

## **23. SMOKE HILLS (EL 2370)**

### **23.1 Introduction**

The Smoke Hills prospect lies 60 kilometers north west of The Granites Gold Mine. Access is via the Tanami Highway to the Rabbit Flat roadhouse, then by track south west towards the Tanami Downs homestead. Twenty kilometers from the road house another track leads ten kilometers west to the exploration area.

The prospect is marked by low lateritic rises and sub-cropping shales and cherts. Previous rock chip sampling and reconnaissance vacuum drilling delineated a broad regionally gold anomalous area which is coincident with a regional magnetic high ridge. Davidson Bed lithologies are interpreted in the area, as is a historical gold occurrence (1:250 000 geology sheet) which to date has not been located on the ground.

Previously 7 reconnaissance RAB drill traverses and 3 open hole RAB holes beneath rock chip samples assaying upto 20ppb Au have given disappointing results.

### **23.2 Work Undertaken**

#### **Composite Rock Chip Sampling**

During the reporting period 19 rock chip samples were collected and analysed for gold (Analabs method 334) and arsenic (Analabs method 115).

#### **Vacuum Drilling**

The follow up vacuum drilling program comprised 162 holes drilled for a total of 1232 meters. This yielded 159 bottom of hole samples and 162 BLEG/BCL samples. Holes were drilled on a 500x500 meter grid.

The BCL sample was collected immediately below surficial transported material. BOH samples were collected in recognisable bedrock, but where this was not reached, colluvium at the bottom of hole was sampled.

BCL samples (5kg) were submitted to Rapley Wilkinson Laboratories for Au (0.01ppb detection limit), Cu (0.01ppm detection limit) and Ag (0.01 ppb detection limit) analyses. BOH samples were submitted to Analabs for Au (method 334, 1ppb detection limit) and As (method 115, 5ppm detection limit) analyses.

#### **RAB Drilling**

151 RAB holes were drilled on 9 traverses for a total of 3050 meters advance and 955 samples. Traverses were spaced 250 to 500 meters apart with holes on each line centred at intervals of between 50 and 200 meters. Analyses for gold were by Analabs method 334 and arsenic by Analabs method 115.

### **23.3 Results**

#### **Composite Rock Chip Sampling**

Best results were assays of 0.22g/t Au and 215ppm As from a banded chert just west of vacuum hole SMV043.

### Vacuum Drilling

The 1992 followup vacuum survey revealed three discrete geochemically anomalous groups, two of which are along strike. The anomalies are adjacent to discontinuous occurrences of Davidson Beds, which are interpreted to be the exposed limb of an attenuated syncline. The geochemical anomalies outline a corridor that is coincident with a fundamental structure interpreted from magnetic data.

Peak values for anomalous BLEG/BCL and bottom of hole assays are summarised in the table below.

