

## Uranium Stocks Mixed on the Week as Broader Market Volatility Returns

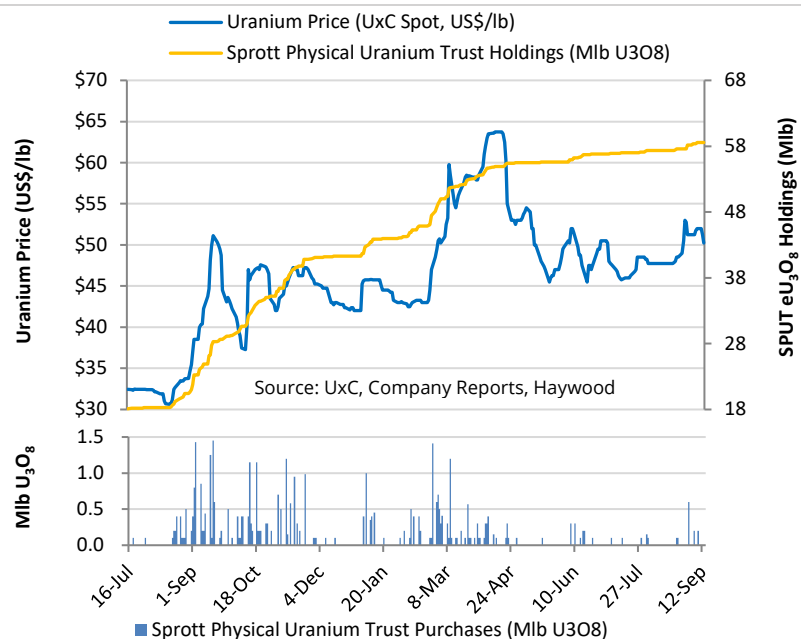
### WEAKNESS = OPPORTUNITY

#### Uranium Price Update & Sector Commentary: Close of September 14<sup>th</sup>, 2022

It's hard to classify a few volatile days as 'weakness' but we continue to recommend seizing opportunities to add to positions in the uranium space on any significant down day due to our long-term bullish thesis on uranium. Our uranium 'comparables' universe had a mixed week, as shown in the chart on the right, but on a 30-day and 90-day basis, the group returned an average of 11.6% and 21.6% respectively (see Figure 7 for individual performance), crushing all the major indices. Uranium stocks have been in catch-up mode over the last 3-months, outperforming uranium benchmark pricing as well, but remain well behind uranium performance on a 12-month basis (Figure 4). Of course, that's only part of the picture, since the story changes for any selected timeframe. In any event, our uranium universe (Figure 5) is trading at an average 33% discount to where the stocks traded in mid-April when spot price hit US\$63.75/lb U<sub>3</sub>O<sub>8</sub> (spot is currently at a 21% discount to that level). To put this into perspective, spot would need to recover ~27% to return to April peaks, while equities would need to recover ~50% on average to return to the levels that coincided with peak April uranium price. As Figure 4 shows, the earlier the project stage, the bigger the drawdown seen. Major producers have almost fully recovered to April peaks that coincided with a much higher uranium price than current after experiencing significant drawdowns that began reversing in late June. The bidding up of major producers indicates strong sentiment and investment demand in the sector in our view that will create a tow for the whole group. Cameco (CCJ-US, not rated) is trading at just a 3.2% discount to its peak April price and Kazatomprom (KAP-LSE) is at just an 8% discount to April peaks, with the former having rallied 22% since June and the latter rallying 18%.

#### Uranium Equities - News

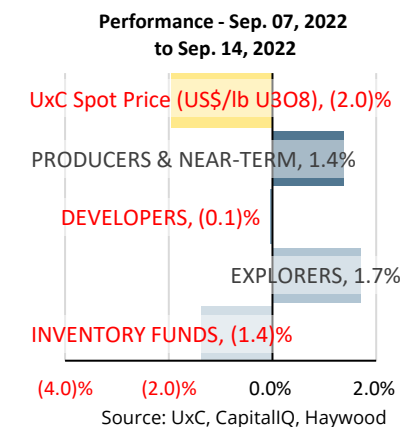
- ◆ **Denison Mines Corp. (DML-T, Rating: BUY, Target: \$2.90):** Announced expansion of high-grade uranium mineralization at McClean Lake South – [link to Sept. 8<sup>th</sup> PR - Haywood Note](#)
- ◆ **Kiplin Metals Inc. (KIP-V, Not Rated):** Received permits for its Cluff Lake Road Uranium Project – [link to Sept. 12<sup>th</sup> PR](#)
- ◆ **Valor Resources Limited. (VAL-AU, Not Rated):** Provided an update on its 2022 drilling program the Angilak Property – [link to Sept. 13<sup>th</sup> PR](#)
- ◆ **Fission Uranium Corp. (FCU-T, Not Rated):** Announced an updated resource estimate for its Triple R deposit – [link to Sept. 12<sup>th</sup> PR](#)
- ◆ **Baselode Energy Corp. (FIND-V, Not Rated):** Announced geochemical assay results from the ACKIO uranium discovery – [link to Sept. 12<sup>th</sup> PR](#)
- ◆ **Denison Mines Corp. (DML-T, Rating: BUY, Target: \$2.90):** Announced drill results from Waterfound JV – [link to Sept. 14<sup>th</sup> PR - Haywood Note](#)



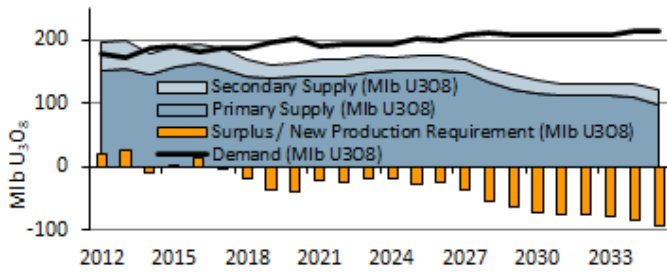
**Uranium required and cost to make 1kg of EUP (4.5% U<sup>235</sup>):** Mine/plant output of 26.7 lb U<sub>3</sub>O<sub>8</sub> (\$1,342 cost) -> Conversion to UF<sub>6</sub> (\$388 cost) -> delivers 10.22 kgU as UF<sub>6</sub> (\$1,730 cumulative cost) -> enrichment: 6.23 SWU (\$561 cost) -> delivers 1kg EUP (\$2,291 cumulative cost). (US\$, spot U<sub>3</sub>O<sub>8</sub>, tails assay of 0.30% U<sup>235</sup>)

UxC U <sub>3</sub> O <sub>8</sub> Prices	(USD per pound)
<b>SPOT (1-day Δ):</b>	<b>\$50.25 (-2.0%)</b>
(1-week Δ):	(-2.0%)
(1-month Δ):	(+5.2%)
<b>3-year (1-week Δ):</b>	<b>\$55.50 (+0.5%)</b>
<b>5-year (1-week Δ):</b>	<b>\$58.75 (+0.4%)</b>
<b>LT (@August 29<sup>th</sup>, 1-mth Δ):</b>	<b>\$50.00 (unch.)</b>

\* UxC Spot Price published daily, 3y, 5y pricing published weekly on Monday. UxC Long-Term price published last Monday of month.



