

**NEWS RELEASE** 

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# NIOGOLD ACQUIRES 60% INTEREST IN MALARTIC H AND INTERSECTS 5.42 G/T AU OVER 5.7 METRES

Val-d'Or, Quebec - October 7, 2010 - NioGold Mining Corporation (TSX-V:NOX) is pleased to announce that it has acquired a 60% interest in the contiguous Malartic H and Malartic H Annex claim blocks ("Malartic H property"), located in the Malartic gold camp, by completing the terms of the option agreement signed on September 29, 2008, between Breakwater Resources Ltd. ("Breakwater"), Atlanta Gold Inc. ("Atlanta") and NioGold (refer October 1, 2008 news release).

The terms included a \$25,000 payment to Breakwater and \$1.2 million in exploration expenditures. Prior to the delivery of a bankable feasibility study, NioGold may increase its interests by an additional 10%, for a total of 70% interest, upon making a \$100,000 payment to Breakwater.

The work program consisted of an exhaustive geoscientific compilation, structural mapping, and diamond drilling. The highlights of the drilling include **0.90 g/t Au over 54.5 metres** and **12.39 g/t Au over 1.8 metres** at the H Zone and the discovery of a mineralised structure that returned an interval of **5.42 g/t Au over 5.7 metres**.

### Malartic H property:

The Malartic H property is located 7.5 kilometres to the northeast of the town of Malartic and consists of 18 mining claims covering 780 hectares. The claims cover the northwest extent of gold mineralised structures within the Norbenite-Marbanite deformation zone, which host the Marban, Norlartic and Kierens gold deposits located on the Marban Block property, now under option from NioGold by Aurizon Mines Ltd.

The discovery of high-grade gold was made in the northern portion of the property by West Shore Malartic Gold Mines Ltd. in 1934-36. Grab samples taken from trenches had returned values ranging from 15 to 1,815 g/t Au. Early exploration within the southern portion of the property was conducted by Ascot Gold Mines Ltd. (1936-39), Hugh Malartic Mines Ltd. (1944-47) and Kenroy Malartic Mines Ltd. (1945). The Ascot vein was discovered immediately south of the property border that later became the Malartic Hygrade mine (28,168 tonnes @ 19.59 g/t Au, 1962-63).

More extensive exploration programs were conducted from 1987 to 2003 by Breakwater (1987-96) and option partners Azimut Exploration Inc. (1999-2001) and Twin Mining Corp. (2003). Of the 58 holes completed during this period, 42 holes were drilled in the southern portion of the property. Up to eleven closely spaced gold mineralised zones, collectively referred to as the H Zone, were traced over a strike extent of 1 kilometre and to a depth of 500 metres. The H Zone gold mineralisation is closely associated with swarms of altered, veined and sulphide mineralised felsic to intermediate porphyry intrusive dykes cross-cutting sheared

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and mineralised mafic volcanic rocks. The deformation zone is at least 200 metres wide and lies along the projected extent of the Norbenite shear, host to the Norlartic and Kierens gold deposits to the southeast. Reported intervals of economic interest included 8.99 g/t Au over 5.1 metres (MH-89-09), 8.47 g/t Au over 3.0 metres (MH-89-18), 39.69 g/t Au over 0.9 metre (54-25) and 1.01 g/t Au over 78.4 metres (54-25).

# NioGold drilling program highlights:

Eight (8) holes were drilled to further evaluate the H Zone. Best results include:

- 12.39 g/t Au over 1.8 m (MH-09-014 from 8.4 to 10.2 m);
- 0.43 g/t Au over 37.0 m (MH-09-014 from 26.2 to 63.2 m);
- 6.19 g/t Au over 1.1 m (MH-10-032 from 204.7 to 205.8 m);
- 0.90 g/t Au over 54.5 m (MH-10-033 from 10.5 to 65.0 m); including 11.50 g/t Au over 1.2 m
- 4.33 g/t Au over 2.5 m (MH-10-076 from 84.2 to 86.7 m).

The remainder of the drilling consisted of NE-SW oriented drill hole fences across prospective stratigraphy and/or structural zones. Fences completed in the southeast portion of the property outlined a major ductile deformation corridor where two gold-bearing zones were partially delineated; the first zone was intersected in holes MH-10-034, -035, -078 and -079, which encountered sheared mafic volcanics locally mineralised with disseminated pyrite over 100 metres. This zone likely extends to the southwest onto NioGold's Malartic Hygrade claims. Mineralised intervals within this newly recognised zone include:

- 12.45 g/t Au over 0.7 m (MH-10-034 from 161.0 to 161.7 m);
- 5.42 g/t Au over 5.7 m (MH-10-078 from 223.0 to 228.7 m);
- 3.45 g/t Au over 4.8 m (MH-10-078 from 278.7 to 283.5 m);
- 3.54 g/t Au over 1.2 m (MH-10-079 from 263.5 to 264.7 m).

