The Santa Maria Tin Project

Santa Maria Project – Located in a Hill of Tin



The small Santa Maria Mine, circled above, treated a colluvial tin deposit in the 1970s and 1980s. Unconfirmed official reports indicate a total historic production of 280 tonnes of tin from 400 tonnes of concentrate.

Only material from the younger, 50-65m thick, higher grade (~500-650g/t Sn) colluvials, which cuts deeply into the lower grade colluvials, was mined in the Santa Maria pit.

MESEX is currently the owner of the Santa Maria project. Eurotin is currently earning into an 85% equity interest in MESEX, the Company's current equity interest is estimated to be \sim 67%.

Santa Maria Structures and Tin Targets

Continuation of High Grade, High Energy, **Colluvial Channel?**

Approximately 10km² of low grade lake bottom sediments, near the granite tin source, have been eroded away over the past 12-15 million years and been redeposited and re-concentrated in new

alluvial deposits to the north and east.

Santa Maria Fault placement of +275m

	•
anite Sourc	i page
CONTRACTOR DE CONTRACTOR	e
2	

			1 50
	1000	1	
1000		1	23.2
100	10000	100	1 cer
		11.2	in the

Legend

723500

4413500

1414500



Graben Fault **Boundaries**?

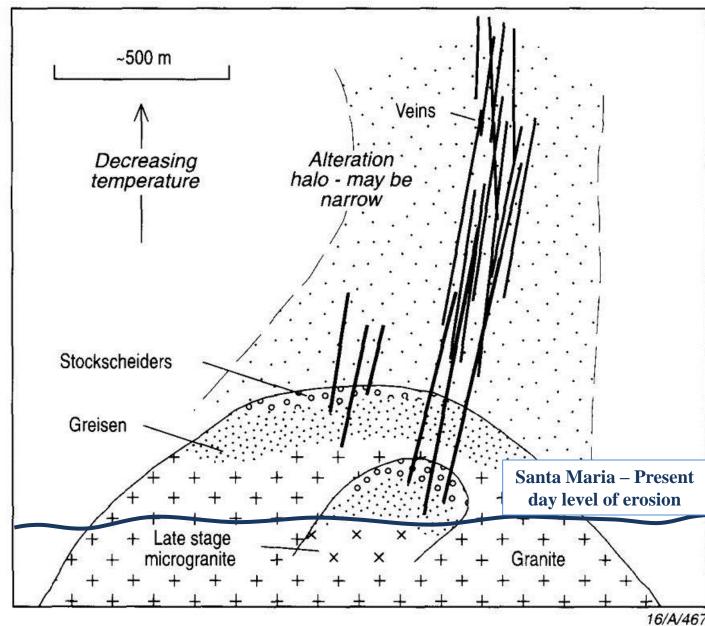
Test pits

	_		Salte la	The second second	U.SKIIIS		The Party Party and the Party of the Party o
720000	720500	721000	721500	722000	722500	723000	723500
Localiz P.I. Re	ación: Provincia de Cáceres tamar		Santa Maria Project DC Drillholes plus test	pits location		Escala gráfica 0 125 250 500 Mete	Proyección UTM ers European Datum 1950 Huso 29

720000

720500

Cross Section Through a 'Typical' Tin Bearing Granite



Source: Australian Journal of Geology and Geophysics – 1998

The Company's geologists believe around 1,500 vertical metres of granite and tin-bearing metasediments have been eroded away at Santa Maria.

The nearby Pedroso de Acim granite has an outcrop of almost 5km² and is the undoubted original source of the Santa Maria tin deposits.

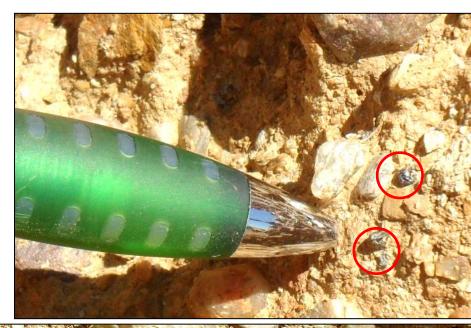
Tin mineralisation usually becomes 16/A/467 coarser with depth.

