

# De Grey Mining Ltd

A.B.N. 65 094 206 292

*The Bold Explorer*

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## ASX/MEDIA RELEASE

### **De Grey to acquire 100% of Puhipuhi epithermal gold/silver project, New Zealand from Waihi Gold Company Ltd**

#### **HIGHLIGHTS**

- **Previous significant drilling results include 18m @ 3.38g/t Au and 10.3g/t Ag, (including 2m @ 17g/t Au and 15g/t Ag) in PPRC6, and 2m @ 7.6g/t Au and 70g/t Ag in PPRC31**
- **9 high priority drill ready target areas, based on geophysics and geochemistry**
- **Northern silver workings not explored despite 1.35g/t Au and 304g/t Ag reported in historical exploration**
- **Low sulphidation epithermal mineralisation in New Zealand**

De Grey Mining Ltd (**ASX: DEG**) advises that it has signed a definitive agreement with Waihi Gold Company Ltd ("**Waihi**"), a wholly owned subsidiary of Newmont Mining, to acquire 100% of the Puhipuhi Project ("**The Project**") located on the North Island of New Zealand (refer to Figure 1).

The Project comprises one exploration permit that was granted to Waihi in 2009 and has a term of 5 years (with the right to a further 5 year extension available). De Grey will acquire the permit subject to the acceptance of the transfer of ownership of the permit by the Ministry of Economic Development, New Zealand.

Despite exploration commencing in the early 1980s by companies such as Homestake, BHP and Macraes, the Project remains relatively underexplored.

Of the 50 drillholes completed within the Project area, 18 are less than 100m in length, 28 between 100 and 200m length and only 4 greater than 200m in length in what has been interpreted from petrology, geochemistry, mapping and geophysics to be the top of an epithermal system.

Within this limited drilling encouraging results have been returned with the better intercepts reported as:

Hole	From	To	Intercept	Au (g/t)	Ag (g/t)
DDH1	14	56	42	0.23	6.8
PPRC2	4	28	24	0.17	1.1
PPRC6	0	38	38	1.9	7.1
<i>including</i>	0	18	<b>18</b>	<b>3.38</b>	<b>10.3</b>
<i>including</i>	6	8	<b>2</b>	<b>17</b>	<b>15</b>
PPRC11	0	76	76	0.21	-
PPRC12	34	48	14	0.12	4
PPRC24	22	78	56	0.15	8.3
<i>and</i>	110	146	36	0.13	4.4
PPRC25	26	46	20	0.13	5.3
<i>and</i>	78	112	34	0.13	3.6
PPRC30	98	118	20	0.14	0.8
PPRC31	0	100	100	0.33	9.75
<i>including</i>	18	20	<b>2</b>	<b>7.61</b>	<b>70</b>
PPRC34	42	88	46	0.26	4.3
PPRC39	31	41	10	0.14	1.4
<i>and</i>	49	63	14	0.15	2.3

*Note: Results reported from historical drillhole database include only those with a minimum 10m downhole interval with a weighted average grade > 0.1g/t Au. Note that intercept widths represent downhole widths and not true widths.*

The project is endowed with a number of walk up drill targets. Recently completed geophysical work by Waihi combined with anomalies generated from historic geochemistry surveys has resulted in 11 target areas, nine of which are considered high priority (Figure 2) including the two historic mercury mines (the Rising Sun and Puhipuhi mines) within the Project.

The abandoned silver mine (Northern Silver Workings) has not yet been the subject of systematic exploration despite Macraes reporting that sampling of the mine area had returned results as high as 1.35 ppm Au and 304 ppm Ag and high Sb and Hg from the surface as early as 1994.

Puhipuhi is interpreted to represent a well preserved hot spring sinter/breccia system that formed as an outflow from a venting geothermal system. Mineralisation in these systems is commonly restricted to fluid upflow settings and very low gold contents are deposited at surficial levels. Fluid upflow settings typically form fissure vein systems at depth, developed in competent basement rocks and fluid quenching in such an environment may produce good gold grades. Fissure vein epithermal gold-silver mineralisation commonly forms in dilatant structural environments and examples of these systems include Hishikari (Japan), Cracow (Queensland), Sleeper (Nevada) and Waihi (New Zealand).

