

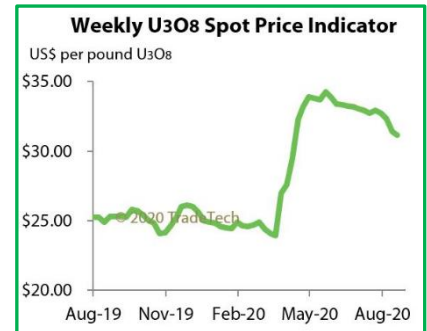
Uraniumletter INTERNATIONAL

the international independent information and advice bulletin for uranium resource investments

Overviews as at August 31, 2020



Marino G. Pieterse, publisher and editor



- ▶ Revival of the USA uranium industry is wishful thinking
- ▶ Positive outlook for African exploration/development companies

OVERVIEW of U ₃ O ₈ PRICES					
	Spot	Long-term		Spot	Long-term
2020					
August 31	31.15	36.00	Year-end 2016	20.25	30.00
July 31	32.70	35.50	Year-end 2015	34.23	44.00
June 30	33.20	35.50	May 31, 2015 (high)	39.50	50.00
June 1 (high)	34.25	35.50	Year-end 2014	35.50	49.50
April 30	33.20	32.50	May 14, 2014 (low)	28.25	49.00
March 30	27.35	32.50	Year-end 2013	34.50	50.00
March 20 (low)	23.95	32.50	Year-end 2012	43.50	56.50
February 21	24.70	32.50	Year-end 2011	61.75	64.00
January 31	24.45	32.50			
▶ Year-end 2019	25.00	32.50	Pre-Fukushima accident		
November 29	26.05	32.50	March 11, 2011	67.75	73.00
October 31	24.85	31.50			
September 30	25.80	31.00			
August 30	25.30	31.50			
June 28	24.30	31.00			
May 27 (low)	24.10	32.00			
April 30	25.20	32.00			
February 28	28.60	32.00			
January 31 (high)	28.85	32.00			
▶ Year-end 2018	28.70	32.00			
November 30 (high)	29.10	31.25			
October 29	27.95	31.25			
September 24	27.35	31.75			
August 27	26.20	31.50			
July 31	25.70	31.50			
June 30	22.55	29.00			
May 28	22.75	29.00			
April 30 (low)	21.00	29.00			
March 26	21.10	29.50			
February 26	21.25	30.00			
January 29	21.88	30.00			
▶ Year-end 2017	22.32	30.67			
December 4 (high)	26.50	31.00			
September 27	20.25	31.50			
June 26	20.10	32.50			
May 29 (low)	19.25	32.50			
May 1	22.50	33.00			
March 27	24.50	33.99			
February 28	22.25	32.50			
February 6	26.00	32.50			
January 31	24.50	32.50			
▶ Year-end 2016	20.25	30.00			
November 28	18.00	33.00			
October 31	18.75	35.50			
September 26	23.75	38.00			
June 27	27.00	40.50			
March 28	29.15	43.50			

* 12-year low month-end prices published by UxC and TradeTech

► Shift in geological blocks dictates international uranium market

At prices of \$ 31.15 and \$ 36.00, respectively on August 31, 2020, **China, Russia and India** together are currently accounting for 23 reactors under construction and 82 reactors planned, representing 51% and 76% respectively of the world total. With the required uranium to feed future operational reactors, this is broadly seen as the key driver of a strong uranium price recovery.

It should be realized however, that China's and Russia's required uranium supply is mainly covered by long-term supply agreements, in particular with Kazakhstan.

This actually means that expectations on a revival of the USA uranium industry is wishful thinking.

Based on the current supply situation, with the **USA** with 95 reactors almost hosting 22% of the world's 439 operable reactors and this year requiring 19,746 tonnes uranium (29% of the world total of 68,240 tonnes), it is notable that **Russia** supplies approximately 45% of US imports of enriched uranium and **Canada** approximately 90% of natural uranium imports.

This means that for the USA there is no urgent need to lower current imports of more than 95% of the uranium it uses for other than international political tensions.

Considering that globalization is creating a new economic world order, it is noteworthy to see which countries are supplying uranium. This is of crucial importance for the course of uranium pricing, as it demonstrates that the long-awaited strong recovery to a pre-Fukushima price level of \$ 65-70/lb to enable an economically viable production is factually not justified.

Anticipating a strong growth of nuclear reactors under construction and of planned reactors, led by China, Russia and India, one has to know through which countries supply of required uranium is met, notably Kazakhstan, Australia, Namibia and Niger.

From this perspective, I refer to my overview of geographical strategic blocks, that shows that Kazakhstan based at a production of 28,808 tonnes in 2019, is not only by far the world's biggest uranium supplier but can easily fully feed growing uranium market demand from Russia, without any effect on the uranium price.

In addition, part of the USSR block, **Kazakhstan** and **Russia** also are in a strategic position to trade uranium with other strategic blocks that are facing deficits in supply. In this respect, it is also of interest to know that uranium export to the USA is partly provided through Canada to escape an import ban of uranium supply from Russia. Also, there is a possibility to export uranium to the USA via Cameco's 40% interest in the **JV Inkai** and 60% owned by **Kazatomprom** as at January 1, 2018.

