



## PRECIOUS METAL RESOURCES LIMITED

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### Latest News

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### ASX Symbol: PMR

Halls Peak is the inferred volcanic centre for extensive small but high grade Volcanic Massive Sulphide (VMS) deposits rich in copper, lead, zinc and silver, with variable but largely untested gold values. Current exploration aims to locate the right depositional environment to host a high-grade deposit of between 30,000 and 170,000 tonnes<sup>ET</sup> within a global exploration target of 5 – 70 million tonnes<sup>ET</sup> of mixed grade mineralisation. Several geochemical and geophysical anomalies are also present that should identify further high grade, near-surface sulphides.

Additional to the VMS prospectivity, there are indications for the presence of orogenic gold from breccia floaters and small pods of Au-rich quartz on the tenements carrying 1 to 10 g/t Au.

A substantial body of exploration data has been generated over the years by the Geological Survey of NSW and a number of major mining companies including BHP Ltd., MIM Ltd., The Zinc Corporation, Allstate Exploration NL, Carpentaria Exploration Co. Ltd., CRA Exploration Limited and Amoco Minerals Australia Co.

Company Announcement Office  
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8 October 2012

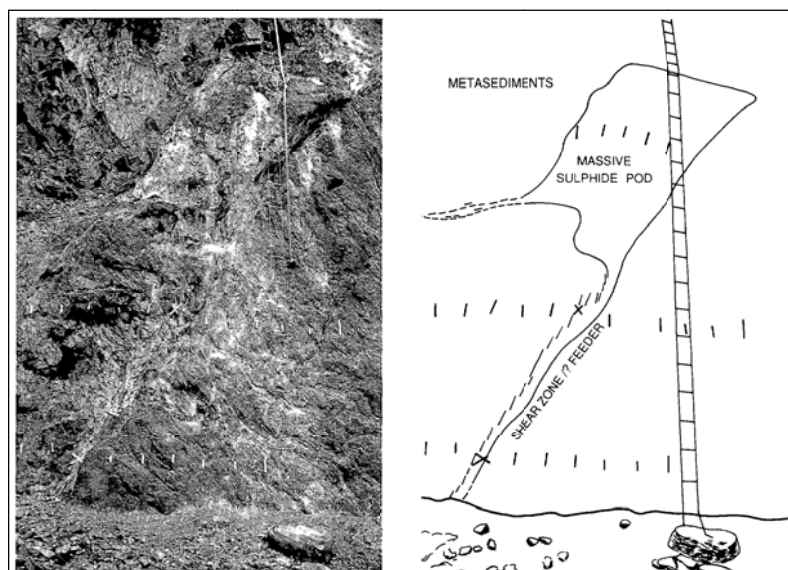
### HIGH GRADE COPPER-LEAD-ZINC-SILVER PODS IN GEOPHYSICAL ANOMALIES - FAINTS-FIREFLY AREA, HALLS PEAK

High grade copper-lead-zinc-silver bearing lenses and pods, each containing several hundred tonnes of mineralisation, have been shown to occur within the upper part of one continuous black shale bed at the historic Faints-Firefly mining area. Pods in this bed were mined in at least seven localities, including the Gossan Tunnel, Silver Tunnel, Firefly Tunnel, Kempsey Tunnel, Underlay Shaft and Faints Mines. This bed containing lenses and pods extends more than 600 metres along outcrop.

The black shale bed hosting the high-grade pods was located by recent assaying by PMR. This demonstrated highly anomalous base metal and silver grades over many metres in previously unassayed core holes drilled during past exploration. The outcrop of the black shale is outlined in the accompanying map, and the grades and thicknesses in the table beneath.

Total recorded production from all these workings amounted to 1,600 tonnes of sulphide and oxide mineralisation. The sulphide ore had an estimated average grade of 1.06% copper, 20.86% lead, 31.89% zinc and 29.6 ozs/tonne silver (Mines Dept. Annual Report, 1923).

These pods are interpreted as high-grade “black smoker” hot spring vents on the muddy floor of a swamp. These mineral bearing springs are interpreted to have flowed from the surface of the swamp in which the black shales were being deposited. Columns of high-grade copper-lead-zinc-silver (“black smokers”) formed over these vents, and were subsequently buried by additional mud layers. It is these, and the mineralised vents from which they flowed, that were mined selectively in the past.



**Massive sulphide pod (?black smoker) located above a fissure, Faints Open Cut. (Dept. Natural Resources, Dorrigo Metallogenic Map, 1992)**

<sup>ET</sup> **Exploration Targets:** The potential quantity and grade of exploration targets is conceptual in nature. There has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.



