

**IMBEWU'S ENVIRONMENTAL LEGAL
COMPLIANCE AUDIT (ELCA) OF
ASSMANG PROPRIETARY LIMITED'S BLACK
ROCK MINE OPERATIONS (BRMO), NORTHERN
CAPE PROVINCE, SOUTH AFRICA**

ELCA REPORT

**SITE VISIT: 31 JULY TO 2 AUGUST 2019
(2 ½ DAYS)**

TABLE OF CONTENTS

1	ACRONYMS AND DEFINITIONS	10
2	INTRODUCTION	14
3	LOCATION	15
4	AUDIT SCOPE	16
5	AUDIT PROCESS FOLLOWED	16
	KEY PERSONNEL:	16
	TASK 1: AUDIT PLANNING.....	16
	TASK 2: INTERVIEWS AND SITE ASSESSMENT	18
	TASK 3: DESKTOP REVIEW	20
	TASK 4: REPORTING	20
6	STRUCTURE OF BODY OF REPORT	20
7	THE DUTY OF CARE TO PREVENT POLLUTION	22
8	ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT ACTION	22
	STATUTORY ADMINISTRATIVE MEASURES	23
	STATUTORY CRIMINAL MEASURES AND COMPANY AND DIRECTOR LIABILITY	26
9	EXECUTIVE SUMMARY OF RED FLAG ISSUES	28
	GENERAL IMPACTS AND COMPLIANCE	28
	NEMA LISTED ACTIVITIES.....	29
	MINING AUTHORISATIONS & EMPR AMENDMENTS	29
	FINANCIAL PROVISION	30
	AIR POLLUTION	30
	NEMAQA LISTED ACTIVITIES & EMISSION STANDARDS	30
	WATER POLLUTION	31
	WATER USE LICENSING: GENERAL COMMENTS.....	31
	WATER USE LICENSING – SECTION 21(B) OF THE NWA.....	31
	DAMS WITH A SAFETY RISK:	32
	WATER USE LICENSING – SECTION 21(C) AND (I) OF THE NWA	32
	WATER USE LICENSING – SECTION 21(F) OF THE NWA	33
	WATER IMPACTS SPECIFIC TO MINING (GN 704):	33
	LAND / SOIL CONTAMINATION	33
	EMERGENCY PREPAREDNESS AND RESPONSE	33
	WASTE POLLUTION.....	34
	NEMWA LISTED ACTIVITIES	34
	WASTE SORTING NORMS	35
	SEWAGE TREATMENT & DISPOSAL	35
	WASTE TYRES	36

	ASBESTOS.....	36
	PCBS	36
	STORAGE OF WASTE – GENERAL COMMENTS.....	36
	WASTE STORAGE NORMS	36
	EXTERNAL WASTE SERVICE PROVIDERS	37
	TRANSPORTATION OF WASTE	37
	DISPOSAL OF WASTE	38
	RESIDUE STOCKPILES AND/OR DEPOSITS.....	38
	RESIDUE STOCKPILES AND/OR DEPOSITS BEFORE 24 JULY 2015.....	38
	RESIDUE STOCKPILES AND/OR DEPOSITS AFTER 24 JULY 2015.....	39
10	SELECT AREAS OF THE BRMO WHICH WERE INSPECTED – SPECIFIC OBSERVATIONS	40
	GLORIA MINE: THE “ACTIVE” SLIMES DAM.....	40
	GLORIA MINE: THE SEWAGE TREATMENT PLANT.....	42
	GLORIA MINE: THE AREA AT THE DECLINE.....	44
	GLORIA MINE: THE AREA BEHIND THE CHANGE HOUSES	46
	GLORIA MINE: THE SURFACE PLANT WORKSHOP.....	47
	NCHWANING II AND III MINES: THE “OLD” “ACTIVE” SLIMES DAM.....	49
	NCHWANING II AND III MINES: THE WASTE ROCK DUMP AREA	52
	NCHWANING II AND III MINES: THE SEWAGE TREATMENT PLANT.....	53
	NCHWANING II AND III MINES: THE ENGINEERING WORKSHOP.....	55
	NCHWANING II AND III MINES: THE AREA BEHIND THE DECLINE	57
	NCHWANING II AND III MINES: THE MAIN ROAD LEAVING NCHWANING II	57
	BLACK ROCK AREA: KOPPIE AREA	58
	BLACK ROCK AREA: THE SALVAGE YARD.....	60
	BLACK ROCK AREA: THE SEWAGE TREATMENT PLANT.....	64
	BLACK ROCK AREA: HAZARDOUS WASTE STORAGE AREA.....	65
	BLACK ROCK AREA: GENERAL WASTE DISPOSAL SITE	69
	BLACK ROCK AREA: WASTE TYRE STOCKPILE	71
	BLACK ROCK AREA: MECHANICAL WORKSHOP AND SURROUNDS.....	72
11	GENERAL IMPACTS AND COMPLIANCE.....	75
	GENERAL IMPACTS AND COMPLIANCE: APPLICABLE LEGISLATION & KEY DEFINITIONS	75
	GENERAL IMPACTS AND COMPLIANCE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	75
	GENERAL IMPACTS AND COMPLIANCE: COMMENTS.....	77
12	NEMA LISTED ACTIVITIES.....	80
	NEMA LISTED ACTIVITIES: APPLICABLE LEGISLATION & KEY DEFINITIONS	80
	NEMA LISTED ACTIVITIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	81

	NEMA LISTED ACTIVITIES: COMMENTS.....	82
13	MINING AUTHORISATIONS, EMPR AMENDMENTS, FINANCIAL PROVISION AND MINE CLOSURE.....	84
	MINING AUTHORISATIONS, EMPR AMENDMENTS, FINANCIAL PROVISION AND MINE CLOSURE: APPLICABLE LEGISLATION & KEY DEFINITIONS.....	84
	MINING AUTHORISATIONS & EMPR AMENDMENTS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	85
	MINING AUTHORISATIONS& EMPR AMENDMENTS: COMMENTS	87
	FINANCIAL PROVISION FOR REMEDIATION OF ENVIRONMENTAL DAMAGE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	89
	FINANCIAL PROVISION PRIOR TO 20 NOVEMBER 2015: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	89
	FINANCIAL PROVISION GOING FORWARD (19 FEBRUARY 2020): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	90
	FINANCIAL PROVISION: COMMENTS.....	95
	CARE AND MAINTENANCE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	97
	CARE AND MAINTENANCE: COMMENTS.....	97
	MINE CLOSURE AND DECOMMISSIONING: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	98
	MINE CLOSURE AND DECOMMISSIONING: COMMENTS.....	98
14	AIR IMPACTS AND LICENSING	99
	AIR IMPACTS AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS	99
	AIR POLLUTION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	100
	AIR POLLUTION: COMMENTS.....	100
	NEMAQA LISTED ACTIVITIES & EMISSION STANDARDS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	101
	NEMAQA LISTED ACTIVITIES & EMISSION STANDARDS: COMMENTS	102
	REGISTRATION ON THE NAEIS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS ..	102
	REGISTRATION ON THE NAEIS: COMMENTS	103
	SMALL BOILERS AND EMISSION STANDARDS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	103
	SMALL BOILERS AND EMISSION STANDARDS: COMMENTS.....	103
	GHG EMISSIONS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	104
	GHG EMISSIONS: COMMENTS.....	105
	ODS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	106
	ODS: COMMENTS.....	106
	DUST EMISSION STANDARDS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	107

	DUST EMISSION STANDARDS: COMMENTS	107
	ODOURS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	108
	ODOURS: COMMENTS	108
	NOISE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	109
	NOISE: COMMENTS	109
15	WATER IMPACTS AND LICENSING	109
	WATER IMPACTS AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS	109
	WATER POLLUTION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	111
	WATER POLLUTION: COMMENTS.....	111
	WATER USE LICENSING – SECTION 21(A) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	113
	WATER USE LICENSING: GENERAL COMMENTS.....	113
	WATER USE LICENSING – SECTION 21(A) OF THE NWA: COMMENTS	114
	WATER SERVICE PROVIDERS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	114
	WATER SERVICE PROVIDERS: COMMENTS	115
	WATER USE LICENSING – SECTION 21(B) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	115
	WATER USE LICENSING – SECTION 21(B) OF THE NWA: COMMENTS	115
	DAMS WITH A SAFETY RISK: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	117
	DAMS WITH A SAFETY RISK: COMMENTS	118
	WATER USE LICENSING – SECTION 21(C) AND (I) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	119
	WATER USE LICENSING – SECTION 21(C) AND (I) OF THE NWA: COMMENTS.....	120
	WATER USE LICENSING – SECTION 21(D) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS:.....	121
	WATER USE LICENSING – SECTION 21(D) OF THE NWA: COMMENTS	121
	WATER USE LICENSING – SECTION 21(E) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	121
	WATER USE LICENSING – SECTION 21(E) OF THE NWA: COMMENTS	122
	WATER USE LICENSING – SECTION 21(F) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	123
	WATER USE LICENSING – SECTION 21(F) OF THE NWA: COMMENTS	124
	WATER USE LICENSING – SECTION 21(G) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	124
	WATER USE LICENSING – SECTION 21(G) OF THE NWA: COMMENTS	125
	WATER USE LICENSING – SECTION 21(H) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	126

	WATER USE LICENSING – SECTION 21(H) OF THE NWA: COMMENTS.....	126
	WATER USE LICENSING – SECTION 21(J) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	127
	WATER USE LICENSING – SECTION 21(J) OF THE NWA: COMMENTS	127
	EXISTING LAWFUL WATER USES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	128
	EXISTING LAWFUL WATER USES: COMMENTS	128
	WATER TREATMENT AND PURIFICATION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	128
	WATER TREATMENT AND PURIFICATION: COMMENTS	129
	WATER USE CHARGES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	129
	WATER USE CHARGES: COMMENTS	129
16	WATER IMPACTS SPECIFIC TO MINING	129
	WATER IMPACTS SPECIFIC TO MINING (GN 704): APPLICABLE LEGISLATION & KEY DEFINITIONS.....	129
	WATER IMPACTS SPECIFIC TO MINING (GN 704): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	131
	WATER IMPACTS SPECIFIC TO MINING (GN 704): COMMENTS.....	138
17	LAND / SOIL CONTAMINATION	140
	LAND / SOIL CONTAMINATION: APPLICABLE LEGISLATION & KEY DEFINITIONS.....	140
	LAND / SOIL CONTAMINATION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	140
	LAND / SOIL CONTAMINATION: COMMENTS	141
18	EMERGENCY PREPAREDNESS AND RESPONSE.....	143
	EMERGENCY PREPAREDNESS AND RESPONSE: APPLICABLE LEGISLATION & KEY DEFINITIONS.....	143
	EMERGENCY PREPAREDNESS AND RESPONSE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	144
	EMERGENCY PREPAREDNESS AND RESPONSE: COMMENTS	145
19	WASTE MANAGEMENT AND LICENSING	147
	WASTE MANAGEMENT AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS	147
	OPERATION'S WASTE ACTIVITIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	150
	OPERATION'S WASTE ACTIVITIES: COMMENTS	150
	WASTE POLLUTION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	151
	WASTE POLLUTION: COMMENTS	151
	GENERAL WASTE MANAGEMENT DUTIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	153

GENERAL WASTE MANAGEMENT DUTIES: COMMENTS.....	154
NEMWA LISTED ACTIVITIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	154
NEMWA LISTED ACTIVITIES: COMMENTS.....	155
REGISTRATION ON SAWIS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	157
REGISTRATION ON SAWIS: COMMENTS.....	158
CLASSIFICATION OF WASTE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	158
CLASSIFICATION OF WASTE: COMMENTS	160
WASTE SORTING NORMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	161
WASTE SORTING NORMS: COMMENTS.....	163
SEWAGE TREATMENT & DISPOSAL: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	163
SEWAGE TREATMENT & DISPOSAL: COMMENTS.....	164
WASTE TYRES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	165
WASTE TYRES: COMMENTS.....	165
ASBESTOS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	166
ASBESTOS: COMMENTS.....	167
PCBS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	167
PCBS: COMMENTS.....	169
STORAGE OF WASTE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	170
STORAGE OF WASTE: COMMENTS.....	171
WASTE STORAGE NORMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	172
WASTE STORAGE NORMS: COMMENTS.....	175
EXTERNAL WASTE SERVICE PROVIDERS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS	177
EXTERNAL WASTE SERVICE PROVIDERS: COMMENTS.....	178
RE-USE, RECYCLING OR RECOVERY OF WASTE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	179
RE-USE, RECYCLING OR RECOVERY OF WASTE: COMMENTS.....	179
TRANSPORTATION OF WASTE:	180
TRANSPORTATION OF WASTE: COMMENTS	181
DISPOSAL OF WASTE:	182
DISPOSAL OF WASTE: COMMENTS.....	182
20 MINING-RELATED WASTE IMPACTS	184
MINING-RELATED WASTE IMPACTS: APPLICABLE LEGISLATION & KEY DEFINITIONS.....	184
MINING-SPECIFIC WASTE MANAGEMENT DUTIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	185
MINING-SPECIFIC WASTE MANAGEMENT DUTIES: COMMENTS	185

	RESIDUE STOCKPILES AND/OR DEPOSITS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	186
	RESIDUE STOCKPILES AND/OR DEPOSITS: COMMENTS.....	187
	RESIDUE STOCKPILES AND/OR DEPOSITS BEFORE 24 JULY 2015: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	188
	RESIDUE STOCKPILES AND/OR DEPOSITS BEFORE 24 JULY 2015: COMMENTS.....	190
	RESIDUE STOCKPILES AND/OR DEPOSITS AFTER 24 JULY 2015: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	191
	RESIDUE STOCKPILES AND/OR DEPOSITS AFTER 24 JULY 2015: COMMENTS.....	194
	OTHER MINE WASTE IMPACTS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS..	195
	OTHER MINE WASTE IMPACTS: COMMENTS.....	196
21	BIODIVERSITY IMPACTS	198
	BIODIVERSITY IMPACTS: APPLICABLE LEGISLATION & KEY DEFINITIONS.....	198
	THREATENED OR PROTECTED ECOSYSTEMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	199
	BIODIVERSITY IMPACTS: GENERAL COMMENTS.....	200
	THREATENED OR PROTECTED ECOSYSTEMS: COMMENTS.....	200
	TOPS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	200
	TOPS: GENERAL COMMENTS.....	201
	PROTECTED TREES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	201
	PROTECTED TREES: COMMENTS.....	202
	ALIEN SPECIES AND INVASIVE SPECIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	203
	ALIEN SPECIES AND INVASIVE SPECIES: COMMENTS.....	203
22	PROTECTED AREAS AND VELD FIRES.....	204
	PROTECTED AREAS AND VELD FIRES: APPLICABLE LEGISLATION & KEY DEFINITIONS	204
	PROTECTED AREAS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	206
	PROTECTED AREAS: COMMENTS.....	206
	MINING AND/OR PROSPECTING IN PROTECTED AREAS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	206
	MINING AND/OR PROSPECTING IN PROTECTED AREAS: COMMENTS.....	207
	VELD FIRES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	207
	VELD FIRES: COMMENTS.....	207
23	HERITAGE RESOURCES.....	208
	HERITAGE RESOURCES: APPLICABLE LEGISLATION & KEY DEFINITIONS.....	208
	HERITAGE RESOURCES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS.....	209
	HERITAGE RESOURCES: COMMENTS.....	210

24	ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES	211
25	ANNEXURE 2: SCOPE OF ELCA AND EXCLUSIONS.....	232

1 ACRONYMS AND DEFINITIONS

ACRONYMS AND DEFINITIONS	
2017 ELCA	2017 ELCA by Environmental Law Group dated 6 February 2018
AEL	atmospheric emission licence
AIS	alien and invasive species
AIS List	List of Alien and Invasive Species Regulations published under NEMBA in GN 864 in GG 40166 of 29 July 2016, as amended
AIS Regulations	Alien and Invasive Species Regulations published under NEMBA in GN 598 GG 37885 of 1 August 2014, as amended
Ambient Air Standards	National Ambient Air Quality Standards published under NEMAQA in GN 1210 in GG 32816 of 24 December 2009, as amended
Ambient Standards for PM_{2.5}	National Ambient Air Quality Standards for Particulate Matter with Aerodynamic diameter less than 2.5 Micron Metres published under NEMAQA in GN 486 in GG 35463 of 29 June 2012, as amended
APPA	Atmospheric Pollution Prevention Act 45 of 1965, as amended (repealed by NEMAQA)
AQO	air quality officer
Asbestos Regulations	Regulations for the Prohibition of the Use, Manufacturing, Import and Export of Asbestos and Asbestos Containing Material published under ECA in GN 341 in GG 30904 of 28 March 2008, as amended
Asphalt Regulations	Declaration of a Temporary Asphalt Plants as a Controlled Emitter and Establishment of Emission Standards published under NEMAQA in GN 201 in GG 37461 of 28 March 2014, as amended
Assmang	Assmang Proprietary Limited
Boiler Regulations	Declaration of a Small Boiler as a Controlled Emitter and Establishment of Emission Standards published under NEMAQA in GN 831 in GG 36973 of 1 November 2013, as amended
BRMO	Black Rock Mine Operations
CA	Constitution of the Republic of South Africa, 1996, as amended
CEO	Chief Executive Officer
Charcoal Regulations	Declaration of a Small-Scale Char Plants and Small-Scale Charcoal Plants as a Controlled Emitter and Establishment of Emission Standards published under NEMAQA in GN 602 in GG 39220 of 18 September 2015, as amended
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CITES Regulations	CITES Regulations published under NEMA in GN 173 of GG 33002 of 5 March 2010, as amended
CL	common law of South Africa
Contaminated Land Norms	National Norms and Standards for the Remediation of Contaminated Land and Soil Quality published under NEMWA in GN 331 in GG 37603 of 2 May 2014, as amended
Contaminated Land Provisions	Part 8 of Chapter 4 of NEMWA, as amended

ACRONYMS AND DEFINITIONS	
Dam Regulations	Regulations Regarding the Safety of Dams published under the NWA in GN 139 in GG 35062 of 24 February 2012, as amended
DEA	Department of Environmental Affairs (previously the Department of Environmental Affairs and Tourism (DEAT)) and as of 29 May 2019, the Department of Environment, Forestry and Fisheries
DENC	Northern Cape Department of Environment and Nature Conservation
DMR	Department of Mineral Resources (previously the Department of Minerals and Energy (DME)) and as of 29 May 2019, the Department of Mineral Resources and Energy
Dust Regulations	National Dust Control Regulations published under NEMAQA in GN 827 in GG 36974 of 1 November 2013, as amended
DWS	Department of Water and Sanitation (previously the Department of Water and Forestry (DWAF)) and as of 29 May 2019, the Department of Water, Sanitation and Human Settlements
EA	environmental authorisation (previously known as a record of decision (ROD))
ECA	Environment Conservation Act 73 of 1989, as amended (repealed by NEMA)
EIA	environmental impact assessment
EIA Regulations	Environmental Impact Assessment Regulations published under NEMA in GN 982 in GG 38282 of 4 December 2014, as amended
ELCA	environment legal compliance audit
EMI	Environmental Management Inspector (person) / Environmental Management Inspectorate (institution) (also known as the "Green Scorpions")
EMPr	environmental management programme
Financial Provision Regulations	Financial Provision Regulations published under NEMA in GN 1147 in GG 39425 of 20 November 2015, as amended
GA	general authorisation
GA Regulations for Section 21(a) & (b)	General Authorisation Regulations for the Taking and Storage of Water published under the NWA in GN 538 in GG 40243 of 2 September 2016, as amended, which repealed GN 399 in GG 26187 of 26 March 2004 (sections 21(a), (b)) and GN 970 in GG 35909 of 30 November 2012
GA Regulations for Section 21(c) & (i)	General Authorisation Regulations for Section 21 (c) and (i) Water Uses published under the NWA in GN 509 in GG 40229 of 26 August 2016, as amended, which repealed GN 1199 in GG 32805 of 18 December 2009 (sections 21 (c) and i)) and GN 398 in GG 26187 of 26 March 2004 (sections 21 (c) and i))
GA Regulations for Section 21(e), (f), (g), (h) and (j)	General Authorisation Regulations for Section 21(e), (f), (h), (g) and (j) Water Uses published under the NWA in GN 665 in GG 36820 of 6 September 2013, as amended, which repealed GN 398 in GG 26187 of 26 March 2004 (section 21 (j)) and GN 399 in GG 26187 of 26 March 2004 (sections 21 (e), (f), (g) and (h))
GG	Government Gazette
GHG	greenhouse gas
GHG Declaration	Declaration of Greenhouse Gases as Priority Air Pollutants published under NEMAQA in GN 710 in GG 40996 of 21 July 2017, as amended

ACRONYMS AND DEFINITIONS	
GHG Regulations	Greenhouse Gas Reporting Regulations published under NEMAQA in General Notice 275 in GG 40762 of 3 April 2017, as amended
GHG PPP Regulations	Pollution Prevention Plan Regulations published under NEMAQA in GN 712 in GG 40996 of 21 July 2017, as amended
GN	Government Notice (in a Government Gazette)
HCFC	hydrochlorofluorocarbons
IMBEWU	IMBEWU Sustainability Legal Specialists Proprietary Limited
MCAA	Mountain Catchment Areas Act 63 of 1970, as amended
MHSA	Mine Health and Safety Act 29 of 1996
Mining Water Regulations	Regulations on the Use of Water for Mining and Related Activities Aimed at the Protection of Water Resources published under the NWA in GN 704 in GG 20119 of 4 June 1999, as amended, which repealed Regulations under the WA in GN 287 of 20 February 1976
MPRDA	Mineral and Petroleum Resources Development Act 28 of 2002, as amended, which repealed the MA
MPRDA Regulations	Mineral and Petroleum Resources Development Regulations published under the MPRDA in GN 527 in GG 26275 of 23 April 2004, as amended
NAEIS	National Atmospheric Emissions Information System
NAEIS Regulations	National Atmospheric Emissions Reporting Regulations published under NEMAQA in GN 283 in GG 38633 of 2 April 2015, as amended
NCNCA	Northern Cape Nature Conservation Act 9 of 2009
NEMA	National Environmental Management Act 107 of 1998, as amended
NEMA Listed Activities	List of Activities published under NEMA in GN 983, GN 984 or GN 985 in GG 38282 of 4 December 2014, as amended, which repealed the previous List of Activities in GN 544, GN 545 or GN 546 and GN 385, GN 386 and GN 387, as well as the activities listed under ECA in GN 1182 and GN 1183, as amended
NEMAQA	National Environmental Management: Air Quality Act 39 of 2004, as amended
NEMAQA Listed Activities	List of Activities and Minimum Emission Standards published under NEMAQA in GN 893 in GG 37054 of 22 November 2013, as amended, which repealed the previous List of Activities in Government Notice 248 in GG 33064 of 31 March 2010, as amended
NEMBA	National Environmental Management: Biodiversity Act 10 of 2004, as amended
NEMPA	National Environmental Management: Protected Areas Act 57 of 2003, as amended
NEMWA	National Environmental Management: Waste Act 59 of 2008, as amended
NEMWA Listed Activities	List of Activities published under NEMWA in GN 921 in GG 37083 of 29 November 2013 as amended, which repealed GN 718 in GG 32368 of 3 July 2009, as amended
NFA	National Forests Act 84 of 1998, as amended
NGO	non-governmental organisation
NHRA	National Heritage Resources Act 25 of 1999, as amended
Noise Regulations	National Noise Regulations published under ECA in GN 154 GG 13717 of 10 January 1992, as amended

ACRONYMS AND DEFINITIONS	
Norms for Landfill Assessment	National Norms and Standards for the Assessment of Waste for Landfill Disposal published under NEMWA in GN 635 in GG 36784 of 23 August 2013, as amended
Norms for Landfill Disposal	National Norms and Standards for the Disposal of Waste to Landfill published under NEMWA in GN 636 in GG36784 of 23 August 2013, as amended
NPA	National Prosecuting Authority
NVFFA	National Veld and Forest Fire Act 101 of 1998, as amended
NWA	National Water Act 36 of 1998, as amended
ODS	ozone-depleting substance
ODS Regulations	Regulations regarding the Phasing-Out and Management of Ozone-Depleting Substances published under NEMAQA in GN 351 in GG 37621 of 8 May 2014, as amended
PCB	Polychlorinated Biphenyl
PCB Regulations	Regulations to Phase-Out the Use of Polychlorinated Biphenyl (PCBs) Materials and PCB Contaminated Materials published under NEMA in GN 549 in GG 37818 of 10 July 2014, as amended
PM	Particulate Matter
Protected Tree List	List of Protected Tree Species published under the NFA in GN 536 in GG 41887 of 7 September 2018, as amended
Residue Regulations	Regulations for the Planning and Management of Residue Stockpiles and Residue Deposits published under NEMWA in GN 632 in GG 39020 of 24 July 2015, as amended
ROD	a record of decision, now known as an EA
SABS	South African Bureau of Standards
SAHRA	the South African Heritage Resources Agency
SANS	South African National Standard
SANS 0028	SANS for the Identification and Classification of Dangerous Substances and Goods, published by SABS
SANS 10228	SANS for the Identification and Classification of Dangerous Goods for Transport, published by SABS
SANS 10229	SANS for the Transport of Dangerous Goods - Packaging and Large Packaging for Road and Rail Transport, published by SABS
SANS 10234	SANS Globally Harmonized System of Classification and Labelling of Chemicals (GHS), published by SABS
SANS 290	SANS for Mineral Insulating Oils - Management of Polychlorinated Biphenyls (PCBs), published by SABS
SAPS	South African Police Service
SAWIS	South African Waste Information System
Section 24G Regulations	Section 24G Fine Regulations published under NEMA in GN 698 in GG 40994 of 20 July 2017, as amended
Threatened Ecosystems List	National List of Ecosystems that are Threatened and in Need of Protection published under NEMBA in GN 1002 GG 34809 of 9 December 2012, as amended
TOPS	threatened or protected species

ACRONYMS AND DEFINITIONS	
TOPS List	List of Critically Endangered, Endangered, Vulnerable & Protected Species published under NEMBA in GN 151 of GG 29657 of 23 February 2007, as amended
TOPS Regulations	Threatened or Protected Species published under NEMBA in GN 152 in GG 29657 of 23 February 2007, as amended
Tyre Regulations	Waste Tyre Regulations published under NEMWA in GN 1064 in GG 41157 of 29 September 2017, as amended
WA	Water Act 54 of 1956, as amended (repealed by the NWA)
Waste Classification Regulations	Waste Classification and Management Regulations published under NEMWA in GN 634 in GG 36784 of 23 August 2013, as amended
Waste Exclusion Regulations	Waste Exclusion Regulations published under NEMWA in GN 715 in GG 41777 of 18 July 2018, as amended
Waste Information Regulations	National Waste Information Regulations published under NEMWA in GN 625 in GG 35583 of 13 August 2012, as amended
Waste Sorting Norms	National Norms and Standards for the Sorting, Shredding, Grinding, Crushing, Screening or Baling of General Waste published under NEMWA in GN 1093 in GG 41175 of 11 October 2017, as amended
Waste Storage Norms	National Norms and Standards for the Storage of Waste published under NEMWA in GN 926 in GG 37088 of 29 November 2013, as amended
Water Care Work Regulations	Regulations for the Erection, Enlargement, Operation and Registration of Water Care Works published under the WA in GN 2834 in GG 10048 of 27 December 1985, as amended, which remain valid in terms of section 163(4) of the NWA
Water Pricing Regulations	Pricing Strategy for Water Use Charges published under the NWA in GN 1353 in GG 20615 of 12 November 1999, as amended
WHCA	World Heritage Convention Act 49 of 1999, as amended
WML	waste management licence
WSA	Water Services Act 108 of 1997, as amended
WUL	water use licence
WUL Regulations	Water Use Licence Application and Appeals Regulations published under the NWA in GN 267 in GG 40713 of 24 March 2017, as amended

2 INTRODUCTION

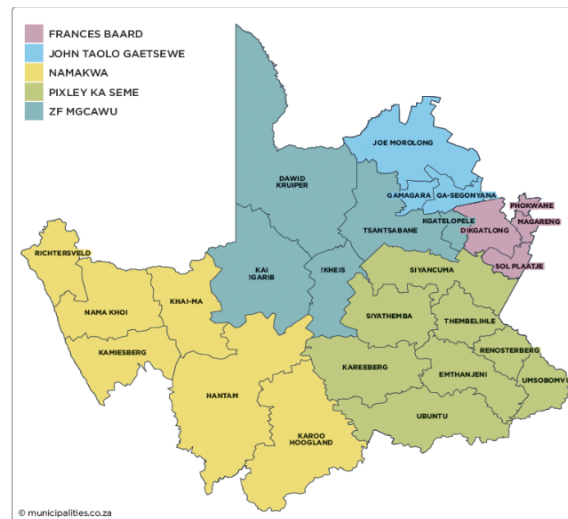
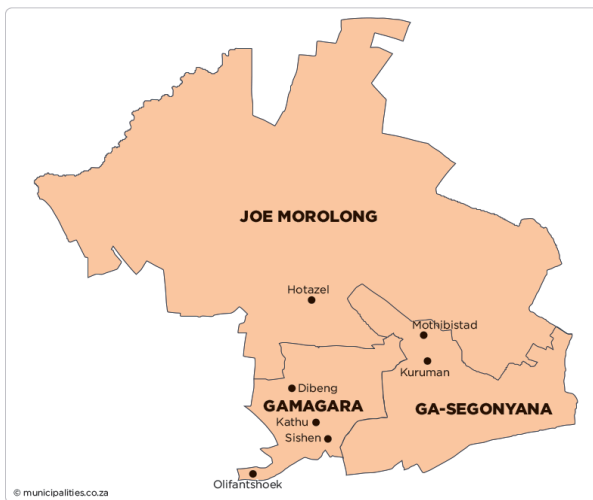
IMBEWU has been appointed by Assmang to conduct an environmental legal compliance audit (“**ELCA**”) of Assmang's Black Rock Mine Operations (“**BRMO**”). Assmang's BRMO's comprises of:

1. the 'Nchwaning II' and 'Nchwaning III' underground manganese mines (referred to in this report as Nchwaning II);
2. the 'Gloria' underground manganese mine; and
3. the 'Black Rock Area' which comprises supporting and ancillary services to the above mining operations and the surface operations for Nchwaning III.

3 LOCATION

Assmang mines manganese ore from the Kalahari manganese field in the Black Rock area of the Kalahari, in the Northern Cape Province, South Africa. BRMO is approximately 80 kilometres north-west of the town of Kuruman and 12 kilometres north-west of Hotazel.

BRMO falls within the jurisdiction of the Joe Morolong Local Municipality, which is within the John Taolo Gaetsewe District Municipality, as per the maps below:



BRMO falls within the Orange water management area within drainage zone D4 as per the maps below:¹



Water Management Areas of South Africa



¹ See http://www.dwa.gov.za/SLIM/Digital%20Map%20Library/RSA_DrainageRegions_&_2012WMA_A0.pdf

4 AUDIT SCOPE

This ELCA is designed to assess the state of BRMO's current environmental legal compliance with national environmental legislation and is focused on key compliance issues based on our past experience of similar operations. The ELCA is based on national environmental legislation pertaining to the mining industry, namely NEMA and the specific environmental management Acts under NEMA including the NWA, NEMAQA, NEMWA, NEMBA and NEMPA, as well as the environmental management provisions under the MPRDA.

This ELCA is based on the law as at 30 June 2019.

This ELCA is designed to identify areas of compliance, non-compliance or possible non-compliance and to identify areas that require further investigation by BRMO personnel.

Please refer to **Annexure 2** hereto which sets out the scope of this ELCA further.

5 AUDIT PROCESS FOLLOWED

KEY PERSONNEL:

Peggy Schoeman, a Senior Legal Consultant at IMBEWU, conducted the ELCA of Assmang's BRMO. Peggy is an admitted attorney, conveyancer and notary. She has obtained a BA LLB (Rhodes), a Postgraduate Diploma in Management (PDM) (Wits Business School) and a Master's degree in commercial law (Wits University) with distinction.

Thami Mbonani (Environmental Officer) and Tshifhiwa Ravele (Environmental Specialist) of the BRMO facilitated the entire audit process, including the site inspection, and collated and provided the requested information and documentation to IMBEWU. **A special thanks to both Thami and Tshifhiwa for their efforts in this process.**

TASK 1: AUDIT PLANNING

The ELCA questionnaire and list of required documents was sent by IMBEWU via email to Thami Mbonani, Botshelo Moses, Tshifhiwa Ravele and Richard Moseki on 8 July 2019. It was requested that the completed questionnaire be returned to IMBEWU by 22 July 2019 and that the following requested documents be sent to IMBEWU by Friday 12 July 2019:

- a detailed site layout plan(s) of the BRMO;
- copies of the BRMO's key authorisations, including EAs, WULs, WMLs, AELs etc.;
- copies of the past two internal and external ELCA's of the BRMO;
- a copy of the most recent external audits in terms of the Mining Water Regulations;
- a copy of the most recent EMPr performance assessment/audit; and
- copies of all mining rights.