No reliable insight in current stocks exists for **Japan**, where required uranium from the anticipated restart of nuclear reactors probably to be fully met by still available reserves from before the Fukushima accident in March 2011. Currently, **Japan** is operating 9 reactors and 17 reactors are in the process of restart approval.

Concerning **South Korea**, the deficit of 4,594 tonnes uranium can be provided by different international sources. Noteworthy is the growing anti-nuclear sentiment in the country, which may result in a significant reduction of the current share of approximately 30% of total electricity generating.

Europe has no own sources of uranium supply. First production is expected to come from Berkeley Energia's Salamanca mine in 2021. With a share of 70.6% of total electricity generating, **France** is the biggest generator of nuclear energy in Europe.

- **Kazakhstan** supplies 46% of the world's totally required uranium in 2019, mainly covered by long-term delivery contracts, including to the **USA**

Overview of strategic geopolitical uranium blocks

	Uranium production 2019 (tonnes U)	in %	Uranium required 2019 (tonnes U)	Surplus (+) Deficit (-) x
<u>USSR</u>				
Kazakhstan	22,808	42.5	0	22,808
Russia	2,911	5.4	5,616	-2,705
Uzbekistan *	2,404	4.5	0	2,404
Ukraine	801	1.5	1,890	-1,089
	28,924	53.9	7,506	21,418
USA	67	0.1	19,461	-18,281
Canada	6,938	12.9	1,616	5,385
	7,005	13.1	21,077	-12,896
China *	1,885	3.5	8,713	-6,828
Australia	6,613	12.3	0	6,613
	8,498	15.8	8,713	-215
Japan x	0	0.0	1336 x	-1,336
South Korea	0	0.0	4592	-4,592
	0	0.0	5,928	-5,928
Namibia	5,476	10.2	0	5,476
Niger	2,983	5.6	0	2,983
	8,459	15.8	0	8,459
Total strategic blocks	52,886	98.6		
Total world production	53,656			

surplus in production 10,838 tonnes U

***** estimated

x uranium required based on 5 operating nuclear reactors; 22 reactors are in process of restart

► Uranium Market Annual Report 2019

According to the U.S. Energy Information Administration (EIA) owners and operators of U.S. civilian nuclear power reactors (civilian owner/operators or COOs) **purchased a total of 48 million pounds U3O8e (equivalent) of deliveries from suppliers and foreign suppliers during 2019, at a weighted-average price of \$ 35.59 per pound U3O8e.** The 2019 total of 48 million pounds U3O8e was 20% higher than the 2018 total of 40 million pounds U3O8e and the average price of \$ 35.59 per pounds U3O8e was 8% lower than the 2018 weighted-average price of \$ 38.81 per pounds U3O8e.

Similar to recent years, the vast majority of uranium delivered in 2019 was of foreign-origin. Uranium originally in **Kazakhstan, Russia and Uzbekistan** accounted for **42%** of total uranium purchased by U.S. COOs in 2019. **Canadian-origin** uranium and **Australian-origin** together accounted for **39%**.

COOs purchased three material types of uranium for 2019 delivery from 35 sellers one less seller than in 2018. **During 2019, 22% of the uranium delivered was purchased under spot contracts at a weighted-average price of \$ 27.89 per pound. The remaining 78% was purchased upon long-term contracts at a weighted-average price of \$ 37.73 per pound.**

► New and future uranium contracts

In 2019, COOs signed 34 new purchase contracts with deliveries under contract to allow for the option of either decreasing or increasing quantities.

At the end of 2019, the maximum uranium deliveries for 2020 through 2029 under existing purchase contracts for COOs totaled 181 million pounds U3O8e. Also, at the end of 2019, unfilled uranium market requirements for 2020 through 2029 totaled 207 million pounds U3O8e.

These contracts deliveries and unfilled market requirements combined represent the maximum anticipated requirements of 388 million pounds U3O8e over the next 10 years for COOs.

► Uranium feed

In 2019, COOs delivered 38 million pounds U3O8e of natural uranium feed to the U.S., and foreign enrichers. U.S. enrichment suppliers received 51% of the feed and the remaining 49% was delivered to foreign enrichment suppliers.

Uranium in fuel assemblies loaded into the U.S. civilian nuclear power reactors during 2019 contained 43.2 million pounds U3O8e compared with 50.4 million pounds U3O8e loaded during 2018.

During 2019, 9% of the uranium loaded was U.S. origin and 91% was foreign origin uranium.

► Uranium foreign purchases/sales and inventories

U.S. suppliers (brokers, converters, enrichers, fabricators, producers and traders) and COOs, purchase uranium each year from foreign suppliers. **Together, foreign purchase totaled 429 million pounds U3O8e in 2019 and the weighed-average price was \$ 34.77 per pounds U3O8e.**

U.S. suppliers and COOs also sold uranium to foreign suppliers. Together foreign sales totaled 11.7 million pounds U3O8e in 2019 and the weighted-average price was \$ 27.16 per pounds U3O8e.

