

IVANHOE MINES LTD  
Form 6-K  
October 29, 2004

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SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 OR 15d-16 OF  
THE SECURITIES EXCHANGE ACT OF 1934

From: October 28, 2004

IVANHOE MINES LTD.

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*(Translation of Registrant's Name into English)*

**Suite 654 999 CANADA PLACE, VANCOUVER, BRITISH COLUMBIA V6C 3E1**

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*(Address of Principal Executive Offices)*

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.)

Form 20-F

Form 40-F

(Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

Yes:

No:

(If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-\_\_\_\_\_.)

Enclosed:

ASX Third Quarter Technical Report

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**IVANHOE MINES LTD.**

**Date:** October 28, 2004

By: */s/ Beverly A. Bartlett*  
BEVERLY A. BARTLETT  
Corporate Secretary

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**Ivanhoe Mines Ltd.***Quarterly Technical Report***For the quarter ending September 30, 2004**

<b>Index</b>	<b>Page</b>
Copper Production Summary	2
Iron Production Summary	2
Production	
Monywa/Letpadaung, Myanmar	2
Savage River, Tasmania	3
Bakyrchik, Kazakhstan	3
Development	
Modi Taung, Myanmar	5
Oyu Tolgoi/Turquoise Hill, Mongolia	6
Exploration	
Mongolia	8
Oyu Tolgoi/Turquoise Hill	8
Kharmagtai	14
Gold Hill/Altan Tolgoi	14
Chandman Uul	15
Bronze Fox & Tourmaline Hills	16
China	16
Vietnam	16
Australia	16

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**Key Points:**

An updated, independent resource estimate of the Oyu Tolgoi project in Mongolia was submitted in August, 2004 by AMEC of Canada. The estimate upgraded the Southern Oyu deposits to measured and indicated resources for use in a feasibility study now in preparation.

The feasibility study will focus on a detailed evaluation of initial facilities required to mine and process material from the open pitable resources contained in the Southern Oyu deposits at a nominal rate of 70,000 tonnes per day. A pre-feasibility study on the Hugo Dummett deposit is progressing with work focused on the higher-grade Hugo North block cave. Infill drilling is focused on better defining the planned initial underground production zone.

On October 18, 2004 Ivanhoe entered into an earn-in and equity participation agreement with Entrée Gold Inc. to explore and potentially develop approximately 40,000 hectares of Entrée's 100% owned Shivee Tolgoi property, adjacent to Oyu Tolgoi.

**Overview**

**Production**

Copper cathode production from the Monywa Mine was 7,849 tonnes for the quarter (3,925 tonnes net to Ivanhoe). Ivanhoe's 50% share of sales revenue was US\$10.3 million. Minegate cash costs were US\$0.44 cents during the quarter. The average copper price received for the cathode was \$1.27/lb.

Iron pellet production from ABM's Savage River Mine was 560,780 tonnes for the quarter. Pellet sales were 508,214 tonnes. Sales revenue was A\$27.7 million.

At the Bakyrchik Mine, a total of 13,850 tonnes of tailings were processed in the quarter yielding 357 tonnes of gold concentrate averaging 36 grams per tonne. Additionally, 507 kilograms of loaded carbon, averaging 450 grams per tonne of gold, were recovered from the tailings dam. The sale of small parcels of gold concentrate to a Russian Roasting Plant continues. No doré gold was produced during the quarter.

**Development**

The expansion of production capacity to 39,000 tonnes of copper cathode a year at the Monywa joint venture was completed in mid-October.

**Exploration**

Drilling in the Southern Oyu Tolgoi deposits are now complete, while eight deep-hole drilling rigs continue to infill, delineate and expand the Hugo Dummett deposit. Drilling is ongoing at Ivanhoe's exploration projects in Mongolia and China.

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**COPPER PRODUCTION SUMMARY**

Q3 September, 2004	Tonnes of Ore to Heap (000's)	Minegate		Cathode Production (tonnes)	Price of Copper (US\$ per lb.)
		Cash Costs (US\$)	Head Grade (Cu CN %)		
Monywa, S&K, Myanmar	1,695	\$ 0.44	0.54%	7,849	\$ 1.27

**IRON PRODUCTION SUMMARY:**

Savage River, Australia	Tonnes Milled Wet	Concentrate Production	Grade (DTR)	Pellet Production (tonnes)	Pellet Sales (tonnes)
Q3 2004	1,460,890	581,935	41.9	560,780	508,214
Q3 2003	1,283,330	563,062	46.2	560,757	449,962

Savage River, Australia Total Iron Ore Product	Tonnes Sold	Sales Revenue (A\$ million)	Total Operating Costs (A\$ million)	Capitalized Pre-stripping Costs (A\$ million)
Sales Results				
Q3 2004	533,231	27.7	31.8	1.2
Q3 2003	470,154	22.6	28.9	1.2

**PRODUCTION****OVERVIEW****Monywa Copper Joint Venture, Myanmar**

The S&K Mine produced 7,849 tonnes of LME grade A cathode copper during the quarter. This is an average of 2,616 tonnes per month or 85.32 tonnes per day ( tpd ). This is the highest quarterly production since the project was commissioned in 1998 and represents a production rate of 31,142 tonnes on an annual basis.

A total of 7,351 tonnes of cathode were shipped during the quarter at an average price of US\$1.27/lb. This represents sales revenue of US\$20.6 million for the quarter.

Ore tonnes increased to 1.7 million tonnes but the grade was lower at 0.54% down from 0.81% in the second quarter. Record rainfall in September adversely impacted mine production and total tonnes mined fell to 2.3 million tonnes.

High heap leach inventory levels and improving recoveries have sustained production at record levels despite the heavy monsoon rainfall. Operating costs were higher during the quarter at US\$0.44/lb.

