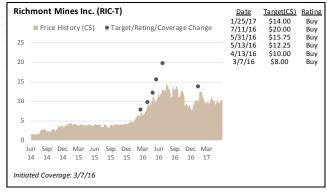


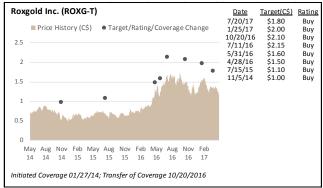




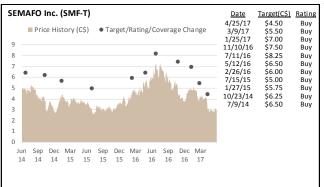


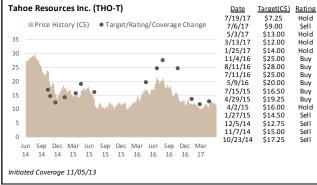


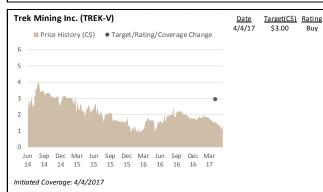






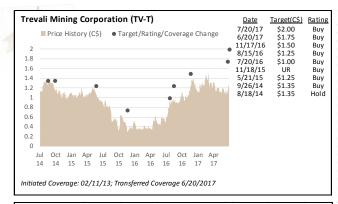


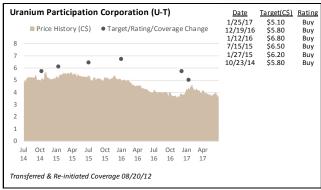


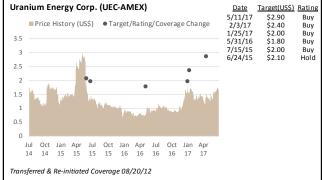












B: Buy; H: Hold; S: Sell; T: Tender; UR: Under Review

Source: Capital IQ and Haywood Securities