On 23 July 2019, both the completed questionnaire and the following documentation was provided to IMBEWU via Dropbox by Tshifhiwa Ravele:

- certain photographs of the site;
- the 2017 ELCA by Environmental Law Group, dated 6 February 2018 ("**2017 ELCA**");
- the 2015 ELCA by Environmental Legal Services, dated February 2015;
- the EMPr Performance Assessment Report by ENVASS Environmental Assurance, dated 21 October 2016;
- the EMPr approval by the DMR, EMPr dated 1 June 2017 and approval dated 13 February 2018 (the EMPr itself was not provided);
- a converted mining right in terms of the MPRDA, dated 13 July 2011 and the application to convert dated 1 June 2010;
- an EA in terms of NEMA, dated 8 August 2018 authorising Activity 31 in NEMA Listing Notice 1 (GN 983) (decommissioning of above ground storage of fuels/dangerous goods);
- a WML in terms of NEMWA, dated 13 May 2014 authorising a general waste disposal site on site;
- a WUL in terms of the NWA, dated 21 October 2015, and a WUL dated 10 April 2019 (which replaced the 2015 WUL), authorising section 21(a), (b), (e), (g) and (j) water uses;
- various permits in terms of NEMBA and the NCNCA (provincial legislation) regarding harvesting, transportation etc. of flora;
- a letter dated 31 May 2018 regarding the withdrawal of an application for the disturbance of protected trees below powerlines in terms of the NFA; and
- various licences in terms of the NFA to cut etc. indigenous trees and/or protected trees.

On receipt of the completed ELCA questionnaire and documentation as set out above, same were reviewed by IMBEWU and a draft audit outline was prepared and submitted to Assmang on 29 July 2019. The draft outline set out the issues to be discussed as part of the interview process and the corresponding areas at the BRMO to be inspected.

On 13 September 2019, an updated questionnaire with the applicable municipal law, namely the By-laws applicable within the John Taolo Gaetsewe District Municipality, was sent to Assmang.

TASK 2: INTERVIEWS AND SITE ASSESSMENT

The interviews of relevant BRMO personnel and the site visit of the BRMO was conducted over two and a half days from 31 July to 2 August 2019. The interviews and site visit were undertaken by Peggy Schoeman. An introductory briefing meeting was held on 31 July 2019 with the following BRMO personnel:

1. Thami Mbonani, Environmental Officer, BRMO;
2. Tshifhiwa Ravele, Environmental Specialist, BRMO;
3. Neo Kgooe, Engineer: Shafts & Winders, BRMO;
4. Michael Bester, Engineer, BRMO;
5. Derek van Neel, GES, BRMO;
6. Peter Swanepoel, CEI Engineer, BRMO;
7. Sydney Kgosietsile, Operations Foreman, Fraser Alexander; and
8. Siphon Dubazane, Engineer, BRMO

On 31 July 2019, following the introductory briefing meeting, Peggy Schoeman conducted interviews with Thami Mbonani and Tshifhiwa Ravele, with reference to the issues noted in the draft outline. A detailed explanation of the overall BRMO site was further provided with reference to A0 photographs.

Based on the feedback from the interviews, Peggy Schoeman inspected the following areas/facilities of the BRMO with the following BRMO personnel on 1 and 2 August 2019:

Gloria mine		
Area inspected		BRMO personnel
1	The "active" slimes dam	Thami Mbonani, Tshifhiwa Ravele, Sydney Kgosietsile and Siphon Dubazane
2	The sewage treatment plant	Thami Mbonani and Siphon Dubazane
3	The area at the decline	Thami Mbonani and Siphon Dubazane
4	The area behind the change houses	Thami Mbonani
5	The surface plant workshop	Thami Mbonani and Kealeboga Onewang (Acting Foreman)

Nchwaning II and III mines		
Area inspected		BRMO personnel
1	The "old" "active" slimes dam ²	Thami Mbonani and Sydney Kgosietsile
2	The waste rock dump area	Thami Mbonani
3	The sewage treatment plant	Thami Mbonani
4	The engineering workshop	Thami Mbonani and Jippie Human
5	The area behind the decline ³	Thami Mbonani
6	The main road leaving Nchwaning II ⁴	Thami Mbonani
Black Rock Area		
Area inspected		BRMO personnel
1	Koppie area, including the top of the koppie and waste rock dumps surrounding the koppie	Thami Mbonani and Tshifhiwa Ravele
2	The salvage yard	Thami Mbonani, Tshifhiwa Ravele, Johan Lottering and Nico Erasmus
3	The sewage treatment plant	Thami Mbonani, Tshifhiwa Ravele and Johan Lottering
4	The hazardous waste storage area	Thami Mbonani and Tshifhiwa Ravele
5	The general waste disposal site	Thami Mbonani and Tshifhiwa Ravele
6	Waste tyre stockpile ⁵	Thami Mbonani and Tshifhiwa Ravele
7	Mechanical workshop and surrounds	Thami Mbonani, Tshifhiwa Ravele and Louw van der Heever (electrical foreman)

The purpose of the site visit was to obtain further information, including corroborating documentation, and undertake site observations in order to determine the current state of environmental legal compliance. The auditor's general observations in respect of the above areas are set out in paragraph 10 of this report.

On the third and last day of the site inspection (2 August 2019), a close-out meeting was held with the following BRMO personnel:

1. Thami Mbonani, Environmental Officer, BRMO;

² The new slimes dam (not yet active) was also inspected from the vehicle (adjacent to the active slimes dam) – but a walk around on the new slimes dam was not conducted.

³ This was inspected from the vehicle.

⁴ This was inspected from the vehicle.

⁵ This was seen from afar from the waste disposal area (which is adjacent to the waste stockpile area).

2. Tshifhiwa Ravele, Environmental Specialist, BRMO;
3. Botshelo Moses, Environmentalist, BRMO;
4. Siphon Dubazane, Engineer, BRMO;
5. Michael Bester, Engineer, BRMO;
6. S Brent, Engineer, BRMO;
7. B Magongo, Engineer, BRMO; and
8. Sydney Kgosietsile, Operations Foreman, Fraser Alexander

TASK 3: DESKTOP REVIEW

A finalised list of requested documents was sent to Assmang on the last day of the site visit (2 August 2019). It was requested that the documents be provided electronically to IMBEWU by 9 August 2019. In light of internal constraints at BRMO, this was extended to close of business on 16 August 2019.

Some documents were provided during the course of the site inspection (31 July to 2 August 2019). However, many of the requested documents were not provided by 16 August 2019, nor at any later stage, with the result that many of the compliance findings are **"Not Verified"** due to shortcomings in information.

TASK 4: REPORTING

The first draft of the ELCA report was sent to Assmang on 20 September 2019. A final draft was sent on 9 December 2019.

6 STRUCTURE OF BODY OF REPORT

This ELCA firstly sets out some key overarching law pertaining to any ELCA, namely:

- the duty of care to prevent pollution in terms of section 28 of NEMA and section 19 of the NWA in paragraph 7 of this report; and
- the nature and extent of environmental compliance and enforcement action which may be employed against an organisation where there is environmental legal non-compliance (including a breach of the duty of care) in paragraph 8 of this report. In terms of criminal sanctions, **Annexure 1** sets out a table of all potentially applicable offences and penalties (specific to this ELCA).

This ELCA report then provides an executive summary of identified red flag issues in paragraph 9.

The observations made at site are set out in paragraph 10 of this report. In some cases, photographs of the areas/facilities have been inserted for illustrative purposes. Where non-compliances were observed, this is also detailed in the body of this ELCA.

The body of this ELCA is divided into multiple sections according to the governing legislation and the nature of activities and impacts. Each section of the ELCA report contains:

1. the legislation and the key definitions applicable to that specific section;
2. the ELCA questions as posed to Assmang (part of the ELCA questionnaire sent to Assmang), Assmang's responses and IMBEWU's compliance findings. IMBEWU's compliance findings are based on *inter alia* our evaluation of the ELCA questionnaire as completed by BRMO personnel, our evaluation of the documents provided by BRMO personnel, our observations at the site visit and our on-site interviews with BRMO personnel during the site visit. The key to IMBEWU's compliance findings is set out below:

Noted	"Noted" indicates a statement of fact or law.
N/A	This is not applicable.
Compliant	There has been compliance with the applicable national environmental legislation.
Non-compliant	There has not been compliance with the applicable national environmental legislation.
Possibly Non-compliant	This includes where the interpretation and application of the law is unclear or open to alternatives vis-à-vis what the specific compliance obligation is. As such, there is an element of uncertainty regarding the issue.
Not Verified	There have been shortcomings in the available information and as such, IMBEWU is unable to express a conclusive opinion on the state of compliance. Alternatively, issues have arisen which could not be adequately addressed within the scope, time limitations and/or budget of this ELCA. These aspects require further investigation outside this ELCA.

3. After each section of questions, answers and compliance findings, IMBEWU provides:
- reasons for the compliance findings, where appropriate;
 - recommendations to address identified areas of non-compliance, which recommendations are generally **bolded**; and
 - an overview of the key legal risks and liabilities with reference to the duty of care (paragraph 7), environmental compliance and enforcement action (paragraph 8) and **Annexure 1** (offences and penalties), where applicable. Note that, where an issue has been identified as a high-risk issue, a red flag has been inserted.

7 THE DUTY OF CARE TO PREVENT POLLUTION

Section 28 of NEMA sets out a general duty of care to take reasonable measures to prevent pollution from occurring, continuing or recurring. The duty of care applies to historical pollution, currently known pollution as well as future pollution. The duty of care arises irrespective of the cause or origin of pollution. Under section 28 of NEMA, the duty is to take 'reasonable measures' to prevent pollution, such as measures to investigate the environmental impact, inform employees, control an activity, contain or prevent degradation, eliminate pollution and/or remedy the effects of pollution. The obligation to take and pay for remedial measures may extend beyond one's land. This would be relevant in the event of a migration of pollution to surrounding areas. The failure to comply with the statutory duty of care would be an offence under NEMA (refer to the table of offences and penalties in **Annexure 1**).

Section 19 of the NWA similarly imposes a duty of care to take reasonable measures to prevent water pollution. Under section 19 of the NWA, the duty is to take 'reasonable measures' to prevent water pollution, such as measures to cease any act, comply with any prescribed waste standard or management practice, prevent the movement of pollutants, eliminate pollution, remedy the effects of pollution and/or remedy the effects of any disturbance to the bed and banks of a watercourse. The failure to comply with the statutory duty of care would be an offence under the NWA (refer to the table of offences and penalties in **Annexure 1**).

8 ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT ACTION

Failure to comply with environmental legislation exposes an organisation to potential compliance and enforcement action from the relevant regulatory authorities. In this event, there are various compliance and enforcement mechanisms available to the regulatory bodies, including the suspension, withdrawal or revocation of the authorisation in question (mining right, EA, WML, WUL, AEL etc).

Environmental compliance and enforcement measures can be broadly separated into:

1. statutory administrative measures, which include *inter alia* directives and compliance notices. According to Craigie *et al* "... *administrative measures consist of a notice issued by the environmental authority, which identifies the illegal or harmful activity, contains evidence thereof, and requires the person to take specific action and corrective steps within a specified time period to remedy the contravention or harm.*"⁶ Administrative measures are implemented by the relevant environmental authorities and do not involve the judicial system (unless there is a failure to comply, in which case, the matter may be elevated to a criminal prosecution);
2. statutory criminal measures, namely a criminal prosecution where the non-compliance constitutes an offence, which upon conviction entails the imposition of fines and/or imprisonment. Criminal measures are implemented through the judicial system (the courts and the NPA, following an investigation by SAPS and/or an EMI (or the Green Scorpions)). Refer to the table of offences and penalties in **Annexure 1**; and
3. common-law civil measures, which include interdicts or claims for damages. These measures are implemented through the courts and would be brought by a third party.

STATUTORY ADMINISTRATIVE MEASURES

The most common forms of statutory administrative measures action are set out below:

Act and section	Nature of statutory administrative measure	Risks
Section 28 of NEMA	A directive against a person who is causing, has caused or may cause significant pollution.	<ul style="list-style-type: none"> • Where there is non-compliance with a directive, the regulatory body may undertake the remedial measures itself and recover the costs for doing so. • Non-compliance is further an offence (refer to Annexure 1).
Section 31L of NEMA	A compliance notice against any person who has not complied with any environmental statutory obligation in an	<ul style="list-style-type: none"> • Where there is non-compliance with a compliance notice, the regulatory body may undertake the remedial measures itself and recover the costs for doing so.

⁶ Paterson & Kotze *Environmental Compliance and Enforcement*, at pages 55-56.

Act and section	Nature of statutory administrative measure	Risks
	<p>environmental Act, which would include NEMA, the NWA, NEMWA, NEMBA, NEMAQA etc.</p>	<ul style="list-style-type: none"> • Non-compliance is further an offence (refer to Annexure 1). • Non-compliance may further lead to the revocation or variation of the authorisation in question (such as an EA, WML, WUL, AEL etc).
<p>Section 24G of NEMA</p>	<p>Section 24G of NEMA provides for an <i>ex post facto</i> EA or WML application process where a NEMA or NEMWA Listed Activity was unlawfully conducted without an EA/WML, provided an administrative fine not exceeding R5 million is paid.</p>	<ul style="list-style-type: none"> • The payment of the fine does not guarantee a positive authorisation decision. • The submission of the section 24G application does not shield the applicant from a criminal investigation and/or criminal prosecution. • On submission of the application, the regulator is empowered to issue a directive for the applicant to undertake any of the measures set out in section 24G of NEMA. • The Section 24G Regulations, which set out the section 24G application process, must be adhered to. As part of the application process, the applicant must disclose the company's environmental compliance history, and where the company, or its directors, have had historical environmental compliance issues, the maximum fine of R5 million may be imposed. • The Section 24G Regulations do not specify timeframes which may result in delays in obtaining the <i>ex post facto</i> EA or WML.

Act and section	Nature of statutory administrative measure	Risks
Section 19 of the NWA	A directive against a person who is causing, has caused or may cause water pollution.	<ul style="list-style-type: none"> • Where there is non-compliance with a directive, the regulatory body may undertake the remedial measures itself and recover the costs for doing so. • Non-compliance is further an offence (refer to Annexure 1). • Non-compliance may further lead to the suspension or withdrawal of the WUL or GA.
Section 53 of the NWA	A directive against a person who is non-compliant with Chapter 4 of the NWA, any other requirement set by the DWS or any WUL conditions.	<ul style="list-style-type: none"> • Where there is non-compliance with a directive, the regulatory body may undertake the remedial measures itself and recover the costs for doing so. • Non-compliance is further an offence (refer to Annexure 1). • Non-compliance may further lead to the suspension or withdrawal of the WUL or GA.
Section 54 of the NWA	A suspension or withdrawal of a water use entitlement where a person is non-compliant with any provision in the NWA, any WUL conditions or fails to pay a charge in terms of Chapter 5 of the NWA.	<ul style="list-style-type: none"> • A suspension or withdrawal of a WUL or GA.
Section 155 of the NWA	An interdict against any person who has contravened any provision of the NWA, including an order to discontinue any activity constituting the contravention and to remedy	<ul style="list-style-type: none"> • An interdict may cease all activities on site.

Act and section	Nature of statutory administrative measure	Risks
	the adverse effects of the contravention.	
Section 56 of NEMWA	A revocation or suspension of a WML where a person is non-compliant with any provision of NEMWA or a WML condition and such contravention may have, or is having, a significant effect on health or the environment.	<ul style="list-style-type: none"> • A suspension or withdrawal of a WML.
Sections 45 and 46 of the MPRDA	A directive against a mining right holder where there has been environmental damage or pollution, this pollution may be harmful to the health, safety or well-being of people and the situation requires urgent remedial measures.	<ul style="list-style-type: none"> • Where there is non-compliance with a directive, the regulatory body may undertake the remedial measures itself and recover the costs for doing so. • Non-compliance is further an offence (refer to Annexure 1). • The failure to comply may also result in the suspension or cancellation of the mining right.
Section 47 of MPRDA	A cancellation or suspension of a mining right where a person is conducting mining operations in contravention of the MPRDA, fails to comply with the mining right conditions or contravenes a condition of its EA.	<ul style="list-style-type: none"> • A suspension or withdrawal of a mining right.
Section 93 of MPRDA	An order against any person contravening any provision of the MPRDA or any condition of a mining right or EA.	<ul style="list-style-type: none"> • Such an order may suspend or terminate the mining operations. • Non-compliance is further an offence (refer to Annexure 1).

STATUTORY CRIMINAL MEASURES AND COMPANY AND DIRECTOR LIABILITY

Annexure 1 hereto sets out all environmental offences and associated penalties which may be potentially applicable to Assmang based on our findings in this ELCA report. The penalties set out in **Annexure 1** would only apply in the event of a conviction. To the extent an offence has been committed by Assmang's BRMO, it is possible that there may be a criminal prosecution of Assmang. In the event of a conviction by a criminal court (i.e. it has been proven beyond a reasonable doubt that Assmang committed the offence), then the associated penalty (in the form of a fine) would attach to Assmang.

In terms of section 34(7) of NEMA, if Assmang is convicted of an offence listed in Schedule 3 of NEMA (which we note in **Annexure 1**), those directors of Assmang who were directors at the time of the commission of the offence could be liable in their personal capacity for the same offence if they failed to take all reasonable steps that were necessary under the circumstances to prevent the commission of the offence. This would be in addition to Assmang being liable for the offence. If a director is convicted, then the associated penalty (in the form of a fine and/or imprisonment) may be imposed personally on the director. A director is defined as "a member of the board, executive committee, or other managing body of a corporate body ..."

In addition to section 34(7) of NEMA, section 24N(8) of NEMA provides that "*Notwithstanding the Companies Act, 2008 (Act No. 71 of 2008), or the Close Corporations Act, 1984 (Act No. 69 of 1984), the directors of a company or members of a close corporation are jointly and severally liable for any negative impact on the environment, whether advertently or inadvertently caused by the company or close corporation which they represent, including damage, degradation or pollution*".

In terms of section 34(6) of NEMA, personal liability may further be imposed on a manager, agent or employee of Assmang. In this respect, if such person acted, or failed to act, contrary to Assmang's instruction, and as a result Assmang commits an offence listed in Schedule 3 of NEMA, the manager, agent or employee may be personally liable if it is shown that such person failed to carry out an instruction from Assmang which, if done, would have avoided the commission of the offence. If a manager, agent or employee is convicted, then the associated penalty (in the form of a fine and/or imprisonment) may be imposed personally on such person. This would be in addition to Assmang being liable for the offence.

In terms of section 34C of NEMA, where a court has convicted a person of an offence in terms of NEMA or any of the specific environmental management Acts (NEMWA, the NWA, NEMBA, NEMAQA etc), the court is empowered to withdraw the authorisation in question (such as an

EA, WML, AEL, WUL etc), and may disqualify that person from obtaining such an authorisation for a period not exceeding five years.

9 EXECUTIVE SUMMARY OF RED FLAG ISSUES



Red flag issues are noted throughout this ELCA report by the use of this symbol.

This executive summary is for management purposes and highlights red flag or high-risk issues that we believe require priority action.

GENERAL IMPACTS AND COMPLIANCE

- The DMR undertook a site inspection of the BRMO on 29 and 30 July 2019. We received a copy of the DMR's inspection notification, where the DMR requested various documents. No further documentation was provided, despite request. As such, it is not possible to ascertain what areas of the BRMO were inspected. However, from the DMR's document request, it appears that the DMR intends to verify that the BRMO has all the requisite approvals in place and is compliant with its environmental legal obligations. Without further information though, it is not possible to determine what compliance action, if any, the DMR may intend to take.
- **We strongly recommend that any areas of concern or non-compliances identified by the DMR be attended to as soon as possible to avoid compliance action and/or criminal sanctions.** Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and generally to the table of offences and penalties in **Annexure 1**.
- In terms of the this ELCA process, various documents were requested but not provided. **We strongly recommend that the BRMO improve its document control mechanisms.**
- Further, some of the answers in the ELCA questionnaire were misunderstood and, in some cases, incorrectly answered, which transpired during the interview process. **We recommend that adequate resources and time be afforded to completing the ELCA questionnaire (or other audit process) so that areas of concern are correctly identified (which may include training on the applicable legal provisions).**
- A compliance notice was issued by the DMR in 2018 regarding hydrocarbon management and waste management. No further documentation was provided, despite request. It is therefore not possible to determine what the issues of concern were, nor whether the prescribed corrective action was undertaken.

- **We advise that Assmang take any compliance action seriously in light of the consequences which may flow from a failure to comply with a compliance notice and/or a failure to adhere to the duty of care.** Refer to our comments on environmental compliance and enforcement in paragraph 8 and in **Annexure 1** with respect to non-compliance with a compliance notice.

- There were various pollution impacts noted during the site inspection in contravention of *inter alia* section 28 of NEMA, section 19 of the NWA and the Contaminated Land Provisions, including sewage spillages at the sewage treatment plants, hydrocarbon and chemicals spills throughout the site, inadequate bunding/secondary containment systems and waste impacts at the Black Rock hazardous waste storage area.
- The causation of pollution is in breach of the duty of care detailed in paragraph 7 of this report.
- **We strongly recommend that Assmang employ all reasonable measures (as defined in section 28 of NEMA and section 19 of the NWA) to ensure that pollution is prevented from occurring, continuing or recurring. Failing which, Assmang exposes itself to significant risk as detailed in paragraph 8 and Annexure 1 of this report.**

NEMA LISTED ACTIVITIES

- One EA in terms of NEMA dated 8 August 2018 was provided. No EA audit of compliance was provided with respect to this EA. Other EAs (including section 24G *ex post facto* EAs) and compliance audits thereon were requested but not provided. It was therefore not possible to determine Assmang is in compliance with the conditions of its EAs.
- **We recommend that Assmang ensure compliance with its EA conditions to reduce the risk of potential compliance and enforcement action being taken against it, as detailed in paragraph 8 and Annexure 1 of this report.**

- As not all EAs were provided, despite request, it was not possible to determine whether all NEMA Listed Activities are authorised. This was raised as a concern in the 2017 ELCA.
- The commencement of a NEMA Listed Activity without an EA is unlawful and exposes Assmang to environmental compliance and enforcement action, including a section 24G fine, as detailed in paragraph 8 and Annexure 1 of this report.
- **It is strongly recommended that a gap analysis be urgently undertaken by an appropriately qualified person to determine whether all NEMA Listed Activities are authorised.**

MINING AUTHORISATIONS & EMPr AMENDMENTS

- The 2017 EMPr for the entire site was approved. The 2017 EMPr and the latest performance assessment were requested but not provided. There were therefore shortcomings in information.

- In some cases, we have found non-compliances with the EMPr.
- There was also uncertainty during the interview process regarding the obligations to audit compliance with an EMPr, as well as with respect to EMPr amendments.
- Non-compliance with an approved EMPr, as well as non-compliance with auditing and amendment provisions, exposes Assmang to possible compliance and enforcement action, as detailed in paragraph 8 and **Annexure 1** of this report.
- **We strongly recommend that Assmang ensure that it is in full compliance with its approved EMPr and that the related auditing and amendment provisions are adhered to.**

FINANCIAL PROVISION

- Prior to 20 November 2015, financial provision was regulated by the MPRDA and MPRDA Regulations. After 20 November 2015, financial provision is regulated by the Financial Provision Regulations under NEMA. Mines must comply with the NEMA Financial Provision Regulations by 19 February 2020.
- There were various non-compliances noted with respect to financial provision, and due to shortcomings in information, various other aspects have not been verified.
- **We strongly recommend that the BRMO ensure compliance with its various obligations pursuant to financial provision, especially in light of the DMR requesting information in this regard at its BRMO site inspection in July 2019.** A failure to do so exposes Assmang to environmental compliance and enforcement as set out paragraph 8 and **Annexure 1** of this report.

AIR POLLUTION

- BRMO's answer in the ELCA questionnaire states that the operation's emissions cause air pollution.
- **We therefore recommend that Assmang confirm whether there are any air pollution impacts on site.** To the extent there are, please refer to our comments on the duty of care at paragraph 7, our comments on environmental compliance and enforcement in paragraph 8 and the table of offences and penalties in **Annexure 1** with respect to non-compliance with the duty of care.

NEMAQA LISTED ACTIVITIES & EMISSION STANDARDS

- The 2017 ELCA noted that the operation did not trigger any NEMAQA Listed Activities, which is based on "*a comprehensive legal assessment and gap analysis ... conducted by Environmental Legal Services in September 2010*".
- **Due to the 9 years that has elapsed since this gap analysis, it may be prudent to undertake a further gap analysis to confirm this is still the position. This may be done in conjunction with the gap analysis recommended with respect to NEMA Listed Activities.**

WATER POLLUTION

- As set out above under "**GENERAL IMPACTS AND COMPLIANCE**", there were various pollution impacts noted during the site inspection, which included water pollution impacts. This included the sewage spill at Gloria near the Gamagara river, which river runs adjacent to Gloria and possible runoff from Gloria mine's stockpiles and/or run of mine (ROM) to the Gamagara river (with only a single pump to contain this runoff).
- The causation of water pollution is in breach of the duty of care as set out in section 19 of the NWA and exposes Assmang to environmental compliance and enforcement action, as detailed in paragraphs 7, 8 and **Annexure 1**.
- **We strongly recommend that Assmang employ all reasonable measures (as defined in section 19 of the NWA) to ensure that water pollution is prevented from occurring, continuing or recurring. In particular, we recommend that Assmang further scrutinise the water monitoring results at the Gloria sewage treatment plant to ascertain if there has been any pollution, and if so, to implement corrective measures without delay. If there is significant pollution, the corrective measures may include further soil and/or water monitoring, including possibly downstream of the Gamagara river.**

WATER USE LICENSING: GENERAL COMMENTS

- The site has a WUL in place, dated 10 April 2019 (which replaced an earlier WUL dated 21 October 2015), authorising section 21 (a), (b), (e), (g) and (j) water uses. A copy of the 2019 WUL was provided to IMBEWU. The WUL is valid for 23 years.
- Conditions 10 and 11 of the WUL provide for annual internal audits and external audits every second year. As these audits have not to date taken place, it is not possible to verify whether there has been compliance.
- **We recommend that Assmang duly undertake the above-mentioned audits, and to the extent there is any non-compliance noted during these audit processes, that Assmang attend to these without delay.**

WATER USE LICENSING – SECTION 21(B) OF THE NWA

- During the interview process, it transpired that there may be some water uses, namely underground dams, under section 21 (b) of the NWA, which are not authorised. IMBEWU was advised that a new WUL application will be completed before the end of 2019.
- A WUL or GA must be obtained prior to any section 21 water uses commencing. Failure to obtain a WUL or GA before commencing with section 21 water uses exposes Assmang to compliance action from the DWS (which may include a cessation order) and/or a criminal prosecution on the basis that the commencement of water uses without a WUL or GA is an offence. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in

Annexure 1 with respect to commencing with a section 21 water use without a WUL or GA.

- **We strongly recommend that the BRMO urgently attend to the WUL application for any unlawful water uses.**
- **It is further recommended that a gap analysis be undertaken by an appropriately qualified person to determine whether all water uses under the NWA are authorised on site. This may be done in conjunction with the gap analysis recommended with respect to NEMA and NEMAQA Listed Activities.**

- Further, due to a lack of information, it was not possible to verify if the all requisite EAs were in place for the *construction* of the dams, if applicable.
- The commencement of a NEMA Listed Activity without an EA is unlawful and exposes Assmang to environmental compliance and enforcement action, including a section 24G fine. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to commencing with a NEMA Listed Activity without an EA.
- **We recommend that Assmang clarify this, which would form part of the recommended site-wide licensing gap analysis.**

DAMS WITH A SAFETY RISK:

- Dams with a safety risk would be relevant with respect to the section 21(b) and section 21(g) water uses authorised in the 2019 WUL and/or any other dams.
- There was a lack of understanding during the interview process as to whether there were any 'dams with a safety risk' on site. Despite certain requests, this was not clarified.
- **We strongly recommend that Assmang determine whether there are any dams with safety risks on site, and if so, adhere to the myriad of obligations which attach to these dams.** Refer to our comments in paragraph 8 and **Annexure 1** with respect to non-compliance with the NWA and Dam Regulations vis-à-vis dams with a safety risk.

WATER USE LICENSING – SECTION 21(C) AND (I) OF THE NWA

- The Gamagara river runs adjacent to Gloria and during the interview process, it was noted that there was a bridge constructed which crosses this river. As such, it is possible that the BRMO impedes or diverts the flow of water in this river, or alters the bed, banks, course or characteristics of this river, therefore triggering a water licensing requirement under section 21(c) and (i) of the NWA.
- **We recommend that, as part of the site-wide licensing gap analysis, all section 21 water uses be assessed in order to confirm that all water uses are authorised under the NWA.**

WATER USE LICENSING – SECTION 21(F) OF THE NWA

- During the site inspection of the active slimes dam Gloria, sewage water was being pumped via a pipe into the return water dam. In our view, this may trigger a section 21 (f) water use.
- **We recommend that, as part of the site-wide licensing gap analysis, all section 21 water uses be assessed in order to confirm that all water uses are authorised under the NWA.**

WATER IMPACTS SPECIFIC TO MINING (GN 704):

- The 2019 external audit of compliance with the Mining Water Regulations was requested but not provided. Further, no other internal or external audit of compliance with the Mining Water Regulations was provided to IMBEWU. As such, it was not possible to verify compliance in this regard.
- **We recommend that Assmang carefully assesses its 2019 external audit, and to the extent there is any non-compliance noted, that Assmang attend to the necessary corrective action without delay.** In this respect, refer to our comments on environmental compliance and enforcement in paragraph 8 and in **Annexure 1** with respect to the failure to comply with the Mining Water Regulations.

LAND / SOIL CONTAMINATION

- During the interview process, it was confirmed that the land is significantly “contaminated” as defined in the Contaminated Land Provisions, but that the BRMO had not notified the Minister of the DEA as it is statutorily mandated to do.
- Non-compliance with the Contaminated Land Provisions exposes Assmang to environmental compliance and enforcement action as detailed in paragraph 8 and **Annexure 1**.
- **It is strongly recommended that Assmang appoint the necessary specialists to advise it on compliance with the Contaminated Land Provisions so as to come into compliance in this regard as soon as possible.**
- As the BRMO has not notified the Minister of the, the potential actions which may flow from this notification have not transpired. **These potential subsequent actions must be noted by Assmang, notably the potential for the land to be declared a ‘remediation site’ which would entail associated remediation orders.**

EMERGENCY PREPAREDNESS AND RESPONSE

- It was confirmed during the interview process that there have been incidents as defined in section 20 of the NWA and incidents as defined in section 30 of NEMA, including the fire at the general waste facility and the sewage spillages at Nchwaning II.

- During the site inspection, the BRMO personnel further advised that there were sewage spillages at the sewage treatment plants at Gloria in 2018 and at Black Rock in the last year and it is not known whether these were reported as "incidents".
- Due to the shortcomings in information, it was not possible to verify if the BRMO complies with its 'incident' reporting obligations in terms of section 20 of the NWA and section 30 of NEMA.
- The failure to comply with section 20 of the NWA and/or section 30 of NEMA and/or section 30A of NEMA, where same is applicable, exposes Assmang to environmental compliance and enforcement action as detailed in paragraph 8 and **Annexure 1**.
- **We strongly recommend that the BRMO ensure compliance with section 20 of the NWA and sections 30 and 30A of NEMA.**

WASTE POLLUTION

- As set out above under "**GENERAL IMPACTS AND COMPLIANCE**" and "**WATER POLLUTION**", there were various pollution impacts noted during the site inspection, which largely concerned waste-related pollution impacts, including sewage spillages at the sewage treatment plants, hydrocarbon and chemicals spills throughout the site, inadequate bunding/secondary containment systems and waste impacts at the Black Rock hazardous waste storage area.
- Not all reasonable measures have been undertaken by Assmang to prevent pollution from occurring, continuing or recurring in contravention of the general duty of care to prevent pollution in section 28 of NEMA and section 19 of the NWA, as well as the general waste management duties in section 16 of NEMWA.
- **As set out above, we strongly recommend that Assmang employ all reasonable measures (as defined in section 28 of NEMA and section 19 of the NWA) to ensure that pollution is prevented from occurring, continuing or recurring and that Assmang generally ensure that its waste management on site is improved so as to ensure that there is no pollution of the environment.**

NEMWA LISTED ACTIVITIES

- We have been provided with a WML in terms of NEMWA, dated 13 May 2014 authorising a general waste disposal site on site. The WML is valid for 20 years.
- During the interview process, it was further noted that there was an integrated WML/EA granted in November 2018.
- The last external audit of the 2014 WML, the 2018 WML and the external audit of the 2018 WML were requested but not provided. Due to the shortcomings in information, it was not possible to verify if Assmang complies with the conditions of its WMLs.

- The failure to comply with conditions in a WML exposes Assmang to compliance and enforcement action as detailed in paragraph 8 and **Annexure 1**.
- **We recommend that Assmang ensure compliance with its WMLs, and in this respect, that compliance is audited as mandated in the WML, and where there is any non-compliance noted during these audit processes, that Assmang attend to these without delay.**

- The 2017 ELCA further noted that there may have been NEMWA Listed Activities which were not authorised. Due to the shortcomings in information, it was not possible to verify if all NEMWA Listed Activities are authorised.
- The commencement of a NEMWA Listed Activity without a WML is unlawful and exposes Assmang to environmental compliance and enforcement action, including the requirement of a section 24G fine, as detailed in paragraph 8 and **Annexure 1**.
- **It is strongly recommended that a gap analysis be undertaken by an appropriately qualified person to determine whether all NEMWA Listed Activities are authorised (in conjunction with site-wide licensing gap analysis).**

- It was not possible, due to shortcomings in information, to confirm the BRMO's compliance with the Waste Classification Regulations.
- The failure to comply with the Waste Classification Regulations exposes Assmang to environmental compliance and enforcement action as set out in paragraph 8 and **Annexure 1**.
- **We recommend that the BRMO ensure compliance with the Waste Classification Regulations.**

WASTE SORTING NORMS

- It was advised during the interview process that the Waste Sorting Norms did not apply to the BRMO.
- Based on our observations at the site inspection, it is possible that there is sorting, shredding, grinding, crushing, screening, chipping or baling of general waste on site though.
- **We recommend that Assmang undertake a site-wide investigation as to whether the Waste Sorting Norms apply to its site and if so, ensure compliance with the Waste Sorting Norms.**
- Failure to do so exposes Assmang to potential environmental compliance and enforcement action as detailed in paragraph 8 and **Annexure 1**.

