IVANHOE
MINES

**For Immediate Release**
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# LATEST EXPLORATION ESTABLISHES A GEOLOGICAL CONNECTION BETWEEN ALL THREE ZONES OF GOLD AND COPPER AT TURQUOISE HILL IN SOUTHERN MONGOLIA.

## GEOPHYSICS AND DRILLING SIGNIFICANTLY EXPAND FAR NORTH DISCOVERY

**ULAAN BAATAR, MONGOLIA — Ivanhoe Mines' Chairman Robert Friedland and Executive Vice-President, Exploration Douglas Kirwin announced today that the magnitude of the gold and copper discovery at Turquoise Hill (Oyu Tolgoi) in Mongolia has been upgraded by the realization that all three previously identified mineralized zones are geologically connected as part of one major mineralized system.**

**This significant realization is a result of a recently completed, gradient array induced polarization (IP) survey conducted on east- west-oriented grid lines. The survey mapped a continuous geophysical anomaly 4.5 kilometres in strike length, trending north-south, that connects the three principal zones of mineralization at Turquoise Hill; Southwest Oyu, Central Oyu and Far North Oyu. The survey revealed that the anomaly coincides with all three discovery zones, indicating that there is a common controlling geological structure that links all of the zones. The new induced polarization survey map is on Ivanhoe Mines' website at www.ivanhoemines.com.**

**"The new IP anomaly and our recent drilling shows that the gold and copper mineralization that we have discovered so far at Turquoise Hill is controlled by a single major structure," Mr. Kirwin said. "Our latest data suggest that the extent of the presently known mineralization may be substantially increased with additional drilling along the extent of this major structure."**

**<u>Drilling Significantly Expands Far North Discovery</u>**

**The completion of nine new step-out holes has significantly increased the size of the Far North Zone to approximately one kilometre long, at least 400 metres wide down dip and 250 to 350 metres thick. The Far North Discovery remains open in all directions, as well as to depth. The one-kilometre strike length of the Far North Zone is approximately double the length of the earlier estimate announced last November. Diamond drilling within the zone has yielded significant mineralized intercepts, grading up to 3.43% copper and 0.40 grams per tonne (g/t) gold. The recent drilling in the northeasterly portion of the Far North deposit has intercepted high copper and associated gold grades and an increased density of**

**quartz veining, suggesting proximity to an intrusive source.**

**Further Expansion Potential**

**The results of the recently completed IP survey show that the chargeability anomaly flanking the Far North copper-rich sulphides extends for an additional 900 metres north of OTD344, which is the most northeasterly step-out hole drilled to date. The survey also suggests that the Far North Zone may extend south toward, and in fact connect with, the Central Zone, which is approximately 750 metres to the south-southwest along trend. Several new holes in the gap between the two zones are returning positive results.**

**Three holes, OTD319, OTD327 and OTD344, were recently drilled to progressively test the NNE strike extent of the high-grade Far North Zone.**

- **OTD319 intersected 456 metres grading 1.58% copper and 0.12 g/t gold, including 276 metres grading 2.19% copper and 0.17 g/t gold. OTD319 was collared approximately 100 metres north of OTD310, which intersected 368 metres grading 2.46% copper and 0.23 g/t of gold.**
- **OTD327, collared 100 metres NNE of OTD319, intersected 368 metres grading 1.50% copper and 0.08 g/t gold, including 82 metres grading 2.85% copper and 0.14 g/t gold.**
- **OTD344, collared approximately 100 metres along strike to the northeast from OTD327, also has encountered very strong chalcopyrite, bornite and chalcocite mineralization. Assays are pending.**

**Six other holes, OTD298, OTD304, OTD305, OTD308, OTD313 and OTD329, also intercepted wide intervals of copper-rich mineralization within the Far North Zone.**

**Significant assays received from new holes in Far North Oyu.**

| | Total Depth | From (metres) | To (metres) | Interval (metres) | Gold (g/t) | Copper (%) |
|---|---|---|---|---|---|---|
| **OTD298** | 850 | **416** | **502** | **86** | **0.02** | **1.18** |
| Dip -60° | | 520 | 544 | 24 | 0.01 | 0.56 |
| | | **544** | **646** | **102** | **0.02** | **1.26** |
| | | 646 | 664 | 18 | 0.01 | 0.50 |
| | | 684 | 736 | 52 | 0.03 | 0.61 |
| | | | | | | |
| **OTD303** | 895 | 342 | 416 | 74 | 0.01 | 0.30 |
| Dip -60° | | 416 | 450 | 34 | 0.02 | 0.77 |
| | | **450** | **794** | **344** | **0.11** | **1.77** |
| | including | **602** | **736** | **134** | **0.17** | **2.29** |
| | | 794 | 895 | 101 | 0.05 | 0.83 |
| | | | | | | |
| **OTD304** | 936 | 152 | 232 | 80 | 0.04 | 0.59 |
| Dip -60° | | **232** | **910** | **678** | **0.04** | **1.17** |
| | including | **232** | **664** | **432** | **0.04** | **1.33** |

