



IVANHOE  
MINES

For Immediate Release

July 22, 2002

## **NEW DRILL RESULTS AT THE CENTRAL ZONE SIGNIFICANTLY EXPANDS THE SCOPE AND POTENTIAL SCALE OF THE TURQUOISE HILL PROJECT IN MONGOLIA**

**ULAANBAATAR, MONGOLIA** — Ivanhoe Mines' Chairman Robert Friedland and Executive Vice-President, Exploration, Douglas Kirwin announced today that ongoing exploration drilling at the Turquoise Hill (Oyu Tolgoi) Project in Mongolia has significantly expanded the zone of primary gold- and copper-rich chalcopyrite mineralization in the Central Zone. Drilling now indicates that the primary gold/copper porphyry mineralization appears to surround, both laterally and to depth, a core of secondary copper-rich covellite and chalcocite mineralization that lies beneath a near-surface, supergene-enriched chalcocite blanket.

“This discovery of a second zone of primary gold and copper porphyry mineralization at Central Zone is very good news and significantly enlarges the scale of the project,” said Mr. Kirwin. “Given the strength and extent of the induced polarization survey that stretches all the way to the Far North Oyu target, there is excellent exploration potential to expand this discovery and for the discovery of additional mineralization similar to that delineated in the Southwest Discovery Zone. This suggests that we have multiple pulses of gold-rich porphyry mineralization on the property.”

Ivanhoe's geological model indicates that the previously identified covellite/chalcocite mineralization at Central Oyu is a shallow overprinting and replacement of the primary chalcopyrite mineralization and represents a separate mineralizing event. As such, the covellite/chalcocite mineralization appears to grade outward and at depth into an, as yet, undefined zone of gold- and copper-rich chalcopyrite mineralization, similar to that defined at the adjacent Southwest Oyu Discovery Zone. The gold-bearing chalcopyrite mineralization in the Central Zone has the potential to develop into a substantial deposit given the aerial extent over which it has been encountered in the current drill program.

### **1. Chalcopyrite Mineralization in Central Oyu**

To date, the primary chalcopyrite mineralization in the Central Oyu Zone has been intersected by ten wide-spaced holes over a distance of up to 1,000 metres in an east-west direction and up to 800 metres in a north-south direction. As drilling moves north, the Central Zone may merge into the North Oyu geophysical target.

Significant intercepts from the zone of chalcopyrite mineralization in the Central Zone include:

Hole	From (m)	To (m)	Interval (m)	Gold (g/t)	Copper (%)
OTD187	334	436	102	1.40	0.84
OTD196	294	450	156	0.43	0.84
OTD202	280	416	136	0.58	0.89
OTD206	184	304	120	0.18	0.53
OTD207	238	382	144	0.66	0.78
OTD210	214	398	184	0.51	0.49
OTD211	470	486	16	0.49	0.69
OTD211	514	542	28	0.58	0.56
OTD216	464	558	94	0.15	0.58
OTD217	312	386	74	0.12	0.64
OTD217	400	494	94	0.25	0.65
OTD226	264	322	58	0.42	1.90
OTD226	532	590	58	1.32	1.02

Highlights of this style of mineralization include the following intercepts: OTD187 intercepted 102 metres of 1.40 g/t gold and 0.84% copper, OTD196 encountered 156 metres grading 0.43 g/t gold and 0.84% copper, and OTD202 intersected 136 metres grading 0.58 g/t gold and 0.89% copper in the primary chalcopyrite zone. OTD211 encountered 16 metres grading 0.49 g/t gold and 0.69% copper followed by 28 metres of 0.58 g/t gold and 0.56% copper starting at 470 metres, after it had intersected 262 metres grading 0.08 g/t gold and 0.89% copper in the overlying covellite/chalcocite mineralization.

On the north flank of the covellite/chalcocite zone, OTD226, a step-out hole 200 metres north of OTD211, intercepted 58 metres of chalcopyrite mineralization grading 0.42 g/t gold and 1.90% copper beginning at 264 metres down-hole followed by an additional 58 metres grading 1.32 g/t gold and 1.02% copper beginning at a down-hole depth of 532 metres. The two mineralized intervals in OTD226 indicate that primary chalcopyrite mineralization extends to the north flank, and potentially beneath the covellite/chalcocite zone.

The gold-bearing chalcopyrite zone is open laterally and to depth. A step-out hole, OTD243, is being drilled in a southerly direction on the same section as OTD226, 200 metres further to the north, to test the depth extent and grade of these targets. Chalcopyrite, the world's leading source of copper, is a common mineral and is found in almost all sulfide deposits. It contains approximately 35% copper by weight.