Uranium Sector – Haywood Supply / Demand Model & Uranium Price History & Forecast (annual average)



Source: UxC, WNA, IAEA, IEA, Haywood

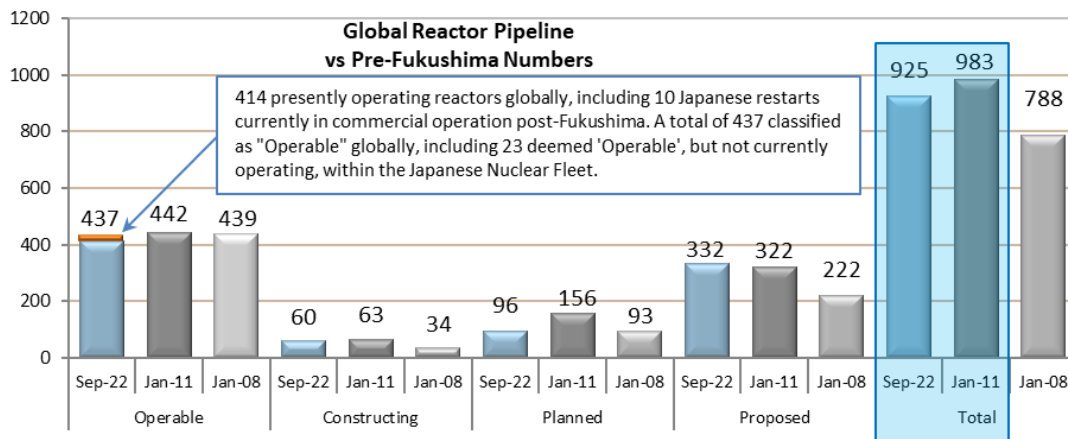
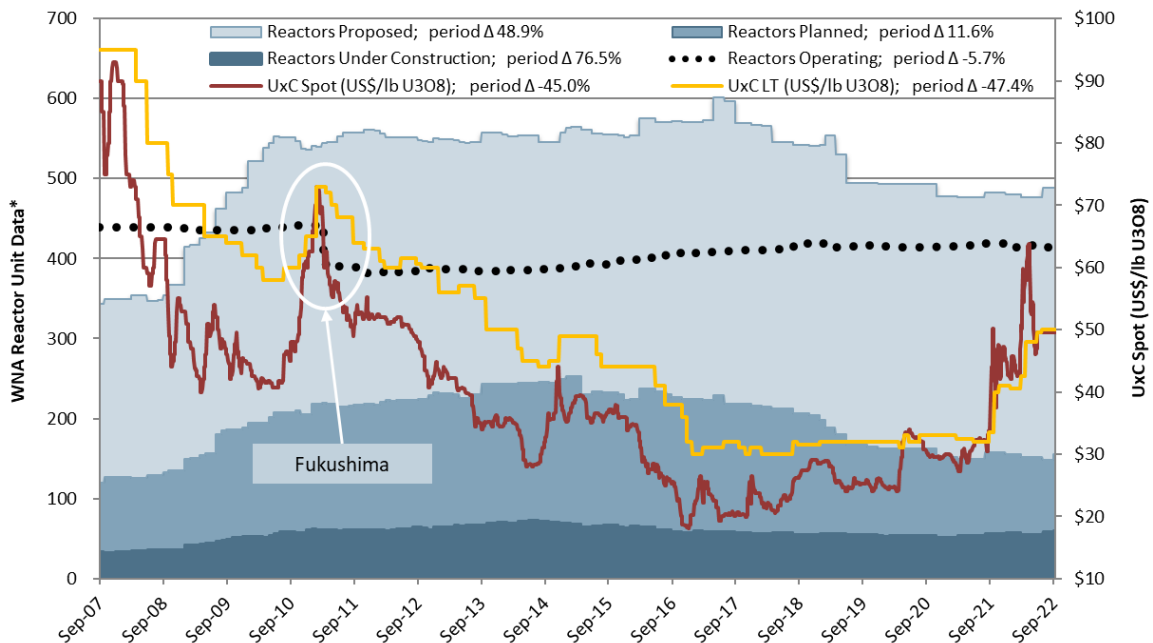
Commodity Price History	2015	2016	2017	2018	2019	2020	2021
Spot price (US\$/lb U <sub>3</sub> O <sub>8</sub> )	\$37	\$26	\$22	\$25	\$26	\$29	\$40
Long Term price (US\$/lb U <sub>3</sub> O <sub>8</sub> )	\$47	\$40	\$31	\$31	\$32	\$32	\$35

Commodity Price Forecast	2022	2023	2024	2025	2026	2027	2027
Spot price (US\$/lb U <sub>3</sub> O <sub>8</sub> )	\$47	\$55	\$64	\$65	\$65	\$65	\$65
Long Term price (US\$/lb U <sub>3</sub> O <sub>8</sub> )	\$55	\$63	\$70	\$65	\$65	\$65	\$65

Source: UxC history, Haywood Forecast

Global Civil Nuclear Reactor Pipeline Evolution

Figure 1. Upper: Global Nuclear Reactor Pipeline vs Uranium Price; Lower: Global Nuclear Reactor Pipeline – Current vs Pre-Fukushima



Source: WNA (September 2022 data), UxC, Haywood Securities



## Uranium Sector Top Picks & Covered Names

### NexGen (NXE-T, Rating: BUY, Target: \$7.50)

**Our Take:** NXE remains a top pick in the uranium space due to the disruptive potential of the Arrow deposit, with its massive scale and strong economics. [Link to Most Recent Report](#)

- ◆ **Top Asset:** We view the Arrow deposit as ‘the best undeveloped uranium asset globally and highly strategic’. The February 2021 Feasibility Study outlined a >21 Mlb U<sub>3</sub>O<sub>8</sub> per year, 10-year mine operation with an after-tax NPV<sub>8%</sub> of \$3.47B at US\$50/lb uranium.
- ◆ **Take-Out Candidate:** We believe that it is critical for major producers to control this deposit because of its disruptive potential and that this is the strategic key to preserving the value of existing deposits and maintaining the ability to affect price with output decisions.
- ◆ **Ultra Low-Cost:** The Feb. 2021 Arrow Feasibility Study suggests cash operating costs of US\$5.69/lb implying an industry leading margin for a tier 1 scale operation.
- ◆ **Catalysts:** H2/2022 results of field programs, including updates on FEED work and results of field and exploration activities.
- ◆ **Cash of \$164 million**

### Denison Mines (DML-T, Rating: BUY, Target: \$2.90)

**Our Take:** The core strength of Denison remains its ability to leverage its technical team and knowledge gained in studying ISR and its applicability to unconformity-hosted uranium deposits in the Basin. Denison’s unique (to the Athabasca) plan to in-situ leach the Phoenix deposit is perceived as technically challenging, but with a very high potential reward, with a PFS-supported cost profile among the lowest in the world, due to the extremely high grades at Phoenix. [Link to Most Recent Report](#)

- ◆ **De-risking Phoenix with freeze-wall trade-off study.** Late 2020, Denison announced the results of a trade-off study examining the use of ‘freeze walls’ and sequential ISR mining phases to replace the ‘freeze dome’ outlined for the Phoenix deposit in the Wheeler River project Preliminary Feasibility Study (PFS). The proposed freeze wall approach is **simpler and offers more control in each mining cell/phase and improves the risk profile on the mine plan.**
- ◆ **New approach should mean lower CAPEX hurdle.** Mining of Phoenix via ISR was already a very attractive economic proposition, with initial CAPEX in the PFS at <\$325M and OPEX of US\$3.33/lb U<sub>3</sub>O<sub>8</sub>. The trade-off study is preliminary but **lower initial CAPEX is supportable as the phased freeze wall approach is simpler and less costly to initial production.**
- ◆ **Catalysts:** H1/2022 - **Further technical work** to de-risk the ISR mining approach to Phoenix at Wheeler River in support of a future full Feasibility Study (estimated late 2022 delivery) for Wheeler River integrating the extensive technical advancements made since the 2018 PFS. **2022 - Exploration results** - seeking satellite deposits at Wheeler River; and Studies for other potentially ISR amenable projects similar to THT/Waterbury.
- ◆ **Cash of ~\$64 million, plus 2.5 Mlb U<sub>3</sub>O<sub>8</sub> as long-term investment.**

### Other Covered Names

- ◆ **Energy Fuels Inc. (EFR-T, UUUU-US) – Rating: Buy; Target: US\$6.75 Target ([last report](#))**
- ◆ **IsoEnergy. (ISO-V) – Rating: Buy; Target: \$7.00 ([last report](#))**
- ◆ **Uranium Energy Corp. (UEC-US) – Rating: Buy; Target: US\$6.60 Target ([last report](#))**