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Copper, lead, zinc and silver in water flowing from these hot springs was concentrated in the surrounding swamps, and crystallised in black shales which hosted them. These “black smokers” and surrounding metal bearing sediments were later covered by volcanic rock fragments.

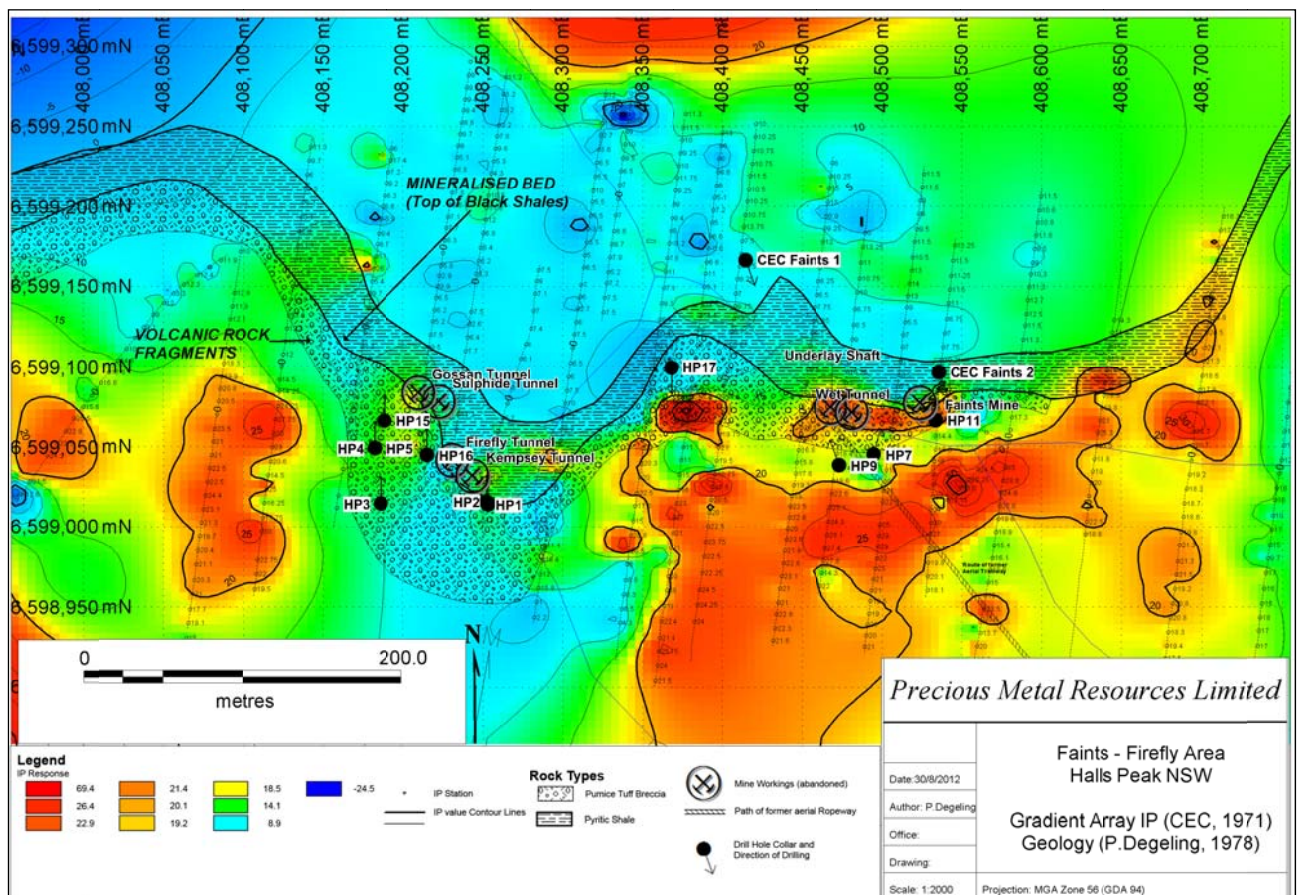
Most holes assayed were drilled through the volcanic rock fragments and into the underlying mineral bearing black mud, now hardened to black shale.

Vents feeding the interpreted “black smokers” are narrow, but recent assaying by PMR has shown that they contain extremely high grades. 1% silver with very high-grade base metals has been found in one such vent in CEC Faints DDH 2.

