11.8 g/t Au over 6.7 metres in new zone parallel to upper deposit

MONTREAL, QUEBEC--(Marketwired - Aug 25, 2016) - [Osisko Mining Inc.](#) (TSX:OSK) ("Osisko" or the "Corporation") is pleased to announce new results from the ongoing drill program at its 100% owned Windfall Lake gold project located in the Urban Township, Québec. The current 100,000 metre drill program combines definition drilling above the Red Dog intrusion ('Red Dog'), expansion drilling above and below Red Dog and exploration drilling on the greater property area. A total of 12 new drill holes are reported in this release.

Definition drilling near the Caribou Zone has led to a significant new discovery 150 metres below the known Caribou Zone. The new mineralized zone ("Wolf Zone") is defined by drill hole OSK-W-16-710 which intersected 11.8 g/t Au over 6.7 metres (23.62 g/t Au over 6.7 metres uncut) from 562.0m - 568.9m. Additional mineralization was also discovered in the hanging wall and footwall of the Wolf Zone, with assays returning 8.32 g/t over 3.0 metres and 16.2 g/t Au over 2.3 metres respectively. Further drilling will be directed to investigating the dimensions of the Wolf Zone in the coming month. These new intercepts demonstrate the high potential for significant new mineralization near the known Windfall mineral inventory through continued definition and exploratory drilling.

Highlights from additional new drill holes also include: 8.89 g/t Au over 6.9 metres in DDH OBM 16- 701, 18.4 g/t Au over 2.3 metres in DDH OBM-16-703, 16.2 g/t Au over 2.3 metres in DDH OSK-W- 16-710, 16.0 g/t Au over 2.0 metres in DDH OBM-16-697; 11.33 g/t Au over 2.2 metres in DDH OSK-W-16-707, and 8.06 g/t Au over 2.5 metres in DDH OBM-16-698. The new results continue to demonstrate lateral and vertical continuity of high grade gold mineralization in Zone 27 and the Caribou Zone, and also highlight new zones developing between those two major mineralized corridors. Details of the significant new results are outlined in the table below:

Drill Hole	From (m)	To (m)	Interval (m)	Au (g/t)	Zone
OBM-16-697	228.7	230.7	2.0	16.0	Quartz tourmaline vein
including	228.7	229.2	0.5	63.5	
OBM-16-698	156.5	159.0	2.5	8.06	New
including	156.5	157.5	1.0	19.0	
	443.1	446.0	2.9	3.62	Caribou hanging wall - Quartz tourmaline veins
	492.3	495.75	3.4	4.49	Caribou North 2
including	495.1	495.75	0.6	19.3	
OBM-16-699	270.0	272.5	2.5	6.63	New zone below Red Dog
OBM-16-701	262.0	264.0	2.0	3.20	New
including	262.5	263.0	0.5	11.9	
	310.7	313.0	2.3	3.66	Tourmaline veins
including	310.7	311.0	0.3	12.1	
	374.7	377.0	2.3	3.28	Quartz vein
including	376.7	377.0	0.3	14.4	
	414.7	420.8	6.1	5.14	New
	463.0	470.0	7.0	4.82	Caribou hanging wall
including	463.0	464.0	1.0	22.4	
	469.0	471.2	2.2	4.51	Crustiform vein
	551.1	558.0	6.9	8.86	Extn of Caribou North 2
including	557.0	558.0	1.0	47.7	
	620.2	622.3	2.1	6.68	Eastern extn of Zone 27
including	621.3	622.3	1.0	13.3	
OBM-16-703	256.1	259.0	2.9	3.34	Quartz-carbonate veins
	300.7	303.0	2.3	18.4	FW1
including	301.4	302.5	1.1	38.2	
	336.5	338.5	2.0	3.17	New, below Red Dog
including	336.5	337.7	1.2	5.09	
OBM-16-704	346.0	350.2	4.2	3.55	Zone 27
OSK-W-16-705	565.0	567.0	2.0	4.04	Wolf
including	565.7	566.4	0.7	10.7	
	594.0	596.2	2.2	3.64	New
OSK-W-16-707	247.3	249.5	2.2	11.3	Caribou South 2
including	248.3	248.7	0.4	58.6	
OSK-W-16-709	186.0	188.0	2.0	3.01	Caribou South 1