SEWAGE TREATMENT & DISPOSAL

- The three sewage treatment plants at Gloria, Nchwaning II and III and Black Rock were inspected.

- In some instances, it was noted from observations that there was non-compliance with the Water Care Work Regulations, and in other instances, due to shortcomings in information, compliance was not verified.
- **We recommend that Assmang ensure full compliance with the Water Care Work Regulations.**

WASTE TYRES

- The site has a “waste tyre stockpile” as defined in the Tyre Regulations. There has been non-compliance with certain of the obligations in the Tyre Regulations, and in some instances, due to shortcomings in information, compliance was not verified.
- **We recommend that Assmang ensure compliance with the Tyre Regulations, failing which it exposes itself to potential environmental compliance and enforcement action as detailed in paragraph 8 and Annexure 1.**

ASBESTOS

- Due to time constraints, it was not verified if the site complies with the Asbestos Regulations.
- **We recommend that Assmang ensure compliance with the Asbestos Regulations, failing which it exposes itself to potential environmental compliance and enforcement action as detailed in paragraph 8 and Annexure 1.**

PCBS

- There were some non-compliances noted with respect to the PCB Regulations, and in some instances, due to shortcomings in information, compliance was not verified.
- **We recommend that Assmang ensure compliance with the PCB Regulations, failing which it exposes itself to potential environmental compliance and enforcement action as detailed in paragraph 8 and Annexure 1.**

STORAGE OF WASTE – GENERAL COMMENTS

- During the site inspection, various non-compliances with section 21 of NEMWA were noted.
- **We recommend that Assmang ensure that it complies with its waste storage-related obligations in sections 21 of NEMWA, failing which it exposes itself to potential environmental compliance and enforcement action as detailed in paragraph 8 and Annexure 1.**

WASTE STORAGE NORMS

- During the interview process, IMBEWU was advised that the Waste Storage Norms are not applicable with respect to general waste at the BRMO. However, based on our site

observations, it is possible that the Waste Storage Norms apply to some of the general waste-related operations at the BRMO.

- **We recommend that Assmang undertake a site-wide investigation to ensure that, where applicable, it is in compliance with the Waste Storage Norms.** The failure to comply with Waste Storage Norms exposes Assmang to potential compliance and enforcement action as detailed in paragraph 8 and **Annexure 1**.

- There is a hazardous waste storage facility over 80m³ which is referred to as the 'waste transfer station' at Black Rock. This area was inspected. IMBEWU was advised that there has been correspondence with the regulator regarding the registration of this hazardous waste storage facility in terms of Waste Storage Norms. Certain documentation in this respect was requested but not provided.
- Due to shortcomings in information and due to time constraints, it was not verified if there is compliance with all the obligations contained in the Waste Storage Norms with respect to this hazardous waste storage facility. It further appears that, in some instances, there is non-compliance.
- **We recommend that Assmang ensure that its hazardous waste storage facility fully complies with the Waste Storage Norms so as to avoid potential compliance and enforcement action, as detailed in paragraph 8 and Annexure 1.**

EXTERNAL WASTE SERVICE PROVIDERS

- In terms of NEMWA, the generator of waste must ensure that all waste streams are being handled, stored, recycled, recovered, treated, transported and disposed of lawfully (referred to as 'cradle to grave' responsibility). This aligns with the general duty of care to prevent pollution. This is often verified through the production of the requisite licences and documentation from external waste providers.
- A list of all external waste service providers as well as their licences was requested but not provided. As such, it was not possible to verify if all waste streams are being handled, stored, recycled, recovered, treated, transported and disposed of lawfully.
- In the event of unlawful waste handling etc. by an external third party, regulatory compliance action may be taken against Assmang and/or Assmang may be subjected to criminal sanctions as more fully set out in **Annexure 1**.
- **We therefore recommend that Assmang ensure that all third-party waste service providers have the requisite licences in place which correspond with the waste which they are accepting from BRMO and are up to date and valid licences.**

TRANSPORTATION OF WASTE

- There were non-compliances noted with respect to section 25 of NEMWA, namely not all reasonable steps have been taken to prevent spillages or littering from a vehicle.

- **We recommend that Assmang ensure that it complies with section 25 of NEMWA and further ensure that any third-party waste transporters have the requisite licences in place, failing which Assmang exposes itself to potential compliance and enforcement action, as detailed in paragraph 8 and Annexure 1.**

DISPOSAL OF WASTE

- A copy of the WML dated 13 May 2014 was provided which authorises a general waste disposal site on site.
- However, due to shortcomings in other requested information, it was not possible to verify whether all of the BRMO's waste streams are being disposed of lawfully.
- In the event of unlawful waste disposal, regulatory compliance action may be taken against Assmang and/or Assmang may be subjected to criminal sanctions as more fully set out in **Annexure 1** with respect to *inter alia* section 26 of NEMWA.
- **We recommend that Assmang ensure that all general and/or hazardous waste which is generated by BRMO is lawfully disposed of.**

RESIDUE STOCKPILES AND/OR DEPOSITS

- Due to shortcomings in requested information and time limitations, it was not possible to verify whether all residue stockpiles and/or deposits are managed in accordance with the approved EMPr, whether any residue stockpile and/or deposit is temporarily or permanently deposited on a site *not* contemplated in the EMPr and whether the impacts, risks and management measures (including rehabilitation) for all residue stockpiles and/or deposits form part of the EMPr.
- There further appeared to be non-compliances in this regard based on our site observations.
- **We recommend that Assmang ensure that its residue stockpiles and/or deposits are properly managed in accordance with its approved EMPr, and that there are no residue stockpiles and/or deposits temporarily or permanently deposited on a site *not* contemplated in the EMPr, nor any pollution caused.** Refer to our comments on environmental compliance and enforcement in paragraph 8 and the table of offences and penalties in **Annexure 1** with respect to non-compliance with section 43A of NEMWA as well as the duty of care.

RESIDUE STOCKPILES AND/OR DEPOSITS BEFORE 24 JULY 2015

- Prior to 24 July 2015, residue stockpiles and/or deposits were regulated by the MPRDA and MPRDA Regulations. After 24 July 2015, residue stockpiles and/or deposits are regulated by NEMWA and the Residue Regulations. Anything done in terms of regulation 73 of the MPRDA Regulations, which can be done in terms of the Residue Regulations, is regarded as having been done in terms of the Residue Regulations. This includes

management measures approved in terms of MPRDA Regulations, namely these will be regarded as having been approved in terms of the Residue Regulations. A MPRDA right/permit holder must continue the management of their residue stockpiles and residue deposits in accordance with previously approved management measures (in terms of the MPRDA Regulations).

- Due to a lack of information and time limitations, it was not possible to verify whether residue stockpiles and/or deposits established before 24 July 2015 complied with the MPRDA and MPRDA Regulations. There further appeared to be some non-compliances based on our site observations.
- **We recommend that Assmang ensure that its residue stockpiles and/or residue deposits established before 24 July 2015 are properly managed in accordance with the MPRDA Regulations.** Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report.

RESIDUE STOCKPILES AND/OR DEPOSITS AFTER 24 JULY 2015

- During the interview process, IMBEWU was advised that the integrated WML/ EA granted in November 2018 for Nchwaning II covered the new slimes dam on that site (established after 24 July 2015). This integrated WML/EA was requested but not provided. As such, it was not possible to verify whether there was a WML in place for this new residue stockpile and/or deposit (established after 24 July 2015).
- Proof of compliance with the Residue Regulations for Nchwaning II's new slimes dam was further requested but not provided. As such, it was not possible to verify if there was compliance in this regard.
- **We recommend that Assmang ensure that any residue stockpiles and/or residue deposits established after 24 July 2015 are properly managed in accordance with the Residue Regulations.** Refer to our comments in paragraph 8 and **Annexure 1** with respect to non-compliance with the Residue Regulations.

10 SELECT AREAS OF THE BRMO WHICH WERE INSPECTED – SPECIFIC OBSERVATIONS

GLORIA MINE: THE “ACTIVE” SLIMES DAM

Please refer generally to paragraph 20 of this report.

Audit observations:

- There was adequate security access control, including warning signs;
- The site is managed by Fraser Alexander;
- Parts of the slimes dam is not lined. Refer further to paragraph 15 of this report under “**WATER USE LICENSING – SECTION 21(G) OF THE NWA**”;
- There is a catchment paddock surrounding the tailings dam;
- There are three compartments – the second and third are full and the first compartment is currently being used for the first time;
- Compartment 1 uses a barge;
- The return water dam’s water is used as process water in the plant;
- IMBEWU was advised that sewage water was being pumped into the return water dam; and
- There was vegetation on the return water dam.

Adequate security access control



Entry signage



First compartment (currently being used)



GLORIA MINE: THE "ACTIVE" SLIMES DAM

Second (left) and third (right) full compartments



Catchment paddock next to first compartment



Barge on compartment 1



Return water dam



Sewage water being pumped into the return water dam



Vegetation on the return water dam wall



GLORIA MINE: THE SEWAGE TREATMENT PLANT

Please refer generally to paragraph 19 of this report under “SEWAGE TREATMENT & DISPOSAL”, “WASTE POLLUTION” and “EXTERNAL WASTE SERVICE PROVIDERS” and paragraph 11 of this report regarding general pollution impacts.

Audit observations:

- There was no foul odour;
- There was adequate access control;
- There was no Water Care Works Certificate displayed;
- The chlorinator treatment was not working;
- There was litter although there were bins provided;
- One of the drying bed's walls was cracked and therefore was not used anymore;
- There appeared to have been spillages next to the drying bed (as shown by white powder) onto open soil, and it was confirmed that there was a spillage in 2018, which was not reported as an 'incident' in terms of section 30 of NEMA. Please refer to paragraph 18 of this report; and
- The dried sludge is taken away as hazardous waste to Holfontein (external hazardous waste disposal facility).

Access control



Cracked drying bed wall



Chlorinator treatment not working



GLORIA MINE: THE SEWAGE TREATMENT PLANT

Spillages next to the drying bed (as shown by white powder)



Litter



Bin



GLORIA MINE: THE AREA AT THE DECLINE

Please refer generally to paragraph 19 of this report under “**WASTE POLLUTION**” and “**STORAGE OF WASTE**”, paragraph 11 of this report regarding general pollution impacts and paragraph 15 of this report under “**WATER POLLUTION**”.

Audit observations:

- There was an informal storage area for contractors as well as for Assmang, which includes both equipment and waste (also previously noted in 2017 ELCA);
- There were low-grade stockpiles not within a demarcated / approved site (also previously noted in 2017 ELCA). Refer to paragraph 20 of this report;
- IMBEWU was advised that the low-grade ore is used to create ‘floors’ for roads. In this respect, the use of waste rock to make roads falls within the exemption in condition 19 of Appendix I of the mine’s WUL from compliance with some of the provisions of the Mining Water

GLORIA MINE: THE AREA AT THE DECLINE

Regulations, namely "*Regulation 5: Used of low grade ore for construction of laydown areas, roads and rail lines*". Refer to paragraph 16 of this report further;

- There were spillages from chemicals/ hazardous waste container, and while this area's floor was concrete, there was no bunding/ containment to contain the spread of these spillages onto *inter alia* soil (also previously noted in 2017 ELCA);
- There were hydrocarbon spills onto soil (also previously noted in 2017 ELCA);
- There was poor housekeeping (also previously noted in 2017 ELCA);
- There was not a foul odour;
- This area formed part of the previous compliance notice received, where the DMR advised that there were inadequate skips to contain waste (refer to paragraph 11 of this report); and
- The Gamagara river runs adjacent to this area and it is possible the runoff from the mine's stockpiles and/or run of mine (ROM) may flow to the river. There is a single pump which contains (some of the potential) runoff from going to the river though.

Decline area



Spillages from chemicals



Hydrocarbon onto soil



GLORIA MINE: THE AREA AT THE DECLINE

Poor housekeeping



Poor housekeeping



Pump which contains runoff from the mine's stockpiles and/or run of mine (ROM)



Informal equipment storage area



Informal equipment storage area and low-grade ore used to create roads



Informal waste storage area



GLORIA MINE: THE AREA BEHIND THE CHANGE HOUSES

Please refer generally to paragraph 19 of this report under “**WASTE POLLUTION**” and “**STORAGE OF WASTE**” and paragraph 11 of this report regarding general pollution impacts.

Audit observations:

- There was a bin overflowing with general waste;
- There is no bunding/ containment of the parking lot (also previously noted in 2017 ELCA);
- There were hydrocarbon spillages on bare soil (also previously noted in 2017 ELCA), although we noted some drips trays under cars, although the drip trays were not in all cases capturing all the hydrocarbon; and
- This area formed part of the previous compliance notice received, where the DMR advised that there were hydrocarbon spillages from cars (refer to paragraph 11 of this report).

Poor waste management



Hydrocarbon spills & drip tray



Cars parked behind the change houses



GLORIA MINE: THE SURFACE PLANT WORKSHOP

Please refer generally to paragraph 19 of this report under “**WASTE POLLUTION**” and “**STORAGE OF WASTE**” and paragraph 11 of this report regarding general pollution impacts.

Audit observations:

- The DMR inspected this area in their site inspection in July 2019;
- The workshop area is surfaced;
- Outside of the workshop, a certain portion had a concrete surface but the trenches (as a secondary containment for spillages) were blocked as was the trench outlet (also previously noted in 2017 ELCA);
- Outside of the workshop, equipment containing oil was placed on open soil and there were hydrocarbon spillages (also previously noted in 2017 ELCA);
- Outside of the workshop, there was generally very poor housekeeping, including litter;
- Outside of the workshop, the bunded area containing chemicals was fenced off but the bunding/concrete had cracked; and
- Outside of the workshop, there were various bins for hazardous and general waste, and the bins for hazardous waste were seemingly overflowing with the result that some hazardous waste was stored next to the bin.

GLORIA MINE: THE SURFACE PLANT WORKSHOP

Inside the workshop



View of area outside of workshop



Cracks in bunded area containing chemicals and litter



Poor housekeeping



Poor housekeeping



Poor housekeeping and limited bunding



Overflowing hazardous waste bins

Blocked trenches and blocked trench outlet

Blocked trenches

GLORIA MINE: THE SURFACE PLANT WORKSHOP



NCHWANING II AND III MINES: THE "OLD" "ACTIVE" SLIMES DAM

Please refer generally to paragraph 20 of this report.

Audit observations:

- The new slimes dam (also referred to as Nchwaning II slimes dam expansion) was also inspected from the vehicle (adjacent to the active slimes dam), and is authorised by the integrated WML/EA. This is not yet active but there has been a 'water trial project' to commission the drains;
- The old slimes dam is almost full;
- The old slimes dam is not fenced (also previously noted in 2017 ELCA);
- Fraser Alexander manages the old slimes dam;
- The old slimes dam is not lined (also previously noted in 2017 ELCA). Refer further to paragraph 15 of this report under "**WATER USE LICENSING – SECTION 21(G) OF THE NWA**";
- The berm is constructed with residue waste (also previously noted in 2017 ELCA);

NCHWANING II AND III MINES: THE "OLD" "ACTIVE" SLIMES DAM

- There is a contractor lay down area next to old slimes dam;
- There is a return water dam. Water is supposed to be pumped via a silt trap to the return water dam but the silt trap was not working; and
- The slopes of the old tailings dam were steep and there was vegetation present (also previously noted in 2017 ELCA).

New slimes dam



Entrance to old slimes dam – not fenced



Entrance to old slimes dam – not fenced



Top of slimes dam (almost full) with barge



Old slimes dam's return water dam



Silt trap to the return water dam not working



NCHWANING II AND III MINES: THE "OLD" "ACTIVE" SLIMES DAM

Old slimes dam's steep slopes



Old slimes dam's steep slopes



Contractor area next to old slimes dam



NCHWANING II AND III MINES: THE WASTE ROCK DUMP AREA

Please refer generally to paragraph 20 of this report.

Audit observations:

- This area was established before the commencement of the Residue Regulations (24 July 2015);
- It consists of fine, solid and wet waste rock;
- There were steep side slopes, leading to erosion (also previously noted in 2017 ELCA);
- This area was 'not classified' in terms of the Residue Regulations as there was initially an intention to sell this area;
- There were dust impacts from this area; and
- Some of the waste rock is used in the flooring of roads. In this respect, the use of waste rock to make roads falls within the exemption in condition 19 of Appendix I of the mine's WUL from compliance with some of the provisions of the Mining Water Regulations, namely "Regulation 5: Used of low grade ore for construction of laydown areas, roads and rail lines". Refer to paragraph 16 of this report further.

NCHWANING II AND III MINES: THE WASTE ROCK DUMP AREA

Steep slopes



Dust impacts



Vehicles and excavator at waste rock area



NCHWANING II AND III MINES: THE SEWAGE TREATMENT PLANT

Please refer generally to paragraph 19 of this report under “**SEWAGE TREATMENT & DISPOSAL**”, “**WASTE POLLUTION**” and “**EXTERNAL WASTE SERVICE PROVIDERS**” and paragraph 11 of this report regarding general pollution impacts.

Audit observations:

- Various pollution impacts in contravention of the duty of care, including sewage sludge spillages (also previously noted in 2017 ELCA);
- No Water Care Works Certificate displayed (also previously noted in 2017 ELCA);
- There were no trenches for secondary containment and spillages surrounding the area (also previously noted in 2017 ELCA);
- The chlorinator was not working and polluted water and/or chlorine could potentially overflow onto open soil;
- There was no access control to the area;
- There was generally poor housekeeping;

NCHWANING II AND III MINES: THE SEWAGE TREATMENT PLANT

- Screen drums were used for manual separation of solids, which was on an area with a containment system;
- There was a foul odour; and
- The sludge from the drying beds had not been removed for disposal – in one case, vegetation had begun to grow in a drying bed.

Broken chlorinator



Broken chlorinator



Drying bed – not cleared with vegetation visible



Manual screen drum filtration



Containment system underneath drums



Loose equipment / poor housekeeping



NCHWANING II AND III MINES: THE SEWAGE TREATMENT PLANT

Spillages



Spillages



No access control / fence



NCHWANING II AND III MINES: THE ENGINEERING WORKSHOP

Please refer generally to paragraph 19 of this report.

Audit observations:

- The workshop was surfaced;
- There was no overfilling of waste in bins;
- The storage yard outside of the workshop consisted of various equipment and the housekeeping was generally good;
- There were various bins for hazardous and general waste and it did not appear that there was any mixing of waste;
- There were no obvious hydrocarbon spills outside of the workshop;
- Chemicals stored outside of workshop were in a bunded area; and
- The wash-bay (noted in 2017 ELCA) was no longer in use.

NCHWANING II AND III MINES: THE ENGINEERING WORKSHOP

Entrance to workshop



Inside workshop



Storage yard outside workshop



Waste bins inside workshop



Chemicals stored outside of workshop were in a bunded area



Chemicals stored outside of workshop were in a bunded area



NCHWANING II AND III MINES: THE AREA BEHIND THE DECLINE⁷

Please refer generally to paragraph 19 of this report.

Audit observations:

- The 2017 ELCA noted there was an illegal waste dump behind the decline;
- This waste has since been removed and a camera installed to monitor possible littering; and
- There was a temporary contractor area.

Temporary contractor area



No visible litter at decline



No visible litter at decline



NCHWANING II AND III MINES: THE MAIN ROAD LEAVING NCHWANING II

Please refer generally to paragraph 19 of this report.

Audit observations:

⁷ This was inspected from the vehicle.

NCHWANING II AND III MINES: THE MAIN ROAD LEAVING NCHWANING II

- The 2017 ELCA noted that there was a 'discard dump' at the Western Side of Main Road at Nchwaning II. This was not noticed from the inspection from the car leaving Nchwaning II, although some litter was noted; and
- The road looks like tar but IMBEWU was advised that this was manganese waste rock which had been used for the flooring of roads. In this respect, the use of waste rock to make roads falls within the exemption in condition 19 of Appendix I of the mine's WUL from compliance with some of the provisions of the Mining Water Regulations, namely "Regulation 5: Used of low grade ore for construction of laydown areas, roads and rail lines". Refer to paragraph 16 of this report further.

Back road to Nchwaning II



Litter on side of road



BLACK ROCK AREA: KOPPIE AREA

Please refer generally to paragraph 20 of this report and paragraph 11 of this report regarding general pollution impacts..

BLACK ROCK AREA: KOPPIE AREA

Audit observations:

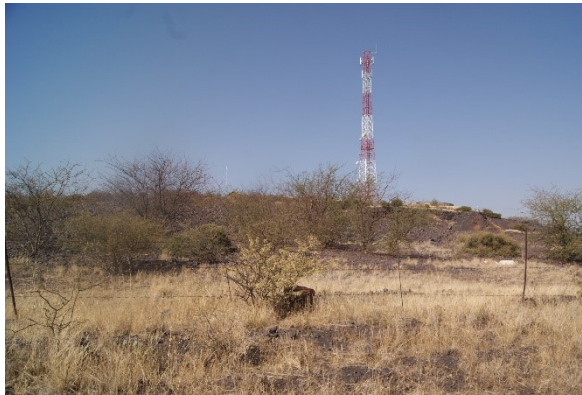
- The Koppie area including the top of the koppie and waste rock dumps surrounding the koppie were inspected;
- There were a number of waste rock dumps/piles at various points in and around the koppie (also previously noted in 2017 ELCA);
- There is no rehabilitation undertaken in respect of these waste rock dumps (also previously noted in 2017 ELCA). Please refer to our comments at paragraph 20 of this report further; and
- There was a fence noted, although it was not clear what all was fenced off as the size of the area was large, and the fence at the top of the koppie was still under construction/being installed.

Fence on top of koppie



Waste rock dumps in and around koppie

Waste rock dumps in and around koppie



Waste rock dumps in and around koppie

Fence under construction at top of koppie



Waste rock dumps in and around koppie

BLACK ROCK AREA: KOPPIE AREA



BLACK ROCK AREA: THE SALVAGE YARD

Please refer generally to paragraph 19 of this report under “**STORAGE OF WASTE**”, “**WASTE STORAGE NORMS**” and “**WASTE SORTING NORMS**” paragraph 11 of this report regarding general pollution impacts.

Audit observations:

- The 2017 ELCA noted there were no formal management measures, although on inspection, there area was well organised and the housekeeping in general fairly good;
- The salvage yard consisted of:
 - sorted salvageable waste, namely various items which are generally sorted which are to be later sold (such as copper, plastic pipes, fridges, aircons, ovens, cars, other vehicles and other sorted salvageable waste); and
 - a general scrap metal yard of items which are to be sold by the ton and consists of a mixture of items;
- The area was fenced off and there was adequate access control;

BLACK ROCK AREA: THE SALVAGE YARD

- There was some hazardous waste, such as PPE;
- IMBEWU was advised that equipment which contains oil is generally drained before and where there are hydrocarbon spills, a drip tray is used;
- There was some general litter/ general waste in the general scrap metal yard;
- There were oil spills kits at the entrance; and
- It is possible that the Waste Storage Norms and/or Waste Sorting Norms also apply to this site.

Fencing around scrap yard



Sorted salvageable waste: ovens

Sorted salvageable waste: fridges & aircons



Sorted salvageable waste: plastic pipes

Sorted salvageable waste: fridges & aircons



Sorted salvageable waste: other

BLACK ROCK AREA: THE SALVAGE YARD



Sorted salvageable waste: wire mesh



Sorted salvageable waste: cars



Sorted salvageable waste: other vehicles



General scrap year (mixed)



General scrap year (mixed)



General scrap year (mixed) and litter

BLACK ROCK AREA: THE SALVAGE YARD



General scrap year (mixed)



General scrap year (mixed)



Oil spills kits at entrance



BLACK ROCK AREA: THE SEWAGE TREATMENT PLANT

Please refer generally to paragraph 19 of this report under “**SEWAGE TREATMENT & DISPOSAL**”, “**WASTE POLLUTION**” and “**EXTERNAL WASTE SERVICE PROVIDERS**” and paragraph 11 of this report regarding general pollution impacts.

Audit observations:

- There was no foul odour;
- There was adequate access control;
- The Water Care Works Certificate was not displayed (also previously noted in 2017 ELCA);
- There were some spillages of the dried sludge due to wind;
- The treated water is used for irrigation as per the site's WUL (section 21(e) water use) as dealt with in paragraph 15 of this report;
- There was specific colour-coded labelling indicating where chlorine had been used;
- There was a significant sewage spillage in the last year due to a valve failing. It is not clear if this was reported as an “incident” in terms of section 30 of NEMA. Refer to paragraph 18 of this report further;
- There was white powder noted on the ground which treated spillages; and
- There was a rubber walkway for the wheelie drums to transport the sewage sludge to the drying beds.

Spillages of the dried sludge due to wind	White powder which treated spillages	Access control
--	---	-----------------------

BLACK ROCK AREA: THE SEWAGE TREATMENT PLANT



Sewage sludge in wheelie bin and beginning of rubber walkway



Rubber walkway



Colour coding on pipes to indicate chlorine



BLACK ROCK AREA: HAZARDOUS WASTE STORAGE AREA

Please refer generally to paragraph 19 of this report under **“WASTE POLLUTION”** , **“STORAGE OF WASTE”**, **“WASTE STORAGE NORMS”** and **“EXTERNAL WASTE SERVICE PROVIDERS”** and paragraph 11 of this report regarding general pollution impacts.

BLACK ROCK AREA: HAZARDOUS WASTE STORAGE AREA

Audit observations:

- The hazardous waste storage area has a concrete surface and is raised;
- There are trenches and/or a secondary containment system on the one side of the facility in the event of a spillage/runoff and there is a bunded wall on the other side;
- The secondary containment system was not silted/blocked;
- At the back of the facility (near the hydrocarbon contaminated soil), there is an exit, where there was no secondary containment system;
- Various hazardous wastes were noted including used oil tanks, hydrocarbon contaminated soil, unsorted/mixed hazardous waste, printer cartridges, etc within the hazardous waste storage area;
- There were various bins and skips outside of the hazardous waste storage area on open ground;
- Hazardous waste is collected by African Eagle (third party waste service provider) and transported to an external hazardous waste disposal facility – it is collected in skips, which stand on open soil a few metres from the hazardous waste storage area;
- There were some internal trenches noted within the waste storage area;
- Some hydrocarbon contaminated soil had spilled outside of the hazardous waste storage area near to open soil; and
- The area was fenced.

Secondary containment system on one side

Secondary containment system not blocked

Bins and skips outside of the hazardous waste storage area on open ground

BLACK ROCK AREA: HAZARDOUS WASTE STORAGE AREA



Bins and skips outside of the hazardous waste storage area on open ground



Unsorted / mixed hazardous waste within the hazardous waste storage area



Unsorted / mixed hazardous waste within the hazardous waste storage area



Printer cartridges within the hazardous waste storage area



Hazardous waste within the hazardous waste storage area



Used oil tanks within the hazardous waste storage area

BLACK ROCK AREA: HAZARDOUS WASTE STORAGE AREA



Hydrocarbon contaminated soil within the hazardous waste storage area



Hydrocarbon contaminated soil spillage at back entrance which is not trenched



Full hazardous waste skip waiting for collection



BLACK ROCK AREA: GENERAL WASTE DISPOSAL SITE

Please refer generally to paragraph 19 of this report under “**WASTE POLLUTION**”, “**NEMWA LISTED ACTIVITIES**”, “**EXTERNAL WASTE SERVICE PROVIDERS**”, “**DISPOSAL OF WASTE**” and “**WASTE SORTING NORMS**” and paragraph 11 of this report regarding general pollution impacts.

Audit observations:

- This facility is licensed by the 2014 WML;
- There was signage;
- IMBEWU was advised that the general waste is compacted and it is buried;
- There was general waste noted in an open mine void / old mine workings. In this respect, this falls within the exemption in condition 19 of Appendix I of the mine’s WUL from compliance with some of the provisions of the Mining Water Regulations, namely “*Regulation 4(c): Disposal of general waste from the Nchwaning-, Gloria- and Black Rock in an open-cast mine void*”. Refer to paragraph 16 of this report further;
- The area was fenced and there was adequate access control;
- There was wood and timber appears set aside all together outside of / adjacent to the disposal area. It is possible that the Waste Sorting Norms apply to this site; and
- There was another section outside of the general waste disposal area where paper and cardboard were stockpiled for recycling. It is possible that the Waste Sorting Norms also apply to this site.

General waste disposal area	Waste in waste disposal area	Waste in waste disposal area
------------------------------------	-------------------------------------	-------------------------------------

BLACK ROCK AREA: GENERAL WASTE DISPOSAL SITE



Waste in an open mine void



Fencing of general waste disposal area



Signage



Paper and cardboard section



Wood and timber separated



Wood and timber separated

BLACK ROCK AREA: GENERAL WASTE DISPOSAL SITE



BLACK ROCK AREA: WASTE TYRE STOCKPILE⁸

Please refer generally to paragraph 19 of this report under “WASTE TYRES”.

Audit observations:

- This was observed from afar (from the general waste disposal facility which is adjacent); and
- It was fenced.

Waste tyre stockpile from a distance

Waste tyre stockpile from a distance

Waste tyre fence from a distance

⁸ This was seen from afar from the waste disposal area (which is adjacent to the waste stockpile area).

BLACK ROCK AREA: WASTE TYRE STOCKPILE⁸



BLACK ROCK AREA: MECHANICAL WORKSHOP AND SURROUNDS

Please refer generally to paragraph 19 of this report under **“WASTE POLLUTION”** and **“STORAGE OF WASTE** and paragraph 11 of this report regarding general pollution impacts.

Audit observations:

- The workshop is surfaced;
- There was secondary containment inside and outside the workshop, although some limited areas had no secondary containment (also previously noted in 2017 ELCA);
- The washbay outside of the workshop was bunded and the trenched were not silted;
- There was some equipment and cars stored outside the workshop;
- BRMO personnel advised that drip trays or buckets are used when there are spills in the parking lot outside the workshop and the soil is dug up and taken to the hazardous waste storage area;

BLACK ROCK AREA: MECHANICAL WORKSHOP AND SURROUNDS

- There were multiple bins inside and outside the workshop; and
- Some bins were overflowing.

Inside the workshop



Inside the workshop



Secondary containment in workshop



Secondary containment outside of workshop



Washbay



Waste bins



BLACK ROCK AREA: MECHANICAL WORKSHOP AND SURROUNDS

Waste bins



Car in parking lot with bucket underneath for hydrocarbon spill



Cars in parking lot outside workshop





11 GENERAL IMPACTS AND COMPLIANCE



GENERAL IMPACTS AND COMPLIANCE: APPLICABLE LEGISLATION & KEY DEFINITIONS	
<ul style="list-style-type: none"> • NEMA • NWA • MPRDA • NEMWA • ECA • CA 	<ul style="list-style-type: none"> • “Air pollution” means “any change in the composition of the air caused by smoke, soot, dust (including fly ash), cinders, solid particles of any kind, gases, fumes, aerosols and odorous substances.” • “Environment” means “the surroundings within which humans exist and that are made up of - (i) the land, water and atmosphere of the earth; (ii) micro-organisms, plant and animal life; (iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.” • NEMA defines “pollution” as “any change in the environment caused by - (i) substances; (ii) radioactive or other waves; or (iii) noise, odours, dust or heat, emitted from any activity, including the storage or treatment of waste or substances, construction and the provision of services, whether engaged in by any person or an organ of state, where that change has an adverse effect on human health or wellbeing or on the composition, resilience and productivity of natural or managed ecosystems, or on materials useful to people, or will have such an effect in the future”. • The NWA defines “pollution” as “the direct or indirect alteration of the physical, chemical or biological properties of a water resource so as to make it - (a) less fit for any beneficial purpose for which it may reasonably be expected to be used; or (b) harmful or potentially harmful – (aa) to the welfare, health or safety of human beings; (bb) to any aquatic or nonaquatic organisms; (cc) to the resource quality; or (dd) to property”. • “Water resource” includes “a watercourse, surface water, estuary, or aquifer”.

