

QUARTERLY ACTIVITIES REPORT – DECEMBER 2009

Highlights

- **Successful \$23m capital raising completed.**
- **Settlement of purchase of additional 50% of Irvine Island completed.**
- **Irvine Island Phase II drilling program commences.**
- **Draft CSIRO report on Flotation tests received.**

Projects – Western Australia

Irvine Island (E04/1172) – Pluton 100%

During late November 2009 Pluton mobilised and successfully established a purpose built camp onto Irvine Island (see Figure 1). In early December a Boart Longyear LF70 diamond drill rig was mobilised to Irvine, with drilling commencing on the 3rd December.

Three drill holes have so far been completed for a total of around 800 metres, with the fourth hole nearing completion at time of writing. While metres drilled per shift has vastly improved compared to the 2008 Phase I drilling program, there has been a total of 14 days lost due to shutdown/start up and evacuation of Irvine as a result of two cyclones in the area within the past few weeks. Pluton management expect the lost time to be made up over the course of the program.

The three holes completed so far are holes Y2H-29, Y2H-33, and Y2-22 located in the Hardstaff Peninsular region (see Figure 2). Site 22 is outside of, but close to, the northern margin of the area in which Pluton is targeting 130Mt of iron ore from the Yampi Member only. This hole has been included in the current round of drilling to provide contingency water for drilling, and for monitoring purposes.

All three holes intersected both the primary Yampi Member and secondary Wonganin Sandstone targets. Visually, holes Y2H-29 and Y2H-33 have intersected reasonable iron mineralisation within both the Yampi Member and Wonganin Sandstone. Visually, hole Y2H-33, in particular, is expected to be one of the better holes drilled to date on Irvine.

The hole drilled at the water bore site (Y2-22) intersected little iron mineralisation within the Yampi Member, possibly due to the proximity to a nearby fault. Holes Y2H-33 and Y2-22 have been successfully cased for Troglifauna and Styglofauna monitoring.

Core from holes Y2H-29 and Y2H-33 have been logged and cut and samples have been despatched for assay. Assay results are pending.

Site Y2-12 (see location 4 in Figure 2) has been prepared in advance of drilling and is ready to receive the drill rig on completion of drilling at Site 22. A total of six holes are expected to be drilled from the next three sites (three vertical and three angled) that will target the high aeromagnetic zone detected by the recently flown survey.

CSIRO draft report on Flotation tests

The final draft version of the CSIRO report explaining the results of the flotation tests on lower grade ores has been received. In summary, flotation tests were conducted primarily to assess the prospectivity of the Wonganin sandstones that overlay the main iron mineralised Yampi Member. To date the sandstones have been considered as waste and have not been included in either the 54Mt inferred resource or the 130Mt targeted tonnes from Phase II drilling. Management are extremely pleased with the results presented to date. A separate announcement will be made shortly after management receive the final report, which is imminent.



Figure1. Accommodation pods on Irvine Island. The pods can be easily moved and are designed to cope with extreme climatic conditions.

