

# De Grey Mining Ltd

A.B.N. 65 094 206 292

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## ASX/MEDIA RELEASE

### SUCCESSFUL EARLY PHASE DRILLING PROGRAM CONFIRMS GOLD AND SILVER EPITHERMAL SYSTEM AT SM6

#### HIGHLIGHTS

- **First phase drilling program on Western Vein at SM6 has intersected a mineralized epithermal system with silver and gold mineralization in hole.**
  - **SM-12-06 with 7m of multi-phase breccia with anomalous gold and silver including 5m at 37.0 g/t Ag (includes 1m at 5.56 g/t Au and 67 g/t Ag).**
- **Trenching on both the Western and Eastern Veins further confirms the presence of the epithermal system.**
- **Trenching of the East Vein returned exceptional grades in the northern trenches including at SM6-T3, 1.0m sample of 47.60 g/t Au and 766.0 g/t Ag and at SM6-T4 1.0m of 2.83 g/t Au and 15.0 g/t Ag for the East Vein sample (Table 1).**
  - **Trenching of the West Vein, exposed at surface at SM6-T6 with a 4.0m vein width returned four samples with an average grade of 1.69 g/t Au and 95.25 g/t Ag and the highest grade sample being 3.54 g/t Au and 231.00 g/t Ag.**
  - **Interpretation of recent work with De Grey's historical data has identified three new anomalies at SM6 that will be the focused for the next phase drilling program.**
- **Latest interpretation shows mineralization extends further south from the area of current exploration work with a deeper and stronger resistor occurs down plunge from the drilled vein breccia and an additional shallower, parallel system occurs near surface to the south confirming the trend of the data.**

De Grey Mining Ltd (ASX: DEG) has completed the summer exploration programme covering the Sierra Morena project in the Patagonia region of Argentina.

The work including 715 metres of drilling and 100 metres of trenching was completed in May of this year with final laboratory results being received in June.

The full drill, sample and analyses results from the drilling and trenching program has now been received and has been combined with all previously produced data across the Sierra Morena Gold-Silver Project into a digital database, to provide the Company with the most comprehensive exploration information to date. This data base has been the subject of an initial review that has already identified **three new anomalies at SM6**.

The results show that the drilling on the Western Vein at SM6 intersected a mineralized epithermal vein breccia with silver and gold mineralization (**1.0m @ 5.56 g/t Au and 67.00 g/t Ag within 5.0m @ 37.0 g/t Ag in Sm-12-06(2013 tail)**). Trenching to the north of the drill collars over the West Vein trend also intersected the breccia with gold and silver mineralization of **4.0m @ 1.69 g/t Au and 95.25 g/t Ag**. Trenching and drilling to the north intercepted the vein breccia but in this location it is narrow and only weakly mineralized.

These results when layered on the 3D CSAMT model and the gridded LAG data shows anomalism trending to the south with the CSAMT resistors showing a shallow southerly plunge. A deeper and stronger resistor occurs down plunge from the drilled vein breccia and an additional shallower, parallel system occurs near surface to the south confirming the trend of the data.

Hole ID	From Depth (m downhole)	Downhole Interval (m)	Au (g/t)	Ag (g/t)
SM-12-05	197.2	1.0	0.81	
	192.2	9.7		14.60
	<b>Including 1.0m @ 37.00 g/t Ag from 197.20m</b>			
SM-12-06	125.8	4.0	1.83	
	125.8	5.0		37.00
	<b>Including 1m @ 5.56 g/t Au and 67.00 g/t Ag from 197.2m</b>			
	143.8	1.0	0.44	11.00
	164.0	1.0	0.77	57.00

Peter Batten, CEO of De Grey, stated “De Grey is excited by the developing exploration model. The latest drilling has intersected the northern tip of what we interpret as a southerly plunging low sulphidation epithermal vein breccia. Sampling of the trenches and the drill core has confirmed that the system is mineralized for both gold and silver.

The northern CSAMT anomaly on the West Vein is 150m long and there is a second system to the south and a larger anomaly at depth that remain untested.

We look forward to the next round of work programme at SM6 scheduled for after the winter period.”

## WORK PROGRAMME

Trenching was undertaken on the Eastern and Western Veins previously identified at SM6 with seven trenches completed overall for approximately 100m. Three trenches were cut over the Eastern Vein trend and four over the Western Vein.

Drilling completed at SM6 comprised two new holes (SM-13-11 and SM-13-12) for 589.2m and two diamond tails (SM-12-05 (2013 tail) and SM-12-06 (2013 tail)) for 126.0m for a total of 715.2m.

The drilling was designed to test resistivity targets produced from a CSAMT survey completed in March 2013 (refer to ASX Announcement '**Exploration Update**' dated 26 March 2013). Holes SM-12-05 and SM-12-06, drilled in October 2012, were stopped after they entered a dacite dyke. Following the CSAMT survey completed three months after the 2012 drilling campaign it was shown that a resistor was located on the far side of the dyke and it was decided to extend these holes with diamond tails to test the resistive anomaly.

