MONTREAL, QUEBEC--(Marketwired - Jan 16, 2017) - Osisko Mining Inc. (TSX:OSK) ("Osisko" or the "Corporation") is pleased to announce new results from the ongoing drill program at its 100% owned Garrison gold project located in Garrison Township, Ontario. The current 35,000 metre drill program (recently increased from 20,000 metres) is designed to further test the known Jonpol and Garrcon gold zones, with six drill rigs currently active on the property. A total of 22 new holes are reported in this release, with significant assay results presented in the table below.

Significant new results include: 2.27 g/t Au over 46.4 metres in OSK-G16-213X; 2.85 g/t Au over 19.6 metres in OSK-G16-318; 6.66 g/t Au over 6.8 metres in OSK-G16-319; 3.1 g/t Au over 12.0 metres (4.96 g/t Au over 12.0 metres uncut) in OSK-G16-314A; and 3.57 g/t Au over 8.0 metres in OSK-G16-209X.

The new results have demonstrated the potential for expansion of the previously defined Garrcon, Jonpol and 903 mineralized zones at the Garrison project. The ongoing drill program for 2017 will continue to follow new extensions of these mineralized zones to further define the scale of mineralization at Garrison.

Maps and sections showing hole locations and complete drilling results are available at www.osiskomining.com.

Hole No.	From (m)	To (m)	Interval (m)	Au (g/t) uncut	Au (g/t) cut to 30 g/t	Zone
OSK-G16-209X	602.0	610.0	8.0	3.57		Garrcon
including	*609.0*	*610.0*	*1.0*	*22.0*		
	844.8	847.0	2.2	19.4	6.8	
including	*845.6*	*846.1*	*0.5*	*85.5*	*30.0*	
OSK-G16-213X	540.6	587.0	46.4	2.27		Garrcon
	744.0	746.0	2.0	13.1		
including	*744.0*	*745.0*	*1.0*	*26.0*		
OSK-G16-301	716.4	720.4	4.0	2.72		Garrcon
OSK-G16-303	937.2	944.8	7.6	2.44		Garrcon
OSK-G16-304	403.0	437.9	34.9	1.26		Garrcon
including	*423.5*	*436.0*	*12.5*	*2.40*		
OSK-G16-310	332.0	335.6	3.6	2.00		Garrcon
OSK-G16-314	107.0	110.0	3.0	19.2	4.7	Garrcon
including	*108.9*	*109.3*	*0.4*	*139*	*30.0*	
OSK-G16-314A	230.0	242.0	12.0	4.96	3.1	Garrcon
including	*230.0*	*231.0*	*1.0*	*51.9*	*30.0*	
	277.0	307.0	30.0	1.52		
	744.3	746.0	1.7	4.98		Jonpol
	849.8	850.8	1.0	5.60		Jonpol
OSK-G16-306	677.75	686.5	8.8	3.20		Jonpol
OSK-G16-308	995.6	1003.5	7.9	3.40		Jonpol
including	*995.6*	*996.6*	*1.0*	*9.4*		
including	*1002.5*	*1003.5*	*1.0*	*15.5*		
OSK-G16-315	919.0	936.0	17.0	1.08		Jonpol
OSK-G16-316	845.4	848.0	2.6	3.83		Jonpol
OSK-G16-305	169.7	184.6	14.9	0.88		903
OSK-G16-313	30.0	36.1	6.1	1.78		903
	95.0	97.0	2.0	5.55		903
OSK-G16-316	61.8	63.8	2.0	29.9	12.8	903
including	*61.8*	*62.4*	*0.6*	*87.0*	*30.0*	903
OSK-G16-318	173.6	193.2	19.6	2.85		903
including	*183.0*	*184.0*	*1.0*	*12.3*		
OSK-G16-319	127.2	134.0	6.8	6.66		903
	193.0	207.0	14.0	2.12		
including	*198.0*	*199.0*	*1.0*	*11.6*		
	296.5	304.0	7.5	1.47		903
OSK-G16-320	90.0	108.3	18.3	0.98		903

Notes: True Widths are estimated at 65 - 80% of the reported core length interval. See "Quality Control" below.