Year-end commercial uranium inventories represent ownership of uranium in different stages of the nuclear fuel cycle (in process for conversion, enrichment or fabrication) at domestic or foreign nuclear fuel facilities. **Total U.S. commercial inventories** (including inventories owned by COOs, U.S. brokers, converters, enrichers, fabricators, producers and traders) **were 127.1 million pounds U3O8e at the end of 2019, down 3% from 130.5 million pounds at the end of 2018.**

WORLD NUCLEAR POWER REACTORS & URANIUM REQUIREMENTS of the world's major nuclear energy generating countries (as at July 2020)

Country		Reactors operable	% total electricity generation	Under construction	Planned x	Uranium required in tonnes 2020
USA		95	19.7	4	3	19,746
France	*	56	70.6	1	-	8,936
China		47	4.9	12	44	9,834
Russia		38	19.7	4	24	4,834
South Korea	**	24	26.2	4	-	4,903
India		22	3.2	7	14	967
Canada		19	14.9	-	-	1,538
Ukraine		15	53.9	-	2	1,893
United Kingdom		15	15.6	2	2	1,820
Germany	***	6	12.4	-	-	1,264
Japan x	****	9	7.5	-	-	2,000
Total		346		34	89	57,735
Total world		439	10.2	56	108	68,240
Top 11 in % world total		79		61	82	85

x Future reactors envisaged in specific plans and proposals and expected to be operating by 2030

* **France** generates 71.6% from its electricity from nuclear energy. To be more balanced through an increase of renewables, this share may be reduced to 50% or approximately 40 reactors by 2025

** **South Korea's** 2017 elected government has introduced strongly opposed nuclear phase-out plans by 2040; nuclear production to drop from 31% today to 22% by 2030

*** Up until 2011, **Germany** obtained 25% of its electricity from its 17 nuclear reactors, but nuclear energy phased out in 2011 when 8 reactors shut down immediately and currently 7 remaining reactors to be closed by 2019

**** Up until 2011, **Japan** was generating some 30% of electricity from its 55 reactors and this was expected to increase to at least 40% by 2017. The plan is now for at least 20% by 2030 from a depleted fleet. Currently, 42 reactors are operable, with 9 having restarted since, 18 reactors are currently in the process of restart approval

New plants coming online are largely balanced by old plants being retired. Over 1996-2018, 89 reactors were retired as 98 started operations. The reference scenario in the 2019 edition of The Nuclear Fuel Report has 154 reactors closing by 2040 and 289 new ones coming online, including 22 restarted Japanese reactors

source : WNA

► Reactor shutdowns outweigh start-ups in 2019

In January 2020, the **World Nuclear Association** reported that global nuclear generation stood at 392.4 GWe net at the end of 2019, down slightly from 2018, according to their data. Six power reactors were added to the grid last year and construction of three large projects started, Nine units were permanently shiw down.

► Six New nuclear reactors with a combined generating capacity of 5,241 MWe came online in 2019.

Two of those – Taishan 2 and Yangjian 6 were in **China**. Unit 4 of **South Korea's** Ushin Kori plant was also connected to the grid, as was **Russia's** Novoronezh II unit 2. Russia's first floating nuclear power plant, the Akademik Lomonosov - comprising two 32 MWe reactors – was also connected to the grid towards the end of the year.

In 2018, 10,420 MWe of new nuclear generating capacity was connected to the grid, while 3,345 MWe was added in 2017.

► Power uprates of existing reactors also added 212 NWe of generating capacity during 2019.

Some 35 MWe was added at the Embalse plant in **ArgEntina**, while 155 MWe and 22 MWe were added at **USA's** Browns Ferry 2 and Peach Bottom 2 units, respectively.

In comparison, four uprates in the **USA** added 350 MWe of capacity in 2018.

► **Construction** was started last year of three new power reactors: unit 2 of the Kursk II plant in **Russia**; unit 1 of **China's Zhangzhou plant**; and unit 2 of **Iran's Buser plant**.

► **Nine more reactors with a combined capacity of 5,976 MWe were officially shut down in 2019.**

These were Bulibino 1 in **Russia**, Chinshan 2 in **Taiwan**, Genkai 2 in **Japan**, Mühleberg in **Switzerland**, Philippsburg 2 in **Germany**, Pilgrim in the **USA**, Ringhals 2 in **Sweden** and Three Mile Island 1 in the **USA**. **South Korea's Wolsong plant**, which had not operated since June 2018, was declared as having been shut down on December 24, 2019.

Source: WNA

WORLD NUCLEAR POWER REACTORS & URANIUM REQUIREMENTS										
of the world's major nuclear energy generating countries - comparison July 2020 to February 2011										
Developed countries:	Reactors operable		% Electricity Generation		Under construction		Planned x		Uranium required (in tonnes)	
	July 2020	Febr.2011	July 2020	Febr.2011	July 2020	Febr.2011	July 2020	Febr.2011	July 2020	Febr. 2011
USA	95	104	19.7	20.2	4	1	3	9	19,746	19,427
France	56	58	70.6	75.2	1	1	0	1	8,936	9,221
Canada	19	18	14.9	14.8	0	2	0	3	1,538	1,884
United Kingdom	15	19	15.6	17.9	1	0	3	4	1,820	2,235
Germany	6	17	12.4	26.1	0	0	0	0	1,264	3,453
South Korea	24	21	34.8	34.8	4	5	0	6	4,903	3,586
Japan x	9	55	6.2	28.9	0	2	0	12	2,000	8,195
Subtotal	224	292			10	11	6	35	40,207	48,001
Emerging countries:										
China	47	13	4.9	1.9	12	27	44	50	9,834	4,402
Russia	38	32	19.7	17.8	4	10	24	14	4,834	3,757
India	22	20	3.2	2.2	7	5	14	18	967	1,053
Ukraine	15	15	53.0	0	0	2	2	2	1,893	2,037
Subtotal	122	80			23	44	84	84	17,528	11,249
Total world	439	443	10.2	14	55	62	108	156	68,240	68,240
		2020	2011							
Developed countries in % total world		51	66							
Emerging countries in % total world		28	18							