GENERAL IMPACTS AND COMPLIANCE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does Assmang own the land on which the BRMO are based?	Yes <input checked="" type="checkbox"/>	Noted
Are environmental legal compliance audits conducted?	Yes <input checked="" type="checkbox"/>	Noted
Is the operation aware of any current transgression of any environmental legislation, or any permits, licences or other authorisations held by the operation (such as its EA, WUL, WML, AEL etc)? [s28, s31L, s34 of NEMA / s19, s53, s155 of NWA / s56 of NEMWA / s45, s47, s93 of MPRDA]	Yes <input checked="" type="checkbox"/>	Non-compliant

GENERAL IMPACTS AND COMPLIANCE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Has the operation received any pre-directives, directives, compliance notices, pre-compliance notices, orders, instructions, abatement notices, demands and/or any other compliance-related and/or enforcement-related action from any government department or official dealing with environmental protection (such as EMIs):		
• in terms of NEMA? [s28, s31L, s34 of NEMA]	Yes <input checked="" type="checkbox"/>	Non-compliant
• in terms of ECA? [s31A of ECA]	No <input checked="" type="checkbox"/>	Not Verified
• in terms of the NWA? [s19, s53, s155 of NWA]	No <input checked="" type="checkbox"/>	Not Verified
• in terms of NEMWA? [s56 of NEMWA]	No <input checked="" type="checkbox"/>	Not Verified
• in terms of the MPRDA? [s45, s47, s93 of MPRDA]	No <input checked="" type="checkbox"/>	Not Verified
• in terms of NEMBA? [s69, s73, s74, of NEMBA]	No <input checked="" type="checkbox"/>	Not Verified
• in terms of any other legislation, including provincial and municipal, related to environmental protection?	No <input checked="" type="checkbox"/>	Not Verified
Has any civil litigation and/or criminal prosecution been threatened or commenced against the operation by any private person(s), NGO or other civil society organisation and/or the State due to pollution of the environment and/or water resources? [Part 3 of Chapter 7 and s49A of NEMA / Chapter 16 of the NWA]	No <input checked="" type="checkbox"/>	Not Verified
Have any employees ever refused to carry out work based on the belief that the performance of the work would result in an imminent and serious threat to the environment? [s29 of NEMA]	No <input checked="" type="checkbox"/>	Not Verified
Does the operation at all times take reasonable measures to prevent pollution of the environment and water resources from occurring, continuing or recurring? [s28 of NEMA / s19 of NWA]	Yes <input checked="" type="checkbox"/>	Non-compliant
Has there been historical pollution of the environment and/or water resources? [s28 of NEMA / s19 of NWA]	Yes <input checked="" type="checkbox"/>	Non-compliant
Have neighbours polluted the environment and/or water resources? [s28 of NEMA / s19 of NWA]	No <input checked="" type="checkbox"/>	Not Verified

GENERAL IMPACTS AND COMPLIANCE: COMMENTS	
<ul style="list-style-type: none"> • IMBEWU was advised during the interview process that the DMR undertook a site inspection of the BRMO on 29 and 30 July 2019. We received a copy of the DMR's inspection notification dated 26 July. The DMR requested various documents to be made available.⁹ • Internal minutes of this inspection were requested but not provided. As such, it is not possible to ascertain what areas of the BRMO were inspected. However, from the DMR's document request, it is clear that the DMR intends to verify that the BRMO has all requisite approvals in place and is compliant with its environmental legal obligations. Without further information, it is not possible to determine what compliance action, if any, the DMR may intend to take. • We strongly recommend that any areas of concern or non-compliance identified by the DMR be attended to as soon as possible to avoid compliance action and/or criminal sanctions. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and generally to the table of offences and penalties in Annexure 1. 	
<ul style="list-style-type: none"> • As per the DMR's inspection notification dated 26 July, the DMR requested that certain documents be made available. It is not clear if this was done. • In terms of the this ELCA process, various documents were requested but not provided. We strongly recommend that the BRMO improve its document control mechanisms. • In this respect, we point out that there are a number of provisions under the various environmental Acts which impose an obligation on organisations to produce documents (such as the ones requested by the DMR). 	

⁹ "a) Copy of the Mining Right. b) Approved EMP/Environmental Authorisation. c) All licenses related to Environmental Management. d) Surveyed layout plan. e) Latest environmental liability determined by independent assessor which should indicate the current environmental liability in case of premature closure and envisaged future closure costs. .f) Record of Environmental Awareness. g) Rehabilitation plan and rehabilitation reports. h) Proof of waste disposal (all waste streams). i) Latest performance assessment or audit of compliance report submitted to this office. j) Measures in place to address any identified shortcomings of the report above. k) List of financial provisions provided to this office. l) Latest proof of community engagement (landowners) and means of addressing issues of concern; and m) Reports on compliance with other environmental related legislations, including aspects related to health and safety."

GENERAL IMPACTS AND COMPLIANCE: COMMENTS	
<ul style="list-style-type: none"> • IMBEWU was further advised during the interview process that there was a compliance notice issued by the DMR in 2018 regarding hydrocarbon management and waste at the area behind the change houses at Gloria mine, as well as for inadequate waste management at Gloria's decline area (no skips etc). Copies of the correspondence were requested but not provided. It is therefore not possible to determine what the issues of concern were, nor whether the prescribed corrective action was undertaken. We advise that Assmang take any compliance action seriously in light of the consequences which may flow from a failure to comply with a compliance notice and/or a failure to adhere to the duty of care. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with a compliance notice. 	
<ul style="list-style-type: none"> • In terms of pollution impacts in terms of section 28 of NEMA, section 19 of the NWA and the Contaminated Land Provisions, the following was noted during the site inspection, as detailed in paragraph 10 of this report: <ul style="list-style-type: none"> ○ there were dried sewage sludge spillages and other sewage spills at the sewage treatment plants at Gloria, Nchwaning II and Black Rock onto open soil. The sewage treatment plant at Nchwaning II in particular was of concern and was also previously noted for pollution impacts in the 2017 ELCA; ○ As set out in the 2017 ELCA <i>"There was a sewage treatment spill on unsurfaced area at the Gloria Accommodation Camp. The sewage spill moved into the Gamagara rehabilitation area towards the Gamagara River. The sewage spill was caused by the hydraulic level in the pump station being breached due to the failure and blockages in the pump station. The Mine did not undertake any soil and water samples to determine the extent of possible contamination caused. The Mine must scrutinize the October water monitoring results to determine whether the sewage spill had a significant result on the land and surrounding water body."</i> Please further refer to our comments under "WATER POLLUTION" under paragraph 16 of this report; 	

GENERAL IMPACTS AND COMPLIANCE: COMMENTS

- there were hydrocarbon impacts throughout the site, including at the area behind the change houses at Gloria, at the area behind the decline at Gloria, Gloria's surface plant workshop and at the Black Rock mechanical workshop parking lot;
- there were spillages from chemicals/ hazardous waste container at the area behind the decline at Gloria, and there was no bunding/ containment to contain the spread of these spillages onto *inter alia* soil;
- there was litter at various places throughout the site;
- outside of Gloria's surface plant workshop, the bunded area containing chemicals was fenced off but the bunding/concrete had cracked;
- the trenches at Gloria's surface plant workshop were blocked as was the trench outlet (also previously noted in 2017 ELCA);
- there was possible pollution from hazardous waste at the Black Rock hazardous waste storage area (various bins and skips were outside of the hazardous waste storage area on open ground); and
- some hydrocarbon contaminated soil had spilled outside of the Black Rock hazardous waste storage area near to open soil.
- Some of the above-mentioned non-compliances were identified in the 2017 ELCA, and as such, have not been remedied in over 18 months.
- The following was further noted during the interview process:
 - there is no rehabilitation being conducted of the various manganese waste stockpiles, which may be polluting the soil/ground. Refer to paragraph 10 with respect to specific site observations and paragraph 20 of this report; and
 - there has been no rehabilitation of certain historic / non-operational tailings facilities, which may be causing pollution.
- Please further refer generally to our comments under "**WATER POLLUTION**" under paragraph 16 of this report, paragraph 17 with respect to the Contaminated Land Provisions and "**WASTE POLLUTION**" under paragraph 19 of this report.



GENERAL IMPACTS AND COMPLIANCE: COMMENTS	
<ul style="list-style-type: none"> The causation of pollution is in breach of the duty of care and exposes Assmang to environmental compliance and enforcement action. In terms of pollution impacts, please refer to our comments on the duty of care at paragraph 7 of this report. Refer further to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with the duty of care. We strongly recommend that Assmang employ all reasonable measures (as defined in section 28 of NEMA and section 19 of the NWA) to ensure that pollution is prevented from occurring, continuing or recurring. Failing which, Assmang exposes itself to significant risk as detailed in paragraph 8 and Annexure 1 of this report. 	
<ul style="list-style-type: none"> In terms of historical pollution impacts, note our comments on the duty of care at paragraph 7 of this report. 	
<ul style="list-style-type: none"> In terms of possible pollution impacts from neighbours, note our comments on the duty of care at paragraph 7 of this report. 	

12 NEMA LISTED ACTIVITIES


NEMA LISTED ACTIVITIES: APPLICABLE LEGISLATION & KEY DEFINITIONS	
<ul style="list-style-type: none"> NEMA ECA NEMA Listed Activities (GN 1182 / GN 1183 / GN 385, GN 386 and GN 387 / GN 544, GN 545 and GN 546 / GN 983, GN 984 and GN 985) Section 24G Regulations (GN 698) 	<p>"Listed activities" means "activities which may not commence without environmental authorisation in terms of NEMA from the competent authority".</p>

NEMA LISTED ACTIVITIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Before 3 July 2006, did the operation undertake a listed activity under ECA? [GN 1182 / GN 1183]	Yes <input checked="" type="checkbox"/>	Noted

NEMA LISTED ACTIVITIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
• If so, was a record of decision (RoD) obtained prior to commencement? [s21, s22 of ECA]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, is the operation in compliance with the conditions of the RoD(s)?	Yes <input checked="" type="checkbox"/>	Not Verified
Between 4 July 2006 and 2 August 2010, did the operation undertake a NEMA Listed Activity? [GN 385, GN 386 and GN 387]	Yes <input checked="" type="checkbox"/>	Noted
• If so, was an EA obtained prior to commencement? [s24 of NEMA]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, is the operation in compliance with the conditions of the EA(s)? [s49A of NEMA]	Yes <input checked="" type="checkbox"/>	Not Verified
Between 3 August 2010 and 8 December 2014, did the operation undertake a NEMA Listed Activity? [GN 544, GN 545 and GN 546]	Yes <input checked="" type="checkbox"/>	Noted
• If so, was an EA obtained prior to commencement? [s24 of NEMA]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, is the operation in compliance with the conditions of the EA(s)? [s49A of NEMA]	Yes <input checked="" type="checkbox"/>	Not Verified
Since 8 December 2014, has the operation undertaken a NEMA Listed Activity? [GN 983, GN 984 and GN 985]	Yes <input checked="" type="checkbox"/>	Noted
• If so, was an EA obtained prior to commencement? [s24 of NEMA]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, is the operation in compliance with the conditions of the EA(s)? [s49A of NEMA]	Yes <input checked="" type="checkbox"/>	Not Verified
Has the operation commenced any process of "rectification" in terms of section 24G of NEMA relating to commencing NEMA Listed Activities without an EA? [s24G of NEMA / GN 698]	Yes <input checked="" type="checkbox"/>	Noted

NEMA LISTED ACTIVITIES: COMMENTS	
<ul style="list-style-type: none"> As a general comment, some of the answers in the questionnaire were misunderstood and, in some cases, incorrectly answered, which transpired during the interview process. We recommend that adequate resources and time be afforded to completing the ELCA questionnaire (or other audit process) so that areas of concern are correctly identified (which may include training on the applicable legal provisions). 	
<ul style="list-style-type: none"> IMBEWU was only provided with one EA in terms of NEMA, dated 8 August 2018 authorising Activity 31 in NEMA Listing Notice 1 (GN 983) (decommissioning of above ground storage of fuels/dangerous goods). It is not possible to determine compliance with this EA as no audit of compliance was provided. We recommend that Assmang ensure compliance with its EA's conditions to reduce the risk of potential compliance and enforcement action being taken against it. Refer to the table of offences and penalties in Annexure 1 with respect to non-compliance with EA conditions. 	
<ul style="list-style-type: none"> During the interview process, it was noted that there are other EAs as well as a section 24G EA. These were requested¹⁰ although not provided. We strongly recommend that the BRMO improve its document control mechanisms. Note that in terms of section 31P of NEMA, there is a duty to produce documents, namely <i>“Any person to whom a permit, licence, permission, certificate, authorisation or any other document has been issued in terms of this Act or a specific environmental management Act, must produce that document at the request of an environmental management inspector.”</i> Further, regulation 26(h) of the EIA Regulations provides that EAs must contain a requirement to the effect that same be made available for inspection and copying on site, on request and on the holder' website. 	

¹⁰ This included copies of: Integrated EA/WML for Nchwaning II dated November 2018, last external audit report of integrated EA/WML, Gloria EA dated 2018; last external audit report of Gloria EA; Section 24G for entire BRMO dated 2014; last external audit report on Section 24G authorisation; basic assessment report (EA application) for Gloria 2.5 ML dam; scoping and environmental impact report (EA application) for Gloria super fine storage facility (new tailings facility).

NEMA LISTED ACTIVITIES: COMMENTS	
<ul style="list-style-type: none"> • Further, as we did not receive the requested EAs nor audit reports on compliance therewith, we are unable to comment on compliance in this regard. • We recommend that Assmang ensure compliance with all its EA conditions to reduce the risk of potential compliance and enforcement action being taken against it. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with EA conditions. 	
<ul style="list-style-type: none"> • As not all EAs were provided, despite request, it is not possible to determine whether all NEMA Listed Activities are authorised. • In terms of the 2017 ELCA, there was a concern that not all NEMA Listed Activities were not authorised at the BRMO.¹¹ IMBEWU was further advised during the interview process that the BRMO had received advice from Lana van der Westhuizen (internal legal advisor and author of the 2017 ELCA) in this regard, which advice was requested but not provided. • The commencement of a NEMA Listed Activity without an EA is unlawful and exposes Assmang to environmental compliance and enforcement action, including the requirement of a section 24G fine. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to commencing with a NEMA Listed Activity without an EA, including the section 24G rectification process. • It is strongly recommended that a gap analysis be urgently undertaken by an appropriately qualified person to determine whether all NEMA Listed Activities are authorised. 	

¹¹ Page 109-110 of 2017 ELCA.

13 MINING AUTHORISATIONS, EMPr AMENDMENTS, FINANCIAL PROVISION AND MINE CLOSURE

MINING AUTHORISATIONS, EMPr AMENDMENTS, FINANCIAL PROVISION AND MINE CLOSURE: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> • MPRDA • NEMA • MPRDA Regulations (GN 527) • EIA Regulations (GN 982) • Financial Provision Regulations (GN 1147) 	<ul style="list-style-type: none"> • "Holder" means "in relation to a prospecting right, mining right, mining permit, retention permit, exploration right, production right, reconnaissance permit or technical co-operation permit, means the person to whom such right or permit has been granted or such person's successor in title." • "Financial provision" means the "insurance, bank guarantee, trust fund or cash that applicants for an environmental authorisation must provide in terms of this Act guaranteeing the availability of sufficient funds to undertake the (a) rehabilitation of the adverse environmental impacts of the listed or specified activities; (b) rehabilitation of the impacts of the prospecting, exploration, mining or production activities, including the pumping and treatment of polluted or extraneous water; (c) decommissioning and closure of the operations; (d) remediation of latent or residual environmental impacts which become known in the future; (e) removal of building structures and other objects; or (f) remediation of any other negative environmental impacts". • "Land" includes "the surface of the land and the sea, where appropriate". • "Mine" means "when- (a) used as a noun- (i) any excavation in the earth, including any portion under the sea or under other water or in any residue deposit, as well as any borehole, whether being worked or not, made for the purpose of searching for or winning a mineral; (ii) any other place where a mineral resource is being extracted, including the mining area and all buildings, structures, machinery, residue stockpiles, access roads or objects situated on such area and which are used or intended to be used in connection with such searching, winning or extraction or processing of such mineral resource; and (b) used as a verb, in the mining of any mineral, in or under the earth, water or any residue deposit, whether by underground or open working or otherwise and includes any operation or activity incidental thereto, in, on or under the relevant mining area". • "Mineral" means "any substance, whether in solid, liquid or gaseous form, occurring naturally in or on the earth or in or under water and which was formed by or subjected to a geological process, and includes sand, stone, rock, gravel, clay, soil and any mineral occurring in residue stockpiles or in residue deposits, but excludes - (a) water, other than water taken from land or sea for the extraction of any mineral from such water; (b) petroleum; or (c) peat". • "Mining area" means "(a) in relation to a mining right or a mining permit, means the area on which the extraction of any mineral has been authorised and for which that right or permit is granted; (b) in relation to any environmental, health, social and labour matter and any residual, latent or other impact thereto, including- (i) any land or surface adjacent or non-adjacent to the area as contemplated in subsection (i) but upon which related or incidental operations are being undertaken; (ii) any surface of land on which such road, railway line, powerline, pipe line, cableway or conveyor belt is located, under the control of the holder of such a mining right or a mining permit and which such holder is entitled to use in connection with the
--	--

MINING AUTHORISATIONS, EMPr AMENDMENTS, FINANCIAL PROVISION AND MINE CLOSURE: APPLICABLE LEGISLATION & KEY DEFINITIONS

operations performed or to be performed under such right or permit; and (iii) all buildings, structures, machinery, residue stockpiles, or objects situated on or in the area as contemplated in subsections (ii)(a) and (ii)(b)."


- **"Mining operation"** means "any operation relating to the act of mining and matters directly incidental thereto".
- **"Processing"**, in relation to any mineral, means "the winning, extracting, concentrating, refining, calcining, classifying, crushing, screening, washing, reduction, smelting or gasification thereof".
- **"Public participation process"** means "in relation to the assessment of the environmental impact of any application for an EA, a process by which potential interested and affected parties are given opportunity to comment on, or raise issues relevant to, the application".

MINING AUTHORISATIONS & EMPr AMENDMENTS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Did the operation have any prospecting and/or mining authorisations, permissions, permits or rights in terms of the MPRDA? [MPRDA]	Yes <input checked="" type="checkbox"/>	Compliant
Did the operation commence any "conversion process" in terms of the MPRDA? [Schedule II of MPRDA]	Yes <input checked="" type="checkbox"/>	Compliant
Did the operation have its EMPr approved by the DMR? [s39 of MPRDA]	Yes <input checked="" type="checkbox"/>	Compliant
Did the operation manage all environmental impacts in accordance with its EMPr? [s38 of MPRDA / s24N of NEMA]	Yes <input checked="" type="checkbox"/>	Non-compliant
Does the EMPr comply with section 24N(2) of NEMA as well as Appendix 4 of the EIA Regulations? [s24N of NEMA / r19, r23 & Appendix 4 of GN 982]	Yes <input checked="" type="checkbox"/>	Not Verified
Were performance assessments / audits done on compliance with the EMPr? [r55 of GN 527 / s24N of NEMA / r34 of GN 982]	Yes <input checked="" type="checkbox"/>	Not Verified

MINING AUTHORISATIONS & EMPR AMENDMENTS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Has the EMPr audit been compiled by an independent auditor with relevant environmental auditing expertise and does it contain the information in Appendix 7 to the EIA Regulations? [r34, Appendix 7 of GN 982]	Yes <input checked="" type="checkbox"/>	Not Verified
Were EMPr performance assessment reports / audits submitted to the DMR every 2 years (or at alternate intervals as set out in the EMPr)? [r55 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified
If the findings of an audit show non-compliance with the EMPr:		
<ul style="list-style-type: none"> has the mine subjected its proposed EMPr amendments to a public participation process? [r34 of GN 982] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> following the public participation process, has the mine submitted its proposed EMPr amendments to the DMR? [r34 of GN 982] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> did the DMR approve the amendments to the EMPr? [r34 of GN 982] 	Yes <input checked="" type="checkbox"/>	Not Verified
Where an amendment is required to the impact management <i>actions</i> of an EMPr, does the mine immediately effect these and reflect same in its next environmental audit report? [r36 of GN 982]	Yes <input checked="" type="checkbox"/>	Not Verified
Where an amendment is required to the impact management <i>outcomes</i> of an EMPr before an EA audit is required, does the mine submit an EMPr amendment application (which includes a public participation process)? [r36, r37 of GN 982]	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, did the DMR approve the EMPr amendment application? [r37 of GN 982] 	Yes <input checked="" type="checkbox"/>	Not Verified
To the extent that the EMPr has been amended, was the written consent of the Minister of Mineral Resources obtained prior to the amendment of the EMPr? [s102 of MPRDA]	Yes <input checked="" type="checkbox"/>	Not Verified

MINING AUTHORISATIONS & EMPR AMENDMENTS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
After 8 December 2014, has the operation obtained any prospecting and/or mining permits or rights in terms of the MPRDA? [MPRDA]	Yes <input checked="" type="checkbox"/>	N/A
After 8 December 2014, has the operation applied to the DMR for an EA in terms of NEMA to undertake the prospecting or mining activity? [s24 of NEMA]	Yes <input checked="" type="checkbox"/>	N/A
• If so, was an EA obtained prior to commencement of the NEMA Listed Activities? [s24 of NEMA]	No <input checked="" type="checkbox"/>	N/A
• If so, is the operation in compliance with the conditions of the EA? [s49A of NEMA]	No <input checked="" type="checkbox"/>	N/A
Did the mine also submit an EMPr together with its EA application? [s24N of NEMA]	Yes <input checked="" type="checkbox"/>	N/A

MINING AUTHORISATIONS & EMPR AMENDMENTS: COMMENTS	
<ul style="list-style-type: none"> • During the interview process, IMBEWU was advised that: <ul style="list-style-type: none"> ○ The BRMO has a converted mining right in terms of the MPRDA, dated 13 July 2011, and same was provided to IMBEWU. ○ The BRMO has confined its mining to the parameters set out in its mining right as per Annexure C to the mining right. Annexure C was requested, but not provided by BRMO. ○ The (now-listed) mining activity under NEMA is authorised by virtue of the BRMO's approved EMPr. A copy of the approval by the DMR dated 13 February 2018 was provided to IMBEWU. ○ BRMO must perform EMPr performance assessments/audits once every two years as per its EMPr. A copy of the 2016 EMPr Performance Assessment Report by ENVASS Environmental Assurance, dated 21 October 2016, was provided to IMBEWU. The 2018 EMPr performance assessment/audit as well as the proof of its submission of 2018 to DMR was requested but not provided. ○ There had been no amendments to the BRMO's EMPr. 	

MINING AUTHORISATIONS & EMPR AMENDMENTS: COMMENTS

- A copy of the EMPr dated 1 June 2017 was requested but not provided. As set out above, the 2018 EMPr performance assessment/audit was also not provided. As such, in light of the shortcomings in information, various of our findings reflect as **“Not Verified”**. It appears however that there may be certain aspects of the EMPr which are not complied with, notably that some historic, non-operational slimes dams are not being rehabilitated (which was previously noted in the 2017 ELCA). As such, we have found **“non-compliance”** in this regard.
- Non-compliance with an approved EMPr is unlawful and exposes Assmang to compliance action and/or criminal sanctions. Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to non-compliance with an approved EMPr. **We strongly recommend that Assmang ensure that it is in full compliance with its approved EMPr.**
- With respect to amendments to the EMPr, the answers provided in the questionnaire indicate that amendments may have been done and we also note that the EMPr approval notes that the 2017 EMPr is an “updated EMPr”. However, during the interview process, it was advised that there had been no amendments to the BRMO’s EMPr. Confirmation that there have been no EMPr amendments (either following an audit or in terms of an EMPr amendment application in terms of the EIA Regulations) was specifically requested but not provided. As such, the position is not clear and our findings reflect as **“Not Verified”**.
- Note that prior to 14 December 2014, environmental management of mining activities was regulated by the MPRDA. After 8 December 2014, environmental management of mining activities is regulated by NEMA. This transition of environmental management from the MPRDA to NEMA is called the **“One Environmental System”**. As such, with respect to the auditing of the EMPr, there is a dual regulatory system (both the MRDA Regulations and the NEMA EIA Regulations).
- Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to:
 - non-compliance with EMPr auditing compliance obligations in terms of regulation 34 of the EIA Regulations;

MINING AUTHORISATIONS& EMPR AMENDMENTS: COMMENTS	
<ul style="list-style-type: none"> o non-compliance with EMPr amendment provisions in terms of regulation 37 of the EIA Regulations; and o non-compliance with section 102 of the MPRDA. • During the interview process, it transpired that some of the answers provided in the ELCA questionnaire were misunderstood, particularly with respect to the requirement of an EA for mining activities commenced after 8 December (One Environmental System). In the present matter, the mining activity is authorised by the approved EMPr and our findings therefore reflect as "N/A". • We recommend that adequate resources and time be afforded to completing the ELCA questionnaire (or other audit process) so that areas of concern are correctly identified (which may include training on the applicable legal provisions). 	

FINANCIAL PROVISION FOR REMEDIATION OF ENVIRONMENTAL DAMAGE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the mine rehabilitate the environment to its natural or predetermined state or to a land use which conforms to the principle of sustainable development? [s24N of NEMA]	Yes <input checked="" type="checkbox"/>	Not Verified

FINANCIAL PROVISION PRIOR TO 20 NOVEMBER 2015: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Was financial provision in place for the <i>total</i> quantum for rehabilitation, management and remediation of negative environmental impacts? [r53 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified
Was financial provision held in one of the following financial vehicles:		
<ul style="list-style-type: none"> • a trust fund in terms of (the now-repealed) section 10(1) (cH) of the Income Tax Act 58 of 1962? [r53 of GN 527] 	Yes <input checked="" type="checkbox"/>	Not Verified

<ul style="list-style-type: none"> a financial guarantee from a South African registered bank or financial institution approved by the DMR? [r53 of GN 527] 	Yes <input checked="" type="checkbox"/>	Not Verified
Was the financial provision determined by a detailed itemization of all <i>actual</i> costs required for premature closure (surface rehabilitation, prevention of air, water and soil pollution and prevention of leakage of water and minerals between subsurface formations and the surface), decommissioning and final closure and post closure management of residual and latent environmental impacts? [r54 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified
Was this quantum annually updated and reviewed? [r54 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified
Were inadequacies with regard to the financial provision rectified? [r54 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified

FINANCIAL PROVISION GOING FORWARD (19 FEBRUARY 2020): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
In November 2015, did the mine review its previously approved financial provision to align same with the Financial Provision Regulations? [r17 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
Will the mine comply fully with the Financial Provision Regulations by 19 February 2020? [GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
Has the mine made financial provision for:		
<ul style="list-style-type: none"> rehabilitation and remediation? [r5 of GN 1147 / s24P of NEMA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> decommissioning and closure activities at the end of operations? [r5 of GN 1147 / s24P of NEMA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> remediation and management of latent or residual environmental impacts which may become known in the future, including pumping and treatment of polluted or extraneous water? [r5 of GN 1147 / s24P of NEMA] 	Yes <input checked="" type="checkbox"/>	Not Verified
Does the mine's annual rehabilitation plan contain all information in Appendix 3? [r12 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
Has the Minister of Mineral Resources approved the mine's annual rehabilitation plan? [r15 of GN 1147]	Yes <input checked="" type="checkbox"/>	Non-compliant


FINANCIAL PROVISION GOING FORWARD (19 FEBRUARY 2020): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the mine's final rehabilitation, decommissioning and mine closure plan contain all the information in Appendix 4? [r12 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
Has the Minister of Mineral Resources approved the mine's final rehabilitation, decommissioning and mine closure plan? [r15 of GN 1147]	Yes <input checked="" type="checkbox"/>	Non-compliant
Does the mine's environmental risk assessment report contain all the information in Appendix 5? [r12 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
Has the Minister of Mineral Resources approved the mine's environmental risk assessment report? [r15 of GN 1147]	Yes <input checked="" type="checkbox"/>	Non-compliant
Has the mine ensured that the financial provision is, at any given time, equal to the sum of the <i>actual</i> costs of implementing 1) the annual rehabilitation plan, 2) the final rehabilitation, decommissioning and mine closure plan and 3) the environmental risk assessment report for a period of at least 10 years going forward? [r7 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
Was the determination, review and assessment of the financial provision undertaken by a specialist (an independent person who is qualified by virtue of his/her knowledge, qualifications, skills or expertise in the mining, environmental, resource economy and financial fields)? [r9 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
Was the specialist's determination of financial provision done through an itemisation of all activities and costs, which have been calculated based on the <i>actual</i> costs of implementing 1) annual rehabilitation, 2) final rehabilitation, decommissioning and closure and 3) remediation of latent or residual environmental impacts (including pumping and treatment of polluted or extraneous water)? [r6 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified

FINANCIAL PROVISION GOING FORWARD (19 FEBRUARY 2020): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Is the financial provision deferred against assets at mine closure or mine infrastructure salvage value? [r9 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
Is the financial provision held in one or more of the following financial vehicles:		
• a financial guarantee from a bank registered in terms of the Banks Act 94 of 1990 or from a financial institution registered by the Financial Services Board as an insurer or underwriter? [r8 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
• a trust fund established in terms of applicable trust legislation? [r8 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
If a financial guarantee has been used:		
• is this in the format of Appendix 1? [r8 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
• has the mine provided the DMR with verification of the registration of the financial institution? [r9 of GN 1147]	No <input checked="" type="checkbox"/>	Not Verified
• where the bank or financial institution intends to withdraw the financial guarantee to pay for an approved financial provision:		
• has the bank given 4 months' notification to the mine and the Minister of Mineral Resources? [r8 of GN 1147]	No answer	Not Verified
• has the mine notified the Minister of Mineral Resources within 7 days of receipt of the bank's notification? [r8 of GN 1147]	No <input checked="" type="checkbox"/>	Not Verified
If a trust fund has been used, is the deed of trust in the format of Appendix 2? [r8 of GN 1147]	No <input checked="" type="checkbox"/>	Not Verified
Where more than one financial vehicle is used, has the mine indicated to the DMR the apportionment between these? [r9 of GN 1147]	No <input checked="" type="checkbox"/>	Not Verified
Does the mine, on an annual basis, undertake a review of the requirements for:		

FINANCIAL PROVISION GOING FORWARD (19 FEBRUARY 2020): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> annual rehabilitation, as reflected in its annual rehabilitation plan? [r11 of GN 1147 / s24P of NEMA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> final rehabilitation, decommissioning and closure as reflected in its final rehabilitation, decommissioning and mine closure plan? [r11 of GN 1147 / s24P of NEMA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> remediation of latent or residual environmental impacts which may become known in the future, including the pumping and treatment of polluted or extraneous water, as reflected in its environmental risk assessment report? [r11 of GN 1147 / s24P of NEMA] 	Yes <input checked="" type="checkbox"/>	Not Verified
Is the adequacy of the mine's financial provision assessed and necessary adjustments identified on an annual basis immediately after the mine's financial year end (or on the anniversary of commencement in the case of new operations)? [r11 of GN 1147 / s24P of NEMA]	Yes <input checked="" type="checkbox"/>	Not Verified
With respect to the mine's annual assessment of the adequacy its financial provision, including proof of payment or arrangements to provide for adjustments:		
<ul style="list-style-type: none"> are these assessments audited by an independent auditor? [r11 of GN 1147] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> are the audited assessments included in environmental audit reports as required by the EIA Regulations? [r11 of GN 1147 / GN 982] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> are the audited assessments submitted to the Minister of Mineral Resources for approval on an annual basis (together with the annual rehabilitation plan, final rehabilitation, decommissioning and mine closure plan and environmental risk assessment report) 3 months after the mine's financial year end (or 3 months after commencement in the case of new operations)? [r11 of GN 1147 / s24P of NEMA] 	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> is each audited assessment (as submitted to the Minister of Mineral Resources) accompanied by a declaration by the auditor reconciling the mine's financial provision with any rehabilitation liabilities in 	Yes <input checked="" type="checkbox"/>	Not Verified

FINANCIAL PROVISION GOING FORWARD (19 FEBRUARY 2020): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
the mine's financial statements (financial statements must also show contingent liabilities and restricted cash)? [r9 of GN 1147]		
<ul style="list-style-type: none"> has the Minister of Mineral Resources approved each audited assessment? [r15 of GN 1147] 	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> in the case of a financial guarantee, has the mine also provided the Minister of Mineral Resources with verification of the registration of the financial institution? [r9 of GN 1147] 	Yes <input checked="" type="checkbox"/>	Not Verified
If the mine's audited assessment shows a shortfall:		
<ul style="list-style-type: none"> has the mine increased its financial provision to make up for the shortfall within 90 days of the auditor signing off on the assessment? [r11 of GN 1147 / s24P of NEMA] 	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> has the mine provided proof of such increase to the Minister of Mineral Resources? [r11 of GN 1147] 	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> in the case of a financial guarantee, has the mine also provided the Minister of Mineral Resources verification of the registration of the financial institution? [r9 of GN 1147] 	N/A <input checked="" type="checkbox"/>	Not Verified
Is all documentation submitted to the Minister of Mineral Resources signed off by the CEO or a person appointed to a similar position as well as by an independent auditor? [r13 of GN 1147]	Yes <input checked="" type="checkbox"/>	Not Verified
Has the mine ever received a request from the Minister of Mineral Resources to revise its financial provision, or to have its financial provision reviewed by another specialist, or to have an independent assessor confirm its financial provision? [r14 of GN 1147]	No <input checked="" type="checkbox"/>	Not Verified
Does the mine's EMPr address financial provision for the rehabilitation, closure and post closure of the mining operations? [r19 and r23 of GN 982]	Yes <input checked="" type="checkbox"/>	Not Verified
Has the mine included the sum of its financial provision and how this was determined in:		
<ul style="list-style-type: none"> its EMPr? [r12 of GN 1147] 	No <input checked="" type="checkbox"/>	Not Verified

FINANCIAL PROVISION GOING FORWARD (19 FEBRUARY 2020): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> its environmental audit reports as required in terms of the EIA Regulations? [r12 of GN 1147 / GN 982] 	No answer	Not Verified
Has the operation made its EMPr and any approved amendments thereof:		
<ul style="list-style-type: none"> available on the mine's website? [r13 of GN 1147] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> available at the mine's site office? [r13 of GN 1147] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> accessible to the public on request? [r13 of GN 1147] 	Yes <input checked="" type="checkbox"/>	Not Verified

FINANCIAL PROVISION: COMMENTS	
<ul style="list-style-type: none"> During the interview process, IMBEWU was advised that: <ul style="list-style-type: none"> BRMO has a trust fund and financial guarantees in place for 2018; there is not documentary proof of the DMR's annual approval of the mine's annual rehabilitation plan, final rehabilitation, decommissioning and mine closure plan and environmental risk assessment report; and there was not an annual submission to the DMR of the BRMO's audit of adequacy of the mine's financial provision for 2018 (submission within 3 months after the mine's financial year end)¹² (the 2019 adequacy audit still being finalised). There is therefore no approval of same from the DMR. In light of the above information, various “non-compliant” findings have been made. Various documents pertaining to financial provision were requested,¹³ but were not provided by BRMO. Therefore, many of the compliance findings are “Not Verified”. 	