The 39,000 tonnes per annum ( tpa ) production capacity expansion was completed in October, 2004 with all materials and components now on site. Final commissioning occurred on October 15th, 2004. The expansion increased production capacity by 9,000 tpa and cost approximately US\$3.7 million. A further expansion is planned for completion in 2005.

A revised JORC Resource Estimate is expected in the fourth quarter which will include results from the Phase 1 drilling program at Sabetaung.

Other capital projects due for completion in October include the Pad 3 heap leach pad facility and the fines treatment plant. Both projects will further increase recovery and assist in increasing capacity at the S&K Mine, to a planned production level of 50,000

tpa which is expected to occur by the third quarter of 2005 (subject to government approval) for a further capital cost of US\$3 million.

<b>S&amp;K Copper Mine</b>	<b>Qtr End September 2004 Actual</b>
Tonnes ore to heap (000 s)	1,695
Total tonnes mined (000 s)	2,350
Grade (Cu CN%)	0.54%
Strip Ratio	0.28
Tonnes Sold	7,351
Cathode Production (tonnes)	7,849
Revenue (US\$000 s)	\$ 20,571
Price of Copper (US\$ per Lb.)	\$ 1.27

### **Savage River, Tasmania**

Concentrate production over the quarter was directly impacted by the completion of repairs to Ball Mill 2 and the replacement of a section of the slurry pipeline after a holing. Concentrate production was also affected by ore blending restrictions caused by the loss of the Western Savage River crossings due to high rainfall. Mill grades were lower than anticipated due to a shortage of high-grade ore. This situation is expected to continue for the remainder of the year.

Despite these difficulties, overall concentrate production was higher than the same quarter last year. The increased concentrate production is due primarily to a more favourable ore blend which improved milling rates.

Sales and revenue is also better than the corresponding quarter in the previous year due to the improved concentrate production and stronger Australian dollar iron ore prices.

The crack in the ball mill head was successfully repaired, using specialists from the United States, with the mill back in full production in the early part of July. The repair is temporary but should last for at least 12 months, which will allow time for a new head to be cast and the replacement scheduled at a time convenient to the operation.

The pipeline failure was a result of operating procedures not being properly followed. The repair, which involved the replacement of three sections of pipe, was completed in four days. Inspection of the removed pipe, and analysis of events leading up to the failure, indicated the pipeline was in better condition than previously thought. Notwithstanding, additional measures are being implemented to prevent a reoccurrence.

The river crossing was re-established in August after the initial attempts were washed away due to further flooding.

### **Bakyrchik Gold Mine, Kazakhstan**

No doré gold was produced during the third quarter of 2004. However, tailings reprocessing continued with a total of seven gravity concentration tables. Four additional used gravity tables were purchased. These additional gravity concentration tables will be refurbished and installed during the month of October on the lower level of the existing plant. With these additional tables the total plant throughput will be increased by 50%. During the last week of September the plant was shut down to





prepare for the winter months. The plant operations resumed during the first week of October.

A total of 13,850 tonnes of tailings were processed in the third quarter yielding 357 tonnes of concentrate averaging 36 grams per tonne ( gpt ) of gold. Additionally, 507 kgs of loaded carbon, averaging 450 gpt of gold, were recovered from the tailings dam. This carbon will be processed to produce doré gold. The gravity concentration tables will continue to produce batches of concentrate for sale. The sale of small parcels of concentrates to a Russian Roasting Plant continues.

During the second quarter, operation of the pilot-sized rotary kiln roaster on site continued. The test results continue to confirm that this technology can be applied to roast whole ores, concentrates and technogenics (man-made materials). Recoveries exceeding 90% are consistently being achieved by chemical treatment of the calcine before carbon in leach ( CIL ).

To confirm the pilot plant results achieved in the pyrometallurgy laboratory at the Bakyrchik site, a series of confirmatory and process optimization roasting tests are planned in the fully instrumented pilot scale rotary kiln at FFE [Fuller] Minerals. The initial battery of tests at FFE Minerals have confirmed that in the rotary kiln the levels of arsenic and sulphur in Bakyrchik ore can be reduced to equal or lower levels than previously obtained in a circulating fluidized bed pilot plant. The CIL tests at Hazen Research Inc. confirmed the CIL test results obtained at Bakyrchik. Some of the calcine samples were acid wash tested at Hazen and gold deportment studies were carried out on the ores at each stage in the process. The results of the Hazen tests confirm that the overall recovery can be improved when the calcine is acid washed ahead of CIL. Currently, calcines are being washed with brine ahead of CIL and again, an improvement in the overall gold recovery is being experienced. The next iteration is a series of continuous pilot plant tests planned before the end of the year at FFE Minerals testing centre to further optimise the process.

Work continues toward implementation of a 150/200-thousand tpa rotary kiln project. Aker Kvaerner and local institutes have been engaged for this work. Contracts to certify the mining plan and methods, design of the process facilities and infrastructure have been signed. The local research institutes VNIItsvetmet and Kazgiprosvetmet continue to work on the mining plan and the process plant design. The company's geologists have completed the estimation of reserves by levels as required by the mining regulators.

During the quarter, the rotary kiln plant, located in Semipalatinsk, was dismantled and moved to Bakyrchik. The site preparation and foundation work has started in preparation for the installation of the kiln. The Design Institute has issued the scrubbers and cyclones drawings which have been given to potential fabricators. The scrubbers and cyclones will be fabricated using materials already existing on site.

The exploration team has requested an eight-year extension from the Ministry of Energy and Mineral Resources to allow for an appropriate evaluation of all commercial discoveries in our exploration areas as per the terms of the license, the Subsoil Use Contract and the Sale and Purchase Agreement. This issue has not yet been resolved. Aker Kvaerner completed the 900,000 tpa engineering study.

