

## Press Release

### **U3O8 Corp. reports excellent metallurgical recoveries of 97% for uranium, 97% for phosphate, 79% for vanadium & other metals in the Berlin Project, Colombia**

#### ***Proven technology is key to the extraction of commodities at Berlin***

TORONTO, Ontario – January 12, 2012 – U3O8 Corp. (TSX Venture: UWE), a Canadian-based company focused on exploration and resource expansion of uranium and associated commodities in South America, reports exceptional metallurgical test results on the Berlin Project in Colombia. Recoveries of 97% for uranium, 97% for phosphate and 79% for vanadium were achieved from initial metallurgical testwork from six tests undertaken on two different composite samples. Uranium, phosphate and vanadium constitute approximately two thirds of the *in situ* value of the mineralized rock at Berlin.

Good recoveries were also achieved on a suite of potential by-products that contribute to the remaining one third of the *in situ* rock value including: 96% for yttrium (a heavy rare earth); 82% for neodymium (a rare earth key in the making of powerful magnets); 95% for zinc; 64% for nickel; 54% for molybdenum and 46% for rhenium.

The results were generated from a two-step process consisting of an initial acidic ferric iron leach followed by a second leach using hydrochloric or sulphuric acid. Ferric leach is a proven method for the extraction of uranium, having been used in uranium mines such as Elliot Lake in northern Ontario. Ferric leach is well suited to treat the Berlin ore as it generates sufficient sulphuric acid, when mixed with water, to aid neutralization of the carbonate in the ore. Weak hydrochloric and sulphuric acid solutions at low temperatures were sufficient to liberate the metals contained in the residue resulting from the ferric leach process.

“These metallurgical recoveries are outstanding and exceed our expectations. We’ve achieved a breakthrough in extracting the diverse mix of commodities in the Berlin Project,” said Dr. Richard Spencer, President and CEO of U3O8 Corp. “Furthermore, these results are representative of the whole area drilled to date – sample material having been selected from approximately 25% of the bore holes completed in the 2010 resource drilling program. In addition, we are continuing with various beneficiation tests that are showing potential to further reduce conceptual processing costs. With these excellent recoveries and a maiden National Instrument 43-101 (“NI 43-101”) resource estimate due out shortly, U3O8 Corp. is demonstrating the potentially high value of the Berlin Project.”

**Table 1 – Summary of Metallurgical Recoveries from the Berlin Project**

Summary results from the nine ferric leach tests undertaken on two composite samples from the Berlin Project are detailed below. There are two steps to each test: Step 1 involves leaching the ore with ferric iron and only the residue from Step 1 is acid leached in Step 2. The extraction results reported above were derived from the six tests in which hydrochloric acid was used in Step 2 of the process.

Composite Sample #	Maximum Grain Size (µm)	Ferric Leach (g/L) Step 1	Releach/Wash - Type Step 2	Pulp Density % Step 1/Step 2	Extraction %									
					Uranium	Vanadium	Phosphate	Yttrium	Neodymium	Zinc	Nickel	Molybdenum	Rhenium	
1	106	50	10%HCL	10/10	98.4	73.2	99.2	94.8	51.0	99.4	61.7	48.0	33.8	
	75	50		5/10	97.2	79.6	93.6	96.1	89.5	64.3	61.1	58.9	49.6	
	38	25		5/10	98.8	82.0	99.5	95.7	94.7	98.1	59.7	47.7	29.7	
	38	50		10/10	96.6	74.6	99.1	94.6	86.4	99.9	50.1	43.4	58.0	
2	106	50		5/10	97.2	80.2	99.5	95.8	82.8	98.5	62.7	56.8	27.1	
	106	50		10/10	96.4	78.9	92.5	95.7	84.6	98.6	77.4	61.1	71.2	
<b>Average Recovery from Composite Samples 1 &amp; 2 with Hydrochloric Acid</b>					<b>97.3</b>	<b>78.5</b>	<b>96.9</b>	<b>95.5</b>	<b>82.0</b>	<b>94.5</b>	<b>64.1</b>	<b>54.2</b>	<b>46.0</b>	
1	106	50		10%H <sub>2</sub> SO <sub>4</sub>	10/10	93.1	56.0	97.9	79.6	48.9	93.7	58.6	44.8	22.8
2	106	50	5/10		97.3	69.4	99.4	89.8	63.6	97.0	62.7	53.8	11.1	
	106	50	10/10		98.0	73.3	99.4	89.0	66.4	97.0	76.4	55.7	64.6	
<b>Average Recovery from Composite Samples 1 &amp; 2 with Sulphuric Acid</b>					<b>96.1</b>	<b>66.3</b>	<b>98.9</b>	<b>86.1</b>	<b>59.6</b>	<b>95.9</b>	<b>65.9</b>	<b>51.4</b>	<b>32.8</b>	
<b>Average Recovery from All 9 Tests on Composite Samples 1 &amp; 2</b>					<b>97.1</b>	<b>75.2</b>	<b>97.6</b>	<b>93.1</b>	<b>76.2</b>	<b>94.2</b>	<b>63.6</b>	<b>52.7</b>	<b>42.2</b>	