source: WNA

Peer Group of the world's top listed Uranium Companies

August 31, 2020		Trade symbol		Share price		Change in %	12 months		Net shares issued million	Market cap. million	
Location of trading				Aug. 31 2020	year-end 2019		H	L		local	US\$
Kazakhstan (1)				US\$	US\$					US\$	US\$
Kazatomprom	1)	LSE	KAP:LI	15.30	13.00	18	15.50	10.20	259.4	3,968.8	3,968.8
Canada (9)				C\$	C\$					C\$	US\$
Cameco		TSX	CCO	15.11	11.54	31	16.71	7.70	395.8	5,980.5	4,545.2
NexGen Energy		TSX	NXE	2.58	1.67	54	2.62	0.76	376.8	972.1	738.8
Denison Mines		TSX	DML	0.70	0.54	30	0.70	0.24	626.1	438.3	333.1
Fission Uranium		TSX	FCU	0.45	0.29	55	0.47	0.10	488.1	219.6	166.9
Global Atomic	* 2)	TSX.V	GLO	0.75	0.48	56	0.90	0.24	151.6	113.7	86.4
UEX	3)	TSX	UEX	0.19	0.15	23	0.19	0.07	406.7	75.2	57.2
GoviEx Uranium	*	TSX.V	GXU	0.14	0.16	-13	0.19	0.08	474.4	66.4	50.5
EnCore Energy		TSX.V	EU	0.34	0.17	97	0.39	0.08	159.7	53.5	40.7
Laramide Resources	5)	TSX	LAM	0.30	0.20	50	0.38	0.11	165.2	49.6	37.7
Sub-total										7,968.9	6,056.5
United States (3)				US\$	US\$					US\$	US\$
Energy Fuels	4)	NYSE MKT	UUUU	1.82	1.91	-5	2.35	0.78	125.6	228.6	228.6
Uranium Energy		AMEX	UEC	1.15	0.92	25	1.27	0.35	184.2	211.8	211.8
Ur-Energy		NYSE MKT	URG	0.58	0.59	-2	0.72	0.28	169.5	98.3	98.3
Sub-total										538.7	538.7
Australia (5)				A\$	A\$					A\$	US\$
Energy Resources of Australia	6)	ASX	ERA	0.17	0.17	0	0.20	0.14	3,690.0	627.3	464.2
Paladin Energy	* 7)	ASX	PDN	0.17	0.10	70	0.18	0.04	2,030.0	345.1	255.4
Berkeley Energia		ASX	BKY	0.88	0.22	298	0.89	0.10	258.6	226.3	167.4
Boss Resources	8)	ASX	BOE	0.08	0.05	60	0.09	0.03	1,590.0	127.2	94.1
Deep Yellow	*	ASX	DYL	0.23	0.29	-21	0.33	0.11	245.1	56.4	41.7
Sub-total										1,382.3	1,022.8

* featured as a **Special Situation** and included in Shortlist of investment recommendations

1) listed on London Stock Exchange) as at November 16, 2018 through an IPO offering of 15% of the Company's outstanding shares at US\$ 11.60

2) also 49% interest in zinc project in Turkey

3) also cobalt-nickel deposit

4) combined uranium-vanadium project

5) also uranium assets in Australia

6) Rio Tinto sold entire **68.62% interest in Rössing Mine, Namibia** to CNNC of China

7) holds 75% interest in flagship uranium-vanadium Langer Heinrich Mine in Namibia; CNNC of China holds 25% stake; also assets in Canada and Australia; sold 85% interest in uranium mine in Malawi to Lotus Resources

8) also nickel-copper project in Sweden and gold project in Senegal

Total market capitalization top listed uranium companies - August 31, 2020: US\$ 11,586.8 million

MARKET VALUATION OF THE WORLD'S LISTED URANIUM PRODUCERS and STANDBY PRODUCERS

(in US\$ million)

Country focus	Company Name		Aug. 31 2020	Year-end 2019	Year-end 2018	Change in %	Year-end 2017	Year-end 2016	Year-end 2015	Year-end 2014	Year-end 2012	Year-end 2011	Year-end 2010	Change % 2019 / 2010
Kazakhstan	Kazatomprom	1)	3,968.8	3,372	3,530	-4								
Canada	Cameco	2)	4,545.2	3,508	4,491	-22	3,630	4,112	4,865	6,477	7,744	7,306	15,866	-78
United States	Energy Fuels	3)	228.6	189	255	-26	133	109	134	121	123	167	158	19
	Uranium Energy	4)	211.8	169	222	-24	276	132	105	160	218	253	421	-60
	Ur-Energy	5)	98.3	94	104	-9	99	76	138	110	101	96	303	-69
	Peninsula Energy	6)	35.3	33	36	-10	81	75	85	113	122	122	158	-79
Australia	ERA	7)	464.2	62	91	-32	367	164	136	549	676	663	2,165	-97
Namibia	Paladin Energy *	8)	255.4	142	230	-38	67	111	300	489	902	1,118	3,649	-96
	Total		9,807.6	7,569	8,959	-16	4,653	4,779	5,763	8,019	9,886	9,725	22,720	-67
U3O8 spot price	(August 21, 2020)		31.15	25.00	28.70	-13	22.32	20.25	34.23	35.50	43.50	51.75	62.50	-60
U3O8 long-term price			36.00	32.50	31.25	4	30.67	30.00	44.00	49.50	56.50	64.00	65.00	-50