The Central Zone is outlined by a large, 1,000-metre by 500-metre induced polarization (IP) anomaly north of the Southwest and South zones. Sixteen angled core holes have been completed in the Central Zone in the first half of 2002. These holes were drilled to delineate copper and gold resources below the extensive chalcocite-rich secondary blanket that was partially delineated by the company's 2000 reverse-circulation (RC) drill program.

## 2. Covellite and Chalcocite Copper Mineralization in Central Oyu

Situated in the middle of the gold-bearing chalcopyrite mineralization in Central Oyu is a large, tabular zone of secondary covellite and hypogene chalcocite copper mineralization trending approximately east west. The zone is currently known to be approximately 200 metres wide, has a vertical extent between 300 and 400 metres, and a

strike length of approximately 600 metres. **Significant drill intercepts within this zone include 262 metres of 0.89% copper and 0.08 g/t gold, including 114 metres of 1.33% copper and 0.11 g/t gold, in OTD211; 268 metres of 0.70% copper and 0.07 g/t gold in OTD216; and 124 metres of 1.20% copper and 0.07 g/t gold in OTD217.** Chalcocite and covellite are two of the world's most important sources of copper because of their high copper content. Chalcocite contains approximately 80% copper by weight, while covellite contains approximately 66%.

**Overlying the primary mineralization is an extensive near-surface blanket of secondary chalcocite mineralization that is potentially amenable to solvent extraction-heap leaching technology (SX/EW).**

Ivanhoe's recent success in delineating a large, near-surface zone of high-grade covellite/chalcocite copper mineralization at Central Oyu, together with the previously identified blanket of chalcocite mineralization, provides for the possibility to fast-track development at Turquoise Hill with a low capital cost SX/EW copper cathode operation at the Central Zone, while the deeper portions of the gold- and copper-rich Southwest Zone and related concentrator complex are being developed. This option could significantly reduce the required infrastructure costs in the early stages of the project's planned development. It is important to note that many large porphyry mines, including the 240,000 tonnes-per-day Grasberg Mine in Indonesia, were developed in stages.

Scoping work is ongoing with the drilling of large-diameter metallurgical core holes for leaching and concentrate test work. Large-diameter drilling also is planned to measure the quantity of ground water in proximity to the project site. To date, the company has completed approximately 50,000 metres of core drilling at the project. Drilling has been focused on expanding the mineralization and providing information for engineering studies designed to scope various production scenarios.

**Significant intercepts in recent drill holes in Central Oyu:**

<b>Hole Number</b>	<b>Final Depth</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>
OTD210	689.9	166	198	32	0.47	0.42
		<b>214</b>	<b>398</b>	<b>184</b>	<b>0.51</b>	<b>0.49</b>
		<b>430</b>	<b>456</b>	<b>26</b>	<b>0.58</b>	<b>0.57</b>
OTD211	552.45	64	78	14	0.01	0.86
		<b>124</b>	<b>386</b>	<b>262</b>	<b>0.08</b>	<b>0.89</b>
	including	<b>272</b>	<b>386</b>	<b>114</b>	<b>0.11</b>	<b>1.33</b>
		<b>470</b>	<b>486</b>	<b>16</b>	<b>0.49</b>	<b>0.69</b>
		<b>514</b>	<b>542</b>	<b>28</b>	<b>0.58</b>	<b>0.56</b>
OTD216	574.2	22	32	10	0.04	1.21
		<b>142</b>	<b>410</b>	<b>268</b>	<b>0.07</b>	<b>0.70</b>
	including	<b>340</b>	<b>410</b>	<b>70</b>	<b>0.08</b>	<b>0.89</b>
		<b>464</b>	<b>558</b>	<b>94</b>	<b>0.15</b>	<b>0.58</b>
<b>Hole Number</b>	<b>Final Depth</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)</b>	<b>Au (g/t)</b>	<b>Cu (%)</b>

