

**Peak Resources Limited**

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Western Australia 6153

**Stock Exchange**

Australian Stock Exchange  
Symbol: **PEK**

**Issued Capital**

43.9m Shares  
24.9m Sept '09 Options

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**Base Metal Project:**

Ashburton

**Gold Projects:**

Peak Hill West  
Peak Hill East  
Doolgunna  
Menzies

**Nickel Projects:**

Yellowdine  
Lake Ballard

**Uranium Projects:**

Cosmo  
Lake Darlot  
Cogla Downs  
Gabyon

**DECEMBER QUARTERLY ACTIVITIES REPORT**

**HIGHLIGHTS**

- **Ashburton Gravity Survey identifies large structural trap associated with lithological contact in proximity to anomalous lead and zinc rock-chip samples;**
- **Encouraging iron, silver, lead, manganese and cobalt assays recorded at Ashburton Project.**
- **Iron mineralisation identified at Three Rivers Project.**
- **Menzies Project moves to new phase.**

**Overview**

During the December quarter Peak Resources Limited (**ASX code PEK - "Peak"**) undertook field exploration programmes over its Ashburton, Menzies and Lake Darlot Project areas with the primary focus of operations being the Ashburton Base Metal Project.

In addition to this work a review has been undertaken on the Company's Peak Hill West Gold Project as a result of which a number of drill targets have been identified and programmes of work prepared. A review was also undertaken on the Jenny Venn Prospect within the Menzies Project and further drill programmes developed.

Drilling activity undertaken during the December quarter included an initial programme at Lake Darlot (results pending) and RC drilling at the Jenny Venn (Menzies Gold Project)