Top (m)	Base (m)	Metres	Ag (oz/t)	Cu (%)	Pb (%)	Zn (%)
83.49	83.67	0.18	342.40 (10,650 g/t)	2.83	18.25	36.00

### Assay of Interpreted Vent Zone, CEC Faints 2.

An induced polarisation survey by Carpentaria Exploration Company (GS 1971/149) outlines areas containing copper, lead and iron sulphide minerals (see map below). The areas drilled show little sulphide mineralisation, but south of the black shale outcrops there are far more intense IP anomalies. These suggest that the black shales have higher base metal grades with an increased number of high-grade pods south of their outcrop. The shales here are concealed beneath the overlying volcanic rock fragments, but extend beneath the mountain, and are an exploration target for the future. These targets are shown below in red.



### Drill Hole Locations and IP Anomalies, Faints-Firefly Area.

These prominent anomalies were not targeted by any of the drill holes as the induced polarisation survey, which generated them, was completed after the drilling.

A less intense anomaly underlies the Faints Mine, Wet Tunnel and Underlay Shaft, confirming that higher grades of mineralisation are present within the anomalies.



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Drill Hole	Top (m)	Base (m)	Metres	Ag (oz/t)	Cu (%)	Pb (%)	Zn (%)
Halls Peak Firefly DDH 4 (including Pre-JORC)	48.79	50.62	1.83	0.60	0.05	0.52	0.87
	50.87 <sup>1</sup>	51.05	0.18	3.53	0.50	>1	>1
	65.86 <sup>2</sup>	66.17	0.31	1.00	0.30	33.40	6.50
Halls Peak Firefly DDH 3	94.18	99.67	5.49	0.43	0.01	0.06	0.08
Halls Peak DDH 5	Did not penetrate mineralised bed						
Halls Peak DDH 15	36.27	43.16	6.89	0.55	0.01	0.05	0.20
Halls Peak DDH 16	13.41	25.94	12.53	0.14	-	-	-
Halls Peak Firefly DDH 1 (including Pre-JORC)	13.72	20.42	6.70	0.56	0.05	0.49	1.28
	13.72 <sup>1</sup>	14.10	0.38	0.4	1.45	8.60	30.20
Halls Peak Firefly DDH 2	15.93	24.38	8.45	0.08	0.02	0.17	0.32
Halls Peak DDH 17 (including pre JORC)	41.91 <sup>2</sup>	42.21	0.30	-	0.40	0.01	2.20
	44.81	45.11	0.30	0.27	0.26	0.60	12.70
Halls Peak Faints Creek DDH 9	Did not penetrate mineralised bed						
Halls Peak DDH 7 (including pre JORC)	45.42 <sup>1</sup>	45.72	0.30	>3.59	0.18	>1%	>1%
Halls Peak Faints Adit DDH 11	0	8.23	8.23	0.26	0.02	0.18	0.60
CEC Faints DDH 2	13.26	21.34	8.08	1.95	0.78	0.51	2.53
	27.74	37.13	9.39	2.73	1.10	0.13	1.15

Assay Results in top of black shale bed, Faints-Firefly Area Pre-JORC Assays: GS1970/620<sup>1</sup> and GS 1971/749<sup>2</sup>.



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## Sample Methodology

Drill Hole	Easting	Northing	Azi- muth (Deg. Mag.)	Incline (Deg)	From (m)	To (m)	True Thick- ness (m)	Total Depth (m)	Recovery (%)
Halls Peak Firefly DDH 4	408184	6599048	330	60	48.79	50.62	1.83	88.39	100
					50.87 <sup>1</sup>	51.05	0.18		100
					41.91 <sup>2</sup>	66.17	0.31		100
Halls Peak Firefly DDH 3	408186	6599015	-	90	94.18	99.67	5.49	118.87	100
Halls Peak DDH 5	408184	6599048		90	Did not penetrate mineralised bed			33.22	100
Halls Peak DDH 15	408188	6599066	55	65	36.27	43.16	6.89	48.37	100
Halls Peak DDH 16	408216	6599045	0	60	13.41	25.94	12.53	39.59	100
Halls Peak Firefly DDH 1	408251	6599016	315	50	13.72	20.42	6.70	20.42	80
					13.72 <sup>1</sup>	14.10	0.38		100
Halls Peak Firefly DDH 2	408251	6599016	315	80	15.93	24.38	8.45	30.08	100
Halls Peak DDH 17	408367	6599099	180	40	41.91 <sup>2</sup>	42.21	0.30	52.27	100
					44.81	45.11	0.30		100
Halls Peak Faints Creek DDH 9	408471	6599038	316	70	Did not penetrate mineralised bed			26.91	100
Halls Peak DDH 7	408492	6599046	10	75	45.42 <sup>1</sup>	45.72	0.30	60.66	100
Halls Peak Faints Adit DDH 11	408532	6599065	60	330	0	8.23	8.23	53.03	58
CEC Faints DDH 2	498856	6599094	60	170	13.26	21.34	8.08	154.53	100
					27.74	37.13	9.39		100

Assay samples were crushed and pulverized to 85% >75 micron, and assayed by four acid ICP-MS procedures; high grade results were then verified by ore grade four acid (OG-62). The high grade silver analysis was carried out by High Grade Ag – 4 – Acid (Ag – OG62h), and Ag Concentrate by FA – GRAV (Ag – GRA23).

