

46	Anglo American	Anglo American	Waste	Anglo American	Brazil	Barragem	Barragem	Barragem Slag Pile No. 1	Latitude: 15°05'22" S Longitude: 48°20'17" W	Devised and Operated	Active	2009	Yes	Dry Stack	80	7.6M	1.26M	2018, See Q20 for more information	Yes	High	Anglo American Technical Standard (IA TS 020 001)	No	Yes, Internal geotechnical report. External support from a geotechnical consultant when necessary.	No, See Q20 for additional information	Yes (conceptual level), Yes	Yes, See Q20 for additional information	Q1: This is a slag pile, with no engineering design, only a defined layout and maximum height. Q2: External engineering firm 2018. Q3: There is no community downstream of the facility and the hazard category is low. Q4: Not performed as yet, but Anglo American long term Sustainability Plan requires this to be done for all managed sites within the next 7 years.
47	Anglo American	Kimberly One	Bulk Commodities	1) Anglo American Plc. 2) Industrial Development Corp. of South Africa Ltd 3) Public Investment Corporation (PIC) Ltd 4) Blackrock Investment Management 5) BMR Morgan Stanley * as at 15 March 2019	South Africa	Johnan	Johnan Mine (DMS) Dams 1 to 4 and DG (subt legs 1 to 4)	27°41'43.1" S 27°52'21.6" E	Devised and operated	Active	2019	Yes, See Q20 for more information	Spinram	8m	88m ²	46.54m ³	Yes, See Q20 for more information	Yes	Major	Anglo American Technical Standard (IA TS 001 001)	No	Both	Yes, See Q20 for additional information	Yes, No, See Q20 for additional information	Yes, See Q20 for additional information	Q1: Is this a dam? Q2: Is this dam currently operational as per the current Short Term Plan Design, but not in line with the 2015 Continuation report in some material properties, such as slurry densities and water loss distribution (P2), etc. Q3: Done by corporate specialist in Sept 2016. A Technical Review Committee (TRC) to be appointed to act as an independent Expert Reviewer. Q4: A Zone of Influence was modelled in 2017 and updated in 2018, as an input to Emergency Response and Preparedness Plans which were compiled in 2018. Environmental impact will be conducted. Q5: Will include/consider long term monitoring requirements. Q6: 10: Plan in place in line with Anglo American's Long term Sustainability Strategy.	
48	Anglo American	Kimberly One	Bulk Commodities	1) Anglo American Plc. 2) Industrial Development Corp. of South Africa Ltd 3) Public Investment Corporation (PIC) Ltd 4) Blackrock Investment Management 5) BMR Morgan Stanley * as at 15 March 2019	South Africa	Johnan	Johnan Mine Dammed Tailings Storage Facility 1 (Hemip)	27°51'42.0" S 27°58'45.7" E	Devised and operated	Inactive	Unknown, See Q20 for more information	Yes, See Q20 for more information	Spinram	0.5m	Not available	m ²	Yes, See Q20 for more information	Yes, See Q20 for more information	Moderate	Anglo American Technical Standard (IA TS 020 001)	No	Both	Yes, See Q20 for additional information	Yes, No, See Q20 for additional information	Yes, See Q20 for additional information	Q1: Included in the rehabilitation planning for 2020 to 2022. Q2: Inactive site. Q3: Dam is not operational. Q4: Annual Dam Safety Inspection (DSI) on 20 November 2018. A Technical Review Committee (TRC) to be appointed to act as an independent Expert Reviewer. Q5: No analysis was done for this dam, since this is an inactive dam with a moderate rating and are in the planning for rehabilitation. Environmental impact will be conducted. Q6: Will include/consider long term monitoring requirements. Q7: 10: Plan in place in line with Anglo American's Long term Sustainability Strategy.	
