

Osisko Intersects 1.53 g/t Gold Over 87 Metres at Upper Beaver

April 14, 2014 (Source: Marketwired) – Osisko Mining Corporation (“Osisko” or the “Corporation”) (TSX:OSK)(FRANKFURT:EWX) is pleased to announce new drilling results from the Upper Beaver deposit, located on its 100% owned Kirkland Lake project. Work in 2014 has focused on deepening of the East Porphyry Zone (full drill results pending) and reinterpreting the near-surface portion of the deposit (at depths of less than 300 metres) in order to evaluate its open pit potential. Recent shallow drilling (12 holes) has highlighted the presence of significant near-surface, low-grade mineralization with such intersections as **59.0 metres grading 1.64 g/t Au and 0.20 % Cu** (DDH UB14-329), **78.0 metres grading 1.43 g/t Au and 0.06 % Cu** (DDH UB14-330) and **87 metres grading 1.53 g/t Au and 0.04 % Cu** (DDH UB14-333). The table below summarized the results from the winter 2014 shallow drilling program (excluding UB14-338 that did not return significant values):

Hole No.	From (m)	To (m)	Length (m)	Au g/t	Cu%
UB14-329	20.0	79.0	59.0	1.64	0.20
And	123.0	163.0	40.0	1.65	0.19
And including	175.0	200.0	25.0	1.66	0.05
UB14-330	231.0	243.0	12.0	0.78	0.05
And including	266.0	344.0	78.0	1.43	0.06
UB14-331	77.0	93.0	16.0	1.40	0.04
And	108.0	157.0	49.0	1.43	0.14
And	199.0	231.0	32.0	1.72	0.09

And	238.0	247.0	9.0	3.90	0.07
UB14-332	69.0	84.0	15.0	2.12	0.03
And	106.0	113.0	7.0	3.28	0.15
UB14-333	139.0	150.0	11.0	1.89	0.00
And	214.0	301.0	87.0	1.53	0.04
UB14-334	135.0	149.0	14.0	5.01	0.01
And	188.0	203.0	15.0	0.88	0.04
UB14-335	147.0	160.0	13.0	1.31	0.20
And	230.0	249.0	19.0	2.26	0.18
UB14-336	181.0	189.0	8.0	0.64	0.00
UB14-337	133.0	141.0	8.0	2.03	0.07
And	188.0	209.0	21.0	1.65	0.06
UB14-339	276.0	286.0	10.0	0.64	0.14
UB14-340	28.0	43.0	15.0	3.15	0.02
And	243.0	252.0 .0	9.0	1.58	0.09

In addition, results from the 2012 drilling in the vicinity of the old mine workings were recalculated using a 0.35 g/t Au lower cut-off, yielding the following intersections:

Hole No.	From (m)	To (m)	Length (m)	Au g/t	Cu %
UB12-205	94.0	112.0	18.0	1.24	0.47
And	124.0	163.0	39.0	1.83	0.29
UB12-206	85.0	102.0	17.0	0.57	0.16
And	187.0	198.0	11.0	1.07	0.11
UB12-209	123.0	157.0	34.0	1.79	0.33
UB12-213	71.0	104.0	33.0	0.72	0.08
UB12-215	10.0	17.0	7.0	1.95	0.13

And	140.0	148.0	8.0	1.11	0.21
And	188.0	199.0	11.0	1.44	0.24
UB12-216	78.0	116.3	38.3	2.24 4	0.25
UB12-217	33.8	46.0	12.2	1.50	0.22
And	72.0	101.0	29.0	0.95	0.31
And	117.0	165.0	48.0	0.81	0.31
UB12-218A	88.0	137.0	49.0	0.99	0.13
And	169.0	193.0	24.0	1.09	0.05
UB12-219	139.0	163.0	24.0	0.66	0.11
And	208.0	221.0	13.0	0.95	0.12
UB12-220	191.0	265.0	74.0	1.60	0.20
UB12-221	24.0	46.0	22.0	1.03	0.39
And	79.0	165.0	86.0	1.10	0.15
UB12-223	47.0	54.0	7.0	1.14	0.47
And	75.0	85.0	10.0	1.20	0.69
UB12-226	112.0	121.0	9.0	1.27	0.04
And	226.0	233.0	7.0	2.45	0.00
UB12-240	17.0	25.0	8.0	1.30	0.01
UB12-243	28.0	44.0	16.0	2.90	0.00
UB12-245	18.0	28.0	10.0	0.96	0.01
And	89.0	102.0	13.0	1.25	0.37

The new data as well as recalculated data from previous drilling indicates the presence of significant low grade stockwork mineralization surrounding known gold-copper veins of the Upper Beaver deposit. This near-surface mineralization warrants further evaluation and a 50 metre x 50 metre grid definition program will be initiated immediately to further

evaluate this potential gold-copper resource that could be added to existing underground resources (see Queenston press release dated September 26, 2012 as well 43-101 resource disclosures filed on SEDAR and on Osisko web site).