The potential for Puhipuhi to host such a fissure vein system has been recognised by several explorers during the last 30 years, however drilling to date has only been relatively shallow, and hasn't tested the deeper parts of the system where the gold-silver mineralisation is expected to occur. Other drill targets generated from multi-element surface geochemistry and ground based geophysical surveys (IP and CSAMT) also remain untested within the Project area.

Executive Chairman of De Grey Mining, Mr Peter Batten, commented "Puhipuhi is an excellent advanced greenfields epithermal system with defined and untested drill targets, a supportive government, excellent infrastructure and a very low country risk. As a result this

makes the Project acquisition an excellent addition to the De Grey portfolio of low sulphidation epithermal projects.”

### **About the Puhipuhi Project**

The Puhipuhi Project is held under Exploration Permit 51985 BY Waihi Gold Company Limited (100% owned by Newmont Mining). The permit area comprises 6,116 hectares located approximately 30km NNW of Whangarei, in the Northland Region of New Zealand.

The Project is wholly contained within an area defined by the New Zealand Government's Ministry of Economic Development as being open for mineral exploration. The majority of the project is located on private lands, predominantly farmland and the area provides straightforward access, an educated workforce and good availability of drilling contractors.

De Grey has completed its due diligence over the project. The primary aim of this due diligence was to ensure that landowners are consulted and are supportive of the company's planned exploration in the areas affected. De Grey has applied to the New Zealand government for a transfer of ownership of the permit. Contingent on the government's approval De Grey will be required to pay AUD\$100,000 to Newmont for a 100% interest in the project. Newmont will retain an economic interest in the project by retaining a 2% Net Smelter Royalty on any minerals mined.

Upon transfer of ownership, De Grey intends to complete a program of work to orientate initial target drilling. This program will include, data review, geological mapping and sampling, and re-processing of geophysical data (magnetic, radiometrics, IP, CSAMT).