¹² BRMO's financial year is June.

¹³ Proof of financial provision (trust fund and financial guarantees showing quantum); Annual rehabilitation plan; Final rehabilitation, decommissioning and mine closure plan; Environmental risk assessment report Proof of 2018 submission to the DMR of annual rehabilitation plan, final rehabilitation, decommissioning and mine closure plan and environmental risk assessment report (submission within 3 months after financial year end, i.e. September 2018); Proof of DMR's approval of 2018 annual rehabilitation plan, 2018 final rehabilitation,

FINANCIAL PROVISION: COMMENTS	
<ul style="list-style-type: none"> Note that prior to 20 November 2015, financial provision was regulated by the MPRDA and MPRDA Regulations. After 20 November 2015, financial provision is regulated by the Financial Provision Regulations under NEMA. Mines must comply with the NEMA Financial Provision Regulations by 19 February 2020. During the interview process, it transpired that some of the answers provided in the ELCA questionnaire were misunderstood and therefore the answers provided may be incorrect. We recommend that adequate resources and time be afforded to completing the ELCA questionnaire (or other audit process) so that areas of concern are correctly identified (which may include training on the applicable legal provisions). We strongly recommend that the mine ensure compliance with its various obligations pursuant to financial provision, especially in light of the DMR requesting information in this regard at its BRMO site inspection on 29 and 30 July 2019. Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with the Financial Provision Regulations. 	

CARE AND MAINTENANCE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Has the mine applied to the Minister of Mineral Resources to be placed under care and maintenance? [r16 of GN 1147]	No <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, did the mine provide an explanation of the merits of being placed under care and maintenance and a care and maintenance plan? [r16 of GN 1147] 	N/A <input checked="" type="checkbox"/>	N/A

decommissioning and mine closure plan and 2018 environmental risk assessment report; Proof of 2019 annual updates/reviews to annual rehabilitation plan, final rehabilitation, decommissioning and mine closure plan and environmental risk assessment report; 2018 audit of the adequacy of the mine's financial provision; Proof of submission to the DMR of the 2018 audit of the adequacy of the mine's financial provision (submission within 3 months after financial year end, i.e. September 2018); Proof of DMR's approval of the 2018 audit of adequacy of financial provision.

CARE AND MAINTENANCE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> If so, does the care and maintenance plan contain all the information in Appendix 6? [r16 of GN 1147] 	N/A <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> If so, did the Minister of Mineral Resources approve the mine's care and maintenance application? [r16 of GN 1147] 	N/A <input checked="" type="checkbox"/>	N/A
If the mine is under care and maintenance (as approved by the Minister of Mineral Resources):		
<ul style="list-style-type: none"> is the care and maintenance plan audited and updated annually in relation to the audit findings? [r16 of GN 1147] 	N/A <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> is the audited and updated care and maintenance plan (together with an update of the merits to remain under care and maintenance and a forecast of when care and maintenance may no longer be required) submitted to the Minister of Mineral Resources for approval? [r16 of GN 1147] 	N/A <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> is financial provision maintained, reviewed, assessed, audited and adjusted as required? [r16 of GN 1147] 	N/A <input checked="" type="checkbox"/>	N/A

CARE AND MAINTENANCE: COMMENTS	
<ul style="list-style-type: none"> There is no indication that the BRMO has applied be placed under care and maintenance. Our findings regarding the legal obligations on care and maintenance are therefore reflected as "N/A". 	

MINE CLOSURE AND DECOMMISSIONING: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Since 1 May 2004:		

MINE CLOSURE AND DECOMMISSIONING: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
• has the MPRDA right or permit lapsed, been abandoned or been cancelled? [s43 of MPRDA]	No <input checked="" type="checkbox"/>	Noted
• have prospecting or mining operations ceased? [s43 of MPRDA]	No <input checked="" type="checkbox"/>	Noted
• has there been a relinquishment of any portion of the land? [s43 of MPRDA]	No <input checked="" type="checkbox"/>	Noted
• has a closure plan been completed? [s43 of MPRDA]	No <input checked="" type="checkbox"/>	Noted
If so, has a closure certificate been applied for and/or issued in terms of the MPRDA? [s43 of MPRDA]	N/A <input checked="" type="checkbox"/>	N/A
Where the MPRDA right/permit has lapsed, been abandoned or been cancelled or where prospecting or mining operations have ceased, has the operation prohibited the demolishing or removal of building structures or objects? [s44 of MPRDA]	N/A <input checked="" type="checkbox"/>	N/A
If mining operations are expected to cease within 5 years has the Minister of Environmental Affairs been notified, inclusive of plans to rehabilitate the mining operations and plans to prevent dust pollution? [s32 of NEMAQA]	N/A <input checked="" type="checkbox"/>	N/A
Does the operation's WUL have any closure-related conditions? (e.g. notification to the DWS at least 180 days prior to closure) [NWA]	N/A <input checked="" type="checkbox"/>	N/A
Is a NEMWA Listed Activity triggered by closure? [GN 921]	Yes <input checked="" type="checkbox"/>	N/A


MINE CLOSURE AND DECOMMISSIONING: COMMENTS	
<ul style="list-style-type: none"> • There is no indication that the BRMO is anticipating decommissioning or closure. • Our findings regarding the legal obligations on mine decommissioning or closure are therefore reflected as "N/A". 	

14 AIR IMPACTS AND LICENSING

AIR IMPACTS AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> • NEMAQA • APPA • NEMA • MPRDA • CA • CL • NEMAQA Listed Activities (GN 248 and GN 893) • Section 24G Regulations (GN 698) • Ambient Air Standards (GN 1210) • NAEIS Regulations (GN 283) • Boiler Regulations (GN 831) • Charcoal Regulations (GN 602) • Asphalt Regulations (GN 201) • GHG Regulations (GN 275) • GHG Declaration (GN 710) • GHG PPP Regulations (GN 712) • ODS Regulations (GN 351) • Ambient Standards for PM 2.5 (GN 486) • Dust Regulations (GN 827) • Noise Regulations (GN 154) 	<ul style="list-style-type: none"> • “Air pollution” means “any change in the composition of the air caused by smoke, soot, dust (including fly ash), cinders, solid particles of any kind, gases, fumes, aerosols and odorous substances.” • “Atmospheric emission” or “emission” means “any emission or entrainment process emanating from a point, non-point or mobile source that results in air pollution”. • “Category A data provider” means “any person in control of or conducting an activity marked in Annexure 1 above the capacity threshold in the GHG Regulations”. • “Controlled emitter” means “any appliance or activity declared as a controlled emitter in terms of section 23 of NEMAQA”. • “Dust (or settleable particulate matter)” means “any material composed of particles small enough to pass through a 1 mm screen and large enough to settle by virtue of their weight into the sampling container from the ambient air”. • “Dustfall” means “the deposition of dust”. • “Greenhouse gas” (GHG) means “gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation, and includes Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and/or Sulphur hexafluoride (SF₆)”. • “Offensive odour” means “any smell which is considered to be malodorous or a nuisance to a reasonable person”. • “Ozone-depleting substance” (ODS) means “a substance having chemical or physical properties which, by its release into the atmosphere, can cause a depletion of the stratospheric ozone layer”. • “Reasonable measures” include “measures to: investigate, assess and evaluate the impact; inform and educate employees about the risks of their work and the manner in which their tasks must be performed in order to avoid causing pollution; cease, modify or control any activity causing pollution; contain or prevent the movement of pollutants; eliminate any source of pollution; or remedy the effects of pollution.” • “Small boiler” means “boiler with a design capacity equal to 10MW but less than 50MW net heat input per unit, based on the lower calorific value used”.
--	---

AIR POLLUTION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Do the operation's emissions, including dust, cause air pollution? [s28 of NEMA / s24 of CA / CL / NEMAQA]. This includes impacts caused by contractors and/or agents of the operation.	Yes <input checked="" type="checkbox"/>	Not Verified
Have any complaints regarding emissions, including dust, been received from the public, any NGO or other civil society organisation and/or government officials (such as EMIs) in the past 3 years?	No <input checked="" type="checkbox"/>	Not Verified
If there is air pollution, are reasonable measures taken to prevent this pollution from occurring, continuing or recurring? [s28 of NEMA]	Yes <input checked="" type="checkbox"/>	Not Verified
Does the operation fall within a declared "priority area" (a pollution hot spot)? [s18-20 of NEMAQA]	No <input checked="" type="checkbox"/>	Noted.

AIR POLLUTION: COMMENTS	
<ul style="list-style-type: none"> BRMO's answer in the ELCA questionnaire states that the operation's emissions, including dust, cause air pollution. Due to time constraints, it was "Not Verified" whether this is the case, whether there have been complaints from regulators or third parties and if so, whether all reasonable measures (see definition above and section 28 of NEMA) have been undertaken to address this. We recommend that Assmang confirm whether there are any air pollution impacts on site. To the extent there are air pollution impacts, please refer to our comments on the duty of care at paragraph 7 of this report. Refer further to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with the duty of care. The BRMO does not fall within a declared "priority area" (a pollution hot spot). 	

NEMAQA LISTED ACTIVITIES & EMISSION STANDARDS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation undertake NEMAQA Listed Activities? [s21 of NEMAQA / GN 248 / GN 893]	No <input checked="" type="checkbox"/>	Noted.
<ul style="list-style-type: none"> If so, was a provisional AEL obtained by the operation? [s21, s22 of NEMAQA] 	N/A <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> Following compliance with the conditions of the provisional AEL for 6 months, was a final AEL obtained by the operation? [s21, s22, s42 of NEMAQA] 	N/A <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> If a provisional and/or final AEL is held, is the operation in compliance with the AEL conditions? [s51 of NEMAQA] 	N/A <input checked="" type="checkbox"/>	N/A
Do <i>existing</i> plants/processes (authorised before 1 April 2010) comply with the <i>existing</i> minimum emission standards? [r9, Part 3 of GN 893]	N/A <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> Will <i>existing</i> plants/processes (authorised before 1 April 2010) comply with the <i>new</i> minimum emission standards by 1 April 2020? [r10, Part 3 of GN 893] 	N/A <input checked="" type="checkbox"/>	N/A
Do <i>new</i> plants/processes (authorised after 1 April 2010) comply with the <i>new</i> plant minimum emission standards? [r8, Part 3 of GN 893]	N/A <input checked="" type="checkbox"/>	N/A
Has the operation applied for a postponement of compliance and/or a suspension of compliance with respect to the minimum emission standards? [r11-14 of GN 893]	N/A <input checked="" type="checkbox"/>	N/A
Has the operation commenced any process of "rectification" in terms of section 24G of NEMA as NEMAQA Listed Activities were commenced without an AEL? [s24G of NEMA / s22A of NEMAQA / GN 698]	N/A <input checked="" type="checkbox"/>	N/A
Is the operation in compliance with the ambient air quality standards? [GN 1210]	Yes <input checked="" type="checkbox"/>	Not Verified

NEMAQA LISTED ACTIVITIES & EMISSION STANDARDS: COMMENTS

- It was confirmed during the interview process that no NEMAQA Listed Activities are triggered. IMBEWU was advised that to the extent a sinter plant is installed, this may become relevant.
- The 2017 ELCA noted that the operation did not trigger any NEMAQA Listed Activities. This finding was however based on "a comprehensive legal assessment and gap analysis ... conducted by Environmental Legal Services in September 2010".¹⁴ **Due to the 9 years that has elapsed since this gap analysis, it may be prudent to undertake a further gap analysis to confirm this is still the position. This may be done in conjunction with the gap analysis recommended with respect to NEMA and NEMWA Listed Activities.** Refer further to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to commencing with NEMAQA Listed Activities without an AEL.
- Nonetheless, based on the documentation (2017 ELCA) and information obtained in the interview process, it appears there are no NEMAQA Listed Activities being conducted, and the findings are accordingly reflected as "N/A".
- Due to time constraints, it was **"Not Verified"** whether the site was compliant with the ambient air quality standards in the Ambient Air Standards, which regulate various pollutant limits. **We recommend that Assmang confirm that there is compliance in this regard.** Refer further to our comments on environmental compliance and enforcement in paragraph 8 of this report.



REGISTRATION ON THE NAEIS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Has the operation registered on NAEIS? [r5 of GN 283]	Yes <input checked="" type="checkbox"/>	Compliant
Are emission reports submitted to NAEIS by 31 March each year? [r8 of GN 283 / GN 893]	Yes <input checked="" type="checkbox"/>	Compliant

¹⁴ Page 86 of 2017 ELCA.

Is all NAEIS reportable information kept for 5 years? [r9 of GN 283]	Yes <input checked="" type="checkbox"/>	Not Verified
--	---	---------------------

REGISTRATION ON THE NAEIS: COMMENTS	
<ul style="list-style-type: none"> Proof of submission to the NAEIS, dated 30 March 2019, was provided by the BRMO (with an initial outstanding issue regarding reporting which was then rectified by 12 June 2019), and our finding is accordingly reflected as "Compliant". Due to time constraints, it was "Not Verified" whether all NAEIS reportable information is kept for 5 years. 	

SMALL BOILERS AND EMISSION STANDARDS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Are any 'small boilers' operated at the site? [GN 831]	No <input checked="" type="checkbox"/>	Noted.
<ul style="list-style-type: none"> If so, during small boiler start-up, is black smoke limited to a period of 20 minutes? [r2 of GN 831] 	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, does the operation submit an emission report every year to the AQO? [r11 of GN 831] 	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, have all measurement results been recorded and kept for 5 years? [r11 of GN 831] 	N/A <input checked="" type="checkbox"/>	Not Verified
If there are <i>existing</i> small boilers (manufactured before 1 November 2013), did these meet the <i>existing</i> emission standards by 1 November 2018? [Part 3 of GN 831]	N/A <input checked="" type="checkbox"/>	Not Verified
If there are <i>new</i> small boilers (manufactured after 1 November 2013), do these meet the <i>new</i> emission standards? [Part 3 of GN 831]	N/A <input checked="" type="checkbox"/>	Not Verified

SMALL BOILERS AND EMISSION STANDARDS: COMMENTS	
<ul style="list-style-type: none"> BRMO's answer in the ELCA questionnaire states there are no small boilers on site. 	

SMALL BOILERS AND EMISSION STANDARDS: COMMENTS

- Due to time constraints, it was **"Not Verified"** whether there are small boilers on site ("boiler with a design capacity equal to 10MW but less than 50MW net heat input per unit, based on the lower calorific value used").
- **We recommend that Assmang confirm this.** If so, the Boiler Regulations are applicable and must be adhered to. Refer to **Annexure 1** with respect to non-compliance with the Boiler Regulations.

GHG EMISSIONS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Does the operation emit any GHGs? [GN 275]	Yes <input checked="" type="checkbox"/>	Noted.
Is the operation classified as a "Category A data provider" in the GHG Regulations? ¹⁵ [r1, r4 & Annexure 1 of GN 275]	No <input checked="" type="checkbox"/>	Noted
• If so, has it registered each facility with the DEA? [r5 of GN 275]	N/A <input checked="" type="checkbox"/>	Not Verified
• If so, have the operation's GHG emissions been reported to the DEA for the preceding calendar year (January to December) by 31 March each year? [r7 of GN 275]	N/A <input checked="" type="checkbox"/>	Not Verified
• Is the operation keeping all information used to estimate its GHG emissions, including its reports to the DEA, for 5 years? [r13 of GN 275]	Yes <input checked="" type="checkbox"/>	Not Verified
Does the operation undertake any of the 'production process' set out in Annexure A in excess of 0.1 Megatonnes (Mt) annually? [r3, Annexure A of GN 710]	No <input checked="" type="checkbox"/>	Not Verified
• If so, has the operation submitted a pollution prevention plan (a GHG mitigation plan) to the Minister of Environmental Affairs for approval in terms of the GHG PPP Regulations? [r4 of GN710 and GN 712]	N/A <input checked="" type="checkbox"/>	Not Verified

¹⁵ For a copy of the GHG Regulations including Annexure 1, go to: https://www.environment.gov.za/sites/default/files/legislations/nemaqa39of2004_nationalgreenhousegasemissionreporting_gn40762_0.pdf

GHG EMISSIONS: COMMENTS

- BRMO's answer in the ELCA questionnaire states that the operation is not classified as a "Category A data provider" (meaning that the obligations contained in the GHG Regulations would not apply). However, during the interview process, it transpired that the GHG Regulations do apply. **We recommend that adequate resources and time be afforded to completing the ELCA questionnaire (or other audit process) so that areas of concern are correctly identified (which may include training on the applicable legal provisions).**
- During the interview process, IMBEWU was advised that GHG reporting is done by African Rainbow Minerals Head Office and correspondence from Head Office to the BRMO dated June to July 2019 was provided in this regard with an attached excel spreadsheet setting out the BRMO's GHG emissions from 1 July 2018 to 30 June 2019. IMBEWU was advised that Head Office submitted the report as required by the GHG Regulations. IMBEWU has no proof of the submission though despite a request for same.
- Proof of registration in terms of the GHG Regulations was also requested but not provided.
- **We recommend that Assmang ensure compliance with the GHG Regulations.**
- Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to non-compliance with the GHG Regulations.
- With respect to undertaking a 'production process' in terms of the GHG Declaration, it is possible that BRMO undertakes same and **we recommend that Assmang obtain clarity in this respect to confirm that no pollution prevention plan (a GHG mitigation plan) is then required in terms of the GHG PPP Regulations.**
- Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to non-compliance with the GHG PPP Regulations.

ODS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation prohibit the use of any equipment or products containing any of the following substances: chlorofluorocarbons; bromochlorofluorocarbons; halons; carbon tetrachloride; 1,1,1 trichloroethane; hydrobromofluorocarbons; and bromochloromethane? [r3 of GN 351]	Yes <input checked="" type="checkbox"/>	Not Verified
If the operation makes use of recovered halons in existing fire protection systems, did the operation apply to the DEA for approval? [r3 of GN 351]	N/A <input checked="" type="checkbox"/>	Not Verified
If the operation is in possession of a stockpile of ODS listed in Appendix A of the ODS Regulations, ¹⁶ was a stockpile abatement plan submitted to the DEA? [r4 of GN 351]	N/A <input checked="" type="checkbox"/>	Not Verified
Has the operation stopped the use of HCFC-22, or any other refrigerant containing HCFCs, in the construction, assembly or installation of any new refrigeration or air-conditioning system or equipment? [r5 of GN 351]	Yes <input checked="" type="checkbox"/>	Not Verified
If the operation destroys ODS, does it ensure that substances are not released into the environment? [r6 of GN 351]	N/A <input checked="" type="checkbox"/>	Not Verified
Does the operation prevent the discharge or release of ODS into the atmosphere? [r7 of GN 351]	N/A <input checked="" type="checkbox"/>	Not Verified

ODS: COMMENTS	
<ul style="list-style-type: none"> • There was a lack of certainty during the interview process regarding what ODSs may be on site. • Further, proof that the mine does not use any equipment or products containing any ODS in terms of the ODS Regulations was requested but not provided. Further, proof that the mine does not use HCFC-22, or any other refrigerant containing 	

¹⁶ For a copy of the ODS Regulations including Appendix A, go to: https://www.gov.za/sites/default/files/gcis_document/201409/37621gon351.pdf

ODS: COMMENTS	
<p>HCFCs, in the construction, assembly or installation of any new refrigeration or air-conditioning system or equipment, was requested but not provided. As such, the position is not clear and our findings reflect as "Not Verified".</p> <ul style="list-style-type: none"> • We recommend that Assmang investigate whether the ODS Regulations apply to its site, and if so, ensure compliance. • Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with the ODS Regulations. 	

DUST EMISSION STANDARDS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Do dust emissions, including PM, associated with the operation exceed:		
• the ambient air quality standards for PM in the Ambient Air Standards? [GN 1210]	Yes <input checked="" type="checkbox"/>	Non-compliant
• the ambient air quality standards for PM _{2.5} or less in the Ambient Standards for PM _{2.5} ? [GN 486]	Yes <input checked="" type="checkbox"/>	Non-compliant
• the dust fall standards for <i>residential</i> areas in the Dust Regulations? [r3 of GN 827]	No <input checked="" type="checkbox"/>	Not Verified
• the dust fall standards for <i>non-residential</i> areas in the Dust Regulations? [r3 of GN 827]	No <input checked="" type="checkbox"/>	Not Verified
If the dustfall standards for <i>residential</i> areas and/or <i>non-residential</i> areas have been exceeded, has a dust management plan been submitted to the AQO for approval? [r6 of GN 827]	No <input checked="" type="checkbox"/>	Not Verified
Has the AQO requested that the operation undertake a dustfall monitoring programme? [r4 of GN 827]	No <input checked="" type="checkbox"/>	Not Verified

DUST EMISSION STANDARDS: COMMENTS	
<ul style="list-style-type: none"> • BRMO, in completing the ELCA questionnaire, stated that it did not comply with the ambient air quality standards for PM in the Ambient Air Standards as well as the ambient air quality standards for PM _{2.5} or less in the Ambient Standards for PM _{2.5}. 	

DUST EMISSION STANDARDS: COMMENTS	
<p>Documentation showing corrective action undertaken regarding these exceedances was requested but not provided. As such, based on the answers provided in the questionnaire, the finding is reflected as "non-compliant".</p> <ul style="list-style-type: none"> • We recommend that Assmang ensure compliance with the Ambient Air Standards and the Ambient Standards for PM 2.5. • Refer further to our comments on environmental compliance and enforcement in paragraph 8 of this report. • During the interview process, BRMO advised that the site's dust emissions were below the dust fall standards set in the Dust Regulations. Documentary proof was requested but not provided. As such, our findings reflect as "Not Verified". 	

ODOURS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation take all reasonable steps to prevent the emission of any offensive odour? [s35 of NEMAQA]	Yes <input checked="" type="checkbox"/>	Non-compliant
Have any complaints regarding odours been received from the public, any NGO or other civil society organisation and/or government officials (such as EMI) in the past 3 years?	No <input checked="" type="checkbox"/>	Not Verified

ODOURS: COMMENTS	
<ul style="list-style-type: none"> • During the site inspection, there were some offensive odours noted, notably at the sewage treatment plant at Nchwaning II. It did not appear that all reasonable measures were being undertaken to prevent the emission of offensive odours at the sewage treatment plant at Nchwaning II. As such, the finding reflects as "non-compliant". • Due to time constraints, it was "Not Verified" whether the site has received complaints from regulators or third parties in this regard. 	

NOISE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Have any complaints regarding noise been received from the public, any NGO or other civil society organisation and/or government officials (such as EMI) in the past 3 years?	No <input checked="" type="checkbox"/>	Not Verified
Does the operation comply with the Noise Regulations? [GN 154]	Yes <input checked="" type="checkbox"/>	Not Verified

NOISE: COMMENTS	
<ul style="list-style-type: none"> No unreasonable noise was experienced during the site inspection. Due to time constraints, it was “Not Verified” whether the site has received complaints from regulators or third parties and whether the operation is compliant with the Noise Regulations. 	

15 WATER IMPACTS AND LICENSING

WATER IMPACTS AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS	
<ul style="list-style-type: none"> NWA NEMA WSA CA CL GA Regulations for Section 21(a) & (b) (GN 538) 	<ul style="list-style-type: none"> “Borehole” includes “a well, excavation or any artificially constructed or improved underground cavity which can be used for the purpose of (a) intercepting, collecting or storing water in or removing water from an aquifer; (b) observing and collecting data and information on water in an aquifer; or (c) recharging an aquifer”. “Dam with a safety risk” means “any dam - (i) which can contain, store or dam more than 50 000 cubic metres of water, whether that water contains any substance or not, and which has a wall of a vertical height of more than five metres, measured as the vertical difference between the lowest downstream ground elevation on the outside of the dam wall and the non-overspill crest level or the general top level of the dam wall; belonging to a category of dams declared under section 118(2) of the NWA to be dams with a safety risk; or declared under section 118(3)(a) of the NWA to be a dam with a safety risk.”

WATER IMPACTS AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> • WUL Regulations (GN 267) • Dam Regulations (GN 139) • GA Regulations for Section 21(c) & (i) (GN 509) • GA Regulations for Section 21(e), (f), (g), (h) and (j) (GN 665) • Water Care Work Regulations (GN 2834) • Water Pricing Regulations (GN 1353) 	<ul style="list-style-type: none"> • "Pollution" means <i>"the direct or indirect alteration of the physical, chemical or biological properties of a water resource so as to make it - (a) less fit for any beneficial purpose for which it may reasonably be expected to be used; or (b) harmful or potentially harmful – (aa) to the welfare, health or safety of human beings; (bb) to any aquatic or nonaquatic organisms; (cc) to the resource quality; or (dd) to property"</i>. • "Reasonable measures" include <i>"measures to: cease, modify or control any act causing pollution; comply with any prescribed waste standard or management practice; contain or prevent the movement of pollutants; eliminate any source of pollution; remedy the effects of the pollution; and remedy the effects of any disturbance to the bed and banks of a watercourse"</i>. • "Resource quality" means <i>"the quality of all the aspects of a water resource including (a) the quantity, pattern, timing, water level and assurance of instream flow; (b) the water quality, including the physical, chemical and biological characteristics of the water; (c) the character and condition of the instream and riparian habitat; and (d) the characteristics, condition and distribution of the aquatic biota"</i>. • "Stream flow reduction activities" mean <i>"the use of land for afforestation which has been or is being established for commercial purposes; and an activity which has been declared as such under section 36(2) of the NWA"</i>. • "Waste" includes <i>"any solid material or material that is suspended, dissolved or transported in water (including sediment) and which is spilled or deposited on land or into a water resource in such volume, composition or manner as to cause, or to be reasonably likely to cause, the water resource to be polluted"</i>. • "Water care work" means <i>"any borehole, structure, earthwork or equipment installed or used for or in connection with water use for (a) the purification or treatment of water in order to render it fit for human consumption or for use in the foodstuffs industry; or (b) the purification, treatment or disposal of effluent"</i>. • "Waterwork" includes <i>"any borehole, structure, earthwork or equipment installed or used for or in connection with water use"</i>. • "Watercourse" means <i>"(a) a river or spring; (b) a natural channel in which water flows regularly or intermittently; (c) a wetland, lake or dam into which, or from which, water flows; and (d) any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse and a reference to a watercourse includes, where relevant, its bed and banks."</i> • "Water resource" includes <i>"a watercourse, surface water, estuary, or aquifer"</i>. • "Water services" means <i>"water supply services and sanitation services."</i>
---	---

WATER IMPACTS AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS

- **"Water services provider"** means "any person who provides water services to consumers or to another water services institution, but does not include a water services intermediary".

WATER POLLUTION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Do the operation's activities cause pollution of any water resource? [s28 of NEMA / s19 of NWA / s24 of CA / CL] This includes impacts caused by contractors and/or agents of the operation.	No <input checked="" type="checkbox"/>	Non-compliant
Have any complaints regarding water pollution been received from the public, any NGO or other civil society organisation and/or government officials (such as EMIs) in the past 3 years? [s28 of NEMA / s19 of NWA / s24 of CA / CL]	No <input checked="" type="checkbox"/>	Not Verified
If there is water pollution, are reasonable measures taken to prevent this pollution from occurring, continuing or recurring? [s19 of NWA]	N/A <input checked="" type="checkbox"/>	Non-compliant

WATER POLLUTION: COMMENTS

- As set out in paragraph 11 of this report, various pollution impacts in terms of section 28 of NEMA, section 19 of the NWA and the Contaminated Land Provisions, were noted during the site inspection.
- As set out in the 2017 ELCA "There was a sewage treatment spill on unsurfaced area at the Gloria Accommodation Camp. The sewage spill moved into the Gamagara rehabilitation area towards the Gamagara River. The sewage spill was caused by the hydraulic level in the pump station being breached due to the failure and blockages in the pump station. The Mine did not undertake any soil and water samples to determine the extent of possible contamination caused. The Mine must



WATER POLLUTION: COMMENTS

scrutinize the October water monitoring results to determine whether the sewage spill had a significant result on the land and surrounding water body."

- It was confirmed during the interview process and site inspection that the Gamagara river runs adjacent to Gloria.
- During the interview process, the above-mentioned sewage spill was confirmed. The BRMO personnel were of the view that this was not significant as the river has always been 'dry'. It was further advised that there are no boreholes downstream, and the only water monitoring is conducted at the Gloria sewage treatment plant itself. The latest water monitoring results (last quarter) at Gloria's sewage treatment plant were requested but not provided.
- Further, as per our site observations, it is possible the runoff from the mine's stockpiles and/or run of mine (ROM) may flow to the river. There is only a single pump which contains (some of the potential) runoff from going to the river though.
- The causation of water and/or soil pollution is in breach of the duty of care and exposes Assmang to environmental compliance and enforcement action. Please refer to our comments on the duty of care at paragraph 7 of this report and our comments on environmental compliance and enforcement in paragraph 8 of this report. Please refer further to the table of offences and penalties in **Annexure 1** with respect to non-compliance with the duty of care (which would include water pollution).
- **We strongly recommend that Assmang employ all reasonable measures (as defined in section 19 of the NWA) to ensure that water pollution is prevented from occurring, continuing or recurring. In particular, we recommend that Assmang further scrutinise the water monitoring results at the Gloria sewage treatment plant to ascertain if there has been any pollution, and if so, to implement corrective measures without delay. If there is significant pollution, the corrective measures may include further soil and/or water monitoring, including possibly downstream of the Gamagara river.**
- Due to time constraints, it was **"Not Verified"** whether the site has received complaints from regulators or third parties.
- IMBEWU was advised during the interview process that the DMR undertook a site inspection of the BRMO on 29 and 30 July 2019. We received a copy of the DMR's inspection notification dated 26 July. Internal minutes of this inspection were

WATER POLLUTION: COMMENTS	
requested but not provided. As such, it is not possible to ascertain what areas of the BRMO were inspected, and if any issues of water pollution were of concern.	

WATER USE LICENSING – SECTION 21(A) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation take/abstract water from any water resource for potable or industrial use (including from a borehole)? [s21 (a) of NWA]	Yes <input checked="" type="checkbox"/>	Noted
Does this water use constitute a GA? I.e. do the GA Regulations for Section 21(a) & (b) apply? [GN 538]	No <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> If so, is the operation in compliance with section 39 of the NWA and the GA Regulations for Section 21(a) & (b)? [s39 of NWA / GN 538] 	Yes <input checked="" type="checkbox"/>	N/A
If a GA is not applicable, does the operation have a WUL? [s21(a) NWA / GN 267]	Yes <input checked="" type="checkbox"/>	Compliant
<ul style="list-style-type: none"> If so, is the operation in compliance with the conditions of the WUL? [s151 of NWA] 	No <input checked="" type="checkbox"/>	Not Verified

WATER USE LICENSING: GENERAL COMMENTS	
<ul style="list-style-type: none"> The site has a WUL in place, dated 10 April 2019 (which replaced an earlier WUL dated 21 October 2015), authorising section 21(a), (b), (e), (g) and (j) water uses. A copy of the 2019 WUL was provided to IMBEWU. The WUL is valid for 23 years and is subject to review every five years. We were further advised during the interview process that the current WUL was "rectified" by way of email with the DWS, although same did not constitute amendment. A copy of this correspondence was requested but not provided. 	

WATER USE LICENSING: GENERAL COMMENTS	
<ul style="list-style-type: none"> Please take note that regulation 16 of the WUL Regulations provides that a WUL amendment must be done in terms of sections 50 and 52 of the NWA and where the amendment will have the effect of a new licence. A new WUL application must be undertaken. It is therefore recommended that Assmang ensure that the WUL was rectified / amended in accordance with the applicable legislative provisions. 	

WATER USE LICENSING – SECTION 21(A) OF THE NWA: COMMENTS	
<ul style="list-style-type: none"> We received a copy of the WUL dated 10 April 2019 authorising section 21 (a), (b), (e), (g) and (j) water uses. Conditions 10 and 11 thereof provide for annual internal audits and external audits every second year. As these audits have not to date taken place, it is not possible to verify (i.e. Not Verified) whether there has been compliance with respect to the section 21(a) water use. We recommend that Assmang duly undertake the above-mentioned audits, and to the extent there is any non-compliance noted during these audit processes, that Assmang attend to these without delay. In this respect, refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to the failure to comply with a WUL condition. As there is a WUL in place, a GA is N/A. 	

WATER SERVICE PROVIDERS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation obtain potable or industrial water from a water services provider (such as a municipality)? [WSA]	Yes <input checked="" type="checkbox"/>	Noted

Does the operation provide potable or industrial water to any other persons/entities? [WSA]	Yes <input checked="" type="checkbox"/>	Noted
---	---	-------

WATER SERVICE PROVIDERS: COMMENTS		
<ul style="list-style-type: none"> We note that Assmang obtains potable or industrial water from a water services provider, as well as provides potable or industrial water to other persons/entities. While not forming part of the scope of this ELCA, we recommend that Assmang ensure that it complies with <i>inter alia</i> the WSA. 		

