

Ticker: FCU CN **Cash:** C\$40m **Project:** Patterson Lake South (PLS)
Market cap: C\$552m **Price:** C\$0.84/sh **Country:** Canada
REC. (unc): BUY **TARGET (unc):** C\$1.45/sh **RISK RATING (unc):** HIGH

Fission's updated MRE accomplished its goal of adding indicated resources for inclusion into the DFS mine plan, namely the R840W deposit, which saw M&I increase to 11.2Mlbs from 3.3Mlbs, we think secures its inclusion into the mine plan for the upcoming DFS which is guided in 4Q22. Although advancing PLS through permitting and production is the main focus, and we agree given the larger DCF impact of sooner cash flow than another year of production at the back end of mine life, we note that every additional year of production at nameplate (1ktpd) at 1.3% U₃O₈ adds C\$375m of undiscounted FCF at US\$60/lb, highlighting the world class grade and margins at PLS – note today's M&I additions at spot are the equivalent of adding 380koz at 25g/t AuEq, a world class result for most any other project. Today's update is in line with our modelled scenario, which assumes additional resource conversion at R1620E and R1515W, for a total of 127Mlbs at 1.48% U₃O₈. **We reiterate our BUY rating and C\$1.45/sh price target based on 1.0xNAV_{8%-60/bl}. Fission remains a high conviction top pick for us, even more so after the visit.** After attending last week's WNA, we are even more confident that uranium is only at the start of a major bull market. Multiple utilities noted to us their view that prices will follow a similar pattern to last cycle's price spike. Even at a sober long-term price of US\$60/lb, Fission's PLS is one of the highest margin and largest cash flow generating (SCPe C\$300-500m per year through the mine life) mining development assets in the world, which becomes even more significant as nuclear energy benefits from long-term strategy reversals in Europe (reactor life extension + new builds in France, Poland), Japan (reactor restarts and new builds) and more aggressive build-out plans in China.

