

SECTION 14 INCIDENT REPORT (*Waste Management and Pollution Control Act*)

Date and Time of Notification:	Initial notification (email) – 22 January 16:46															
Person / Company:	McArthur River Mining Pty Ltd (MRM)															
Incident:	Spillage of bulk zinc-lead concentrate on the Carpentaria Highway. The source of the spill is likely to have been from a road train travelling from McArthur River Mine (the Mine) to the Bing Bong Loading Facility (BBLF).															
(a) the incident causing or threatening to cause pollution	A total of approximately 20 kilograms (kg) of bulk zinc-lead concentrate was released at four main locations across 20 kilometres (km) of the Carpentaria Highway, between the Mine and the BBLF. All concentrate was confined to the sealed bitumen.															
(b) the place where the incident occurred	<p>The Global Positioning System (GPS) points for the four spill locations are listed in Table 1 below and shown in Figure 1.</p> <p style="text-align: center;"><i>Table 1 – GPS Coordinates of all spill locations.</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Spill location</th> <th>Easting*</th> <th>Northing*</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>642 681</td> <td>8 254 361</td> </tr> <tr> <td>2A</td> <td>645 064</td> <td>8 264 971</td> </tr> <tr> <td>2B</td> <td>645 074</td> <td>8 264 994</td> </tr> <tr> <td>3</td> <td>645 352</td> <td>8 267 987</td> </tr> </tbody> </table> <p><i>*All coordinates were taken using the MGA Zone 53 (GDA94) coordinate reference system.</i></p>	Spill location	Easting*	Northing*	1	642 681	8 254 361	2A	645 064	8 264 971	2B	645 074	8 264 994	3	645 352	8 267 987
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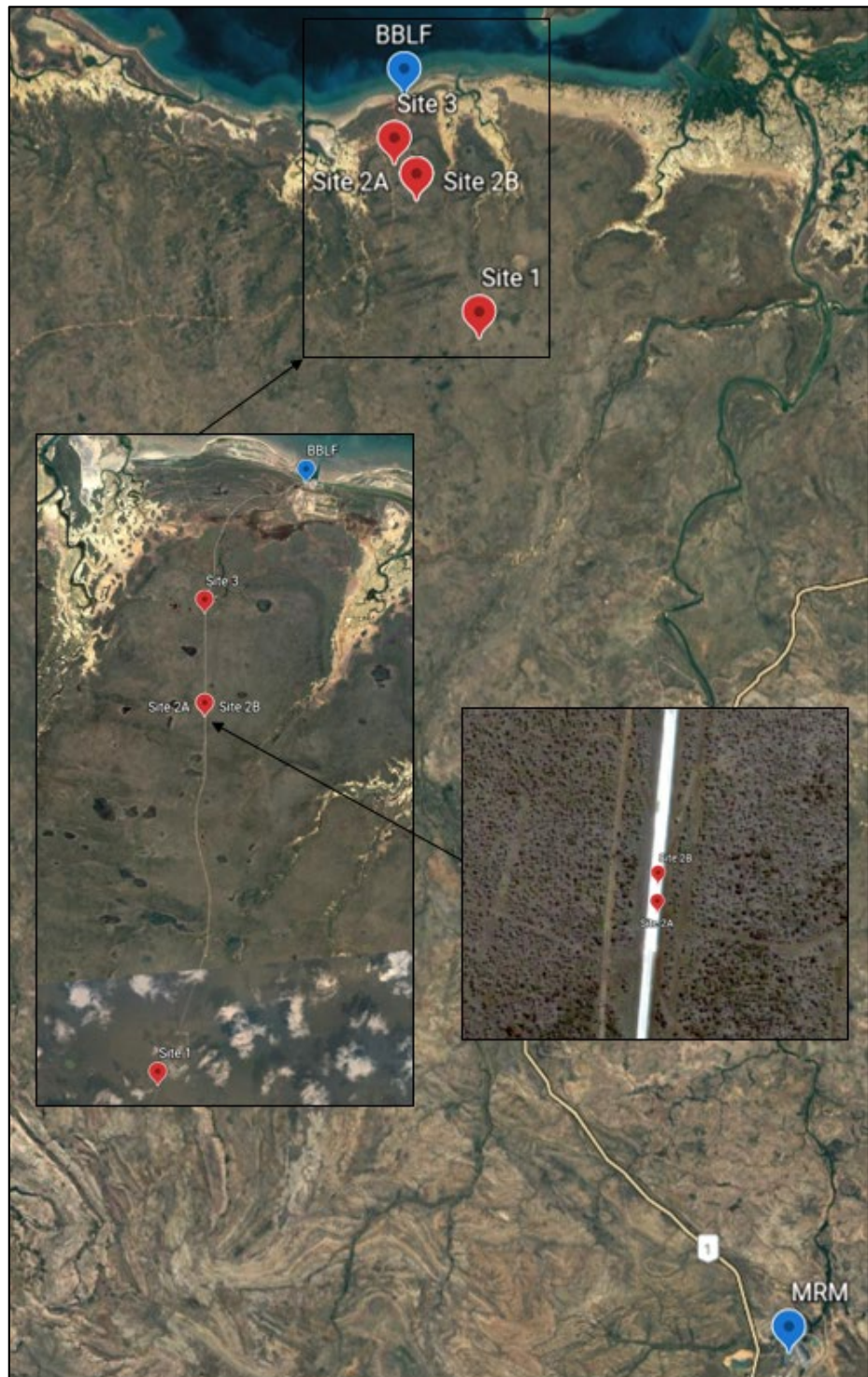