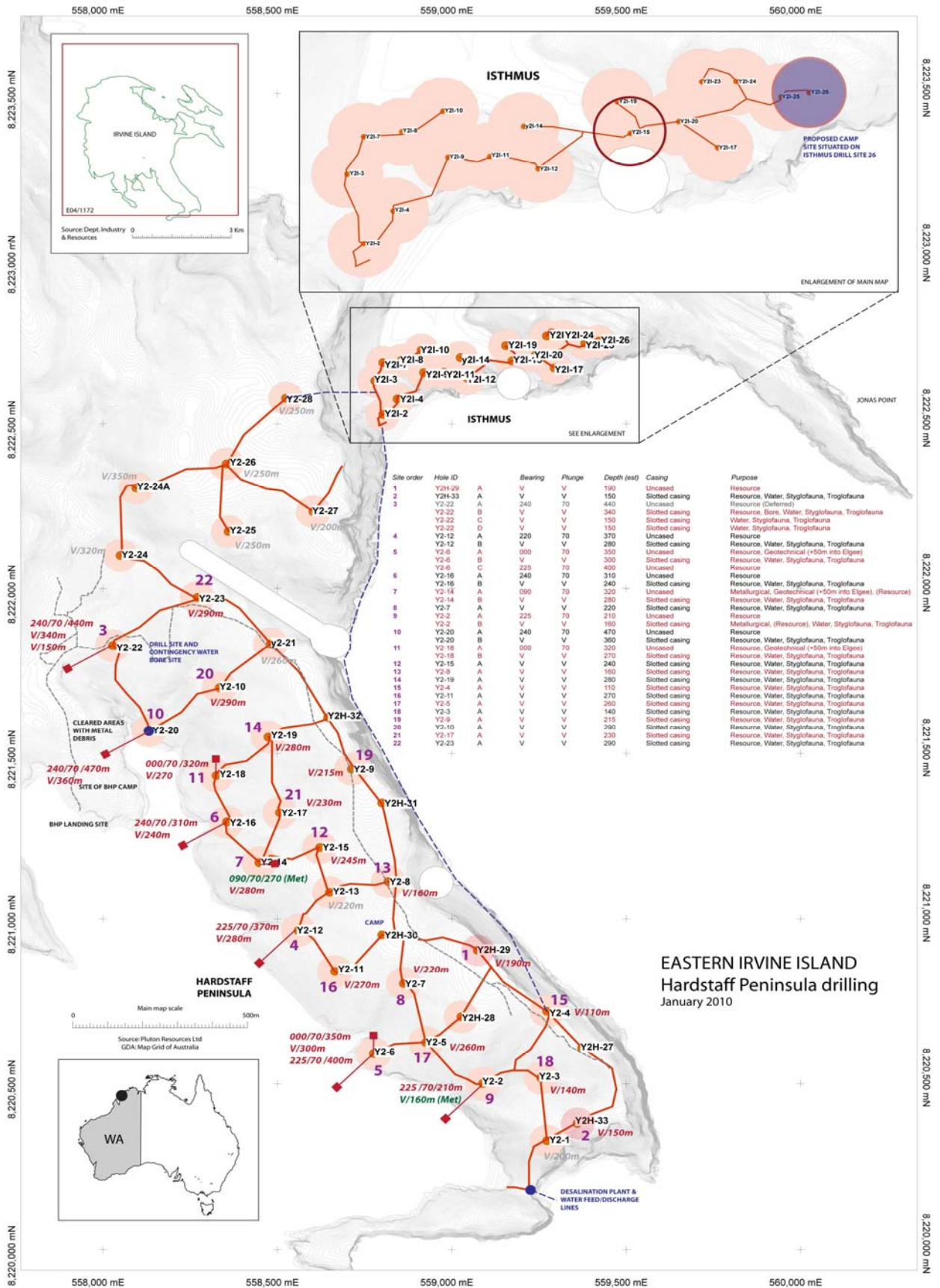


Figure 2. Map of Irvine showing drill locations by order of rig move (see purple numbers). Several of the sites will be used to drill multiple holes. The rig is currently on site 3 to the north of Hardstaff Peninsula.

Projects – Tasmania

Cethana (EL29/2006) – Pluton earning 60%

Pluton will be drilling one or two diamond core holes (dependant on results) at Cethana around late March or early April.

The first hole will target a geophysical anomaly identified in March 2008.

This program follows independent recommendation that Cethana be considered a high priority drilling target.

A work program has been lodged with Mineral Resources Tasmania, and the botanical clearance is expected by end of February.

Management are currently sourcing an appropriate rig for the program.

Corporate Activity

Pluton finalised the purchase of the remaining 50% of Irvine Island with Cliffs Natural Resources on 31st October 2009.

In October 2009, Pluton raised \$23.3 million via a placement to institutional and sophisticated investors, and via a Share Purchase Plan to existing retail shareholders. The capital raising was heavily oversubscribed, with several large new Australian and overseas institutional investors becoming shareholders.

Funding

At the end of December 2009 Pluton had \$16.45 million cash on hand.

For more information contact Managing Director, Mr. Tony Schoer, on 0411 232 711 or tschoer@plutonresources.com.

Tony Schoer
Managing Director and Chief Executive Officer

About Pluton: Pluton Resources Limited is listed on the Australian Stock Exchange (ASX Code “PLV”). Pluton has assembled a diversified portfolio of interests in tenements in Western Australia and Tasmania. Tenements in Western Australia are prospective for iron ore, with the 100% owned Irvine Island iron ore project progressing to the resource definition stage. Tenements located in Tasmania are prospective for high grade or bulk tonnage copper, gold and silver. Further details on Pluton can be found at www.plutonresources.com.