Hole Number	Azimuth (°)	Dip (°)	Length (m)	UTM E	UTM N	Section
OSK-G16-209X	322	-89	963	578607	5373837	1275W
OSK-G16-301	160	-55	918	579905	5374727	250E
OSK-G16-302	340	-55	751	578110	5373955	1700W
OSK-G16-213X	170	-88	960	578742	5373912	1125W
OSK-G16-303	340	-55	1032	578398	5373767	1500W
OSK-G16-304	160	-55	625	580147	5374663	450E
OSK-G16-305	160	-45	249	577151	5373233	2850W
OSK-G16-306	335.5	-53	813	578331	5373939	1500W
OSK-G16-307	160	-60	349	577151	5373233	2850W
OSK-G16-308	338	-55	1130	578400	5373749	1500W
OSK-G16-309	340	-55	977	577660	5373475	2300W
OSK-G16-156X	119	-88	1119	578841	5373922	1000W
OSK-G16-310	160	-60	417	580254	5374648	550E
OSK-G16-311	160	-45	411	580150	5374656	450E
OSK-G16-313	340	-55	597	577170	5373650	2700W
OSK-G16-314	340	-48	111	578671	5373865	1200W
OSK-G16-314A	340	-48	936	578675	5373843	1200W
OSK-G16-315	340	-55	1119	577455	5373460	2500W
OSK-G16-316	340	-50	873	576965	5373458	2950W
OSK-G16-318	340	-45	327	577100	5373214	2900W
OSK-G16-319	340	-45	414	577020	5373154	3000W
OSK-G16-320	340	-50	147	576974	5373427	2950W

DDH OSK-G16-209X tested the Garrcon Zone 50 metres west of the pre-2016 drilling, returning 3.57 g/t Au over 8.0 metres within a broad quartz carbonate breccia hosted in metasediments. A second new zone was intersected at a vertical depth of 840 metres returning 2.2 metres averaging 19.4 g/t Au uncut (2.2 metres averaging 6.8 g/t Au cut), including 85.5 g/t Au over 0.5m.

DDH OSK-G16-213X targeted the Garrcon Zone between two historic drill holes, returning a broad interval of 46.4 metres averaging 2.27 g/t Au within a quartz carbonate breccia, hosted in metasediments (corresponding to a zone intersected in historic drilling and hole OSK-G16-209x located 150 metres to the west). The hole also intersected 26.0 g/t Au over 1.0 metre in a second intercept at vertical depth of 740 metres.

OSK-G16-301 tested the strike extension of the Garrcon Zone 400 metres east of the current resource area and 160 metres below historical drilling. The hole returned 2.72 g/t over 4.0 metres.

OSK-G16-302 targeted the Jonpol Zone, returning 3.46 g/t Au over 0.5 metres. OSK-G16-303 targeted the Jonpol Zone, returning 2.44 g/t Au over 7.6 metres. OSK-G16-304 intersected 1.26 g/t Au over 34.9 metres, 550 metres east and along strike of the Garrcon Zone.

OSK-G16-305 tested the 903 Zone (south), intersecting 0.88 g/t Au over 14.9 metres. This new mineralized horizon is hosted within a thin unit of silicified and pyrite-mineralized metasediments similar to the Garrcon Zone 1200 metres to the east.

OSK-G16-306 intersected 3.20 g/t over 8.8 metres below the Jonpol Zone, 100 metres above previously reported OSK-G16-300 (which returned 14.9 g/t over 7.7 metres). The zone shows a very strong correlation and continuity with the mineralized zones encountered in holes OSK-G16-300, -303 and -308.

OSK-G16-308 was drilled 350 metres below the Jonpol Zone, 150 metres below previously reported hole OSK-G16-300. The hole intersected 3.40 g/t Au over 7.9 metres, and is interpreted to correlate with the zone intercepted in OSK-G16-300.

OSK-G16-310 was drilled 100 metres east of OSK-G16-304 along the strike extension of the Garrcon Zone, intersecting similar geology to OSK-G16-304, returning 2.00 g/t Au over 3.6 metres.

OSK-G16-313 hit two shallow intersections of 6.1 metres averaging 1.78 g/t Au; and 5.55 g/t Au over 2.0 metres in syenite similar to the nearby 903 Zone. The new intercepts demonstrate the potential for additional syenite hosted zones within the southwestern portion of the Garrison property.

