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# High-resolution geophysical survey (3D Induced Polarisation) at Mt Adrah delivers four new targets in the vicinity of the Hobbs Pipe discovery

- The geophysical (IP) response of the Hobbs Pipe 1 discovery was confirmed by the survey
- Four similar but much larger anomalies are identified in the immediate vicinity of the Hobbs Pipe 1
- The new anomalies are presently interpreted to reflect mineralisation similar to the Hobbs Pipe 1 discovery in the shallow subsurface. If this interpretation is correct the project scale may be substantially increased
- Drill targets to test the anomalies are being prioritised

Data from the recent three dimensional offset pole dipole induced polarisation (**3DIP**) survey has been processed and analysed, with a number of significant anomalies identified that warrant diamond drill testing. The nature of the gold mineralisation in the Hobbs Pipe1 led to the expectation that the appropriate type of Induced Polarisation geophysical survey would identify further mineralisation of this or related styles, in the subsurface. This expectation has been reinforced by the survey results that show the Hobbs Pipe 1 deposit as a discrete chargeability high/resistivity low in the near surface data. Four additional chargeability high/resistivity low anomalies, each with much larger dimensions than Hobbs Pipe 1, have been identified at shallow depth in the subsurface nearby to the Hobbs Pipe 1.

IP Anomaly	Easting (MGA mE)	Northing (MGA mN)	Characteristics	Length (max)	Width (max)	Depth (top)	Depth (bottom)
Castor	583,670	6,104,800	Chargeability High- Resistivity Low	1,500m	600m	100m	>400m
Pollux	582,750	6,104,700	Chargeability High- Resistivity Low	>600m	>600m	Near Surface	>400m
Arcadia	583,600	6,103,950	Chargeability High- Resistivity Low	>800m	>600m	Near Surface	>400m
Hobbs SE	584,200	6,104,100	Chargeability High- Resistivity Low	380m	250m	Near Surface	>400m
Hobbs Pipe 1	583,400	6,104,600	Chargeability High- Resistivity Low	190m (Drilling)	110m (Drilling)	Surface	>900m (Drilling)

### Table 1: Key IP Anomalies

### Note: 3DIP model sensitivities give maximum depth confidence of ~400m

Dr Kris Butera, CEO of Gossan Hill Gold Limited said, "We are extremely encouraged with the results and our interpretation of the 3DIP survey data. Four major new targets have been identified that display geophysical characteristics that are expected for alteration zones associated with Intrusion Related Gold and Porphyry Cu-Au/Mo systems. We have interpreted the anomalies to represent potential further Hobbs-style intrusive pipes, sediment hosted gold-bearing stockwork quartz vein systems or breccia-hosted gold deposits. We are currently developing a targeting strategy to effectively test these promising anomalies."

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Castor & Pollux - Line 6104700mN

Castor, Pollux & Hobbs Pipe 1 - Line 6104600mN



Arcadia & Hobbs SE - Line 6104100mN



Note: Depth is RL (metres above sea level). Reds represent high chargeability and blues represent low chargeability



![](_page_2_Figure_2.jpeg)

### Mount Adrah 3DIP Survey Plan CHARGEABILITY: 175m below surface

![](_page_2_Figure_4.jpeg)

## **3DIP Survey – Methodology**

The 3DIP (offset pole-dipole induced polarisation) survey was undertaken by Fender Geophysics with the 3D model inversion undertaken by Arctan Services Pty Ltd (Steve Collins). Instruments used to collect the data included two GDD 16 channel receivers connected via 8 core data cables. The survey parameters were 50m dipole spacings on 800m receiver lines, 100m line spacings over a survey length of 2km. The 3D data inversion, using RES3DINVX64 software, generated a model with useable extents of up 2.2km (NW-SE) x 1.2km (NE-SW) and to a confident depth of approximately 400m below the surface (based on modal sensitivities).

![](_page_3_Picture_0.jpeg)

![](_page_3_Figure_2.jpeg)

## Mount Adrah 3DIP Survey Plan RESISTIVITY: 175m below surface

Note: Depth is metres below surface; blue is low, red is high resistivity.

#### **Qualifying Statements**

The information in this report that relates to Exploration Information is based on information compiled by Michael Leu a Member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists together with Dr Andrew White, a Fellow of the Australian Institute of Geoscientists and Jacob Rebek and Dr Kris Butera, Members of the Australian Institute of Geoscientists.

Mr Leu and Jacob Rebek are qualified geologists and are directors of Sovereign Gold Company Limited; Dr White is a director of Gossan Hill Gold Limited; and Dr Kris Butera is CEO and director Gossan Hill Gold Limited.

Mr Leu, Jacob Rebek, Dr White and Dr Butera have sufficient experience, which is relevant to the style of mineralization and type of deposit under consideration and to the activity, which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Resources. Mr Leu, Jacob Rebek, Dr White, and Dr Butera consent to the inclusion in this report of the Exploration Information in the form and context in which it appears.

![](_page_4_Picture_0.jpeg)

# About Sovereign Gold Company Limited

Sovereign Gold Company Limited (Sovereign Gold), (ASX: SOC) is an ASX listed company exploring primarily for gold in NSW.

Sovereign Gold acquired an 87% interest in Gossan Hill Gold Limited (**Gossan Hill**) in early 2013. Subsequently, additional exploration and deep drilling at Mt. Adrah (Hobbs Pipe 1) has uncovered a potentially world-class Intrusion-Related Gold System (**IRGS**) discovery. Evaluation is continuing. The Mt. Adrah Project is located approximately 50 km southeast of the regional NSW Centre of Wagga Wagga and 23km northwest of the historic gold mining district of Adelong.

![](_page_4_Figure_5.jpeg)

Sovereign Gold also holds 11 Exploration Licences over 3,240km<sup>2</sup> near Armidale in NSW including the historic Rocky River-Uralla Goldfields. Sovereign Gold's aggressive exploration program in several of these licence areas for 2013 is fully funded via a joint venture (at the tenement level) with Jiangsu Geology & Engineering Co Ltd (**SUGEC**), a major Chinese State-owned geology enterprise.

SUGEC funded drilling, near Martins Shaft in the Uralla area, has recently confirmed the presence of another potentially large IRGS discovery.

Sovereign Gold holds 80% of Precious Metal Resources Limited (**PMR**) (ASX: PMR), an ASX listed exploration company. PMR holds 20 ELs and ELAs over prospective base and precious metal ground, many in close proximity to Sovereign.

## About Gossan Hill Gold Limited and the Hobbs Gold Project

Gossan Hill is an unlisted exploration company with numerous IRGS gold prospects in New South Wales.

The recent acquisition of a controlling interest (87%) in Gossan Hill by Sovereign Gold provides multiple benefits for Sovereign Gold, including an expanded exploration footprint in New South Wales with an additional three quality project areas within 8 Exploration Licenses.

Prior to the acquisition by Sovereign Gold, exploration indicated the potential for a significant gold resource presence at the Gossan Hill properties and in particular, the recently discovered Hobbs IRGS deposit which should enable Sovereign Gold to rapidly deliver resource growth and leverage off its experience exploring for IRGS in New South Wales.

The Hobbs IRGS deposit is close to good infrastructure (power, transport and water) and is held within EL 6372, EL7844, EL 8127 and ELA 4868.

The Mt Adrah Project is approximately 23km north west of the township and old gold mining centre of Adelong, in central western NSW.

Hobbs Pipe 1 in EL 6372 has a JORC compliant 650,000-ounce resource, consisting of 101,000 oz Measured; 303,000 oz Indicated; and 246,000 oz Inferred at a 0.75 g/t Au cutoff.