



PRESS RELEASE

FOLLOW-UP S-50 DEEP DRILLING ENCOURAGING AT KIENA

Toronto, Ontario – September 4, 2012 – Wesdome Gold Mines Ltd (TSX: WDO) is pleased to update shareholders on its underground drilling progress at its Kiena mine, Val d'Or, Quebec.

HIGHLIGHTS INCLUDE

- **3.71 gAu/tonne over 4.5 metres true width in U-5965B**
- **51.86 gAu/tonne over 4.9 metres true width in U-5966**

Drilling is targeting the S-50 Deep Zone about 300 metres below the mine's deepest level (1000 metres). The S-50 Zone has accounted for about 90% of Kiena's 1.7 million ounce historic production. It was previously demonstrated to pinch out at about 1000 metres depth. However, deep drilling in 2010 cut significant gold intersections suggesting the zone is re-emerging at about 1300 metres depth (Press Release, March 29, 2010). Both holes, U-5965B and U-5966 intersected the S-50 Zone below the 2010 drill holes and the structure remains open at depth.

The Company established an exploration drift in 2011 to systematically test this potential and started drilling in 2012. Drill progress has been slower than expected due to blocky ground conditions in the upper halves of the holes however we are excited and encouraged by these results.

The S-50 Zone consists of a deformed, albitized vein-breccia-dyke complex situated at a tholeiitic basalt-komatiite contact. The unusually high grade intersection in Hole U-5966 is characterized by a large quartz vein carrying visible gold situated within the S-50 structure. A breakdown of the gold distribution within this interval is provided in Table 2. Drilling is proceeding with the third hole nearing completion.

Results are highlighted on the accompanying Longitudinal Section (Figure 1) which also shows highlights of previous drilling locations, proposed holes and existing mine workings.

Table 1: Drilling Highlights

Hole No.	From (metres)	To (metres)	Zone	Core length (metres)	Estimated True Width (metres)	Grade (gAu/tonne)	Cut Grade** (gAu/tonne)
U-5965B	440.0	447.0	S-50	7.0	4.5	3.71	3.71
U-5966	466.9	474.4	S-50	7.5	4.9	51.86	21.49

** An upper grade cutting limit of 34.28 gAu/tonne was applied.

Table 2: Detailed Assay Breakdown

Hole No.	From (metres)	To (metres)	Zone	Core length (metres)	Grade (gAu/tonne)	Cut Grade** (gAu/tonne)
U-5965B	440.0	441.5	S-50	1.5	1.15	1.15
U-5965B	441.5	442.7	S-50	1.2	1.47	1.47
U-5965B	442.7	443.7	S-50	1.0	5.78	5.78
U-5965B	443.7	445.0	S-50	1.3	11.82	11.82
U-5965B	445.0	446.5	S-50	1.5	0.04	0.04
U-5965B	446.5	447.0	S-50	0.5	2.53	2.53
U-5966	466.9	468.2	S-50	1.3	5.27	5.27
U-5966	468.2	469.2	S-50	1.0	0.07	0.07
U-5966	469.2	470.2	S-50	1.0	39.88	34.28
U-5966	470.2	471.2	S-50	1.0	10.29	10.29
U-5966	471.2	472.2	S-50	1.0	66.27	34.28
U-5966	472.2	473.2	S-50	1.0	37.70	34.28
U-5966	473.2	473.8	S-50	0.6	187.47	34.28
U-5966	473.8	474.4	S-50	0.6	192.34	34.28

TECHNICAL DISCLOSURE

The technical content of this press release has been verified by Marc Ducharme, P.Geo. OGQ, Chief Exploration Geologist, Kiena mine in his capacity as a "Qualified Person", as per requirements of National Instrument 43-101. Assaying was done by fire assay methods at the Kiena mine assay office. In addition to internal duplicate, standards and blanks, the geology department inserts blind standards and blanks into the sample stream at a frequency of one in twenty to monitor quality control.

ABOUT WESDOME

Wesdome is celebrating its 25th year of continuous mining operations in Canada. It currently has three producing gold mines with wholly-owned mining and milling complexes located in Wawa, Ontario and Val d'Or, Québec. The Company has 101.9 million shares issued and outstanding and trades on the Toronto Stock Exchange under the symbol "WDO".

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Figure 1: S-50 Zone Longitudinal Section