 * featured as [Special Situation](#) and included in [2020 Shortlist](#) of investment recommendations

1) listed on London Stock Exchange as at November 16, 2018 through an IPO offering of 15% of the Company's outstanding shares at a price of US\$ 11.60

 2) stand-by producer; suspended production [McArthur Lake](#) began in February 2018 and [Cigar Lake](#) on April 13, 2020

 3) stand-by producer; also vanadium recovery operations from company's [White Mesa Mill](#), Utah

4) ISR production commencement in November 2010; stopped production since 2014; stand-by producer

5) ISR production commenced 1n August 2013

6) first ISR production commenced in December 2015

7) producer; A\$ 476 million fully underwritten renounceable entitlement offer closed successfully on February 18, 2020

 8) stand-by producer; [CNNC Overseas Uranium Holding](#) of China holds 25% equity interest; in flagship [Langer Heinrich Mine](#); also assets in [Canada](#) and [Australia](#); sold 85% in [Kavalekera Mine, Malawi](#) to [Lotus Resources](#); 15% owned by Malawi government

MARKET VALUATION OF THE WORLD'S MOST ADVANCED LISTED URANIUM DEVELOPMENT COMPANIES

(commercial production target <5 years)

(in US\$ million)

Country focus			Aug.31 2020	Year-end 2019	Year-end 2018	Change in %	Year-end 2017	Year-end 2016	Year-end 2015	Year-end 2014	Year-end 2012	Year-end 2011	Year-end 2010	Change in % 2019/2010
Canada	Denison Mines		333.1	247.7	272.1	-9	305	276	261	491	428	464	1,248	-80
	UEX		57.2	43.9	48.9	-10	89	54	27	58	131	145	456	-90
Australia	Bios Resources		94.1	55.7	66.8	-17	42	38	-	-	-	-	-	x
Spain	Berkeley Energia		167.4	39.8	32.1	24	202	165	65	41	74	66	- x	
Namibia	Deep Yellow	1)	41.7	50.1	55.8	-10	48	37	9	22	86	89	379	-87
Niger	Global Atomic		86.4	53.6	40.7	32	-	-	-	-	-	-	-	x
	GoviEx Uranium	2)	50.5	52.0	43.5	20	70	35	5	39 *	-	-	-	
	Total		830.4	542.8	559.9	-3	756	605	367	651	719	764	2,083 x	-64

x not included in year total

* listing date June 20, 2014

1) strategic earn-in agreement with JOGMEC of Japan effective March 2017 to earn a 39.5% interest in the Nova Venture within 4 years

 2) bought [African uranium assets](#) in [Zambia](#), [Mali](#) and [Namibia](#) from [Denison Mines](#) in consideration of 25% of GoviEx' shares; current equity interest 18.65%

**World's top listed uranium exploration/development companies
focused on traditional countries (by market valuation)**

	Country focus	Trade symbol		Share price Aug. 31 2020	Share price Year-end 2019	Change Year-end 2019 in %	Market valuation (US\$ million)
NexGen Energy	Canada	TSX.V	NXE	C\$ 2.58	C\$ 1.67	54	738.8
Denison Mines	Canada	TSX	DML	C\$ 0.70	C\$ 0.54	30	333.1
Fission Uranium	Canada	TSX	FCU	C\$ 0.45	C\$ 0.29	55	166.9
Boss Resources	Australia	ASX	BOE	A\$ 0.08	A\$ 0.05	60	94.1
Iso Energy	1) Canada	TSX.V	ISO	C\$ 1.27	C\$ 0.20	535	87.2
UEX	Canada	TSX	UEX	C\$ 0.19	C\$ 0.15	27	57.2
Encore Energy	USA	TSX.V	EU	C\$ 0.34	C\$ 0.17	100	40.7
Laramide Resources	USA/Australia	TSX	LAM	C\$ 0.30	C\$ 0.20	50	37.7
Azarga Uranium	2) USA	TSX.V	AZZ	C\$ 0.21	C\$ 0.20	5	30.8
Total market capitalization							1,586.5
1) 63.30% held by <u>NexGen Energy</u>							
2) sold 93.1% owned subsidiary <u>UrAsia</u> , <u>Kyrgyz Republic</u> in November 2019 to government entity; entitled to 93.1% cash consideration of US\$ 250,000 and 2% NSR royalty on Kyrgyz project for up to US\$ 5.0 million							