Minproc, together with Bakyrchik mining engineers, continue to assess the option of mining approximately one million ounces of gold (eight plus grams of gold per tonne ore) by extending one of the existing open pits. If realized, the potential to start commercial operation with surface, rather than underground, mined ore would reduce the start up risk of the mining part of the project.

If feasible, the 150/200-thousand tpa rotary kiln project could produce 50,000 ounces per year of gold. Roscoe Postle Associates Inc. also completed a technical review of the project and produced a report.

The third quarter net expenditures totalled approximately US\$1.2 million including care and maintenance and project implementation.

## **DEVELOPMENT**

### **Modi Taung Gold Project Block 10, Myanmar**

At Modi Taung exploration adits advanced 543 metres, less than in the previous quarter due to a diversion of mining crews to an underground drill bay excavation, and recovery of equipment buried in slides and slope stabilization following heavy rain in July. The battery powered locomotive and overshot loader were commissioned and the laying of 15 kg rail began in the Htongyi Taung Level 950 portal. This adit is being slashed to accommodate the loader and form a haulage level.

On the Htongyi Taung 1025 Level, the east and west drive advances were mostly in veins, locally with visible gold, and the 975 Level advance was largely in vein. The raise from Htongyi Taung 950 was near the 975 Level at the end of September. On the Shwesin 1200 Level, a western cross-cut intercepted the vein projected down from the Momi Taung 1280 Level, after a long advance with no vein. The area of detailed (2-metre contour) topographic mapping was extended and now totals 7 km<sup>2</sup>, covering all adits and most of the surface veins at Modi Taung.

Surface diamond core drilling suffered some delays, but four holes were completed on the Kyauksayit veins, about 500 metres SSE of the Htongyi 950 Level drive face. The best intercept was in inclined hole MTDH 42, with a 63 cm apparent width vein containing visible gold at an elevation of approximately 940 metres. Underground drilling completed 40-metre inclined holes on the Shwesin 1000 Level before resuming drilling at Htongyi Taung. Gold check assays showed a continuation of the rather wide variability reported previously, indicative of a loss in precision in the Mandalay laboratory rather than any strong bias. More frequent assay checks are now being undertaken.

At the Kankaung adit, 12 km north of Modi Taung, drive and cross-cut advances extended the stopeable zone to a strike length of 40 metres and a width of two to three metres.

The number of illegal mining activities was substantially reduced during July and now virtually all illegal mining groups and their grinding, mercury and cyanide plants have been removed from the borders of the Modi Taung area.

Total expenditures in the quarter were US\$0.6 million.

## **Oyu Tolgoi, Mongolia**

### **Feasibility Study**

The study group has focused on a detailed evaluation of initial facilities required to mine and process material from the open pitable resources at a nominal rate of 70,000 tpd.

The preliminary design of the processing facility is based on a grinding circuit of a single 12-metre SAG mill and two 8-metre ball mills. The layout readily allows the addition of mills to increase the circuit capacity. The design has been developed sufficiently to enable equipment pricing to be obtained and to provide material take offs for estimating purposes.

The preliminary design of infrastructure required for the project has been completed to this stage. This includes the water supply system design and design of tailings storage facilities, as well as, on-site support facilities such as offices, accommodations and workshops.

The study group has compiled a detailed estimate for the facilities based on budget pricing for equipment items and the material take offs from the design activities. Unit rates for fabrication, supply of bulk materials and construction was based on pricing obtained from suppliers and contractors in the region. The estimate will be used in the next phase of the study to optimise the throughput and design of the facilities.

### **Mine Planning**

The resource model for the Southwest and Central open pitable areas has been completed. Detailed open pit design and planning for the feasibility study is in progress.

Work on the Hugo Deposit pre-feasibility report is progressing, with work focused on the higher grade Hugo North block cave. The initial production zone is being infill drilled.

The contract for a bulk sample shaft located on the Southwest open pit has been awarded and mobilization has begun. The sample will be extracted by mid-December, 2004 for use in pilot plant trials.

The engineering for an exploration shaft to provide access to the Hugo Dummett deposit has been awarded and is currently underway. Major long lead items have been identified and are being evaluated. A Letter of Intent for the shaft sinking has been exchanged with an experienced contractor.

### **Water Supply**

Hydrogeological investigations aimed at defining the water supply for Oyu Tolgoi continued during the quarter. The drilling of test holes is complete. Test pumping and sampling of the aquifers is also largely complete. Preparation of models to confirm the ability of the aquifers to provide the required water supply is also nearing completion.

### **Metallurgical Testwork**

Testwork in Australia by Ammtec Limited has been aimed at duplicating the results previously achieved by SGS Lakefield and confirming the basic flowsheet for the plant.

The shipment of samples from Oyu Tolgoi to Australia and Canada for the feasibility testwork has been completed. At the end of the quarter all samples had been prepared for flotation testwork and testing of composites representing time periods of production from the Southwest was 90% complete. Batch flotation tests for the variability samples from the Southwest deposit are 40% complete, to year three.

Testwork to date has focused on material from Southwest Oyu and confirms the suitability of a p80 primary grind size of 150 µm.

#### **Shivee Tolgoi Earn-In Agreement with Entrée Gold Inc.**

In October, 2004, Ivanhoe entered into an Earn-In and Equity Participation Agreement with Entrée Gold Inc. ( Entrée ) to explore and potentially develop approximately 40,000 hectares of Entrée s 100% owned, Shivee Tolgoi (Lookout Hill) property, adjacent to Ivanhoe s Oyu Tolgoi project.

The agreement contains a number of conditions for Ivanhoe to earn a participating interest in the project, including a requirement to invest, on an unconditional basis, a minimum of US\$3 million during the first year in exploration, consisting of US\$500,000 on geophysics and US\$2.5 million on drilling.