OTD217	512	<b>160</b>	<b>284</b>	<b>124</b>	<b>0.07</b>	<b>1.20</b>
		<b>312</b>	<b>386</b>	<b>74</b>	<b>0.12</b>	<b>0.64</b>
		<b>400</b>	<b>494</b>	<b>94</b>	<b>0.25</b>	<b>0.65</b>
OTD224	412	<b>24</b>	<b>30</b>	<b>6</b>	<b>0.02</b>	<b>1.85</b>
		<b>66</b>	<b>336</b>	<b>270</b>	<b>0.06</b>	<b>0.50</b>
		336	410	74	0.05	0.22
		482	568	86	0.12	0.60
OTD226	857	<b>54</b>	<b>116</b>	<b>62</b>	<b>0.03</b>	<b>0.83</b>
		116	264	148	0.03	0.04
		<b>264</b>	<b>322</b>	<b>58</b>	<b>0.42</b>	<b>1.90</b>
		322	416	94	0.03	0.02
		416	532	116	0.09	0.23
		<b>532</b>	<b>590</b>	<b>58</b>	<b>1.32</b>	<b>1.02</b>
		590	762	172	0.18	0.40

### 3. Additional Mineralization Discovered between Central and Southwest Zones

Drilling in between the Central and Southwest Zones has located strong chalcopyrite, covellite and chalcocite mineralization along the footwall of a major northeast-trending structure that extends northeast from the Southwest Discovery area. OTD219 intersected 392 metres grading 0.77% copper and 0.04 g/t gold, from 208 metres down hole, including 152 metres grading 1.06% copper and 0.04 g/t gold. OTD227, collared 120 metres southeast and up dip of OTD219, encountered sediments overlying the mineralization intersected in OTD219. A scissor hole, OTD240, drilled in a northwesterly direction, penetrated the sedimentary contact with the underlying mineralization in OTD219 at a down-hole depth of 284 metres and encountered moderate-to-strong bornite-chalcocite-covellite mineralization to the bottom of the hole at 539 metres. The significance of the mineralization intersected in OTD219 and OTD240 will not be fully apparent until the strike and depth extent of the structure is tested.

#### Significant intercepts in recent drill holes between Southwest and Central Zones:

Hole Number	Final Depth (m)	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)
OTD215	522.1	<b>174</b>	<b>224</b>	<b>50</b>	<b>0.04</b>	<b>0.68</b>
		302	418	116	0.03	0.43
		418	522	104	0.02	0.31
OTD219	600.2	44	122	78	0.06	0.45
		150	180	30	0.08	0.43
		<b>208</b>	<b>600.2</b>	<b>392.2</b>	<b>0.04</b>	<b>0.77</b>

On May 29, 2002, Ivanhoe announced that the Southwest Zone alone hosts a porphyry gold-copper

deposit containing some 13.8 million ounces of gold and 6.9 billion pounds of copper within an estimated inferred mineral resource of 821 million tonnes grading 0.52 g/t gold and 0.38% copper, based on a cut-off grade of 0.30% copper equivalent. The Southwest Zone hosts a higher-grade core zone of 120 million tonnes grading 1.55 g/t gold and 0.70% copper, containing 6.0 million ounces of gold and 1.8 billion pounds of copper. Four nearby, related, mineralized zones — Central, North, South and Far Southwest — were not included in the resource estimate. Given the significance of the newly discovered mineralization in Central Oyu, Ivanhoe expects to release an updated resource estimate, incorporating the latest drilling results, later this quarter.