### Coverage Universe

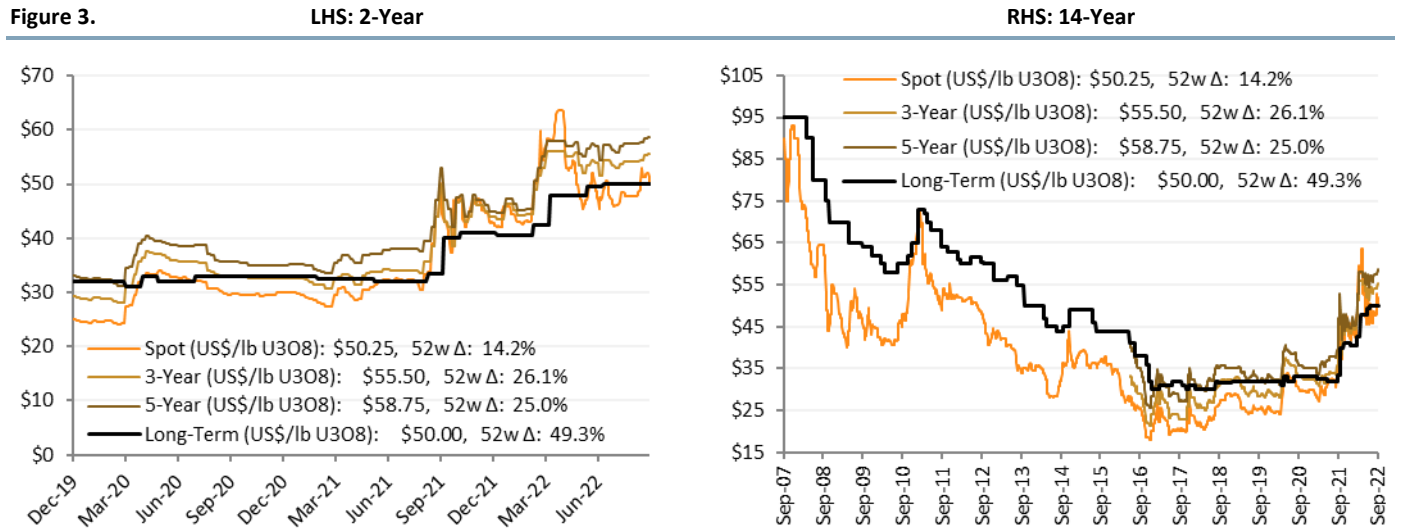
Figure 2. Uranium Sector Haywood Coverage

Company	Ticker	Analyst	Last Price (C\$)	Shares O/S (M)	MC (C\$M)	EV (C\$M)	Target (C\$)	Return (%)	Rating	NAVPS (US\$)	CFPS (US\$) 2022E	CFPS (US\$) 2023E
Denison Mines	DML-T	CH	\$1.85	818	\$1,513	\$1,447	\$2.90	57%	BUY	C\$2.85	(\$0.01)	(\$0.01)
Energy Fuels	UUUU-US	CH	US\$7.24	158	US\$1,141	US\$1,376	US\$6.75	-7%	BUY	\$6.73	(\$0.02)	\$0.20
IsoEnergy Ltd.	ISO-V	CH	\$4.33	107	\$463	\$471	\$7.00	62%	BUY	C\$7.02	(\$0.07)	(\$0.07)
NexGen Energy	NXE-T	CH	\$5.98	480	\$2,868	\$2,794	\$7.50	25%	BUY	C\$7.50	(\$0.03)	(\$0.03)
Uranium Energy	UEC-US	CH	US\$4.13	335	US\$1,383	US\$1,360	US\$6.60	60%	BUY	\$6.55	(\$0.08)	(\$0.08)

Source: Haywood Securities

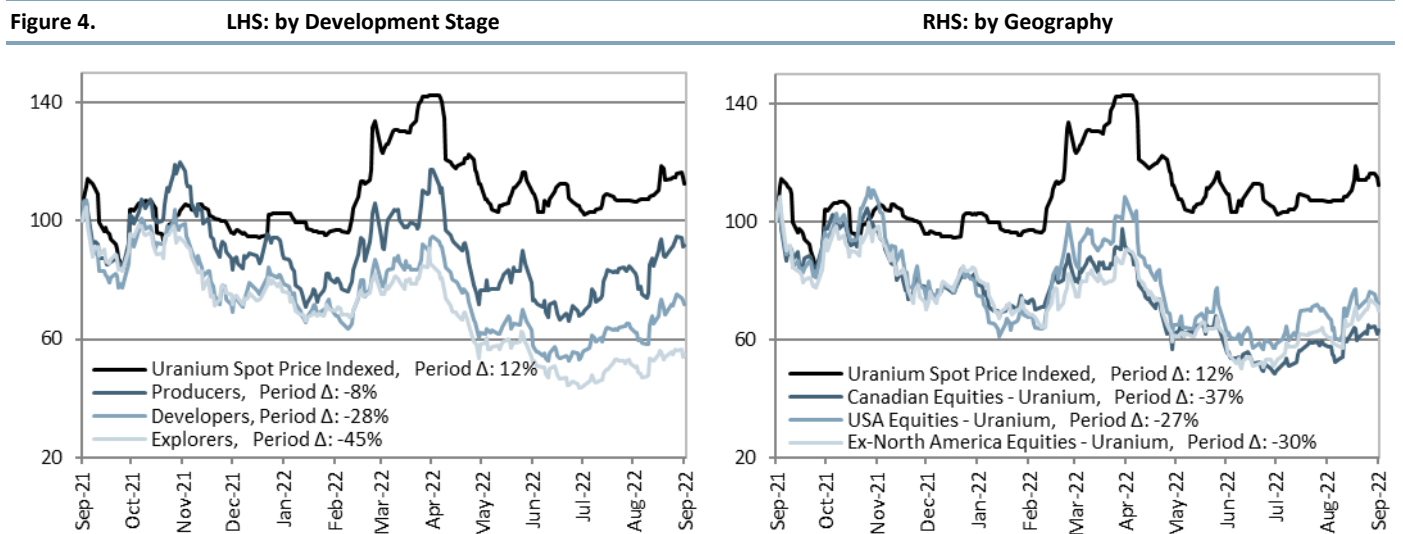


Uranium Price Charts



Source: UxC, Haywood Securities

Uranium Equity Relative Performance Charts (1-year, indexed to 100)



