Over 90% Average Recoveries at Marban and Norlartic

MONTREAL, QUEBEC--(Marketwired - Oct 26, 2016) - Osisko Mining Inc. (TSX:OSK) "Osisko" is pleased to announce results of 135 oxygenated bottle-roll gold leaching tests and 16 crushing/grinding tests on core samples representing the mineralized zones of the Marban and Norlartic deposits, located on its 100% owned Marban property, located near the town of Malartic, Quebec.

The Marban and Norlartic deposits have combined in-pit resources estimated at 37.0 Mt at 1.24 g/t Au for 1.48 Moz in the measured and indicated categories and 3.6 Mt at 1.15 g/t Au for 134,000 oz in the inferred category. These resources are estimated from two optimized Whittle pit shells at a cut-off grade of 0.40 g/t Au and using a gold price of $US 1,250 per ounce (see Osisko June 13, 2016 press release).

HIGHLIGHTS

- Average gold recovery of 91.1% for the Marban deposit (increase of 2.8% from previous results - see NioGold July 6, 2015 press release).
- Average gold recovery of 93.2% for the Norlartic deposit.
- The Bond ball mill grindability tests (work index) gave an average of 11.6 kWh/t for the Marban deposit and of 12.6 kWh/t for the Norlartic deposit.

Bottle Roll Leaching Tests

A total of 135 samples (100 from the Marban deposit and 35 from Norlartic) were ground to an average grain size of 65 microns, oxygenated (pre-aerated) for one hour and leached for 36 hours.

For the Marban deposit, the results indicate an average recovery of 91.1% over a grade range of 0.24 to 4.37 g/t Au (average grade of 1.42 g/t Au) with average cyanide consumption (NaCN) of 0.07 kg/t. The samples were separated in five populations and the results are summarized in Table 1. Recoveries were improved due to pre-aeration of samples with respect to testing done in 2015. For the Norlartic deposit, the samples were separated in four populations and gave an average recovery of 93.2% on a grade interval of 0.39 to 3.11 g/t Au with an average grade of 1.49 g/t Au. The average cyanide consumption (NaCN) is 0.05 kg/t. The results are summarized in Table 2.

Table 1. Results of the 100 bottle-roll leaching tests on the Marban deposit.

No. of Samples	Grade Range (calc. g/t Au)	Avg. Grade (calc. g/t Au)	Avg. P_{80} (um)	NaCN Consumption (kg/t)	Recovery Range (Au%)	Recovery (Au%)
12	0.24 - 0.50	0.37	61	0.07	79.1 - 95.8	89.6
32	0.51 - 1.00	0.74	65	0.06	72.9 - 97.7	93.1
19	1.01 - 1.50	1.26	64	0.07	83.6 - 97.1	92.7
25	1.51 - 2.50	2.04	64	0.08	68.0 - 97.8	88.1
12	2.51 - 4.37	3.24	65	0.07	67.6 - 97.9	91.0
Average	0.24 - 4.37	1.42	64	0.07	-	91.1
Median	-	1.17	64	0.06	-	93.4

Table 2. Results of the 35 bottle-roll leaching tests on the Norlartic deposit.

No. of Samples	Grade Range (calc. g/t Au)	Avg. Grade (calc. g/t Au)	Avg. P_{80} (um)	NaCN Consumption (kg/t)	Recovery Range (Au%)	Recovery (Au%)
9	0.39 - 1.00	0.63	66	0.04	89.6 - 96.8	93.5
9	1.01 - 1.50	1.25	65	0.04	92.3 - 95.1	93.2
8	1.51 - 2.00	1.71	65	0.05	90.2 - 94.1	92.6
9	2.01 - 3.11	2.39	63	0.05	91.9 - 95.6	93.4
Average	0.39 - 3.11	1.49	65	0.05	-	93.2
Median	-	1.45	64	0.04	-	93.1

Six samples from the Marban deposit gave recovery results below 80% which are likely due to the presence of coarse gold grains. These samples are found in four of the five populations. Nevertheless, as previously established (see NioGold July 6, 2015 press release), the grade/recovery curve is near horizontal, signifying that the recovery does not decrease with lower grades. The Norlartic deposit samples show a much more homogeneous recovery and, similarly to Marban, show a flat grade/recovery curve. These gold cyanide leach test results are comparable to those obtained at the Canadian Malartic mine,

located about 15 kilometers from the Marban project, for similar operating conditions utilized until 2015.

Comminution Tests

A total of 16 samples (10 from the Marban deposit and 6 from the Norlartic deposit) composed of PQ caliber core (diameter of 85 mm) were submitted for JK drop-weight tests, Bond low-energy impact tests, and Bond rod mill/Bond ball mill grindability tests.

- The results at different grind sizes are categorized as medium to very hard for the coarse sized fraction (CWI), moderately soft to moderately hard for the medium sized fraction (RWI) and soft to medium for the fine sized fraction (BWI). The Bond Ball mill grindability tests (work index) gave an average of 11.6 kWh/t for the Marban deposit and of 12.6 kWh/t for the Norlartic deposit.

The results of the grindability tests demonstrate that the rock quality would not be problematic for a SABC circuit type commonly used in open pit operations such as the Canadian Malartic Mine.

Table 3. Results of the 10 comminution tests on the Marban deposit.