**World's top listed uranium exploration/development companies
focused on emerging countries (by market valuation)**

	Country focus	Trade symbol		Share price Aug. 31 2020	Share price Year-end 2019	Change Year-end 2019 in %	Market valuation (US\$ million)
Berkeley Energia	Spain	ASX	BKY	A\$ 0.88	A\$ 0.18	389	167.5
Global Atomic *	1) Niger	TSX.V	GLO	C\$ 0.75	C\$ 0.56	34	86.4
Lotus Resources	2) Malawi	ASX	LOT	A\$ 0.11	A\$ 0.07	57	58.6
GoviEx *	Niger/other African countries	TSX.V	GXU	C\$ 0.14	C\$ 0.15	-7	50.5
Deep Yellow *	Namibia	ASX	DYL	A\$ 0.23	A\$ 0.25	-8	41.7
Bannerman Resources	Namibia	ASX	BMN	A\$ 0.04	A\$ 0.04	0	30.6
Plateau Energy Metals	3) Peru	TSX.V	PLU	C\$ 0.33	C\$ 0.28	20	26.3
Forsys Metals	Namibia	TSX	FSY	C\$ 0.15	C\$ 0.15	0	19.0
Blue Sky Uranium	4) Argentina	TSX	BSK	C\$ 0.14	C\$ 0.16	-13	12.3
Total market capitalization							492.9
* featured as a Special Situation and included in the 2019 Shortlist of investment recommendations							
1) also 49% interest in operating zinc project in <u>Turkey</u>							
2) acquired 85% stake in major uranium project in <u>Malawi</u> from <u>Paladin Energy</u> ; also cobalt project in NSW Australia							
3) uranium-lithium project; main focus on lithium							
4) uranium-vanadium project							

Geographical overview of the world's highest valued uranium exploration and development companies

Traditional countries (10)

(market capitalization in million as at August 31, 2020)

Canada (5)	C\$	United States (3)	US\$	Australia (2)	A\$
NexGen Energy	972.1	Encore Energy	40.7	Boss Resources	127.2
Denison Mines	438.3	Laramide Resources	1) 37.7	Vimy Resources	1) 23.3
Fission Uranium	219.6	Azarga Uranium	2) 30.8		
Iso Energy	1) 114.8				
UEX	2) 75.2				
notes Canada:		notes US:		notes Australia:	
1) 33.0 % owned by <u>NexGen Energy</u> from spin-off		1) also uranium projects in Australia		1) also stand-alone battery metals project	
2) also cobalt-nickel project		2) sold 91% owned subsidiary <u>UrAsia</u> , Kyrgyz Republic to government entity			

Emerging countries (9)

AFRICA (6)				SOUTH AMERICA (2)	
Namibia (3)	A\$	Niger (2)	C\$	Argentina(1)	C\$
Deep Yellow	56.4	Global Atomic	1) 113.7	Blue Sky Uranium	1) 16.2
Bannerman Resources	41.3	GoviEx Uranium	2) 66.4		
	C\$			Peru (1)	C\$
Forsys Metals	25.0	Malawi (1)	A\$	Plateau Energy Metals	2) 34.6
		Lotus Resources	79.2		
		notes Niger:		EUROPE (1)	
		1) also 49% interest in zinc project in Turkey		Spain (1)	
		2) bought <u>African uranium assets</u> in <u>Zambia</u> , <u>Mali</u> and <u>Namibia</u> from <u>Denison Mines</u> in consideration of 25% of GoviEx' shares;		Berkeley Energia	
				A\$	
				226.3	
				notes Argentina and Peru:	
				1) uranium-vanadium project	
				2) uranium-lithium project	

Overviews of worldwide uranium production and exploration companies by country

August 31, 2020	Trade symbol		Share price		Change in %	12 months		Shares issued million	Market capitalization million	
			Aug. 31 2020	year-end 2019		H	L		US\$	US\$
			C\$	C\$		C\$	C\$		C\$	US\$
Canada - Athabasca Basin										
Stand-by producer:										
Cameco 1)	TSX	CCO	15.11	11.54	31	16.71	7.70	395.8	5,980.5	4,545.2
Development / Exploration:										
NexGen Energy	TSX	NXE	2.58	1.67	54	2.62	0.76	376.8	972.1	738.8
Denison Mines	TSX	DML	0.70	0.54	30	0.70	0.24	626.1	438.3	333.1
Fission Uranium	TSX	FCU	0.45	0.29	55	0.47	0.10	488.1	219.6	166.9
IsoEnergy	TSX.V	ISO	1.27	0.40	218	1.45	0.24	90.4	114.8	87.3
UEX	TSX	UEX	0.19	0.15	23	0.19	0.07	406.7	75.2	57.2
Skyharbour Resources	TSX.V	SYH	0.21	0.17	24	0.28	0.08	92.6	19.4	14.8
Forum Energy Metals	TSX.V	FMC	0.15	0.09	61	0.18	0.05	118.1	17.1	13.0
Fission 3.0	TSX.V	FUU	0.10	0.07	43	0.11	0.03	161.9	16.2	12.3
CanAlaska Uranium	TSX.V	CVV	0.23	0.25	-8	0.29	0.10	57.6	13.2	10.1
Purepoint Uranium Group	TSX.V	PTU	0.06	0.06	-8	0.08	0.03	223.4	12.3	9.3
ALX Resources 2)	TSX.V	AL	0.08	0.05	50	0.11	0.02	132.5	9.9	7.6
Azincourt Energy 3)	TSX.V	AAZ	0.03	0.03	0	0.06	0.02	195.4	5.9	4.5
Uravan Minerals	TSX.V	UVN	0.03	0.04	-38	0.03	0.01	47.3	1.2	0.9