Source: UxC, S&P Capital IQ, Haywood Securities



Figure 5. Uranium Sector Comps with 1-Week Performance Data

Company (Ticker)	Share Price	Consensus Targets		Shares Outst. (millions)	Market Capitalization (millions)	In-Situ Comps - EV/lb U3O8			NAV Comps		Cash Flow Comps			Performance Sep. 07, 2022 to Sep. 14, 2022
		Consensus Target	Implied Return			Enterprise Value (USD) (millions)	Total Reserves & Resources (M lb)	USD EV/lb Resource	IBES Consensus NAV	Price / Nav	2022 P/CFPS	2023	2024	
<b>PRODUCERS &amp; NEAR-TERM</b>														
Haywood Covered Names bold														
Cameco Corporation (CCO-T)	\$40.10	\$44.08	10%	398	\$15,977	\$11,852	1078.5	\$10.99	\$28.76	1.39x	39.7x	21.3x	20.7x	4.0%
Kazatomprom (KAP-LSE)	\$33.04	\$39.03	18%	259	\$8,569	\$8,289	1339.5	\$6.19	\$34.46	0.96x	13.2x	8.7x	7.8x	5.0%
Paladin Energy (PDN-AU)	\$0.92	\$0.74	(20)%	2,978	\$2,725	\$1,649	381.7	\$4.32	\$1.19	0.77x	5718.8x			1.9%
Uranium Energy (UEC-US)	\$4.13	\$6.57	59%	335	\$1,383	\$1,360	306.7	\$4.44	\$5.97	0.69x				(2.1)%
Energy Fuels (UUUU-US)	\$7.24	\$9.70	34%	158	\$1,141	\$1,045	119.6	\$8.74	\$8.83	0.82x		24.5x	181.0x	(0.8)%
Boss Energy (BOE-AU)	\$2.93	\$3.26	11%	353	\$1,033.1	\$677.5	71.4	\$9.49	\$3.20	0.92x			32.2x	7.2%
EnergyResources (ERA-AU)	\$0.25			3,691	\$922.8	\$509.2	302.3	\$1.68						0.3%
Ur-Energy Inc. (URE-T)	\$1.79	\$4.08	128%	223	\$398.8	\$272.8	41.3	\$6.60	\$3.92	0.46x		22.4x		(1.6)%
Lotus Resources (LOT-AU)	\$0.26	\$0.31	19%	1,314	\$341.6	\$216.9	44.2	\$4.91	\$0.32	0.81x				2.2%
Peninsula Energy (PEN-AU)	\$0.19	\$0.35	92%	999	\$184.8	\$118.4	53.7	\$2.20	\$0.40	0.46x	130.3x			0.3%
<b>Group Average - Producers</b>								<b>\$5.96</b>		<b>0.81x</b>	<b>61.1x</b>	<b>1159.1x</b>	<b>60.4x</b>	<b>1.8%</b>
<b>DEVELOPERS</b>														
NexGen Energy (NXE-T)	\$5.98	\$9.47	58%	480	\$2,868	\$2,123	337.8	\$6.28	\$8.58	0.70x				8.4%
Denison Mines (DML-T)	\$1.85	\$2.19	18%	818	\$1,513	\$1,099	207.5	\$5.30	\$2.47	0.75x				4.6%
Global Atomic (GLO-T)	\$4.07	\$6.50	60%	178	\$724.2	\$539.4	161.1	\$3.35	\$6.47	0.63x				2.6%
Deep Yellow (DYL-AU)	\$1.17			732	\$852.3	\$531.4	392.2	\$1.35						3.4%
Fission Uranium (FCU-T)	\$0.81	\$1.28	57%	682	\$552.1	\$391.8	135.2	\$2.90	\$1.43	0.57x				2.6%
American Lithium (LI-V)	\$2.33	\$9.42	304%	208	\$484.8	\$356.3	123.4	\$2.89	\$11.00	0.21x				(2.8)%
IsoEnergy Ltd. (ISO-V)	\$4.33	\$6.50	50%	107	\$462.6	\$358.2	51.3	\$6.99	\$6.60	0.66x				(1.5)%
enCore Energy (EU-V)	\$4.41	\$7.60	72%	108	\$474.5	\$337.1	129.6	\$2.60	\$7.55	0.58x				6.6%
Bannerman Energy (BMN-AU)	\$2.14	\$2.96	38%	150	\$320.2	\$209.9	238.8	\$0.88						(4.2)%
GovEx Uranium (GXU-V)	\$0.32	\$0.71	124%	593	\$186.7	\$145.4	201.7	\$0.72	\$0.75	0.42x				6.9%
Forsys Metals (FSY-T)	\$0.67			195	\$130.8	\$85.7	127.0	\$0.68						(9.4)%
Laramide Resources (LAM-T)	\$0.57	\$0.80	40%	208	\$118.6	\$87.5	122.7	\$0.71						(4.9)%
A-Cap Energy (ACB-AU)	\$0.10			1,232	\$117.1	\$74.6	190.6	\$0.39						3.5%
Berkeley Energia (BKY-AU)	\$0.33			446	\$147.1	\$42.3	89.4	\$0.47						(5.5)%
Western Uranium (WUC-L)	\$1.72			44	\$74.9	\$45.9	52.4	\$0.88						(7.0)%
Toro Energy (TOE-AU)	\$0.02			3,897	\$74.0	\$47.1	90.9	\$0.52						0.3%
Anfield Energy (AEC-V)	\$0.08	\$0.25	233%	624	\$46.8	\$29.4	22.5	\$1.30	\$0.42	0.18x				(6.2)%
Energy Metals (EME-AU)	\$0.18			210	\$36.7	\$14.8	57.6	\$0.26						(5.2)%
<b>Group Average - Developers</b>								<b>\$2.14</b>		<b>0.52x</b>				<b>(0.4)%</b>
<b>EXPLORERS</b>														
Alligator Energy (AGE-AU)	\$0.07			3,303	\$241.1	\$140.8								10.9%
Consolidated Uranium (CUR-V)	\$2.23	\$4.15	86%	77	\$171.3	\$111.1	89.6	\$1.24						(5.8)%
Elevate Uranium (EL8-AU)	\$0.55			275	\$151.5	\$90.4	137.5	\$0.66						(1.5)%
DevEx Resources (DEV-AU)	\$0.39			360	\$138.4	\$81.4								1.6%
Mega Uranium (MGA-T)	\$0.27			359	\$95.1	\$61.0								(1.8)%
Skyharbour Resources (SYH-V)	\$0.50	\$0.98	97%	144	\$71.3	\$50.9	7.0	\$7.32	\$1.01	0.49x				(4.7)%
Baselode Energy (FIND-V)	\$0.83			86	\$71.6	\$46.2								3.8%
ValOre Metals (VO-V)	\$0.40	\$1.05	163%	154	\$61.5	\$44.5	43.5	\$1.02						11.2%
Appia Rare (APL)	\$0.45			123	\$54.8	\$35.7	55.8	\$0.64						(10.9)%
Azimut Exploration (AZM-V)	\$0.70	\$2.95	321%	79	\$55.5	\$27.0			\$2.66	0.26				(12.4)%
92 Energy (92E-AU)	\$0.66			88	\$57.6	\$30.9								11.3%
Aurania Resources (ARU-V)	\$0.55			54	\$29.7	\$26.8								(8.3)%
CanAlaska Uranium (CWV-V)	\$0.52			102	\$53.0	\$29.1								(3.6)%
Blue Sky (BSK-V)	\$0.18			200	\$35.9	\$25.4	22.7	\$1.12						6.0%
Okapi Resources (OKR-AU)	\$0.31			136	\$41.5	\$22.5								7.3%
Purepoint Uranium (PTU-V)	\$0.09			369	\$31.4	\$20.5								(10.5)%
Globex Mining (GMX-T)	\$0.81			56	\$45.1	\$19.3								2.6%
GTI Energy (GTR-AU)	\$0.02			1,505	\$31.6	\$14.6								0.3%
Forum Energy (FMC-V)	\$0.16			171	\$27.3	\$18.2	0.6	\$30.71						(3.0)%
Standard Uranium (STND-V)	\$0.12			148	\$17.7	\$13.1								0.1%
Fission 3.0 (FUU-V)	\$0.12			302	\$34.7	\$12.8								0.1%
Azincourt Energy (AAZ-V)	\$0.07			227	\$16.6	\$4.6								(8.7)%
ALX Resources (AL-V)	\$0.04			208	\$8.3	\$4.6								0.1%
Cauldron Energy (CXU-AU)	\$0.01			535	\$5.9	\$3.2	30.9	\$0.10						(8.1)%
Tarku Resources (TKU-V)	\$0.07			86	\$6.1	\$4.7								55.7%
Northern Uranium (UNOH-V)	\$0.02			162	\$3.2	\$2.5								(19.9)%
X-Terra Resources (XTT-V)	\$0.03			99	\$2.5	\$1.6								(16.6)%
Avrupa Minerals (AVU-V)	\$0.05			55	\$2.5	\$1.6								(9.9)%
International Prospect (IZZ-V)	\$0.05			40	\$2.0	\$1.4	0.6	\$2.37						0.1%
Vanadian Energy (VEC-V)	\$0.04			42	\$1.5	\$1.3								75.1%
Uruvan Minerals (UVN-V)	\$0.16			5	\$0.8	\$0.3								0.1%
Eros Resources (ERC-V)	\$0.07			98	\$6.4	(\$4.3)								0.1%
<b>Group Average - Explorers</b>								<b>\$5.02</b>						<b>1.9%</b>
<b>INVENTORY FUNDS</b>														
Sprott Physical (U.UN-T)	\$16.40	\$23.50	43%	234	\$2,920	\$2,947	58.6	\$50.31						(0.9)%
Yellow Cake (YCALN)	£4.14	£5.30	28%	183	£758.1	\$742.0	19.8	\$37.42						(1.9)%
<b>Group Average - Inventory Funds</b>														<b>(1.4)%</b>
<b>ROYALTY COMPANIES</b>														
Uranium Royalty (URC-V)	\$3.97	\$7.13	79%	97	\$386.4	\$223.2			\$5.08	0.78x				<b>0.8%</b>