Figure 1: Location of Puhipuhi Project, Northland, New Zealand

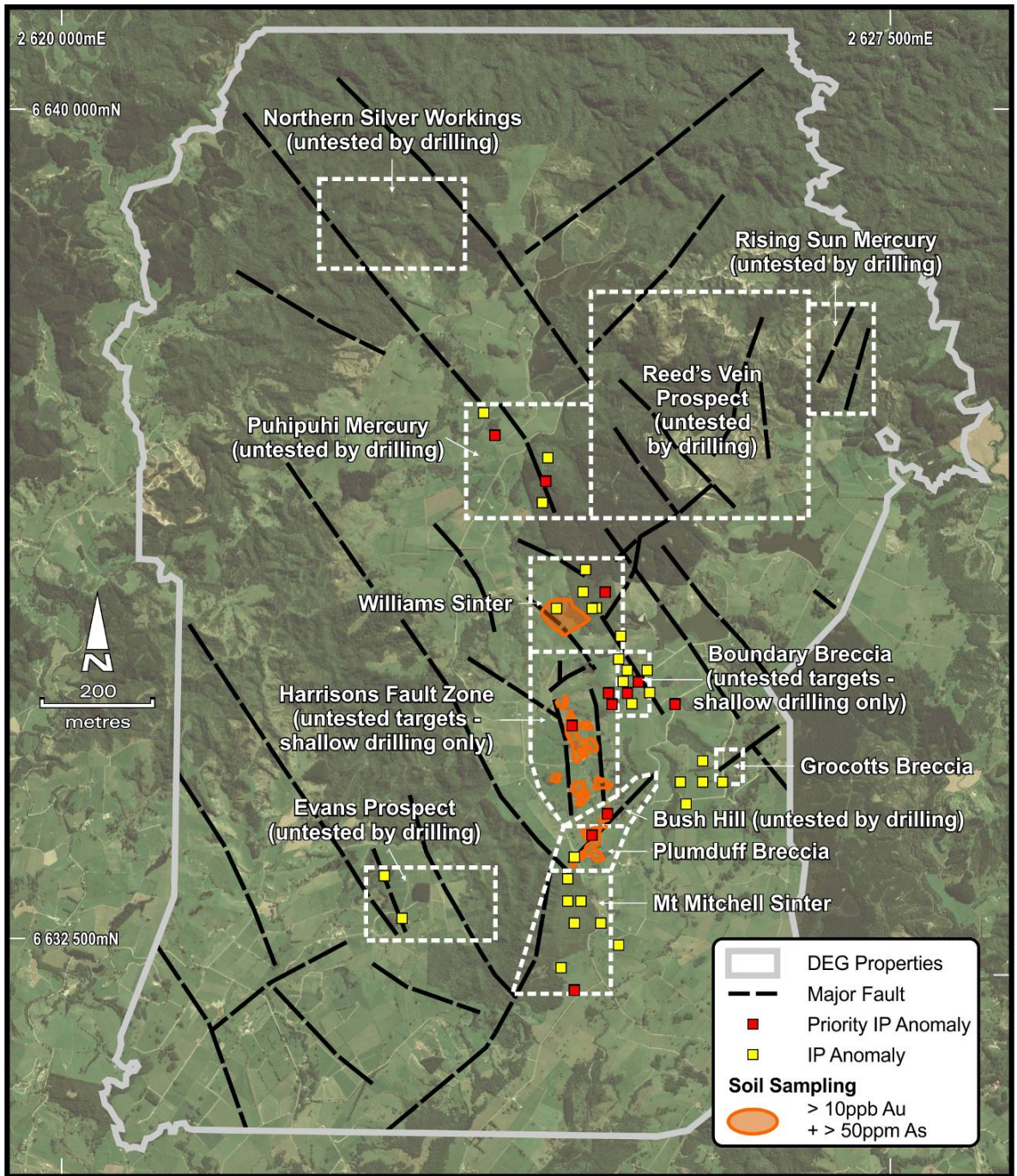


Figure 2: Target areas in Puhipuhi Project, Northland, New Zealand

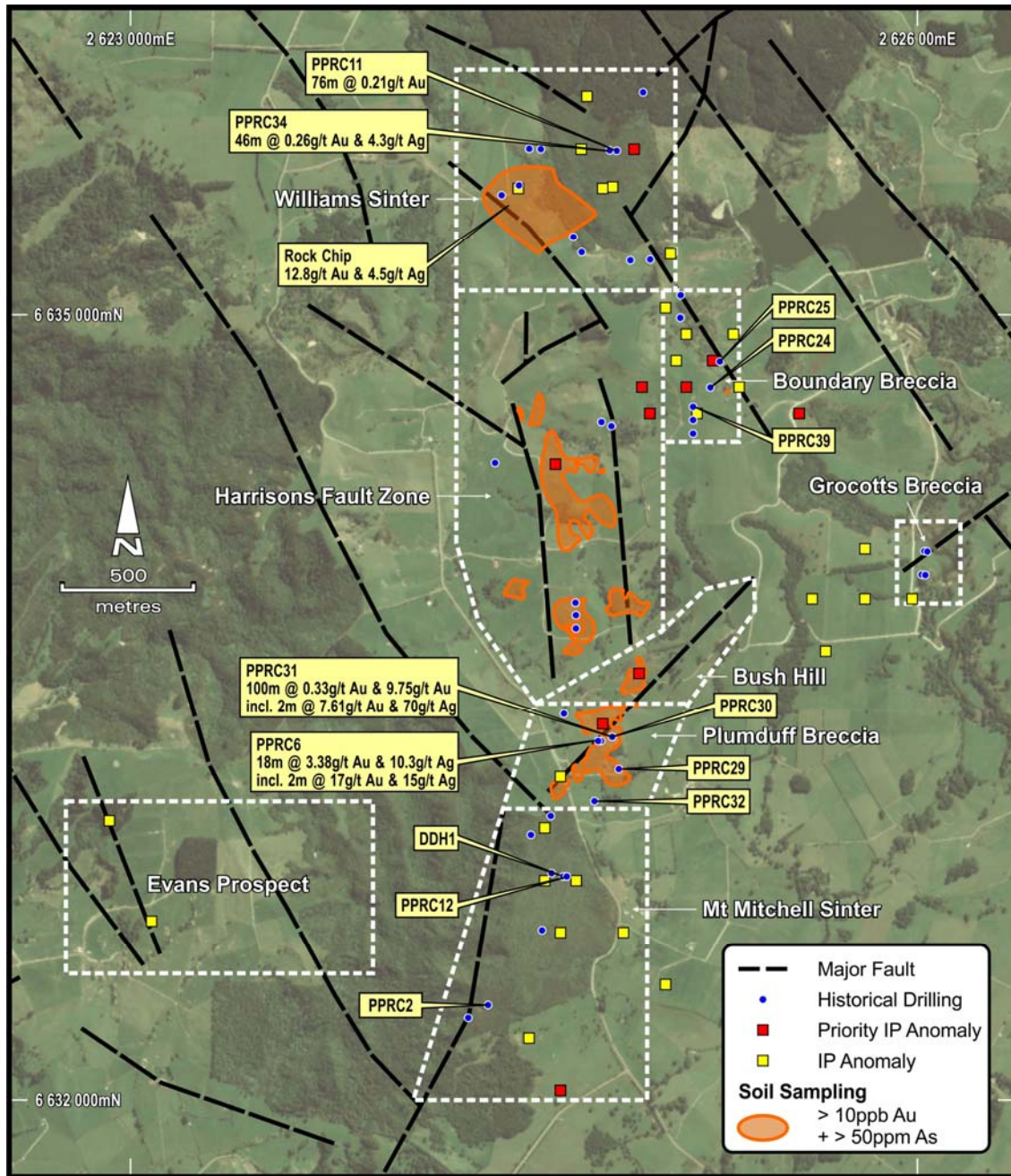


Figure 3: Detail over main target areas in Puhipuhi Project, Northland, New Zealand

## **TARGET AREAS (refer to Figures 2-3)**

### **Evans Prospect**

The Evans Prospect is located in an area where 2 lines of CSAMT have been completed. Resistors are apparent on both lines and De Grey will complete surface sampling and geological modeling to define drill targets in the area.

### **Mt Mitchell Sinter**

The Mt Mitchell Sinter contains numerous untested IP and CSAMT targets, (including 1 high priority anomaly) and drilling to date has returned elevated geochemistry in several holes.

De Grey will complete surface sampling and geological modeling to refine drill targets in the area.

### **Plumduff Breccia**

The Plumduff Breccia is a hydrothermal explosion breccia interpreted to overlay a major vent, associated with a NE-SW fault zone.

Previous drilling in the prospect has returned results including 18m @ 3.38g/t Au and 10.3g/t Ag (PPRC6) and 2m @ 7.6g/t Au and 70g/t Ag (PPRC31). These intersections remain open along strike to the NE (towards Bush Hill) and to the SW (towards Mt Mitchell Sinter). A deep diamond drillhole was completed under these intersections (DDH4A) and intersected faulting and significant quartz-carbonate veining approximately 400-480m below surface, but contained no significant Au-Ag mineralization. Petrological evidence from this zone indicates the veining intersected is distal from any deep source (upflow) zones, so the shallow mineralization intersected in holes PPRC6 and PPRC31 also remains open down dip/plunge.