This US\$3 million investment will secure for Ivanhoe a long-term option to utilize any and all rights Entrée may have for the surface of the optioned property to construct mine buildings, tailings ponds, waste dumps, power lines and roads, as may be necessary or convenient for the conduct of Ivanhoe s operations on its adjacent properties, providing that Ivanhoe first completes condemnation drilling to ensure that there is no economic mineralization below the surface of the areas directly affected.

(A map showing the optioned portion of the Shivee Tolgoi property is available on Ivanhoe s website at [www.ivanhoemines.com](http://www.ivanhoemines.com)).

Ivanhoe will have the right to earn the following levels of participating interest in the project:

- (a) 51%, by completing not less than US\$20 million of aggregate earn-in expenditures within the earn-in period and in accordance with the earn-in schedule;
- (b) 60%, by completing not less than US\$27.5 million of aggregate earn-in expenditures within the earn-in period and in accordance with the earn-in schedule; and
- (c) 70%, by completing not less than US\$35 million of aggregate earn-in expenditures within the earn-in period and in accordance with the earn-in schedule.

By spending US\$35 million on exploration and/or development of the property over eight years and earning a 70% interest, Ivanhoe will be deemed to hold:

an increased participating interest of 80% in all minerals extracted below a sub-surface depth of 560 metres on the optioned property; and

a 70% interest in all minerals extracted from surface to a depth of 560 metres.

The earn-in expenditures may include exploration drilling, shaft sinking and/or

underground drifting and development if warranted, on any mineralization discovered. The agreement requires Ivanhoe to spend at least US\$5 million a year in each of the first three years, including the unconditional, US\$3 million year-one exploration investment described above.

Ivanhoe will also have the right of first refusal in subsequent joint ventures that may be formed on the remaining portion of Entrée's Shivee Tolgoi property.

As part of the transaction, Ivanhoe has agreed to purchase 4.6 million Entrée units at a price of CDN\$1.00. Each unit will consist of one Entrée common share and one purchase warrant exercisable for two years to purchase an additional Entrée common share at a price of CDN\$1.10. Upon completion of the unit purchase, and assuming the full exercise of Ivanhoe's warrants, Ivanhoe would own approximately 17% of Entrée's issued and outstanding shares. Ivanhoe also has the right to appoint a representative to serve as an Entrée director. Ivanhoe will have the right to participate in any equity offerings undertaken by Entrée during Ivanhoe's eight-year earn-in period, ensuring that Ivanhoe has the option to maintain its ownership level.

## **EXPLORATION**

### **Mongolia**

Ivanhoe's direct and indirect holdings at the end of the third quarter of 2004 include four mining licenses totaling 238.7 km<sup>2</sup> at Oyu Tolgoi, and 141 mineral exploration licenses covering 116,521.2 km<sup>2</sup>.

Of the 141 exploration licenses, 96 licenses totaling 76,151.2 km<sup>2</sup> are held 100% by Ivanhoe Mongolia. Eleven of these, totaling 4,952.1 km<sup>2</sup>, are held as Oyu Tolgoi coal, water or limestone exploration plays. Asia Gold Corp. (a company 51.1% owned by Ivanhoe) holds a further 58 of the exploration licenses totaling 47,846.51 km<sup>2</sup> whilst three licenses totaling 259.4 km<sup>2</sup> are in a joint venture with QGX Ltd.

Ivanhoe has an additional twelve exploration licenses totaling 9,368.2 km<sup>2</sup> under application.

### **Turquoise Hill/Oyu Tolgoi**

AMEC E&C Services (AMEC) of Vancouver, Canada has prepared an updated independent resource estimate in respect of the Southwest Oyu, Far Southwest Oyu, South Oyu, Central Oyu, Bridge, Wedge and Southern Sliver zones (the Southern Oyu Deposits) of Ivanhoe's Oyu Tolgoi project in Mongolia.

The updated Southern Oyu Deposits resource estimate (the August 2004 Estimate) was prepared by AMEC in conformance with the requirements of NI 43-101 under the direction of Dr. Harry Parker, Ch. P. Geol., and Dr. Stephen Juras, P. Geo., independent qualified persons under NI 43-101.

The August 2004 Estimate increases and upgrades the near-surface resources contained in the Oyu Tolgoi project's Southern Oyu deposits, which lie at the southern end of a series of co-genetic copper and gold deposits delineated to date along a 5.6 km long chain of deposits at Oyu Tolgoi. Extensive drilling took place during the 4th quarter of 2003 and first half of 2004 to bring the resources contained within the planned open pits in the southern part of the Oyu Tolgoi project to a measured and

indicated resource classification for use in feasibility studies. A total of 539 holes, totaling 255,000 metres have now been completed on the Southern Oyu deposits. This compares to 155 holes used in the last AMEC independent resource estimate for the Southern Oyu deposits in February, 2003 (the February 2003 Estimate ). To date, Ivanhoe has drilled 934 holes, totaling more than 500,000 metres on the entire Oyu Tolgoi project.

The August 2004 Estimate splits the resources delineated at the Southern Oyu deposits into resources lying above and below a depth of 560 metres below surface (an elevation of 600 metres above sea level), which Ivanhoe's engineers consider to be a conservative depth for a large-scale, open-pit mining operation. The resources above the depth of 560 metres from surface have been estimated using a 0.30% copper equivalent cut-off. The resources lying below a depth of 560 metres from the surface were estimated using a 0.60% copper equivalent cut-off. The contained gold and copper estimates have not been adjusted for metallurgical recoveries. The majority of the measured and indicated resources delineated to date lie above a depth of 560 m.

Pursuant to the August 2004 Estimate, AMEC has estimated measured and indicated resources of 1.06 billion tonnes, grading 0.47% copper and 0.36 g/t at a 0.30% copper equivalent cut-off down to 560 metres below surface and 0.60% copper equivalent cut-off below a depth of 560 metres. The measured and indicated resources have increased 109% from the February 2003 Estimate of indicated resources, which was 508.9 million tonnes averaging 0.40% copper and 0.59 g/t gold at 0.30% copper equivalent cut-off. Contained metal now stands at 11.2 billion pounds of copper, an increase of 147%, and 12.4 million ounces of gold, an increase of 28%.