Holes SM-13-11 and SM-13-12 were designed to test a possible NW trending resistor associated with the acid sulphate cap on the eastern edge of the prospect area.

LAG and rock chip sampling results from previous work were gridded to allow for the interpretation of trends of elements associated with epithermal alteration and mineralization. In a similar fashion the complete raw data from the CSAMT survey has been entered into the Company's database and incorporated into the interpretation of the drilling and sampling results.

A 3D shell model of the CSAMT results (produced by Quantec Geoscience 2013) was also reviewed. The 3D model allows plunge predictions to be made and gives a greater indication of the continuity and extent of the resistive anomalies.

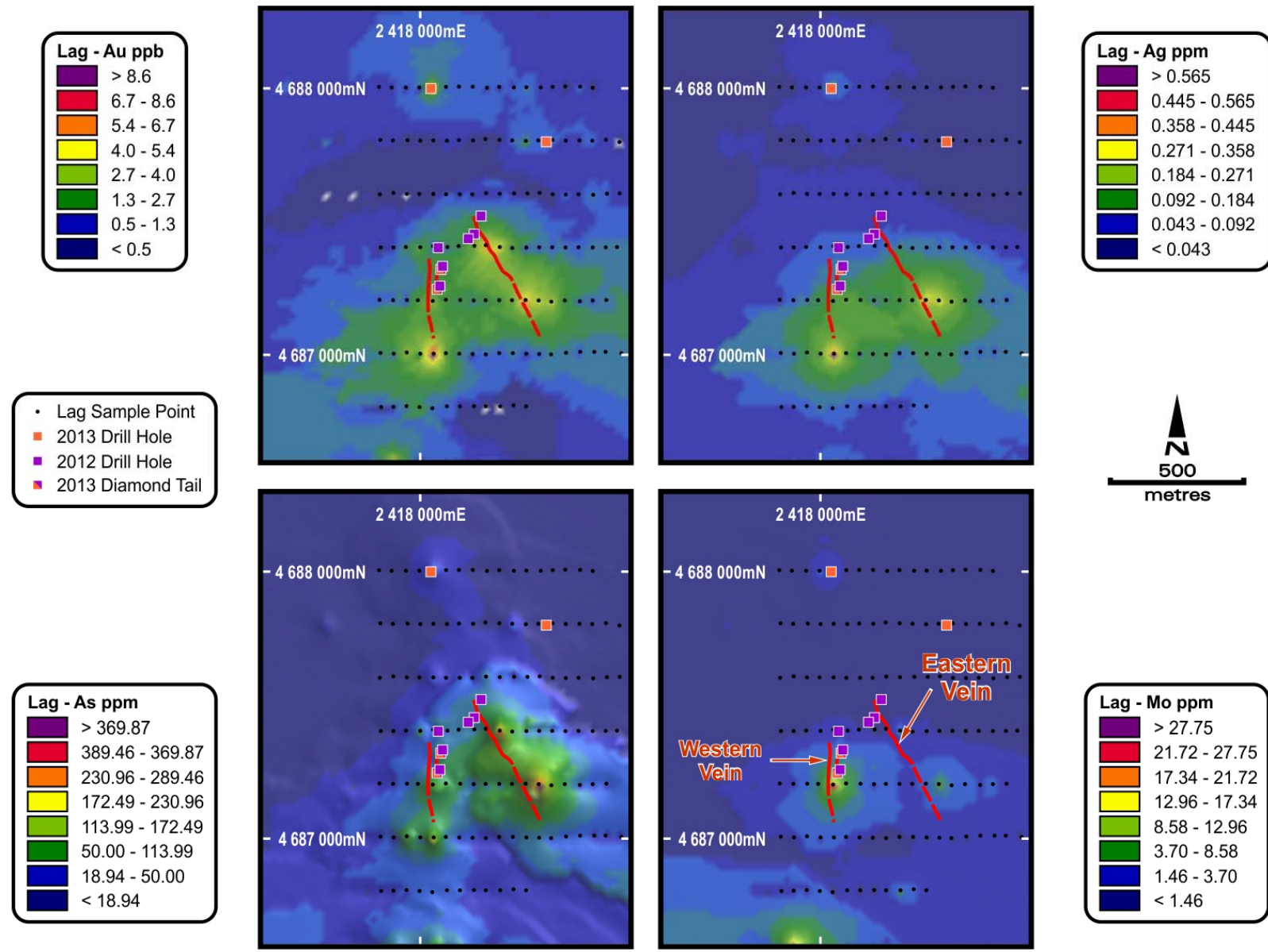


Figure 1: Gridded LAG sampling – SM6

## RESULTS

Trenching of the East Vein at SM6 returned exceptional grades in the northern trenches. The mapped thickness of the vein at surface is narrow (<1.0m) and the mineralization, whilst high grade, is sporadic on surface.