Source: S&P Capital IQ, Bloomberg, Haywood Securities, Company Reports



Figure 6. Uranium Equities  $\beta$  to Uranium price, plus  $\beta_{\text{equity/uranium}}/\sigma_{\text{equity}}$

Ticker	Company	$\beta_{\text{uranium}}$ (Last 1-year, Weekly Simple Returns)	$\beta_{\text{uranium}}/\sigma_{\text{equity}}$	Absolute Return (%)	Rank Beta	Rank $\beta_{\text{uranium}}/\sigma_{\text{equity}}$	Rank Absolute Return
ASX:BMN	Bannerman Energy Ltd	1.59	10.887	(31%)	1	4	33
ASX:EL8	Elevate Uranium Ltd	1.41	10.528	(23%)	2	6	23
ASX:PEN	Peninsula Energy Limited	1.36	12.219	(34%)	3	1	35
US:UEC	Uranium Energy Corp.	1.32	8.536	27%	4	18	3
ASX:TOE	Toro Energy Limited	1.32	9.917	(49%)	5	8	47
ASX:AGE	Alligator Energy Limited	1.31	9.564	(10%)	6	12	18
TSXV:AEC	Anfield Energy Inc.	1.30	9.811	(59%)	7	9	51
TSX:FSY	Forsys Metals Corp.	1.26	8.871	(38%)	8	15	39
ASX:DYL	Deep Yellow Limited	1.21	10.212	(3%)	9	7	10
TSXV:UNO.H	Northern Uranium Corp.	1.21	7.753	(67%)	10	29	55
TSXV:URC	Uranium Royalty Corp.	1.18	9.647	(27%)	11	11	28
CNSX:WUC	Western Uranium & Vanadium I	1.14	8.388	(55%)	12	23	49
ASX:ACB	A-Cap Energy Limited	1.12	6.281	(31%)	13	41	34
TSXV:FIND	Baselode Energy Corp.	1.08	7.706	19%	14	30	5
ASX:OKR	Okapi Resources Limited	1.07	8.528	(60%)	15	20	52
ASX:GTR	GTI Energy Ltd	1.05	7.781	(44%)	16	28	44
TSXV:FMC	Forum Energy Metals Corp.	1.05	7.269	(70%)	17	37	58
TSX:FCU	Fission Uranium Corp.	1.05	8.686	(26%)	18	17	27
TSXV:GXU	GovEx Uranium Inc.	1.04	7.650	(37%)	19	32	37
ASX:92E	92 Energy Limited	1.03	8.143	(18%)	20	26	21
TSX:URE	Ur-Energy Inc.	1.03	9.205	(24%)	21	13	25
TSX:EFR	Energy Fuels Inc.	1.02	8.254	0%	22	24	8
ASX:LOT	Lotus Resources Limited	1.02	9.202	(7%)	23	14	14
ASX:BOE	Boss Energy Limited	1.00	10.541	29%	24	5	2
TSXV:AAZ	Azincourt Energy Corp.	1.00	8.422	(71%)	25	22	60
TSXV:SYH	Skyharbour Resources Ltd.	0.99	7.380	(37%)	26	36	38
TSX:MGA	Mega Uranium Ltd.	0.97	7.596	(29%)	27	33	31
TSXV:FUU	Fission 3.0 Corp.	0.97	7.444	(43%)	28	35	41
TSXV:EU	enCore Energy Corp.	0.96	8.765	(29%)	29	16	30
ASX:PDN	Paladin Energy Ltd	0.94	9.730	(6%)	30	10	12
TSX:GLO	Global Atomic Corporation	0.91	8.535	(1%)	31	19	9
TSXV:ISO	IsoEnergy Ltd.	0.87	6.193	(30%)	32	43	32
TSX:NXE	NexGen Energy Ltd.	0.86	8.493	(16%)	33	21	20
TSX:DML	Denison Mines Corp.	0.86	8.034	(9%)	34	27	17
TSXV:CVV	CanAlaska Uranium Ltd.	0.80	5.184	(26%)	35	47	26
AIM:YCA	Yellow Cake plc	0.79	11.482	22%	36	2	4
ASX:BKY	Berkeley Energia Limited	0.74	5.993	(9%)	37	44	15
TSX:U.U	Sprott Physical Uranium Trust Fi	0.74	11.478	4%	38	3	7
TSXV:PTU	Purepoint Uranium Group Inc.	0.73	6.460	(41%)	39	40	40
TSX:CCO	Cameco Corporation	0.69	8.239	30%	40	25	1
TSXV:BSK	Blue Sky Uranium Corp.	0.67	6.277	(43%)	41	42	42
ASX:EME	Energy Metals Limited	0.66	7.104	(54%)	42	39	48
TSXV:AVU	Avrupa Minerals Ltd.	0.65	4.841	(36%)	43	49	36
TSXV:VEC	Vanadian Energy Corp.	0.63	3.200	(67%)	44	56	55
TSX:GMX	Globex Mining Enterprises Inc.	0.59	7.234	(24%)	45	38	24
TSXV:CUR	Consolidated Uranium Inc.	0.58	5.990	(15%)	46	45	19
TSXV:XTT	X-Terra Resources Inc.	0.57	3.530	(62%)	47	55	53
ASX:DEV	DevEx Resources Limited	0.56	3.784	(9%)	48	53	16
ASX:ERA	Energy Resources of Australia Li	0.54	7.576	(48%)	49	34	46
TSXV:STND	Standard Uranium Ltd.	0.53	4.290	(70%)	50	50	58
CNSX:API	Appia Rare Earths & Uranium Cc	0.53	3.945	(43%)	51	52	43
KAS:KZAP	JSC National Atomic Company K	0.49	7.660	(6%)	52	31	13
TSXV:VO	ValOre Metals Corp.	0.49	5.270	4%	53	46	6
TSXV:UVN	Uravan Minerals Inc.	0.46	4.146	(66%)	54	51	54
TSXV:LI	American Lithium Corp.	0.39	2.933	(3%)	55	59	11
ASX:CXU	Cauldron Energy Limited	0.36	2.937	(76%)	56	58	62
TSXV:AZM	Azimet Exploration Inc.	0.35	4.926	(70%)	57	48	57
TSXV:IZZ	International Prospect Venture	0.35	2.980	(76%)	58	57	63
TSXV:ERC	Eros Resources Corp.	0.34	3.680	(28%)	59	54	29
TSXV:AL	ALX Resources Corp.	0.26	2.684	(58%)	60	60	50
ASX:LAM	Laramide Resources Ltd.	0.20	2.319	(46%)	61	61	45
TSXV:TKU	Tarku Resources Ltd.	0.07	0.294	(22%)	62	63	22
TSXV:ARU	Aurania Resources Ltd.	0.06	0.569	(75%)	63	62	61

