

Press Release

U3O8 Corp. confirms positive economics on its Berlin deposit in Colombia

PEA shows Berlin could be a zero cash cost uranium producer with considerable growth potential

Toronto, Ontario – December 13, 2012 – **U3O8 Corp. (TSX: UWE; OTCQX: UWEFF)**, a Canadian-based company focused on exploration and resource expansion of uranium and associated commodities in South America, reports a positive Preliminary Economic Assessment (“PEA”) on its flagship Berlin Project in Colombia. The PEA was completed over a 6-month period by internationally recognized firm, Tenova Mining & Minerals (formerly Bateman Engineering N.V.), which has extensive experience with multi-commodity processing and plant design.

All figures are in US\$, unless otherwise noted. The Berlin PEA is based on a uranium price of \$60 per pound (“lb”), which is the average reported price for long-term contracts over the previous 12 months (sources: Ux Consulting, TradeTech). The current spot uranium price is \$43.50/lb. Approximately 75% of uranium sales are in long-term contracts.

Highlights

- Revenue of ~\$430 per tonne (“t”) of mineralized material against an operating cost of \$240/t;
- Uranium revenue is cash-flow positive – revenue from by-products, principally phosphate, vanadium and yttrium, more than pays for mining and extraction of the uranium;
- Base case pre-tax net present value (“NPV”) at a 10% discount is \$181 million;
- The internal rate of return (“IRR”) is 17%;
- Capital costs of \$437 million that includes sustaining capital of \$31 million and a \$41 million contingency;
- Cumulative cash flow of \$892 million over the mine life; and
- Average 1.2 million pounds (“Mlb”) of uranium produced annually over a 15-year mine life from a 500,000t per year underground mine.

The PEA is based on an initial uranium resource of 1.5Mlb at 0.11% U₃O₈ Indicated and 19.9Mlb at 0.11% U₃O₈ Inferred, defined on three kilometres (“km”) of the 10.5km mineralized trend at Berlin. Exploration drilling has shown similar grades extend over a further 3.3km of the trend and this area is ready for resource drilling. Trenching shows that the remaining 4.2km of the Berlin trend is mineralized and this portion has yet to be drilled (Figure1).

“This robust PEA for the Berlin deposit marks a key milestone in providing an independent valuation of our flagship project – and a yardstick by which a value can be derived for U3O8 Corp.,” said Dr. Richard Spencer, U3O8 Corp’s President and CEO. “The Berlin PEA demonstrates that we believe U3O8 Corp’s share price is trading at a deep discount based on a resource from just one third of the property. We expect the project economics to improve from this base case as the size of the deposit increases through further resource drilling and efficiencies are realized from ongoing metallurgical test work.

Importantly, the PEA shows that the uranium can be mined and recovered from Berlin at a zero cash cost, thanks to the value of the associated commodities.”

Dr. Spencer added, “While this milestone has been achieved within just two and a half years of our acquisition of the project, social and environmental work has been undertaken at a similar rapid pace. We are working with the local people to improve education, health and nutrition while developing sustainable projects for further development by the communities. And we are minimizing our exploration footprint and related environmental impact through the use of man-portable rigs and the transport of personnel and equipment by aerial cable systems, for example.”

Table 1 – PEA Summary (Base Case at \$60/lb uranium price):

Annual mill throughput	500,000 tonnes	
Total U ₃ O ₈ produced	16.3 million pounds	
Average annual production of U ₃ O ₈	1.2 million pounds	
Mine life	15 years	
Cumulative free cash flow (pre-tax)	\$892 million	
NPV (pre-tax) at a 10% discount	\$181 million	
IRR (pre-tax)	17%	
Pay-back period	4.5 years	
Cash cost per pound of U ₃ O ₈ , net of by-product credits	<\$0 per pound	
Capital investment:	Initial capital	\$365 million
	Sustaining capital	\$31 million
	10% Contingency	\$41 million
	Total Capital	\$437 million

The PEA is preliminary in nature as it includes inferred mineral resources that are considered too speculative geologically for economic consideration that would enable them to be classified as mineral reserves. Mineral resources are not mineral reserves and have not demonstrated economic viability. There is no certainty that the PEA will be realized.

Based on the PEA, the Berlin Project is expected to generate \$3.0 billion in revenue with free cash flow of \$892 million over the 15-year life of the mine.

