

Thalanga Copper Mines Pty Ltd

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Mr Wing Leung
Environmental Operations
Northern Region
Environmental Protection Agency
PO Box 5391
Townsville Qld 4810

20 June 2014

Dear Sir

Re: Transitional Environment Program (TEP) MAN17020

In accordance with the commitments made in the TEP please accept this report on site surface water flows, pit water and TEP investigations at the Highway Reward mine. This report covers the period from 9 June 2014 until 9 December 2014. This period was characterised by extremely low rainfall on site with virtual drought conditions applying. Table 1 shows the monthly rainfall, with 50.95 mm falling over six months. Of this 25.42 mm fell on 6 December.

Table 1 Site Rainfall

Month	Rainfall mm
June (all month)	6.37
July	1.07
August	6.19
September	4.32
October	3.93
November	3.52
December (to 9 Dec)	25.55

Given the lack of rainfall, surface flows were not encountered and no sampling was undertaken.

SW6 FLOW PATH DRAIN

The flow path towards SW6 runs along the western side of the base of the Highway Waste rock dump. Flows along this path were measured at SF2 (TEP site 004) and after rainfall, downstream of that at TEP sample sites 003, 002 and 001. These sites are shown in Figure 1 and Figure 2.

SW5 FLOW PATH

Surface water flows from the mine site towards SW5 were blocked during earthworks in June/July 2014.

Plate 1 **Diversion bund western side of lease**



Plate 1 above shows the diversion bund installed to prevent surface water flowing from the mine site to the west of the lease area.

