

**Tuesday 25 October 2011**

**Pioneer Resources Limited (ASX: PIO)**

**QUARTERLY ACTIVITIES REPORT  
FOR THE PERIOD ENDED 30 SEPTEMBER 2011**

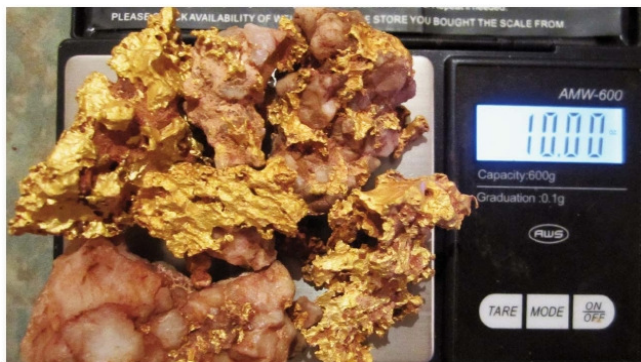
**HIGHLIGHTS**

- **Pioneer posts maiden resource of 185,600oz Au at Mt Jewell Project**  
achieved within 2 years of the first RC drill holes
- **Mining studies for Hughes and Tregurtha are underway**  
with second pass optimisation and pit design runs in progress
- **Drilling commences at the exciting new Juglah Dam Gold Prospect**  
which has the potential to become Pioneer's next green-fields discovery

**CORPORATE**

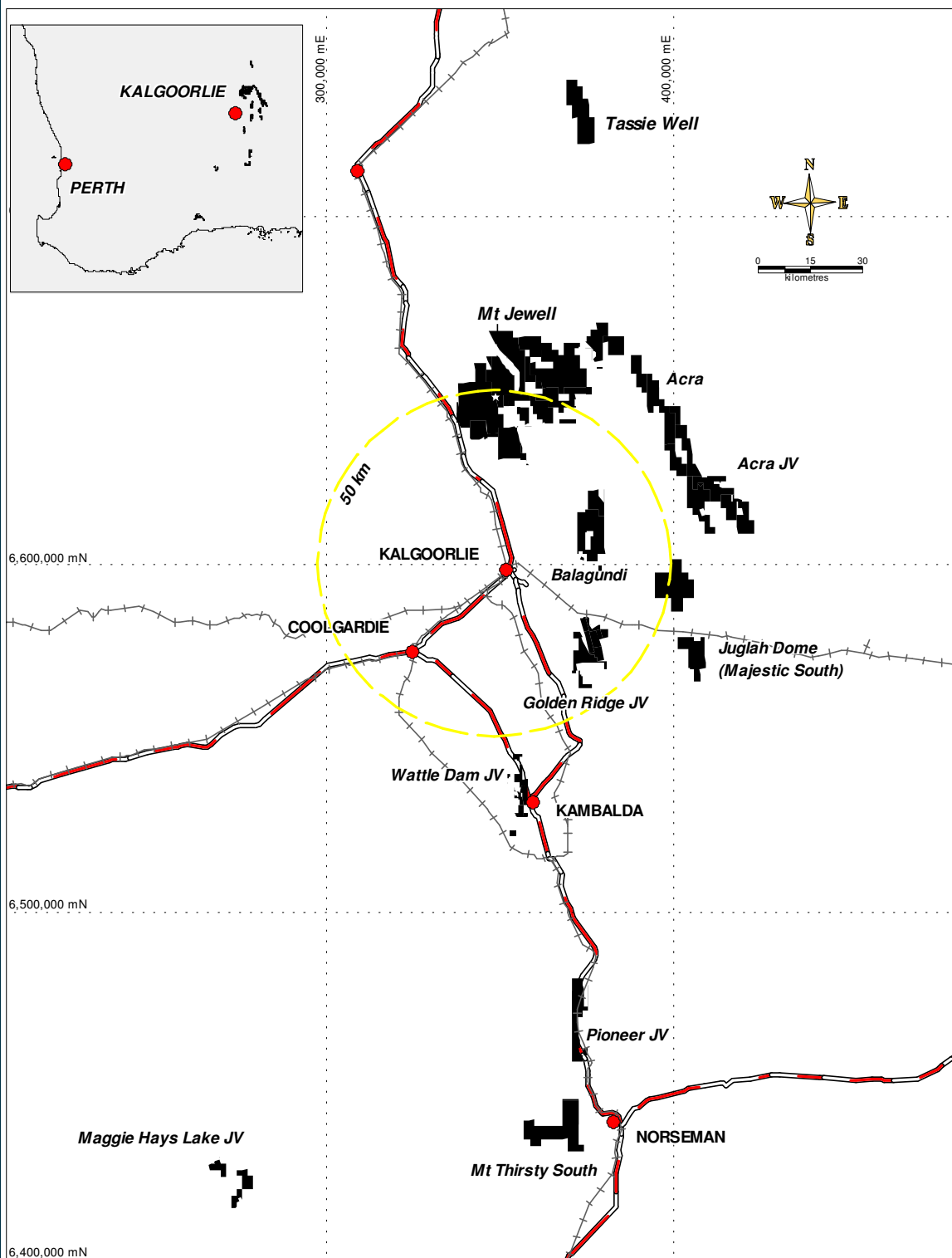
No capital initiatives were undertaken during the quarter. The Company has 400,614,885 ordinary shares on issue.