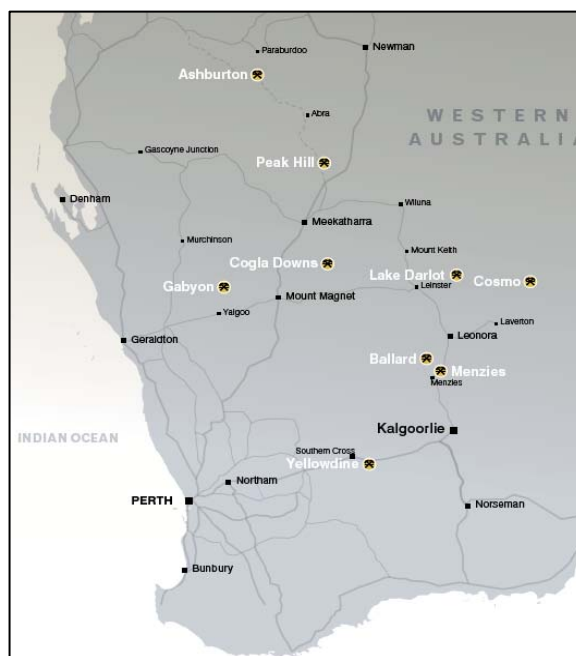
**Ashburton Base Metals Project**

*(EL 08/1239 -Mt Vernon and 1240- Pingandy) - Peak Resources 100%*

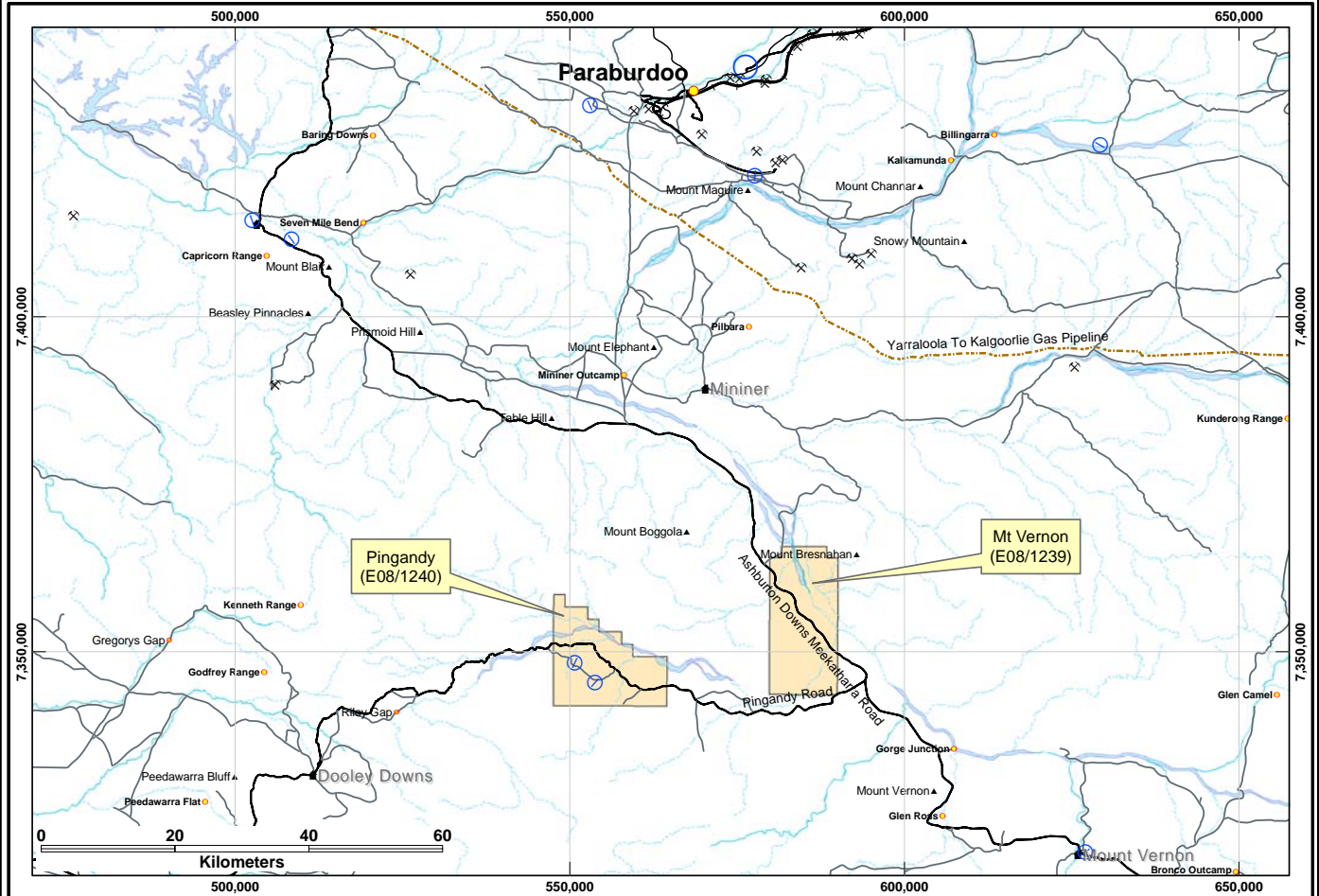
Exploration at the 100% owned Ashburton Project has provided further encouragement, with the work undertaken increasing the prospectivity of the Project to host large tonnage metalliferous deposits.

The Ashburton Project is located approximately 70 km south of the township of Paraburdoo and 300km NNW of Meekatharra, Western Australia. The Project consists of two granted Exploration Licences E08/1239 (Mt Vernon) & E08/1240 (Pingandy) covering a total combined area of 412km<sup>2</sup>.