| | | | | | | |
|---|---|---|---|---|---|---|
| | including | 664 | 710 | 46 | 0.03 | 0.38 |
| | including | **710** | **788** | **78** | **0.06** | **1.22** |
| | including | 788 | 818 | 30 | 0.03 | 0.44 |
| | including | **818** | **910** | **92** | **0.05** | **1.02** |
| | | 910 | 924 | 14 | 0.02 | 0.33 |
| | | | | | | |
| **OTD305** | 738 | 394 | 458 | 64 | 0.02 | 0.66 |
| Dip -60° | | **458** | **738** | **280** | **0.07** | **1.73** |
| | | **564** | **708** | **144** | **0.11** | **1.99** |
| | | **708** | **738** | **30** | **0.04** | **1.07** |
| | | | | | | |
| **OTD313** | 952.5 | **418** | **952.5** | **534.5** | **0.16** | **1.50** |
| Dip -60° | including | **418** | **546** | **128** | **0.01** | **1.09** |
| | including | **546** | **682** | **136** | **0.32** | **3.38** |
| | including | 682 | 874 | 192 | 0.05 | 0.90 |
| | including | 874 | 952.5 | 78.5 | 0.45 | 0.76 |
| | | | | | | |
| **OTD319** | 929 | 324 | 348 | 24 | 0.03 | 0.62 |
| Dip -70° | | **324** | **780** | **456** | **0.12** | **1.58** |
| | including | **348** | **624** | **276** | **0.17** | **2.19** |
| | including | **348** | **468** | **120** | **0.04** | **1.25** |
| | including | **468** | **608** | **140** | **0.29** | **3.11** |
| | including | **608** | **624** | **16** | **0.10** | **1.24** |
| | including | 624 | 672 | 48 | 0.04 | 0.73 |
| | including | 672 | 780 | 108 | 0.06 | 0.62 |
| | | 794 | 926 | 132 | 0.08 | 0.49 |
| | | | | | | |
| **OTD324** | 832.3 | **336** | **470** | **134** | **0.03** | **1.28** |
| Dip -70 | | 486 | 616 | 130 | 0.04 | 0.51 |
| | | 698 | 808 | 110 | 0.07 | 0.28 |
| | | | | | | |
| **OTD327** | 860.9 | **358** | **726** | **368** | **0.08** | **1.50** |
| Dip -70° | including | **358** | **598.5** | **240.5** | **0.09** | **1.84** |
| | including | **394** | **476** | **82** | **0.14** | **2.85** |
| | | 598.5 | 726 | 127.5 | 0.07 | 0.87 |
| | | 726 | 860.9 | 134.9 | 0.08 | 0.62 |
| | | | | | | |
| **OTD329** | 830.4 | 442 | 456 | 14 | 0.02 | 0.62 |
| Dip -70° | | **456** | **684** | **228** | **0.06** | **1.84** |
| | including | **550** | **644** | **94** | **0.09** | **2.34** |
| | | 812 | 830.4 | 18.4 | 0.01 | 0.48 |

**Drill testing of the south-southwest extension of the IP anomaly extending south from the Far North Zone toward the Central Zone is underway. Following are the initial results from the eastern flank of the new**

**anomaly.**

- **OTD334, collared 200 metres SSW of OTD324, intersected copper mineralization between down-hole depths of 417 metres and 554 metres, where the hole was terminated due to difficult drilling conditions.**
- **OTD346 stepped forward 120 metres to re-drill the section and has encountered copper mineralization between down-hole depths of 344 metres and 596 metres.**
- **OTD338 has been completed on a parallel section 250 metres SSW of the OTD334/OTD336 section and approximately 200 metres north of the Central Zone. The hole encountered broad intervals of copper mineralization between down-hole depths of 240 metres and 665 metres.**

**Copper and gold assays are pending for all three holes.**

**Advancing the Geological Understanding of Turquoise Hill**

**During November and December, 2002, Ivanhoe resurveyed a north-south-oriented block measuring 2.5 kilometres by 5 kilometres over the core area of interest at Turquoise Hill, encompassing the Southwest, Central and Far North zones. The IP survey was conducted on east-west gridlines spaced 100 metres apart, an orientation that was chosen to provide a fresh and more complete induced polarization picture of the limits of the north-northeast-trending Far North Zone. Previous gradient IP surveys were conducted on north-south-oriented lines, which showed the Far North zone as a broad, 1.5-kilometre-wide chargeability anomaly at the north end of a donut-shaped feature encompassing Central Oyu on its southern flank.**