\* Abbreviations are explained in the attached Glossary



Gold nuggets recently found at the Juglah Dam Gold Project. Drilling has recently commenced.

*Photos: S. Wilson.*



**Figure 1: Tenement Location Plan**

## 1. MT JEWELL GOLD PROJECT

*Pioneer 100%. Gold*

### HIGHLIGHTS

- **CSA Global delivered an in-situ, gold Mineral Resource estimate of 185,6000oz for the Tregurtha and Hughes Deposits**
- **Estimate includes Hughes and Tregurtha deposits only, defined to JORC Mineral Resource standard**
- **A high level mining scoping study and development of a General Layout Plan has commenced.**

### HUGHES AND TREGURTHA MINERAL RESOURCE

The Company was pleased to announce its maiden Mineral Resource estimate of 3.78 million tonne at a grade of 1.53g/t Au for 185,600oz Au for its Mt Jewell Project. Of this total, 131,600oz Au or 71% is categorised under the JORC code as Measured or Indicated Mineral Resource. A higher grade subset comprises **1.3 million tonne at 2.39g/t for 99,500oz Au**. This information is shown in more detail in Tables 1 and 2.

CSA Global is now undertaking a high level mining optimisation 'scoping' study designed to provide an insight into the scale and nature of a potential mining operation. With gold at record highs, Pioneer believes that it is important to accelerate the project to bring forward cash flow. The study parameters used assume that the operation will deliver ore from two pits to a nearby existing treatment facility over a period of 4 years.

The Mt Jewell Project has many advantages which favour this scenario. Of greatest importance is its close proximity to major established infrastructure, including the world-class mining centre of Kalgoorlie (55km), sealed road access, rail, power, gas and telecommunications (all within 10km). It is also within 55km of three major gold processing facilities. Many of these advantages are not available to a number of other undeveloped gold projects.

The estimate announced during the quarter represents the first step in Pioneer's strategy to continue to build a 500,000oz inventory, at which time the Company believes it would contemplate a stand-alone gold processing facility within the Mt Jewell district, providing for a minimum seven-year operating life.

*The Mount Jewell Gold Project is located approximately 55km N of Kalgoorlie, Western Australia, in one of Australia's most productive gold fields, and now includes tenements covering approximately 825km<sup>2</sup>.*