**PEAK RESOURCES  
PROJECT LOCATION MAP**



## ASHBURTON PROJECT LOCATION MAP



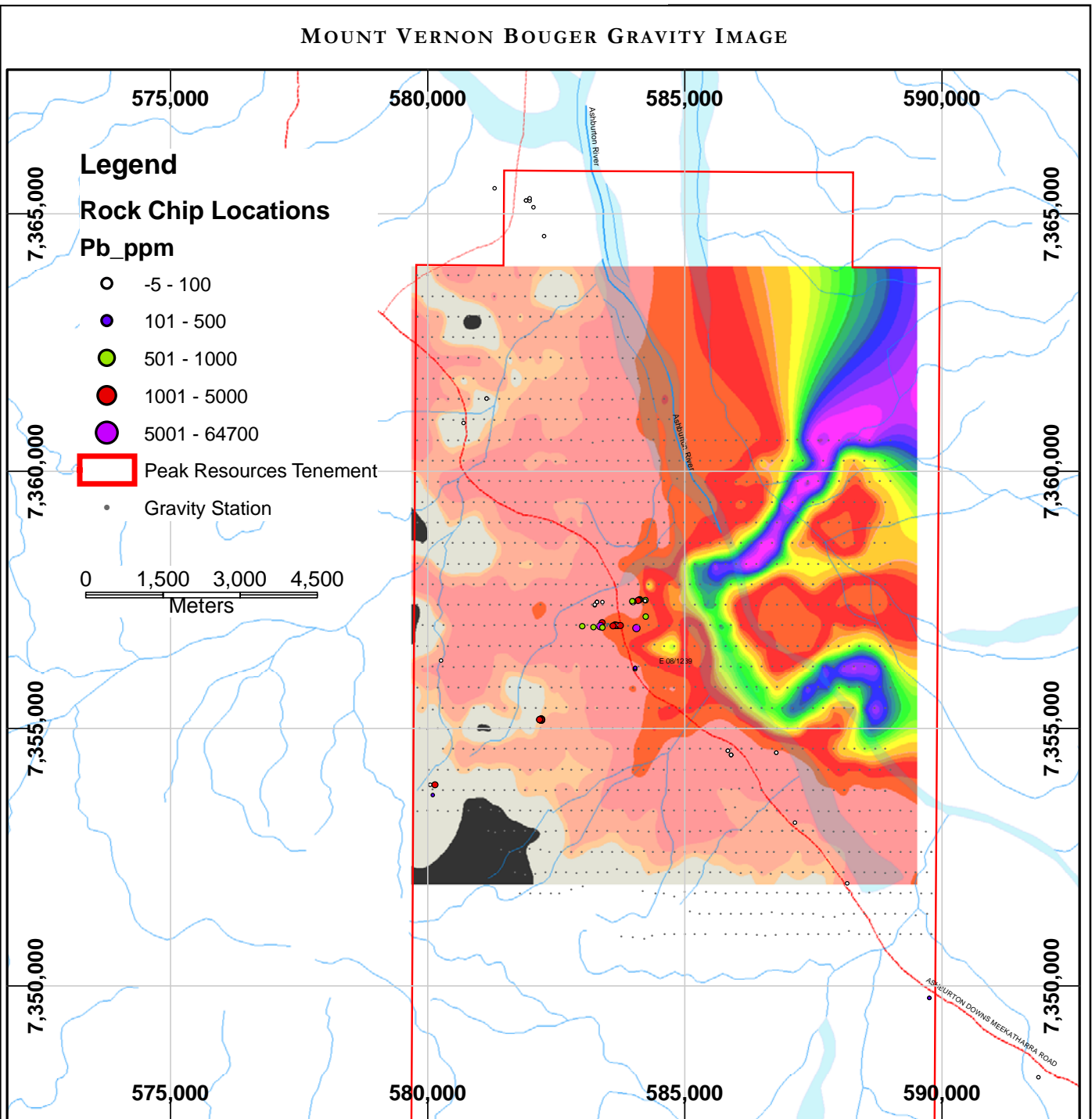
During the quarter Peak completed a 1,400 station gravity survey at its Mt Vernon Prospect (E08/1239). The survey was completed in conjunction with surface geochemical sampling, geological mapping and rock chip sampling at both the Mt Vernon and Pingandy Prospects.

An initial review of the gravity data has shown that a large structural trap (or embayment) exists along an unconformable lithological contact (image page 3). This coincides with anomalous Pb & Zn rockchip samples collected from outcropping quartz rich iron-oxide boxworks grading up to 6.5% Pb and 0.24% Zn.

The area is traversed by a strong NE trending lineament that is a similar structure to the regional Tangadee Lineament which is located proximal to the Abra base metals resource located 120km to the Southeast (Inferred resource of 50.3 million tonnes at 4% Pb & 10 g/t Ag and 9.8 million tonnes at 0.6% Cu and 0.5 g/t Au).