Figure 1

Flow Monitoring Locations Highway Reward

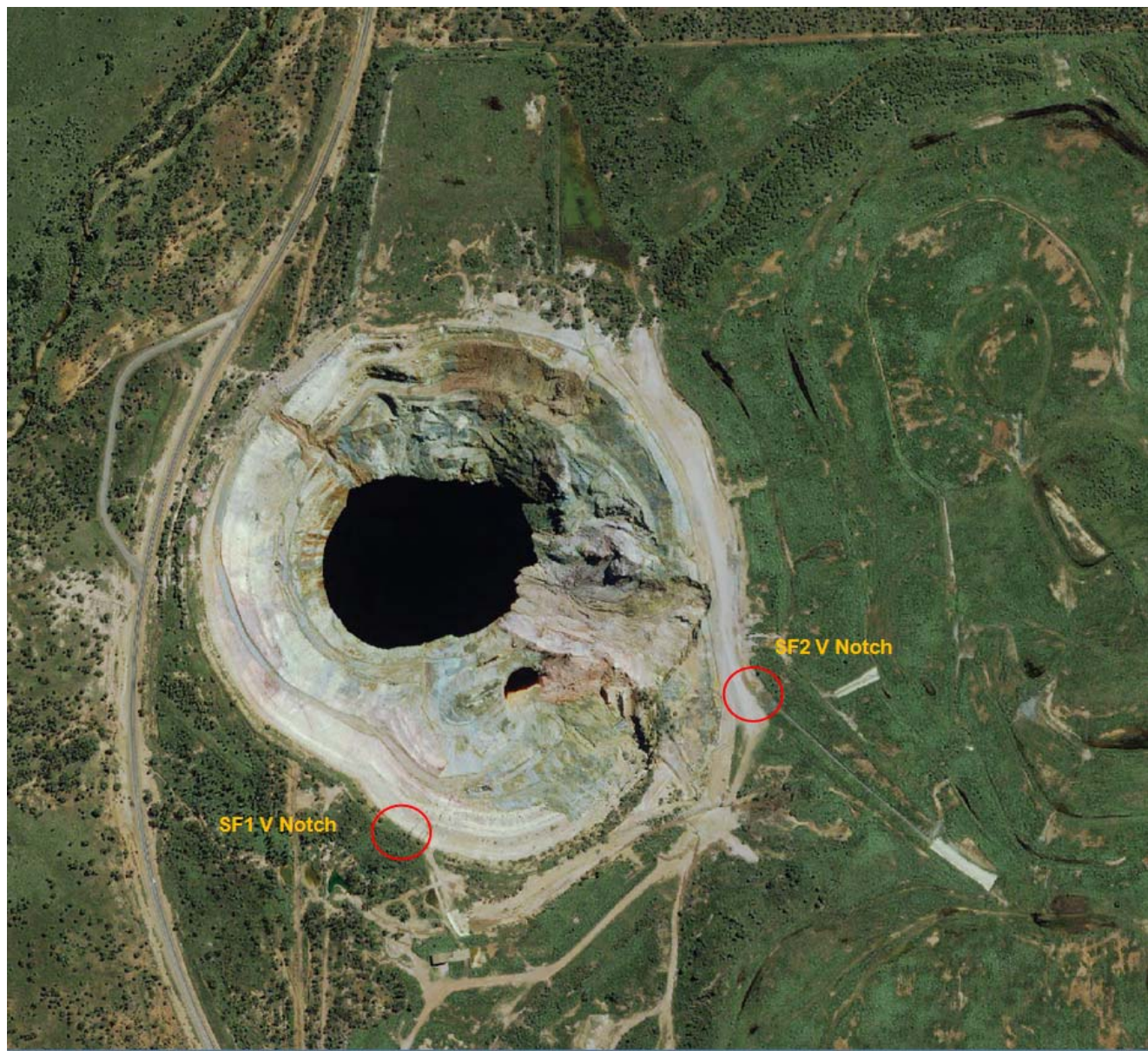


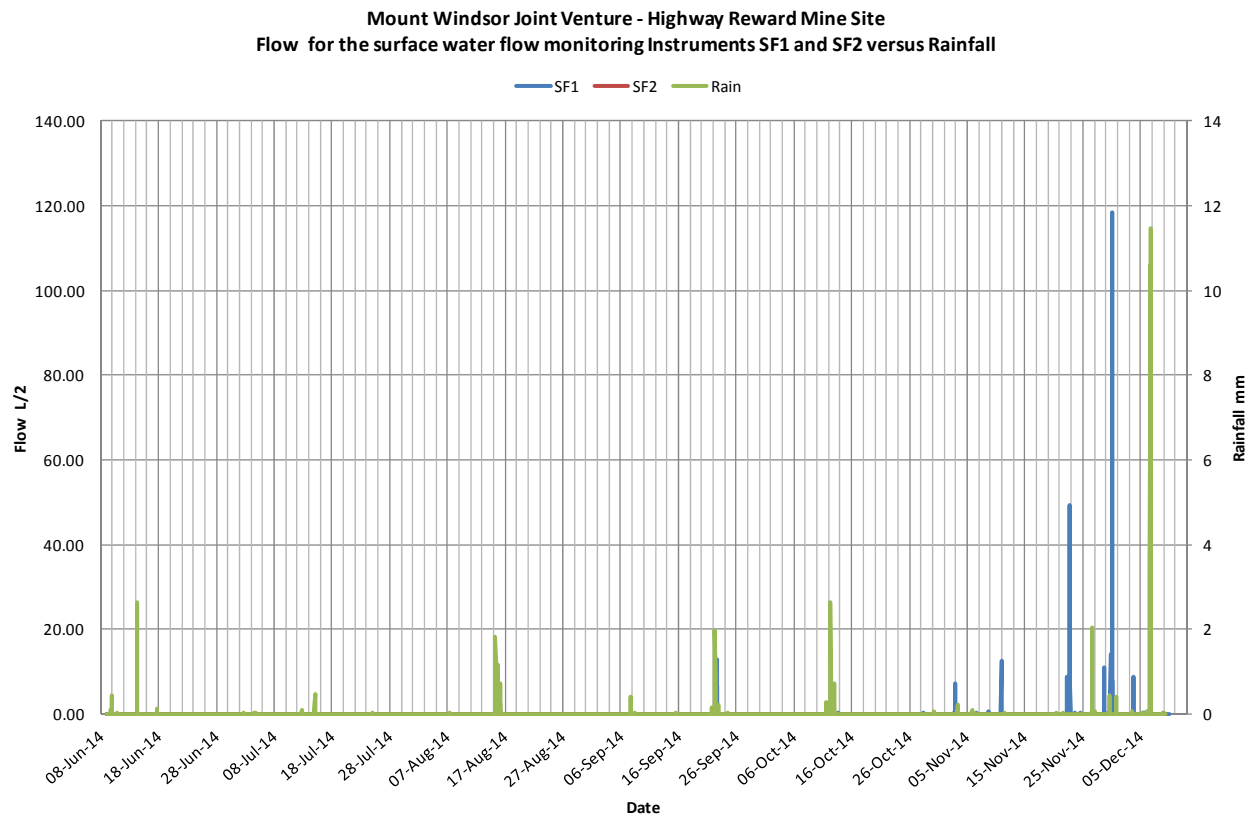
Figure 2 Site Flow Lines and Sample Points



PIT V-NOTCH

The pit v notch SF1 has shown minimal flow into the pit consistent with the lack of rain on site (Figure 3).

Figure 3 **Flows and Rainfall**



SURVEY PIT WATER HEIGHT

Plate 2 shows the pit water height in September 2011, Plate 3 shows the water level in February 2014, Plate 4 in August 2014 and Plate 5 in October 2014. An estimated level decrease of 500 mm has occurred in the past six months.

Plate 2 **Pit Water Height September 2011**



Plate 3

Pit Water Height February 2014



Plate 4

Pit Water Height August 2014



Plate 5

Pit Water Height October 2014



STREAM SEDIMENT INVESTIGATIONS

Following the earthworks to prevent surface water flowing from the site towards SS7 (Plate 1), additional stream sediment sampling has been undertaken to ensure that all contamination has been removed from this area. Samples were taken along the former flow path between the site, SS7 and the Gregory Development Road (Table 2). Samples were

also taken north and south of the site at Gregory Development Road runoff points to evaluate whether road runoff could be contributing to contamination at SS7 (Table 3).