49	Anglo American	Kimberly One	Bulk Commodities	1) Anglo American Plc. 2) Industrial Development Corp. of South Africa Ltd 3) Public Investment Corporation (PIC) Ltd 4) Blackrock Investment Management 5) BMR Morgan Stanley * as at 15 March 2019	South Africa	Johnan	Johnan Mine Dammed Tailings Storage Facility 2	27°46'29.3" S 27°58'02.3" E	Devised and operated	Inactive	Unknown, See Q20 for more information	Yes, See Q20 for more information	Spinram	6m	Not available	m ²	Yes, See Q20 for more information	Yes, See Q20 for more information	Minor	Anglo American Technical Standard (IA TS 001 001)	No	Both	Yes, See Q20 for additional information	Yes, No, See Q20 for additional information	Yes, See Q20 for additional information	Q1: Included in the rehabilitation planning for 2020 to 2022. Q2: Inactive site. Q3: Dam is not operational. Q4: Annual Dam Safety Inspection (DSI) on 20 November 2018. A Technical Review Committee (TRC) to be appointed to act as an independent Expert Reviewer. Q5: No analysis was done for this dam, since this is an inactive dam with a moderate rating and are in the planning for rehabilitation. Environmental impact will be conducted. Q6: Will include/consider long term monitoring requirements. Q7: 10: Plan in place in line with Anglo American's Long term Sustainability Strategy.	
50	Anglo American	Kimberly One	Bulk Commodities	1) Anglo American Plc. 2) Industrial Development Corp. of South Africa Ltd 3) Public Investment Corporation (PIC) Ltd 4) Blackrock Investment Management 5) BMR Morgan Stanley * as at 15 March 2019	South Africa	Johnan	Johnan Mine Tailings Facility	27°27'30.0" S 27°56'40.0" E	Devised and operated	Active	2011	Yes	Water Retaining, See Q20 for more information	9.8m	3,063m ²	0.13Mm ³	Yes, See Q20 for more information	Yes	Moderate	Anglo American Technical Standard (IA TS 001 001)	No	Both	Yes, See Q20 for additional information	Yes, No, See Q20 for additional information	Yes, See Q20 for additional information	Q1: Engineered and constructed walls which will fully support the tailings for the life of mine. Q2: Done by corporate specialist in Sept 2016. A Technical Review Committee (TRC) to be appointed to act as an independent Expert Reviewer. Q3: Yes (pre-act) & No (Environmental). Q4: Done by influence and downstream impact done based on SANES 10286 preliminary determination. Dates - 2010 (Design of Tailings Storage Facility) & Reviewed 2016 (Code of Practice Revision). Q5: Impact on critical infrastructure: Analysis (DOME Environmental Impact Communication & Ecosystems). Environmental impact will be conducted. Q6: Will include/consider long term monitoring requirements. Q7: 10: Plan in place in line with Anglo American's Long term Sustainability Strategy.	
51	Anglo American	Anglo Operations (Pty) Ltd	Coal SA	Anglo American	South Africa	Soudhrop	Bank 2 Co-disposal	25.57.55.1 - 29.27.29.6	Devised and Operated	Active	2002	Yes	Other, See Q20 for more information	53.5	724.3 M coarse, 7.01 M fines.	0.27 M coarse, 9.08 M fines.	2011	Yes	Major	Anglo American Technical Standard (IA TS 020 001)	No	Both	Yes, Q4 2018	Yes and yes	Plan in place in line with Anglo American's Long term Sustainability Mining Plan.		
52	Anglo American	Anglo Operations (Pty) Ltd	Coal SA	Anglo American	South Africa	Soudhrop	Bank 3 Co-disposal	16.00.27.1 - 29.27.30.6	Devised and Operated	Closed	2008	Yes	Other, See Q20 for more information	36	RM	RM	2012	Partial (first years of operation and closure)	High	Anglo American Technical Standard (IA TS 020 001)	No	Internal with external as required.	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainability Mining Plan.		