All NQ core assays reported above were obtained by standard 50 g fire assaying-AA finish or gravimetric finish at ALS Minerals laboratories in Val d'Or, Quebec, an ISO/IEC guideline 17025-accredited facility. Reported drill core weighted averages were calculated using a minimum of 0.35 g/t Au over successive sample intervals with maximum internal dilution length of 10 metres. All assays were capped at 10 g/t Au. Lost core intervals, constituting less than 0.5% of reported intervals within mineralized intersections, were all less than one metre long and incorporated as the average grade of adjacent intervals above and below in all length-weighted calculations. Osisko follows strict QA-QC protocol measures in keeping with industry standards and regulatory reporting requirements. Mr. Robert Wares, D.Sc., P. Geo., Senior Vice President Exploration and Resource Development for Osisko, is the Qualified Person who has reviewed this news release and is responsible for the technical information reported herein, including verification of the data disclosed.

Reminder to take no action – Goldcorp Offer

On April 10, 2014, Osisko noted the announcement by Goldcorp Inc. ("Goldcorp") that it intends to amend its hostile offer to acquire all of the outstanding common shares of Osisko (the "Offer") to, among other things, extend the expiry date, increase the consideration payable and reduce the minimum tender condition.

The Board of Directors of Osisko is considering this announcement. Until the Corporation completes its review, it will not comment further or speculate as to any future course of action it might take.

Shareholders are reminded that the Corporation recommends that shareholders defer taking any action in respect of the hostile Offer until the Board of Directors of the Corporation makes a recommendation as to the merits of the hostile Offer.

Shareholders who have questions or who may have already tendered their shares to the Goldcorp Offer and wish to withdraw them, may do so by contacting our Information Agent, Laurel Hill Advisory Group at:

North American Toll Free: 1-877-452-7184

Banks, Brokers or collect calls: 416-304-2011

Email: assistance@laurelhill.com

About Osisko Mining Corporation

Osisko Mining Corporation operates the Canadian Malartic Gold Mine in Malartic, Québec and is pursuing exploration on a number of properties, notably in Québec, Ontario and Mexico.

Cautionary Notes Concerning Estimates of Mineral Resources

This news release uses such terms as measured, indicated and inferred resources as a relative measure of the level of confidence in the resource estimate. Readers are cautioned that mineral resources are not economic mineral reserves and that the economic viability of resources that are not mineral reserves has not been demonstrated. In addition, inferred resources are considered too geologically speculative to have any economic considerations applied to them. Under Canadian rules, estimates of inferred mineral resources may not be used in the determination of feasibility or pre-feasibility studies or economic studies except for a Preliminary Assessment as defined under NI 43-101. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Readers are cautioned not to assume that further work to improve mineral resources will lead to

determination of mineral reserves that can be mined economically.

Forward-Looking Statements

Certain statements contained in this press release may be deemed "forward-looking statements". All statements in this release, other than statements of historical fact, that address events or developments that the Corporation expects to occur, are forward looking statements. Forward looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects", "plans", "anticipates", "believes", "intends", "estimates", "projects", "potential", "scheduled" and similar expressions, or that events or conditions "will", "would", "may", "could" or "should" occur including, without limitation, the existence of potentially large, bulk tonnage disseminated gold zone on the Upper Beaver property, the continuation and success of further exploration activities or the development of projects, and whether or not any alternative transaction superior to Goldcorp's hostile bid may emerge. Although the Corporation believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in forward looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements include gold prices, results of exploration and development activities, the Corporation's limited experience with production and development stage mining operations, uninsured risks, regulatory changes or sanctions, defects in titles, availability of personnel, materials and equipment, timeliness of government approvals, actual performance of facilities, equipment and processes relative to specifications and expectations, unanticipated environmental impacts on operations market prices, continued availability of capital and financing and general economic,

market or business conditions. These factors are discussed in greater detail in the Corporation's most recent Annual Information Form filed on SEDAR, which also provides additional general assumptions in connection with these statements. The Corporation cautions that the foregoing list of important factors is not exhaustive. Investors and others who base themselves on the Corporation's forward-looking statements should carefully consider the above factors as well as the uncertainties they represent and the risk they entail. The Corporation believes that the expectations reflected in those forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking statements included in this press release should not be unduly relied upon. These statements speak only as of the date of this press release.