**Metallurgical Testwork**

Results from the initial metallurgical testwork reported in Table 1 are from two composite samples that were prepared from 18 intercepts of the 73 bore holes that intersected the mineralized horizon in the recently completed resource drilling (Figure 1). This represents approximately 25% of the mineralized intersections and therefore, the metallurgical tests are representative of the entire area of the Berlin Project that has been drilled to date. Mineralized core was shipped to Australia where the two samples were prepared and tested by SGS Lakefield OreTest in Perth – the first composite included core from five bore holes, and the second from a further 13 bore holes (Figure 1). Individual core samples were jaw crushed to a grain size of approximately two millimetres (10 mesh) and this material was blended and then ground to a finer grain size.

Optimum extraction conditions were determined from nine tests on the two composite samples. These tests included two leach steps as follows:

Step 1 – Ferric Leach: Whole ore, without being beneficiated, was leached in a weakly acidic solution of ferric iron at a temperature of 65°C for 48 hours. The ferric iron is a strong oxidizing agent and dissolves a proportion of the metals and phosphate in the mineralized material. Under the conditions tested, the ferric leach process generated sufficient sulphuric acid to neutralize the carbonate in the Berlin ore, leaving a low-carbonate residue.

Step 2 – Acid Wash: The resulting low-carbonate residue was then washed with weak hydrochloric acid or weak sulphuric acid at a temperature of 40°C to liberate the contained metals and phosphate. The quantity of metal in solution was measured to provide the overall recoveries reported in the Table 1 above.

The leach parameters that were investigated, included grain size, pulp density, ferric iron concentration and acid-type.

*Grain size:*

Uranium at Berlin occurs in very fine-grained uraninite particles that are five to 10 micrometres (“µm”) in diameter. Fine grinding would typically be necessary to liberate such fine-grained mineralization from the ore to enable it to react with the leach reagent. Hence, in addition to the 106µm grain size typically used in routine leach tests, tests were also carried out on finer material that had a maximum grain size of 75µm and 38µm. Results show that grain size does not significantly affect metal recovery and so fine-grinding, with associated elevated capital and operating costs, is not necessary in the processing of the Berlin ore.

*Pulp density:*

Low pulp densities of 5% and 10% were chosen in order to ensure a high ratio of reagent liquid to ore in Step 1, creating conditions that are favourable for effective leaching. As pulp densities rise, leach efficiencies may be expected to decrease moderately. This effect was tested in the doubling of the pulp density from 5% to 10% and results show no significant change in recoveries. This positive result suggests that ferric leach is likely to be efficient at higher pulp densities approaching those typically used in commercial operations (40-50%), which would reduce the amount of reagent liquid required and would lower costs. Further work will be conducted to optimize pulp density.

*Ferric iron concentration:*

Ferric iron concentrations of 25 grams per litre (“g/L”) and 50g/L were tested and both concentrations achieved excellent and comparable metal recoveries (Table 1). These results show that the ore can be leached efficiently at a relatively low ferric iron concentration which implies lower reagent costs in the processing of Berlin ore.

*Acid wash:*

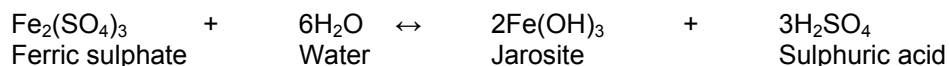
In Step 2, two types of acid wash were done with mild-strength acid – 10% sulphuric acid and 10% hydrochloric acid – to release the contained metals into solution where they are available for extraction. Hydrochloric acid provided slightly superior results than those from the sulphuric acid wash (Table1).