53	Anglo American	Anglo Operations (Pty) Ltd	Coal SA	Anglo American	South Africa	Soudhrop	Soudhrop Dump	25.59.07.1 - 29.26.39.6	Devised and Operated	Closed	2013	Yes	Dry Stack	51	0.7M	0.7M	2012	Yes	Highly Significant	Anglo American Technical Standard (IA TS 001 001)	No	Internal with external as required.	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainability Mining Plan.		
54	Anglo American	Anglo Operations (Pty) Ltd	Coal SA	Anglo American	South Africa	Soudhrop	Soudhrop Co-disposal	16.05.41.1 - 29.26.43.6	Devised and Operated	Active	2002	Yes	Downstream, See Q20 for more information	64	718.2M coarse, 9.8M fines	21.84M coarse, 10.55M fines	2011	Yes	Major	Anglo American Technical Standard (IA TS 020 001)	No	Both	Yes, Q4 2018	Yes and yes	Plan in place in line with Anglo American's Long term Sustainability Mining Plan.		

Row	Company	Asset Name	Country	Region	Asset Type	Status	Operational	Design	Year	Capacity	Volume	Height	Design	Standard	Compliance	Notes	Design	Standard	Compliance	Notes	Design	Standard	Compliance	Notes
15	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Spillheap	Operational	Active	Closed	2012	Yes	250	2.5M	2.5M	2012	Yes	Moderate	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
16	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Spillheap	Operational	Active	Closed	2012	Yes	150	2.5M	2.5M	2012	Yes	Moderate	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
17	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Spillheap	Operational	Active	Closed	2012	Yes	150	2.5M	2.5M	2012	Yes	Significant	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
18	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Spillheap	Operational	Active	Active	1995	No	200	0.13M	0.13M	2012	No	Minor	Anglo American Technical Standard (AA TS 402 001)	No	Both	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Closure plans are at concept level and will be developed in more detail closer to the closure date in accordance with the Anglo American process, inclusive of relevant long term monitoring.	
19	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Spillheap	Operational	Active	Closed	2012	Yes	100	0.8M	0.8M	2012	Yes	Moderate	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
20	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Active	Active	2012	Yes	37.1	72.82M coarse; 14.39M fines	11.1M coarse; 15.74M fines	2013	Yes	Major	Anglo American Technical Standard (AA TS 402 001)	Both	Yes, Q4 2018	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Closure plans are at concept level and will be developed in more detail closer to the closure date in accordance with the Anglo American process, inclusive of relevant long term monitoring.		
21	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Inactive	Inactive	2011	Yes	2	0.2M	0.2M	2011	No	Minor	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Small capacity legacy facility which has been re-profiled and covered with soil cladding.		
22	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Inactive	Inactive	2011	No	24	3M	3M	2011	No	Minor	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Legacy facility scheduled to be either removed or rehabilitated for closure.		
23	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Active	Active	2011	Partial	45	50	50	2011	Partial	Moderate	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Historical design records archived. A design is in place for the current re-mining exercise in which 80% of the facility will be removed together with a conceptual design for closure of the remaining 20%.		
24	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Closed	Closed	2012	Yes	5	0.2M	0.2M	2012	No	Minor	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.		
25	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Closed	Closed	2012	Yes	1	0.1M	0.1M	2012	No	Minor	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.		
26	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Active	Active	2012	Yes	46	13.1	13.1	2012	Yes	Moderate	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Facility being re-mined for re-processing.	C21: This facility consists of two low grade stockpiles which are being re-mined for treatment and will be completely removed as part of the extended Botswana LHM.		
27	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Inactive	Inactive	2011	No	36	5.7	5.7	2011	No	Minor	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Legacy facility, formal design for closure to be developed. Recent inspection identifies significant safety issues, CCS rating to be reviewed.		
28	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Inactive	Inactive	2011	No	22	0.18M	0.18M	2011	No	Minor	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Closure plans are at concept level and will be developed in more detail closer to the closure date in accordance with the Anglo American process, inclusive of relevant long term monitoring.		