1) 40% interest in JV Inkai, Kazatomprom of Kazakhstan owning 60%

2) name change from ALX Uranium effective January 13, 2020

3) also lithium joint venture in Canada and letters of intent to acquire lithium-uranium project in Peru and Ontario cobalt project

Overviews of worldwide uranium production and exploration companies by country

August 31, 2020	Trade symbol		Share price		Change in %	12 months		Shares issued million	Market capitalization million	
		Aug. 31 2020	year-end 2019	H		L	US\$		US\$	
United States										
Stand-by producers:			US\$	US\$		US\$	US\$		US\$	US\$
Energy Fuels 1)	NYSE MKT	UUUU	1.82	1.91	-5	2.35	0.78	125.6	228.6	228.6
Uranium Energy	AMEX	UEC	1.15	0.92	25	1.27	0.35	184.2	211.8	211.8
Ur-Energy	NYSE MKT	URG	0.58	0.59	-2	0.72	0.28	169.5	98.3	98.3
Peninsula Energy 2)	NYSE OTC	PENMF	0.04	0.11	-64	0.14	0.04	882.6	35.3	35.3
Development / Exploration:			US\$	US\$		US\$	US\$		US\$	US\$
Western Uranium & Vanadium 3)	OTC	WSTRF	0.61	0.82	-26	0.85	0.16	30.1	18.3	18.3
			C\$	C\$		C\$	C\$		C\$	US\$
EnCore Energy	TSX.V	EU	0.34	0.17	97	0.39	0.08	159.7	53.5	40.7
Laramide Resources 4)	TSX	LAM	0.30	0.20	50	0.38	0.11	165.2	49.6	37.7
Azarga Uranium 5)	TSX	AZZ	0.21	0.20	2	0.25	0.07	197.5	40.5	30.8
Virginia Energy 6)	TSX.V	VUI	0.11	0.09	22	0.15	0.04	57.2	6.3	4.8
Anfield Energy	TSX.V	AEC	0.06	0.11	-45	0.16	0.04	105.3	6.3	4.8
			A\$	A\$		A\$	A\$		A\$	US\$
Superior Lake Resources	ASX	SUP	0.17	0.11	50	0.20	0.05	159.6	26.3	19.5

1) leading US-based mining company; White Mesa Mill also to produce vanadium and capable to produce REEs
2) also uranium assets in South Africa
3) uranium-vanadium project
4) also projects in Australia
5) sold 70% interest in UrAsia in Kyrgyzstan to government entity
6) suing state of Virginia on uranium ban to access \$ 6 billion deposit; trial still to be scheduled

Overviews of worldwide uranium production and exploration companies by country

August 31, 2020	Trade symbol		Share price		Change in %	12 months		Shares issued million	Market capitalization million	
		Aug. 31 2020	year-end 2019	H		L	A\$		A\$	A\$
Australia										
Producer:			A\$	A\$		A\$	A\$		A\$	US\$
Energy Resources of Australia	ASX	ERA	0.17	0.17	0	0.20	0.14	3,690.0	627.3	464.2
Development / Exploration:										
Boss Resources 1)	ASX	BOE	0.08	0.05	60	0.09	0.03	1,590.0	127.2	94.1
Toro Energy 2)	ASX	TOE	0.01	0.01	40	0.02	0.01	2,750.0	38.5	28.5
Energy Metals Ltd.	ASX	EME	0.13	0.09	44	0.14	0.06	209.7	27.3	20.2
Vimy Resources 3)	ASX	VMY	0.03	0.05	-40	0.08	0.02	777.4	23.3	17.3
Cauldron Energy 4)	ASX	CXU	0.035	0.02	75	0.03	0.01	376.3	13.2	9.7
Alligator Energy	ASX	AGE	0.005	0.01	-50	0.01	0.004	1,440.0	7.2	5.3

1) also nickel/copper project in Sweden, and gold project in Senegal
2) recent focus on gold project in Australia
3) acquisition of Cameco's Alligator River Project; also stand-alone battery metals project
4) also uranium assets in Argentina