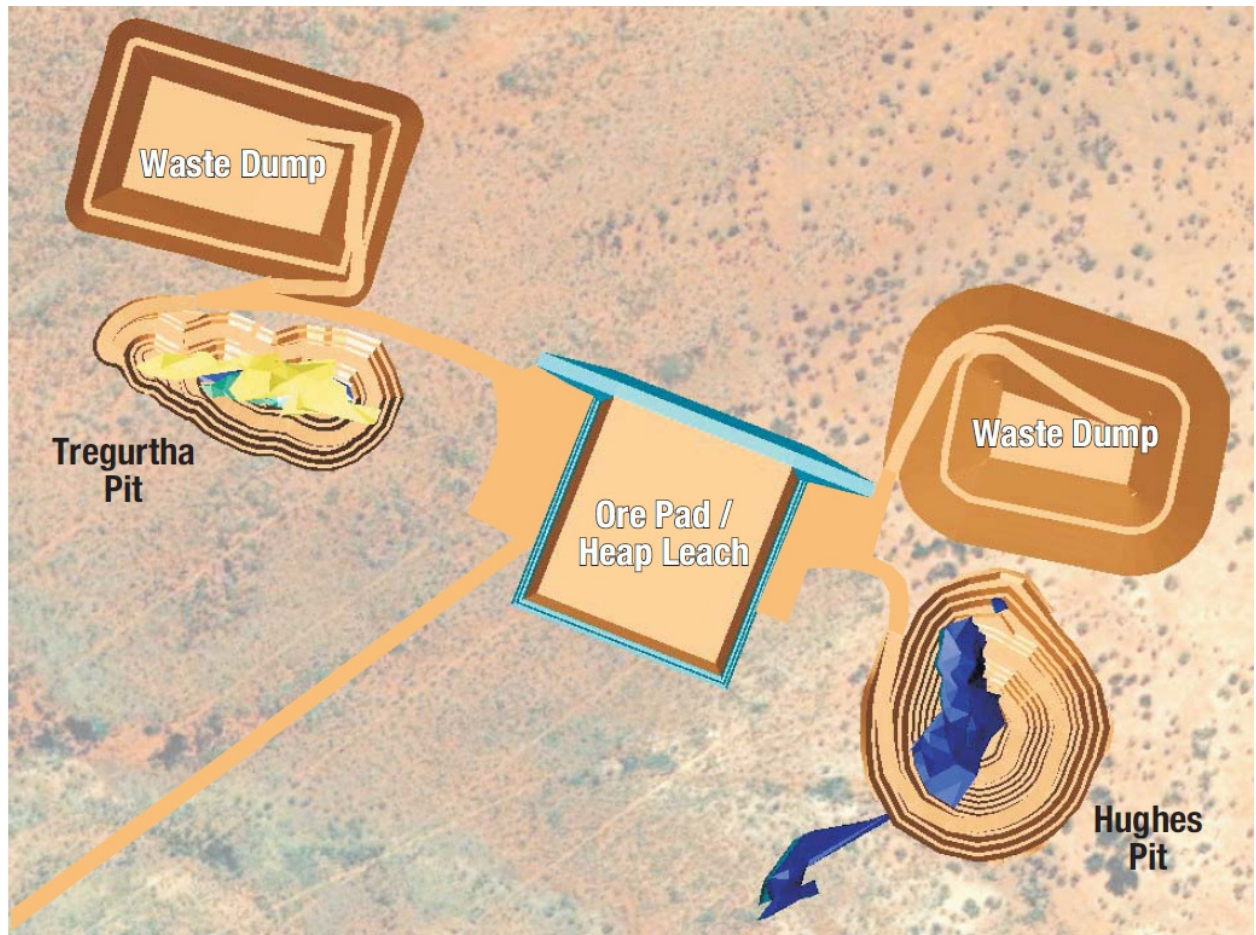
*The Tregurtha and Hughes Gold Deposits are new discoveries made by Pioneer and are the most advanced prospects within the Mt Jewell Gold Project.*

*Since September 2009, Pioneer has completed 212 holes or 23,000m of RC and core drilling to define the Tregurtha and Hughes deposits, and an additional 22,000m (1,000 holes) of RAB geochemical drilling throughout the project.*

## OUTLOOK

The exploration program for the December 2011 quarter includes:

- Continuing preparatory work ahead of a Mining Lease application for Tregurtha and Hughes Prospects, including establishing a general layout plan
- Supplementary diamond drilling at Tregurtha and Hughes Prospects for rock mechanics and metallurgy samples.
- Review and follow-up drilling at Criterion and Grand Prospects along the Golden Cities North trend.



**Figure 2: Synoptic general layout plan of Mt Jewell gold deposits**

## 2. JUGLAH DOME (MAJESTIC SOUTH) GOLD PROJECT

*Pioneer 100%.*

*The Juglah Dome Gold Project is located 58 km SW of Kalgoorlie, WA. This project includes a series of new targets and is the result of an exploration collaboration between Kalgoorlie prospectors and Pioneer geologists.*

### HIGHLIGHTS

Pioneer has just commenced drilling at its Juglah Dome Gold Project. The project presents an exciting group of new targets generated through combining the skills of the prospector with those of the geologist. The last modern exploration was conducted some 10-15 years ago, where gold-in-soil geochemistry anomalies were successfully identified, but subsequent drilling failed to resolve a source for the gold.

Since the tenement's grant, Pioneer has completed mapping and additional soil geochemistry, but importantly the project's advancement has been greatly aided by a party of APLA-registered Kalgoorlie-based prospectors.

Over twelve nugget patches have been identified. When this information is combined with conventional gold (Au) and pathfinder element (copper (Cu), arsenic (As)) soil geochemistry; and then overlain on aeromagnetic imagery showing geological structures, a number of coincident targets are evident, and these are rated highly by Pioneer's geologists.