The second zone was intersected in holes MH-09-018, MH-10-036, -037, -038, -042, -082 and -083. Gold mineralised intervals of interest are associated with felsic to intermediate intrusive dyke swarms cross-cutting ultramafic volcanic units and locally mafic volcanics, which include:

- 6.89 g/t Au over 1.1 m (MH-09-018 from 72.1 to 73.2 m);
- 4.51 g/t Au over 1.0 m (MH-09-018 from 198.4 to 199.4 m);
- 4.61 g/t Au over 0.9 m (MH-10-036 from 78.1 to 79.0 m);
- 0.60 g/t Au over 17.4 m (MH-10-037 from 72.6 to 90.0 m);
- incl. 5.03 g/t Au over 0.9 m
- 5.74 g/t Au over 1.2 m (MH-09-042 from 232.8 to 234.0 m).

The H Zone and the two newly recognised gold-bearing zones to the north represent a priority target for follow-up drilling along their southeast extent onto the adjoining Malartic Hygrade claims.

### Technical Info, QA/QC and Qualified Persons

Reported intervals are in core lengths but are inferred to be close to true width (except where structural complexities occurred) as the holes were drilled near perpendicular to the principal local structural orientation.

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Diamond drill holes were drilled with NQ-size core in order to obtain larger sample volumes of the mineralised zones. The core was sealed delivered by the drilling contractor to NioGold's facilities located at the Norlartic mine site. The core was photographed for reference, logged and mineralised sections were sawed in half. Sample lengths vary between 0.5 to 1.5 metres. Half core samples were bagged, sealed and delivered to ALS Chemex in Val-d'Or, Quebec, an accredited laboratory. The remaining core is stored on site for reference. Samples were assayed by the fire-assay method using an atomic absorption finish on a 50-gram pulp split.

A quality assurance and quality control program (QA/QC) was implemented by NioGold and the laboratory to insure the precision and reproducibility of the analytical method and results. The QA/QC program includes the insertion of standards, blanks and field duplicates in the sample batches sent to the laboratory and a systematic re-assaying of samples returning values above 2 g/t Au by the fire-assay method using a gravimetric finish. As well, pulps grading above 0.5 g/t Au are sent to Bourlamaque Assay Laboratories Ltd. in Val-d'Or for check assaying.

The drilling program was conducted under the supervision of Yan Ducharme, M.Sc., P.Geo. (OGQ), also a Qualified Person as defined by National Instrument 43-101.

## NioGold Mining Corporation – « On Canada's Golden Highway »

NioGold Mining Corporation is a mineral exploration company focused on GOLD. The Company's flagship projects are located in the Cadillac - Malartic - Val-d'Or stretch of the prolific Abitibi gold mining district, Province of Quebec, Canada. The Cadillac, Malartic and Val-d'Or mining camps have produced over 45 million ounces of gold since the 1930's and presently encompasses seven producing gold mines and a major mine development project (Canadian Malartic, Osisko Mining). NioGold's land holdings within the Abitibi presently cover 120 km<sup>2</sup> and encompass three former gold producers, namely the Norlartic, Kierens (First Canadian), and Marban mines that collectively produced 600,000 ounces of gold. NioGold has outlined Indicated resources of 598,000 ounces gold and Inferred resources of 361,000 ounces gold in and around these deposits.

NioGold's experienced and qualified technical team will ensure the successful advancement of the Company's projects towards the highest quality mineral resources. NioGold invites you to visit the company website at <u>www.niogold.com</u>.

This news release was prepared by Rock Lefrançois, P.Geo. (OGQ), the Company's President and COO, and Qualified Person as defined by National Instrument 43-101. For information on NioGold Mining Corporation contact:

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#### FOWARD-LOOKING STATEMENTS

This news release includes forward-looking statements that are subject to risks and uncertainties. All statements within, other than statements of historical fact, are to be considered forward looking. There can be no assurances that such statements will prove accurate and, therefore, readers are advised to rely on their own evaluation of such uncertainties. The TSX Venture Exchange or the Frankfurt Stock Exchange did not approve nor do not accept responsibility for the adequacy or accuracy of this news release.

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