Figure 1: Updated and prior Patterson Lake South MRE

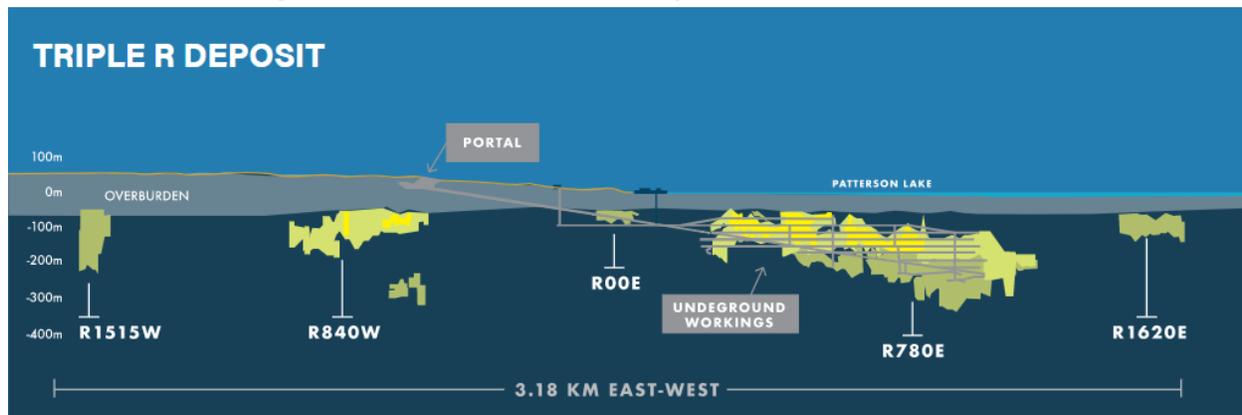
Zone	Category	Old			New			Change		
		Tonnes (kt)	% U3O8	Mlbs U3O8	Tonnes (kt)	% U3O8	Mlbs U3O8	Tonnes (kt)	% U3O8	Mlbs U3O8
R00E	Probable	15	2.03%	671	>>	>>	>>	>>	>>	>>
R780E	Probable	2,283	1.60%	80,530	>>	>>	>>	>>	>>	>>
Total Reserves		2,298	1.61%	81,202	>>	>>	>>	>>	>>	>>
R780E	Indicated	1,922	2.18%	92,400	2,169	2.03%	96,900	13%	-7%	5%
	Inferred	549	0.83%	10,100	270	0.60%	3,600	-51%	-28%	-64%
	Total	2,471	1.88%	102,500	2,439	1.87%	100,500	-1%	-1%	-2%
R000E	Indicated	97	1.50%	3,200	98	1.50%	3,200	1%	--	--
	Inferred	8	4.09%	700	9	3.83%	700	13%	-6%	--
	Total	105	1.68%	3,900	107	1.65%	3,900	2%	-2%	--
R1620E	Indicated	42	2.00%	1,800	42	1.98%	1,900	--	-1%	6%
	Inferred	59	3.52%	4,600	59	3.55%	4,600	--	1%	--
	Total	101	2.87%	6,400	101	2.92%	6,500	--	2%	2%
R840W	Indicated	88	1.68%	3,259	312	1.63%	11,200	255%	-3%	244%
	Inferred	280	1.86%	11,482	63	1.10%	1,500	-78%	-41%	-87%
	Total	368	1.82%	14,741	375	1.54%	12,700	2%	-15%	-14%
R1515W	Indicated	66	1.13%	1,600	67	1.15%	1,700	2%	2%	6%
	Inferred	227	0.94%	4,700	234	0.96%	5,000	3%	2%	6%
	Total	293	0.98%	6,300	301	1.01%	6,700	3%	4%	6%
Total Resources	Indicated	2,216	2.10%	102,400	2,688	1.94%	114,900	21%	-7%	12%
	Inferred	1,221	1.22%	32,800	635	1.10%	15,400	-48%	-10%	-53%
	Total	3,437	1.78%	135,200	3,323	1.78%	130,300	-3%	-0%	-4%

Source: Fission Uranium, new MRE as at 17 May 2022, cut-off grades based on US\$50/lb U3O8, minimum mining width of 1.0m, minimum cut-off grade 0.25% U3O8; prior MRE Oct 23, 2018

Updated MRE adds 12.5Mlbs to indicated, accomplishes task of prolonging mine life

Fission announced an updated MRE for the PLS project, incorporating 696 drill holes for 213,969m. Indicated resources increased by 12% or 12.5Mlbs to 114.9Mlbs with a 21% increase in tonnes to 2.7Mt at 1.9% U₃O₈. The main source of indicated resource growth was the R840W (the main focus for inferred to indicated conversion) at 8Mlbs at 1.6% U₃O₈ upgraded, while R780E (the main deposit in the mine plan) added 4.5Mlbs at 0.8%. The cut-off grade parameters for today's updated MRE were unchanged at 0.25% U₃O₈, US\$50/lb and 1 CAD = 0.75 USD.

Figure 1: Section view of PFS mine plan and mineralized zones



Source: Fission Uranium

Why we like Fission Uranium

- World class size, grade, jurisdiction and setting make this a globally significant asset.
- Trading at less than half of the peer EV/in-situ average
- Has significant exploration holding in the highly prolific Patterson trend to add to 135Mlb resource base
- Significant potential synergies with neighbour NexGen as the two projects are <1km apart

Catalysts

- 2022: DFS, permitting and stakeholder relations baseline studies
- 2023: EIA submission
- 2025/2026: Construction start (SCPe 2H25)
- 2028/2029: First production (SCPe 2028)

Research

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Ticker: FCU CN	Price / mkt cap: C\$0.84/sh, C\$552m	Market P/NAV: 0.58x	Assets: PLS
Author: J Chan	Rec / PT: BUY / C\$1.45	1xNAV₂₀₂₀ FD: A\$1.44/sh	Country: Canada (Sask)