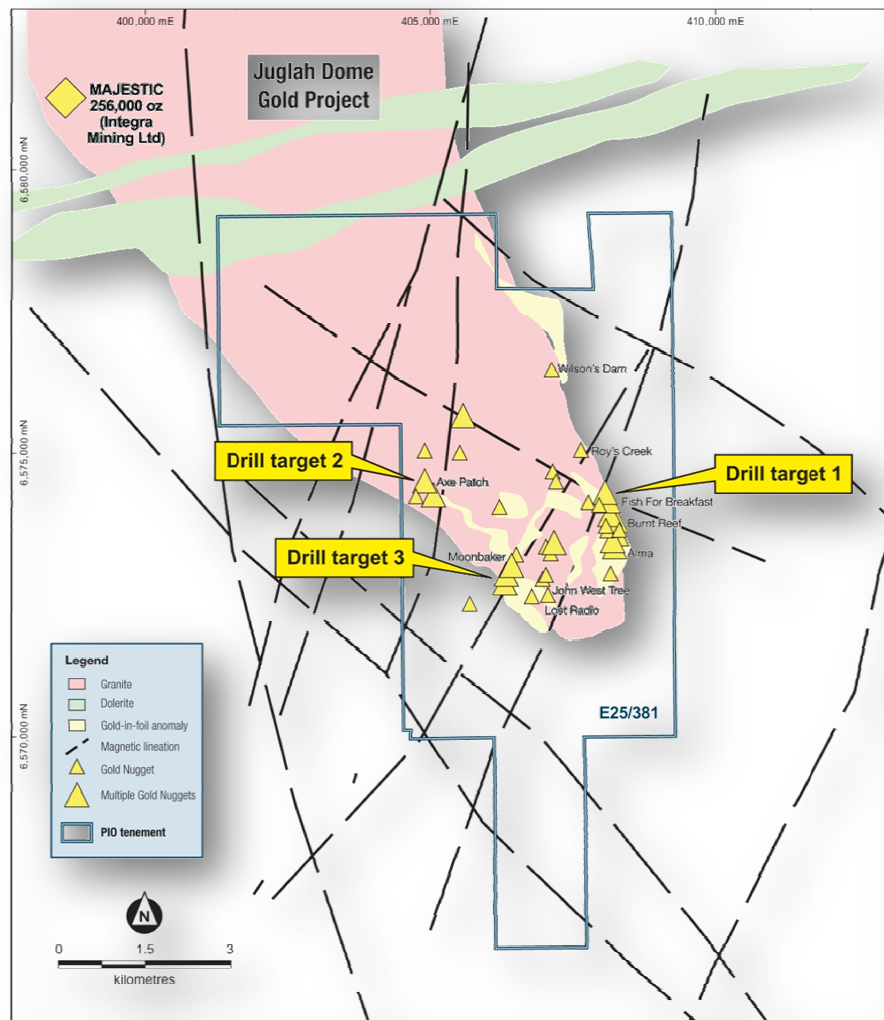
While mapping, rock chips were taken from an outcropping quartz vein. Three samples with visible gold were not submitted, however of 9 others, 5 returned gold values between 3.06g/t and 711g/t.

Three targets have been selected for detailed RAB drilling. Others will follow.

*Of importance, Integra Mining Limited recently announced a 256,000oz Mineral Resource for its Majestic Gold Prospect which is approximately 4.5km NW from Pioneer's tenement.*



*Gold in quartz reef, Juglah Dome. 5 mineralised samples from this location assayed above 3.06g/t including 42g/t and 711g/t*



**Figure 2. Juglah Gold Project showing gold-drilling targets (Juglah1, 2 and 3) and proximity to Integra Mining Limited's Majestic Prospect.**

## OUTLOOK

- RAB drilling to test other priority multi-element geochemistry/structural targets.