To the south of these holes, PPRC29 intersected lattice quartz and carbonate veining approximately 100m below surface but this contained no significant Au-Ag mineralization. It is interpreted that this hole intersected the zone too high in the system. The southern-most hole along the structure (PPRC 32) was terminated early due to high water flows and the hole collapsing, and failed to intersect the NE-SW fault zone.

No drilling has been completed to the NE strike extensions of the Plumduff Breccia, towards Bush Hill.

IP targets have been defined along strike to the NE and SW of Plumduff Breccia (one is a priority resistivity target), along the interpreted structure with coincident Au-As-Sb anomalism in soils, and De Grey will refine geological modeling prior to drilling to test for feeder structures which may host Au-Ag mineralization in fluid upflow zones.

Geometry of inferred structure and possible ore shoot orientations remain undefined in the Plumduff/Bush Hill area, although geophysical interpretation suggests a deepening of the resistive feature on line 3800 (over Bush Hill) that may indicate a NE plunging orientation to the zone of silicification which may represent the feeder or "upflow" zone along the fault.

### **Bush Hill Prospect**

The Bush Hill Prospect has been highlighted as the highest priority drilling target, as it represents the NE continuation of the fault zone that hosts the Plumduff Breccia, and petrological and textural evidence indicates the Bush Hill area may cover a fluid upflow zone, however, to date, no drilling has been completed in the area.

A priority resistive IP anomaly (see Figure 4) with a coincident Au-As-Sb soil anomaly further supports Bush Hill as a walk up drill target. De Grey will refine geological modeling prior to

drilling to test for feeder structures which may host Au-Ag mineralization in fluid upflow zones.

