NYSE: ODV TSXV: ODV

OSISKO DEVELOPMENT FILES TECHNICAL REPORT ON INITIAL MINERAL RESOURCE ESTIMATE FOR TRIXIE, TINTIC PROJECT

Montreal, Québec, January 31, 2023 – Osisko Development Corp. (NYSE: ODV, TSXV: ODV) ("Osisko Development" or the "Company") announces the filing of a technical report (the "Technical Report") in relation to the initial mineral resource estimate ("MRE") for the Company's 100%-owned underground Trixie deposit ("Trixie") (the "Trixie MRE"), within the Company's wider Tintic Project ("Tintic" or the "Tintic Project"), located in central Utah, U.S.A. Highlights from the previously-announced Trixie MRE disclosed in the Company's news release dated January 17, 2023 are presented below, and are consistent with the Technical Report.

The Technical Report, titled "NI 43-101 Technical Report, Initial Mineral Resource Estimate for the Trixie Deposit, Tintic Project, Utah, United States of America" and dated January 27, 2023 (with an effective date of January 10, 2023), was prepared and compiled for the Company by independent representatives of Micon International Limited in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"), and is available on SEDAR (www.sedar.com) and on EDGAR (www.sec.gov) under Osisko Development's issuer profile and on the Company's website at https://osiskodev.com/tintic-project.

TRIXIE MINERAL RESOURCE ESTIMATE

Table 1: 2023 Trixie Mineral Resource Estimate (all zones) - January 10, 2023

Classification	Tonnes (000's)	Au Grade (g/t)	Contained Gold (000's oz)	Ag Grade (g/t)	Contained Silver (000's oz)
Measured	11	190.61	67	195.53	69
Indicated	225	20.17	146	43.73	316
Measured and Indicated	236	28.08	213	50.77	385
Inferred	385	19.64	243	42.82	530

Notes (applicable to Tables 1, 2, and 3)

- 1. Troy ounces ("oz"), gold ("Au"), silver ("Ag"), tonnes ("t"), grams per tonne ("g/t").
- 2. Effective date of the Trixie MRE is January 10, 2023.
- 3. Each of Mr. William Lewis P.Geo, of Micon International Limited and Alan S J San Martin, AusIMM(CP), of Micon International Limited (i) has reviewed and validated the Trixie MRE, (ii) is considered to be independent of the Company for purposes of Section 1.5 of NI 43-101, and (iii) is a "qualified person" for purposes of NI 43-101.
- 4. The Trixie MRE is comprised of five zones within the greater Trixie area: T1, T2, T3, T4 and 75-85. No blocks in the T3 meet the cut-off grade used for the Trixie MRE.
- 5. The Trixie MRE disclosed in this news release were estimated using the CIM standards on mineral resources and reserves definitions, and guidelines prepared by the CIM standing committee on reserve definitions and adopted by the CIM council.
- 6. Mineral Resources are reported when they are within potentially mineable shapes derived from a stope optimizer algorithm, assuming an underground longhole stoping mining method with stopes of 6.1 m x 6.1 m x minimum 1.5 m dimensions.
- 7. Mineral resources are not mineral reserves and do not have demonstrated economic viability.
- 8. Geologic modelling was completed by Osisko Development's senior production geologist Ćourtney Kurtz, P.G. of Utah, USA using Leapfrog Geo software. The Trixie MRE was completed by Osisko Development's Chief Resource Geologist, Daniel Downton, P.Geo. using Datamine Studio RM Pro 1.12 software. The Trixie MRE was reviewed and verified by William Lewis and Alan San Martin of Micon International Ltd.
- 9. The estimate is reported for an underground mining scenario and with USD assumptions. The cut-off grade of 4.85 g/t Au was calculated using a gold price of US\$1,750 per ounce, a CAD:USD exchange rate of 1.30; total mining, processing and G&A costs of US\$226.62 per imperial ton a combined royalty of 4.5% and an average metallurgical recovery of 95%.

- 10. Average bulk density values in the mineralized domains were assigned to the T1 (2.616 T/m³), T2 (2.955 T/m³), T3 (2.638 T/m³), T4 (2.621 T/m³), and 75-85 (2.617 T/m³) domains.
- 11. Inverse Distance Squared interpolation method was used with a parent block size of 1.2 m x 1.2 m x 1.8 m.
- 12. The results of the Trixie MRE are presented *in-situ*. Calculations used metric units (metres, tonnes, g/t). The number of tonnes is rounded to the nearest thousand. Any discrepancies in the totals are due to rounding effects.
- 13. Neither the Company nor Micon International Limited is aware of any known environmental, permitting, legal, title-related, taxation, socio-political, marketing or other relevant issue that could materially affect the mineral resource estimate other than disclosed in this news release.