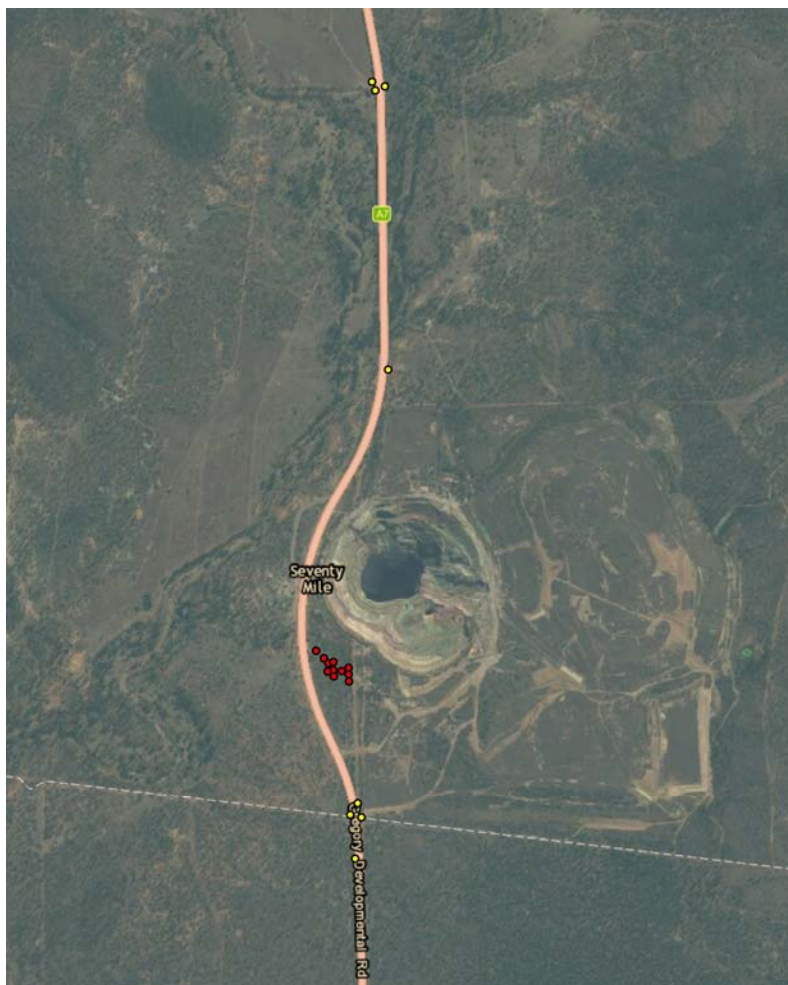
Table 2 SS7 Sampling

	UTME	UTMN
SS7_Dec1	0416 548.06	7747 435.11
SS7_Dec2	0416 546.04	7747 461.7
SS7_Dec3	0416 547.79	7747 489.1
SS7_Dec4	0416 519.9	7747 479.74
SS7_Dec5	0416 488.35	7747 455.89
SS7_Dec6	0416 490.1	7747 479.6
SS7_Dec7	0416 487.46	7747 511.85
SS7_Dec8	0416 461.02	7747 474.23
SS7_Dec9	0416 466.37	7747 507.79
SS7_Dec10	0416 451.38	7747 525.5
SS7_Dec11	0416 421.4	7747 554.98

Table 3 Highway runoff Sampling

		UTME	UTMN
Upstream	SS_road_1	0416 644.9	7749 200.7
	SS_road_2	0416 694.35	7748 634.71
	SS_road_3	0416 639.5	7749 703.64
	SS_road_4	0416 624.41	7749 740.43
	SS_road_5	0416 674.18	7749 722.24
Downstream	SS_road_6	0416 574.31	7746 759.09
	SS_road_7	0416 598.38	7746 917.22
	SS_road_8	0416 556.11	7746 927.55
	SS_road_9	0416 585.7	7746 969.83

Figure 4 SS Sampling



In Figure 4, the SS7 sites are shown as red dots and the road runoff sites are shown as yellow dots.

Results will be reported to DEHP once available.

SUMMARY

During the extremely dry conditions encountered over winter 2014, no off site flows were encountered and little data was available to evaluate whether sources of contamination which led to the TEP, have been due to localised sulphide exposures or to waste rock dump seepage. TEP sampling is expected to re-commence with December rains.

Please feel free to call me if you have any questions.

Yours sincerely

A handwritten signature in dark ink, consisting of a stylized 'S' followed by a horizontal line.

Stephen Kent
For Thalanga Copper Mines JV
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