WATER USE LICENSING – SECTION 21(B) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Is water being stored in dams or otherwise on site? [s21 (b) of NWA]	Yes <input checked="" type="checkbox"/>	Noted
Does this water use constitute a GA? I.e. do the GA Regulations for Section 21(a) & (b) apply? [GN 538]	No <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> If so, is the operation in compliance with section 39 of the NWA and the GA Regulations for Section 21(a) & (b)? [s39 of NWA / GN 538] 	Yes <input checked="" type="checkbox"/>	N/A
If a GA is not applicable, does the operation have a WUL? [s21(b) NWA / GN 267]	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> If so, is the operation in compliance with the conditions of the WUL? [s151 of NWA] 	Yes <input checked="" type="checkbox"/>	Not Verified

WATER USE LICENSING – SECTION 21(B) OF THE NWA: COMMENTS		
<ul style="list-style-type: none"> We received a copy of the WUL dated 10 April 2019 authorising section 21(a), (b), (e), (g) and (j) water uses. Conditions 10 and 11 thereof provide for annual internal audits and external audits every second year. As these audits have not to date taken place, it is not possible to verify (i.e. Not Verified) whether there has been compliance with respect to the section 21(b) water use. 		

WATER USE LICENSING – SECTION 21(B) OF THE NWA: COMMENTS

- **We recommend that Assmang duly undertake the above-mentioned audits, and to the extent there is any non-compliance noted during these audit processes, that Assmang attend to these without delay.** In this respect, refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to the failure to comply with a WUL condition.
- As there is a WUL in place, a GA is “**N/A**”.
- During the interview process, it transpired that there may be some water uses, namely underground dams, under section 21 (b) of the NWA which are not authorised, and as such, there was “**non-compliance**”. In this respect, IMBEWU was provided with email correspondence between Lana van der Westhuizen (internal legal advisor and author of the 2017 ELCA) and an official at the DWS dated January 2018 which indicates that underground dams require licensing as a section 21 (b) water use and possibly also in terms of section 21 (c), (i) and (j). During the interview process, IMBEWU was advised that a new WUL application is being prepared, but is not finalised and the BRMO anticipates the WUL application will be completed before the end of 2019.
- A WUL or GA must be obtained prior to any section 21 water uses commencing. Failure to obtain a WUL before commencing with section 21 water uses exposes Assmang to compliance action from the DWS (which may include a cessation order) and/or a criminal prosecution on the basis that the commencement of water uses without a WUL is an offence. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to commencing with a section 21 water use without a WUL or GA.
- **We strongly recommend that the site urgently attend to the WUL application for any unlawful water uses.**
- Please note that the WUL application process is regulated by the WUL Regulations. The WUL Regulations provide for a period of 300 days for a decision following submission of the application, although this timeframe is not always adhered to by the DWS. In addition, the WUL application process and the DWS's decision on a WUL (i.e. whether to grant same or not) are subject to public participation.



WATER USE LICENSING – SECTION 21(B) OF THE NWA: COMMENTS


- **It is further recommended that a gap analysis be undertaken by an appropriately qualified person to determine whether all water uses under the NWA are authorised on site. This may be done in conjunction with the gap analysis recommended with respect to NEMA, NEMWA and NEMAQA Listed Activities.**
- During the interview process, it was also queried whether all dams have the requisite EAs in place in terms of NEMA, to the extent applicable. All site EAs were requested but not provided (save for one related to decommissioning of above ground storage of fuels/dangerous goods). As such, it is not possible to verify if the requisite EAs were in place for the *construction* of the dams (if applicable, i.e. if same was a NEMA Listed Activity at the time of dam construction). The commencement of a NEMA Listed Activity without an EA is unlawful and exposes Assmang to environmental compliance and enforcement action, including the requirement of a section 24G fine. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to commencing with a NEMA Listed Activity without an EA, including the section 24G rectification process.
- **We recommend that Assmang clarify this, which would form part of the site-wide licensing gap analysis.**



DAMS WITH A SAFETY RISK: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Where water is being stored in a dam, is the dam a 'dam with a safety risk' as defined? [GN 139]	No <input checked="" type="checkbox"/>	Not Verified
• If so, did the operation have a licence to construct the dam with a safety risk? [r4 of GN 139]	N/A <input checked="" type="checkbox"/>	Not Verified
• If so, has every dam with a safety risk been classified in terms of its size and hazard potential? [r2 of GN 139]	N/A <input checked="" type="checkbox"/>	Not Verified
o If so, are there Category I or Category II or Category III dams?	N/A <input checked="" type="checkbox"/>	Not Verified

DAMS WITH A SAFETY RISK: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> If so, have the design, construction, putting into operation, maintenance, monitoring, safety inspections, safety evaluations and decommissioning been determined in accordance with the dam's classification? [r3 of GN 139] 	N/A ☒	Not Verified
<ul style="list-style-type: none"> If there is a Category II or III dam, does the operation have a licence to impound water? [r24 of GN 139] 	N/A ☒	Not Verified
<ul style="list-style-type: none"> If the operation intends to enlarge, alter or repair a dam with a safety risk: <ul style="list-style-type: none"> has a feasibility study been submitted to the DWS for purposes of classification? [27 of GN 139] does the operation have a licence to construct? [r4 of GN 139] 	N/A ☒	Not Verified
<ul style="list-style-type: none"> Does the operation keep all records of its dams with a safety risk? [r33 of GN 139] 	N/A ☒	Not Verified
<ul style="list-style-type: none"> Did the operation register its dams with a safety risk in terms of section 120 of the NWA? [r37 of GN 139 / s120 of NWA] 	N/A ☒	Not Verified
<ul style="list-style-type: none"> If the operation intends to decommission any of its dams with a safety risk, does the operation have a licence to decommission? [r38, r39 of GN 139] 	N/A ☒	Not Verified

DAMS WITH A SAFETY RISK: COMMENTS	
<ul style="list-style-type: none"> Dams with a safety risk would be relevant with respect to the section 21(b) and section 21(g) water uses authorised in the 2019 WUL and/or any other dams. During the interview process, it became apparent that there was a lack of understanding as to whether there were any 'dams with a safety risk' which is defined in section 117 of the NWA as a dam which can contain, store or dam more than 50 000 m³ of water, whether polluted or not, and which has a wall of a vertical height of more than five metres. Further, to the extent there is a dam with a safety risk, there was a failure to appreciate the legal obligations which flow from this in 	

DAMS WITH A SAFETY RISK: COMMENTS


terms of Chapter 12 of the NWA as well as the Dam Regulations. Information on the height of walls for **all** dams with 50 000 m³ capacity was requested but not provided. As such, it is it was **"Not Verified"** whether there are dams with safety risks.

- Note that the 2019 WUL further provides that the WUL holder must comply with the Dam Regulations to the extent applicable (see condition 3 under Appendix III). **As such, a failure to adhere to the Dam Regulations to the extent applicable may also constitute non-compliance with WUL conditions.** Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to non-compliance with WUL conditions.
- **We strongly recommend that Assmang determine whether there are any dams with safety risks on site, and if so, to undertake the necessary measures to adhere to the myriad of obligations which attach to these dams.**
- Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to non-compliance with the NWA and Dam Regulations vis-à-vis dams with a safety risk.

WATER USE LICENSING – SECTION 21(C) AND (I) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Does the operation impede or divert the flow of water in any watercourse? [s21 (c) of NWA]	No <input checked="" type="checkbox"/>	Not Verified
Does the operation alter the bed, banks, course or characteristics of any watercourse? [s21(i) of NWA]	No <input checked="" type="checkbox"/>	Not Verified
Does this water use constitute a GA? I.e. do the GA Regulations for Section 21(c) & (i) apply? [GN 509]	No <input checked="" type="checkbox"/>	Not Verified
• If so, is the operation in compliance with section 39 of the NWA and the GA Regulations for Section 21(c) & (i)? [s39 of NWA / GN 509]	N/A <input checked="" type="checkbox"/>	Not Verified
If a GA is not applicable, does the operation have a WUL? [s21(c), (i) of NWA / GN 267]	N/A <input checked="" type="checkbox"/>	Not Verified

WATER USE LICENSING – SECTION 21(C) AND (I) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
• If so, is the operation in compliance with the conditions of the WUL? [s151 of NWA]	N/A ☒	Not Verified

WATER USE LICENSING – SECTION 21(C) AND (I) OF THE NWA: COMMENTS	
<ul style="list-style-type: none"> • We received a copy of the WUL dated 10 April 2019 authorising section 21(a), (b), (e), (g) and (j) water uses. • We note that the Gamagara river runs adjacent to Gloria and during the interview process, it was noted that there was a bridge constructed <u>crossing</u> this river which may have triggered the requirement for a heritage impact assessment under the NHRA. We requested proof of any notification to SAHRA of the bridge crossing over the Gamagara river, but did not receive same. As such, it was “Not Verified” whether there BRMO impedes or diverts the flow of water or alters the bed, banks, course or characteristics of the Gamagara, and as such, whether a GA or WUL may be required in terms of section 21(c) and (i) of the NWA. • A WUL or GA must be obtained prior to any section 21 water uses commencing. Failure to obtain a WUL before commencing with section 21 water uses exposes Assmang to compliance action from the DWS (which may include a cessation order) and/or a criminal prosecution on the basis that the commencement of water uses without a WUL is an offence. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to commencing with a section 21 water use without a WUL or GA. • We recommend that, as part of the site-wide licensing gap analysis proposed, all section 21 water uses be assessed in order to confirm that all water uses are authorised under the NWA. 	

WATER USE LICENSING – SECTION 21(D) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS:		
QUESTION	ANSWER	FINDING
Does the operation undertake any 'stream flow reduction activity'? [s21(d) and s36 of NWA]	No <input checked="" type="checkbox"/>	N/A
• If so, does the operation have a WUL? [s21(d) of NWA / GN 267]	N/A <input checked="" type="checkbox"/>	N/A
• If so, is the operation in compliance with the conditions of the WUL? [s151 of NWA]	N/A <input checked="" type="checkbox"/>	N/A

WATER USE LICENSING – SECTION 21(D) OF THE NWA: COMMENTS	
<ul style="list-style-type: none"> Section 21(d) of the NWA refers to stream flow reduction activities which includes the use of land for afforestation which has been or is being established for commercial purposes, or an activity declared as in terms of section 36(2) of the NWA. Based on our observations at the site inspection, and the discussions during the interview process, it did not appear that there were any stream flow reduction activities. As such, it appears that such a water use is "N/A". 	

WATER USE LICENSING – SECTION 21(E) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation undertake:		
• irrigation of any land with waste or water containing waste generated through any industrial activity or by a waterwork? [s21(e) and s37 of NWA]	Yes <input checked="" type="checkbox"/>	Noted
• an activity aimed at the modification of atmospheric precipitation? [s21(e) and s37 of NWA]	No <input checked="" type="checkbox"/>	N/A
• a power generation activity which alters the flow regime of a water resource? [s21(e) and s37 of NWA]	No <input checked="" type="checkbox"/>	N/A
• intentional recharging of an aquifer with any waste or water containing waste? [s21(e) and s37 of NWA]	No <input checked="" type="checkbox"/>	N/A

WATER USE LICENSING – SECTION 21(E) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> any other activity declared as a controlled activity under section 38 of the NWA? [s21(e) and s37 of NWA] 	Yes <input checked="" type="checkbox"/>	N/A
Does this water use constitute a GA? I.e. do the GA Regulations for Section 21(e), (f), (g), (h) and (j) apply? [GN 665]	No <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> If so, is the operation in compliance with section 39 of the NWA and the GA Regulations for Section 21(e), (f), (g), (h) and (j)? [s39 of NWA / GN 665] 	Yes <input checked="" type="checkbox"/>	N/A
If a GA is not applicable, does the operation have a WUL? [s21(e) of NWA / GN 267]	Yes <input checked="" type="checkbox"/>	Compliant
<ul style="list-style-type: none"> If so, is the operation in compliance with the conditions of the WUL? [s151 of NWA] 	Yes <input checked="" type="checkbox"/>	Not Verified

WATER USE LICENSING – SECTION 21(E) OF THE NWA: COMMENTS	
<ul style="list-style-type: none"> We received a copy of the WUL dated 10 April 2019 authorising section 21(a), (b), (e), (g) and (j) water uses. The section 21(e) water use refers to irrigation of land with waste or water containing waste generated through any industrial activity or by a waterwork. In this respect, IMBEWU was advised during the site inspection that the treated water from the sewage treatment plant at Black Rock is used to irrigate certain land as set out in the WUL. Conditions 10 and 11 of the WUL thereof provide for annual internal audits and external audits every second year. As these audits have not to date taken place, it is not possible to verify (i.e. "Not Verified") whether there has been compliance with respect to the section 21(e) water use. We recommend that Assmang duly undertake the above-mentioned audits, and to the extent there is any non-compliance noted during these audit processes, that Assmang attend to these without delay. In this respect, refer to our comments on 	

WATER USE LICENSING – SECTION 21(E) OF THE NWA: COMMENTS

<p>environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to the failure to comply with a WUL condition.</p> <ul style="list-style-type: none"> As there is a WUL in place, a GA is "N/A". 	
---	--

WATER USE LICENSING – SECTION 21(F) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Is any waste or water containing waste discharged into a water resource through a pipe, canal, sewer, sea outfall or other conduit? [s21 (f) of NWA]	No <input checked="" type="checkbox"/>	Not Verified
Does this water use constitute a GA? I.e. do the GA Regulations for Section 21(e), (f), (g), (h) and (j) apply? [GN 665]	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, is the operation in compliance with section 39 of the NWA and the GA Regulations for Section 21(e), (f), (g), (h) and (j)? [s39 of NWA / GN 665] 	N/A <input checked="" type="checkbox"/>	Not Verified
If a GA is not applicable, does the operation have a WUL? [s21(f) of NWA / GN 267]	No <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, is the operation in compliance with the conditions of the WUL? [s151 of NWA] 	No <input checked="" type="checkbox"/>	Not Verified
Is any waste and/or water containing waste and/or industrial wastewater and/or runoff water (including stormwater from a residential, recreational, commercial or industrial site) discharged into the municipal sewer system? [Schedule 1(1)(f) of NWA]	No <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> If so, is this approved by the municipality (a water services provider)? [Schedule 1(1)(f) of NWA and s7 of WSA] 	N/A <input checked="" type="checkbox"/>	N/A

WATER USE LICENSING – SECTION 21(F) OF THE NWA: COMMENTS

- We received a copy of the WUL dated 10 April 2019 authorising section 21 (a), (b), (e), (g) and (j) water uses.
- During the site inspection of the active slimes dam Gloria, sewage water was being pumped via a pipe into the return water dam. In our view, this may trigger a section 21 (f) water use.
- A WUL or GA must be obtained prior to any section 21 water uses commencing. Failure to obtain a WUL before commencing with section 21 water uses exposes Assmang to compliance action from the DWS (which may include a cessation order) and/or a criminal prosecution on the basis that the commencement of water uses without a WUL is an offence. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to commencing with a section 21 water use without a WUL or GA.
- **We recommend that, as part of the site-wide licensing gap analysis, all section 21 water uses be assessed in order to confirm that all water uses are authorised under the NWA.**



WATER USE LICENSING – SECTION 21(G) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Is any waste (solid and/or liquid) disposed of in a manner that may detrimentally impact on a water resource? This includes oxidation ponds, wastewater ponds, evaporation dams, pollution dams, maturation dams and return water dams. [s21 (g) of NWA]	Yes <input checked="" type="checkbox"/>	Noted
Does this water use constitute a GA? I.e. do the GA Regulations for Section 21 (e), (f), (g), (h) and (j) apply? [GN 665]	No <input checked="" type="checkbox"/>	N/A
• If so, is the operation in compliance with section 39 of the NWA and the GA Regulations for Section 21 (e), (f), (g), (h) and (j)? [s39 of NWA / GN 665]	Yes <input checked="" type="checkbox"/>	N/A
If a GA is not applicable, does the operation have a WUL? [s21 (g) of NWA / GN 267]	Yes <input checked="" type="checkbox"/>	Compliant

<ul style="list-style-type: none"> If so, is the operation in compliance with the conditions of the WUL? [s151 of NWA] 	Yes <input checked="" type="checkbox"/>	Non-compliant
---	---	----------------------

WATER USE LICENSING – SECTION 21(G) OF THE NWA: COMMENTS	
<ul style="list-style-type: none"> We received a copy of the WUL dated 10 April 2019 authorising section 21 (a), (b), (e), (g) and (j) water uses. IMBEWU was advised during the interview process that there is non-compliance with the current WUL condition for the section 21 (g) water use, namely condition 15.12 under Appendix V which requires that all waste disposal facilities (pollution control dams, tailings dam etc) are lined. We were further advised during the interview process not the old slimes dams on site are not lined (although the new ones are lined) and the lining of historical slimes dams would be "impossible". We note however the WUL's exemption from Mining Water Regulations namely "<i>Regulation 7(b): Having <u>existing</u> tailings storage facilities which are not lined</i>" [own emphasis] at condition 19.6 of Appendix I of the WUL. We nonetheless recommend that Assmang apply to amend the WUL in terms of sections 50 and 52 of the NWA to the effect that condition 15.12 under Appendix V applies only to <u>new</u> waste disposal facilities, and expressly excludes existing waste disposal facilities. We further requested that Assmang provide a list of all waste disposal facilities (which are not lined) for further clarity on this issue, but this information was not provided. In terms of our recommendation above regarding a WUL amendment, we suggest that the names of the <u>existing</u> waste disposal facilities and location etc are expressly set out so as to avoid any possible confusion as to which facilities must be lined and which do not require lining. 	
<ul style="list-style-type: none"> Conditions 10 and 11 of the WUL provide for annual internal audits and external audits every second year. As these audits have not to date taken place, it is not possible to verify (i.e. Not Verified) whether there has been compliance with respect to the section 21(g) water use. We recommend that Assmang duly undertake the above-mentioned audits, and to the extent there is any non-compliance noted during these audit processes, that Assmang attend to these without delay. In this respect, refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to the failure to comply with a WUL condition. 	

WATER USE LICENSING – SECTION 21(H) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation dispose of water which contains waste from, or which has been heated in, any industrial or power generation process? This includes evaporation loss through cooling towers. [s21 (h) of NWA]	No <input checked="" type="checkbox"/>	Noted
Does this water use constitute a GA? I.e. do the GA Regulations for Section 21(e), (f), (g), (h) and (j) apply? [GN 665]	N/A <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> If so, is the operation in compliance with section 39 of the NWA and the GA Regulations for Section 21(e), (f), (g), (h) and (j)? [s39 of NWA / GN 665] 	N/A <input checked="" type="checkbox"/>	N/A
If a GA is not applicable, does the operation have a WUL? [s21(h) of NWA / GN 267]	N/A <input checked="" type="checkbox"/>	N/A
<ul style="list-style-type: none"> If so, is the operation in compliance with the conditions of the WUL? [s151 of NWA] 	N/A <input checked="" type="checkbox"/>	N/A

WATER USE LICENSING – SECTION 21(H) OF THE NWA: COMMENTS	
<ul style="list-style-type: none"> Based on our observations at the site inspection, and the discussions during the interview process, it did not appear that there were section 21(h) water uses. As such, it appears that such a water use is "N/A". 	

WATER USE LICENSING – SECTION 21(J) OF THE NWA: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation remove, discharge or dispose of water found underground due to it being necessary for the efficient continuation of an activity or for the safety of people? [s21 (j) of NWA]	Yes <input checked="" type="checkbox"/>	Noted

Does this water use constitute a GA? I.e. do the GA Regulations for Section 21(e), (f), (g), (h) and (j) apply? [GN 665]	No <input checked="" type="checkbox"/>	N/A
• If so, is the operation in compliance with section 39 of the NWA and the GA Regulations for Section 21(e), (f), (g), (h) and (j)? [s39 of NWA / GN 665]	N/A <input checked="" type="checkbox"/>	N/A
If a GA is not applicable, does the operation have a WUL? [s21(j) of NWA / GN 267]	Yes <input checked="" type="checkbox"/>	Compliant
• If so, is the operation in compliance with the conditions of the WUL? [s151 of NWA]	Yes <input checked="" type="checkbox"/>	Not Verified

WATER USE LICENSING – SECTION 21(J) OF THE NWA: COMMENTS

- We received a copy of the WUL dated 10 April 2019 authorising section 21(a), (b), (e), (g) and (j) water uses.
- Conditions 10 and 11 thereof provide for annual internal audits and external audits every second year. As these audits have not to date taken place, it is not possible to verify (i.e. **“Not Verified”**) whether there has been compliance with respect to the section 21(j) water use.
- **We recommend that Assmang duly undertake the above-mentioned audits, and to the extent there is any non-compliance noted during these audit processes, that Assmang attend to these without delay.** In this respect, refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to the failure to comply with a WUL condition.

EXISTING LAWFUL WATER USES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Does the operation have any permits or exemptions in terms of the repealed WA, or any other legislation, regarding the use of water, namely an “existing lawful water use”? [s32 of NWA]	Yes <input checked="" type="checkbox"/>	N/A
• If so, is the operation in compliance with the permit conditions? [s32 of NWA]	Yes <input checked="" type="checkbox"/>	N/A

EXISTING LAWFUL WATER USES: COMMENTS

- While the questionnaire states that the operation has 'existing lawful water use' permits, during the interview process, it transpired that this was not the case.
- Our findings are therefore reflected as "N/A".

WATER TREATMENT AND PURIFICATION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Is water being treated on site by the operation for human consumption and/or food processing? (GN 2834 and Schedule I)	Yes <input checked="" type="checkbox"/>	N/A
• If so, was the water treatment plant (a water care work) registered with the DWS prior to being commissioned? [r2 of GN 2834]	Yes <input checked="" type="checkbox"/>	N/A
• If so, was a permit obtained from the DWS to build the water treatment plant? [r3, Schedule I of GN 2834]	Yes <input checked="" type="checkbox"/>	N/A
• If so, was a permit obtained to enlarge and/or alter the water treatment plant? [r3, Schedule I of GN 2834]	Yes <input checked="" type="checkbox"/>	N/A
• If so, is a copy of the certificate of registration displayed at the water treatment plant? [r5 of GN 2834]	No <input checked="" type="checkbox"/>	N/A

WATER TREATMENT AND PURIFICATION: COMMENTS

- Based on our observations at the site inspection, and the discussions during the interview process, it did not appear that there was water being treated on site by the operation for human consumption and/or food processing.
- As such, our finding reflects as "N/A".

WATER USE CHARGES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Have water use charges been imposed on the operation? [GN 1353]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, is the operation paying these charges? [GN 1353]	Yes <input checked="" type="checkbox"/>	Not Verified

WATER USE CHARGES: COMMENTS	
<ul style="list-style-type: none"> Due to time constraints, it was "Not Verified" whether the BRMO is paying its water use charges. We recommend that the BRMO ensure that it pays all its water use charges. 	

16 WATER IMPACTS SPECIFIC TO MINING

WATER IMPACTS SPECIFIC TO MINING (GN 704): APPLICABLE LEGISLATION & KEY DEFINITIONS	
<ul style="list-style-type: none"> NWA NEMA MPRDA Mining Water Regulations (GN 704) 	<ul style="list-style-type: none"> "Activity" means "(a) any mining related process on the mine including the operation of washing processing facilities, mineral refineries and extraction plants, and (b) the operation and the use of mineral loading and off-loading zones, transport facilities and mineral storage yards, whether situated at the mine or not, (i) in which any substance is stockpiled, stored, accumulated or transported for use in such process; or (ii) out of which process any residue is derived, stored, stockpiled, accumulated, dumped, disposed of or transported." "Clean water system" means "any dam, other form of impoundment, canal, works, pipeline and any other structure or facility constructed for the retention or conveyance of unpolluted water". "Dam" includes "any settling dam, slurry dam, evaporation dam, catchment or barrier dam and any other form of impoundment used for the storage of unpolluted water or containing waste." "Dirty area" means "any area at a mine or activity which causes, has caused or is likely to cause pollution of a water resource". "Dirty water system" includes "any dam, other form of impoundment, canal, works, pipeline, residue deposit and, any other structure or facility constructed for the retention or conveyance of water containing waste". "Estuary" means "a partially or fully enclosed body of water - (a) which is open to the sea permanently or periodically; and (b) within which the sea water can be diluted, to an extent that is measurable, with fresh water drained from land".

WATER IMPACTS SPECIFIC TO MINING (GN 704): APPLICABLE LEGISLATION & KEY DEFINITIONS

- **“Facility”** means “in relation to an activity, includes any installation and appurtenant works for the storage, stockpiling, disposal, handling or processing of any substance”.
- **“Instream habitat”** includes “the physical structure of a watercourse and the associated vegetation in relation to the bed of the watercourse”.
- The MHSa defines a **“mine”** as “when - (a) used as a noun - (i) any borehole, or excavation, in any tailings or in the earth, including the portion of the earth that is under the sea or other water, made for the purpose of searching for or winning a mineral, whether it is being worked or not; or (ii) any other place where a mineral deposit is being exploited, including the mining area and all buildings, structures, machinery, mine dumps, access roads or objects situated on or in that area that are used or intended to be used in connection with searching, winning, exploiting or processing of a mineral, or for health and safety purposes. But, if two or more excavations, boreholes or places are being worked in conjunction with one another, they are deemed to comprise one mine, unless the Chief Inspector of Mines notifies their employer in writing that those excavations, boreholes or places comprise two or more mines; or (iii) a works; and (b) used as a verb, the making of any excavation or borehole referred to in paragraph (a)(i), or the exploitation of any mineral deposit in any other manner, for the purpose of winning a mineral, including prospecting in connection with the winning of a mineral.”
- The MHSa defines **“mineral”** as “any substance, excluding water, but including sand, stone, rock, gravel and clay, as well as soil, other than top soil - (a) whether that substance is in solid, liquid or gaseous form; (b) that occurs naturally in or on the earth, in or under water or in tailings; and (c) that has been formed by or subjected to a geological process.”
- **“Person in control of a mine or activity”** means “in relation to a particular mine or activity, includes the owner of such mine or activity, the lessee and any other lawful occupier of the mine, activity or any part thereof; a tributer for the working of the mine, activity or any part thereof; the holder of a mining authorisation or prospecting permit and if such authorisation or permit does not exist, the last person who worked the mine or his or her successors-in-title or the owner of such mine or activity; and if such person is not resident in or not a citizen of the Republic of South Africa, an agent or representative other than the manager of such a mine or activity must be appointed to be responsible on behalf of the person in control of such a mine or activity”.
- **“Residue”** includes “any debris, discard, tailings, slimes, screenings, slurry, waste rock, foundry sand, beneficiation plant waste, ash and any other waste product derived from or incidental to the operation of a mine or activity and which is stockpiled, stored or accumulated for potential re-use or recycling or which is disposed of”.
- **“Residue deposit”** includes “any dump, tailings dam, slimes dam, ash dump, waste rock dump, in-pit deposit and any other heap, pile or accumulation of residue”.

WATER IMPACTS SPECIFIC TO MINING (GN 704): APPLICABLE LEGISLATION & KEY DEFINITIONS	
	<ul style="list-style-type: none"> • “Riparian habitat” includes “the physical structure and associated vegetation of the areas associated with a watercourse which are commonly characterised by alluvial soils, and which are inundated or flooded to an extent and with a frequency sufficient to support vegetation of species with a composition and physical structure distinct from those of adjacent land areas”. • “Stockpile” includes “any heap, pile, slurry pond and accumulation of any substance where such substance is stored as a product or stored for use at any mine or activity”. • “Watercourse” means “(a) a river or spring; (b) a natural channel in which water flows regularly or intermittently; (c) a wetland, lake or dam into which, or from which, water flows; and (d) any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse and a reference to a watercourse includes, where relevant, its bed and banks.” • “Water resource” includes “a watercourse, surface water, estuary, or aquifer”. • “Water system” includes “any dam, any other form of impoundment, canal, works, pipeline and any other structure or facility constructed for the retention or conveyance water”.

WATER IMPACTS SPECIFIC TO MINING (GN 704): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Is the operation a ‘person in control’ of a mine? [GN 704]	Yes <input checked="" type="checkbox"/>	Noted
Is the operation a ‘person in control of’ an ‘activity’, namely:		
<ul style="list-style-type: none"> • does the operation operate washing processing facilities, mineral refineries and/or extraction plants on the mine? [GN 704] 	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> • does the operation operate and/or use mineral loading and off-loading zones, transport facilities or mineral storage yards (whether or not situated at the mine): <ul style="list-style-type: none"> ○ in which substances are stockpiled, stored, accumulated or transported for use in a mining-related process? [GN 704] 	Yes <input checked="" type="checkbox"/>	Noted

WATER IMPACTS SPECIFIC TO MINING (GN 704): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
o out of which process any residue is derived, stored, stockpiled, accumulated, dumped, disposed of or transported? [GN 704]	Yes <input checked="" type="checkbox"/>	Noted
If so, were the EMPr amendments submitted to the DWS? [r2 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified
Does the operation intend to operate any new activities and/or a new mine? [GN 704]	Yes <input checked="" type="checkbox"/>	Noted
• If so, will the DWS be notified 14 days before? [r2 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified
Does the operation intend to temporarily cease the operation of the mine and/or the activities, and/or thereafter resume? [r2 of GN 704]	No <input checked="" type="checkbox"/>	Noted
• If so, will the DWS be notified 14 days before? [r2 of GN 704]	N/A <input checked="" type="checkbox"/>	N/A
Does the operation intend to permanently cease the operation of the mine and/or the activities? [r2 of GN 704]	No <input checked="" type="checkbox"/>	Noted
• If so, will the DWS be notified 14 days before? [r2 of GN 704]	N/A <input checked="" type="checkbox"/>	N/A
Has there been an emergency incident involving a water resource at or incidental to the operation of a mine or the conducting of any activity? [r2 of GN 704]	No <input checked="" type="checkbox"/>	Not Verified
• If so, was the DWS promptly notified? [r2 of GN 704]	N/A <input checked="" type="checkbox"/>	Not Verified
• If so, within 14 days, was the DWS notified in writing of the remedial measures taken? [r2 of GN 704]	N/A <input checked="" type="checkbox"/>	Not Verified
Have any exemptions from the requirements of GN 704 been issued by the DWS? [r3 of GN 704]	Yes <input checked="" type="checkbox"/>	Noted
• If so, is there compliance with the conditions of the exemption? [r3 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified
Has the operation placed any structure or facility (any installation for storage, stockpiling, disposal, handling or processing of any substance):		
• within the 1:100-year flood-line? [r4(a) of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified

WATER IMPACTS SPECIFIC TO MINING (GN 704): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> within 100 metres from a watercourse or estuary, borehole or well? This excludes boreholes or wells to monitor groundwater pollution, or on water-logged ground, or on ground likely to become water-logged, undermined, unstable or cracked. [r4(a) of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified but exemption noted
Has the operation undertaken any underground or opencast mining, prospecting or any other activity:		
<ul style="list-style-type: none"> within the 1:50 year flood-line? [r4 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> within 100 metres from any watercourse or estuary? [r4 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
Has the operation placed or disposed of any residue or substance in the workings of any underground or opencast mine excavation, prospecting diggings, pit or any other excavation? [r4(c) of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified but exemption noted
Has the operation placed any toilets, fuel depots, reservoirs and/or depots for any substance within 1:50 year flood-line of a watercourse or estuary? [r4 of GN 704]	No <input checked="" type="checkbox"/>	Not Verified
Has the operation used any residue or substance for the construction of any dam or other impoundment or any embankment, road or railway, or for any other purpose which may cause water pollution? [r5 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified but exemption noted
As the 'person in control' of a mine or activities, has the operation:		
<ul style="list-style-type: none"> confined unpolluted water to a clean water system? [r6 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> designed, constructed, maintained and operated clean water systems so that there is no spillage into dirty water systems? [r6 of GN 704] 	No <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> collected water arising within any dirty area (including water seeping from mining operations, outcrops or any other activity) into a dirty water system? [r6 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified

WATER IMPACTS SPECIFIC TO MINING (GN 704): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> designed, constructed, maintained and operated dirty water systems so that there is no spillage into clean water systems? [r6 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> designed, constructed, maintained and operated dams and/or tailings dams (part of a dirty water system) to have a minimum freeboard of 0.8 metres above full supply level? [r6 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> designed, constructed and maintained water systems so that same may convey water including where there is a flood? [r6 of GN 704] 	No <input checked="" type="checkbox"/>	Not Verified
As the 'person in control' of a mine or activities, has the operation taken reasonable measures taken to:		
<ul style="list-style-type: none"> prevent water containing waste or any substance which may cause pollution from entering any water resource, either by natural flow or seepage? [r7 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> retain or collect water containing waste or any substance which may cause pollution for use, re-use, evaporation or for purification and disposal in terms of the NWA? [r7 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> design, modify, locate, construct, maintain, operate and use all water systems, including residue deposits, to: <ul style="list-style-type: none"> prevent pollution of water resources? [r7(b) of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified but exemption noted
<ul style="list-style-type: none"> <ul style="list-style-type: none"> restrict damage to riparian or in-stream habitats through erosion or sedimentation? [r7(b) of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified but exemption noted
<ul style="list-style-type: none"> <ul style="list-style-type: none"> restrict the disturbance of vegetation, or the alteration of flow characteristics? [r7(b) of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified but exemption noted