In the programme completed in November, Peak undertook broad spaced soil and stream sediment sampling, geological mapping & rock chip sampling over both the Pingandy and Mt Vernon tenement areas. Whilst the surface soil and stream sediment samples are still pending, rock chip sampling carried out in conjunction with the geological mapping has returned a number of highly anomalous assay results including; Iron (+50% Fe), Lead (+1% Pb), Silver (46.5 ppm Ag), Manganese (+10% Mn) as well as elevated barium, zinc and cobalt assay results. Samples that have reported higher than the labs detection methods for Fe & Mn have been resubmitted for Iron Ore style XRF analysis, these results are pending.

Previous campaigns of rockchip sampling at Mt Vernon were conducted in an area that is largely devoid of vegetation or in which the vegetation was considered to be stunted. This area is in excess of 5km long x 1.5 km wide. Peak believes that this vegetation phenomena could have been attributed to elevated arsenic levels associated with the Pb & Zn mineralisation, where sampling has returned up to 8.5% Arsenic in the same Pb & Zn anomalous rock chip samples.



The cumulative effect of these exploration findings has elevated the projects status. Peak is planning to conduct ground electrical geophysical surveys prior to drilling in 2008.

The recent exploration results combined with ideal lithologies, structural controls and the projects tectonic location has significantly increased the prospectively of the Project to host large tonnage base metal deposits

**Peak Hill West**

*(Peak Resources earning 70% from Goldstar Resources NL )*

RC and RAB drilling planned for the September Quarter continues to be deferred pending resolution of heritage clearances in the area. The Company is hopeful that agreements can be reached in the near future that would lead to site clearance work being undertaken. This would then enable the Company to engage drilling contractors to undertake the programmes of work that have been submitted to the Department of Industry & Resources.

RAB drilling is planned on the Robinson Range and Peak Mine sequence prospects, with RC drilling to be undertaken over Murphy Creek and Jubilee Extended. The Murphy Creek sub-area contains a number of significant drill intersections from earlier exploration along strike and to the west of the Durack gold resource. The 4 km corridor that straddles the tenements is interpreted to be an extension of the host lithology and structure for the Durack Resource and has returned significant results in RC drilling to date, including 5m @ 5.1 g/t Au from 45m, 3m @ 15.4 g/t Au from 36m and 8m @ 4.8 g/t Au from 10 m.

Further drilling has also been planned for Jubilee Extended, Jubilee Extended incorporates the strike extents to the Jubilee Pit, where previous RC drilling has reported encouraging intercepts including:

- 6m @ 21.2 g/t Au from 51 m (CHRC0006)
- 1m @ 158.3 g/t Au from 129m (CHRC0008)
- 2m @ 17.3 g/t Au from 79m (CHRC0009)
- 4m @ 9.0 g/t Au from 20m (CHRC0024)
- 12m @ 2.5 g/t Au from 20m (JRC0416)
- 3m @ 31.7 g/t Au from 6m (JRC0315)