Table 2: 2023 Trixie MRE Separated by Domain - January 10, 2023

Domain	Category	Tonnes	Grade (Au g/t)	Contained Gold (oz)	Grade (Ag g/t)	Contained Silver (oz)
Т1	Measured	_	-	-	-	-
	Indicated	34,470	16.39	18,159	30.55	33,856
	M+I	34,470	16.39	18,159	30.55	33,856
	Inferred	134,665	16.59	71,832	38.51	166,716
	Measured	10,938	190.61	67,029	195.53	68,757
то	Indicated	6,705	138.30	29,815	107.95	23,272
T2	M+I	17,643	170.73	96,844	162.24	92,029
	Inferred	25,181	101.37	82,070	146.32	118,457
	Measured	_	_	_	_	_
Т4	Indicated	178,825	16.64	95,667	43.65	250,941
	M+I	178,825	16.64	95,667	43.65	250,941
	Inferred	128,038	9.10	37,460	21.64	89,063
	Measured	_	_	_	_	_
75-85	Indicated	4,870	14.10	2,207	51.77	8,106
	M+I	4,870	14.10	2,207	51.77	8,106
	Inferred	96,962	16.58	51,691	49.89	155,530
Total	Measured	10,938	190.61	67,029	195.53	68,757
	Indicated	224,870	20.17	145,849	43.73	316,175
	M+I	235,808	28.08	212,878	50.77	384,932
	Inferred	384,845	19.64	243,053	42.82	529,766

Refer to notes described under Table 1, which are also applicable to Table 2 in their entirety.

Table 3: Trixie MRE Cut-Off Grade ("COG") Sensitivity (Base Case in Bold) - January 10, 2023

Classification	Tonnes	cog	Grade (Au g/t)	Contained Gold (oz)	Grade (Ag g/t)	Contained Silver (oz)
	334,672	2.50	20.83	224,173	42.82	460,779
	307,608	3.00	22.42	221,774	44.89	443,994
	282,778	3.50	24.10	219,084	46.57	423,392
	262,447	4.00	25.68	216,661	48.36	408,078
Measured + Indicated	246,598	4.50	27.05	214,455	49.84	395,124
	235,808	4.85	28.08	212,878	50.77	384,932
	233,051	5.00	28.35	212,436	51.15	383,279
	219,345	5.50	29.79	210,054	52.66	371,399
	209,391	6.00	30.92	208,184	53.92	363,007

Classification	Tonnes	COG	Grade (Au g/t)	Contained Gold (oz)	Grade (Ag g/t)	Contained Silver (oz)
	198,274	6.50	32.30	205,914	55.54	354,071
	189,341	7.00	33.50	203,919	56.92	346,468
	181,989	7.50	34.55	202,159	57.85	338,499
	553,279	2.50	14.75	262,371	38.22	679,912
	493,696	3.00	16.19	256,945	39.98	634,610
	450,545	3.50	17.42	252,276	41.35	598,941
	420,273	4.00	18.37	248,242	42.24	570,717
	397,456	4.50	19.18	245,047	42.52	543,387
Informed	384,845	4.85	19.64	243,053	42.82	529,766
Inferred	379,046	5.00	19.87	242,188	43.02	524,210
	361,726	5.50	20.56	239,154	43.98	511,444
	347,256	6.00	21.18	236,435	44.95	501,843
	329,274	6.50	21.97	232,593	46.19	488,985
	313,378	7.00	22.74	229,161	47.45	478,092
	296,008	7.50	23.63	224,925	48.87	465,129

Note: Micon has reviewed the COG used in the sensitivity analysis relating to the Trixie MRE and is of the opinion that the individual cut-off grades used in the sensitivity analysis meet the test of reasonable prospects of economic extraction. Refer to notes described under Table 1, which are also applicable to Table 3 in their entirety.

Table 4: Trixie MRE Cut-off Grade Calculation Breakdown

PARAMETERS	VALUES
Mining Cost (\$/ST)	\$60.00
G&A (\$/ST)	\$64.97
Haulage (\$/ST)	\$10.00
Milling (\$/ST)	\$89.00
Total Refining Cost	\$2.65
Gold Price	\$1,750
Royalty (Combination)	4.50%
Mill Recovery	95.0%
Cut-off Grade (COG)	4.85

Qualified Persons

The scientific and technical information contained in this news release has been reviewed and approved by Maggie Layman, P.Geo., Vice President, Exploration of Osisko Development, and a "qualified person" ("QP") within the meaning of NI 43-101.