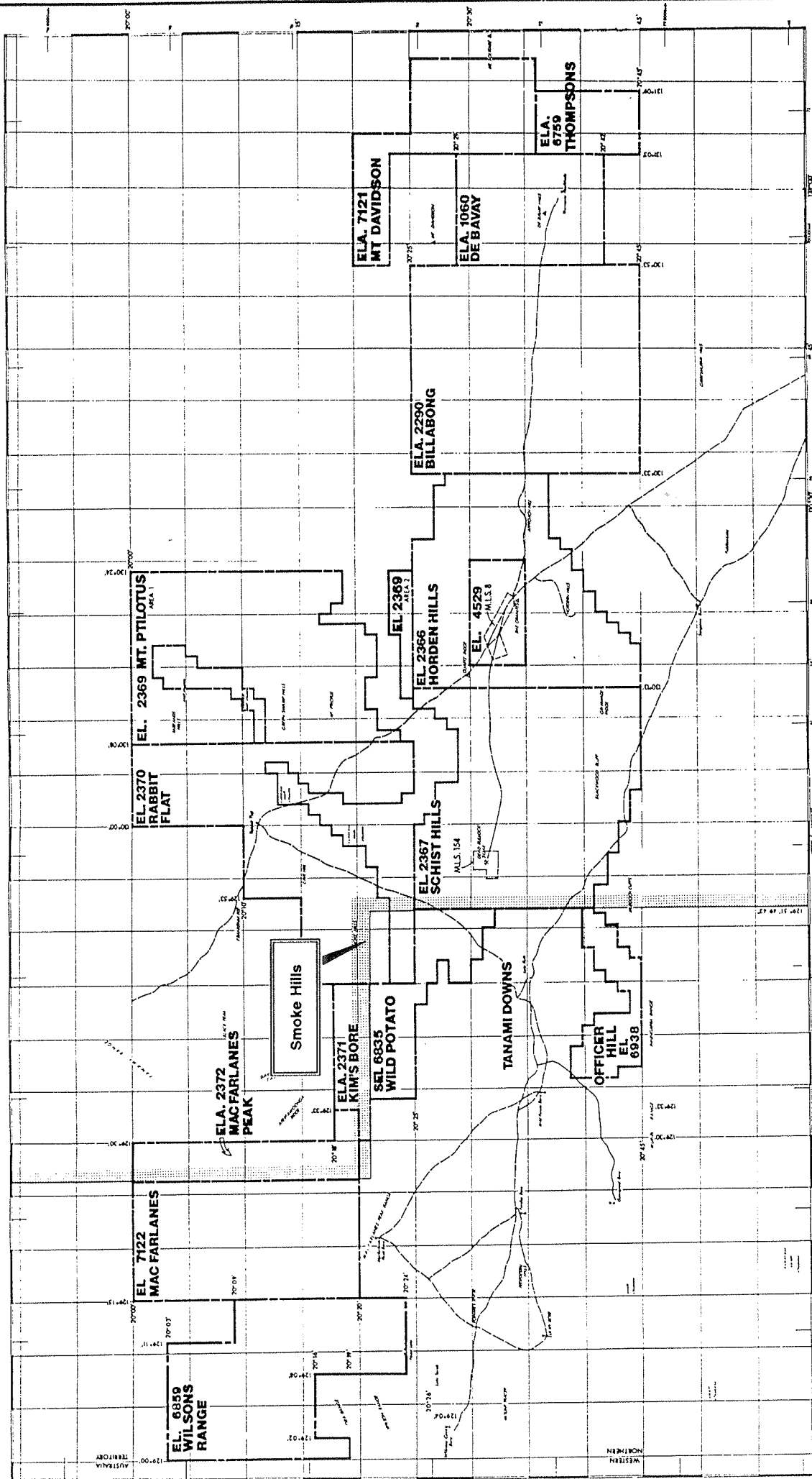
PEAK GOLD AND ARSENIC ASSAYS - BCL AND BOH RESULTS				
Drillhole Nos	Sample Type	Depth (m)	Au (ppb)	As (ppm)
016	BCL	0.2-1.4	0.97	
017	BCL	0.2-1.4	0.90	
025	BCL	0.2-1.4	1.71	
027	BCL	0.1-1.4	2.68	
035	BOH	-9.6	1	85
036	BOH	-6.4	2	130
043	BOH	-4.6	1	110
048	BCL	0.2-1.4	7.23	
050	BOH	-4.6	X	130
068	BCL	0.5-3.0	1.03	
070	BCL	0-1.2	4.79	
	BOH	-4.6	2	220
072	BCL	0.2-1.4	1.02	
074	BCL	0-1.0	2.10	
076	BCL	0.2-1.4	1.12	
086	BCL	0.2-1.4	0.90	
088	BCL	0.5-1.2	0.94	
089	BOH	-16.0	41	25
090	BCL	3.5-5.5	1.39	
	BOH	-13.5	7	30
095	BCL	0.2-1.5	1.15	
103	BOH	-12.4	7	20
112	BOH	-2.0	2	115
114	BOH	-9.4	75	10
147	BOH	-4.6	6	20
	BCL		4.52	
148	BCL		1.31	
149	BCL		0.91	
150	BCL		0.89	

### RAB Drilling

The RAB drilling results did not intersect better grade material than those encountered by the vacuum drilling. Dolerite, Davidson and Madigan Beds were identified in the area tested.

23.4 **Plans**

<b>Drawing No.</b>	<b>Title</b>	<b>Scale</b>
1700-1562	Smoke Hills Vacuum Drilling BOH & BCL Au Values	1:25 000
1700-1573	Smoke Hills Interpreted Geology	1:5 000
1700-1543	Smoke Hills RAB Drilling Geol. & Assay X Section E 50000	1:500
1700-1544	Smoke Hills RAB Drilling Geol. & Assay X Section E 50250	1:500
1700-1545	Smoke Hills RAB Drilling Geol. & Assay X Section E 50500	1:500
1700-1546	Smoke Hills RAB Drilling Geol. & Assay X Section E 50750	1:500
1700-1547	Smoke Hills RAB Drilling Geol. & Assay X Section E 51000	1:500
1700-1548	Smoke Hills RAB Drilling Geol. & Assay X Section E 51500	1:500
1700-1549	Smoke Hills RAB Drilling Geol. & Assay X Section E 52000	1:500
1700-1550	Smoke Hills RAB Drilling Geol. & Assay X Section E 52250	1:500



**NFM** NORTH FLINDERS MINES LIMITED

Tanami Reconnaissance : Northern Territory

**EL LAYOUT**

Scale: 1:50,000

Fig. 23.1

**LEGEND**

- 1. Road
- 2. River
- 3. Creek
- 4. Lake
- 5. Swamp
- 6. Sand dune
- 7. Shrub
- 8. Tree
- 9. Building
- 10. Fence
- 11. Boundary
- 12. Contour
- 13. Spot height
- 14. Bench mark
- 15. Magnetic declination
- 16. Magnetic isogon
- 17. Magnetic anomaly
- 18. Magnetic field
- 19. Magnetic intensity
- 20. Magnetic variation

**LOCATION MAP**

