

TSX-V SYMBOL: PXI

August 23, 2012

NEWS RELEASE

NEW PLATINUM - PALLADIUM DISCOVERIES AT GOLDEN LOON

August 23, 2012 - Vancouver, B.C. Planet Mining Exploration Inc. ("Planet" or the "Company") (TSX-V: PXI) is pleased to announce the discovery of multiple occurrences of **platinum and palladium enrichment** encircling the large ultramafic intrusion that forms the core of the Golden loon property. The new platinum and palladium enriched zones differ from previously explored areas within the ultramafic in that they generally contain:

- Enriched platinum group metal (PGM) mineralization relative to the central intrusion with grab samples returning up to 1.75 g/t combined platinum and palladium.
- Anomalous to strong copper mineralization returning up to 3285 ppm (0.33%) copper.
- Coarse sulfides consisting of pyrite, pyrrhotite, pentlandite, chalcopyrite and rarely bornite.
- Mylonitic shear zones which may have facilitated secondary enrichment of PGMs and copper.

Samples are now being tested for **total platinum group metal enrichment**. This will include **testing for ruthenium, rhodium, osmium and iridium**, in addition to platinum and palladium. PGM's generally occur together within ultramafic intrusions and hence discovery of both platinum and palladium implies that these additional PGM's may also be present.

Sample	Platinum (g/t)	Palladium (g/t)	Combined (g/t)	Copper (ppm)	Nickel (ppm)	Cobalt (ppm)	Gold (g/t)
1605582	1.19	0.56	1.75	11	2051	109	0.13
1605596	0.60	0.79	1.39	724	334	72	-
1605572	0.51	0.53	1.04	1304	173	106	-
1605594	0.20	0.28	0.48	241	510	109	-
1605590	0.14	0.20	0.34	1569	474	127	0.02
1605539	0.09	0.14	0.23	304	759	84	0.01
1604600	0.15	-	0.15	-	1317	130	-
1605521	0.14	-	0.14	-	2161	142	0.01
1605538	0.05	0.04	0.09	3285	883	92	0.01

Table 1: Highlighted bedrock and proximal float grab sample assay results from ongoing PGM exploration.