29	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Active	Active	2012	Yes	50	72.82M coarse; 14.39M fines	12.04M coarse; 15.74M fines	2013	Yes	Major	Anglo American Technical Standard (AA TS 402 001)	Both	Yes, Q4 2018	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Two oblong sections, the old section was not developed to full design height/capacity due to concerns on the stability of underground mining activities and workings and has been decommissioned. The North section will operate for the remaining life with no capacity constraints.		
30	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Active	Active	2011	Yes	64.4	700.2M coarse; 7.1M fines	16.1M coarse; 1.1M fines	2011	Yes	Major	Anglo American Technical Standard (AA TS 402 001)	Both	Yes, Q4 2018	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Co-disposal facility where coarse discards are used to form an impoundment for the fines, this is a single facility with two fine/intermediate components in full LHM. Since July 2014 fines have been developed and are mixed with coarse for disposal. Currently the remaining capacity is less than LHM requirements however re-mining of coarse discards for disposal is under review.		
31	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Inactive	Inactive	2008	No	10	0.1M	0.1M	2008	No	Minor	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Small capacity legacy facility inherited in purchase of Botswana, formal design for closure to be developed.		
32	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Active	Active	2008	Yes	25.7	1.88M coarse	0.15M coarse	2008	Yes	Moderate	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Closure plans are at concept level and will be developed in more detail closer to the closure date in accordance with the Anglo American process, inclusive of relevant long term monitoring.		
33	Anglo American	Anglo Operations (P) Ltd	South Africa	Botswana	Wastewater	Operational	Active	Active	2008	No	15	4.5M	4.5M	2008	No	High	Anglo American Technical Standard (AA TS 402 001)	Both	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Decision pending on whether fines will be fully reclaimed or incorporated into the adjacent discard facility.		
34	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Hydrometallurgical	Operational	Active	Closed	2012	Yes	100	1.25	1.25	2012	Yes	Minor	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
35	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Hydrometallurgical	Operational	Active	Closed	2012	Yes	40	1.25	1.25	2012	Yes	Minor	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
36	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Hydrometallurgical	Operational	Active	Closed	2012	Yes	36	0.7	0.7	2012	Yes	Minor	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
37	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Hydrometallurgical	Operational	Active	Closed	2012	Yes	100	1.75	1.75	2012	Yes	Minor	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Fines compartment incorporated into the facility which has been closed by re-shaping and cladding/capping with a soil layer.	
38	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Hydrometallurgical	Operational	Active	Closed	2012	Yes	42	0.7	0.7	2012	Yes	Minor	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
39	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Hydrometallurgical	Operational	Active	Closed	2012	Yes	18	0.11	0.11	2012	Yes	Minor	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
40	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Hydrometallurgical	Operational	Active	Closed	2012	Yes	8	0.1	0.1	2012	Yes	Minor	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Facility has been rehabilitated for closure, long term monitoring required.	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Facility has been fully closed by re-shaping and cladding/capping with a soil layer.	
41	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Hydrometallurgical	Operational	Active	Inactive	2011	Yes	10	0.2	0.2	2011	Yes	Significant	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Legacy facilities inherited as part of Greenside purchase. These facilities are part of a defunct mine - the whole area requires rehabilitation for closure. In discussion with Dept Mineral Resources as to way forward.	
42	Anglo American	Anglo Operations (P) Ltd	South Africa	South Africa	Hydrometallurgical	Operational	Active	Inactive	2011	No	100	0.4	0.4	2011	No	Significant	Anglo American Technical Standard (AA TS 402 001)	No	Internal with external as required	No	Yes and yes	Plan in place in line with Anglo American's Long term Sustainable Mining Plan	C21: Closure plans are at concept level and will be developed in more detail closer to the closure date in accordance with the Anglo American process, inclusive of relevant long term monitoring.	