The independent QPs for the Trixie MRE, as defined by NI 43-101, are William Lewis, P.Geo. and Alan S. J. San Martin AusIMM(CP) of Micon International Limited. Each of the QPs is independent of Osisko Development and has reviewed and approved the content in this news release.

Quality Assurance (QA) – Quality Control (QC)

True width determination is estimated to be approximately 0.3 m to 2.4 m (1 to 8 ft.) wide for the T2 structure and approximately 3 m to 25 m (10 to 80 ft.) for the T4 mineralized stockwork zone located in the hanging wall of the T2 structure. All underground face samples are collected by TCM geologists from each of the

active mining faces, with samples transported by the geologists from Trixie to the on-site TCM laboratory located at the Burgin administrative complex. Underground samples are dried, crushed to <10 mm and a 250 g split is taken. The split is pulverized, and a 30 g Fire Assay with gravimetric finish is completed to determine gold and silver grades, reported in oz/short ton and g/t.

The TCM Burgin laboratory is not a certified analytical laboratory, however, the facility is managed by a qualified Laboratory Manager with annual auditing by technical staff. Inter-laboratory check assays using ALS Laboratory as a third-party independent analysis of samples is routinely carried out as part of ongoing Quality Assurance-Quality Control ("QA/QC") work. Certified OREAS QC standards and blanks are inserted at regular intervals in the sample stream to monitor laboratory performance.

All drill core and exploration samples are dispatched to ALS Laboratory for offsite sample preparation and analysis. Samples are assigned a unique sample ID. All geological and sampling information is entered into Datamine Fusion database. Core is sawn in half and half are sampled. Certified standards and blanks inserted into all sample dispatches. Samples are collected by Old Dominion Transportation and dispatched to ALS Laboratory in Reno, NV. Sample submission forms accompany the samples, and digital copies emailed to ALS.

All sample preparation is completed by ALS, including crushing and pulverizing (Prep31) of samples. Analytical assays include gold and silver by fire assay of 50 g sample with AAS finish (Au-AA26), over limits by gravimetric analysis (Au-Grav22). Multi element analysis is by four acid digest (ME-MS61). The pulps are returned to Osisko Development and coarse rejects are disposed after 90 days. Assays are reported to Osisko Development, and then loaded into Datamine Fusion, QA/QC samples are checked, and assays merged with sample information for future reporting.

About Osisko Development Corp.

Osisko Development Corp. is a premier North American gold development company focused on high-quality past-producing properties located in mining friendly jurisdictions with district scale potential. The Company's objective is to become an intermediate gold producer by advancing its 100%-owned Cariboo Gold Project, located in central B.C., Canada, the recently acquired Tintic Project in the historic East Tintic mining district in Utah, U.S.A., and the San Antonio Gold Project in Sonora, Mexico. In addition to considerable brownfield exploration potential of these properties, that benefit from significant historical mining data, existing infrastructure and access to skilled labour, the Company's project pipeline is complemented by other prospective exploration properties. The Company's strategy is to develop attractive, long-life, socially and environmentally sustainable mining assets, while minimizing exposure to development risk and growing mineral resources.

For further information, please contact Osisko Development Corp.:

Sean Roosen

Philip Rabenok

Chairman and CEO

Director, Investor Relations

Email: sroosen@osiskodev.com

Email: prabenok@osiskodev.com

Tel: +1 (514) 940-0685

Tel: +1 (437) 423-3644

CAUTIONARY STATEMENTS

Cautionary Statement Regarding Estimates of Mineral Resources

This news release uses the terms measured, indicated and inferred mineral resources as a relative measure of the level of confidence in the resource estimate. Readers are cautioned that mineral resources are not mineral reserves and that the economic viability of resources that are not mineral reserves has not been demonstrated. The mineral resource estimate disclosed in this news release may be materially affected by geology, environmental, permitting, legal, title, socio-political, marketing or other relevant issues. The mineral resource estimate is classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards on Mineral Resources and Mineral Reserves" incorporated by reference into NI 43-101. Under NI 43-101, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies or economic studies except for preliminary

economic assessments. Readers are cautioned not to assume that further work on the stated resources will lead to mineral reserves that can be mined economically.