## 3. GOLDEN RIDGE NICKEL JV PROJECT: EM surveys generate drill anomalies

*Pioneer 56%, Australian Mines Limited 44%. Each Company contributes to exploration expenditure on a pro-rata basis.*

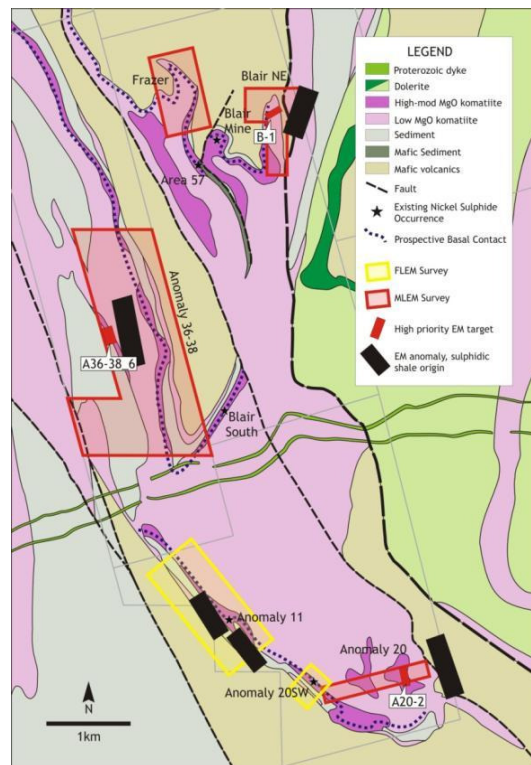
*The Golden Ridge Nickel JV Project is located 30km SE of Kalgoorlie and is prospective for nickel sulphide deposits.*

Key points from the recent SAMSON EM surveys at Golden Ridge interpretation include:

- a relatively discrete late-time zone of enhanced conductivity within a stratigraphic anomaly. The anomaly is confined to an area of 200-300m, and may represent a highly conductive target sitting adjacent to the regional stratigraphic conductor.

- a previously undetected conductive body near A36-38\_6 which shows as a late-time response in the SAMSON slingram dataset, but is not evident in the earlier datasets.

Pioneer's consultant geophysicist has recommended drill holes to test these targets.



**Figure 3. Golden Ridge JV Project, showing areas of EM surveys, conductive sediments (black) and priority EM targets (solid red)**

## OUTLOOK

The exploration program for the December 2011 quarter includes:

- Traverses of reconnaissance aircore drilling. These will target geochemical and magnetic anomalies.

#### 4. TASSIE WELL IRON PROJECT: A new opportunity emerges.

##### *Pioneer 100% Iron Ore*

*The Tassie Well Project is located 140km N of Kalgoorlie, and 25km S of the Leonora-Esperance railway line at Kookynie, WA.*

*Mapping, rock chip sampling and an historic drilling record, coupled with the project's proximity to transport infrastructure, demonstrates the increasing priority of this project for Pioneer.*

Mapping undertaken by Pioneer at Tassie Well records an outcropping banded chert and weathered iron formation ("BIF"), which has become the target of this exploration proposal.

Aeromagnetic imagery clearly identifies the BIF, which is represented as two strongly magnetic, abutting, lozenge shaped features 7 kilometres long. The BIF, where it outcrops, has been rock chip sampled by Pioneer field staff, with 25 samples returning strongly anomalous results (greater than 30% Fe and up to 54% Fe) along the outcropping strike length of 5 kilometres.

#### OUTLOOK

The exploration program for the December 2011 quarter includes:

- Traverses of reconnaissance RC drilling. Originally scheduled for the June 2011 quarter, this program was delayed due to rain.

Yours faithfully



#### **Managing Director**

Released by :	Further information:
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The information within this report as it relates to geology and mineralisation was compiled by Mr David Crook who is a full time employee of Pioneer Resources Limited, a member of The Australasian Institute of Mining and Metallurgy (member 105893) and is a Competent Person as defined by the 2004 JORC Code, having five years experience which is relevant to the style of mineralisation and type of deposit described in the Report. This person consents to the inclusion of this information in the form and context in which it appears in this report.

**Glossary:**

“BIF” means banded iron formation.

“Diamond Drilling” or “Core Drilling” is a drilling technique which uses a diamond-set drill bit to produce a cylindrical core of rock.

“EM” means electromagnetic, a geophysical survey technique used to locate conductive rocks which may host nickel sulphide mineralisation. There are a number of configurations of transmitters, receivers and processing available depending on the application.

“g/t” means grams per tonne (used for precious metals) and is equivalent to ppm.

“ppm” means 1 part per million by weight.

“LOI” means loss on ignition. This refers to the mass of volatile material lost when an iron sample is heated, and therefore is an indication of the rate that a sample may be thermally upgraded by calcining.

“RAB” means rotary air blast, a cost-effective drilling technique used to sample weathered rock.

“RC” means reverse circulation, a drilling technique that is used to return uncontaminated pulverised rock samples through a central annulus inside the drill pipes. RC samples can be used in industry-standard Mineral Resource statements.

“Au” means gold.

“Cu” means copper.

“Fe” means iron.