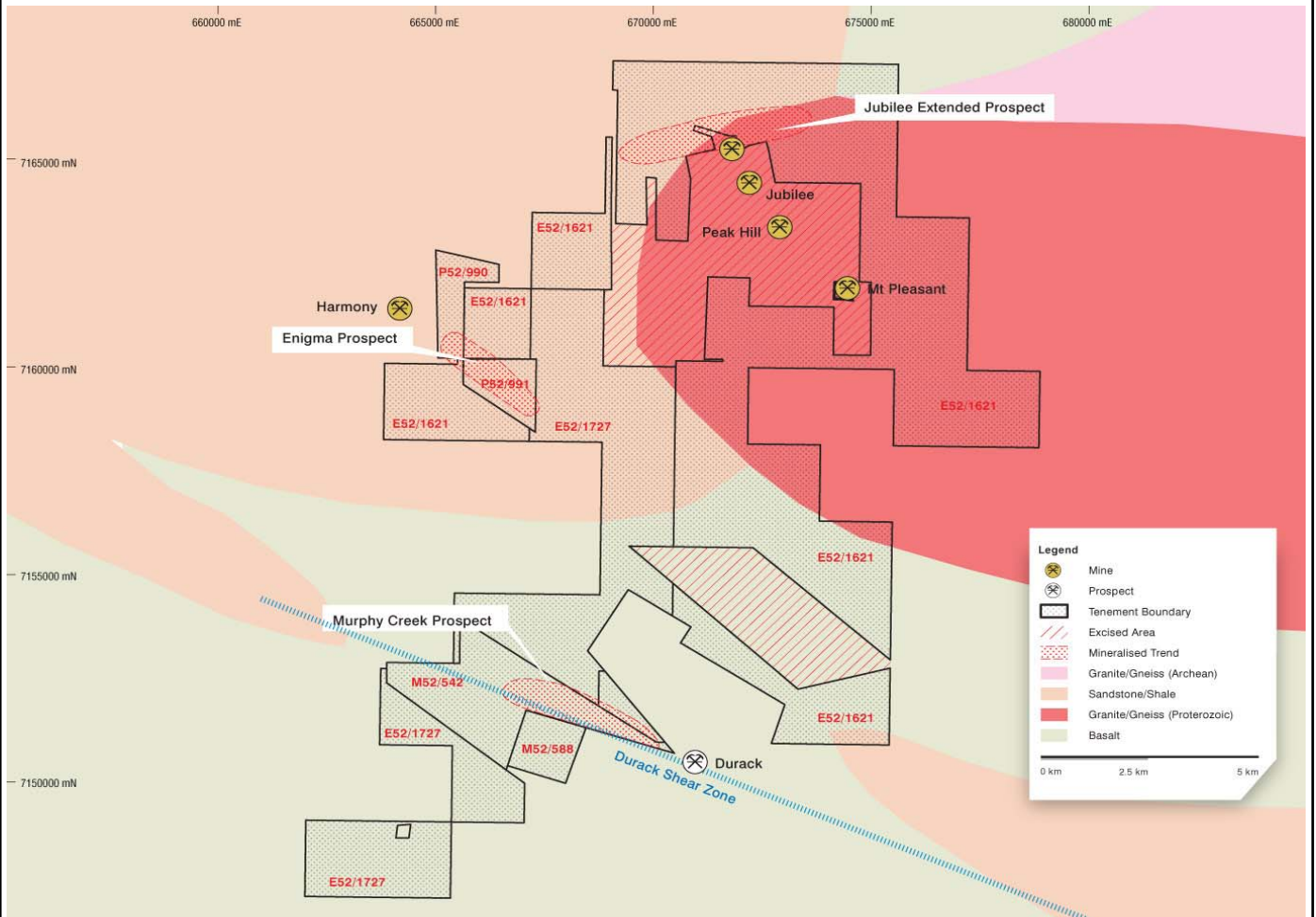
During the quarter prospecting licences P52/990 and P52/991 expired with applications for mining leases being made over the area of the former prospecting licences.

**Doolgunna Project**

(Peak Resources 100%)

Peak is undertaking a thorough review of the area, once all results are received, this work will form the basis of any further exploration activity over the project area. Further field activity is unlikely to be scheduled at the Doolgunna Project in the March quarter.

**PROSPECT LOCATIONS (PEAK HILL WEST)**



**Peak Hill East Project (Three Rivers)**

(Peak Resources 100%)

The Three Rivers Project is located approximately 130km NNE of Meekatharra and 250km SSW of Newman in Western Australia. The Project is readily accessible by the Great Northern Highway which passes within 10km of the Project.