The northern trench (SM6-T3) returned a result for the 1.0 metre sample covering the East Vein of **47.60 g/t Au and 766.0 g/t Ag**. The middle trench (SM6-T4) returned **2.83 g/t Au and 15.0 g/t Ag** for the East Vein sample (Table 1).

On the West Vein only the southern two trenches (SM6-T6 and SM6-T7) intercepted vein material and only SM6-T6 returned anomalous grades from the sampling. The vein width on surface was measured at just under 4m and the four samples covering the vein returned an average grade of **1.69 g/t Au and 95.25 g/t Ag** with the highest grade sample being **3.54 g/t Au and 231.00 g/t Ag** (Table 1).

When gridded, the LAG sampling information clearly picks out the Eastern and Western Veins at SM6 (Figure 1). Interestingly, the data from LAG sampling is indicating southerly extensions to the mineralization. Previously attention was focussed on possible northern extensions and the potential for vein intersections. This data is suggesting that the drilling is at the northern tip of southerly trending mineralization and alteration.

This is supported by the trench sampling results.

The raw CSAMT data and more specifically the 3D model of the CSAMT survey results tells a similar story.

When modelled in 3D, two areas stand out as strong and continuous resistors (Figure 2).

1. The western area is the resistor associated with the Western Vein and the target of diamond drillholes SM-12-05 (2013 tail) and SM-12-06 (2013 tail) completed in May this year.
2. To the east a strong resistor is evident along the boundary of the survey area. This resistor is close to the acid sulphate cap but partially discounted previously due to the proximity of the edge and the unreliability of edge results.

When modelled this eastern resistor can be seen to project away from the edge where the results are more reliable especially between 4 687 200mN and 4 687 400mN.

The resistive anomaly associated with the Western Vein extends to the south and plunges at an angle of -37°S (Figure 3). **This resistor is approximately 150m in length with a deeper and stronger resistor some 300m down plunge and at a level of approximately 300m vertical depth.**

A second resistive anomaly sits above and parallel to the Western Vein resistor to the south of the sampled area.