“Ni” means nickel.

“N”, “S”, “E”, or “W” refer to the compass orientations north, south, east or west respectively.

<b>Table 1</b> <b>In Situ Mineral Resource by Lower Cut-off Grade</b>							
<b>Cutoff</b>	<b>Tregurtha</b>		<b>Hughes</b>		<b>Total</b>		
<b>Grade</b>	<b>Tonnes</b>	<b>Au</b>	<b>Tonnes</b>	<b>Au</b>	<b>Tonnes</b>	<b>Grade</b>	<b>Au</b>
<b>(g/t)</b>		<b>(g/t)</b>		<b>(g/t)</b>		<b>(g/t)</b>	<b>(oz)</b>
0.0	3,824,000	1.01	2,033,000	1.54	5,857,000	1.19	224,800
0.5	3,334,000	1.10	1,949,000	1.59	5,283,000	1.28	217,500
0.6	2,967,000	1.17	1,877,000	1.63	4,844,000	1.35	210,000
0.7	2,555,000	1.25	1,772,000	1.69	4,327,000	1.43	199,000
<b>0.8</b>	<b>2,138,000</b>	<b>1.35</b>	<b>1,639,000</b>	<b>1.77</b>	<b>3,777,000</b>	<b>1.53</b>	<b>185,600</b>
0.9	1,738,000	1.46	1,497,000	1.85	3,235,000	1.64	170,600
1.0	1,395,000	1.59	1,359,000	1.95	2,754,000	1.77	156,500
1.1	1,115,000	1.72	1,218,000	2.05	2,333,000	1.89	141,900
1.2	901,000	1.86	1,092,000	2.15	1,993,000	2.02	129,400
1.3	744,000	1.99	969,000	2.27	1,713,000	2.15	118,300
1.4	611,000	2.13	870,000	2.37	1,481,000	2.27	108,100
<b>1.5</b>	<b>518,000</b>	<b>2.25</b>	<b>778,000</b>	<b>2.48</b>	<b>1,296,000</b>	<b>2.39</b>	<b>99,500</b>
2.0	244,000	2.85	432,000	3.08	676,000	3.00	65,100

<b>Table 2</b> <b>Mineral Resource by Resource Category (0.8g/t Lower Cut-off Grade)</b>							
	<b>Hughes</b>		<b>Tregurtha</b>		<b>Total</b>		
<b>Category</b>	<b>Tonnes</b>	<b>Au</b>	<b>Tonnes</b>	<b>Au</b>	<b>Tonnes</b>	<b>Grade</b>	<b>Au</b>
		<b>(g/t)</b>		<b>(g/t)</b>		<b>(g/t)</b>	<b>(oz)</b>
Measured	317,000	1.50	328,000	2.71	645,000	2.12	43,900
Indicated	969,000	1.32	906,000	1.60	1,875,000	1.46	87,700
Inferred	852,000	1.33	405,000	1.38	1,257,000	1.35	54,400
<b>Total</b>	<b>2,138,000</b>	<b>1.35</b>	<b>1,639,000</b>	<b>1.77</b>	<b>3,777,000</b>	<b>1.53</b>	<b>185,600</b>

*Note: Totals might not add due to the timing of equation rounding. The CSA Mineral Resource was estimated within constraining wireframe solids based on a nominal lower cut-off grade of 0.5g/t Au. Ordinary Kriging technique with high grade treatment (to reduce the influence of some very high grade samples) was used. The resource is quoted from blocks above the specified gold cut-off grade.*

## Responsible Parties

Based on the databases provided by Pioneer, CSA has produced the Mineral Resource estimates for Hughes and Tregurtha deposit. These Mineral Resources have been classified and reported in accordance with The 2004 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Resource classification is based on the geological confidence and interpretation, data QA/QC, drill spacing and geostatistical measures. It is CSA's opinion that the current Mineral Resource models provide robust global estimates of the in situ mineralisation of Au in the project.

## Dr Bielin Shi (PhD, MSc, MAusIMM, MAIG) – Principal Geologist CSA

Dr Shi of CSA is a geologist with high level experience in economic and mining geology, resource estimation and applied geostatistics. The information in this announcement that relates to Mineral Resources is based on information compiled by Dr Shi, who is a member of the Australasian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG). Dr Shi is a Competent Person as defined by the JORC Code (2004 Edition) and consents to the inclusion in this announcement of matters based on his information in the form and context in which it appears. He conducted the field-based assessment of Pioneer's Mount Jewel Project and is the primary author for this report.