Within 560 metres of surface, the Southern Oyu deposits' measured and indicated resources are now 990.4 million tonnes grading 0.48% copper and 0.31 g/t gold, containing 10.5 billion pounds of copper and 9.87 million ounces of gold, at an open-pit, cut-off grade of 0.30% copper equivalent. Below the 560 metres depth, the measured and indicated resources total 70.9 million tonnes averaging 0.47% copper and 1.08 g/t gold, containing 735 million pounds of copper and 2.46 million ounces of gold, at a higher cut-off grade of 0.60% copper equivalent.

In addition to the measured and indicated resources, the Southern Oyu deposits contain inferred resources above a depth of 560 metres of 259 million tonnes grading 0.35% copper and 0.20 g/t gold, containing 2 billion pounds of copper and 1.66 million ounces of gold, at a 0.30% copper equivalent cut-off.

Within the Southwest Oyu deposit, the measured and indicated resources above a depth of 560 metres have increased to 511.6 million tonnes grading 0.41% copper and 0.47 g/t gold, containing 4.65 billion pounds of copper and 7.69 million ounces of gold, at a 0.30% copper equivalent cut-off. At the higher cut-off grade of 1.0% copper equivalent, the high-grade core of Southwest Oyu contains measured and indicated resources of 79.7 million tonnes grading 0.77% copper and 1.44 g/t gold, containing 1.35 billion pounds of copper and 3.69 million ounces of gold.

In the Central Oyu deposit, the indicated resources above a depth of 560 metres have increased to 281.9 million tonnes grading 0.62% copper and 0.17 g/t gold, containing 3.85 billion pounds of copper and 1.54 million ounces of gold, at a 0.30% copper equivalent cut-off. This compares to the February 2003 Estimate of inferred resources of 236.8 million tonnes grading 0.67% copper and 0.18 g/t gold, containing 3.51

billion pounds of copper and 1.36 million ounces of gold, at a 0.30% copper equivalent cut-off.

In South Oyu, the indicated resources above a depth of 560 metres are 196.9 million tonnes grading 0.46% copper and 0.11 g/t gold, containing 2 billion pounds of copper and 709,000 ounces of gold, at a 0.30% copper equivalent cut-off.

In addition to the resources delineated in the Southern Oyu deposits, the Oyu Tolgoi project contains an inferred resource at the 2.6 km long Hugo Dummett deposits (Hugo North and Hugo South) of 1.16 billion tonnes grading 1.29% copper and 0.23 g/t gold (a copper equivalent grade of 1.44%), at a 0.60% copper equivalent cut-off. The total inferred resource at the Hugo Dummett deposits contains approximately 33 billion pounds of copper and 8.58 million ounces of gold. This estimate was independently prepared by AMEC in May, 2004. Expansion and infill drilling is continuing with six rigs at the Hugo Dummett deposits with the objective of upgrading a large percentage of the current inferred resource to the indicated category by early 2005.

Detailed analysis of the updated mineral resources for the Southern Oyu deposits, at various copper equivalent cut-off grades, are provided in Tables 1 through 4. The August 2004 Estimate of resources at the Southern Oyu deposits above a depth of 560 metres from surface are provided in Table 1 and were calculated using a 0.30% copper equivalent cut-off. The August 2004 Estimate of resources at the Southern Oyu Deposits lying below a depth of 560 metres from surface are provided in Table 2, and were calculated using a 0.60% copper equivalent cut-off.

The February 2003 Estimate was calculated using a 0.30% copper equivalent cut-off for all resources above and below a depth of 560 metres from surface. For the purpose of comparing the August 2004 Estimate to the February 2003 Estimate, Table 3 shows (i) the combined resources above 560 metres at a 0.30% cut-off (Table 1) and below 560 metres at a 0.60% copper equivalent cut-off (Table 2) as at August 2004 and (ii) the combined resources above and below 560 metres at a 0.3% copper equivalent cut-off as at February 2003. Table 4 shows all of the resources in the Southern Oyu deposits and the Hugo Dummett deposits identified to date. The resources reported in Table 4 for the Hugo Dummett deposits were estimated by AMEC in May, 2004.



Table 1: Southern Oyu resources above a depth of 560 metres from surface August, 2004.