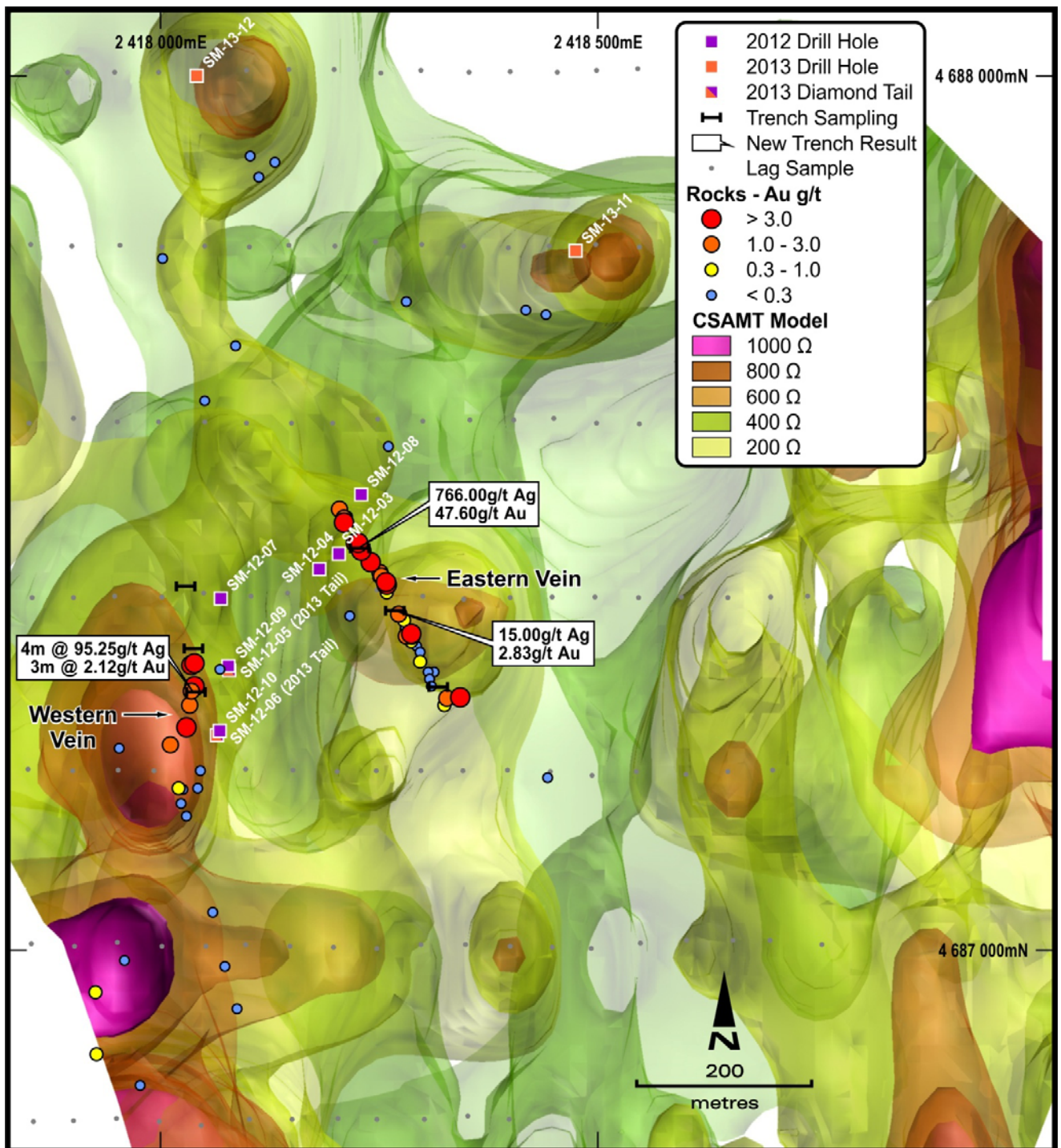


Figure 2: Plan view of 3D CSAMT model with overlaid rockchip and trench sampling

Drill testing of the resistor on the West Vein at SM6 was achieved by re-entering hole SM-12-06 and extending the hole to a final depth of 191m. The extension encountered 7m of multiphase breccia with pyrite, marcasite and possible sulphosalts (Figure 4) from 124m downhole.

Samples from this section of core returned anomalous silver results up to **67.0 g/t** and a best intercept of **5m (125.8 – 130.8m) at 37 g/t Ag** (Figure 5 and Table 3). Significant within this intercept was the elevated **gold** levels that peak at **5.56 g/t Au** in one sample (127.8 – 128.8m).