43	Anglo American Platinum	Platinum	South Africa	South Africa	Amundobuit	Operational	Active	Active	2018	Yes	69	150	158	2018	No	Major (High)	Anglo American Technical Standard (AA TS 402 001) (and SANS 10238)	Yes, see Q20 for more information	Both	No	Yes, Yes	Yes	C21: Substantial information is available for the tailings storage facilities. In summary, TSF No. 1A and 1B have full and complete engineering records including design reports, construction reports, operational and maintenance manuals and geotechnical reports of the underlying geotechnical characteristics. TSF No. 1 and 2 have operational and maintenance manuals and geotechnical records of the underlying geotechnical characteristics. TSF No. 1 and 2 however have limited design and construction records (primarily due to their age and prevailing industry standards at the time) but a "Construction Report" was done in 2004 for these TSFs to show the geos in these records (as much as possible) and provide a code of practice.	
44	Anglo American Platinum	Platinum	South Africa	South Africa	Mogalakwena	Operational	Active	Active	2011	Yes	56.8	87,563,450	87,563,450	2011	Yes	Major (High)	Anglo American Technical Standard (AA TS 402 001) (and SANS 10238)	No	Both	No	Yes, Yes	Yes	C21: A buttress was constructed to restore stability in 1997. Since 2017, Anglo Platinum has evaluated slope stability assuming unfavourable conditions according to AAS2002. In August 2017 the northern wall of the tailings dam was observed by mine personnel to be seeping at the toe due to excessive seepage water being pumped onto the dam. This caused some heaving of the wall, which was remedied by installing a rock buttress along the toe. Additional measures were also recommended to prevent further deterioration of the wall. A waste rock buttress was installed to restore stability, and this is currently being extended. Since 2017, Anglo Platinum has evaluated slope stability also assuming unfavourable conditions according to AAS2002. Both internal and external.	
45	Anglo American Platinum	Platinum	South Africa	South Africa	Mogalakwena	Operational	Active	Active	2016	Yes	27.9	900,500	900,500	2016	Yes	Major (High)	Anglo American Technical Standard (AA TS 402 001) (and SANS 10238)	Yes, see Q20 for additional comments	Both	Yes	Yes, Yes	Yes	C21: Various studies dealing with social/geo impacts available from Mine itself including EA/EMPA and biodiversity impact reports for the whole mine. No formal dam breach analysis for TSF, but a dam of influence (DOI) assessment has been completed. No specific impact assessment done focusing specifically on TSF breach through.	
46	Anglo American Platinum	Platinum	South Africa	South Africa	Motolole	Operational	Active	Active	2008	Yes	18	14 M	15 M	2018	Yes	Major (High)	Anglo American Technical Standard (AA TS 402 001) (and SANS 10238)	Yes, see Q20 for more information	Both	Yes	Yes, Yes	Yes	C21: The Vaalburg TSF was designed to receive a cycloned aluminium buttress. When the cycloning commenced to cyclone the downstream buttress in the 2000's, the mine experienced a major drought and the downstream cyclone wall was not completed. From 2012 to 2017 and 2018, the TSF had been from 2017 and 2018 was used to analyse the TSF stability, and it was found that the downstream cyclone wall was required as originally planned. The decision made by the mine was to construct a waste rock buttress wall in place of the cyclone wall.	
47	Anglo American Platinum	Platinum	South Africa	South Africa	Motolole	Operational	Active	Active	2018	Yes	4	0.76 M	0.76 M	2018	Yes	Major (High)	Anglo American Technical Standard (AA TS 402 001) (and SANS 10238)	No	Both	Yes	Yes, Yes	Yes	C21: The CPUs test work from 2017 and 2018 was used to analyse the bench level and overall stability considering the current location of the plastic surface which showed that more buttressing was required instead of the TSF No. 2. When the height of the tailings prepared for a level of approximately 10m above the top of the concrete chimney intake structures on dam No. 2, an elevated drain was installed. The drain was installed to control the phreatic surface, thereby ensuring the stability of the slope of the tailings dam. This drain was installed in the western face of tailing dam No. 2.	