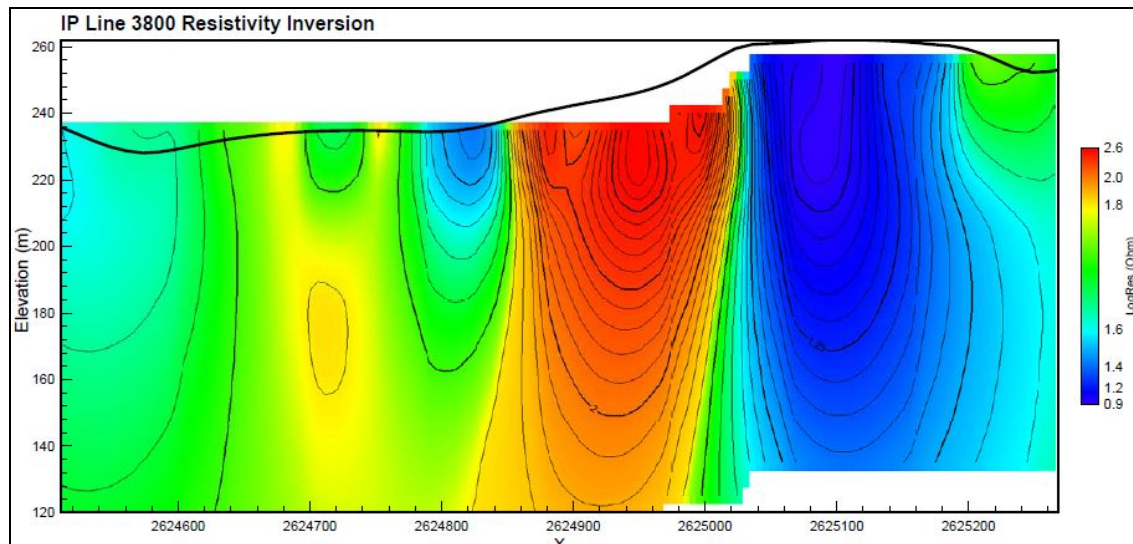


Figure 4: Resistivity inversion over Bush Hill Prospect shows a strong resistive feature extending to depth centered on 2624940E, with a steep westerly dip

### Grocotts Breccia

Grocotts Breccia is a zone of hydrothermal eruption breccias and may represent an offset NE strike continuation of the NE-SW trending fault zone in the Plumduff/Bush Hill areas. Along strike to the SW of the marked location of Grocotts Breccia are 5 untested IP anomalies under a thin cover of basalt.

De Grey will complete further surface sampling and geological mapping in the area to define drill targets.

### Harrison Fault Zone

Harrisons Fault Zone is a zone of extensive brecciation, quartz veining and silicification developed in a north-south striking fault zone, with coincident Au-As-Sb soil anomalism. Only minor relatively shallow drilling has been completed in the area and 3 priority IP (1 shown in Figure 5) and CSAMT (shown in Figure 6) anomalies remain untested.

De Grey will refine geological modeling prior to drilling to test for feeder structures which may host Au-Ag mineralization.

