OLYMPIC DAM MINE
SPILL INCIDENT SUMMARY AS REPORTED BY BHP BILLITON

Date of spill	Date reported	Quantity	Description of incident	Comments
18/02/03	19/02/03	210m^3	Spill of acidic raffinate liquor containing 172ppm uranium due to a pipe failure in the hydrometallurgical area.	The spill was contained well within the process plant area within tertiary containment. The material has been cleaned up and returned to the process circuit. Gamma dose rate measurements taken before and after the clean up confirm no occupational or environmental hazard.
20/08/03	20/08/03	63m^3	Tailings solids and liquor containing approx 0.03% uranium flowed into the bunded tailings pipeline corridor adjacent to Cell 1 of Tailings storage facility. Caused by failure to seal an isolation valve subsequent to routine maintenance.	The spill was totally contained within existing bunds. No environmental harm or injury to personnel.
15/10/03	15/10/03	110m^3	Pregnant liquor solution (PLS) containing 0.029% uranium overflowed the bund surrounding #1 Clarifier system, following overflow of clarifier tanks.	The spill was contained well within the process plant area and was contained within tertiary containment. The material was cleaned up and returned to the process circuit or tailings storage facility. Gamma dose measurements taken before clean up operations were completed recorded rates at background levels, i.e. no occupational or environmental hazard. No environmental harm or injury to personnel.
19/10/03	19/10/03	130m^3	Liquor containing 0.26% copper and 0.022% uranium overlapped the eastern wall of Evaporation Pond 4B as a result of wave action caused by strong winds.	The escaped liquor was contained by an external bund. The material was cleaned up using vacuum trucks and returned to the tailings storage. No liquor escaped into the undisturbed environment. Whilst the levels in the pond were within the specified freeboard limits, these limits will be reviewed. No environmental harm or injury to personnel.

Date of spill	Date reported	Quantity	Description of incident	Comments
15/12/03	15/12/03	145m^3	Raffinate containing 0.0043% uranium discharged to the ground in the process plant area due to failure of a fibreglass pipe in the hydrometallurgical area.	The spill was contained within the process plant area. The material was cleaned up and returned to either the process circuit or tailings storage facility. No environmental harm or injury to personnel.
8/2/04	8/2/04	25m^3	Tailings leaked under pressure as a result of a small tear in a tailings delivery line located near SE corner of tailings retention system No. 1. 2m^3 sprayed beyond the bund surrounding the tailings pipeline corridor.	No injury to personnel and minimal environmental impact. A small area of vegetation was affected by the sprayed tailings. The affected area will be cleaned up as per standard procedure.
21/5/04	21/5/047	460m^3	A spill of pregnant liquor solution (PLS) containing 0.014% uranium occurred when a weld failed in a high density polythene pipe. The pipe was located in the Hydrometallurgical Process Plant area.	The spill was contained within the process plant area. The material was cleaned up and returned to either the process circuit or tailings storage facility. No environmental harm or injury to personnel.
8/9/04	10/9/04	250m^3	Evaporation liquor back flowed through an isolation valve, a non-return valve and through a pump located at Evaporation Pond 1 (EP1). The pump had been drained for maintenance. This work was completed on 8/9. The back flow occurred when evaporation liquor was being pumped from EP 3 to EP 2. The leakage was detected on 10/9/04 during a regular inspection of the area.	The spill was contained within the containment bund surrounding the EP1 pump station. The liquor was cleaned up and returned to the Evaporation Pond. No environmental harm or injury to personnel. WMC will improve their daily inspection and monitoring procedures to ensure prompt detection of leaks. Pump start-up procedures will also be improved.
5/1/05	6/1/05	117m^3	Slurry feed escaped from a rubber-lined steel elbow on the feed line located at the SE corner of Cell 2 within the Tailing Retention System. The spill resulted from the failure of the rubber lining and subsequent corrosion of the steel pipe.	All of the slurry feed was contained in a bunded area. All residual slurry was returned to the TSF. There was no environmental harm or injury to personnel and no material escaped beyond the containment bund.