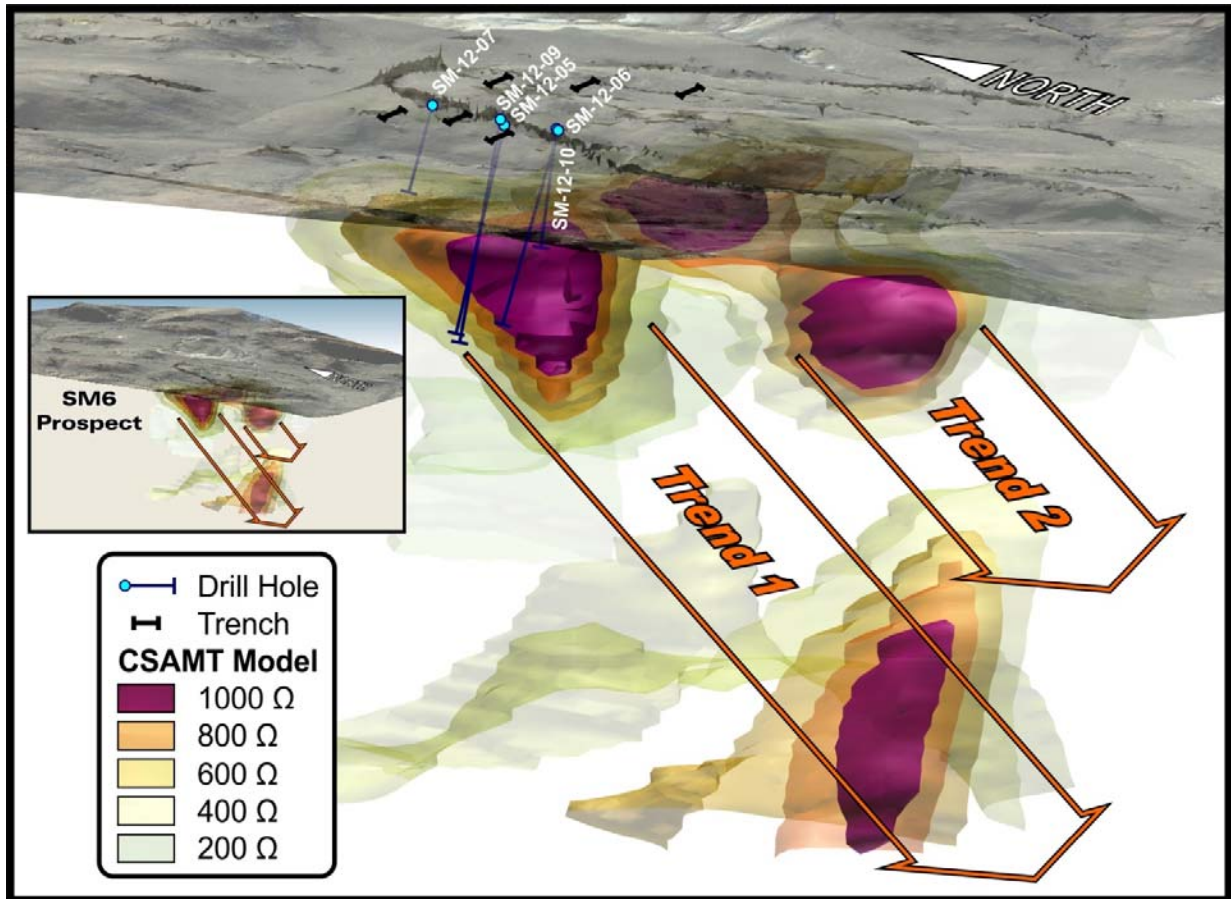


Figure 3: Oblique view of +200 ohm CSAMT resistors with diamond drillholes – SM6

The section (Figure 5) shows the strong correlation between the CSAMT resistive anomaly and the vein breccia which can be clearly seen in the raised response for gold and silver as displayed on the drillhole trace.

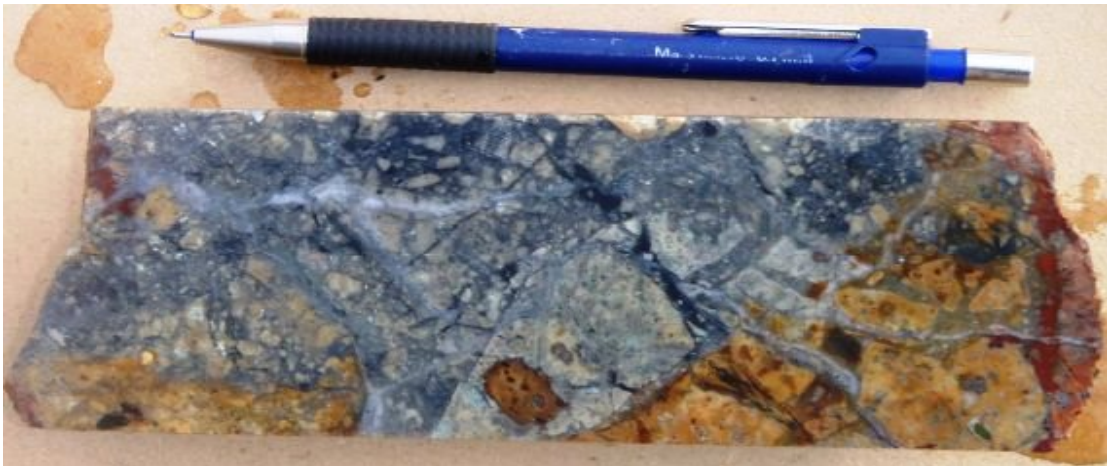


Figure 4: Mineralization in multiphase breccia, SM-12-06 127.9 – 128.0m

The extension of hole SM-12-05, 200 metres to the north, successfully intersected the same structure with adularia-silica alteration, veinlet stockwork and silicification from 197.2 to 212.5m but without obvious visible sulphide mineralization.

From the interpretation of the CSAMT data and the LAG results would only have hit the northern tip of the resistor and this can be seen in the results (Table 3) where only one sample returned elevated grades of 0.81 g/t Au and 37.00 g/t Ag (197.2 – 198.2m).