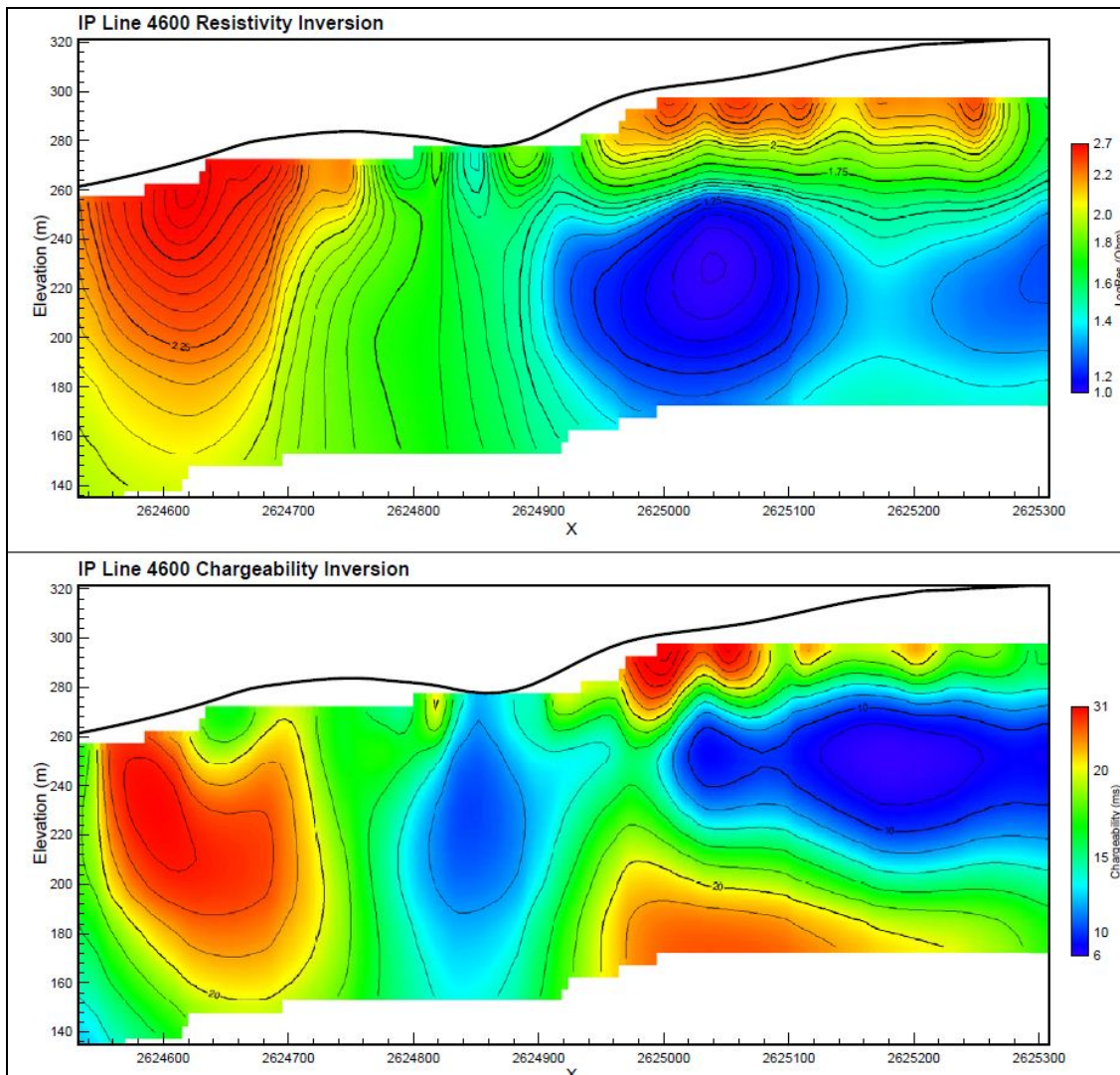


Figure 5: Resistivity and chargeability inversion over Harrisons Fault Zone shows a semi-coincident resistive/chargeability featured on 2624620E