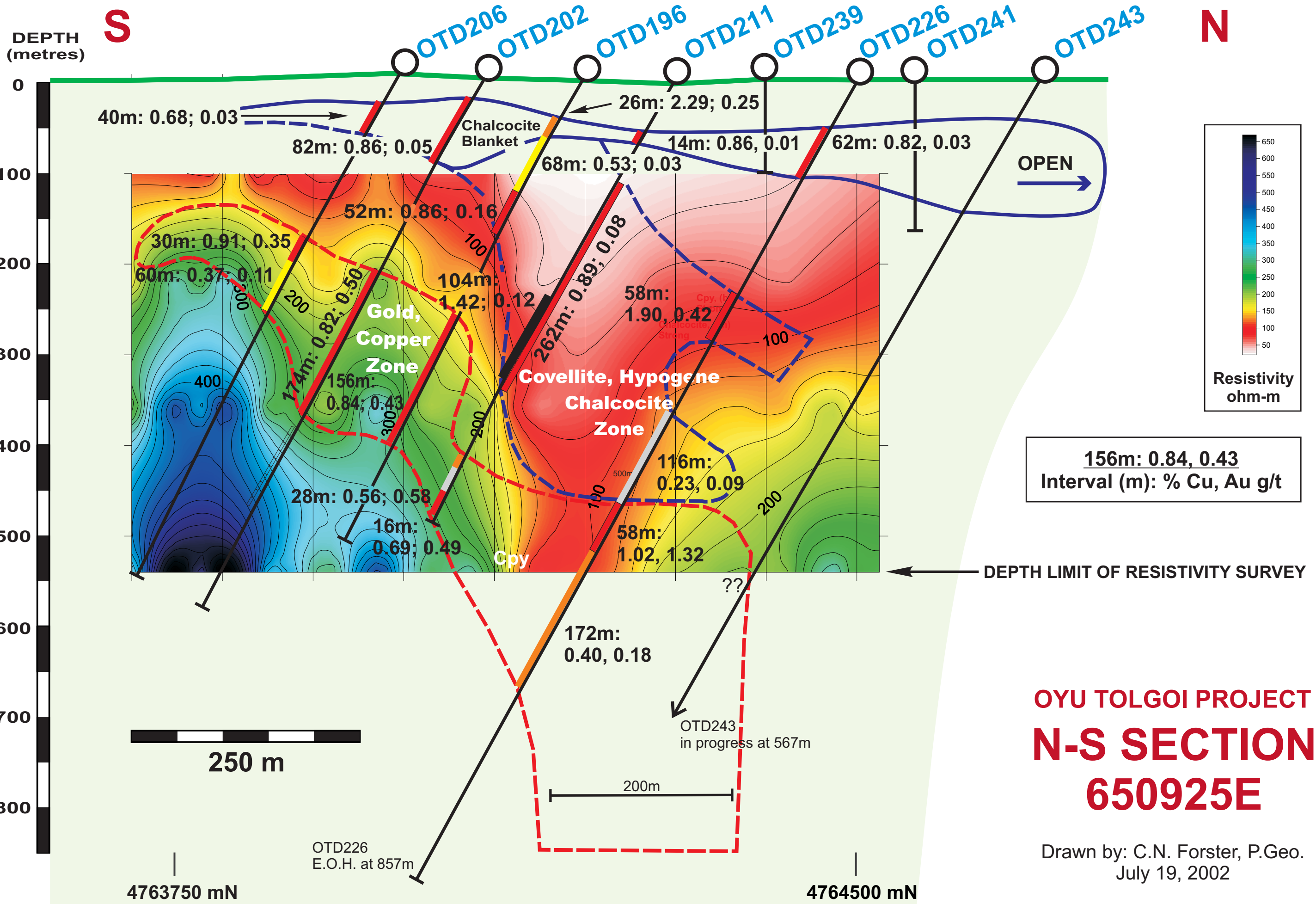
Charles Forster, P.Geo., Ivanhoe Mines' Turquoise Hill Manager, a qualified person as defined by National Instrument 43-101, supervised the preparation of the information in this release. SGS Analabs Pty. Ltd. prepares the split core at the project site and assays all samples at its facility in Ulaanbaatar, Mongolia. Ivanhoe inserts prepared standards and blanks at the sample preparation lab on the project site to monitor the quality control of the assay data. All drill holes, together with updated drill plans and sections, will be posted on the Turquoise Hill Project section of the company's website at [www.ivanhoemines.com](http://www.ivanhoemines.com).

**Ivanhoe holds mineral rights to more than 51,600 square kilometres (19,900 square miles) in Mongolia, most of which is within the South Gobi porphyry belt, which compares favourably in size and style of mineralization to several of the world's most productive copper-gold porphyry provinces. Exploration drilling is underway at the company's gold and copper discovery porphyry at Kharmagtai, 120 kilometres north of Turquoise Hill, and at a sediment-hosted gold prospect at OV3, approximately 15 kilometres west of Kharmagtai. Other high-priority targets within the belt that Ivanhoe plans to drill-test this year include Shuteen, Oyut Ulaan, Chandman Uul, Oyut Ovoo and Saran Uul. Additional drill rigs are being sourced from Australia and Canada. By the end of the summer, Ivanhoe expects to have 18 drill rigs working on its Mongolian exploration program.**

**Ivanhoe is a diversified mining company, producing LME Grade A copper from its Monywa joint venture in Myanmar, iron ore products from ABM Mining's Savage River Mine in Australia, and gold and silver from its new Eunsan Mine in South Korea. Ivanhoe also is actively exploring for gold, platinum group metals and base metals throughout Asia.**

Ivanhoe shares are listed on the Toronto and Australian stock exchanges under the symbol IVN. Information contacts: Investors: Bill Trenaman / Media: Bob Williamson +1.604.688.5755