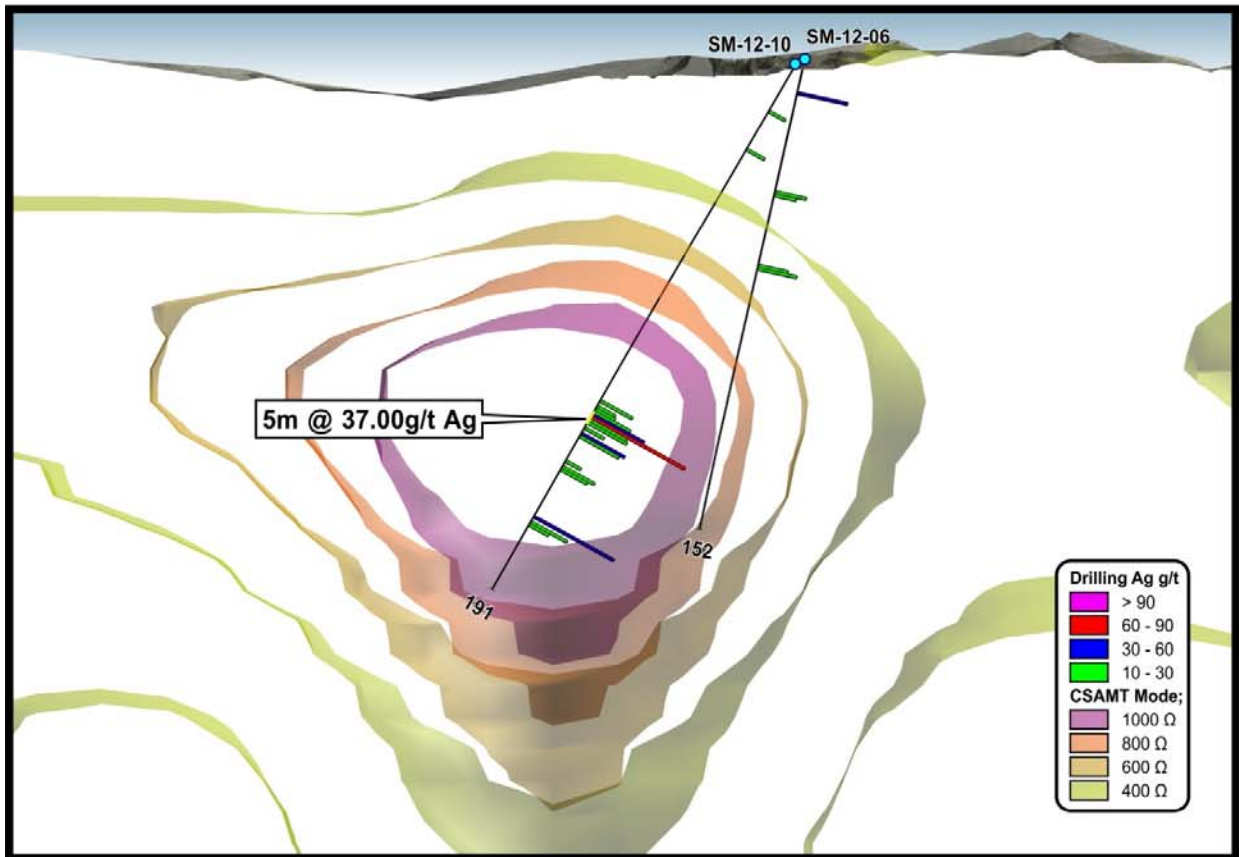
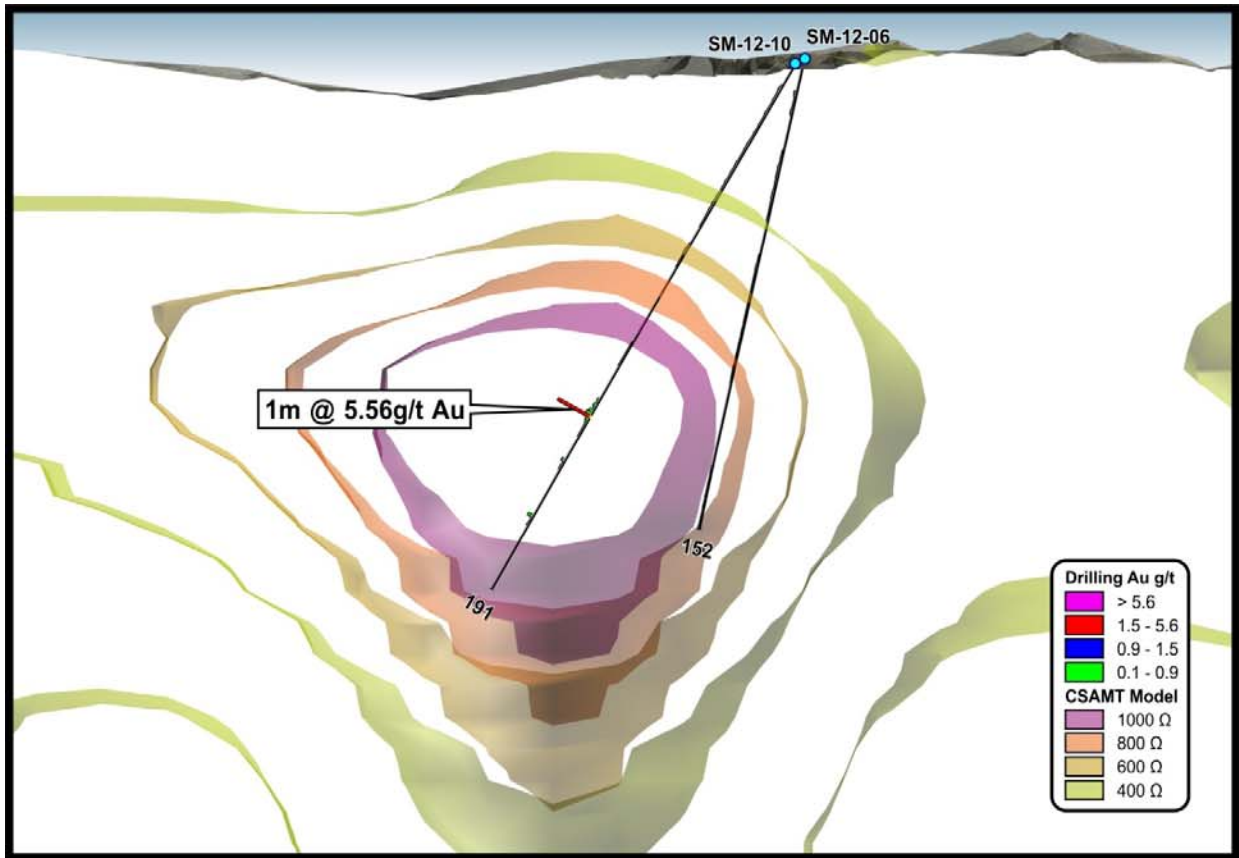