	<b>Copper Eq. Cut-Off (%)</b>	<b>Tonnes</b>	<b>Copper (%)</b>	<b>Gold (g/t)</b>	<b>Copper Eq. (%)</b>	<b>Copper (‘000 lbs)</b>	<b>Gold (ounces)</b>	<b>Copper Eq. (‘000 lbs)</b>
<b>Measured</b>	1.00	48,200,000	0.79	1.48	1.73	840,000	2,293,500	1,839,000
	0.70	69,900,000	0.70	1.17	1.45	1,079,000	2,629,323	2,235,000
	0.60	83,560,000	0.66	1.03	1.32	1,216,000	2,767,048	2,432,000
	0.50	96,395,500	0.62	0.93	1.21	1,318,000	2,882,177	2,572,000
	0.40	104,562,600	0.60	0.88	1.15	1,383,000	2,958,285	2,651,000
	0.30	108,360,000	0.58	0.85	1.13	1,386,000	2,961,208	2,700,000
<b>Indicated</b>	1.00	81,730,000	0.92	0.75	1.40	1,658,000	1,970,715	2,523,000
	0.70	239,970,000	0.74	0.42	1.01	3,916,600	3,240,315	5,344,000
	0.60	357,120,000	0.66	0.36	0.89	5,197,000	4,133,307	7,008,000
	0.50	523,483,600	0.58	0.31	0.78	6,695,000	5,217,299	9,003,000
	0.40	708,013,000	0.52	0.27	0.69	8,118,000	6,145,907	10,772,000
	0.30	882,070,000	0.47	0.25	0.62	9,141,000	7,089,638	12,059,000
<b>Measured + Indicated</b>	1.00	129,930,000	0.87	1.02	1.52	2,493,000	4,260,794	4,355,000
	0.70	309,870,000	0.73	0.59	1.11	4,988,000	5,877,769	7,584,000
	0.60	440,680,000	0.66	0.48	0.97	6,413,000	6,800,574	9,425,000
	0.50	619,879,000	0.59	0.41	0.85	8,064,000	8,170,935	11,618,000
	0.40	812,575,600	0.53	0.35	0.75	9,496,000	9,143,507	13,438,000
	0.30	990,430,000	0.48	0.31	0.68	10,483,000	9,871,121	14,851,000
<b>Inferred</b>	1.00	5,390,000	1.14	0.57	1.50	135,500	98,774	178,000
	0.70	16,650,000	0.79	0.35	1.02	290,000	187,354	374,000
	0.60	35,990,000	0.61	0.32	0.81	484,000	370,265	643,000
	0.50	80,245,100	0.48	0.29	0.66	849,000	748,165	1,168,000
	0.40	155,072,800	0.40	0.24	0.56	1,368,000	1,196,542	1,915,000
	0.30	259,060,000	0.35	0.20	0.47	1,999,000	1,665,756	2,685,000

Table 2: Southern Oyu resources below a depth of 560 metres from surface August, 2004.

	Copper Eq. Cut-Off (%)	Tonnes	Copper (%)	Gold (g/t)	Copper Eq. (%)	Copper ('000 lbs)	Gold (ounces)	Copper Eq. ('000 lbs)
<b>Measured</b>	1.00	5,000,000	0.78	2.19	2.18	86,000	352,000	240,000
	0.70	5,220,000	0.76	2.13	2.13	87,000	357,500	245,000
	0.60	5,280,000	0.76	2.12	2.11	88,000	359,900	246,000
<b>Indicated</b>	1.00	29,470,000	0.55	1.39	1.44	357,000	1,317,000	936,000
	0.70	54,440,000	0.46	1.09	1.17	552,000	1,907,800	1,404,000
	0.60	65,620,000	0.44	0.99	1.08	637,000	2,088,600	1,563,000
<b>Measured+ Indicated</b>	1.00	34,470,000	0.58	1.50	1.55	441,000	1,662,300	1,178,000
	0.70	59,660,000	0.49	1.19	1.25	645,000	2,282,500	1,644,000
	0.60	70,900,000	0.47	1.08	1.15	735,000	2,461,800	1,798,000
<b>Inferred</b>	1.00	3,020,000	0.51	1.04	1.17	34,000	101,000	78,000
	0.70	12,960,000	0.45	0.69	0.89	129,000	287,500	254,000
	0.60	26,200,000	0.41	0.55	0.76	237,000	463,300	439,000

Table 3: Southern Oyu resources (August 2004 estimate compared to February 2003 estimate)

**August 2004 (0.30% CuEq. cut-off above 560 metres and 0.60% CuEq. cut-off below 560 metres)**

	Tonnes	Copper (%)	Gold (g/t)	Copper Eq. (%)	Copper ('000 lbs)	Gold (ounces)	Copper Eq. ('000 lbs)
<b>Measured</b>	113,380,000	0.59	0.91	1.17	1,480,000	3,328,000	2,930,000
<b>Indicated</b>	947,670,000	0.47	0.30	0.66	9,720,000	9,068,000	13,690,000
<b>Measured + Indicated</b>	1,061,310,000	0.48	0.36	0.71	11,200,000	12,397,800	16,620,000
<b>Inferred</b>	285,260,000	0.35	0.23	0.50	2,210,000	2,116,400	3,120,000

**February 2003 (0.30% CuEq. cut-off)**

	Tonnes	Copper (%)	Gold (g/t)	Copper Eq. (%)	Copper ('000 lbs)	Gold (ounces)	Copper Eq. ('000 lbs)
<b>Measured</b>	0						
<b>Indicated</b>	508,900,000	0.40	0.59	0.52	4,540,000	9,690,000	5,801,000
<b>Measured + Indicated</b>	508,900,000	0.40	0.59	0.52	4,540,000	9,690,000	5,801,000

<b>Inferred</b>	797,854,000	0.45	0.28	0.50	7,890,000	7,160,000	8,889,245
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Table 4: Total Oyu Tolgoi Project resources based on a 0.60% copper equivalent cut-off August, 2004

Deposit	Resources (tonnes)	Copper Grade (%)	Gold Grade (g/t)	Copper Equiv. Grade (%)	Contained Metal		
					Copper ( <sup>'000</sup> pounds)	Gold (ounces)	Copper Equiv. ( <sup>'000</sup> pounds)
<b>Southern Oyu Deposits</b>							
Measured	88,840,000	0.67	1.09	1.37	1,304,500	3,126,900	2,677,800
Indicated	422,740,000	0.63	0.46	0.92	5,883,800	6,221,900	8,571,000
Measured + Indicated	511,580,000	0.64	0.59	1.00	7,188,300	9,348,800	11,248,800
Inferred	62,190,000	0.53	0.42	0.79	720,000	839,000	1,090,000
<b>Hugo Dummett Deposits</b>							
Inferred	1,159,800,000	1.29	0.23	1.44	32,970,000	8,580,000	36,810,000
<b>Oyu Tolgoi Project Grand Total</b>							
Measured	88,840,000	0.67	1.09	1.37	1,304,500	3,126,900	2,677,800
Indicated	422,740,000	0.63	0.46	0.92	5,883,800	6,221,900	8,571,000
Measured + Indicated	511,580,000	0.64	0.59	1.00	7,188,300	9,348,800	11,248,800
Inferred	1,221,990,000	1.25	0.24	1.41	33,690,000	9,416,300	37,890,000

Copper equivalent grades have been calculated using assumed metal prices of US\$0.80/lb. for copper and US\$350/oz. for gold. The contained gold and copper represent estimated contained metal in the ground and have not been adjusted for the metallurgical recoveries of gold and copper. The determination of an adjustment factor to account for differences in relative metallurgical recoveries between gold and copper will depend upon the completion of definitive metallurgical testing.