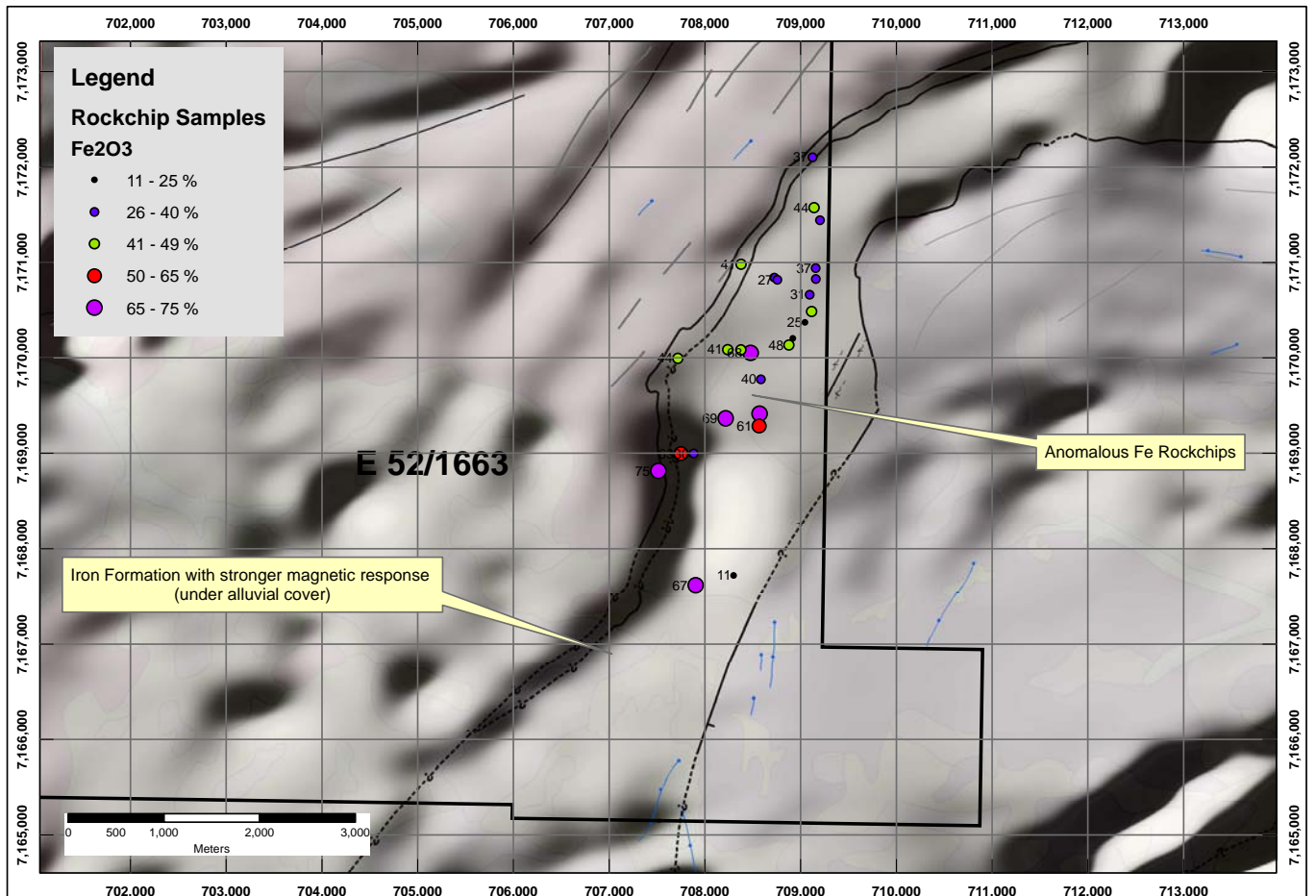
In the course of regional exploration three separate zones of outcropping iron mineralisation were located at the Company's wholly owned Three Rivers Project, (which forms part of Peak Resources Peak Hill group of tenements). The identified iron formations were observed over a strike length of approximately 3.5 km with a higher-grade core over 2.5 km. The iron formations vary in thickness (up to 100 metres at surface) and are expected to continue to the Southwest where it is masked by alluvial cover.

During this initial programme a series of rock chip samples were collected from the weathered outcrop of the iron formations at surface, these samples have returned encouraging results with a peak assay being returned at 75.2% Fe<sub>2</sub>O<sub>3</sub>.

This first pass programme provided Peak with encouragement to conduct further exploration at Three Rivers to assess the economic potential of the iron formations, with the main focus to be placed on the southern end where the mineralisation continues underneath cover in an area that has a stronger magnetic signature than the outcropping zones further to the Northeast. The size of the aeromagnetic anomaly given that a masking effect from the alluvial cover would diminishes the magnetic response, provides significant scope to the project as it is currently interpreted by Peak as being caused by:

- ◆ An increase in the iron grade associated with higher levels of magnetite and haematite returning a higher magnetic signature; and/or
- ◆ A reduction in low magnetic response contaminants, i.e. silica, phosphorous and alumina; and/or
- ◆ An increase in the volume of material (thickness).

**THREE RIVERS BANDED IRON SAMPLE LOCATIONS OVER AEROMAGNETICS**



Following review of the recently conducted programme, further exploration is being prepared for 2008 that will include a drilling programme to investigate the size, extent and grade of the iron mineralisation underneath the exposed outcrops within the Three Rivers Project area.