**An IP survey measures chargeability, which is the ground's varying ability to retain an induced electrical charge. Sulphide mineralization in the ground holds a stronger charge than, for example, clay. Survey results are illustrated by bands of colour that correlate to the different levels of sulphide mineral content that exist in the ground. On Ivanhoe's IP survey map, pink and red indicate the highest chargeability, which infers the strongest sulphide mineral content; blue indicates the lowest chargeability.**

**The linearity of the newly identified anomaly implies significant structural control on the mineralization at Turquoise Hill. The general "S" shape is indicative of a major zone of dilation that could act as a conduit for the mineralization system along its trend. The peak of the chargeability at the mid-point of the IP anomaly may represent the centre of dilation, which is coincident with Central Oyu, where rich covellite and chalcocite mineralization represents the core of the high-sulphidation system. This high-sulphidation mineralization, consisting of pyrite, covellite, chalcocite, bornite, chalcopyrite and minor enargite, extends north and south from the Central Oyu core along the controlling structures.**

**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. prepared the split core at the project site and assayed all samples at its facility in Ulaan Baatar. Ivanhoe inserted 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, with updated drill plans and sections, are posted on the Turquoise Hill Project section of the company's website at www.ivanhoemines.com.**

**Ivanhoe shares are listed on the Toronto and Australian stock exchanges under the symbol IVN.**

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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.

# OYU TOLGOI PROJECT DRILLING UPDATE

## plotted on Induced Polarization

650000 mE
650500 mE
651000 mE
651500 mE
4766000 mN
4765500 mN
4765000 mN
4764500 mN
4764000 mN
4763500 mN
4763000 mN

Far North Oyu Zone

Central Oyu Zone

South-West Oyu Zone

South Oyu Zone

OTRCD352
OTD343
OTD333
OTD310
OTRCD344
OTD339
OTD327
OTD342
OTD289
OTD319
OTRC348
OTRCD345
OTRCD347
OTD304
OTD282
OTRCD350
OTD287A
OTD313
OTD329
OTD273
OTRCD340
OTD272
OTD278
OTD303
OTRCD353
OTD270
OTD246
OTD244
OTD250
OTD305
OTD286
OTD324
OTD254
OTD259
OTD298
OTD346
OTD334
OTD002
OTD260
OTD006
OTD257
OTD267
OTD253
OTD248a
OTD255
OTD338
OTD243
OTD014
OTD241
OTD306
OTD300
OTD188
OTD284
OTD226
OTD236
OTD290
OTD299
OTD242
OTD258
OTD017
OTD239
OTD262
OTD271
OTD247
OTD341
OTD280
OTD193
OTD198
OTD225
OTD191
OTD211
OTD216
OTD224
OTD332
OTD015
OTD210
OTD323
OTD196
OTD217
OTD159
OTD209
OTD194
OTD187
OTD275
OTD321
OTD285
OTD335
OTD238
OTD202
OTD235
OTD207
OTD249
OTD237
OTD003
OTD302
OTD016
OTD206
OTD192
OTD312
OTD295
OTD256
OTD294
OTD309
OTD001
OTD349
OTD018
OTD201A
OTD215
OTD212
OTD205
OTD315
OTD219
OTD251
OTD264
OTD203
OTD012
OTD227
OTD268
OTD231
OTD245
OTD307
OTD326
OTD288
OTD317
OTD232
OTD185
OTD277
OTD176
OTD181
OTD296
OTRCD214
OTD274
OTD252
OTD297
OTD292
OTD179
OTD325
OTD240
OTD200
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OTD174
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OTD291
OTD316
OTD283
OTD276
OTD184
OTD189
OTD183
OTD020
OTD301
OTD311
OTD314
OTD008
OTD182
OTD328
OTD281
OTD337
OTD320
OTD208
OTD265
OTD164
OTD186
OTD213
OTD229
OTD228
OTD261
OTD173
OTD168
OTrc220
OTD336
OTD233
OTD331
OTD308
OTRC221
OTD180
OTD266
OTD318
OTD197
OTD204
OTD322
OTD165
OTD279
OTD269
OTD005
OTD170
OTD007
OTD195
OTD167

### LEGEND

- OTD008 — Diamond and RC drill number and location
- Normal fault
- Strike slip fault
- Quartz vein
- 35° — Joint with dipping
- Joint with vertical dipping
- 47° — Bedding with dipping
- Bedding with vertical dipping
- Pit

N

0 50 100 150 200 250 (m)

Gradient Array IP
4800m AB (2 mv/v contours)

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**OYU TOLGOI PROJECT**
**Drill Location Map**

Scale: 1:10,000

Data updated: January 3, 2002