WATER IMPACTS SPECIFIC TO MINING (GN 704): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> minimise the flow of surface water or floodwater into mine workings, opencast workings, other workings or subterranean caverns, through cracked or fissured formations, subsided ground, sinkholes, outcrop excavations, adits, entrances or any other openings? [r7 of GN 704] 	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> design, modify, construct, maintain and use any dam or any residue deposit or stockpile (used for the disposal or storage of mineral tailings, slimes, ash or other hydraulic transported substances) so that the water contained therein does not cause a failure of the structure and/or stability impairment? [r7 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> prevent the erosion or leaching of materials from residue deposits or stockpiles? [r7 of GN 704] 	No <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> contain eroded or leached material by providing suitable barrier dams, evaporation dams or other measures to prevent entry into water resources? [r7 of GN 704] 	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> ensure that water used in any process at a mine or activity is recycled as far as practicable? [r7 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> ensure that any facility, sump, pumping installation, catchment dam or other impoundment used for recycling water is of adequate design and capacity to prevent spillage, seepage or release of water containing waste? [r7 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> keep any water system free from obstructions which may affect its efficiency? [r7 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> dispose of domestic waste (including wash-water but excluding waste which <i>cannot</i> be disposed of in a municipal sewage system) in terms of a WML / other authorisation under the NWA? [r7 of GN 704] 	No <input checked="" type="checkbox"/>	Not Verified
As the 'person in control' of a mine or activities, does the operation:		

WATER IMPACTS SPECIFIC TO MINING (GN 704): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> fence off impoundments or dams containing poisonous, toxic or injurious substances to restrict access thereto? [r8 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> erect warning notice boards to warn persons of impoundments or dams containing poisonous, toxic or injurious substances? [r8 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> disallow impoundments or dams containing poisonous, toxic or injurious substances to be used for any other purpose? [r8 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> implement access control to areas used for stockpiling or disposal of residues or substance which may cause pollution of a water resource? [r8 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> disallow areas used for stockpiling or disposal of residues to be used for any other purpose? [r8 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> maintain existing pollution control measures at residue deposits or stockpiles? [r8 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> where pollution control measures are deleteriously affected, damaged or destroyed, remove materials from residue deposits or stockpiles and implement additional pollution control measures? [r8 of GN 704] 	Yes <input checked="" type="checkbox"/>	Not Verified
Does the operation intend to temporarily or permanently cease operations? [r9 of GN 704]	No <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, are pollution control measures designed, modified, constructed and maintained in compliance with GN 704? [r9 of GN 704] 	N/A <input checked="" type="checkbox"/>	N/A
Are in-stream and riparian habitats of water resources (which have been affected by the mine or activities) remedied in compliance with GN 704? [r9 of GN 704]	N/A <input checked="" type="checkbox"/>	Not Verified

WATER IMPACTS SPECIFIC TO MINING (GN 704): QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation extract sand, alluvial minerals or other materials from the channel of a watercourse or estuary? [r10 of GN 704]	No <input checked="" type="checkbox"/>	Not Verified
Has the operation established any slimes dams or settling ponds:		
• within the 1:50 year flood-line? [r10 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified
• within 100 metres of any watercourse or estuary? [r10 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified
Does the operation have coal residue deposits?	No <input checked="" type="checkbox"/>	N/A
• If so, have these coal residue deposits been rehabilitated concurrently with the mining operation (compacted to prevent spontaneous combustion and to minimise the infiltration of water)? [r11 of GN 704]	N/A <input checked="" type="checkbox"/>	N/A
Has the Minister of Water and Sanitation directed or required:		
• an investigation or inspection of the mine related to water pollution or damage to in-stream or riparian habitats? [r12 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified
• any 'programmes of implementation' or monitoring programmes to prevent water pollution or damage to in-stream or riparian habitats? [r12 of GN 704]	No <input checked="" type="checkbox"/>	Not Verified
Have plans, specifications and design reports (approved by a professional engineer) been submitted to the Minister of Water and Sanitation 60 days prior to:		
• the construction of any surface dam for impounding waste, water containing waste or slurry? [r12 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified
• the implementation of pollution control measures at residue deposits or stockpiles? [r12 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified
• the implementation of water control measures at residue deposits or stockpiles? [r12 of GN 704]	Yes <input checked="" type="checkbox"/>	Not Verified

WATER IMPACTS SPECIFIC TO MINING (GN 704): COMMENTS

- As per the scope of this ECLA (refer to **Annexure 2** further), an audit of compliance with the Mining Water Regulations is excluded. The 2019 external audit of compliance with the Mining Water Regulations was therefore requested but not provided. Further, no other internal or external audit of compliance with the Mining Water Regulations was provided to IMBEWU. As such, it was **"Not Verified"** whether BRMO complies in all respects with the Mining Water Regulations.
- We note that the 2019 WUL contains exemptions in condition 19 of Appendix I from some of the provisions in the Mining Water Regulations and in some cases, these exemptions are limited to certain areas or activities. The exemptions are:
 - *“Regulation 4(a): Location of Old slimes dams, intermediary ROM stockpile and product stockpile floors at Gloria Mine within 100m of the western bank of the Gamagara River.*
 - *Regulation 4(c): Disposal of general waste from the Nchwaning-, Gloria- and Black Rock in an open-cast mine void.*
 - *Regulation 4 (c): Disposal of waste rock generated from the sinking of the Nchwaning III vertical and ventilation shafts in an old open-cast pits west of Black Rock koppie.*
 - *Regulation 4(c): Used of waste rock from primary crushing to back-fill mined out voids and underground workings at BMRO.*
 - *Regulation 5: Used of low grade ore for construction of laydown areas, roads and rail lines.*
 - *Regulation 7(b): Having existing tailings storage facilities which are not lined.”*
- **As the exemptions are generally limited to a certain area or activity, we recommend that any audit of compliance with the Mining Water Regulations:**
 - **factor in the above exemptions in terms of their specific application (certain areas or activities); and**
 - **still audit compliance with these ‘exempted’ provisions at other areas or in respect of other activities at the mine so as to ensure the operation doesn’t fall foul of compliance in this regard.**




WATER IMPACTS SPECIFIC TO MINING (GN 704): COMMENTS	
<ul style="list-style-type: none"> As it is possible that there are other areas / activities where these provisions still apply, we have made the finding of "Not Verified but exemption noted". We recommend that Assmang carefully assesses the 2019 external audit of its compliance with the Mining Water Regulations, and to the extent there is any non-compliance noted, that Assmang attend to the necessary corrective action without delay. In this respect, refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to the failure to comply with the Mining Water Regulations. 	
<ul style="list-style-type: none"> While the audit questionnaire (as completed by BRMO) noted that the Minister of Water and Sanitation issued a directive to undertake an investigation or inspection of the mine related to water pollution in terms of regulation 12 of the Mining Water Regulations, it transpired during the interview process that there has not been any such notice. Nonetheless, as we have not received the 2019 external audit of compliance, this was "Not Verified". 	
<ul style="list-style-type: none"> Based on our observations at the site inspection, and the discussions during the interview process, it did not appear that there was any intention to cease activities, and as such, the obligations related to cessation of mining activities are reflected as "N/A". Further, as the BRMO is a manganese mine, coal residue deposits are "N/A". 	

17 LAND / SOIL CONTAMINATION

LAND / SOIL CONTAMINATION: APPLICABLE LEGISLATION & KEY DEFINITIONS	
<ul style="list-style-type: none"> NEMA NWA NEMWA Contaminated Land Norms (GN 331) 	<p>"Contaminated" means "the presence in or under any land, site, buildings or structures of a substance or micro-organism above the concentration that is normally present in or under that land, which substance or micro-organism directly or indirectly affects or may affect the quality of soil or the environment adversely".</p>

LAND / SOIL CONTAMINATION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Is the operation's land/soil contaminated? [s28 of NEMA / s19 of NWA / Part 8 of Chapter 4 of NEMWA]	Yes <input checked="" type="checkbox"/>	Noted
Have any complaints regarding land/soil contamination been received from the public, any NGO or other civil society organisation and/or government officials (such as EMI) in the past 3 years?	No <input checked="" type="checkbox"/>	Not Verified
If there is land/soil contamination, are reasonable measures taken to prevent this pollution from occurring, continuing or recurring? [s28 of NEMA]	Yes <input checked="" type="checkbox"/>	Non-compliant
Has the operation notified the Minister of Environmental Affairs or MEC of the land/soil contamination? [s36 of NEMWA]	No <input checked="" type="checkbox"/>	Non-compliant
Has the Minister or MEC declared the land an 'investigation area' and directed that a site assessment be undertaken? [s37 of NEMWA]	No <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, was the site assessment report submitted to the Minister or MEC? [s37 of NEMWA] 	N/A <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> In compiling the site assessment report, have the Contaminated Land Norms been applied? [GN 331] 	N/A <input checked="" type="checkbox"/>	Noted
Has the Minister or MEC declared the land a 'remediation site' and have remediation orders been issued? [s38 of NEMWA]	N/A <input checked="" type="checkbox"/>	Noted
Does the operation intend selling the land? [40 of NEMWA]	N/A <input checked="" type="checkbox"/>	Noted

LAND / SOIL CONTAMINATION: COMMENTS	
<ul style="list-style-type: none"> Part 8 of Chapter 4 of NEMWA apply, namely the so-called "Contaminated Land Provisions" provide as follows: 	

LAND / SOIL CONTAMINATION: COMMENTS	
<ul style="list-style-type: none"> ○ where land is significantly “contaminated”,¹⁷ there is an obligation on the landowner or the person who has caused the contamination to notify the Minister of the DEA of such significant contamination.¹⁸ Once so identified, there is further an obligation to notify any prospective land purchaser of the land contamination;¹⁹ ○ flowing from this notification, the land may be identified by the Minister of the DEA as an ‘investigation area’²⁰ and the Minister of the DEA may request that a site assessment (which assesses the land contamination) be carried out;²¹ and ○ after receipt of the site assessment, if same shows significant contamination, the Minister of the DEA may declare the land a ‘remediation site’ and impose remediation orders.²² To the extent that the land is declared a remediation site, the title deed would be endorsed accordingly.²³ There would further be an obligation to notify the Minister of the DEA to the extent there was an intention to transfer the land and in this event, to comply with any pre-transfer conditions the Minister may impose.²⁴ 	
<ul style="list-style-type: none"> ● During the interview process, it was confirmed that the land is significantly “contaminated”, namely there the “presence in or under any land, site, buildings or structures of a substance or micro-organism above the concentration that is normally present in or under that land, which substance or micro-organism directly or indirectly affects or may affect the quality of soil or the environment adversely”. (see section 1 of NEMWA). As such, the Contaminated Land Provisions apply to the BRMO. ● As confirmed during the interview process, BRMO has <u>not</u> notified the Minister of the DEA as it is statutorily mandated to do and as such, there has been “non-compliance” with the Contaminated Land Provisions. ● Non-compliance with the Contaminated Land Provisions exposes Assmang to environmental compliance and enforcement 	

¹⁷ Section 1 of NEMWA.

¹⁸ Section 36(5) of NEMWA.

¹⁹ Section 40(1) of NEMWA.


²⁰ Section 36 of NEMWA.

²¹ Section 37(1) of NEMWA.

²² Section 38(2) of NEMWA.

²³ Section 40(2) of NEMWA.

²⁴ Section 40(1) of NEMWA.

LAND / SOIL CONTAMINATION: COMMENTS	
<p>action. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to a failure to comply with the various obligations imposed by the Contaminated Land Provisions.</p> <ul style="list-style-type: none"> • It is strongly recommended that Assmang appoint the necessary specialists to advise it on compliance with Contaminated Land Provisions so as to come into compliance in this regard as soon as possible. 	
<ul style="list-style-type: none"> • As the BRMO has not notified the Minister of the DEA of the significantly contaminated land, the potential actions which may flow from this notification have not transpired, and as such, our findings are reflected as "Noted" in this respect. • These potential subsequent actions (as fully set out above) must be noted by Assmang, notably the potential for the land to be declared a 'remediation site' which would entail associated remediation orders. 	
<ul style="list-style-type: none"> • Please further refer to paragraph 11 of this report which details various pollution impacts in terms of section 28 of NEMA, section 19 of the NWA and the Contaminated Land Provisions, which were noted during the site inspection. In light of this, Assmang does not appear to be taking all reasonable measures taken to prevent pollution from occurring, continuing or recurring. • The causation of pollution exposes Assmang to environmental compliance and enforcement action. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to a failure to comply with the duty of care. • We strongly recommend that Assmang employ all reasonable measures (as defined in section 28 of NEMA and section 19 of the NWA) to ensure that soil and/or water pollution is prevented from occurring, continuing or recurring. 	
<ul style="list-style-type: none"> • Due to time constraints, it was "Not Verified" whether the site has received complaints from regulators. 	

18 EMERGENCY PREPAREDNESS AND RESPONSE

EMERGENCY PREPAREDNESS AND RESPONSE: APPLICABLE LEGISLATION & KEY DEFINITIONS	
<ul style="list-style-type: none"> • NEMA • NWA • NEMA Listed Activities (GN 983, GN 984 and GN 985) 	<ul style="list-style-type: none"> • “Emergency situation” in section 30A of NEMA means “a situation that has arisen suddenly that poses an imminent and serious threat to the environment, human life or property, including a ‘disaster’ as defined in section 1 of the Disaster Management Act but does not include an incident referred to in section 30 of NEMA”. • “Incident” in section 30 of NEMA means “an unexpected, sudden and uncontrolled release of a hazardous substance, including from a major emission, fire or explosion, that causes, has caused or may cause significant harm to the environment, human life or property”. • “Incident” in section 20 of the NWA includes “any incident or accident in which a substance - (a) pollutes or has the potential to pollute a water resource; or (b) has, or is likely to have, a detrimental effect on a water resource.” • “Relevant authority” in section 30 of NEMA means “(i) a municipality with jurisdiction over the area in which an incident occurs; (ii) a provincial head of department or any other provincial official designated for that purpose by the MEC in a province in which an incident occurs; (iii) the Director-Genera of the DEA; (iv) any other Director-General of a national department.” • “Responsible person” in section 30 of NEMA means “any person who (i) is responsible for the incident; (ii) owns any hazardous substance involved in the incident; or (iii) was in control of any hazardous substance involved in the incident at the time of the incident”. • “Responsible person” in section 20 of the NWA means “any person who (a) is responsible for the incident; (b) owns the substance involved in the incident; or (c) was in control of the substance involved in the incident at the time of the incident”.

EMERGENCY PREPAREDNESS AND RESPONSE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Is there an incident and accidents logbook on site?	Yes <input checked="" type="checkbox"/>	Not Verified
Has an incident as defined in section 20 of the NWA occurred in the last 3 years?	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> • If so, did the responsible person immediately report the incident to the DWS, SAPS or relevant catchment management agency? [s20 of NWA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> • If so, did the responsible person, as soon as reasonably practicable, take all reasonable measures to contain and minimise the effects of the incident, undertake a clean-up, remedy the effects of the 	Yes <input checked="" type="checkbox"/>	Not Verified

EMERGENCY PREPAREDNESS AND RESPONSE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
incident and implement the measures as prescribed by the catchment management agency? [s20 of NWA]		
Has an incident as defined in section 30 of NEMA occurred in the last 3 years?	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, did the responsible person immediately report the incident to the Director-General of the DEA, SAPS, the relevant fire prevention service, the relevant provincial head of the DEA and all persons whose health may be affected? [s30 of NEMA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, did the responsible person, as soon as reasonably practicable, take all reasonable measures to contain and minimise the effects of the incident, undertake a clean-up, remedy the effects of the incident and assess the immediate and long-term effects of the incident on the environment and public health? [s30 of NEMA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, did the responsible person also, within 14 days of the incident, provide all the required information to the Director-General of the DEA, provincial head of the DEA and the municipality to enable an initial evaluation? [s30 of NEMA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, did the relevant authority direct that the operation undertake specific action? [s30 of NEMA] 	No <input checked="" type="checkbox"/>	Not Verified
Has an emergency situation as defined by section 30A of NEMA arisen at the operation? [s30A of NEMA]	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, was the operation directed by the DEA to undertake specific measures? [s30A of NEMA] 	No <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, did the DEA authorise the operation to undertake a NEMA Listed Activity without an EA? [s30A of NEMA] 	No <input checked="" type="checkbox"/>	Not Verified

EMERGENCY PREPAREDNESS AND RESPONSE: COMMENTS

- It was confirmed during the interview process that there have been incidents as defined in section 20 of the NWA and incident as defined in section 30 of NEMA, including the fire at the general waste facility and the sewage spillages at Nchwaning II. It was confirmed further that the SAPS and fire department are **not** informed as required.
- During the site inspection, the BRMO personnel advised that the sewage spillages at the sewage treatment plant at Gloria in 2018 and at Black Rock in the last year and it is not known whether these were reported as “incidents”. Please refer to paragraph 10 of this report for specific observations made during the site inspection. These may have amounted to “incidents” as defined in section 30 of NEMA, although without further information, we are unable to confirm same.
- Despite request, the following documents were not provided:
 - copy of incident and accidents logbook for entire site;
 - copy of Emergency Preparedness and Response Procedure;
 - proof of submission of incident reports in terms of section 20 of the NWA to the DWS, SAPS or catchment management agency, including for sewage spillages (including at Nchwaning II);
 - proof of submission of incident reports in terms of section 30 of NEMA to the Director-General of the DEA, SAPS, the fire prevention service, the provincial head of the DEA and persons whose health may be affected, including for the fire at the general waste facility;
 - for the section 30 NEMA incidents, information provided to the Director-General of the DEA, provincial head of the DEA and the municipality to enable an evaluation; and
 - documentation related to emergency situations as defined in section 30A of NEMA.
- As such, it was **“Not Verified”** whether incidents as defined in section 20 of the NWA and incident as defined in section 30 of NEMA are dealt with in accordance with the section 20 of the NWA and section 30 of NEMA respectively. It was further **“Not Verified”** whether any emergency situation as defined by section 30A of NEMA has been dealt with in accordance with section 30A of NEMA.



EMERGENCY PREPAREDNESS AND RESPONSE: COMMENTS

- The failure to comply with section 20 of the NWA and/or section 30 of NEMA and/or section 30A of NEMA where same is applicable exposes Assmang to environmental compliance and enforcement action. Refer to our comments in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to the failure to comply with section 30 of NEMA and/or the failure to comply with a directive issued under section 20 of the NWA.
- **We strongly recommend that the BRMO improve its document control mechanisms and further ensure compliance with section 20 of the NWA and sections 30 and 30A of NEMA.**

19 WASTE MANAGEMENT AND LICENSING

WASTE MANAGEMENT AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> • NEMWA • NEMA • CA • CL • NWA • ECA • Waste Information Regulations (GN 625) • Waste Classification Regulations (GN 634) 	<ul style="list-style-type: none"> • "Articles" means "dielectric fluid, dielectric fluid containers, electrical equipment or other equipment or materials that contain PCBs or came into contact with materials that contain PCBs". • "Asbestos" means "any of the following minerals: amosite; chrysotile; crocidolite; fibrous actinolite; fibrous anthophyllite; and fibrous tremolite, or any mixture containing any of these minerals". • "Asbestos containing material" means "any mixture, product, component or material to which asbestos has been added". • "Baling" means "the manual or mechanical tying, bundling or wrapping of compressed waste material". • "Chipping" means "the manual or mechanical chopping or cutting of garden waste into smaller pieces in preparation for further processing". • "Container" means "a disposable or re-usable vessel in which waste is placed for the purposes of storing, accumulating, handling, transporting, treating or disposing of that waste, and includes bins, bin-liners and skips". • "Contamination" means "the transfer of PCBs to an article previously free of PCBs, which results in an article having a PCB concentration of more than 50 mg/kg". • "Crushing" means "breaking-down of waste into small pieces by pressing or pounding using mechanical or manual means". • "Disposal" means "the burial, deposit, discharge, abandoning, dumping, placing or release of any waste into, or onto, any land". • "Equipment" includes "capacitors, transformers, electrical motors, circuit breakers, voltage regulators, reclosers, switchgears, switches, electromagnets, rectifier or other equipment that contain a dielectric fluid that contain PCBs".
--	---

WASTE MANAGEMENT AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> • Norms for Landfill Assessment (GN 635) • Norms for Landfill Disposal (GN 636) • NEMWA Listed Activities (GN 921 and GN 718) • Section 24G Regulations (GN 698) • Waste Exclusion Regulations (GN 715) • Waste Storage Norms (GN 926) • Waste Sorting Norms (GN 1093) • Asbestos Regulations (GN 341) • Tyre Regulations (GN1064) • PCB Regulations (GN 549) 	<ul style="list-style-type: none"> • "General waste" means "waste that does not pose an immediate hazard or threat to health or to the environment, and includes- (a) domestic waste; (b) building and demolition waste; (c) business waste; (d) inert waste; or (e) any waste classified as non-hazardous waste in terms of the regulations made under section 69 of NEMWA, and includes non-hazardous substances, materials or objects within business, domestic, inert, building and demolition wastes." • "General waste storage facility" means "a storage facility that has a capacity to store in excess of 100m³ of general waste continuously". • "Grinding" means "breaking-down or reducing waste material to smaller fragments or a powder through manual or mechanical friction". • "Hazardous waste" means "any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment and includes hazardous substances, materials or objects within business waste, residue deposits and residue stockpiles". • "Hazardous waste storage facility" means "a storage facility that has a capacity to store in excess of 80m³ of hazardous waste continuously". • "Holder of waste" means "any person who imports, generates, stores, accumulates, transports, processes, treats, or exports waste or disposes of waste". • "PCB (Polychlorinated biphenyl)" means "one of 209 congeners containing one to ten chlorine atoms attached to the biphenyl group". • "PCB contaminated material" means "oil or articles with PCB concentration greater than 51 mg/kg but less than 500 mg/kg". • "PCB holder" means "a person who uses or stores PCB materials or PCB contaminated materials". • "PCB material" means "oil or articles with PCB concentration greater than 500 mg/kg". • "PCB waste" means "waste as defined in NEMWA which contains PCB materials or PCB contaminated materials". • "Pollution" means "any change in the environment caused by - (i) substances; (ii) radioactive or other waves; or (iii) noise, odours, dust or heat, emitted from any activity, including the storage or treatment of waste or substances, construction and the provision of services, whether engaged in by any person or an organ of state, where that change has an adverse effect on human health or wellbeing or on the composition, resilience and productivity of natural or managed ecosystems, or on materials useful to people, or will have such an effect in the future". • "Reasonable measures" means "measures to: investigate, assess and evaluate the impact of the waste in question on health or the environment; cease, modify or control any act causing pollution or harm to health; comply with any norm or standard or prescribed management practice; eliminate any source of pollution; and remedy the effects of the pollution." • "Recovery" means "the controlled extraction or retrieval of any substance, material or object from waste". • "Recycle" means "a process where waste is reclaimed for further use, which process involves the separation of waste from a waste stream for further use and the processing of that separated material as a product or raw material".
--	--

WASTE MANAGEMENT AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> Water Care Work Regulations (GN 2834) MPRDA Regulations (GN 527) 	<ul style="list-style-type: none"> "Re-use" means "to utilise the whole, a portion of or a specific part of any substance, material or object from the waste stream for a similar or different purpose without changing the form or properties of such substance, material or object". "Screening" means "a process or system for examining, removing or separating material from the waste stream identified through sorting for a specific process." "Shredding" means "the breaking down of waste material, through manual or mechanical cutting or tearing, into smaller parts". "Sorting" means "the manual or automated separation of waste materials according to type, class, state of contamination or usability for a particular purpose". "Storage" means "the accumulation of waste in a manner that does not constitute treatment or disposal of that waste". "Tank" means "a container designed for the accumulation of waste." "Treatment" means "any method, technique or process that is designed to- (a)change the physical, biological or chemical character or composition of a waste; or (b) remove, separate, concentrate or recover a hazardous or toxic component of a waste; or (c) destroy or reduce the toxicity of a waste, in order to minimise the impact of the waste on the environment prior to further use or disposal". "Waste" means "(a) any substance, material or object, that is unwanted, rejected, abandoned, discarded or disposed of, or that is intended or required to be discarded or disposed of, by the holder of that substance, material or object, whether or not such substance, material or object can be re-used, recycled or recovered and includes all wastes as defined in Schedule 3 to NEMWA; or (b) any other substance, material or object that is not included in Schedule 3 that may be defined as a waste by the Minister by notice in the Gazette, but any waste or portion of waste, referred to in paragraphs (a) and (b), ceases to be a waste- (i) once an application for its re-use, recycling or recovery has been approved or, after such approval, once it is, or has been re-used, recycled or recovered; (ii) where approval is not required, once a waste is, or has been re-used, recycled or recovered; (iii) where the Minister has, in terms of section 74, exempted any waste or a portion of waste generated by a particular process from the definition of waste; or (iv) where the Minister has, in the prescribed manner, excluded any waste stream or a portion of a waste stream from the definition of waste." "Waste classification" means "establishing (a) whether a waste is hazardous based on the nature of its physical, health and environmental hazardous properties (hazard classes); and (b) the degree or severity of hazard posed (hazard categories)". "Waste disposal facility" means "any site or premise used for the accumulation of waste with the purpose of disposing of that waste at that site or on that premise". "Waste facility" means "a commercial place, infrastructure or containment of any kind including associated structures or infrastructure where there is sorting, shredding, grinding, crushing, screening, chipping or baling of general waste."
---	--


WASTE MANAGEMENT AND LICENSING: APPLICABLE LEGISLATION & KEY DEFINITIONS	
	<ul style="list-style-type: none"> • “Waste generator” means “any person whose actions, production processes or activities, including waste management activities, results in the generation of waste.” • “Waste management activity” means “any activity listed in Schedule 1 or published by notice in the Gazette under section 19 of NEMWA, and includes (a) the importation and exportation of waste; (b) the generation of waste, including the undertaking of any activity or process that is likely to result in the generation of waste; (c) the accumulation and storage of waste; (d) the collection and handling of waste; (e) the reduction, re-use, recycling and recovery of waste; (f) the trading in waste; (g) the transportation of waste; (h) the transfer of waste; (i) the treatment of waste; and (j) the disposal of waste”. • “Waste manager” means “any person who re-uses, recycles, recovers, treats or disposes of waste.” • “Waste treatment facility” means “any site that is used to accumulate waste for the purpose of storage, recovery, treatment, reprocessing, recycling or sorting of that waste.” • Water care work means “any borehole, structure, earthwork or equipment installed or used for or in connection with water use for- (a) the purification or treatment of water in order to render it fit for human consumption or for use in the foodstuffs industry; or (b) the purification, treatment or disposal of effluent”.

OPERATION’S WASTE ACTIVITIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
Does the operation generate general and/or hazardous waste?	Yes <input checked="" type="checkbox"/>	Noted	Yes <input checked="" type="checkbox"/>	Noted

OPERATION’S WASTE ACTIVITIES: COMMENTS	
<ul style="list-style-type: none"> • A waste inventory for the entire site was requested. As part of the information provided on GHG reporting, a waste inventory for 2019 was provided (as one of the excel tabs). The site generated and disposed of the following: <ul style="list-style-type: none"> ○ Hazardous waste: oil contamination, medical waste and empty chemical containers; ○ Domestic waste, including building rubble; 	

OPERATION'S WASTE ACTIVITIES: COMMENTS	
<ul style="list-style-type: none"> o Waste rock; and o Tailings. 	

WASTE POLLUTION: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Do the operation's waste-related activities cause pollution of the environment? [s28 of NEMA / s19 of NWA / s16 of NEMWA / s24 of CA / CL] This includes impacts caused by contractors and/or agents of the operation.	Yes <input checked="" type="checkbox"/>	Non-compliant
Have any complaints regarding waste-related pollution been received from the public, any NGO or other civil society organisation and/or government officials (such as EMLs) in the past 3 years? [s28 of NEMA / s19 of NWA / s16 of NEMWA / s24 of CA / CL]	No <input checked="" type="checkbox"/>	Not Verified
If there is waste-related pollution, are reasonable measures taken to prevent this pollution from occurring, continuing or recurring? [s19 of NWA]	Yes <input checked="" type="checkbox"/>	Non-compliant

WASTE POLLUTION: COMMENTS	
<ul style="list-style-type: none"> • There were various waste-related pollution impacts noted during the site inspection including as detailed in paragraph 11 of this report, including: <ul style="list-style-type: none"> o there were dried sewage sludge spillages and other sewage spills at the sewage treatment plants at Gloria, Nchwaning II and Black Rock onto open soil. The sewage treatment plant at Nchwaning II in particular was of concern and was also previously noted for pollution impacts in the 2017 ELCA, and as such, this is an issue which has been recurring over more than 18 months; 	


WASTE POLLUTION: COMMENTS

- As set out in the 2017 ELCA “There was a sewage treatment spill on unsurfaced area at the Gloria Accommodation Camp. The sewage spill moved into the Gamagara rehabilitation area towards the Gamagara River. The sewage spill was caused by the hydraulic level in the pump station being breached due to the failure and blockages in the pump station. The Mine did not undertake any soil and water samples to determine the extent of possible contamination caused. The Mine must scrutinize the October water monitoring results to determine whether the sewage spill had a significant result on the land and surrounding water body.” Please further refer to our comments under “**WATER POLLUTION**” under paragraph 16 of this report;
- there were hydrocarbon impacts throughout the site, including at the area behind the change houses at Gloria, at the area behind the decline at Gloria, Gloria’s surface plant workshop and at the Black Rock mechanical workshop parking lot;
- there were spillages from chemicals/ hazardous waste container at the area behind the decline at Gloria, and there was no bunding/ containment to contain the spread of these spillages onto *inter alia* soil;
- there was litter at various places throughout the site;
- outside of Gloria’s surface plant workshop, the bunded area containing chemicals was fenced off but the bunding/concrete had cracked;
- the trenches at Gloria’s surface plant workshop were blocked as was the trench outlet (also previously noted in 2017 ELCA);
- there was possible pollution from hazardous waste at the Black Rock hazardous waste storage area (various bins and skips were outside of the hazardous waste storage area on open ground); and
- some hydrocarbon contaminated soil had spilled outside of the Black Rock hazardous waste storage area near to open soil.


WASTE POLLUTION: COMMENTS	
<ul style="list-style-type: none"> It was therefore apparent that not all reasonable measures have been undertaken by Assmang to prevent pollution from occurring, continuing or recurring. As such, the finding is "non-compliant". The causation of pollution is in breach of the duty of care and exposes Assmang to environmental compliance and enforcement action. In terms of pollution impacts. Please refer to our comments on the duty of care at paragraph 7 of this report and our comments on environmental compliance and enforcement in paragraph 8 of this report. Please refer further to the table of offences and penalties in Annexure 1 with respect to non-compliance with the duty of care. We strongly recommend that Assmang employ all reasonable measures (as defined in section 28 of NEMA and section 19 of the NWA) to ensure that pollution is prevented from occurring, continuing or recurring and that Assmang generally ensure that its waste management on site is improved so as to ensure that there is no pollution of the environment. 	
<ul style="list-style-type: none"> Due to time constraints, it was "Not Verified" whether the site has received complaints from regulators or third parties. 	


GENERAL WASTE MANAGEMENT DUTIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation take all reasonable measures to:		
<ul style="list-style-type: none"> avoid the generation of waste? [s16 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> where generation cannot be avoided, minimise the toxicity and amount of waste generated? [s16 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> reduce, re-use, recycle and recover waste? [s16 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> where waste must be disposed of, ensure that waste is treated and disposed of in an environmentally sound manner? [s16 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Not Verified

<ul style="list-style-type: none"> manage waste so that it does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts? [s16 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> prevent any employee from contravening NEMWA? [s16 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> prevent waste from being used for an unauthorised purpose? [s16 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Not Verified
Are there sufficient containers provided for litter? [s27 of NEMWA]	Yes <input checked="" type="checkbox"/>	Non-compliant

GENERAL WASTE MANAGEMENT DUTIES: COMMENTS	
<ul style="list-style-type: none"> In light of our comments above, it did not appear that Assmang was managing all of its waste so that it does not cause pollution of the environment in non-compliance with the general waste management duties under section 16 of NEMWA. Due to time constraints, it was Not Verified whether the site is taking all reasonable measures to comply with its other general waste management duties in terms of section 16 of NEMWA. The failure to comply with the general waste management duties in terms of section 16 of NEMWA exposes Assmang to environmental compliance and enforcement action. Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with section 16 of NEMWA. We strongly recommend that Assmang undertake to comply with its general waste management duties in terms of section 16 of NEMWA. While a number of waste containers were noted during the site inspection, there was still litter and some bins were overfilled. Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with section 27 of NEMWA (littering). We recommend that Assmang provide more bins etc for litter on site. 	