Cautionary Statement Regarding Test Mining Without Feasibility Study

The Company cautions that the decision to commence small-scale underground mining activities and batch vat leaching at the Trixie test mine has been made without the benefit of a feasibility study, or reported mineral resources or mineral reserves, demonstrating economic and technical viability, and, as a result there may be increased uncertainty of achieving any particular level of recovery of material or the cost of such recovery. The Company cautions that historically, such projects have a much higher risk of economic and technical failure. There is no guarantee that production will continue as anticipated or at all or that anticipated production costs will be achieved. The failure to continue production may have a material adverse impact on the Company's ability to generate revenue and cash flow to fund operations. Failure to achieve the anticipated production costs may have a material adverse impact on the Company's cash flow and potential profitability. In continuing current operations at Trixie after closing, the Company will not be basing its decision to continue such operations on a feasibility study, or reported mineral resources or mineral reserves demonstrating economic and technical viability. The Company cautions that mining at Trixie could be suspended at any time.

Cautionary Statement to U.S. Investors

The Company is subject to the reporting requirements of the applicable Canadian securities laws, and as a result reports information regarding mineral properties, mineralization and estimates of mineral reserves and mineral resources, including the information in the Tintic Technical Report and this news release, in accordance with Canadian reporting requirements, which are governed by NI 43-101. As such, such information concerning mineral properties, mineralization and estimates of mineral reserves and mineral resources, including the information in the Tintic Technical Report and this news release, is not comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements of the U.S. Securities and Exchange Commission ("SEC").

FORWARD LOOKING STATEMENTS

Certain statements contained in this news release may be deemed "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and "forward-looking information" within the meaning of applicable Canadian securities legislation. These forward-looking statements, by their nature, require Osisko Development to make certain assumptions and necessarily involve known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied in these forward-looking statements. Forward-looking statements are not guarantees of performance. Words such as "may", "will", "would", "could", "expect", "believe", "plan", "anticipate", "intend", "estimate", "continue", or the negative or comparable terminology, as well as terms usually used in the future and the conditional, are intended to identify forward-looking statements. Information contained in forward-looking statements is based upon certain material assumptions that were applied in drawing a conclusion or making a forecast or projection, including management's perceptions of historical trends, current conditions and expected future developments; the utility and significance of historic data, including the significance of the district hosting past producing mines; the unique mineralization at Trixie; the potential of high grade gold mineralization on Trixie; the results (if any) of further exploration work to define and expand mineral resources; the ability of exploration work (including drilling) to accurately predict mineralization; the ability to generate additional drill targets; the ability of management to understand the geology and potential of Trixie; the timing and ability of the Company to produce the Trixie MRE (or any subsequent MRE) (if at all); the information and the scope of the contemplated Trixie MRE (and any subsequent MRE); the impact of the Trixie MRE; the ability of the Company to complete its exploration objectives in 2023 in the timing contemplated (if at all); the ongoing advancement of the Trixie decline; the deposit remaining open for expansion at depth and down plunge; the ability to realize upon any mineralization in a manner that is economic; as well as other considerations that are believed to be appropriate in the circumstances, and any other information herein that is not a historical fact may be "forward looking information". Material assumptions also include, management's perceptions of historical trends, the ability of exploration (including drilling) to accurately predict mineralization, budget constraints and access to capital on terms acceptable to the Company, current conditions and expected future developments, results of further exploration work to define or expand any mineral resources, the ability to continue production at Trixie, as well as other considerations that are believed to be appropriate in the circumstances. Osisko Development considers its assumptions to be reasonable based on information currently available, but cautions the reader that their assumptions regarding future events, many of which are beyond the control of Osisko Development, may ultimately prove to be incorrect since they are subject to risks and uncertainties that affect Osisko Development and its business. Such risks and uncertainties include, among others, risks relating to capital market conditions and the Company's ability to access capital on terms acceptable to the Company for the contemplated exploration and development at Tintic; the ability to continue current operations and exploration; regulatory framework; the ability of exploration activities (including drill results) to accurately predict mineralization; errors in management's geological modelling; the ability to expand operations or complete further exploration activities, including drilling; property and stream interests in the Tintic Project; the ability of the Company to obtain required approvals; the results of exploration activities; risks relating to exploration, development and mining activities; the global economic climate; metal prices; dilution; environmental risks; and community and non-governmental actions and the responses of relevant governments to the COVID-19 outbreak and the effectiveness of such responses. Readers are urged to consult the disclosure provided under the heading "Risk Factors" in the Company's annual information form for the year ended December 31, 2021, as amended, which has been filed on SEDAR (www.sedar.com) under Osisko Development's issuer profile and on the SEC's EDGAR website (www.sec.gov), for further information regarding the risks and other factors applicable to the exploration results. Although the Company's believes the expectations conveyed by the forward-looking statements are reasonable based on information available at the date of preparation, no assurances can be given as to future results, levels of activity and achievements. The Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by law. There can be no assurance that these forward-looking statements will

prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this news release. No stock exchange, securities commission or other regulatory authority has approved or disapproved the information contained herein.