*Temperature and nature of reagents and products:*

The tests were undertaken at temperatures of 65°C in Step 1 and 40°C in Step 2. These relatively low temperatures should be cost-effective to achieve at a commercial scale. All tests were conducted at atmospheric pressure and no noxious gases or fumes were generated. The ferric reagent is also safe to handle, representing no hazard to personnel. The 10% hydrochloric acid is the same concentration of acid used in the control of pH in swimming pools.

**Ferric Leach – How It Works:**

Metals can be extracted from many uranium ores with acid. This process is effective on Berlin ore, but acid consumption is very high due to the presence of carbonates and phosphates. One of the most significant features of the ferric leach tests undertaken on the Berlin ore is that no acid was added to control pH in Step 1 of the leach process. This is because ferric sulphate reacts naturally with water to generate jarosite and sulphuric acid, as acid demand increases. This can be represented as follows:



### **Ferric Consumption:**

Ferric iron may be generated on-site from pyrite, which provides a potentially low-cost, local source of the reagent. Ferric iron consumption is estimated to be approximately 100 kilograms (“kg”) per tonne of ore based on 50g/L of ferric iron concentration. Making relevant assumptions for the cost of power, an in-house cost estimate for on-site ferric reagent supplemented with external fresh sulphuric acid is approximately \$60 to \$95 per tonne of ore, assuming that the acid demand for the ore remains high. In this scenario, approximately 140kg of fresh sulphuric acid per tonne of ore would be required to supplement the ferric reagent, which is included in the cost estimate. These values require verification in an independent scoping study, but provide a positive incentive to develop a process flow sheet focused on the use of ferric leaching. Clearly, if the beneficiation tests that are underway on the ore are successful in separating acid-consuming calcite from the material that undergoes ferric leach, acid consumption would be reduced, resulting in decreased ferric iron demand and external acid requirements, which would lower reagent costs.

### **Additional Metallurgical Testwork**

Having established the ferric leach method as a viable approach, SGS Lakefield OreTest is conducting further test work with the aim of refining the various parameters to optimize estimated processing costs and recoveries of the different elements and define efficiencies towards developing a process flow sheet.

In addition to the ongoing test work at SGS OreTest, beneficiation tests are being carried out on samples from Berlin with results to be reported as they become available. These include:

- Organic acid leach – SGS Lakefield in Ontario is conducting leach tests with organic acid (vinegar) as a means of consuming calcite without dissolving phosphate. Successful reduction of the calcite content of the ore should lower reagent consumption with associated reduction in operating costs; and
- Flotation – Optimet in Australia is conducting tests to determine whether calcite can be separated from the phosphate by various flotation methods.

### **Qualified Persons and Accreditation**

The metallurgical testwork reported on above was done at SGS Lakefield OreTest Pty Ltd in Perth, Australia. SGS Lakefield OreTest was established as a metallurgical services company in 1993 as Lakefield OreTest Pty Limited and is now a subsidiary of the SGS Lakefield group, which has been offering mineral processing services to the mining industry since 1948.

Dr. Paul Miller, a Qualified Person within the definition of that term in NI 43-101 of the Canadian Securities Administrators, has overseen the metallurgical test work carried out by SGS Lakefield OreTest, and verified the technical information relating to the tests from which results are reported in this press release. Dr. Miller is a metallurgist who has specialized in hydrometallurgy and has over 30 years’ experience in the commercial application of processes for the treatment of sulphide-bearing ore. Dr. Miller has a doctorate in Chemical Engineering, is a member of the Institute of Mining and Metallurgy, London, and is also a Chartered Engineer. He is currently Managing Director of Sulphide Resource Processing Pty Ltd.

Dr. Richard Spencer, P. Geo., President & CEO of U3O8 Corp., a Qualified Person within the definition of that term in NI 43-101 of the Canadian Securities Administrators, has supervised the preparation of, and verified the technical information relating to the Berlin Project provided above.