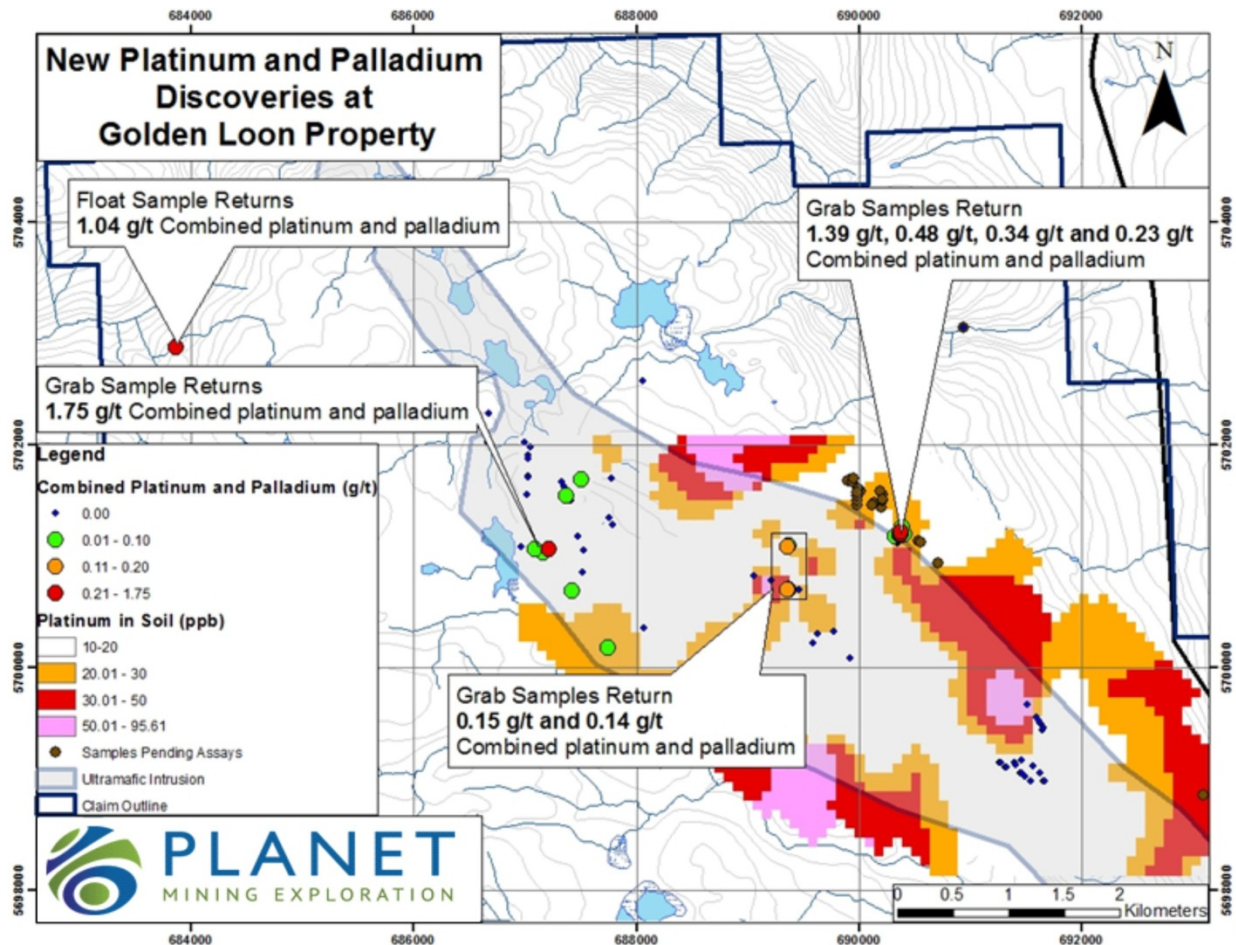


Figure 1: Map of grab sample results including highlighted values from recent exploration superimposed on platinum-in-soil results.

Platinum-in-soil results define an exploration target with more than 10 kilometres of aggregate strike distributed in a “horseshoe” pattern ringing the main ultramafic body. Early results from follow-up mapping include 1.2 kilometres strike of coarsely sulfide mineralized outcrop spatially related to a mylonitic shear zone along the eastern flank of the ultramafic. Grab samples from this area have returned up to 1.39 g/t combined platinum and palladium, with assays pending for the complete PGM profile, and for more than a dozen additional samples from this zone. **Early results suggest widespread 1+ g/t combined PGM potential within these zones of sulfide enrichment.**

Exploration of these new targets is ongoing, and will be a major focus of work as Planet continues to advance the Golden Loon project.

Maps including property location and infrastructure are posted to the Company’s web site at www.planetexploration.net.

Mr. Chris Taylor, M.Sc, P.Geo, is President of Planet and is the Qualified Person as defined by National Instrument 43-101, who supervised the preparation of the above information.

For further information please contact Mr. Chris Taylor, M.Sc. P.Geo, President, or Mr. Robert Orr, Investor Relations at 604-681-0084.

PLANET EXPLORATION INC.

On behalf of the Board

"Chris Taylor"

Chris Taylor, President

About Planet Mining Exploration

Planet Mining Exploration is a Canadian mineral exploration company focused on exploration for high development potential resources. The Planet/Goldcorp joint venture owns 100% of the Sidace Lake property in the Red Lake gold district of Ontario, 60% Goldcorp and 40% Planet. The Sidace Lake property has an NI 43-101 compliant Indicated and Inferred resource of 360,000 ounces of gold which remains open to expansion.

Planet has an option to earn up to 100% interest in the Golden Loon property through its option agreement with Tilava Mining Corporation, a private company. The property is located eight kilometres west of the town of Little Fort, south-central British Columbia, and hosts an eight square kilometre gold in soil and bedrock system plus a large Ni-Co-PGM target with over 10 kilometres of strike. Recent drill results include 80.1 metres of 1.00 g/t gold, in a from-surface gold system with 700 metres of drill-confirmed strike that remains open to extension. Paved highways and rail lines are less than 2 kilometres from the property, which is serviced by a power line and is road-accessible.

Neither 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.

This new release may contain forward-looking statements. These statements are based on current expectations and assumptions that are subject to risks and uncertainties. Actual results could differ materially because of factors discussed in the management discussion and analysis section of our interim and most recent annual financial statement or other reports and filings with the TSX Venture Exchange and applicable Canadian securities regulations. We do not assume any obligation to update any forward-looking statements, except as required by applicable securities laws.

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