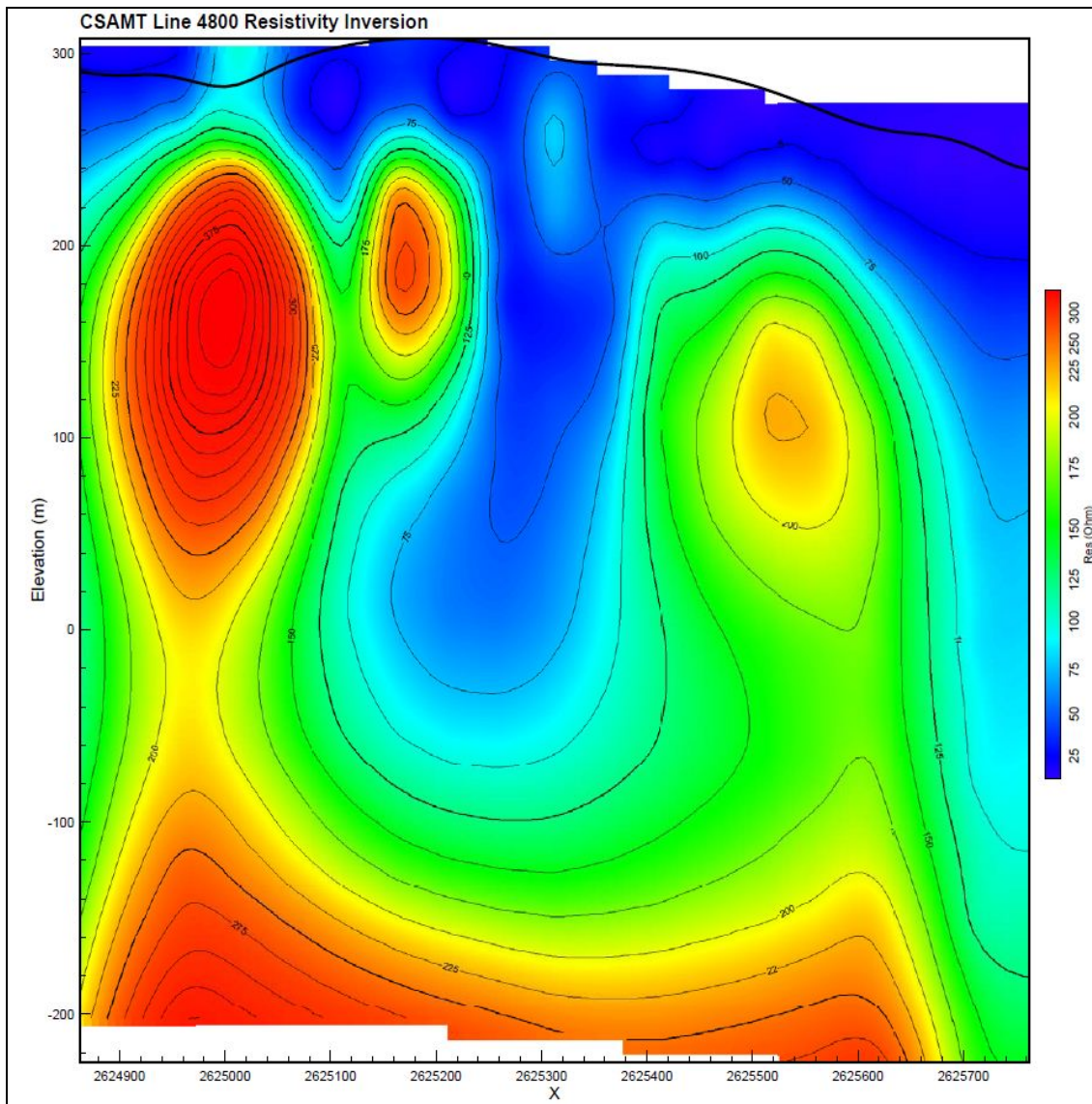


Figure 6: CSAMT Resistivity inversion over Harrisons Fault Zone shows 3 discrete resistive features centered at 2624980E, 2625160E and 2625550E

### Boundary Breccia

The Boundary Breccia Prospect covers a NW striking zone of outcropping hydrothermal eruption breccias interpreted to overlie a major vent.

Significant results from previous drilling in the area include 56m @ 0.15g/t Au and 8.3g/t Ag, and 36m @ 0.13g/t Au and 4.4g/t Ag in hole PPRC24, and 20m @ 0.13g/t Au and 5.3g/t Ag in hole PRC25.

This drilling has only tested the upper levels of this zone (<130m vertical depth), and with highly anomalous drillhole geochemistry and 8 IP and CSAMT anomalies (including 2 high priority anomalies) remaining untested in the prospect area, De Grey considers that excellent potential remains at depth for Au-Ag mineralization.

## Williams Sinter

The Williams Sinter covers a large area of silicification and Au-As soil anomalism, with 6 IP and CSAMT anomalies (including 1 high priority anomaly, refer to Figure 7) and contains the highest historical rock chip sample in the area (12.8g/t Au).

Previous drilling in the area returned anomalous results including 76m @ 0.21g/t Au in PRC11 and 46m @ 0.26g/t Au and 4.3g/t Ag in PPRC34. Interpretation of drilling suggests that a high priority IP target east of PRC11 remains untested.

Previous drilling around the highest rock chip result from the project area (12.8g/t Au), with a co-incident Au-As soil anomaly is interpreted to have drilled to the east of a steeply east dipping, NW trending fault which may host the high grade mineralization seen in surface sampling.

De Grey will refine geological modeling prior to drilling to test for feeder structures which may host Au-Ag mineralization.