88	Anglo American Platinum	Umkhumbane (Private) Limited	Platinum	Anglo American - Public Investment Corporation, Other shareholders	Zimbabwe	Umkh
89	Anglo American Platinum	Reddenburg Platinum Mines (Pty) Ltd	Platinum	Anglo American - Public Investment Corporation, Other shareholders	South Africa	Reddenburg Smelter
90	Anglo American Platinum	Reddenburg Platinum Mines (Pty) Ltd	Platinum	Anglo American - Public Investment Corporation, Other shareholders	South Africa	Mortimer Smelter
91	Anglo American Platinum	Umkhumbane (Private) Limited	Platinum	Anglo American - Public Investment Corporation, Other shareholders	Zimbabwe	Umkh

Dam 1	39,024217 \$, 82,02222 \$	Owned and Operated	Active	2020	Yes, See Q20 for more information	Hybrid	24	7.9 M	14.7M	2017, See Q20 for more information	Yes	Major	Anglo American Technical Standard (AA TS 602 001)	Yes, see Q20m for more information	Both	Yes	Yes	Yes	<p>Q6 & Q7- Original design allowed for specific wall raises of several metres at a time to be constructed using Cyclic, at appropriate time intervals, with a downstream geometry. The first phase of the original wall raising methodology followed a centreline geometry (up to elevation 1203 mmasl). A temporary berm is being constructed upstream using deposited tailings. The design was referred to as the "Historic Wall Raise" and is limited to a 3m height increment only, to allow time for the next wall raises to be designed. The basis of design and construction will be followed until the implementation of the Future Wall Raise that is currently at design stage.</p> <p>Q11 Independent Technical Review Panel (ITRP)</p> <p>Q12: Substantial of initial and wall raises 1 and 2, but incomplete construction records for wall raise 3.</p> <p>Q13: Formal ICS review report is completed and pending release by an external consultant, and then approved by the Board of M&P.</p> <p>Q15: External slope of the outer surface of the TSP walls, caused as a consequence of heave and continuous rainfall, has been repaired and the construction activities have been completed. The non-sloped portions of the slopes, which were not in danger of being unstable, were incorporated into the remedial measures. The geometry of the entire outer slopes of both walls has been modified, and as a consequence thereof, the stability of the outer wall slopes has been improved. Risk of future damage of a similar nature has been significantly reduced.</p> <p>Q17: A dam breach and inundation study was completed in 2018. It modelled failures at an interim elevation of 1204 mmasl which is current (year 2019 elevation). Final design height is above this elevation.</p> <p>Q18: There is a closure plan currently at conceptual level of details at the life of mine as still very long.</p> <p>Q19: Extreme events due to climate change will be assessed company wide for managed ops within the next 2 years.</p> <p>Q21: Remedial ICS report is completed and pending release by an external consultant, and then approved by the Board of M&P.</p> <p>Q22: Annual Stability Evaluation done by independent Engineer</p> <p>Q27: As part of EA, RMP studies for dam extension in 2025.</p> <p>Q28: A closure plan that includes the slag dump is in place. Ground water monitoring is done on quarterly basis and will continue post closure as will be specified in detailed closure plan.</p> <p>Q29: Extreme events due to climate change will be assessed company wide for managed ops within the next 2 years.</p>
Reddenburg Slag Stockpile	16,031608 \$, 26,4039 \$	Owned and Operated	Active	2020	Yes	Spy stack	28	3.2M (granulated)	1M (granulated)	2018	Yes	Low/Moderate	Local regulations (SANS 10286:1998) and Anglo American Technical Standard (AA TS 602 001)	No	Both	Yes	Yes	Yes	<p>Q21: Remedial ICS report is completed and pending release by an external consultant, and then approved by the Board of M&P.</p> <p>Q22: Annual Stability Evaluation done by independent Engineer</p> <p>Q27: As part of EA, RMP studies for dam extension in 2025.