Figure 1: Approximate spill locations in relation to MRM and BBLF.

(c) the date and time of the incident

The spillage was sighted and reported by an MRM employee on 21 January 2021 at 10:20. The exact time the incident occurred is unknown.

d) how the pollution has occurred, is occurring or may occur

Based on the immediate inspection by MRM staff to confirm the extent of spillage and assess the environmental risk, grey material (indicative of zinc-lead concentrate) was observed at four main locations across 20 km towards the BBLF end of the Carpentaria Highway.

The concentrate was mostly confined to the sealed bitumen for the length of the spill (Figure 2) presenting a low risk of pollution or environmental harm. Based on the inspections, approximately 20 kg of concentrate is estimated to have been spilt in total.

MRM are currently undertaking a detailed internal audit of recent consecutive incidents involving spillage of concentrate; however preliminary evidence for this specific incident indicates that contributing factors may include the trailer being loaded beyond the recommended optimum loading target on 21 January 2021, and the uneven road surface. Further findings from the internal audit will be provided via follow-up correspondence in due course.



Figure 2: Concentrate observed on road prior to clean up efforts.

(e) the attempts made to prevent, reduce, control, rectify or clean up the pollution or resultant environmental harm caused or threatening to be caused by the incident

Clean-up Works

At approximately 12:30 on 21 January 2021, a vacuum truck was deployed to clean-up all of the material on the road and the small amount at Site 2A that was off the sealed bitumen (Figure 3). This involved pressure washing the concentrate and simultaneously using a vacuum truck to collect the residue, which was transported back to the BBLF containment ponds.

On 23 January 2021, following the completion of the works, MRM Environment staff inspected the road and could not identify any visible signs of lead-zinc concentrate along the transport route.



Figure 3: Spill clean-up efforts via pressure cleaner and industrial road sweeper at site 2.

Potential for Environmental Harm

Approximately 30.8 mm of rainfall was recorded at the McArthur River Mine Bureau of Meteorology Station between late evening on 20 January and early morning on 21 January 2021, before the spill was identified. There was no visible evidence of runoff of zinc-lead concentrate at these locations during the inspection on 23 January.

Soil samples were collected at all locations to determine whether the concentrate had spread from the spill site as a result of any rainfall. Details of the samples are provided below.

The potential for material environmental harm is considered to be low due to the small volume of concentrate across all locations, there being no sensitive receptors nearby and the immediate remedial response.



Figure 4: Site 2 – concentrate observed on road prior to clean-up efforts.



Figure 5: Site 2A – sample location.

Validation of Clean-up

On 23 January 2021, eight soil samples were collected in total at the four spill locations (Figure 6) in accordance with *Australian Standard 4482.1-2005: Guide to the investigation and sampling of sites with potentially contaminated soil*.

All soil samples are being analysed for relevant contaminants of concern (i.e. zinc and lead) and results will be compared against the relevant National

Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM, 1999) guidelines to determine whether the concentrate had spread to the roadside as a result of any rainfall.

Follow-up correspondence confirming the final soil results will be provided to the Department as soon as practicable.



Figure 6: Sampling locations at the spill sites between MRM and BBLF.

Prevention

In response to preliminary findings of the investigation, a training session was held with road train operators to communicate the requirements of load limits to ensure that trailers are not over the optimum loading target before leaving the Mine. In addition, if trailers are overloaded, concentrate is to be removed to ensure they are within acceptable weight limits. Further actions may be assigned as a result of MRM’s internal audit (ongoing), and details of these will be provided at its completion.

(f) the identity of the person notifying the NT EPA

Cassie Bell
Superintendent - Environment