		JK Parameters			Work Index (kWh/t)		
Statistics	Relative Density	A x b	t_a[1]	SCSE (kWh/t)	CWI	RWI	BWI
Average	2.80	40.8	0.63	10.39	14.8	14.3	11.6
Std.Dev.	0.03	17.6	0.20	1.28	3.75	2.00	1.38
Rel. Std Dev.	1.00	43	31	12	25	14	12
Minimum[1]	2.75	89.5	1.13	7.23	11.3	10.3	9.4
10th Percentile	2.77	46.5	0.73	9.53	11.5	12.4	10.2
25th Percentile	2.78	39.4	0.67	10.11	11.8	12.7	10.5
Median	2.80	35.7	0.61	10.66	14.4	15.4	11.6
75th Percentile	2.81	33.8	0.54	10.91	16.1	15.6	12.9
80th Percentile	2.81	32.8	0.51	11.07	16.7	15.6	13.1
90th Percentile	2.81	30.3	0.45	11.57	18.4	15.9	13.1
Maximum[1]	2.85	28.6	0.44	11.94	23.3	16.5	13.5

[1] Minimum and maximum refer to the softest and hardest results, respectively.

Table 4. Results of the 6 comminution tests on the Norlartic deposit.

		JK Parameters			Work Index (kWh/t)		
Statistics	Relative Density	A x b	t_a[1]	SCSE (kWh/t)	CWI	RWI	BWI
Average	2.75	34.7	0.36	10.93	15.5	13.9	12.6
Std.Dev.	0.03	8.8	0.12	1.33	1.99	1.73	1.75
Rel. Std Dev.	1.00	25	32	12	13	12	14
Minimum[1]	2.72	48.3	0.55	9.21	13.7	12.0	10.4
10th Percentile	2.73	44.3	0.50	9.60	13.8	12.3	10.9
25th Percentile	2.74	39.1	0.42	10.12	14.1	12.5	11.4
Median	2.76	33.9	0.32	10.80	14.8	13.6	12.6
75th Percentile	2.78	28.9	0.27	11.65	16.4	15.1	13.9
80th Percentile	2.78	27.8	0.26	11.84	16.9	15.3	14.0
90th Percentile	2.78	25.8	0.26	12.38	17.9	15.8	14.4
Maximum[1]	2.78	23.8	0.26	12.92	18.8	16.2	14.7

[1] Minimum and maximum refer to the softest and hardest results, respectively.

Quality Control and Qualified persons

The metallurgical testing program is designed and supervised by M. Christian Laroche, Ing. and M. Yan Ducharme, M.Sc., P.Geo. who are qualified persons as defined by the National Instrument 43-101. The metallurgical testing and the analyses were performed by SGS Mineral Services, Lakefield, Ontario. This news release was written, reviewed, and approved by M. Laroche and M. Ducharme.

About the Marban Project

The Marban Project is located in the Malartic mining camp in the Abitibi gold district of Quebec, Canada. The current in situ

mineral resource estimate on the Marban, Norlartic and Kierens deposits is 38.2 Mt at a grade of 1.29 g/t Au for 1.59 Moz in the measured and indicated categories and 4.1 Mt at a grade of 1.47 g/t Au for 195,000 oz in the inferred category (see "Updated Mineral Resource Technical Report, Marban Block property, Quebec, Canada", dated July 28th, 2016 and filed on SEDAR). The Marban Project contains three past producing mines (Marban, Norlartic and Kierens) which collectively produced 585,000 ounces of gold between 1959 and 1992. The land package owned by Osisko in the heart of the Cadillac, Malartic and Val d'Or gold mining camps covers 125 km² and these camps currently host six producing gold mines, including the Canadian Malartic mine located near the Marban Project.

About Osisko Mining Inc.

Osisko is a mineral exploration company focused on the acquisition, exploration, and development of precious metal resource properties in Canada. Osisko holds a 100% interest in the high-grade Windfall Lake gold deposit located between Val-d'Or and Chibougamau in Québec and holds a 100% undivided interest in a large area of claims in the surrounding Urban Barry area (82,400 hectares), a 100% interest in the Marban project located in the heart of Québec's prolific Abitibi gold mining district, and properties in the Larder Lake Mining Division in northeast Ontario, including the Jonpol and Garrcon deposits on the Garrison property, the Buffonta past producing mine and the Gold Pike mine property. The Corporation also holds interests and options in a number of additional properties in northern Ontario. Osisko continues to be well financed and has approximately $80 million in cash and cash equivalents as well as marketable securities of approximately $60 million.

Cautionary note regarding forward-looking information

This news release contains "forward-looking information" within the meaning of the applicable Canadian securities legislation that is based on expectations, estimates and projections as at the date of this news release. The information in this news release about potential mineralization; the expansion of the drill program; the potential for the Windfall project; the ability to add an additional four drills to the program; that new drill results may demonstrate continuity in the gold mineralization; the potential for new mineralization near the known Windfall mineral inventory; the ability of continued definition and exploratory drilling to identify mineralization; the ability to realize upon any mineralization in a manner that is economic; the ability to complete any proposed exploration activities and the results of such activities; the continuity or extension of any mineralization; and any other information herein that is not a historical fact may be "forward-looking information". Any statement that involves discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "believes" or "intends" or variations of such words and phrases or stating that certain actions, events or results "may" or "could", "would", "might" or "will" be taken to occur or be achieved) are not statements of historical fact and may be forward-looking information and are intended to identify forward-looking information.
This forward-looking information is based on reasonable assumptions and estimates of management of Osisko, at the time it was made, involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Osisko to be materially different from any future results, performance or achievements expressed or implied by such forward-looking information. Such factors include, among others, risks relating to property interests; our ability to obtain required approvals;, the ability of Osisko to complete further exploration activities, including drilling; the results of exploration activities; the ability of exploration results to accurately predict mineralization; risks relating to mining activities; the global economic climate; metal prices; dilution; environmental risks; and community and non-governmental actions. Although the forward-looking information contained in this news release is based upon what management believes, or believed at the time, to be reasonable assumptions, Osisko cannot assure shareholders and prospective purchasers that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither Osisko nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information. Osisko does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law.

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