## **About U3O8 Corp.**

U3O8 Corp. is a Toronto-based exploration company focused on exploration and resource expansion of uranium and associated commodities in South America – a promising new frontier for exploration and development. U3O8 Corp. has one of the most advanced portfolios of uranium projects in the region comprising NI 43-101 compliant resources in Guyana and Argentina to significant historic resources in Colombia.

For further information on U3O8 Corp's Berlin Project, refer to the technical report entitled "Review of Historic Exploration Data from the Uraniferous Black Shales of the Berlin Project and Chaparral Concession, Colombia: A guide to future exploration" prepared by Richard Spencer and Richard Cleath dated March 23, 2010 and available at [www.sedar.com](http://www.sedar.com). Additional information on U3O8 Corp. is available on the company's web site at [www.u3o8corp.com](http://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 impact of general economic conditions, industry conditions, the timing of laboratory results and preparation of technical reports, 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 will be achieved on exploration projects, currency fluctuations, dependence upon regulatory approvals, and the uncertainty of obtaining additional financing and exploration risk. There is no assurance that the Berlin Project will add to U3O8 Corp's resource base in the short-term, or at all. 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.*

For information, please contact:

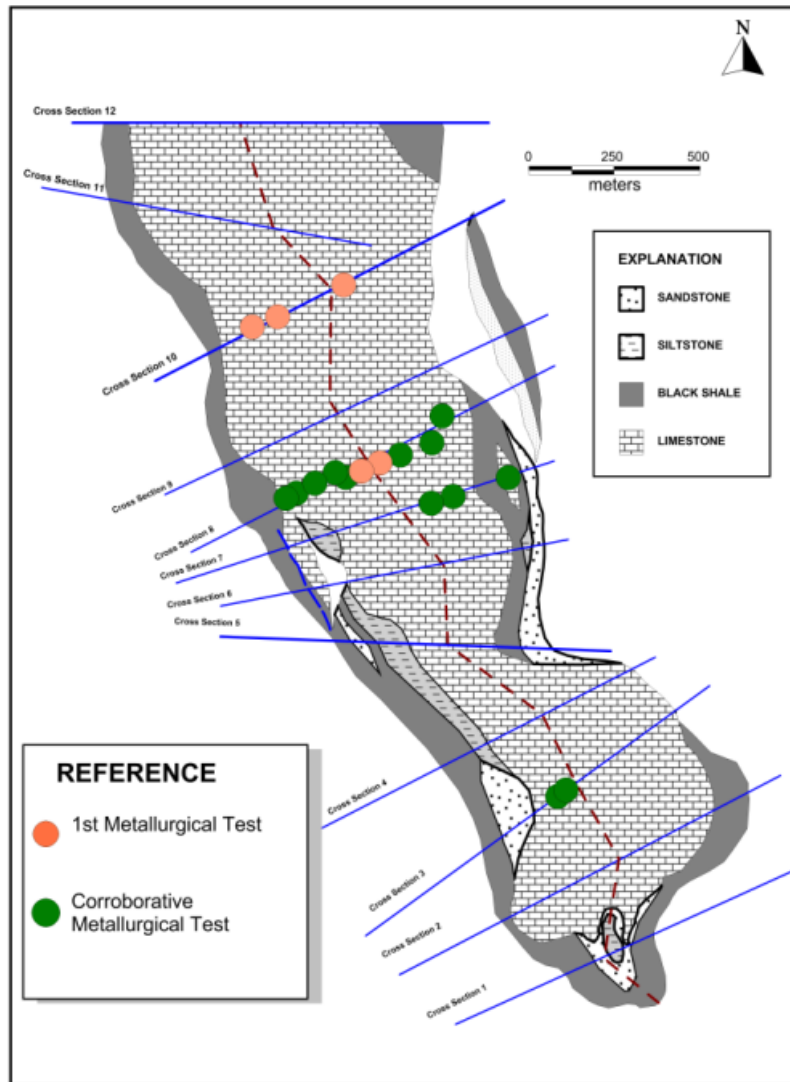
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**Figure 1 – Map of the “Unfolded” Mineralized Layer in the Southern Part of the Berlin Project**



This map depicts the mineralized layer in the southern part of the Berlin Project “unfolded” into a flat sheet. Each coloured circle marks the pierce point at which a bore hole intersected the mineralized sheet from which samples were used in the metallurgical testing reported in this press release.