Group-level SOTP valuation					Share data					
	2022	3Q22								
	C\$m	O/ship	NAVx	C\$/sh	Basic shares (m):	FD + options (m):	820.4	FD + FF	1044.9	
PLS NPV 3Q22	1,212.8	100%	1.0x	1.48	Commodity price					
Central SG&A & fin costs 3Q22	(159.4)	--	1.0x	(0.19)	CY25E	CY26E	CY27E	CY28E	CY29E	
Lbs outside mine plan (US\$3/lb U308)	11.1	--	1.0x	0.01	60.0	60.0	60.0	60.0	60.0	
Other assets	1.3	--	1.0x	0.00	Ratio analysis					
Cash and restr. cash 2Q22	40.0	--	1.0x	0.05	CY25E	CY26E	CY27E	CY28E	CY29E	
Debt 2Q22	--	--	1.0x	--	867.7	1028.9	1044.9	1044.9	1044.9	
ITM options	77.5	--	1.0x	0.09	FD shares out (m)					
1xNAV8% US\$60/lb	1,183			1.44	EPS (C\$/sh)	(0.005)	0.002	(0.022)	(0.070)	0.217
Assumed build equity issuance	325.0			0.31	CFPS before w/c (C\$/sh)	(0.01)	0.00	0.00	(0.00)	0.42
1xNAV fully funded8% US\$60/lb	1,508			1.44	FCFCS pre growth (C\$/sh)	(0.01)	0.00	(0.02)	(0.07)	0.33
P/NAV - fully diluted for build (x)				0.58x	FCF/sh (C\$/sh)	(0.01)	(0.13)	(0.58)	(0.68)	0.33
Target multiples	Multiple			C\$/sh	FCF yield - pre growth (%)	neg	0.3%	neg	neg	51.5%
Target P/NAV Multiple	1.00x			1.45	FCF yield (%)	neg	neg	neg	neg	50.7%
Target price				1.45	EBITDA margin (%)	--	--	--	--	69.5%

Sources		Uses	
PFS capex	C\$1177m	SCPe 3Q20 cash + ITM options	C\$83m
SCPe contingency	C\$351m	Mine debt @ 60% gearing	C\$800m
SCPe G&A + fin. cost to first Au	C\$30m	Build Equity	C\$325m
SCPe working capital	C\$0m	Offtake	C\$350m
Total uses	C\$1558m	Total proceeds	C\$1558m

1xNAV sensitivity to gold price and discount / NAV multiple						Income statement					
1xNAV PLS (C\$m)	\$40/lb	\$50/lb	\$60/lb	\$70/lb	\$80/lb	CY25E	CY26E	CY27E	CY28E	CY29E	
10% discount	257	591	924	1,258	1,592	Revenue (C\$m)	--	--	--	777	
9% discount	327	694	1,060	1,426	1,792	COGS (C\$m)	--	--	--	(232)	
8% discount	408	811	1,213	1,615	2,017	Gross profit (C\$m)	--	--	--	545	
7% discount	501	944	1,386	1,829	2,271	Expenses (C\$m)	(6)	(5)	(5)	(5)	
6% discount	608	1,095	1,583	2,070	2,558	Impairment & other (C\$m)	--	--	--	--	
5% discount	730	1,268	1,806	2,345	2,883	Net finance costs (C\$m)	0	7	(18)	(68)	(55)
Valuation (C\$/sh)	\$40/lb	\$50/lb	\$60/lb	\$70/lb	\$80/lb	Tax (C\$m)	--	--	--	(106)	
0.8xNAV	0.35	0.75	1.15	1.55	1.95	Minority interest (C\$m)	--	--	--	--	
0.9xNAV	0.40	0.85	1.30	1.75	2.20	Net income attr. (C\$m)	(6)	2	(23)	(73)	378
1.00xNAV	0.45	0.95	1.45	1.95	2.45	EBITDA	(5)	2	(23)	(73)	227
1.10xNAV	0.50	1.05	1.60	2.15	2.70	Cash flow	CY25E	CY26E	CY27E	CY28E	CY29E
1.0xNAV	0.45	0.95	1.45	1.95	2.45	Profit/(loss) after tax (C\$m)	(5)	2	(23)	(73)	227