including	186.0	187.0	1.0	5.61	
	349.5	351.5	2.0	3.22	New
	418.2	421.9	3.7	4.90	Caribou South 1
OSK-W-16-710	68.0	70.0	2.0	3.25	Tourmaline breccia
including	69.3	70.0	0.7	8.93	
	157.0	159.0	2.0	3.13	New
including	157.0	158.3	1.3	4.72	
	222.0	225.0	3.0	3.48	New
including	222.0	223.5	1.5	6.94	
	498.0	500.5	2.5	10.8	Quartz-tourmaline veins
including	498.0	499.5	1.5	17.8	
	531.0	534.0	3.0	8.32	Wolf hanging wall
including	532.5	534.0	1.5	15.5	
cut	562.0	568.7	6.7	11.8(3)	Wolf
uncut	562.0	568.7	6.7	23.62	
including	565.9	566.6	0.7	212	
	586.0	588.3	2.3	16.2	Wolf footwall
including	586.0	587.9	1.9	19.6	

Notes:

(1) For complete drilling results please see *http://www.osiskomining.com/*.

(2) True widths are estimated at 65-80% of the reported core length interval. See "Quality Control" below.

(3) High grade values cut to 100 g/t Au.

Drill Hole Collar Coordinates and Information:

Hole Number	Azimuth (°)	Dip (°)	Length (m)	UTM E	UTM N	Section
OBM-16-697	330.0	-54.0	421.5	452500	5434612	2575
OBM-16-698	332.1	-59.8	685.5	452737	5434750	2850
OBM-16-699	330.0	-60.0	352.5	451486	5434418	1600
OBM-16-700	331.1	-53.1	127.5	452468	5434610	2550
OBM-16-701	327.7	-62.5	700.5	452818	5434800	2950
OBM-16-702	329.0	-55.0	109.5	452312	5434628	2425
OBM-16-703	329.0	-55.5	679.5	451621	5434235	1625
OBM-16-704	327.0	-55.9	409.5	452311	5434627	2425
OSK-W-16-705	332.0	-60.0	637.5	452598	5434584	2650
OSK-W-16-707	331.0	-52.0	361.5	452571	5434688	2675
OSK-W-16-709	330.0	-59.0	591.5	452647	5434575	2700
OSK-W-16-710	331.0	-60.0	705.5	452649	5434615	2700

DDH OBM-16-697 intersected 16.0 g/t Au over 2.0 metres, including 63.5 g/t Au over 0.5 metres in a quartz-tourmaline vein at the contact between a porphyry dyke and felsic volcanics.

DDH OBM-16-698 intersected 8.06 g/t Au over 2.5 metres, including 19.0 g/t Au over 1.0 metre at the upper contact of a porphyry dyke. This interval is located 140 metres to the SE of the Caribou Zone in a sparsely drilled sector. The hanging wall of the Caribou Zone returned 3.62 g/t Au over 2.9 metres. This hole also intersected gold mineralization in the eastern extension of the Caribou N2 Zone 110 metres further east than the known zone, returning 4.49 g/t Au over 3.5 metres.

DDH OBM-16-699 discovered new gold mineralization 90 metres to the NW of the FW3 Zone (below Red Dog) returning 6.63 g/t Au over 2.5 metres (including 21.6 g/t Au over 0.5 metres). Further drilling will follow up in this sparsely drill sector.

DDH OBM-16-701 is located 140 metres to the ENE of the previously interpreted Caribou Zone. The hole intersected a new zone to the SW of Caribou, returning 5.14 g/t Au over 6.1 metres. This hole also intersected the Caribou hanging wall, returning 4.82 g/t Au over 7.0 metres (including 22.4 g/t Au over 1.0 metre) in an altered andesite with a crustiform vein. The hole also intersected the eastern extension of the Caribou N2 zone, returning 8.86 g/t Au over 6.9 metres (including 47.7 g/t Au over 1.0 metre). The hole also intersected 6.68 g/t Au over 2.1 metres at the contact of a porphyry dyke in the eastern extension of Zone 27.

DDH OBM-16-702 tested the shallow portion of the Caribou Zone and returned 3.81 g/t Au over 1.8 metres (including 9.69 g/t Au over 0.7 metres).