Proposed Genesis of the Santa Maria Tin Deposits

- 1. Tin bearing granite intrusion ~ 285MY ago.
- 2. Tin bearing granite solidified 2-3kms below surface.
- 3. Tin mineralisation (fine grained) first exposed by erosion ~50-100MY ago.
- 4. Granite and tin mineralisation located on north side of high quartzite ridge.
- 5. Original north to south drainage. Quartzite ridge acted as a dam wall creating a large lake.
- 6. Tin minerals erode out of hard rock and accumulate in sediments in an ancient lake.
- 7. Tin bearing sediments eventually become +300 metres thick. *Note: tin mineralisation is probably coarsest at top of lake bottom sediments.*
- 8. Approximately 15MY ago, major tectonic activity and local tilting of Earth's crust northwards by ~30-35°.
- 9. Earthquakes and tilting cause major mud slides/avalanches of lake bottom sediments creating the Colluvials (coarse grained tin).
- 10. Tin bearing, lake bottom sediments (est. 5-7 billion tonnes), south of Santa Maria fault, are eroded away to form the Alluvials. The creation of the Alluvials is a natural concentrating process, which should elevate tin values.

The Santa Maria Colluvial Tin Deposits

- The Santa Maria colluvial tin deposits consist of a chaotic mix of:
- i) clay and quartz sand (weathered granite),
- ii) quartzite clasts and boulders (derived from a ridge 2kms to the south), and
- iii) fine grained meta-sediment clasts, eroded from the nearby bedrock.





Cassiterite (SnO₂) at Santa Maria



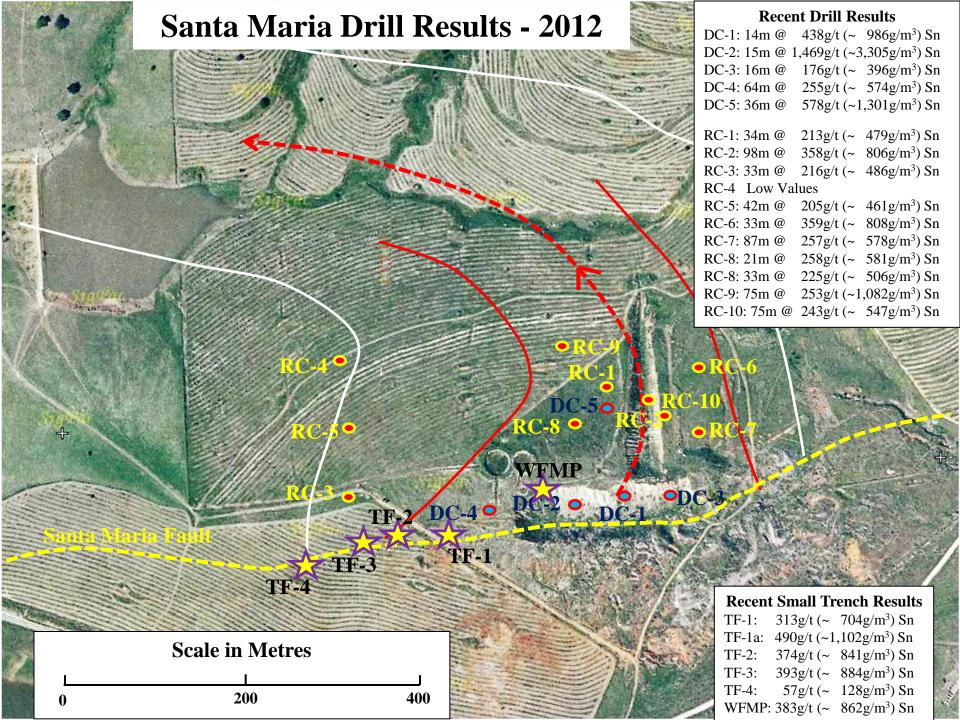
Top Left: Rare sample of tin bearing greisen vein.

Bottom Left: Cassiterite concentrated by rain in North Pit.

Bottom Right: Cassiterite concentrate from panning: ~65% tin content.