Berlin’s pre-tax NPV at a 10% discount is \$181 million. The project’s NPV and IRR are shown at various discount rates and uranium prices in Table 2. Berlin NPV’s sensitivity to a plus or minus 10% change in capital and operating expenditures is shown in Table 3.

Uranium (33%), phosphate (29%), vanadium (9%) and yttrium (10%) represent the most significant commodities in the mineralized material at Berlin. Revenue from the by-products covers the cost of extracting the uranium, resulting in Berlin having a production cash cost of less than \$0 per pound of uranium. Gypsum (6% of revenue) is an additional by-product generated from calcite when acetic acid is used in the beneficiation step of the process. Commodity prices of the other elements used in the PEA are shown in Table 4.

An increase in resources is likely to result in a higher IRR from the current 17% by providing flexibility to extend the mine life and/or increase the mining rate.

Table 2 – Sensitivity Analysis of Berlin NPV (in \$ million) to Uranium Price

Uranium Price		\$40	\$50	\$60 (Base Case)	\$70	\$80
Discount Rate	0%	\$606	\$749	\$892	\$1,035	\$1,177
	5%	\$252	\$342	\$431	\$521	\$610
	10%	\$63	\$122	\$181	\$241	\$300
	15%	(\$43)	(\$2)	\$40	\$81	\$123
IRR		13%	15%	17%	19%	21%
Pay-back period (years)		5.8	5.1	4.5	4.1	3.7

The PEA is based on the 12-month trailing average long-term uranium price of approximately \$60/lb.

Table 3 – Berlin NPV (in \$ million) Sensitivity to +/-10% Change in Capital and Operating Costs

Discount Rate	Base Case NPV	Effect on NPV of 10% Change in Operating Costs	Effect on NPV of 10% Change in Capital Costs
0%	\$892	\$892 +/- \$153	\$892 +/- \$44
5%	\$431	\$431 +/- \$96	\$431 +/- \$40
10%	\$181	\$181 +/- \$64	\$181 +/- \$37
15%	\$40	\$40 +/- \$44	\$40 +/- \$35

Capital expenditures are less sensitive to discount rate due to the front-end nature of the initial capital costs.

Table 4 – Commodity Prices of the By-Products in the Berlin PEA

Commodity	Price
Phosphoric Acid	\$980/t
Vanadium	\$5.20/lb
Yttrium	\$100/kg
Neodymium	\$100/kg
Nickel	\$7.80/lb
Molybdenum	\$12/lb
Rhenium	\$2,800/kg
Zinc	\$0.90/lb
Gypsum	\$30/t

Commodity prices are based on current international market prices. The phosphoric acid price is based on a trailing 12-month average price.

Capital Costs

The PEA is based on an annual throughput of 500,000t with a capital investment of \$437 million including \$31 million in sustaining capital and \$41 million contingency (Table 5).

Table 5 – Summary of Capital Costs

Items	Capital costs (million)
Mining	\$77
Process plant	\$181
Infrastructure and tailing management	\$69
Other (EPCM, indirect costs, etc.)	\$69
Contingency	\$41
TOTAL	\$437

Operating Costs

Operating costs for the Berlin Project are expected to average \$240/t of mineralized material including royalties and a 10% contingency (Table 6).

Table 6 – Summary of Operating Costs

Items	Cost per tonne
Revenue-based royalties	\$20
Mining	\$60
Processing	\$136
G&A	\$4
Contingency	\$20
TOTAL	\$240

Mineral Resources¹

The Berlin PEA is based on resources prepared in accordance with National Instrument 43-101 (“NI 43-101”) at a cut-off grade of 0.04% U₃O₈ (Table 7).

Table 7 – Resource Estimate Summary for Uranium and Other Commodities

NI 43-101 Resource	Tonnes (million)	Uranium		Phosphate		Vanadium		Yttrium	
		Grade	(Mlb)	Grade	(Mt)	Grade	(Mlb)	Grade	(t)
Indicated	0.6	0.11%	1.5	8.4%	0.5	0.4%	6.0	461ppm	294
Inferred	8.1	0.11%	19.9	9.4%	0.8	0.5%	91.0	500ppm	4,066

NI 43-101 Resource	Tonnes (million)	Neodymium		Nickel		Molybdenum		Rhenium	
		Grade	(t)	Grade	(Mlb)	Grade	(Mlb)	Grade	(t)
Indicated	0.6	110ppm	70	0.2%	3.1	570ppm	0.8	6ppm	4
Inferred	8.1	100ppm	813	0.2%	42.1	620ppm	11.0	7ppm	55