## Menzies Project

(Peak Resources 100%)

The Menzies Project covers ground from 5km east to 17km north of the township of Menzies and covers a total 101km<sup>2</sup> in area. Open pit mining ceased from the Menzies project in 2000 having produced over 60,000 oz of gold from two shallow pits.

Since November 2006 Peak Resources has initiated a number of programmes directed at outlining shallow higher grade mineralisation. Prior to the commencement of the quarter three separate drilling campaigns had been undertaken with the objective of defining the potential size and scope of previously identified gold mineralisation. Interpretive studies have also taken place on mineralisation below and adjacent to the Granny Venn Pit.

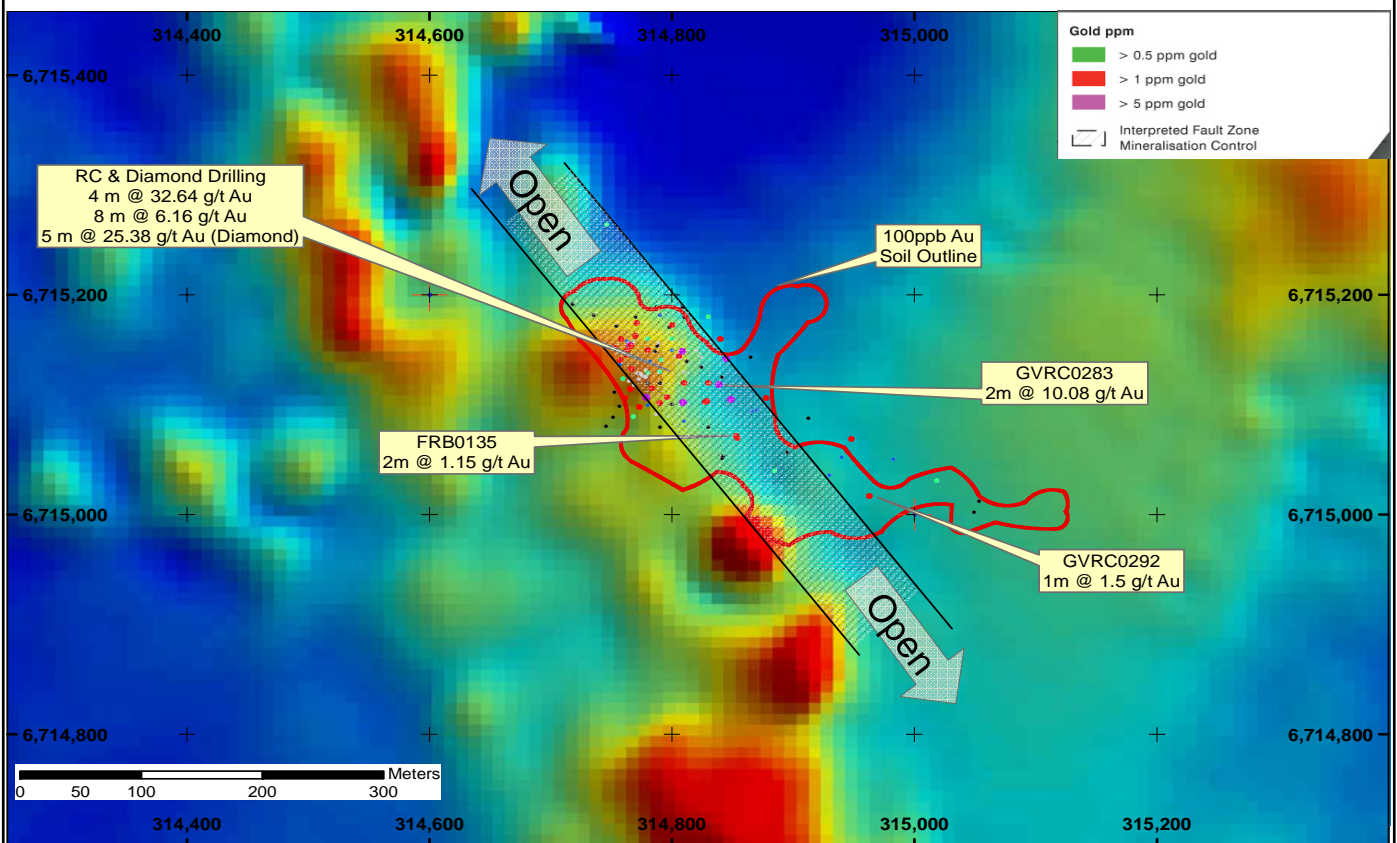
Towards the conclusion of the September quarter, planning was completed for the next phase of exploration on the Project. The first part of this programme focused on the Jenny Venn Prospect with an RC programme being completed in late October. Results from the programme provided support for the geological model developed by Peak and returned further high grade shallow intercepts.

