

**CHURCH OF ENGLAND PENSION BOARD**

Disclosure requirements of Tailings Storage Facilities

		Brakpan	Rooikraal	GMTS	Diepkloof/Homestead	Mooifontein	Daggafontein	Dam 4
1	Name of tailings storage facility							
2	Location co-ordinates (Longitude/Latitude)	Latitude: 26°20'46.04"S Longitude: 28°19'1.79"E	Latitude: 26°21'43.95"S Longitude: 28°17'41.60"E	Latitude: 26°14'28.68"S Longitude: 27°58'5.47"E	Latitude: 26°13'39.37"S Longitude: 27°57'10.23"E	Latitude: 26°13'39.70"S Longitude: 27°58'15.63"E	Latitude: 26°17'54.36"S Longitude: 28°32'7.37"E	Latitude: 26°20'48.25"S Longitude: 27°27'14.36"E
3	Ownership	Ergo Mining (Pty) Ltd	Ergo Mining (Pty) Ltd	Crown Gold Recoveries (Pty) Ltd	Crown Gold Recoveries (Pty) Ltd	Crown Gold Recoveries (Pty) Ltd	Crown Gold Recoveries (Pty) Ltd	FWGR (Pty) Ltd
4	Operational status	Operational	Dormant	Dormant	Dormant	Dormant	Care & maintenance	Operational
5	Year of first construction	1978	1994	1935	1955	1935	1989	1980
6	Is the dam currently operated or closed as per currently approved design.	Yes	Dormant - rehabilitation in progress	Dormant - rehabilitation in progress	Dormant - rehabilitation in progress	Dormant - rehabilitation in progress	Dormant - maintained as strategic back-up dam	Yes
7	Construction method/raised method used	On-wall cyclone upstream	Dormant. Was upstream daywall	Dormant. Was upstream daywall	Dormant. Was upstream daywall	Dormant. Was upstream daywall	Dormant. Was upstream daywall	Was upstream day wall; converted to upstream on-wall cyclones
8	Current wall height	118m	42m	Upper North – 97.62m Upper East – 78.05m Lower – 90.10m	Diepkloof – 91.92 m Homestead – 80.80 m	Upper – 90.27m Lower – 92.82m	65m	Upper – 49.5m Lower – 42.5m
9	Total tonnage deposited to date	700 million tonnes	56 million tonnes	114 million tonnes	107 million tonnes	71 million tonnes	250 million tonnes	80 million tonnes
10	Expected tonnage to be deposited to end of life of the facility	1.1 billion tonnes	The same as above	The same as above	The same as above	The same as above	The same as above	110 million tonnes
11	Most recent Independent Expert Review	January 2018 John Wates. April 2019 Independent Tailings Review Board.						2018
12	Do you have full and complete relevant engineering records including design, construction, operation, maintenance and/or closure	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	What is your hazard categorisation of facility, based on consequential on failure	High	High hazard - Low risk (decommissioned)	High hazard - Low risk (decommissioned)	High hazard - Low risk (decommissioned)	High hazard - Low risk (decommissioned)	Medium	High
14	What guideline do you follow for the classification system	SANS 10286	SANS 10286	SANS 10286	SANS 10286	SANS 10286	SANS 10286	SANS 10286
15	Has this facility, at any point in history, failed to be confirmed or certified as stable, or experienced notably concerns, as identified by an independent engineer (even if later certified as stable by the same or different firm)	Yes - notable concern at Brakpan/Withok in 2018/2019. Lower side wall seepage witnessed, causing localised shallow slip as a result of suspected surface drain malfunction, requiring buttressing and upgrading of drainage to restore factor of safety.	Yes - low factor of safety at time of acquisition (1998). Factor of safety was improved to a satisfactory state when it was decommissioned in 2010.	Yes - low factor of safety at time of acquisition (1998). Factor of safety was improved to a satisfactory state when it was decommissioned in 2010.	Yes - low factor of safety at time of acquisition (1998). Factor of safety was improved to a satisfactory state when it was decommissioned in 2010.	Yes - low factor of safety at time of acquisition (1998). Factor of safety was improved to a satisfactory state when it was decommissioned in 2010.	No	No
16	Do you have internal/in house engineering specialist oversight of facility? Or do you have external engineering support for this purpose?	External. Beric Robinson PrEng	External. Beric Robinson PrEng	External. Beric Robinson PrEng	External. Beric Robinson PrEng	External. Beric Robinson PrEng	External. Beric Robinson PrEng	External. Beric Robinson PrEng
17	Has a formal analysis of downstream impact on communities, ecosystems and critical infrastructure in the event of catastrophic failure been undertaken and to reflect final conditions? If so, when did the assessment take place?	Zone of influence defined by engineer - 2018	Zone of Influence defined by engineer prior to closure in 2010	Zone of Influence defined by engineer prior to closure in 2010	Zone of Influence defined by engineer prior to closure in 2010	Zone of Influence defined by engineer prior to closure in 2010	Zone of influence defined by engineer	Zone of influence defined by engineer - 2018/2019
18	Is there a) a closure plan in place for this dam, and b) does it include long term monitoring?	Facility is still operational	Yes and yes	Yes and yes	Yes and yes	Yes and yes	Yes and yes	Facility is still operational
19	Have you, or do you plan to assess your tailings facilities against impact of more regular extreme change, e.g. over next two years.	Yes, imbedded in operational processes	Dormant with continuous monitoring	Dormant with continuous monitoring	Dormant with continuous monitoring	Dormant with continuous monitoring	Care and maintenance with continuous monitoring	Yes, imbedded in operational processes
20	Any other relevant information and supporting documentation. Please note if you have omitted any other exposure to tailings facilities through any joint venture you may have.	Not applicable						

Density (t/m <sup>3</sup> )	1.45	
	<b>Vol (m<sup>3</sup>)</b>	<b>Tons</b>
West Driefontein	55,733,764	80,813,958
Diepkloof and Homestead	73,750,730	106 938 559
GMTS	78,654,726	114 049 353
Mooifontein	49,259,236	71 425 892