(1) See the March 2, 2012 technical report: "Berlin Project, Colombia – National Instrument NI 43-101 Report" prepared by Coffey Mining Pty Ltd. and on U3O8 Corp's web site at www.u3o8corp.com and on SEDAR at www.sedar.com. Based on the initial resource and scout drilling results, management believes that there is a conceptual uranium target of 20-23Mt at 0.09% to 0.11% U₃O₈ (~45-50Mlb U₃O₈) on 6.3km of the Berlin trend. Potential quantity and grades are conceptual in nature. There has been insufficient exploration to define a mineral resource north of the current Berlin resource area, and it is uncertain if further exploration will result in additional mineral resources being delineated on the property.

Mining Plan

The PEA is based on an underground mine on the maiden resource and assumes that approximately 80% of the resource is mined with 20% left as pillars for mine support. After a first year mine production of 250,000t of mineralized material, the mine would ramp up to a production rate of 500,000t during a 15-year mine life. Planned daily output from the operation is 1,428t of mineralized material and 716t of waste.

Mineralization at Berlin lies in a specific layer that is "U"-shaped in cross section. The steeply inclined parts of the deposit require mining by cut and fill methods while the shallowly inclined parts use room and pillar mining techniques. Mine access is from a portal located at an elevation of 805 metres ("m") above mean sea level via a 760m ramp at a 15% inclination.

Crushing and semi-autogenous (SAG) milling will be done in an underground chamber so that dust can be controlled to the highest safety standards. All tailings from the plant site will be pumped back underground and used as backfill in the mined-out areas.

Metallurgy and Processing

A complete flow sheet was developed from extensive metallurgical test work on intercepts from 35% of all bore holes drilled in the initial resource area at Berlin. The process route has been designed to efficiently extract multiple commodities, to be versatile in terms of reagent consumption, to be compatible with standard recovery methods and to create an environmentally benign tailing. The three main components of this process are:

(1) beneficiation of the crushed mineralized material using acetic acid (vinegar) to remove calcite and concentrate the valuable commodities into 40-47% of the original mass, which makes the subsequent extraction and recovery processes more efficient, reduces capital and operating costs and decreases the volume of tailings by 50-60%;

(2) extraction of the metals and phosphate into a pregnant liquor solution ("PLS") by an acidic ferric iron leach method. The rates of extraction achieved for each metal and phosphate is shown in Table 8; and

(3) recovery of the individual elements from the PLS by conventional ion exchange, solvent extraction and direct precipitation.

Table 8 – Extraction Rates of the Metals and Phosphate from the Berlin Deposit

Commodity	Extraction %
Uranium	96.1
Phosphate	98.9
Vanadium	66.3
Yttrium	86.1
Neodymium	59.6
Nickel	65.9
Molybdenum	51.4
Rhenium	32.8
Zinc	95.9

Infrastructure

The Berlin Project is in Caldas Province of central Colombia, and favourably located between the country's largest cities – 140km from Bogota and 100km from Medellin (Figure 1). The town of La Dorada is 60km east of the project and lies on the principal paved road between Bogota and Medellin. La Dorada provides port facilities on the Magdalena River, which is navigable by barge to the coastal port of Barranquilla. Barranquilla is the largest port in Colombia and provides access to the export destinations of the Caribbean, Central America, the southern U.S. and northern South America. A defunct railway line also runs from La Dorada to the port town of Santa Marta on the Caribbean coast. The Colombian government is reported to be planning to have the railway line operational in 2015, which would offer an alternative link between the project and the Caribbean coast.

Large volumes of quality water are available in the project area. The PEA indicates that about 75% of the required electricity can be produced from heat generated from a sulphuric acid plant that will produce acid from sulphur – and forms an integral part of the processing facility. In addition, the project is planned to be linked to the 395MW La Miel hydroelectric dam located about 12km from the Berlin Project. La Meil would serve as a back-up power source.

Next Steps

- Tenova Mining & Minerals is modelling the effect on project economics of eliminating the acetic acid leach step. The results of this study will be incorporated in the PEA technical report.
- Metallurgical test work is continuing to build on recent flotation results as a means of extracting a large quantity of acid-consuming calcite from the mineralized material, which could lead to significant capital and operating cost savings.
- The northern 4.2km of the mineralized trend at Berlin remains to be explored and consideration will be given to wide-spaced drilling in that area to fully define the size potential of the Berlin deposit.
- Consideration will be given to infill drilling parts of the 3.3km of the mineralized trend that have already undergone exploration drilling so that the resource estimate can be expanded.