OSK-G16-314 intersected 30.0 g/t Au over 0.4 metres (139 g/t over 0.4m uncut) within the Garrcon Zone. OSK-G16-314A intersected 3.14 g/t Au over 12.0 metres (4.96 g/t Au over 12.0 metres uncut) and a second interval of 1.52 g/t Au over 30 metres

in the Garrcon Zone. The hole also successfully identified mineralization 100 metres below the Jonpol Zone, intersecting 4.98 g/t Au over 1.7 metres and a second interval returning 5.60 g/t over 1.0 metre.

OSK-G16-315 targeted the western extension of the Jonpol Zone, intersecting a broad zone of mineralization averaging 1.08 g/t Au over 17.0 metres.

OSK-G16-316 intersected a new zone near the top of the hole hosted in syenite (and analogous to the nearby 903 Zone style of mineralization) extending the footprint of the 903 Zone (north). Within the 903 Zone, the hole intersected 29.9 g/t Au over 2.0 metres and within the Jonpol Zone intersected 3.83 g/t Au over 2.6 metres.

OSK-G16-318 was the first drill hole of the current drilling campaign to target expansion of the 903 Zone (Syenite). The hole intersected 2.85 g/t Au over 19.6 metres. The 903 Zone (Syenite) lies within the west extension of the Destor Porcupine Fault Zone within the Garrison property.

OSK-G16-319 targeted the 903 Zone syenite 100 metres west of OSK-G16-318, and intersected 6.66 g/t Au over 6.8 metres and a second mineralized intercept averaging 2.12 g/t over 14.0 metres, and a third intercept returning 1.47 g/t Au over 7.5 metres. This hole shows good correlation and continuity with OSK-G16-318 and historic drilling.

OSK-G16-320 was aimed at investigating the previously untested 903 Zone (north horizon), and intersected 0.98 g/t over 18.3 metres.

OSK-G16-307 did not intersect any significant mineralization. OSK-G16-309 was abandoned prior to reaching target. OSK-G16-311 did not intersect any significant mineralization.

Qualified Person

The scientific and technical content of this press release has been reviewed, prepared and approved by Mr. Greg Matheson, P.Geo. Senior Project Manager of the Garrison gold project, who is a "Qualified Person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

Quality Control

True widths of the new exploration intercepts reported in this press release have yet to be determined. Additional drilling is planned for the immediate area which will enable the true width determination. Assays are uncut except where indicated, and calculated intervals are reported over a minimum length of 2 metres using a lower cutoff of 3 g/t Au. All HQ core assays reported were obtained by either whole sample rock metallic screen/fire assay or standard 30 gram fire-assaying with AA finish at SGS Minerals Services in Cochrane, Ontario. The whole sample metallic screen assay method is selected by the geologist when samples contain coarse gold or any samples displaying gold initial fire assay values greater than 4g/t. Drill program design, Quality Assurance/Quality Control and interpretation of results is performed by qualified persons employing a Quality Assurance/Quality Control program consistent with NI 43-101 and industry best practices. Standards and blanks are included with every 20 samples for Quality Assurance/Quality Control purposes by the Corporation as well as the lab. Approximately 5% of sample pulps are sent to secondary laboratories for check assays.

About the Garrison Project

The Garrison Project area is comprised of 214 mineral claims, 25 mining leases, and 87 patent claims encompassing approximately 8,000 hectares.

Both Garrcon and Jonpol have resource estimates that are described in a technical report prepared in accordance with NI 43-101, which was completed by a previous operator Northern Gold Mining Inc. (entitled *"Technical Report on the Golden Bear Project - Garrison Property: Larder Lake Mining Division, Garrison Township, Ontario, Canada"*) dated December 30, 2013, with an effective date of December 30, 2013 (the "Garrison Technical Report"). The Garrison Technical Report was prepared by A.C.A. Howe International Limited for Northern Gold Mining Inc. (a wholly-owned subsidiary of Osisko) and is available on Osisko's website at www.osiskomining.com and on SEDAR under Northern Gold Mining Inc.'s issuer profile at www.sedar.com.