Source: UxC, CapitalIQ, Bloomberg, Haywood



Figure 7. Uranium Comps Performance with Short Interest / Days to Cover

Index	Ticker	Short Interest / Days to Cover	1-Day Δ (%)	5-Day Δ (%)	10-Day Δ (%)	30-Day Δ (%)	90-Day Δ (%)	YTD Δ (%)	12-Mth Δ (%)	2-year Δ (%)
S&P/TSX COMPOSITE INDEX	.TTT-T		0.4%	(0.2)%	2.4%	(2.3)%	3.8%	(7.1)%	(4.0)%	20.6%
S&P/TSX VENTURE COMPOSITE	.JX-T		1.2%	1.3%	3.5%	(3.6)%	2.2%	(30.4)%	(27.1)%	(11.8)%
S&P/TSX 60 INDEX	T.XLX-T		0.3%	(0.4)%	2.2%	(2.3)%	3.4%	(7.5)%	(3.1)%	21.5%
<b>PRODUCERS</b>										
CAMECO CORPORATION	CCO-T	1.5% / 2.3	2.3%	1.9%	5.8%	24.0%	45.9%	45.4%	30.0%	170.0%
KAZATOMPROM S	KAP-LN		2.7%	3.3%	8.8%	19.5%	26.2%	(10.1)%	(11.7)%	118.1%
PALADIN ENERGY L	PDN-AU	5.0% / 8.0	(5.3)%	(3.2)%	14.0%	19.3%	39.8%	1.7%	(5.8)%	530.3%
URANIUM ENERGY CORP	UEC-US	14.8% / 3.5	1.0%	(7.0)%	(0.2)%	0.0%	24.0%	23.3%	27.5%	272.1%
ENERGY FUELS INC	UUUU-US	15.2% / 5.1	1.4%	(5.7)%	0.0%	6.2%	38.7%	(5.1)%	(3.2)%	309.0%
BOSS EN FPO	BOE-AU	1.0% / 1.5	(2.4)%	0.3%	15.1%	16.9%	45.4%	28.9%	29.5%	336.7%
ENERGY RESOURCES	ERA-AU	0.0% / 0.2	2.1%	(5.9)%	(7.7)%	(5.9)%	(11.1)%	(29.4)%	(47.8)%	50.0%
UR ENERGY INC	URE-T	0.5% / 3.1	0.6%	(5.3)%	3.5%	20.9%	26.1%	16.2%	(24.2)%	141.9%
LOTUS RESOURCES	LOT-AU	2.8% / 2.5	(1.9)%	(3.8)%	4.1%	6.3%	6.3%	(17.7)%	(7.3)%	162.9%
PENINSULA ENERGY	PEN-AU	1.2% / 2.8	(2.6)%	(5.0)%	11.8%	5.6%	11.8%	(5.0)%	(34.5)%	183.6%
<b>DEVELOPERS</b>										
NEXGEN ENERGY LTD	NXE-T	1.7% / 2.1	4.2%	(0.3)%	8.5%	15.9%	28.1%	7.9%	(16.5)%	153.4%
DENISON MINES CORPORATION	DML-T	1.3% / 1.8	1.6%	(2.6)%	5.7%	22.5%	43.4%	6.3%	(9.3)%	189.1%
GLOBAL ATOMIC CORPORATION	GLO-T	0.3% / 0.7	(1.2)%	(3.8)%	8.0%	31.3%	52.4%	(2.9)%	(1.2)%	498.5%
DEEP YELLOW	DYL-AU	0.5% / 1.2	(2.9)%	(5.2)%	14.6%	46.9%	80.8%	36.6%	(3.3)%	235.7%
FISSION URANIUM CORP	FCU-T	0.5% / 0.9	2.5%	(4.7)%	3.8%	12.5%	26.6%	3.8%	(26.4)%	113.2%
AMERICAN LITHIUM CORP	LI-V	0.3% / 0.8	0.0%	(8.3)%	5.4%	(24.8)%	28.7%	(45.3)%	(3.3)%	76.5%
ISOENERGY LTD	ISO-V	1.5% / 2.9	(1.6)%	(12.0)%	5.4%	32.8%	48.8%	15.8%	(30.4)%	260.8%
ENCORE ENERGY CORP	EU-V	0.5% / 1.1	7.3%	1.4%	5.8%	11.4%	22.5%	(8.1)%	(29.0)%	197.0%
BANNERMAN ENERGY	BMN-AU	0.4% / 1.1	(3.2)%	(5.3)%	1.9%	7.0%	15.7%	(20.7)%	(31.0)%	422.0%
GOVIEK URANIUM INC	GXU-V	0.5% / 1.6	0.0%	0.0%	14.5%	21.2%	26.0%	(11.3)%	(37.0)%	133.3%
FORSYS METALS CORP	FSY-T	0.3% / 1.2	(5.6)%	(13.0)%	(4.3)%	4.7%	26.4%	(21.2)%	(38.0)%	282.9%
LARAMIDE RESOURCES LTD	LAM-T	0.9% / 2.1	0.0%	(6.6)%	(3.4)%	16.3%	25.3%	(19.7)%	(40.0)%	90.0%
A-CAP ENERGY	ACB-AU	0.1% / 0.4	(4.1)%	(11.4)%	10.7%	32.9%	32.9%	(35.9)%	(27.9)%	365.0%
BERKELEY ENERGIA	BKY-AU		(1.5)%	(5.9)%	(5.9)%	(7.2)%	1.6%	39.1%	(8.6)%	(61.4)%
WESTERN URANIUM & VANADIUM CORP	WUC-L		(3.9)%	(9.0)%	4.2%	8.2%	36.5%	(8.0)%	(55.0)%	107.2%
TORO ENERGY	TOE-AU	0.0% / 0.0	(4.8)%	(4.8)%	17.6%	25.0%	25.0%	(9.1)%	(48.7)%	42.9%
ANFIELD ENERGY INC	AEC-V	0.1% / 0.2	7.1%	(6.3)%	0.0%	7.1%	(6.3)%	(21.1)%	(59.5)%	
ENERGY MET FPO	EME-AU		(7.9)%	(0.0)%			20.7%	(35.2)%	(53.9)%	
<b>EXPLORES</b>										
ALLIGATOR ENERGY	AGE-AU	2.2% / 3.1	(5.4)%	(6.7)%	12.9%	12.9%	25.0%	27.3%	(10.3)%	
CONSOLIDATED URANIUM INC	CUR-V	0.1% / 0.3	2.3%	(7.1)%	(4.7)%	14.4%	30.4%	(22.3)%	(14.6)%	271.7%
ELEVATE URANIUM	EL8-AU	1.7% / 5.8	(3.5)%	(12.1)%	4.8%	25.3%	32.9%	17.2%	(23.2)%	548.8%
DEVEX RESOURCES	DEV-AU	0.1% / 0.5	(3.9)%	(11.9)%	(3.9)%	(9.8)%	29.8%	(24.5)%	(8.6)%	25.4%
MEGA URANIUM LTD	MGA-T	0.4% / 1.1	0.0%	(3.6)%	3.9%	20.5%	26.2%	3.9%	(29.3)%	89.3%
SKYHARBOR RESOURCES LTD	SYH-V	0.1% / 0.2	1.0%	(8.3)%	0.0%	19.3%	62.3%	2.1%	(37.3)%	167.6%
BASELODE ENERGY CORP	FIND-V	0.2% / 0.3	(1.2)%	(1.2)%	9.2%	10.7%	6.4%	2.5%	18.6%	121.3%
VALORE METALS CORP	VO-V	0.1% / 0.2		6.7%	8.1%	8.1%	14.3%	(27.3)%	3.9%	27.0%
APPRIA RARE EARTHS & URANIUM CORP	API-L		1.1%	(7.3)%	(5.3)%	34.8%	17.1%	(23.3)%	(42.9)%	1.1%
AZIMUT EXPLORATION INC	AZM-V	0.0% / 0.3	(6.7)%	(11.4)%	(14.6)%	(22.2)%	(40.2)%	(57.6)%	(69.7)%	(62.4)%
92 ENERGY	92E-AU	8.1% / 5.1	(6.0)%	(10.6)%	11.5%	34.0%	18.9%	(7.4)%	(18.2)%	
AURANIA RESOURCES LTD	ARU-V	0.0% / 0.2		(3.5)%	(11.3)%	(21.4)%	(21.4)%	(53.0)%	(75.2)%	(87.9)%
CANALASKA URANIUM LTD	CVV-V	0.1% / 0.3	(7.1)%	(11.9)%	0.0%	14.3%	73.3%	18.2%	(25.7)%	136.4%
BLUE SKY URANIUM CORP	BSK-V	0.9% / 5.4	(2.7)%	(7.7)%	(5.3)%	12.5%	38.5%	(7.7)%	(42.9)%	38.5%
OKAPI RESOURCES	OKR-AU		(6.8)%	(9.8)%	3.8%	34.1%	34.1%	(20.3)%	(60.1)%	
PUREPOINT URANIUM GRP INC	PTU-V	0.1% / 0.2	6.2%	(5.6)%	(0.0)%	21.4%	30.8%	(0.0)%	(41.4)%	54.5%
GLOBEX MINING ENTERPRISES INC	GMX-T	0.1% / 0.7	(1.2)%	(0.0)%	(1.2)%	(12.9)%	(26.4)%	(26.4)%	(23.6)%	15.7%
GTI ENERGY	GTR-AU		(5.0)%	(13.6)%	0.0%	11.8%	26.7%	(20.8)%	(40.6)%	(17.4)%
FORUM ENERGY METALS CORP	FMC-V	0.1% / 0.2	3.2%	3.2%	3.2%	(3.0)%	52.4%	(5.9)%	(70.4)%	14.3%
STANDARD URANIUM LTD	STND-V	1.7% / 4.6	0.0%	(7.7)%	(4.0)%	0.0%	60.0%	(44.2)%	(70.4)%	(50.0)%
FISSION 3.0 CORP	FUU-V	0.1% / 0.4	(4.2)%	(4.2)%	4.5%	21.1%	27.8%	(47.7)%	(42.5)%	27.8%
AZINCOURT ENERGY CORP	AAZ-V	0.1% / 0.3	3.6%	(9.4)%	(3.3)%	(3.3)%	(3.3)%	(58.6)%	(71.0)%	(3.3)%
ALX RESOURCES CORP	AL-V	0.1% / 0.3	(11.1)%	0.0%	0.0%	(11.1)%	0.0%	(55.6)%	(57.9)%	(50.0)%
CAULDRON ENERGY	CXU-AU		0.0%	(16.7)%	0.0%		11.1%	(65.5)%	(75.6)%	(74.4)%
TARKU RESOURCES LTD	TKU-V	0.0% / 0.3				(0.0)%		(12.5)%		(41.7)%
NORTHERN URANIUM CORP	UNO'H-V			0.0%		0.0%	33.3%	(42.9)%	(66.7)%	33.3%
X-TERRA RESOURCES INC	XTT-V	0.0% / 0.1	0.0%	(16.7)%	(16.7)%		(28.6)%	(16.7)%	(61.5)%	(84.4)%
AVRUPA MINERALS LTD	AVU-V	0.1% / 0.2		0.0%	(10.0)%				(35.7)%	(67.9)%
INTERNATIONAL PROSPECT VENTURES LTD	IZZ-V	0.0% / 0.0						(68.8)%	(76.2)%	
VANADIAN ENERGY CORP	VEC-V	0.0% / 0.0		16.7%		40.0%	40.0%	(30.0)%	(66.7)%	(30.0)%
URAVAN MINERALS INC	UVN-V	0.10%							(66.0)%	
EROS RESOURCES CORP	ERC-V	0.0% / 0.0							(27.8)%	(35.0)%
<b>INVENTORY FUNDS</b>										
SPROTT PHYSICAL URANIUM TRUST	U.UN-T	1.5% / 1.7	3.0%	(2.8)%	2.2%	19.8%	21.8%	17.7%	3.5%	
YELLOW CAKE PLC	YCA-LN		(0.4)%	(5.8)%	0.1%	16.8%	23.7%	21.8%	21.8%	93.5%
<b>ROYALTY COMPANIES</b>										
URANIUM ROYALTY CORP	URC-V	0.3% / 1.0	6.1%	(4.3)%	5.6%	14.7%	24.1%	(13.3)%	(27.3)%	239.3%