The Berlin PEA technical report prepared in accordance with NI 43-101 will be filed on SEDAR within 45 days of this news release.

The PEA on the initial uranium-vanadium deposit on the Laguna Salada Project in Argentina is being finalized and is expected to be published in the first quarter of 2013.

Qualified Persons and Accreditation

The PEA was completed under the supervision of Mr. Pieter Niemann, P. Eng., at Tenova Mining & Minerals (formerly Bateman Engineering N.V.) ("TMM"). TMM is part of the Techint Group, a leading global engineering firm, that has been providing process design, development and construction services to the resource sector for over 90 years with extensive and specific process and engineering experience in the extraction of uranium, phosphate, rare earths, nickel and zinc as well as in sulphuric acid production. Clients and projects have included AREVA's Imouraren, Cameco's Key Lake, Harmony, Rossing, Kazatomprom and Arafura's Nolans Bore project (rare earths, phosphoric acid, gypsum production and uranium recovery). TMM has also constructed phosphate plants in Australia, South America, Africa and the US. For more information, see www.tenovagroup.com.

Mr. Pedro Pino Veliz, President of P&K Projetos e Consultoria LTDA ("P&K"), was responsible for the mine design in the PEA. Mr. Veliz is a Civil Mining Engineer (P.E.), Eng. Dr. (IT) SME with over 35 years of mining operations experience. P&K has extensive experience serving its Brazilian and international clientele with rock mechanics, rock characterization, underground stability and hydrological studies. This has included detailed design of tunnels and stations, methods of excavation and specifications for support methods in the expansion of the Rio de Janeiro subway system in preparation for the 2014 World Cup and 2016 Olympic Games. Mr. Veliz also planned and undertook initial underground development of Colossus Minerals Inc's Serra Pelada precious metal deposit in Brazil.

TMM was responsible for the PEA design of the communitation, extraction and recovery parts of the plant, as well as for the operational expenditure and capital expenditure estimates thereof. Pricing of reagents was done by TMM and U3O8 Corp. Product price assumptions were made by U3O8 Corp. Sulphur was assumed to be sourced within Colombia at international prices. The value of parts of the heating systems was estimated conservatively and the power consumption values thereof are qualified at this stage of the plant design. Further detail in the design of the heating and energy balance could deliver additional savings to operating costs. The price for power was provided by U3O8 Corp. from a pro-forma quote from the national power distributor in Colombia. Credits for power from a plant driven by steam produced from the sulfuric acid plant are based on the price of the commercial source of electricity. The economic model was constructed by U3O8 Corp. using capital and operating cost estimates from TMM for the plant and from P&K for the mine plan. The economic model was reviewed by both TMM and P&K.

Dr. Paul Miller, Managing Director of Sulphide Resource Processing Pty Ltd., has overseen the metallurgical test work carried out by SGS Lakefield OreTest in Perth, Australia. Dr. Miller is a metallurgist specializing in hydrometallurgy with over 30 years' experience in the commercial application of processes for the treatment of sulphide-bearing ore. He has a doctorate in Chemical Engineering, is a member of the Institute of Mining and Metallurgy, London, and is a Chartered Engineer.

Each of the individuals named above are qualified persons as defined in NI 43-101 of the Canadian Securities Administrators ("QP"), are independent of U3O8 Corp. and has verified their related technical disclosure presented in this press release.

The PEA has relied on the NI 43-101 resource prepared by Mr. Neil Inwood, a Fellow of The Australian Institute of Mining and Metallurgy and a QP, who was employed by Coffey Mining Pty Ltd ("Coffey Mining") at the time of the writing of the report. Mr. Inwood is independent of U3O8 Corp. As Mr. Inwood is no longer with Coffey Mining, Coffey Mining has reviewed the information related to the mineral resources as derived from the original report and consent to its inclusion, form and context in this press release.

Dr. Richard Spencer, P. Geo., President & CEO of U3O8 Corp. and a QP, has supervised the preparation of, and verified the technical information contained in this press release relating to the Berlin Project.

About U3O8 Corp.