Figure 5: Section 4 687250mN (looking North) showing SM-12-06 (2013 tail) and CSAMT resistor



Drilling under the acid sulphate cap (Holes SM-13-11 and 12) failed to intersect anything that would explain the CSAMT anomalies and will require further investigation.

The Company will report on the results from the 1,043 metre Vein Breccia Zone diamond drilling program once all results have been received and reviewed.

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The information in this report that relates to exploration results is based on information compiled by Mr Peter Batten, who is a Member of the Australasian Institute of Mining and Metallurgy and a full time employee of De Grey Mining Limited. Mr Batten has sufficient experience which is relevant to the style of mineralization 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 Batten consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Table 1: Trench sampling results

Trench ID	SAMPLE ID	Easting	Northing	Au (g/t)	Ag (g/t)	As (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
<b>SM6_T3</b>	A-004389	2418226	4687460	0.01	1.00	0.00	0.00	10.00	0.00
	A-004390			0.03	3.00	110.00	0.00	50.00	10.00
	A-004391			<b>47.60</b>	<b>766.00</b>	340.00	6.00	300.00	10.00
	A-004392			0.05	5.00	40.00	0.00	40.00	0.00
	A-004393			0.10	2.00	100.00	0.00	40.00	0.00
<b>SM6_T4</b>	A-004394	2418267	4687388	0.05	2.00	40.00	0.00	10.00	10.00
	A-004395			<b>0.30</b>	3.00	70.00	0.00	30.00	10.00
	A-004396			<b>2.83</b>	<b>15.00</b>	490.00	28.00	480.00	10.00
	A-004397			0.08	1.00	170.00	5.00	40.00	10.00
	A-004398			0.07	1.00	230.00	0.00	80.00	10.00
<b>SM6_T5</b>	-	2418315	4687301	<i>No significant results</i>					
<b>SM6_T6</b>	A-004434	2418038	4687295	0.01	1.00	2040.00	45.00	30.00	50.00
	A-004435			0.05	4.00	970.00	17.00	40.00	40.00
	A-004436			<b>3.54</b>	<b>231.00</b>	720.00	33.00	160.00	30.00
	A-004437			<b>1.67</b>	<b>58.00</b>	270.00	23.00	40.00	20.00
	A-004438			<b>1.17</b>	<b>62.00</b>	1430.00	142.00	140.00	30.00
	A-004439			<b>0.37</b>	<b>30.00</b>	330.00	35.00	30.00	10.00
	A-004440			0.03	1.00	530.00	42.00	30.00	20.00
<b>SM6_T7</b>	-	2418036	4687345	<i>No significant results</i>					
<b>SM6_T8</b>	-	2418026	4687416	<i>No significant results</i>					
<b>SM6_T9</b>	-	2418020	4687499	<i>No significant results</i>					

Sample widths were consistent at 1.0m each.

Samples were analysed by ALS Minerals Laboratories, Mendoza, Argentina. Au was analysed using fire assay and AAS finish of a 30g nominal sample weight. Ag and all other elements (33) were analysed using aqua regia digestion with ICP-AES finish. Note that the aqua regia digestion is limited to determining the acid leachable portion of the elements. Any assays within defined sample intervals that reported less than detection limits were assigned a value of zero (0) when used for calculation of intercepts presented above.

Table 2: Drillhole Data

Prospect	Hole	East	North	Azimuth	Dip	Depth
SM6	SM-12-06	2418068	4687250	270	-60	191.0
SM6	SM-12-05	2418079	4687320	270	-60	215.5
SM6	SM-13-12	2418042	4688000	90	-65	299.2
SM6	SM-13-11	2418475	4687800	90	-60	200.0