- 1. Forward-Looking Statements:** Statements in this release that are forward-looking statements are subject to various risks and uncertainties concerning the specific factors disclosed under the heading "Risk Factors" and elsewhere in the corporation's periodic filings with Canadian Securities Regulators. Such information contained herein represents management's best judgment as of the date hereof based on information currently available. The company does not assume the obligation to update any forward-looking statement.
- 2. Inferred Resources:** The May 29, 2002, inferred resource estimate for the Southwest Oyu zone was prepared by AMEC E&C Services Limited, of Vancouver, Canada, in accordance with Canadian regulatory requirements set out in National Instrument 43-101. At current metals prices, some of the resource in the Southwest Oyu Zone may prove too deep to recover by open-pit mining methods. Inferred resources do not have demonstrated economic viability.



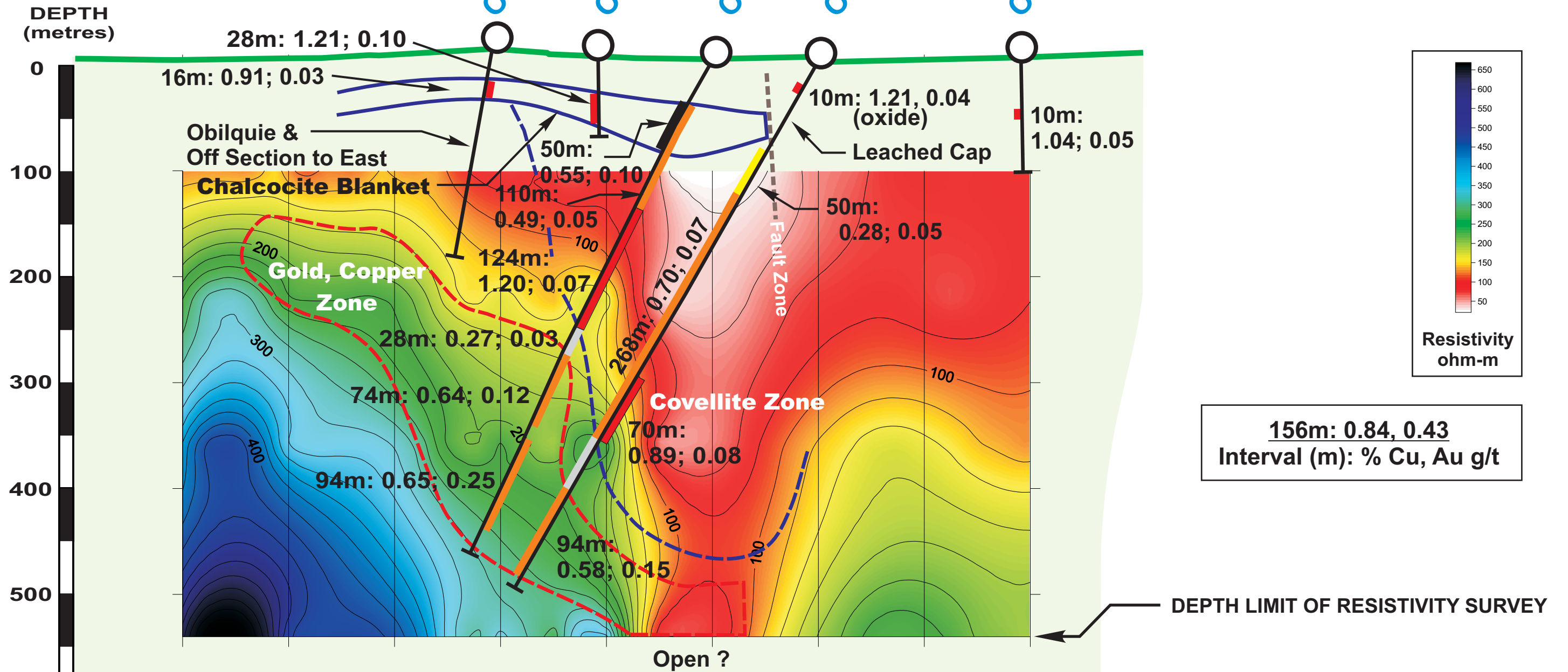
**OYU TOLGOI PROJECT**  
**N-S SECTION**  
**650925E**

Drawn by: C.N. Forster, P.Geo.  
 July 19, 2002



S

N



OYU TOLGOI PROJECT  
**N-S SECTION**  
**651025E**

Drawn by: C.N. Forster, P.Geo.  
 July 19, 2002