Overviews of worldwide uranium production and exploration companies by country

August 31, 2020	Trade symbol		Share price		Change in %	12 months		Shares issued million	Market	
			Aug. 31	year-end		H	L		capitalization	
			2020	2019					million	
CENTRAL ASIA										
Kazakhstan										
Producer:										
Kazatomprom 1)	LSE	KAP:LI	US\$ 15.30	US\$ 13.00	18	US\$ 15.50	US\$ 10.20	259.4	US\$ 3,968.8	US\$ 3,968.8
AFRICA										
Namibia										
Stand-by producer:										
Paladin Energy	ASX	PDN	A\$ 0.17	A\$ 0.10	70	A\$ 0.18	A\$ 0.04	2,030.0	A\$ 345.1	US\$ 255.4
Development / Exploration:										
Deep Yellow 2)	ASX	DYL	A\$ 0.23	A\$ 0.29	-21	A\$ 0.33	A\$ 0.11	245.1	A\$ 56.4	US\$ 41.7
Bannerman Resources	ASX	BMN	0.04	0.04	-3	0.05	0.02	1,060.0	41.3	30.6
Marenica Energy	ASX	MEY	0.08	0.09	-7	0.12	0.03	143.4	12.0	8.9
Forsys Metals	TSX	FSY	C\$ 0.15	C\$ 0.12	25	C\$ 0.24	C\$ 0.06	166.9	C\$ 25.0	US\$ 19.0
Niger										
Global Atomic 3)	TSX.V	GLO	C\$ 0.75	C\$ 0.48	56	C\$ 0.90	C\$ 0.24	151.6	C\$ 113.7	US\$ 86.4
GoviEx Uranium 4)	TSX.V	GXU	0.14	0.16	-13	0.19	0.08	474.4	66.4	50.5
Malawi										
Lotus Resources	ASX	LOT	A\$ 0.11	A\$ 0.05	120	A\$ 0.13	A\$ 0.02	720.4	A\$ 79.2	US\$ 58.6
Mauritania										
Aura Energy 5)	ASX	AEE	A\$ 0.004	A\$ 0.01	-60	A\$ 0.01	A\$ 0.004	2,560.0	A\$ 10.2	US\$ 7.6

1) listed on London Stock Exchange) as at November 16, 2018 through an IPO offering of 15% of the Company's outstanding shares at a price of US\$ 11.60

2) strategic relationship with an affiliate of the Sprott Group concurrently with an initial A\$ 1.42 million investment at A\$ 0.04 per share equivalent to a 15% equity interest; announced a strategic earn-in agreement with JOGMEC of Japan on March 29, 2017 to earn a 39.5% interest in the Nova Joint Venture within 4 years

3) also 49% interest in operating zinc project in Turkey

4) also major uranium assets in Zambia, and assets in Mali and Namibia

5) also one of world's largest undeveloped vanadium resources in Sweden

Overviews of worldwide uranium production and exploration companies by country

August 31, 2020	Trade symbol		Share price		Change in %	12 months		Shares issued million	Market	
			Aug. 31 2020	year-end 2019		H	L		C\$	US\$
LATIN + CENTRAL AMERICA										
Argentina										
Blue Sky Uranium 1)	TSX.V	BSK	C\$ 0.14	C\$ 0.11	23	C\$ 0.24	C\$ 0.05	120.1	C\$ 16.2	US\$ 12.3
Peru										
Plateau Energy Metals 2)	TSX.V	PLU	C\$ 0.33	C\$ 0.25	32	C\$ 0.41	C\$ 0.16	104.9	C\$ 34.6	US\$ 26.3
1) uranium-vanadium project										
2) combined uranium-lithium project										

Overviews of worldwide uranium production and exploration companies by country

August 31, 2020	Trade symbol		Share price		Change in %	12 months		Shares issued million	Market	
			Aug. 31 2020	year-end 2019		H	L		A\$	US\$
Other countries: EUROPE										
Spain										
Berkeley Energia	ASX	BKY	A\$ 0.88	A\$ 0.22	298	A\$ 0.89	A\$ 0.10	258.6	A\$ 226.3	US\$ 167.4

CALENDAR OF MINING EVENTS 2020



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INTERNATIONAL

We will regularly check on any future postponements

September	9 – 11	World Nuclear Strategic eForum – London	online event
October	6 – 8	MINEX Russia - Moscow, Russia	
November	2 – 3	ARAB & AFRICAN MINING – London	online event
November	4 – 6	Mining Peru 2020 – Lima, Peru	online event
November	10 – 12	MINEX Kazakhstan – Nur Sultan, Kazakhstan	
November	17 – 18	The Mining Show – Dubai	online event
November	24 – 27	IMARC Intern. Mining and Resource Conference – Melbourne	online event
November	24 – 25	BME Mining Investment Botswana – Gaborone, Botswana	
November	25 – 26	2 nd Lithium Latin America Congress – Buenos Aires, Argentina	
November	30	MINEX Eurasia – London	

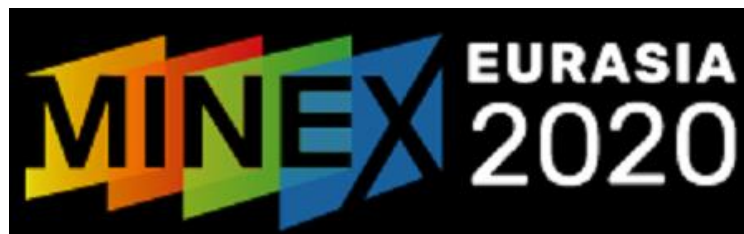
CALENDAR OF MINING EVENTS 2021

Media Partners 2021

February	1 – 4	African Mining Indaba – Capetown, South Africa
March	7 – 10	PDAC Convention - Toronto, Canada
June	2 – 4	WAMPEX 2021 – Accra, Ghana
June	15 – 17	DRC Mining Week – Lubumbashi, DRC
September	8 – 10	World Nuclear Symposium - London
October	26 – 28	IMARC Intern. Mining and Resources Conference – Melbourne, Australia



Rescheduled to online event November 24 - 27, 2020



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