DDH OBM-16-703 intersected the interpreted western extension of the FW1 Zone (below Red Dog) and returned 18.4 g/t Au over 2.3 metres (including 38.23 g/t Au over 1.1 m) in a felsic volcanic rock containing pyrite and traces of chalcopyrite.

DDH OBM-16-704 intersected Zone 27 returning 3.55 g/t Au over 4.2 metres. This intercept is located 33 metres below OBM-16-685 (which returned 9.63 g/t Au over 3.3 metres) and confirms continuity of gold mineralization in this zone.

DDH OSK-W-16-705 intersected the new Wolf Zone (also intersected in DDH OSK-W-16-710), returning 4.04 g/t Au over 2.0 metres in an altered mafic volcanic rock.

DDH OSK-W-16-707 intersected the Caribou S2 Zone 190 metres below surface, returning 11.33 g/t Au over 2.2 metres (including 58.6 g/t Au over 0.4 metres) in a porphyry dyke.

DDH OSK-W-16-709 intersected the extension of the Caribou S1 Zone, returning 4.90 g/t Au over 3.7 metres in a sparsely drilled sector.

DDH OSK-W-16-710 confirmed the new Wolf Zone, returning 11.8 g/t Au over 6.7 metres. The Wolf Zone is located between the Caribou S3 and the Caribou N2 Zones. The Wolf Zone correlates with OBM-16-658 which returned 8.90 g/t Au over 8.0 metres, now re-interpreted to be part of this new zone. Additional new mineralization was also discovered in the hanging wall and footwall of the Wolf Zone, returning 8.32 g/t over 3.0 metres and 16.2 g/t Au over 2.3 metres respectively. The Wolf Zone remains undefined by drilling to the east.

Full analytical results from the 12 new drill holes are available at www.osiskomining.com.

OBM-16-700 was abandoned due to drilling conditions, and assay results for drill holes OSK-W-16-706 and OSK-W-16-708 are pending.

Qualified Person

The scientific and technical content of this press release has been reviewed, prepared and approved by Mr. Jean-Philippe Desrochers, Ph.D., P.Geo. Senior Project Manager of the Windfall Lake 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. All NQ core assays reported were obtained by either 1 kg whole rock metallic screen/fire assay or standard 50 gram fire-assaying with AA or gravimetric finish at ALS Laboratories in Val d'Or, Québec or Sudbury, Ontario. The 1 kg metallic screen assay method is selected by the geologist when samples contain coarse gold or present a higher percentage of pyrite than surrounding intervals. All samples are also analysed for multi-elements, including silver, using an Aqua Regia-ICP-AES method at ALS laboratories. Drill program design, Quality Assurance/Quality Control and interpretation of results is performed by qualified persons employing a QA/QC program consistent with NI 43-101 and industry best practices. Standards and blanks are included with every 20 samples for QA/QC purposes by the Corporation as well as the lab. Approximately 5% of sample pulps are sent to secondary laboratories for check assays.

About the Windfall Lake Gold Deposit

The Windfall Lake gold deposit is located between Val-d'Or and Chibougamau in the Abitibi region of Québec, Canada. The current mineral resource comprises 2,762,000 tonnes at 8.42 g/t Au (748,000 ounces) in the indicated category and 3,512,000 tonnes at 7.62 g/t Au (860,000 ounces) in the inferred category (sourced from a technical report dated June 10, 2015 entitled "Preliminary Economic Assessment of the Windfall Lake Gold Property, Quebec, Canada" with an effective date of April 28, 2015, prepared in accordance with NI 43-101). The Windfall Lake gold deposit is currently one of the highest grade resource-stage gold projects in Canada. The bulk of the mineralization occurs in the Main Zone, a southwest/northeast trending zone of stacked mineralized lenses, measuring approximately 600 metres wide and at least 1,400 metres long. The deposit is well defined from surface to a depth of 500 metres, and remains open along strike and at depth. Mineralization has been identified only 30 metres from surface in some areas and as deep as 870 metres in others, with significant potential to extend mineralization up and down-plunge and at depth.

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 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 $50 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 pending transactions, 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, 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; ability to obtain required approvals, complete definitive documentation and complete transactions on the terms announced, ability of Osisko to complete further exploration activities, including drilling; 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 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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