Resource classifications conform to CIM Standards on Mineral Resources and Reserves prescribed by NI 43-101. Mineral resources that are not reserves do not have demonstrated economic viability. Measured and indicated mineral resources are that part of a mineral resource for which quantity and grade can be estimated with a level of confidence sufficient to allow the application of technical and economic parameters to support mine planning and evaluation of the economic viability of the deposit. An inferred mineral resource is that part of a mineral resource for which quantity and grade can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified.

The new AMEC independent resource estimates for the near surface Southern Oyu deposits will be incorporated into an independent feasibility study for an open-pit operation that is scheduled to be completed in early 2005. The open pit feasibility study is being done concurrently with an independent underground pre-feasibility study for the Hugo Dummett deposits. The studies are intended to provide an integrated development plan for the entire Oyu Tolgoi project.

Third quarter expenditures for the Oyu Tolgoi project totalled approximately US\$21.9 million.

### **Kharmagtai**

The third phase of diamond drilling at Gold Hill (Altan Tolgoi) is now complete. Three holes were also drilled on nearby chargeability highs. A follow-up induced polarisation survey comprising more than 800 line km over Gold Hill, Copper Hill (Zesen Uul) and The Duck prospects has also been completed. The Duck target is a strong 1,500 metres by 1,000 metres chargeability anomaly located 1 km southwest of the Gold Hill prospect and along the same northwest trending structure as the Copper Hill prospect. The results of recent detailed mapping, the third phase of drilling and the induced polarisation survey are currently being processed before further drilling on the main copper-gold porphyry systems at Kharmagtai.

Regional reconnaissance work in the Kharmagtai area has identified gold-anomalous low sulphidation quartz-carbonate vein systems to the west of the main porphyry occurrences, on ground held 100% by Ivanhoe. Rock chip sampling continues in this area.

### **Gold Hill (Altan Tolgoi)**

The initial two phases of diamond drilling at Gold Hill totalled 11,829 metres (37 holes) whilst the recently completed third phase totalled 8,519 metres (22 holes at depths of up to 755 metres). The gold-rich copper-gold porphyry mineralization is hosted within two pipe-like quartz-chalcopyrite-pyrite stockwork zones, the Southern and Northern stockwork zones, which are approximately 100 metres apart and hosted in diorites and quartz diorites. Copper-gold mineralization was also intersected in tourmaline breccias which occur predominantly southeast of the Southern stockwork zone and at depths below 200 metres.

The Southern stockwork zone consists of strong quartz stockwork veins and associated high-grade gold mineralization. This zone is 20 metres to 70 metres wide, 450 metres long and at least 250 metres deep. Grades range from 0.6 g/t to greater than 5.0 g/t gold and 0.3% to 1.0% copper. The Southern stockwork zone is bisected by a 130° trending shear zone intruded by a post-mineralization andesite dyke.

Holes KH240 (from a previous phase of drilling), KH259 and KH281 were drilled at a 40-metre spacing and down the core of the Southern stockwork. They returned intercepts respectively of 245 metres at 2.48 g/t gold and 0.75% copper; 203 metres at 2.45 g/t gold and 0.45% copper; and 210 metres at 1.61 g/t gold and 0.63% copper; beginning at down-hole depths respectively of 3 metres, 3 metres and 28 metres.

The Northern stockwork zone comprises a broad halo of quartz veins that is at least 250 metres long, 150 metres wide and 350 metres deep. Grades of 0.3 g/t to 0.5 g/t gold and 0.2% to 0.6% copper are typical, although there are several 10-metre to 40-metre wide pockets of stronger mineralization with grades of 0.5 g/t to 3.0 g/t gold and 0.5% to 1.0% copper.

The quartz stockwork zones are spatially and temporally focused around 0.5-metre to 20-metre wide quartz diorite dykes that were emplaced into a series of diorites and quartz diorites. The thin nature of the mineralizing dykes and their irregular geometry are features typically observed in the shallower sections of porphyry copper-gold systems. The potential exists for the dykes and associated quartz stockwork mineralization to amalgamate into a larger porphyry stock at depth.

Mineralization in the stockwork zones is characterised by high gold grades with

percent copper to grams/tonne gold ratios that typically exceed 1:2. Petrographic studies indicate that the gold occurs as micron-sized grains which infill fractures and form blebs within chalcopyrite. Mineralization hosted in the tourmaline breccias is characterised by chalcopyrite disseminations and blebs within the tourmaline-rich matrix. Intercepts in the breccia zone are commonly over 100 metres long with grades from 0.4 g/t to 0.8 g/t gold and 0.3% to 0.6% copper.

Recent drilling indicates that the copper-gold mineralised tourmaline breccias and the Southern stockwork zone remain open to the west, east and at depth. The Northern stockwork remains open to the northeast.

### **Chandman Uul**

The Chandman Uul iron-copper-gold project is located 400 km SE of Ulaanbaatar, 130 km NE of the nearest railway station at Sainshand and 90 km NW of the Mongolian-Chinese border. The project is located within a block of seven licenses totaling 3,366.9 km<sup>2</sup> and owned 100% by Ivanhoe Mines Mongolia.

The objective of the diamond drilling at Chandman I in April and May, 2004 was to define a resource of at least 50 million tonnes at >50% iron. Drilling comprised four vertical and eight inclined holes for a total 2,858.54 metres; drill hole depths varied from 170 to 443 metres. Assay results have now been received for all drill-holes.

