



**NEWS FOR RELEASE**

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**SOLITARIO EXPLORATION & ROYALTY REPORTS DRILLING RESULTS  
ON ITS PEDRA BRANCA PLATINUM-PALLADIUM PROJECT, BRAZIL**

**Denver, Colorado:** Solitario Exploration & Royalty Corp. (NYSE Amex: **XPL**; TSX: **SLR**) announced that it has received all assay results for its 2009 drilling program at its Pedra Branca platinum-palladium project in northeastern Brazil. Forty-eight core holes totaling 3,675 meters were completed on seven different prospects. Complete assay results are appended to this news release and drill hole maps can be viewed at <http://www.solitarioxr.com/art/PB2009CedroCuriuTrapia.pdf> The 10 best intercepts were:

<b>Prospect Name</b>	<b>Drill Hole Number</b>	<b>Intercept* (meters)</b>	<b>Platinum grams/t</b>	<b>Palladium grams/t</b>	<b>Gold grams/t</b>	<b>PGE + Gold grams/t</b>
Curiu	CU-28	5.6	1.65	2.58	0.02	<b>4.25</b>
	CU-34	11.0	0.75	1.80	0.09	<b>2.64</b>
	CU-35	11.3	1.76	2.06	0.09	<b>3.90</b>
	CU-36	8.0	0.42	1.46	0.17	<b>2.05</b>
	CU-37	11.1	1.82	2.04	0.09	<b>3.95</b>
	and	10.2	0.60	1.59	0.22	<b>2.41</b>
	CU-38	6.6	1.78	3.41	0.10	<b>5.30</b>
Cedro I	CU-40	10.4	0.73	1.32	0.07	<b>2.12</b>
	CD-66	11.5	0.27	1.46	0.02	<b>1.75</b>
	CD-67	12.5	0.65	1.30	0.07	<b>2.02</b>

\* True thicknesses have not been determined for these intervals.

All work conducted during 2009 was funded by Solitario's venture partner, Anglo Platinum Ltd., through the jointly held Brazilian subsidiary, Pedra Branca Mineração ("PBM"). To date, Anglo Platinum has funded \$5.5 million in exploration and has earned a 30% interest in PBM (Solitario owns 70%). Anglo Platinum can earn a 51% interest by spending a total of \$7.0 million and a further 9% interest (to 60%) by spending an additional \$10 million.

Chris Herald, President and CEO, stated, "The Pedra Branca project hosts eight separate deposits of shallow platinum-palladium mineralization. The Curiu deposit has continued to deliver higher grade mineralization and this year's drilling expanded the zone of mineralization. We believe that there is potential for further expansion at Curiu as is the case at the recently drilled Trapia I and Cedro prospects. The larger, previously undrilled Trapia II magnetic anomaly is also prospective based on results of three initial tests completed this year. Further delineation drilling will be proposed for 2010 at all of these

locations and the Santo Amaro prospect which is open based on previous drilling. Testing of several undrilled geophysical anomalies is also pending future drilling programs.”

The drill hole information contained within this release is reported under a quality control program supervised by Mr. Walt Hunt, Chief Operating Officer for Solitario, who is a qualified person as defined by National Instrument 43-101. Samples are derived from 50% splits of HQ and NQ (2.5 and 1.9 inch) diameter core. Samples are then shipped via secured third-party land and air transportation companies and analyzed by SGS Geosol, Minas Gerais, Brazil, an ISO9001:2000 registered companies. In addition to the laboratory's quality control program, a check assay program is ongoing.

### **About Solitario**

Solitario is a gold, silver, platinum-palladium, and base metal exploration and royalty company actively exploring in Brazil, Mexico, and Peru. Besides Anglo Platinum, Solitario has significant business relationships with Votorantim Metais and Newmont Mining. Solitario has approximately US\$21 million in cash and marketable securities and no debt. Solitario is traded on the NYSE Amex ("XPL") and on the Toronto Stock Exchange ("SLR"). Additional information about Solitario is available online at [www.solitarioxr.com](http://www.solitarioxr.com)