U3O8 Corp. is an advanced exploration company focused on exploration and resource expansion of uranium and associated commodities in South America – a promising new frontier for uranium exploration and development. In just one year, U3O8 Corp's uranium resources have grown 7-fold with deposits now in Colombia, Argentina and Guyana comprising of:

- Berlin Project, Colombia – its flagship property contains a uranium deposit supported by a high-value suite of by-products including phosphate, vanadium, rare earths (yttrium and neodymium) and other metals;
- Laguna Salada Project, Argentina – a near surface, free-digging uranium, vanadium deposit that is potentially amenable to low-cost mining and processing methods; and
- Kurupung Project, Guyana – an initial uranium deposit in a large emerging uranium district.

Additional information on U3O8 Corp. and its mineral resources are available at www.u3o8corp.com.

Forward-Looking Statements

Certain information set forth in this news release may contain forward-looking statements that involve substantial known and unknown risks and uncertainties. These forward-looking statements are subject to numerous risks and uncertainties, certain of which are beyond the control of U3O8 Corp., including, but not limited to, the future results of metallurgical test work, whether results of metallurgical test work on a smaller scale to date can be duplicated on a larger scale, the impact of general economic conditions, industry conditions, the timing of laboratory results and preparation of technical reports and PEAs, the actual results of independent scoping studies and subsequent metallurgical testing, volatility of commodity prices, risks associated with the uncertainty of exploration results and estimates and that the resource potential and PEA will be achieved on the Berlin Project and other exploration projects, currency fluctuations, legislative change, dependence upon regulatory approvals, and the uncertainty of obtaining additional financing and exploration risk. Readers are cautioned that the assumptions used in the preparation of such information, although considered reasonable at the time of preparation, may prove to be imprecise and, as such, undue reliance should not be placed on forward-looking statements.

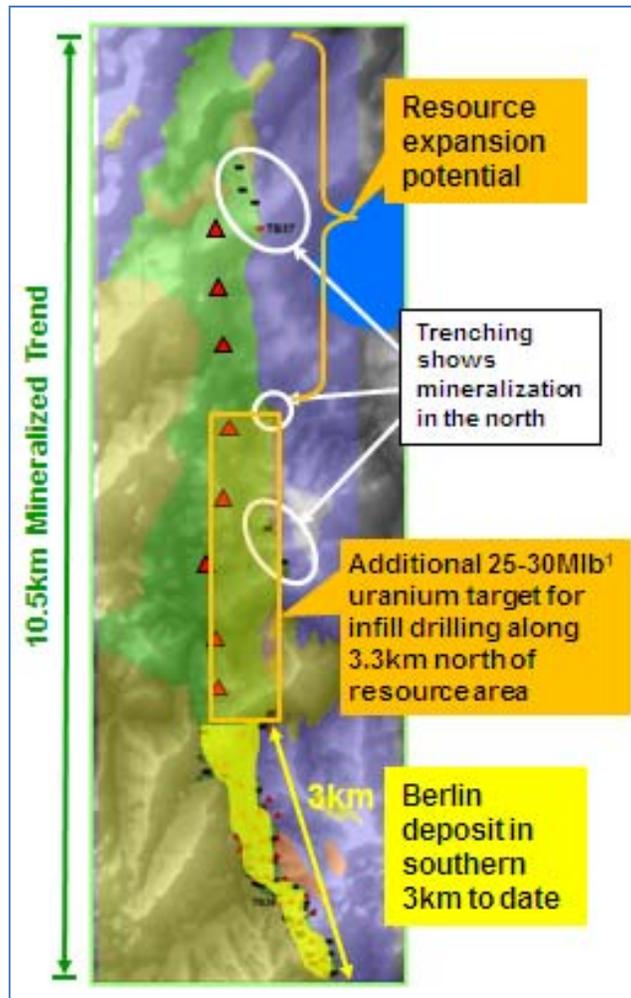
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Figure 1 – Map Shows the NI 43-101 Resource Area on the Berlin Project



Geological map of the Berlin Project draped on an image of topography, which shows the extent of the sedimentary rocks that contain the mineralized layer at Berlin (green), enclosed by older basement rocks (blue) and younger alaskite intrusive stocks (brownish green).

The PEA is based on the maiden NI 43-101 resource that has been defined in just the southern 3km of the 10.5km Berlin trend (yellow shaded area). Exploration drilling has shown that the Berlin deposit could grow to add another 25-30Mib¹ of uranium along the 3.3km north of the current resource area (orange shaded rectangle). Resources in phosphate, vanadium, rare earths and other metals are expected to increase in tandem with the uranium resource. The remaining third of the property is still to be drilled where trenching has reported similar mineralization and grades at surface.