Valuation over time						Cash flow					
	1Q20A	1Q21A	1Q22E	1Q23E	1Q24E	CY25E	CY26E	CY27E	CY28E	CY29E	
Mines NPV (US\$m)	966	1,047	1,141	1,244	1,348	Add non-cash items (C\$m)	0	0	24	72	207
Ctrl G&A & fin costs (US\$m)	-143	-147	-154	-162	-170	Less wkg cap / other (C\$m)	--	--	--	(1)	(60)
Net cash at 1Q (US\$m)	23	46	40	30	43	Cash flow ops (C\$m)	(5)	2	1	(3)	374
Other Assets + Options	79	79	79	79	79	PP&E (C\$m)	(5)	(138)	(584)	(628)	(30)
1xNAV (US\$m)	925	1,024	1,106	1,191	1,301	Other (C\$m)	--	--	--	--	--
P/NAV (x):	0.45	0.52	0.52	0.49	0.46	Cash flow inv. (C\$m)	(5)	(138)	(584)	(633)	(35)
1xNAV share px FD (C\$/sh)	1.86	1.63	1.62	1.72	1.84	Debt draw (repayment) (C\$m)	--	--	400	400	(200)
ROI to equity holder (% pa)	121%	93%	39%	27%	22%	Equity issuance (C\$m)	307	22	--	--	--
1.2xNAV share px FD (C\$/sh)	2.23	1.95	1.94	2.06	2.21	Other (C\$m)	350	(0)	(24)	(72)	(105)
ROI to equity holder (% pa)	165%	132%	52%	35%	27%	Cash flow fin. (C\$m)	657	22	376	328	(305)

Resource / Reserve					Balance sheet						
	Mt	Mlbs	EV/oz U308	EV/lb	CY25E	CY26E	CY27E	CY28E	CY29E		
Measured, ind. & inf. - Triple R	3,323	130.3	3.84	3.84	Cash (C\$m)	693	578	371	63	98	
SCPe Mine inventory - Triple R	3,918	127.4	3.92	3.92	Accounts receivable (C\$m)	0	0	0	--	30	
Production (100%)	CY29E	CY30E	CY31E	CY32E	CY33E	Inventories (C\$m)	--	--	--	58	
Triple R (000lb U308)	10.0	13.0	15.0	13.4	14.3	PPE & exploration (C\$m)	367	505	1,089	1,722	1,606
Triple R cash cost (US\$/lb)	\$17.94	\$18.23	\$17.33	\$17.49	\$17.15	Other (C\$m)	1	1	1	1	1
Triple R AISC (US\$/lb)	\$20.63	\$20.28	\$19.11	\$21.22	\$20.62	Total assets (C\$m)	1,061	1,084	1,461	1,786	1,792

C1 = opex (excl. G&A) + royalties; AISC = C1 + sust capex + capitalized stripping/development					
Debt (C\$m)	--	--	400	800	600
Other liabilities (C\$m)	354	354	354	353	332
Shareholders equity (C\$m)	859	881	881	881	881
Retained earnings (C\$m)	(153)	(151)	(174)	(248)	(21)
Minority int. & other (C\$m)	--	--	--	--	--
Liabilities+equity (C\$m)	1,061	1,084	1,461	1,786	1,792
Net cash (C\$m)	691	576	(31)	(739)	(505)
Net Debt to NTM EBITDA (x)	nmf	nmf	nmf	1.4	0.7

Source: SCP estimates



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UNDER REVIEW:	0
TENDER:	0
NOT RATED:	0
TOTAL	51

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