</p> <p>Q28: A closure plan that includes the slag dump is in place. Ground water monitoring is done on quarterly basis and will continue post closure as will be specified in detailed closure plan.</p> <p>Q29: Extreme events due to climate change will be assessed company wide for managed ops within the next 2 years.</p> <p>Q31: Dumping slag using the natural angle of repose of the slag using dump-trucks and Front End Loader following a dumping procedure.</p> <p>Q32: The initial design, operation and maintenance records are incorporated within the Mandatory Code of practice.</p> <p>Q33: Annual Stability Evaluation done by independent Engineer</p> <p>Q37: Assessment was initially undertaken in 2006 and was again conducted in August 2016.</p> <p>Q38: A closure plan that includes the slag dump is in place. Ground water monitoring is done on quarterly basis and will continue post closure as will be specified in detailed closure plan. (near to end of life of the smelter).</p> <p>Q39: Extreme events due to climate change will be assessed company wide for managed ops within the next 2 years.</p>
Mortimer Slag Stockpile	16,062323 \$, 27,144167 \$	Owned and Operated	Active	2019	Yes	Spy stack	28	1.6M (granulated)	0.8M (granulated)	Aug 2016	Yes	Low/Moderate	Local regulations (SANS 10286:1998) and Anglo American Technical Standard (AA TS 602 001)	No	Both	Yes	Yes	Yes	<p>Q21: Remedial ICS report is completed and pending release by an external consultant, and then approved by the Board of M&P.</p> <p>Q22: Annual Stability Evaluation done by independent Engineer</p> <p>Q27: As part of EA, RMP studies for dam extension in 2025.</p> <p>Q28: A closure plan that includes the slag dump is in place. Ground water monitoring is done on quarterly basis and will continue post closure as will be specified in detailed closure plan.</p> <p>Q29: Extreme events due to climate change will be assessed company wide for managed ops within the next 2 years.</p> <p>Q31: Dumping slag using the natural angle of repose of the slag using dump-trucks and Front End Loader following a dumping procedure.</p> <p>Q32: The initial design, operation and maintenance records are incorporated within the Mandatory Code of practice.</p> <p>Q33: Annual Stability Evaluation done by independent Engineer</p> <p>Q37: Assessment was initially undertaken in 2006 and was again conducted in August 2016.</p> <p>Q38: A closure plan that includes the slag dump is in place. Ground water monitoring is done on quarterly basis and will continue post closure as will be specified in detailed closure plan. (near to end of life of the smelter).</p> <p>Q39: Extreme events due to climate change will be assessed company wide for managed ops within the next 2 years.</p>
Umkh Slag Stockpile	18,613084 \$, 30,097567 \$	Owned and Operated	Active	2018	Yes	Spy stack	Stockpile commissioned October 2018	0.25M (granulated)	1.1M (granulated)	Design 2018	Yes - project documentation	Insignificant	Anglo American Technical Standard (AA TS 602 001)	No	Both	Yes	No	Yes	<p>Q21: Remedial ICS report is completed and pending release by an external consultant, and then approved by the Board of M&P.</p> <p>Q22: Annual Stability Evaluation done by independent Engineer</p> <p>Q27: As part of EA, RMP studies for dam extension in 2025.</p> <p>Q28: A closure plan that includes the slag dump is in place. Ground water monitoring is done on quarterly basis and will continue post closure as will be specified in detailed closure plan.</p> <p>Q29: Extreme events due to climate change will be assessed company wide for managed ops within the next 2 years.</p> <p>Q31: Dumping slag using the natural angle of repose of the slag using dump-trucks and Front End Loader following a dumping procedure.</p> <p>Q32: Original Design documentation for the project exists.</p> <p>Q33: Annual Stability Evaluation will be done by independent Engineer</p> <p>Q37: As part of EA, RMP studies for the Smelter Project.</p> <p>Q38: The Smelter closure plan will be incorporated into the Umkh Mine site closure plan.</p> <p>Q39: Extreme events due to climate change will be assessed company wide for managed ops within the next 2 years.</p>