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*This press release includes certain "Forward-Looking Statements" within the meaning of section 21E of the United States Securities Exchange Act of 1934, as amended. All statements, other than statements of historical fact, included herein, including without limitation, statements regarding potential mineralization and reserves, exploration results and future plans and objectives of Solitario, are forward-looking statements that involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Development of Solitario's properties are subject to the success of exploration, completion and implementation of an economically viable mining plan, obtaining the necessary permits and approvals from various regulatory authorities, compliance with operating parameters established by such authorities and political risks such as higher tax and royalty rates, foreign ownership controls and our ability to finance in countries that may become politically unstable. Important factors that could cause actual results to differ materially from Solitario's expectations are disclosed under the heading "Risk Factors" and elsewhere in Solitario's documents filed from time to time with Canadian Securities Commissions, the United States Securities and Exchange Commission and other regulatory authorities.*

## Phase II Pedra Branca Drill Hole Assay Results

Prospect	Hole #	From	To	Thickness*	Pt	Pd	Au	PGE+Au
Trapia I	TU-08	70.7	77.1	<b>6.4</b>	0.27	0.93	0.01	<b>1.22</b>
	TU-09	42.8	54.6	<b>11.8</b>	0.40	0.90	0.02	<b>1.33</b>
	incl.	42.8	47.8	<b>5.0</b>	0.67	1.60	0.04	<b>2.31</b>
	TW-16	0.0	19.0	<b>19.0</b>	0.40	0.43	0.02	<b>0.86</b>
	TW-16	36.3	37.9	<b>1.6</b>	2.02	1.53	0.03	<b>3.57</b>
	TW-17	n/a						
	TW-18	0.0	12.4	<b>12.4</b>	0.25	0.92	0.09	<b>1.26</b>
Cedro IV	CD-55	6.0	15.0	<b>9.0</b>	0.37	0.61	0.02	<b>1.01</b>
Cedro II	CD-61	41.7	49.4	<b>7.8</b>	0.37	0.69	0.02	<b>1.07</b>
	CD-63	59.4	60.8	<b>1.4</b>	0.17	0.66	0.01	<b>0.84</b>
	CD-64	31.6	33.4	<b>1.8</b>	0.27	0.70	0.01	<b>0.98</b>
		50.0	52.0	<b>2.0</b>	0.94	0.26	0.01	<b>1.21</b>
		59.4	60.0	<b>0.6</b>	0.35	0.60	0.01	<b>0.95</b>
Cedro I	CD-66	0.0	11.5	<b>11.5</b>	0.27	1.46	0.02	<b>1.75</b>
	CD-67	61.0	73.5	<b>12.5</b>	0.65	1.30	0.07	<b>2.02</b>
Cedro III	CD-70	0.0	5.1	<b>5.1</b>	0.56	0.58	0.01	<b>1.15</b>
		16.1	16.8	<b>0.8</b>	1.56	2.82	0.02	<b>4.40</b>
	CD-71	20.4	22.4	<b>2.0</b>	0.54	1.19	0.01	<b>1.75</b>
Curiu	CU-28	0.0	5.6	<b>5.6</b>	1.65	2.58	0.02	<b>4.25</b>
	CU-34	0.0	11.0	<b>11.0</b>	0.75	1.80	0.09	<b>2.64</b>
		25.0	27.0	<b>2.0</b>	0.14	1.03	0.21	<b>1.38</b>
	CU-35	0.0	11.3	<b>11.3</b>	1.76	2.06	0.09	<b>3.90</b>
	CU-36	0.0	8.0	<b>8.0</b>	0.42	1.46	0.17	<b>2.05</b>
		14.0	15.0	<b>1.0</b>	0.18	1.05	0.07	<b>1.30</b>
		29.7	30.6	<b>1.0</b>	0.37	1.02	0.05	<b>1.43</b>
		32.5	33.2	<b>0.7</b>	5.18	8.72	0.08	<b>13.97</b>
	CU-37	0.0	11.1	<b>11.1</b>	1.82	2.04	0.09	<b>3.95</b>
		18.4	28.6	<b>10.2</b>	0.60	1.59	0.22	<b>2.41</b>
	CU-38	26.1	32.7	<b>6.6</b>	1.78	3.41	0.10	<b>5.30</b>
	CU-40	38.6	49.0	<b>10.4</b>	0.73	1.32	0.07	<b>2.12</b>
Trapia II	TD-03	0.0	6.5	<b>6.5</b>	0.16	0.67	0.03	<b>0.85</b>
	TD-05	37.0	44.0	<b>7.0</b>	0.26	0.74	0.03	<b>1.03</b>

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