Table 3: Drillhole Sample Results

Drillhole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	As (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
<b>SM-12-05</b>	183.2	185.2	2.0	0.03	4.00	3330.00	0.00	10.00	30.00
	185.2	187.2	2.0	0.04	4.00	3620.00	0.00	10.00	50.00
	187.2	189.2	2.0	0.05	5.00	3510.00	0.00	10.00	20.00
	189.2	191.2	2.0	0.04	4.00	3020.00	0.00	0.00	20.00
	191.2	192.2	1.0	0.07	5.00	5420.00	0.00	0.00	40.00
	192.2	193.2	1.0	0.15	11.00	9410.00	0.00	10.00	170.00
	193.2	194.2	1.0	0.22	13.00	10800.00	0.00	10.00	90.00
	194.2	195.2	1.0	0.29	12.00	7900.00	14.00	10.00	10.00
	195.2	196.2	1.0	0.28	16.00	3100.00	20.00	20.00	10.00
	196.2	197.2	1.0	0.08	12.00	110.00	0.00	10.00	10.00
	197.2	198.2	1.0	<b>0.81</b>	<b>37.00</b>	30.00	0.00	30.00	20.00
	198.2	199.2	1.0	0.04	3.00	190.00	0.00	10.00	20.00
	199.2	199.9	0.7	0.12	12.00	120.00	10.00	0.00	10.00
	199.9	200.9	1.0	0.13	16.00	1020.00	10.00	30.00	10.00
	200.9	201.9	1.0	0.16	14.00	3790.00	0.00	20.00	50.00
	201.9	202.9	1.0	0.04	4.00	1470.00	37.00	10.00	30.00
	202.9	203.9	1.0	0.02	1.00	320.00	18.00	20.00	40.00
	203.9	204.9	1.0	0.02	2.00	730.00	27.00	20.00	40.00
	204.9	205.9	1.0	0.01	1.00	470.00	0.00	20.00	20.00
	205.9	207.1	1.2	0.04	6.00	2160.00	22.00	10.00	20.00
	207.1	208.1	1.0	0.03	3.00	1410.00	19.00	10.00	20.00
	208.1	209.1	1.0	0.02	3.00	480.00	83.00	10.00	30.00
	209.1	210.1	1.0	0.03	5.00	280.00	212.00	20.00	40.00
210.1	211.1	1.0	0.03	5.00	220.00	243.00	10.00	30.00	
211.1	212.1	1.0	0.04	6.00	220.00	171.00	10.00	20.00	
212.1	213.1	1.0	0.04	2.00	250.00	42.00	0.00	10.00	
213.1	214.1	1.0	0.05	5.00	1580.00	46.00	10.00	40.00	
<b>SM-12-06</b>	121.8	122.8	1.0	0.25	23.00	570.00	6.00	30.00	40.00
	122.8	123.8	1.0	0.10	7.00	630.00	5.00	20.00	20.00
	123.8	124.8	1.0	0.37	13.00	2750.00	22.00	50.00	30.00
	124.8	125.8	1.0	0.17	14.00	1590.00	17.00	20.00	20.00

Drillhole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	As (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
	125.8	126.8	1.0	<b>0.55</b>	26.00	290.00	6.00	10.00	30.00
	126.8	127.8	1.0	<b>0.82</b>	37.00	1220.00	8.00	30.00	20.00
	127.8	128.8	1.0	<b>5.56</b>	<b>67.00</b>	1720.00	29.00	50.00	30.00
	128.8	129.8	1.0	0.41	27.00	500.00	22.00	110.00	80.00
	129.8	130.8	1.0	0.20	28.00	140.00	8.00	50.00	30.00
	130.8	131.8	1.0	0.06	10.00	140.00	7.00	10.00	40.00
	131.8	132.8	1.0	0.08	14.00	170.00	7.00	0.00	40.00
	132.8	133.8	1.0	0.03	4.00	210.00	10.00	0.00	20.00
	133.8	134.8	1.0	0.07	31.00	160.00	361.00	10.00	30.00
	134.8	135.8	1.0	0.05	28.00	360.00	140.00	40.00	90.00
	143.8	144.8	1.0	0.44	11.00	190.00	10.00	0.00	80.00
	144.8	145.8	1.0	0.06	6.00	310.00	63.00	0.00	60.00
	145.8	146.8	1.0	0.14	23.00	220.00	18.00	20.00	30.00
<b>SM-12-06</b>	146.8	147.8	1.0	0.09	19.00	70.00	0.00	0.00	20.00
	164.0	165.0	1.0	<b>0.77</b>	<b>57.00</b>	4020.00	0.00	0.00	10.00
	165.0	166.0	1.0	0.05	4.00	1980.00	0.00	0.00	10.00
	166.0	167.0	1.0	0.05	26.00	1450.00	5.00	10.00	30.00
	167.0	168.0	1.0	0.12	14.00	3660.00	0.00	0.00	10.00
<b>SM-13-11</b>	<i>No significant results</i>								
<b>SM-13-12</b>	<i>No significant results</i>								

Samples were analysed by ALS Minerals Laboratories, Mendoza, Argentina. Au was analysed using fire assay and AAS finish of a 30g nominal sample weight. Ag and all other elements (33) were analysed using aqua regia digestion with ICP-AES finish. Note that the aqua regia digestion is limited to determining the acid leachable portion of the elements. Any assays within defined sample intervals that reported less than detection limits were assigned a value of zero (0) when used for calculation of intercepts presented above.