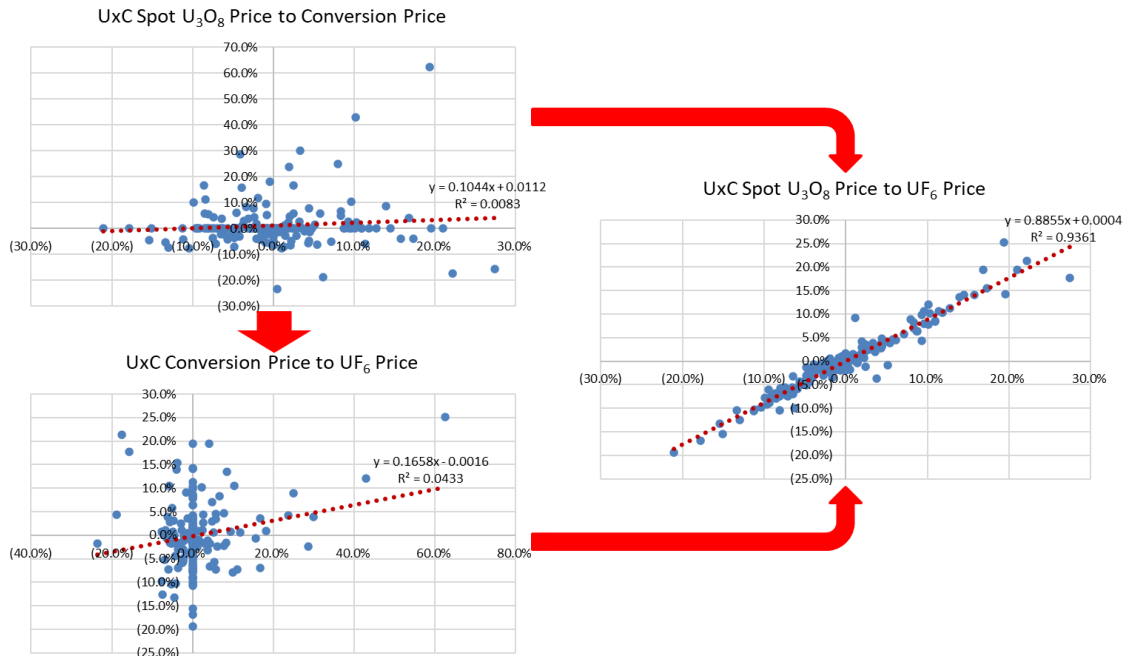
Source: UxC, CapitalIQ, Bloomberg, Haywood



### Uranium Fuel Cycle Price Relationships

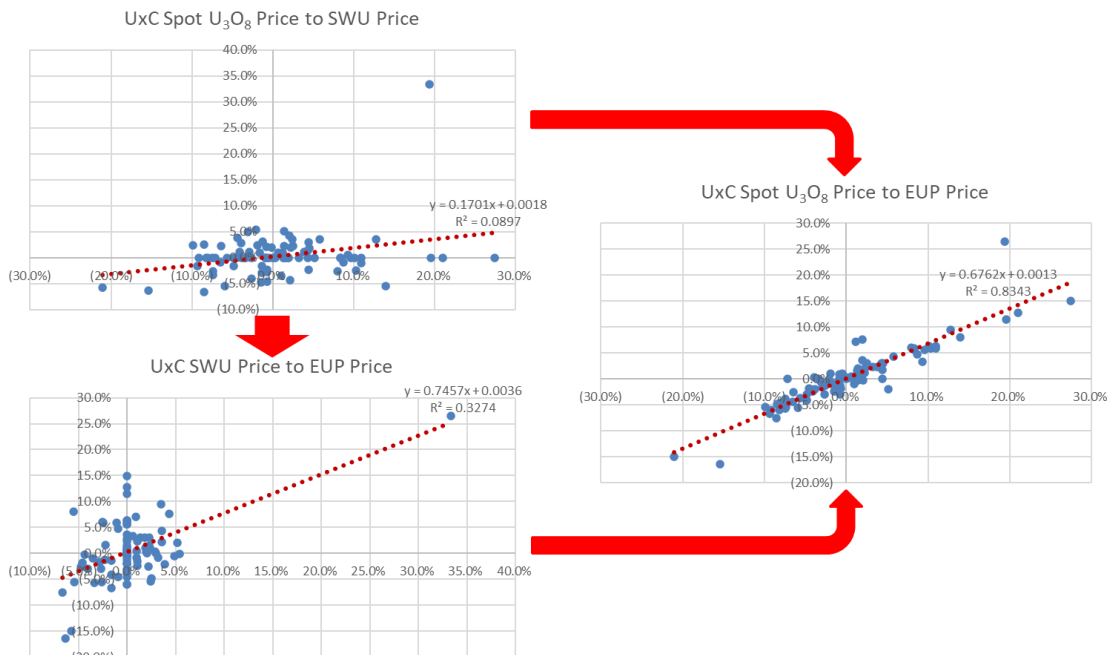
The charts below show that the price of uranium products ( $U_3O_8$ ,  $UF_6$  and EUP) are tightly correlated (monthly %Δ) in the long term (RHS Figures 8 & 9). On the lower left chart of each Figure, we see that the cost of fuel services exhibit a much lower correlation with the monthly % change in uranium product (Conversion to  $UF_6$  [ $R^2=0.04$ ] or SWU to EUP [ $R^2=0.33$ ]), owing to the fact that the uranium embedded in the product dominates value. Historically, conversion costs have made up an average of 10.5% of the cost of  $UF_6$  (currently 22.4%), and SWU costs have made up an average of 26% of the price of EUP (currently 24.5%) (or, conversely,  $UF_6$  historically makes up 74% of the cost of EUP).