Resource estimates were conducted by A.C.A. Howe International Limited according to CIM standards. The Garrcon Zone estimates showed 15.1 million tonnes with an average grade of 1.07 g/t Au (521,000 oz) in measured resources; 14.1 million tonnes averaging 1.16 g/t Au (526,000 oz) in indicated resources; and 1.7 million tonnes averaging 0.72 g/t Au (39,000 oz) in inferred resources. Potential underground resources of 5.1 million tonnes averaging 3.49 g/t Au (577,000 oz) in the inferred category were also outlined. Resources were reported at a cut-off grade of 0.4 g/t Au for open pit extraction and 1.5 g/t in a bulk underground mining scenario using a gold price of US$1,250/oz.

At the Jonpol Zone, resources were estimated as 0.87 million tonnes averaging 5.34 g/t Au (150,000 oz) in the indicated category; and 1.07 million tonnes averaging 5.56 g/t Au (192,000 oz) in inferred resources. Resources were reported at a cut-off grade of 3.0 g/t Au and assume an underground extraction scenario using a gold price of US$1,250/oz.

Readers are cautioned that inferred resources have a great amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that all or any part of the inferred resources will ever be upgraded to a higher category. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

Garrcon Zone

The Garrcon Zone has a shallow plunge eastward along the footwall of the Destor-Porcupine Fault Zone with the bulk of the resource in the western, more densely drilled area. The zone is exposed at surface and has potential for open pit bulk mining at an estimated overall stripping ratio of 1.8:1. There is potential for additional underground resources below the pit and along the easterly plunge of the zone, which is open for further exploration down dip and along strike.

The Garrcon shaft was sunk in 1935 and 1936 by the Consolidated Mining and Smelting Co. of Canada ("Cominco") and the Shaft and South Zones were tested for high grade gold mineralization. Cominco drove approximately 1,430 metres of drifts and cross cuts, mining underground veins. Diamond drilling by Cominco and Lac Minerals Ltd. in the mid-to-late 1980s identified broad sections of low grade mineralization. In 2006-2007, ValGold Resources Ltd. conducted additional drilling confirming these zones. From 2009-2013 Northern Gold Mining Inc. conducted 97,000 metres of diamond drilling which delineated the current resource.

In 2014, Northern Gold Mining Inc. was granted a trial mining permit allowing the extraction of up to 150,000 tonnes. Northern Gold Mining Inc. mined 73,534 dry tonnes which was processed at the nearby Holt mill facility recovering 3,516.3 oz at an average head grade of 1.55 g/t and recovery of 95.9%. The trial production permit remains active.

Jonpol Zone

Jonpol is situated in the Munro Fault Zone, a west striking splay off the north side of the Destor-Porcupine Fault. Hosted in a shear zone tens of metres wide in altered mafic volcanic rocks, the deposit consists of four high grade gold mineralized zones (JP, JD, RP and East) over a strike length of 1.7 kilometers. Gold mineralization is hosted in quartz carbonate veins, in mafic and ultramafic host rocks, and is associated with intense albite and/or sericite alteration and pyrite mineralization.

In 1997, a 49,087 tonne bulk sample was extracted from the central part of the JP zone by Hillsborough Resources Limited with an average grade of 6.7 g/t which produced 9,476 ounces Au. From 1985-2013, over 130,000 metres of drilling was completed on the property by previous operators. Development work on the JP zone included the sinking of a 184 metre shaft as well as development of a ramp to the 150 metre level with mining on six sublevels. The Jonpol infrastructure underwent reclamation in the late 1990s and was closed out in 2001, but the existing ramp and shaft are preserved.

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% 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 Garrcon and Jonpol zones 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 $90 million in cash and cash equivalents as well as equity investments of approximately $50 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, projections and interpretations as at the date of this news release. The information in this news release about the ongoing drill program at the Garrison gold project; results of the current 35,000 metre drill program; the significance of new drill results reported in this press release; the ability of new drill results to demonstrate potential for expansion of the previously defined Garrcon, Jonpol and 903 mineralized zones at the Garrison project; the scope of the 2017 drill program; that the 2017 drill program will follow new extensions of these mineralized zones to further define the scale of mineralization at the Garrison project; potential 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, interpretations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "interpreted", "management's view", "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 the Corporation, 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 the ability of exploration activities (including drill results) to accurately predict mineralization; errors in management's geological modelling; the ability of Osisko to complete further exploration activities, including drilling; property interests; the ability of the Corporation to obtain required approvals and complete transactions on terms announced; the results of exploration activities; 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 of securities of the Corporation 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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