Date of spill	Date reported	Quantity	Description of incident	Comments
20/04/05	20/04/05	12 m^3	28 m3 of tailings slurry was released into an earthen bund containing valve station #4. A tailings line was recommissioned following a planned shutdown for maintenance on the tailings line. Approximately 12m^3 overflowed the bund into a previously disturbed area consisting largely of saltbush that had revegetated naturally.	All of the tailings slurry was recovered and returned to the TSF. It has been assessed that there was no significant environmental impact and no occupational health or safety impact. WMC will review standard operating procedures to prevent a reoccurrence.
09/02/07	12/02/07	Approx. 1 litre	A small quantity of uranium oxide was released into an unbunded area south of the Calciner building. This occurred when a valve was left open on a diesel tank, which resulted in diesel overflowing the diesel tank bund and flowing towards the packing shed sump. The spilled diesel caused the packing shed sump to overflow, mobilising the small quantity of uranium oxide beyond the bunded area. The volume of diesel which overflowed the bund was 1000L.	All of the uranium concentrate was recovered and disposed of in the Tailings Storage Facility. It has been assessed that there was no significant environmental impact, nor was there any occupational health or safety impact.
29/09/07	30/09/07	70 m^3	Approximately 70 m^3 tailings leach overflowed a bund containing the Tails Leach Tank No. 4. The tank was being drained at the time. No material left the engineered controls of the plant perimeter.	Work commenced immediately to recover the spilt liquor. No personnel had direct contact with the liquor and the incident did not cause any environmental harm or injury to personnel.
10/10/07	11/10/07	50 m^3	Approximately 50 m^3 of liquor from the solvent extraction area overflowed the HDPE lined scuttle pond into an adjoining unlined overflow pond. This pond was designed for temporary storage in the event of an unplanned incident.	All excess liquor was recovered from the pond. No personnel had direct contact with the liquor and the incident did not cause any environmental harm or injury to personnel.

Date of spill	Date reported	Quantity	Description of incident	Comments
01/01/08	01/01/08	30 m^3	A flexible section of pipe failed causing some 30 m3 of tailings material to be discharged beyond the secondary containment area but remained within the tertiary containment. The fluid was essentially barren and no material entered the general environment. The pipe has now been replaced.	All available excess liquor was recovered. No personnel had direct contact with the liquor and the incident did not cause any environmental harm or injury to personnel.
18/02/08	18/02/08	270 m^3	Approximately 270 m^3 of tailings escaped into the tailings pipeline corridor from a pipe failure. The process was shutdown and repairs carried out. No material escaped beyond the bunded area and there is no impact on the general environment or any personnel.	All the material was recovered and disposed of in the tailings retention system. No personnel had direct contact with the tailings and the incident did not cause any environmental harm or injury to personnel.
20/03/08	20/03/08	70 m^3	Approximately 70 m^3 of tailings escaped into the tailings pipeline corridor from a pipe failure. The process was shutdown and repairs carried out. No material escaped beyond the bunded area and there is no impact on the general environment or any personnel.	All the material is being recovered and will be disposed of in the tailings retention system. No personnel had direct contact with the tailings and the incident did not cause any environmental harm or injury to personnel.
25/8/08	25/8/08	<1 m^3	Ammonium diuranate (ADU) was detected in sub-potable water when ADU was noticed as a yellow coating on the dried surfaces of washed shipping containers. The ADU entered the sub-potable system following the connection of a hose to a pump within the precipitation area. .	The discharge was fully within the plant area and the operation's tertiary containment system. The incident did not cause any environmental harm or injury to personnel. As the sub-potable water system is isolated from the potable water system, there was no radiological dose to any worker, member of the public or the environment.

8/10/08	8/10/08	1-2 m^3	Liquor containing ammonium diuranate (ADU) escaped from a pressurised precipitation tank. The released ADU was contained within the bunded area except for approximately 20 litres of liquor containing ADU which went outside the bund onto a compacted gravel area. All material was contained within the immediate area.	The spilt material was cleaned up and either returned to the process or disposed of within the tailing storage facility. The incident did not cause any environmental harm or injury to personnel.