Santa Maria's Main Pit Looking West



Santa Maria Pits – Phelps Dodge Estimates

Santa Maria "Reserves & Resources"	"Ore" (Mt)	"Ore Grade" (Sn g/t)	Tin Metal (t)	"Ore Inferred" (Mt)	"Ore Grade" (Sn g/t)	Tin Metal (t)	Total tonnes (M)	Total Tin Metal (tonnes)
"Pit A" Cutoff: 250g/t Sn Strip Ratio: 3.1	6.46	487.3	3,148	1.56	350.1	546.2	8.02	3,694
"Pit B" Cutoff: 125g/t Sn Strip Ratio: 1.8	21.8	284.4	6,199	8.16	240.0	1,960.3	30.0	8,160

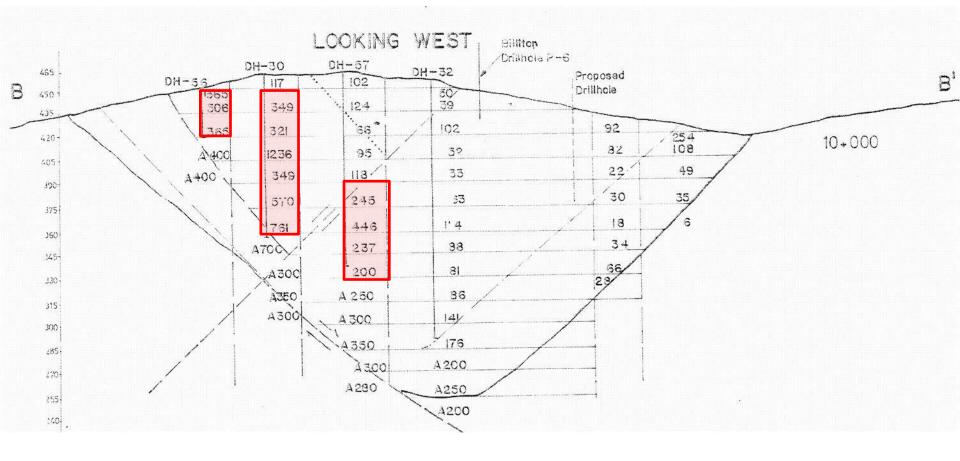
The Phelps Dodge estimates shown above right for "reserves and resources" are not NI 43-101 compliant.

T.N.

In internal documents, Phelps Dodge stated they believed, the type of drilling procedures used resulted in the tin grades being understated by ~20-30%.

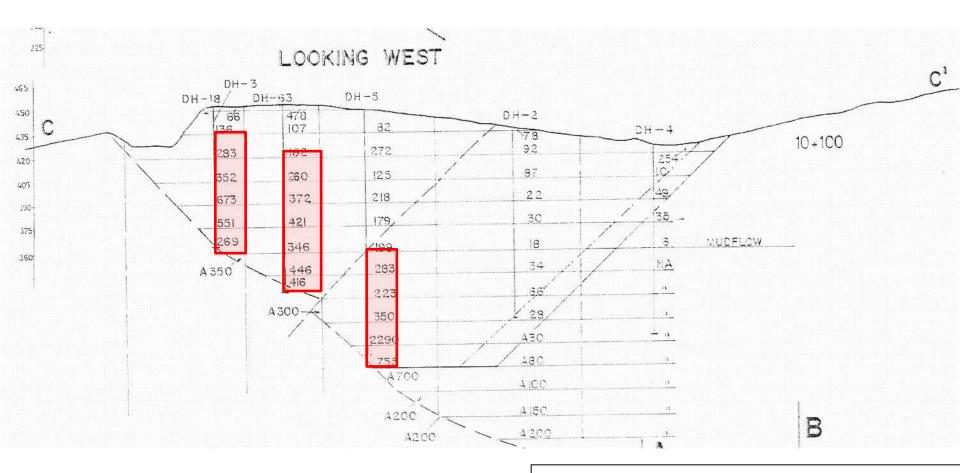
The Company believes another important factor in determining the true tin grades at Santa Maria is the 'nugget effect'. In other words, the larger the sampl, e the more accurate it is likely to be. The Company's drill hole diameter was much smaller than those of Phelps Dodge.

Line B – See Phelps Dodge Estimates



The average tin grade of the +200ppm, 15 metre drill sections shown here is 536g/t (1,206g/m³).