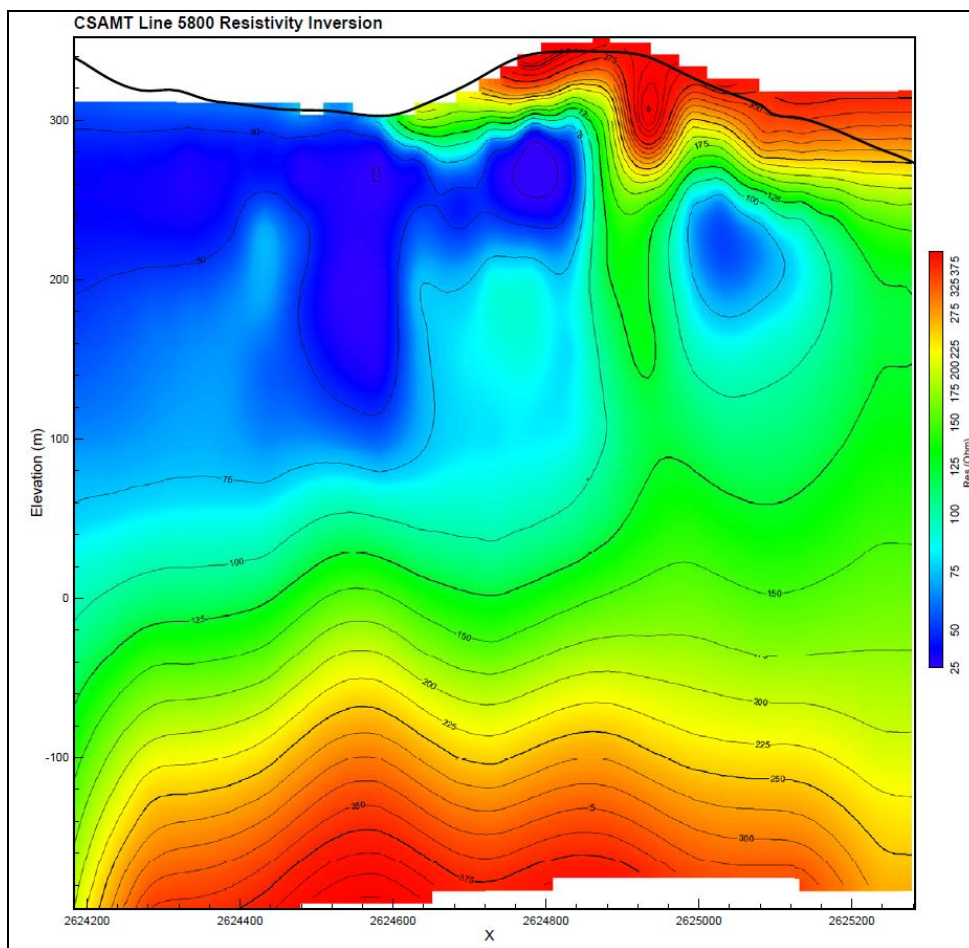


Figure 7: CSAMT Resistivity inversion over Williams Sinter shows a discrete resistive feature with a vertical extension centered at 2624920E

## Puhipuhi Mercury Mine

The area covers the historical Puhipuhi Mercury Mine, and 5 IP anomalies (including 2 high priority anomalies) appear related to a major NW fault and remain untested. De Grey will complete surface sampling and mapping to refine geological modeling prior to drilling to test for feeder structures which may host Au-Ag mineralization.

**Northern Silver Workings**

The Northern Silver Workings appear related to a major NW fault zone, and limited surface sampling has returned up to 1.35g/t Au and 304g/t Ag in rock samples. No ground based geophysical surveys have been completed in the prospect area.

De Grey will complete further surface sampling and geological mapping in the area to define drill targets.

**Reeds Vein Prospect**

The Reeds Vein Prospect appears to be related to an area of NE and NW faulting, and limited surface sampling has returned up to 24g/t Ag in rock samples.

The prospect has had only limited surface sampling, but evidence of quartz veining and boiling textures (carbonate replacement textures) indicate that further exploration in the area is warranted. No ground based geophysical surveys have been completed in the prospect area.

De Grey will complete further surface sampling and geological mapping in the area to define drill targets.

**Rising Sun Mercury**

This historical mercury occurrence appears to be related to a NE trending zone of faulting and has only had limited surface sampling completed on it previously. De Grey will complete further surface sampling and geological mapping in the area to define drill targets.

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The information in this report that relates to exploration results is based on information compiled by Mr Glenn Martin, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Martin 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" (The JORC Code). Mr Martin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.