A further 15 RC holes were completed during December at Jenny Venn. The programme was aimed at stepping out the drilling conducted to date to identify further high-grade shallow mineralisation. Drilling identified the extension of mineralisation (>0.5 g/t Au) over a strike length of >100m though no significant high-grade assays were returned.

Had the drilling programme intersected high-grade mineralisation beyond the identified high-grade core (approximately 40 metres of strike) it would have significantly increased the Company's confidence in the potential to rapidly advance the project.

In late October Peak Resources instigated an independent geological review of the project area. The technical review of the project is being undertaken by Shear Geological Consulting. Shear has undertaken to complete

### JENNY VENN—DRILL COLLARS & 100 PPM AU SOIL ANOMALY OUTLINE



an interpretive model of the geology, that will focus on the structural controls and alteration associated with the mineralisation at Menzies. Work completed to date has identified untested targets, where strong alteration and anomalous surface geochemistry has been returned. A field campaign of detailed geological mapping of the structure and alteration is now being instigated to further define the target areas prior to further drill testing.

The Company is to embark upon a two stage strategy in respect of the Menzies Project:

1. Wire framing the gold mineralisation currently identified at CSR, Granny Venn Pit floor and Jenny Venn. Subject to the outcome of this work the Company will commence a scoping study on the potential for small scale extraction of high grade mineralisation. This work will not be proposed to be to a JORC compliant level, its purpose is to assist in the development of future programmes; and
2. Development of a broad scale 10,000 meter RAB drilling programme on the southern embayment area between the Auntie Nellie Pit and Jenny Venn Prospect. This is an area of significant soil anomalism requiring intensive exploration. The Company believes there is the potential to identify additional gold mineralisation within this southern section of the Company's tenements.

The high grade and shallow nature of gold mineralisation at the Menzies Project provides the Company with the prospect of additional high grade material to augment currently identified prospects.

### **Goldfields Uranium Project**

*(Peak Resources 100%)*

Work during the quarter focused upon completing an initial drilling programme at Lake Darlot. Peak located a suitable drill rig for the proposed programme and completed drilling during December.

### **Lake Darlot Prospect**

The Lake Darlot Project comprises broad calcareous sediments reported to be up to 10 metres thick at the margins of Lake Darlot. The calcareous sediments have been identified as being enriched by the precipitation of uranium from drainage inflows from nearby catchments that host "hot" granites (high uranium levels).

Regional radiometrics data has identified a broad zone of anomalous uranium in sediments that is approximately 7km long x 2.4km wide. Peak completed two surface sampling programmes at Lake Darlot (December 2006 & April 2007) prior to drilling that identified elevated levels of  $U_3O_8$  in soils (up to 186 ppm) over the anomaly. During sampling, carnotite (uranium rich mineral) was identified in a shallow calcrete pit (<1 metre deep) located on the edge of the lake. Sampling within the pit returned assays of up to 384ppm  $U_3O_8$ .

Results from drilling are expected to be received in early February.

### **AIRCORE DRILLING AT LAKE DARLOT**

### **Working Capital**

At the end of the quarter the Company had on hand \$1.55m in cash. Peak's forecast exploration costs for the March quarter is \$250,000.

### **Corporate**

On the 31 December 2007 1.5 million options with an exercise price of 25 cents each expired, no options have been exercised.



*The information in this report is based on information compiled by Mr. Kell Nielsen, a Member of the Australian Institute of Mining and Metallurgy. Mr. Nielsen is a full-time employee of Peak Resources Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Nielsen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*