Line C – See Phelps Dodge Estimates



The average tin grade of the +200ppm, 15 metre drill sections shown here is 518g/t (1,166/m³).

Santa Maria Mini-Bulk Sampling Program

Size Fract	Size Fraction		Tin Grade	s Tin Conter	nt Tin	Size
			(g/t)	(g)	Distributio	n Distribution
-40.0 to +31	.5mm	2.2	645	1.41	0.04%	0.05%
-31.5 to +16	.0mm	308.0	728	224.2	6.43%	7.45%
-16.0 to +8.	0mm	463.2	608	281.7	8.08%	11.21%
-8.0 to + 3.3	5mm	505.8	629	317.9	9.12%	12.24%
-3.35 to + 1.0	00mm	534.3	2,147	1,147.1	32.91%	12.93%
-1.00 to +50	00μm	335.1	1,897	635.7	18.23%	8.11%
-500 to +25	60μm	275.3	1,203	331.1	9.50%	6.66%
-250 to +12	25μm	278.0	786	218.4	6.27%	6.73%
-125 to 75	μm	184.5	805	148.5	4.26%	4.47%
-75 to 45	μm	133.5	730	97.5	2.80%	3.23%
-45 μm	n 1,	,111.6	74	82.5	2.37%	26.90%
Total:	4,	131.4	844	3,488.1	100.00%	100.00%
Sample #	Pit	Meas	ured Tin	% Rejects as	Adjusted*	Est. In Situ Tin
	Location	Grad	de (g/t)	+40mm	Rejects %	Grade (g/t)
SMB-1	-2 to 0m		840	51%	41.2-42.7%	460-473
SMB-2	0 to 8m		800	36%	29.1-30.2%	589-599
SMB-3	8 to 16m		660	37%	29.9-31.0%	454-461
SMB-4	16 to 24m 1,130		,130	46%	37.2-38.5%	695-710
Combined	-2 to 24m		844	42%	33.8-35.0%	548-559

In May 2011, a total of 16.3 tonnes of colluvial material was extracted in four bulk samples from a vertical channel of 26 metres in the northern pit wall of the Santa Maria Main Pit.

The material was then dryscreened to reject all material of +40mm in size.

Average density is $\sim 2.25 t/m^3$.

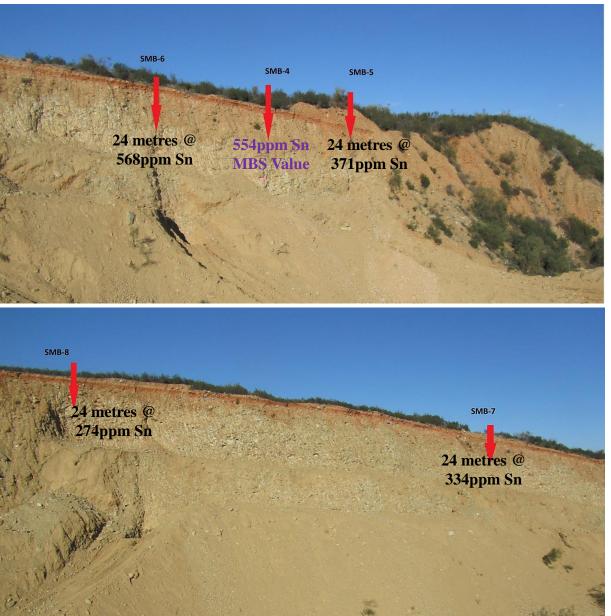
* Adjustments of: a) 9.2% to compensate for moisture content, and b) 7-10% for -40mm particles in the +40mm size range.

The weighted average grade of the -40mm size fraction was 844g/t Sn. This was calculated as representing an overall in situ grade of ~548-559g/t Sn (~1,235g/m³), a figure which is believed to compare favourably with Indonesia's marine alluvial tin deposits of ~300g/m³.

The results also confirmed the Santa Maria tin mineralisation is exceptionally coarse, mostly in the 0.25-8.0mm size range (~70%) and therefore high recoveries should be achievable.

The fine grained fraction, representing 27% of the colluvial material tested, contains only 2% of its tin; it can therefore be discarded by simple washing techniques with little economic loss.

