308 PX NP MEM202.1

Les enjeux de la filière uranifère au Québec

6211-08-012

URANIUM MINING IN QUEBEC: FOUR CONCLUSIONS

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FOUR CONCLUSIONS:

- 1. Lasting Surplus of U3O8
- 2. Small scale projects are not competitive with "mega-projects" in Saskatchewan, Australia and Namibia
- 3. Environmental consequences can be extreme and difficult to forecast
- 4. ACTIVE SURVEILLANCE IS A NECESSITY

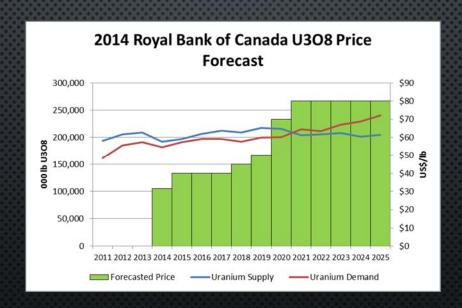
LASTING SURPLUS OF U308

- POLICY CHANGES IN JAPAN, GERMANY, AND FRANCE HAVE DIMINISHED THE FUTURE DEMAND FOR U308
- The aging fleet of nuclear reactors in the U.S. and Canada has increased plant retirements
- THE FALLING PRICE OF FOSSIL FUELS IN THE U.S. HAS MADE MANY NUCLEAR PLANTS NON-ECONOMIC

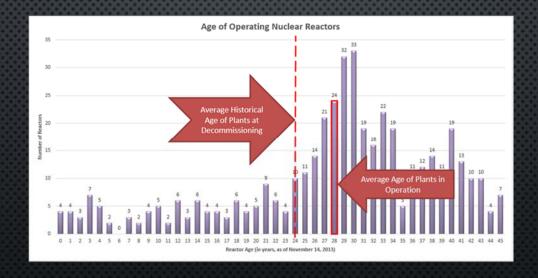
U3O8 PRICES HAVE FALLEN FROM PREVIOUS HIGHS



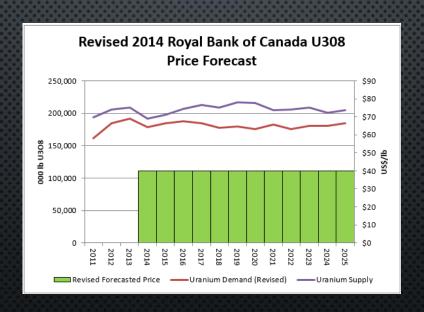
FALLING PRICE FORECASTS



ACTUAL PLANT LIFETIMES



REVISED FORECAST



SMALL SCALE PROJECTS ARE NOT COMPETITIVE

- HUSAB IN NAMIBIA IS ABOUT TO BEGIN AT \$32/LB
- COMPARABLE PROJECTS IN QUEBEC ARE AT \$51/LB BREAKEVEN

IMPOSSIBLE ECONOMICS AT CURRENT PRICES

PRE-TAX CASH FLOW		000C\$	(\$17,571)	(\$343,236)	\$4,009	(\$9,415)	\$14,432	\$30,237	\$35,768	\$10,423	\$15,082	(\$38,723)
Annual												
Cumulative			(\$14,836)	(\$292,830)	(\$166,152)	(\$63,461)	\$86,184	\$266,026	\$453,597	\$588,704	\$728,528	\$698,528
INTERNAL RATE OF RETURN		%	None									
NET PRESENT VALUE (NPV)	5.00%	C\$million	\$475.55	(\$280.05)								
	8.00%	C\$million	\$377.64	(\$269.29)								
	10.00%	C\$million	\$323.53	(\$262.35)								
	15.00%	C\$million	\$218.07	(\$245.75)								

Table 4 – Matoush Financials (projected)

ENVIRONMENTAL CONSEQUENCES CAN BE EXTREME

- Uranium mining has proved challenging in both the U.S. and Canada
- SASKATCHEWAN AND U.S. LAW HAS RECOGNIZED THIS, ALTHOUGH U.S. LAW REMAINS MORE VIGILANT ON POTENTIAL OUTCOMES

RIVERTON, WYOMING

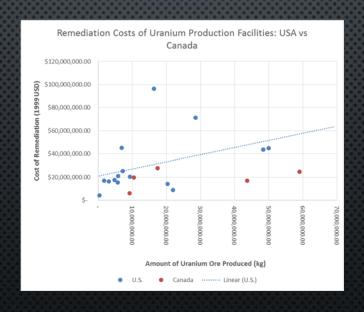
• 1995

- 1958 A SMALL MILL OPERATED NEAR ABORIGINAL LANDS IN RIVERTON
 1963 PLANT IS CLOSED AND TAILINGS ARE COVERED
 1975 RADIOLOGICAL SURVEY SHOWS EXTENSIVE CONTAMINATION
 1988 REMEDIATION COMMENCES
 1992 SURFACE REMEDIATION CONCLUDES
- 2010 FLOOD RAISES RADIATION LEVELS BY A FACTOR OF TEN

GROUNDWATER REMEDIATION COMMENCES

• 2089 GROUNDWATER REMEDIATION COMPLETED

U.S. AND CANADIAN REMEDIATION EXPENSES



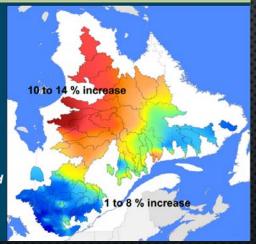
ACTIVE SURVEILLANCE IS A NECESSITY

- U.S. LAW INDICATES 200 YEARS OF ACTIVE SURVEILLANCE IS NECESSARY
- The Riverton case study is only in its 51st year and has 75 years yet to go before full groundwater remediation
- GLOBAL WARMING HAS PLAYED HAVOC WITH EXISTING MODELS AND FORECASTS
- OURANOS FORECASTS SIMILAR CHANGES FOR QUEBEC

QUEBEC INFLOWS EXPECTED TO INCREASE 10% TO 14% NORTH OF THE LAURENTIANS

Spatial Variability of Inflow Changes (horizon 2050)

- All inflow changes are positive
- Significant regional differences
- Greater in the North than in the South
- Most of HQ's installations are in the North
- The flexible Hydro
 Québec system will
 facilitate identification and
 application of adaptative
 approches



IN CONCLUSION:

- 1. LASTING SURPLUS OF U3O8
- 2. SMALL SCALE PROJECTS ARE NOT COMPETITIVE WITH "MEGA-PROJECTS" IN SASKATCHEWAN, AUSTRALIA AND NAMIBIA
- 3. Environmental consequences can be extreme and difficult to forecast
- 4. ACTIVE SURVEILLANCE IS A NECESSITY