**Figure 8.  $U_3O_8$  – Conversion –  $UF_6$  Monthly Performance Correlations 2008 to August 31<sup>st</sup>, 2022 (at UxC spot prices)**



Source: Haywood Securities Inc., UxC

**Figure 9:  $U_3O_8$  – SWU – EUP Monthly Performance Correlations – 2015 to August 31<sup>st</sup>, 2022**



Source: Haywood Securities Inc., UxC





## Important Information and Legal Disclosures

This report is intended for institutional investors and may only be distributed to non-institutional US clients in the following states: nil. Otherwise, this report may only be distributed into those states with an institutional buyer state securities registration exemption.

### Analyst Certification

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

### Important Disclosures

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

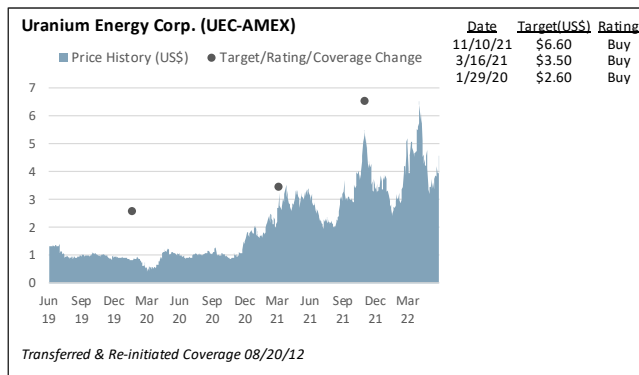
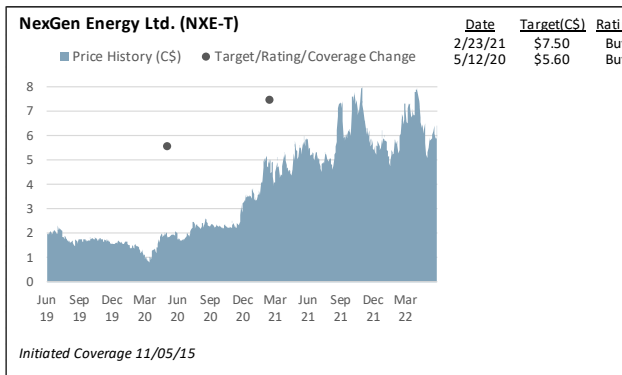
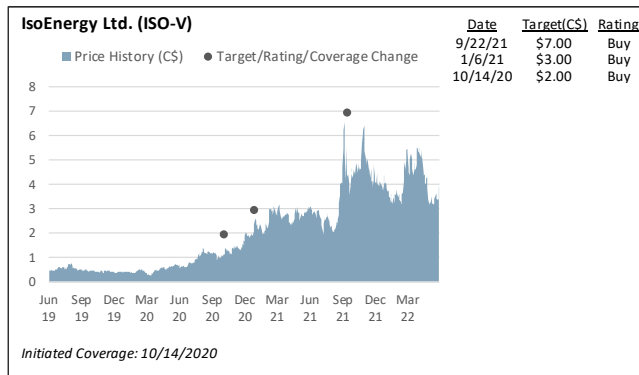
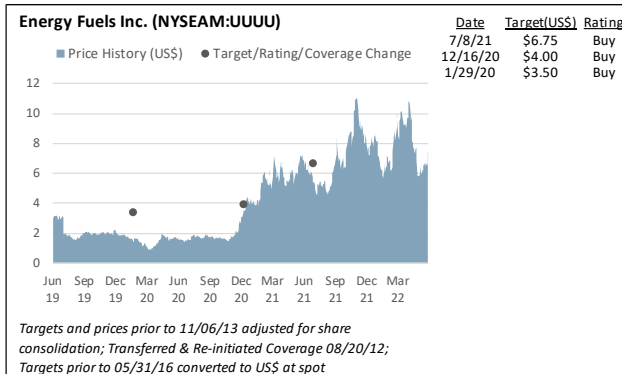
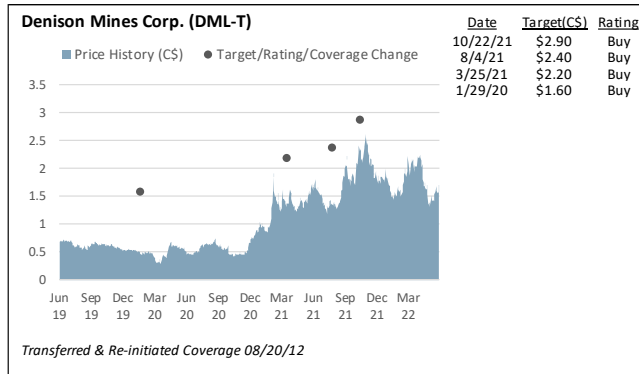
Ticker	Company	1	2	3	4	5	6	7	8	9
TSX:DML	Denison Mines Corp.			X			X			
TSX:EFR	Energy Fuels Inc.			X						
TSXV:ISO	IsoEnergy Ltd.			X						
TSX:NXE	NexGen Energy Ltd.			X						
US:UEC	Uranium Energy Corp.			X						
1	The Analyst(s) preparing this report (or a member of the Analysts' households) have a financial interest in this company.									
2	As of the end of the month immediately preceding this publication either Haywood Securities, Inc., one of its subsidiaries, its officers or directors beneficially owned 1% or more of this company.									
3	Haywood Securities, Inc. has reviewed lead projects of this company and a portion of the expenses for this travel may have been reimbursed by the issuer.									
4	Haywood Securities Inc. or one of its subsidiaries has managed or co-managed or participated as selling group in a public offering of securities for this company in the past 12 months.									
5	Haywood Securities, Inc. or one of its subsidiaries has received compensation for investment banking services from this company in the past 12 months.									
6	Haywood Securities, Inc. or one of its subsidiaries has received compensation for investment banking services from this company in the past 24 months.									
7	Haywood Securities, Inc. or one of its subsidiaries is restricted on this company at the time of publication.									
8	Haywood Securities, Inc. or one of its subsidiaries expects to receive or intends to seek compensation for investment banking services from this company in the next three months.									
9	Haywood Securities, Inc. or one of its subsidiaries currently provides market making services to this company, for which Haywood is compensated by the Issuer on a monthly basis.									

### Distribution of Ratings (as of September 15, 2022)

	%	#	IB Clients (TTM)
Buy	74.7%	74	70.0%
Hold	11.1%	11	15.0%
Sell	0.0%	0	0.0%
Tender	1.0%	1	5.0%
UR (Buy)	0.0%	0	0.0%
UR (Hold)	0.0%	0	0.0%
UR (Sell)	0.0%	0	0.0%
Dropped (TTM)	13.1%	13	10.0%



Price Chart, Rating and Target Price History (as of September 15, 2022)



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

Link to Research Policy: <http://haywood.com/what-we-offer/research/research-policy>  
 Member of the Canadian Investor Protection Fund