Vertical Channel Sampling & Mini Bulk Sampling Sites SMB-4, SMB-5, SMB-6, SMB-7 & SMB-8



22 x two tonne samples have been taken from various locations in the Santa Maria pits. In addition, the 'other half' of the four samples (SMB-4) already tested will be reprocessed by SGS.

The samples were wet screened in the company's facilities in Coria. The -45 micron and +25mm size fractions, representing around 65-80% of the sample, are discarded. A vibrating screen then wet screens the balance of the material into appropriate size fractions.

After processing, a minimum of 100kgs of each size fraction of each sample was sent to SGS at their Wheal Jane facilities in the UK, for gravity separation of tin, gold and other minerals.

Vertical Channel Sampling & Mini Bulk Sampling Sites SMB-9, SMB-10, SMB-11 & SMB-12



A number of problems are encountered in trying to accurately assess the tin and gold content of the Santa Maria colluvial material:

- 1. The extreme 'nugget effect' in both the tin and gold distribution,
- 2. Sample size for coarse mineralisation a small sample will usually understate actual metal values when coarse mineralisation is involved.

The Company believes that a minimum sample size of at least one tonne is required to locally achieve a 'representative' sample of the Santa Maria material.

SMB-12

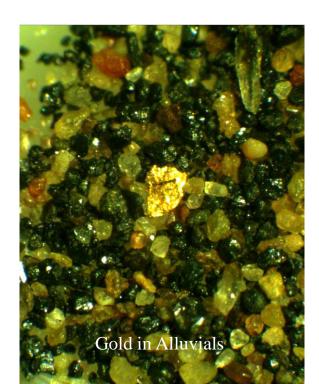
16 metres @ 1,271ppm Sn

Gold at Santa Maria

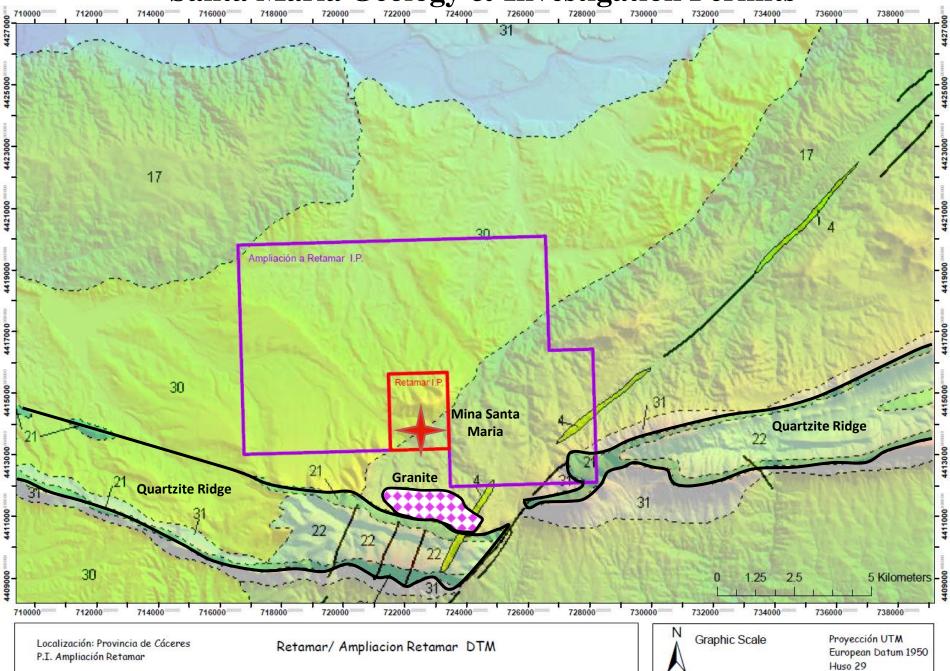
- 1. Crystalline gold has been found in the 50-1,000 microns size fraction in both the Santa Maria colluvials and alluvials.
- 2. The gold is believed to be derived from the erosion of the pervasive quartz veinlets in the Cambrian meta-sediments, which host the Pedroso de Acim granite.
- 3. Gold values are very erratically distributed, but are believed to average somewhere around 0.02g/t.







Santa Maria Geology & Investigation Permits



Santa Maria Alluvial Targets



Modern Drainage

Modern -Drainage

Granite