Chandman I comprises a series of narrow magnetite-sulphide-rich bodies hosted within calcic-iron hornfelsed crystal and ash-flow tuffs of andesitic to dacitic composition. Several significant massive magnetite ± sulphides and copper oxide units were intersected during the program. CUD001 intersected intercalated magnetite and chlorite hornfels with modest iron and copper oxides. CUD002 and CUD005 intersected a steeply dipping massive magnetite-sulphide-rich hornfels. Several other drill-holes intersected magnetite-sulphide-bearing bodies; however, the majority of these units are narrow, lenticular and discontinuous.

High iron (>30% Fe) intersections are associated with magnetite ± maghematite-hematite bearing hornfels. The highest iron value (65.3% Fe) was obtained from a magnetite hornfels unit in CUD008. High gold (>0.5 ppm) and copper (>0.5%) values were yielded from magnetite-sulphide bearing hornfels units, copper oxide zones and rare quartz-sulphide veins. The highest gold value, 26.95 ppm Au, was obtained from a quartz-sulphide vein in CUD001; and the highest copper value, 7.97% Cu, from a supergene enriched zone in CUD001. Intervals from CUD009, CUD011 and CUD012 also yielded elevated Pb (>1000 ppm) and Zn (>1000 ppm) that are associated with galena and sphalerite, respectively.

Significant intersections from the drilling program included:

CUD001 73.7 metres (from 2.3 to 76.0 metres) at 1.46% Cu and 18.9% Fe, including 28.0 metres at 2.32% Cu.

CUD002 40.0 metres (from 166.0 to 226.0 metres) at 0.88 ppm Au, 2.43% Cu and 23.8% Fe, including 20.0 metres at 0.98 ppm Au, 3.06% Cu and 28.5% Fe.

CUD005 20.0 metres (from 60.0 to 80.0 m) at 40.1% Fe; 16.0 metres (182.0 to 198.0 metres) at 0.76 ppm Au, 1.02% Cu and 19.5% Fe.

CUD008 98.0 metres (from 56.0 to 154.0 metres) at 18.2% Fe; and 8.0 metres (254.0 to 262.0 metres) at 46.1% Fe.

CUD010 88.0 metres (from 38.0 to 126.0 metres) at 22.9% Fe, including 12.0 metres at 63.0% Fe and 54.0 metres at 20.4% Fe.

CUD011 82.0 metres (from 12.0 to 94.0 metres) at 2,033 ppm Zn.

CUD012 75.3 metres (from 6.8 to 82.0 metres) at 2,151 ppm Zn, including 31.3 metres at 4,332 ppm Zn. Further assessment of the data is underway; with no further drilling planned at Chandman I in the immediate future. Regional reconnaissance in the area remains in progress.

### **Bronze Fox and Tourmaline Hills**

The Bronze Fox and Tourmaline Hills targets, 5 km apart, are located 140 km northeast of Oyu Tolgoi and 15 km northeast of Shuteen. Work to date includes detailed mapping, analysis of over 4,000 rock-chip samples, and a ground magnetics survey comprising over 1,000 line kms. The intrusive-hosted gold-copper mineralization is associated with quartz-sulphide veins and disseminated sulphides at Bronze Fox and quartz-tourmaline-hematite veins at Tourmaline Hills. Anomalous lead, arsenic and molybdenum are also encountered. The rock-chip sampling, mapping and ground magnetics survey remain in progress.

Third quarter expenditures outside the Oyu Tolgoi project totalled approximately US\$2.2 million. Of this, approximately US\$180,000 was spent on license renewals, US\$130,000 was spent at Chandman Uul and US\$1.1 million was spent at Kharmagtai. The remainder was spent on general reconnaissance and target generation.

### **China**

Ivanhoe is exploring for gold, copper and platinum-group metals ( PGMs ) on numerous projects throughout China, through a joint venture with Jinshan Gold Mines Inc. ( Jinshan ). Jinshan 's most advanced project is their 217 Gold Project in Inner Mongolia, PRC where pilot mining for large-scale, heap-leach trials commenced in the third quarter.

Ivanhoe has several additional joint ventures for exploration, mining and processing of gold, copper, silver and other metals and minerals in China 's Autonomous Region of Inner Mongolia.

Total expenditures in the quarter were US\$1.2 million.

### **Vietnam**

Ivanhoe holds a 19% interest in Olympus Pacific Minerals, a public Canadian mineral exploration company.

### **Australia**

Ivanhoe Cloncurry Mines was formed in September, 2003, as a wholly owned subsidiary of Ivanhoe, and holds all the purchased assets and Mining and Exploration Leases of the Selwyn Mines. The area is recognised as being very prospective for copper and gold, with potential for other minerals such as cobalt, lead, zinc and silver.

Exploration objectives and priorities have been established, with the main focus on Mt. Doré and Mt. Elliot/Swan deposits. Mt. Doré is a low-grade oxide copper deposit. Mt. Elliot is a copper/gold sulphide deposit that was previously mined using



underground mining methods and Swan is a copper/gold oxide and sulphide deposit. These deposits are believed to be under explored.

An exploration drilling program has been developed, and drilling commenced in late August. Diamond drilling on the Mt. Doré project totalled 612.6 metres with the drilling of four holes testing the western footwall area at Mt. Doré. Drilling is continuing as part of a fifteen hole 3,700-metre program intended to improve the previous resource model created by consultants in July, 2000. Assay results were not available at the quarter end. Two diamond drill rigs are on site at Mt. Doré to expedite this program.

Total expenditures for the quarter were US\$1.3 million.

During the quarter progress was made in establishing relationships with Native Title claimants in order to progress exploration agreements for the exploration leases, with expectation that this will be completed by February, 2005.