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## JORC STATEMENT

The information in this announcement that relates to mineral exploration is based on information compiled by Peter John Kennewell, who is a member of the Australasian Institute of Mining and Metallurgy. Peter John Kennewell is a director of Precious Metal 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, Identified Mineral Resources, and Ore Reserves". Peter John Kennewell consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

**Induced Polarisation survey:** A Scintrex IPC-7 Control Box and IPR-7 Receiver were used in conjunction with the gradient array electrode configuration. Potential electrodes were 10m and 20m apart. The survey was conducted by Carpentaria Exploration Company Pty Ltd in 1971.

**Exploration Targets:** The potential quantity and grade of exploration targets is conceptual in nature. There has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

**References to Mines** refer to geographical names, and no inference should be made that PMR is operating any mines at this stage of its development.



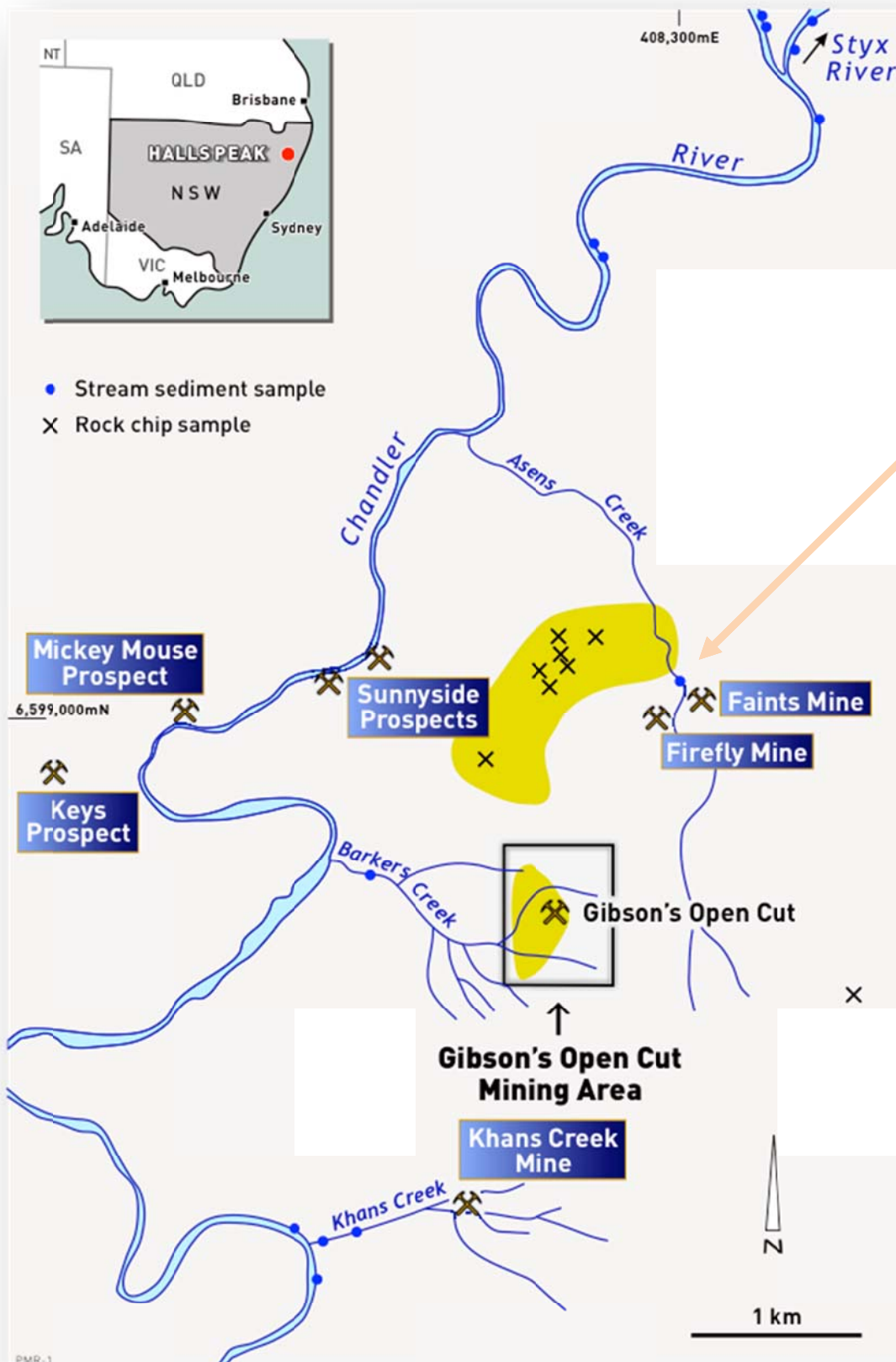


Figure 1 – Location of Faints-Firefly Area and Gibsons Open Cut Area

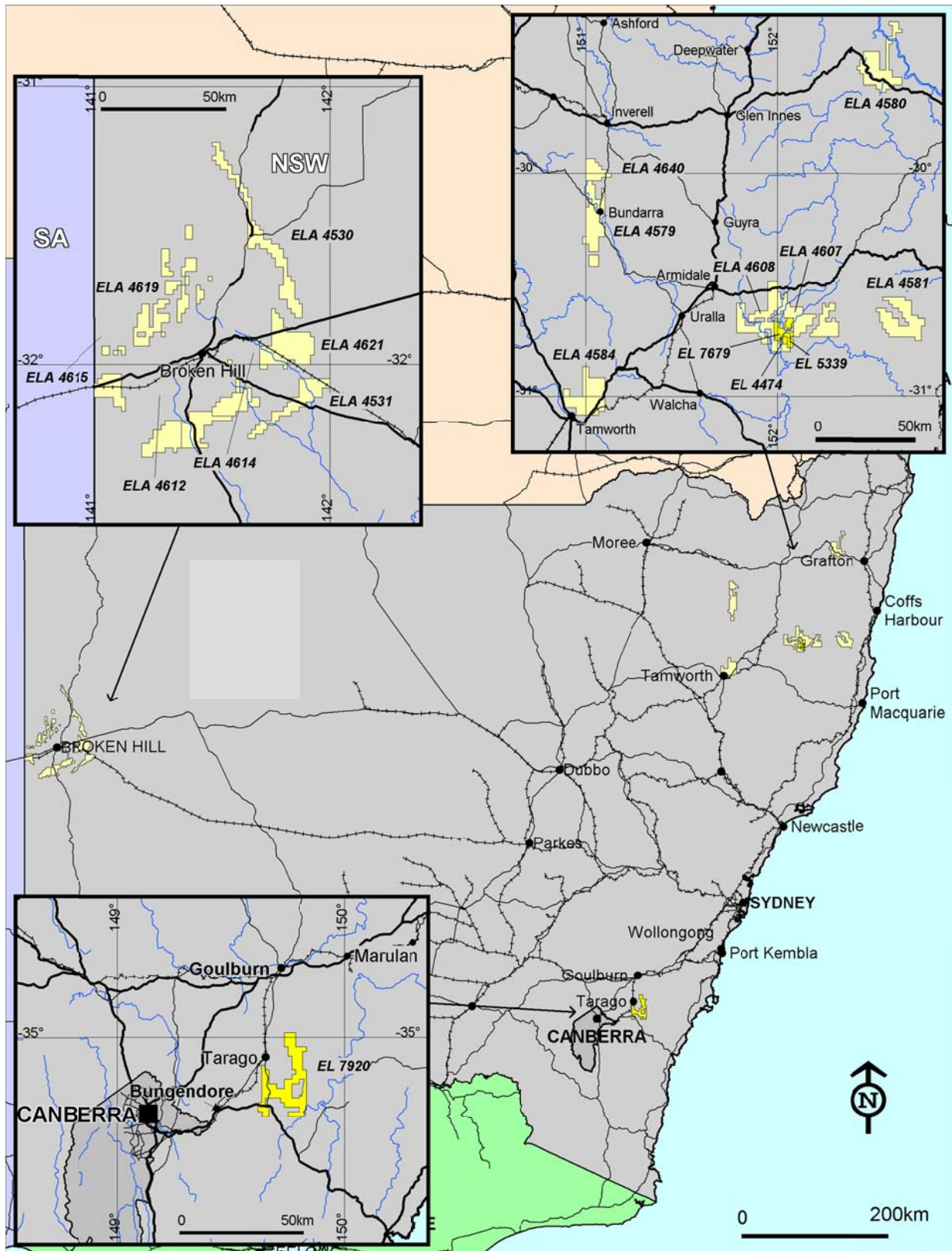


Figure 2- Location map of PMR licences and applications 31 August 2012