NEMWA LISTED ACTIVITIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Between 3 July 2009 and 29 November 2013, did the operation undertake any NEMWA Listed Activities? [GN 718]	Yes <input checked="" type="checkbox"/>	Noted
• If so, was an WML obtained prior to commencement? [s19, s20 of NEMWA]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, is the operation in compliance with the conditions of the WML? [s67 of NEMWA]	Yes <input checked="" type="checkbox"/>	Not Verified
After 29 November 2013, has the operation undertaken any NEMWA Listed Activities? [GN 921]	Yes <input checked="" type="checkbox"/>	Noted
• If so, was an WML obtained prior to commencement? [s19, s20 of NEMWA]	Yes <input checked="" type="checkbox"/>	Compliant
• If so, is the operation in compliance with the conditions of the WML? [s67 of NEMWA]	Yes <input checked="" type="checkbox"/>	Not Verified
Has an application been submitted to exclude a waste stream or portion of a waste stream from the definition of 'waste'? [GN 715]	No <input checked="" type="checkbox"/>	N/A
Has the operation commenced any process of "rectification" in terms of section 24G of NEMA relating to commencing NEMWA Listed Activities without a WML? [s24G of NEMA / GN 698]	N/A <input checked="" type="checkbox"/>	Not Verified

NEMWA LISTED ACTIVITIES: COMMENTS	
<ul style="list-style-type: none"> We have been provided with a WML in terms of NEMWA, dated 13 May 2014 authorising a general waste disposal site on site. The WML is valid for 20 years. The WML was issued pursuant to an application to vary a previous licence dated 10 March 2014. In terms of the 2014 WML, the last external audit of was requested but not provided. As such, it was "Not Verified" if there is compliance with the conditions of the 2014 WML. It was confirmed during the interview process that there was an "old WML". A copy of the 'old WML' was requested, as well as an explanation as to why the old WML is no longer applicable (i.e. the activities are no longer listed under NEMWA). This 	

NEMWA LISTED ACTIVITIES: COMMENTS	
<p>information was not provided, and as such, it was "Not Verified" if previous NEMWA Listed Activities were licensed and/or Assmang complied with previous WMLs.</p> <ul style="list-style-type: none"> • During the interview process, it was noted that Lana van der Westhuizen (internal legal advisor and author of the 2017 ELCA) provided Assmang with advice regarding the requirement for an integrated WML/EA application for Nchwaning II and that an integrated WML/EA was granted in November 2018. This advice and integrated WML/EA were requested but not provided. Further, the last external audit report of the integrated EA/WML was requested but not provided. As such, it was "Not Verified" if there was compliance with this integrated WML/EA. • The failure to comply with conditions in a WML exposes Assmang to compliance and enforcement action. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to the failure to comply with WML conditions. • We recommend that Assmang ensure compliance with its WMLs, and in this respect, that compliance is audited as mandated in the WML, and where there is any non-compliance noted during these audit processes, that Assmang attend to these without delay. 	
<ul style="list-style-type: none"> • The 2017 ELCA further noted that there may have been NEMWA Listed Activities which were not authorised.²⁵ It is not clear if these were then included in the integrated WML/EA for Nchwaning II, and as such, there is the possibility that not all NEMWA Listed Activities are authorised. • The commencement of a NEMWA Listed Activity without a WML is unlawful and exposes Assmang to environmental compliance and enforcement action, including the requirement of a section 24G fine. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in 	

²⁵ Page 109-110 of 2017 ELCA.

NEMWA LISTED ACTIVITIES: COMMENTS	
<p>Annexure 1 with respect to commencing with a NEMWA Listed Activity without a WML, including the section 24G rectification process.</p> <ul style="list-style-type: none"> • It is strongly recommended that a gap analysis be undertaken by an appropriately qualified person to determine whether all NEMWA Listed Activities are authorised (in conjunction with the NEMA Listed Activities). • IMBEWU was advised that there was a section 24G for the entire BRMO dated 2014. This was requested, as well as the last external audit thereon, but not provided. As such, it is “Not Verified” if this related to unlawfully commenced NEMWA Listed Activities. • We strongly recommend that the BRMO improve its document control mechanisms. 	
<ul style="list-style-type: none"> • It was confirmed during the site inspection and with reference to the DEA’s website (which lists all exclusion applications submitted)²⁶ that there has not been an application to exclude any waste streams. • As such, the finding is “N/A”. 	

REGISTRATION ON SAWIS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation undertake any of the activities in Annexure 1 of the Waste Information Regulations? [Annexure 1 of GN 625]	Yes <input checked="" type="checkbox"/>	Not Verified
If so, did the operation register on SAWIS? [r4 of GN 625]	Yes <input checked="" type="checkbox"/>	Not Verified
If so, is the following information submitted quarterly to SAWIS, namely: <ul style="list-style-type: none"> • month and year to which information applies; • categories of waste as per Annexures 3 and 4; 	Yes <input checked="" type="checkbox"/>	Not Verified

²⁶ https://www.environment.gov.za/legislation/gazetted_notices/intentiontoexclude_wastestreaorportion_forbeneficialuse

<ul style="list-style-type: none"> source of waste; and quantity of waste in tons? [r8 of GN 625] 		
Is all information as submitted to SAWIS kept for 5 years? [r9 of GN 625]	Yes <input checked="" type="checkbox"/>	Not Verified

REGISTRATION ON SAWIS: COMMENTS

- It was confirmed during the interview process that the site submits information to SAWIS every month.
- Proof of the last quarterly information as submitted to SAWIS was requested but not provided.
- As such, it was "Not Verified" if there is compliance in this regard.

CLASSIFICATION OF WASTE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS


QUESTION	ANSWER	FINDING
If the operation generates wastes <i>other</i> than those listed in Annexure 1 ²⁷ of the Waste Classification Regulations, has the operation (as a waste generator) ensured these <i>other</i> wastes are classified in terms of SANS 10234 within 180 days of generation? [r4 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, is waste is being kept separate for classification? [r4 of GN 634] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, has it been re-classified every 5 years? [r4 of GN 634] 	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, has it been reclassified within 30 days of modification? [r4 of GN 634] 	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, has it been reclassified where there has been treatment? [r4 of GN 634] 	N/A <input checked="" type="checkbox"/>	Not Verified

²⁷ This includes: 2(a) general waste (domestic waste; business waste not containing hazardous waste or hazardous chemicals; non-infectious animal carcasses; garden waste; waste packaging; waste tyres; building and demolition waste not containing hazardous waste or hazardous chemicals; and excavated earth material not containing hazardous waste or hazardous chemicals); or 2(b) hazardous waste products (waste products: asbestos waste; PCB waste or PCB containing waste; and expired, spoilt or unusable hazardous products); or hazardous mixed waste (general waste, excluding domestic waste, which contains hazardous waste or hazardous chemicals; and mixed, hazardous chemical wastes from analytical laboratories and laboratories from academic institutions in containers less than 100 litres); or hazardous other waste (health care risk waste).

CLASSIFICATION OF WASTE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
• If so, is there a safety data sheet for hazardous wastes? [r5 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, is waste to be disposed of assessed in terms of the Norms for Landfill Assessment? [r 8 of GN 634 / GN 635]	Yes <input checked="" type="checkbox"/>	Not Verified
Are all containers or storage impoundments holding waste labelled? [r6 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified
Has the operation (as a waste generator) re-used, recycled, recovered, treated and/or disposed of waste within 18 months of generation? [r6 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified
Is waste mixed or treated where this would reduce the potential for re-use, recycling or recovery or result in treatment that is not controlled or permanent? [r7 of GN 634]	No <input checked="" type="checkbox"/>	Not Verified
As a generator of hazardous waste listed in item 2(b) of Annexure 1 ²⁸ and/or any other waste <i>not</i> on Annexure 1, does the operation ensure this waste is disposed of in terms of the Norms for Landfill Disposal? [r8 of GN 634 / GN 636]	Yes <input checked="" type="checkbox"/>	Not Verified
If the operation re-uses, recycles, recovers, treats or disposes of waste:		
• has it stored waste for more than 18 months after the date of receipt from the waste generator? [r6 of GN 634]	No <input checked="" type="checkbox"/>	Not Verified
• has it disposed of waste in terms of the Norms for Landfill Waste? [r8 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified

²⁸ This includes 2(b) hazardous waste products (waste products: asbestos waste; PCB waste or PCB containing waste; and expired, spoilt or unusable hazardous products); or hazardous mixed waste (general waste, excluding domestic waste, which contains hazardous waste or hazardous chemicals; and mixed, hazardous chemical wastes from analytical laboratories and laboratories from academic institutions in containers less than 100 litres); or hazardous other waste (health care risk waste).

CLASSIFICATION OF WASTE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
As a generator of hazardous waste in listed in item 2(b) of Annexure 1 ²⁹ and any other waste <i>not</i> on Annexure 1, does the operation keep records (which details classification, monthly generation, quantities of waste re-used, recycled, recovered, treated or disposed of and the manager's details)? [r10 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, are these kept for 5 years? [r10 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified
As a generator of hazardous waste listed in item 2(b) of Annexure 1 ³⁰ and/or any other waste classified as hazardous in terms of SANS 10234, is the operation in possession of a waste manifest? [r10 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified
If so, is there a waste manifest for each consignment of waste transported to a waste manager? [r11 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified
If so, is waste manifest and related documentation kept for 5 years? [r11 of GN 634]	Yes <input checked="" type="checkbox"/>	Not Verified

CLASSIFICATION OF WASTE: COMMENTS	
<ul style="list-style-type: none"> • The following information was requested to confirm compliance with the Waste Classification Regulations but not provided: <ul style="list-style-type: none"> ○ Safety data sheets for sewage treatment sludge; ○ Safety data sheets for wash-bay sludge; ○ Safety data sheets <u>for any other</u> hazardous waste in terms of Waste Classification Regulations; ○ Waste manifests for hazardous waste in terms of Waste Classification Regulations; ○ Interwaste's assessment of hazardous waste in terms of the Norms for Landfill Disposal for the sewage treatment sludge and wash-bay sludge. 	


²⁹ See footnote above.

³⁰ See footnote above.

CLASSIFICATION OF WASTE: COMMENTS	
<ul style="list-style-type: none"> As such, it was "Not Verified" if there is compliance with the Waste Classification Regulations. Due to time constraints, the various obligations imposed by the Waste Classification Regulations were not audited, and as such, the findings are also reflected as "Not Verified." The failure to comply with the Waste Classification Regulations exposes Assmang to environmental compliance and enforcement action. Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to the Waste Classification Regulations. We recommend that the BRMO improve its document control mechanisms and further ensure compliance with the Waste Classification Regulations. 	


WASTE SORTING NORMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Prior to 11 October 2017, did the operation operate a "waste facility" of 1000m ² or more where there was sorting, shredding, grinding, crushing, screening, chipping or baling of <i>general waste</i> ? [r1, r3 of GN 1093]	N/A ☒	Not Verified
<ul style="list-style-type: none"> If so, has each existing waste facility been registered with the DEA? [r4 of GN 1093] 	N/A ☒	Not Verified
After 11 October 2017, has the operation operated a "waste facility" of 1000m ² or more where there is sorting, shredding, grinding, crushing, screening, chipping or baling of <i>general waste</i> ? [r1, r3 of GN 1093]	N/A ☒	Not Verified
<ul style="list-style-type: none"> If so, was each existing waste facility registered with the DEA 90 days prior construction? [r4 of GN 1093] 	N/A ☒	Not Verified
In both cases of a "waste facility" of 1000m ² or more where there is sorting, shredding, grinding, crushing, screening, chipping or baling of <i>general waste</i> (i.e. prior to and after 11 October 2017):		
<ul style="list-style-type: none"> Is the facility accessible to emergency response personnel and equipment? [r5 of GN 1093] 	N/A ☒	Not Verified
<ul style="list-style-type: none"> Was construction carried out as per the law? [r6 of GN 1093] 	N/A ☒	Not Verified

WASTE SORTING NORMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
• Is the facility fenced and staffed with security personnel to prevent unauthorised entry? [r7 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Are all incoming vehicles and persons and the tonnage and volume of waste entering or leaving the premises recorded? [r7 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Are there notice board in 2 languages displayed at each entrance, which detail the name of the facility, accepted wastes, operating hours and contact details including emergency contact details? [r7 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Is waste screened for any hazardous waste material? [r8 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Are dust suppression methods employed where dust is generated? [r8 of GN 1093 / Dust Regulations]	N/A <input checked="" type="checkbox"/>	Not Verified
• Is training provided to employees? [r8 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Is there an emergency preparedness plan? [r9 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Are temporary waste storage containers being inspecting every 6 months? [r10 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Is the storm water containment system inspected weekly? [r10 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Are internal audits being conducting every 6 months? [r11 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Are external conducted every 2 years by an independent external auditor? [r11 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• Has the facility kept all records for 5 years? [r12 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
Is there an intention to cease operations at the waste facility? [r14 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
• If so, has the DEA been contacted in writing 6 months prior to thereto for instructions? [r14 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified
If a waste facility is less than 1000m ² , has the facility been registered with the DEA? [r4 of GN 1093]	N/A <input checked="" type="checkbox"/>	Not Verified

WASTE SORTING NORMS: COMMENTS	
<ul style="list-style-type: none"> • It was advised during the interview process that the site has <u>not</u>, prior to or after 11 October 2017, operated a “waste facility” of 1000m² or more where there was sorting, shredding, grinding, crushing, screening, chipping or baling of general waste. • Based on our observations at the site inspection, it is possible that there is sorting, shredding, grinding, crushing, screening, chipping or baling of general waste <u>at the general waste disposal area at Black Rock</u> (which has a WML for <u>disposal</u>) which may be in excess of 1000m² as well as at the Black Rock scrap yard and at the another section outside of the general waste disposal area where paper and cardboard is stockpiled for recycling. • It is therefore <u>possible</u> that the Waste Sorting Norms apply to the BRMO. • Written confirmation that there is no sorting, shredding, grinding, crushing, screening, chipping or baling of general waste was requested but not provided. • As such, it was “Not Verified” whether the Waste Sorting Norms apply, and if so, whether there is compliance therewith. • It is further possible, based on the wide definitions in the Waste Sorting Norms, that there may be sorting, shredding, grinding, crushing, screening, chipping or baling of general waste at a waste facility <u>which is less than 1000m²</u>, which requires registration in terms of regulation 4 of the Waste Sorting Norms. • Refer to our comments on environmental compliance and enforcement action in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with the Waste Sorting Norms. • We recommend that Assmang undertake a site-wide investigation as to whether the Waste Sorting Norms apply to its site and if so, ensure compliance with the Waste Sorting Norms. 	

SEWAGE TREATMENT & DISPOSAL: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Is raw sewage treated on site by the operation? [GN 2834 and Schedule II]	Yes <input checked="" type="checkbox"/>	Noted


• If so, was the sewage treatment plant (a water care work) registered with the DWS prior to being commissioned? [r2 of GN 2834]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, was a permit obtained from the DWS to build the sewage treatment plant? [r3, Schedule II of GN 2834]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, was a permit obtained from the DWS to enlarge and/or alter the sewage treatment plant? [r3, Schedule II of GN 2834]	No <input checked="" type="checkbox"/>	Not Verified
• If so, is a copy of the certificate of registration displayed at the sewage treatment plant? [r5 of GN 2834]	No <input checked="" type="checkbox"/>	Non-compliant
Are toilet facilities located so that no water or other pollution is caused? [r71 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified

SEWAGE TREATMENT & DISPOSAL: COMMENTS	
<ul style="list-style-type: none"> • The three sewage treatment plants at Gloria, Nchwaning II and III and Black Rock were inspected. • The following documentation was requested in this regard but not provided: <ul style="list-style-type: none"> ○ Certificates of registration for all three sewage treatment plants (as a “a water care work”) in terms of Water Care Work Regulations; and ○ Permits for all three sewage treatment plants (to build “a water care work”) in terms of Water Care Work Regulations. • As such, it was “Not Verified” whether there was compliance with the Water Care Work Regulations. • No certificate of registration was displayed at any of the three sewage treatment plants, which is a “non-compliance”. • The 2017 ELCA noted that there was a risk assessment conducted on all sewage treatment plants.³¹ This was requested but not provided, and as such, we make no comments in this regard. • Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report. 	

³¹ Page 111 of 2017 ELCA.

SEWAGE TREATMENT & DISPOSAL: COMMENTS	
<ul style="list-style-type: none"> We recommend that Assmang improve its document controls and further ensure full compliance with the Water Care Work Regulations. 	
<ul style="list-style-type: none"> Due to time constraints, it was "Not Verified" whether toilet facilities are located so that no water or other pollution is caused in terms of the MPRDA Regulations. 	


WASTE TYRES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Are waste tyres stored or stockpiled at the operation? [GN 1064]	Yes <input checked="" type="checkbox"/>	Noted
Are waste tyres disposed of by the operation? [GN 1064]	No <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, is there compliance with the Tyre Regulations? [GN 1064] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> Did the operation register with the Waste Management Bureau? [r5 of GN 1064] 	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> If there is a waste tyre stockpile, has a waste tyre stockpile abatement plan been submitted to the Minister of the DEA for approval? [r7 of GN 1064] 	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> If there is a waste tyre stockpile, have any tyres have been added to the stockpile after 29 September 2017? [r7 of GN 1064] 	Yes <input checked="" type="checkbox"/>	Non-compliant

WASTE TYRES: COMMENTS	
<ul style="list-style-type: none"> During the interview process, IMBEWU was advised that the site has a "waste tyre stockpile" namely "a site on which predominantly waste tyres of any form are stored and have been stored continuously for a period greater than two years, and which covers an area greater than 500m², but excludes a waste disposal facility" as defined in the Tyre Regulations. 	

WASTE TYRES: COMMENTS	
<ul style="list-style-type: none"> • IMBEWU was advised further that Assmang undertook a waste tyre stockpile registration in 2018, but has <u>not</u> to date submitted a waste tyre stockpile abatement plan to the Minister of DEA as Assmang can't find a company to undertake abatement. Further, IMBEWU was advised that tyres have been added to the stockpile after 29 September 2017. • The following documentation was requested but not provided: <ul style="list-style-type: none"> ○ proof of registration with the Waste Management Bureau for the waste tyre stockpile; ○ any waste tyre storage plan; ○ size in m² of waste tyre storage area; ○ any waste tyre stockpile abatement plan; and ○ confirmation as to whether any tyres have been added to the stockpile after 29 September 2017. • As such, it was "Not Verified" whether there is compliance with the Tyre Regulations, although it appears from the interview process that there have been some "non-compliances". • Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and further to the table of offences and penalties in Annexure 1 with respect to the various offences and associated penalties under the Tyre Regulations. • We recommend that Assmang ensure compliance with the Tyre Regulations. 	

ASBESTOS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Since 28 March 2008, has the operation:		
• acquired, processed, packaged or repackaged asbestos? [r2 of GN 341]	Yes <input checked="" type="checkbox"/>	Not Verified
• manufactured asbestos containing materials? [r2 of GN 341]	No <input checked="" type="checkbox"/>	Not Verified


ASBESTOS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
• distributed asbestos or asbestos containing materials? [r2 of GN 341]	No <input checked="" type="checkbox"/>	Not Verified
• imported or exported asbestos or asbestos containing material? [r2 of GN 341]	No <input checked="" type="checkbox"/>	Not Verified
• imported asbestos containing waste? [r2 of GN 341]	No <input checked="" type="checkbox"/>	Not Verified
• disposed of any asbestos or asbestos containing material? [r 6 of GN 341]	Yes <input checked="" type="checkbox"/>	Not Verified
• transported or packaged asbestos? [r 7 of GN 341]	Yes <input checked="" type="checkbox"/>	Not Verified
If transport or packaging of asbestos is undertaken, does this comply with SANS 10228 and SANS 10229? [r7 of GN 341]	Yes <input checked="" type="checkbox"/>	Not Verified

ASBESTOS: COMMENTS	
<ul style="list-style-type: none"> • Due to time constraints, it was "Not Verified" if the site complies with the Asbestos Regulations. • Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and further to the table of offences and penalties in Annexure 1 with respect to the various offences and associated penalties under the Asbestos Regulations. • We recommend that Assmang ensure compliance with the Asbestos Regulations. 	

PCBS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation use, process, or produce PCB materials or PCB contaminated materials? [r3 of GN 549]	Yes <input checked="" type="checkbox"/>	Not Verified

PCBS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Have steps been implemented to ensure that no PCB materials or PCB contaminated materials are used after 2023? [r4 of GN 549]	Yes <input checked="" type="checkbox"/>	Non-compliant
Have steps been implemented to ensure that no PCB materials, PCB contaminated materials or PCB waste is in the operation's possession after 2026, excluding disposed PCB? [r4 of GN 549]	Yes <input checked="" type="checkbox"/>	Not Verified
If in possession of PCB articles:		
• Did the operation register with the DEA? [r5 of GN 549]	No <input checked="" type="checkbox"/>	Non-compliant
o If so, was a phase-out plan submitted to the DEA? [r6 of GN 549]	No <input checked="" type="checkbox"/>	Non-compliant
o If so, was the approved phase-out plan implemented? [r6 of GN 549]	N/A <input checked="" type="checkbox"/>	Non-compliant
• Does the operation draw samples, excluding sealed units, and have them tested for PCB content by an accredited laboratory? [r7 of GN 549]	Yes <input checked="" type="checkbox"/>	Not Verified
o If so, will these results be kept until 2023? [r7 of GN 549]	Yes <input checked="" type="checkbox"/>	Not Verified
o Is sampling, testing and labelling carried out in accordance with SANS 290? [r7 of GN 549]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, are these results submitted to the DEA as part of the audit report? [r7 of GN 549]	No <input checked="" type="checkbox"/>	Not Verified
If the operation uses or stores PCB materials or PCB contaminated materials:		
• does it intend to classify, retro-fill or reclassify their equipment in terms of SANS 290? [r8 of GN 549]	Yes <input checked="" type="checkbox"/>	Not Verified
• have measures been put in place to ensure that contamination is prevented? [r8 of GN 549]	Yes <input checked="" type="checkbox"/>	Non-compliant
Is a PCB audit report prepared by an auditor submitted every 2 years on the anniversary of the date of approval of the phase-out plan? [r9 of GN 549]	No <input checked="" type="checkbox"/>	Not Verified


PCBS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
After the completion of the phase-out plan, is PCB equipment tested for PCBs by an accredited laboratory? [r7 of GN 549]	N/A <input checked="" type="checkbox"/>	Not Verified

PCBs: COMMENTS	
<ul style="list-style-type: none"> • During the interview process, it was advised that: <ul style="list-style-type: none"> ○ the site does have a PCB inventory; ○ there is no plan to ensure that no PCB materials or PCB contaminated materials are used after 2023; ○ the site is testing transformers but there are no phase-out plans; ○ there has been no registration of PCB possession with the DEA; ○ the site does not have an approved PCB phase-out plan; ○ there is no plan with mitigation measures to prevent contamination from the use or storage of PCB materials or PCB contaminated materials. • The following information was requested after the interview process and site inspection, but not provided: <ul style="list-style-type: none"> ○ the PCB inventory for the use, processing, or production of PCB materials or PCB contaminated materials; ○ phase-out plan to ensure that no PCB materials or PCB contaminated materials are used after 2023; ○ phase-out plan to ensure that no PCB materials, PCB contaminated materials or PCB waste are in the operation's possession after 2026; ○ proof of registration of PCB possession with the DEA; ○ approved PCB phase-out plan; and ○ documentation showing measures to prevent contamination from the use or storage of PCB materials or PCB contaminated materials. 	

PCBs: COMMENTS	
<ul style="list-style-type: none"> As such, it was "Not Verified" whether there is compliance with the PCB Regulations, although it appears from the interview process that there have been some "non-compliances". Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and further to the table of offences and penalties in Annexure 1 with respect to the various offences and associated penalties under the Asbestos Regulations. We recommend that Assmang ensure compliance with the PCB Regulations. 	

STORAGE OF WASTE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
Does the operation store general and/or hazardous waste?	Yes <input checked="" type="checkbox"/>	Noted	Yes <input checked="" type="checkbox"/>	Noted
If so, does the operation takes steps to ensure that:				
<ul style="list-style-type: none"> waste containers are intact and not corroded or rendered unfit for safe storage? [s21 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Non-compliant	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> adequate measures are taken to prevent accidental spillage or leaking? [s21 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Non-compliant	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> waste cannot be blown away? [s21 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Non-compliant	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> nuisances such as odour, visual impacts and breeding of vectors do not arise? [s21 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Non-compliant	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> pollution of the environment and harm to health are prevented? [s21 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Non-compliant	Yes <input checked="" type="checkbox"/>	Non-compliant

STORAGE OF WASTE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
Regarding general waste, is it collected by the municipality at an approved location and in approved containers? [s22 of NEMWA]	No <input checked="" type="checkbox"/>	Non-compliant		

STORAGE OF WASTE: COMMENTS	
<ul style="list-style-type: none"> Please refer to our observations under paragraph 10 of this report where we detail various site observations of the BRMO. This included: <ul style="list-style-type: none"> some waste containers which were not intact; inadequate measures to prevent accidental spillage or leaking; litter; odours; and general pollution impacts (see further paragraph 11 of this report). In light of these observations, Assmang has been "non-compliant" with its waste-related obligations under section 21 of NEMWA. There were further various informal waste storage areas noted during the site inspection. In most respect, these areas required housekeeping. Refer further to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with section 21 of NEMWA. 	



STORAGE OF WASTE: COMMENTS	
<ul style="list-style-type: none"> Regarding general waste collection by the municipality at an approved location and in approved containers, as the questionnaire answer provided by the BRMO personnel is "No", there is "non-compliance" in this respect. Refer to the table of offences and penalties in Annexure 1 with respect to non-compliance with section 22 of NEMWA. We recommend that Assmang ensure that it complies with its general duty of care and sections 21 and 22 of NEMWA. 	

WASTE STORAGE NORMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
Prior to 29 November 2013, did the operation have a general waste storage facility (more than 100m ³ of general waste) and/or a hazardous waste storage facility (more than 80m ³ of hazardous waste)? [GN 926]	Yes <input checked="" type="checkbox"/>	Noted	No <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, was this facility licensed by a WML? [r21 of GN 926] 	Yes <input checked="" type="checkbox"/>	Not Verified	N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, is the operation in compliance with the conditions of the WML? [s67 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Not Verified	N/A <input checked="" type="checkbox"/>	Not Verified
After 29 November 2013, did the operation operate and/or construct a general waste storage facility (more than 100m ³ of general waste) and/or a hazardous waste storage facility (more than 80m ³ of hazardous waste)? [GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, was the waste facility registered with the DEA 90 days before construction? [r5 of GN 926] 	Yes <input checked="" type="checkbox"/>	Not Verified	No <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> Was construction carried out as per approved civil engineering designs? [r7 of GN 926] 	N/A <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Non-compliant

WASTE STORAGE NORMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
• Is there effective access control to prevent unauthorised entry? [r8 of GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Compliant
• Are there signs in 3 official languages displayed at each entrance, which detail the risks involved in entering the site, hours of operation and the name and contact details for the facility's responsible person? [r8 of GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Is waste sorted at source into categories (e.g. recyclables and non-recyclables)? [r9 of GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Compliant
• Is hazardous and general waste mixed? [r9 of GN 926]	No <input checked="" type="checkbox"/>	Not Verified	No <input checked="" type="checkbox"/>	Not Verified
• Is there liquid waste? [r7, r9, r10 of GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Is the facility overfilled? [r9 of GN 926]	No <input checked="" type="checkbox"/>	Not Verified	No <input checked="" type="checkbox"/>	Not Verified
• Is training provided to employees and contract workers? [r13 of GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Is the facility accessible to emergency response personnel and equipment? [r6 of GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Is there an emergency preparedness plan? [r14 of GN 926]	N/A <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Is the secondary containment system examined weekly? [r15 of GN 926]	N/A <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Are ventilation systems, sump pumps, emergency alarms, impressed current corrosion protection systems, level alarms and other mechanical systems inspected weekly? [r15 of GN 926]	N/A <input checked="" type="checkbox"/>	Not Verified	N/A <input checked="" type="checkbox"/>	Not Verified
• Is the spill response equipment inspected? [r15 of GN 926]	N/A <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified

WASTE STORAGE NORMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
• Has an investigation been initiated with respect to pollution from a waste storage facility? [r15 of GN 926]	N/A <input checked="" type="checkbox"/>	Not Verified	N/A <input checked="" type="checkbox"/>	Not Verified
• Are internal audits being conducted every 6 months? [r16 of GN 926]	N/A <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Are external conducted every 2 years by an independent external auditor? [r16 of GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Are the external audit reports submitted to the DEA within 30 days of finalisation of the audit? [r16, r18 of GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Has the facility kept records of the number of waste storage containers, dates of collection, authorised collectors and final point of treatment, recycling or disposal for 5 years? [r19 of GN 926]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• Is there an intention to decommission the waste storage facility? [r20 of GN 926]	No <input checked="" type="checkbox"/>	Not Verified	No <input checked="" type="checkbox"/>	N/A
○ If so, has a rehabilitation plan been submitted to the DEA 1 year prior to closure? [r20 of GN 926]	N/A <input checked="" type="checkbox"/>	Not Verified	N/A <input checked="" type="checkbox"/>	N/A
• Is the hazardous facility located within an industrial demarcated zone, alternatively does it have a buffer zone of at least 100 metres? [r6 of GN 926]			Yes <input checked="" type="checkbox"/>	Not Verified
• Does the facility have impermeable and chemical resistant floors? [r7 of GN 926]			Yes <input checked="" type="checkbox"/>	Not Verified
• Is access to limited to only employees with the requisite training? [r8 of GN 926]			Yes <input checked="" type="checkbox"/>	Not Verified

WASTE STORAGE NORMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
<ul style="list-style-type: none"> Are containers, tanks, valves and piping containing hazardous waste inspected on a weekly basis? [r15 of GN 926] 			N/A <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> Does a registered engineer inspect tanks containing hazardous waste, the bund wall and the bund floor once a year? [r15 of GN 926] 			No <input checked="" type="checkbox"/>	Not Verified


WASTE STORAGE NORMS: COMMENTS	
<ul style="list-style-type: none"> During the interview process, IMBEWU was advised that the Waste Storage Norms are not applicable to any <u>general</u> waste facility at the site. It is however possible that <i>inter alia</i> the Black Rock scrap yard falls within the ambit of the Waste Storage Norms. Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and further to the table of offences and penalties in Annexure 1 with respect to the various offences and associated penalties under the Waste Storage Norms. We recommend that Assmang undertake a site-wide investigation to ensure that, where applicable, it is in compliance with the Waste Storage Norms. 	
<ul style="list-style-type: none"> During the interview process, IMBEWU was advised that there is a hazardous waste storage facility over 80m³ which is referred to as the 'waste transfer station' at Black Rock. This area was inspected. IMBEWU was advised that there has been correspondence with DEA/DMR regarding the registration of this hazardous waste storage facility in terms of Waste Storage Norms. The following was requested from Assmang in this regard but <u>not</u> provided: 	

WASTE STORAGE NORMS: COMMENTS

- correspondence with the DEA/DMR regarding the registration of the Black Rock hazardous waste storage area in terms of the Waste Storage Norms;
- proof that the Black Rock hazardous waste storage area is structurally compliant (see page 119 of 2017 ELCA which reads *"The Mine confirmed that the new hazardous waste storage facility was designed by Mr Andre Venter who is not a professional engineer. Accordingly, the construction and development of the waste storage facility was not carried out under the supervision of a registered professional engineer nor was it done in accordance with the approved civil engineering designs"*);
- the last internal audit of the Black Rock hazardous waste storage area in terms of the Waste Storage Norms;
- the last external audit of Black Rock hazardous waste storage area in terms of the Waste Storage Norms;
- proof of submission of the external audit of Black Rock hazardous waste storage area in terms of the Waste Storage Norms; and
- proof of training to employees and contract workers in terms of the Waste Storage Norms.
- As the above documentation was not provided and due to time constraints, it was **"Not Verified"** if there is compliance with all the obligations contained in the Waste Storage Norms with respect to the hazardous waste storage facility at Black Rock.
- It further appears that the construction of the facility was not carried out as per approved civil engineering designs (i.e. a **non-compliance**).
- In some respects, based on observations at the site inspection, there were certain other findings of **"compliance"**.
- It does not appear that there is any intention to decommission the waste storage facility, and as such the finding in this regard is **"N/A"**.
- Please refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and further to the table of offences and penalties in **Annexure 1** with respect to the various offences and associated penalties under the Waste Storage Norms.

WASTE STORAGE NORMS: COMMENTS	
<ul style="list-style-type: none"> We recommend that Assmang ensure that its hazardous waste storage facility at Black Rock fully complies with the Waste Storage Norms so as to avoid compliance and enforcement action. 	
<ul style="list-style-type: none"> It was further advised during the interview process that there is a waste oil storage area at Nchwaning II, but that this is probably less than 80m³. Confirmation on this capacity was requested but not provided. As such, it was "Not Verified" if there were further hazardous waste storage facilities over 80m³ which may fall within the ambit of the Waste Storage Norms. We recommend that Assmang confirm the capacity of any possible hazardous waste storage facility on site including <i>inter alia</i> the waste oil storage area at Nchwaning II, and if it is over 80m³, ensure that the Waste Storage Norms are complied with. 	

EXTERNAL WASTE SERVICE PROVIDERS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
Does the operation ensure that all waste streams are being handled, stored, recycled, recovered, treated, transported and disposed of lawfully (referred to as 'cradle to grave' responsibility)? [s16 and s26 of NEMWA / s 28 of NEMA / s19 of NWA]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified

EXTERNAL WASTE SERVICE PROVIDERS: COMMENTS	
<ul style="list-style-type: none"> In terms of NEMWA, the generator of waste must ensure that all waste streams are being handled, stored, recycled, recovered, treated, transported and disposed of lawfully (referred to as 'cradle to grave' responsibility). This aligns with the 	

EXTERNAL WASTE SERVICE PROVIDERS: COMMENTS	
<p>general duty of care to prevent pollution as more fully dealt with in paragraph 7 of this report. This is often verified through the production of the requisite licences and documentation from external waste providers.</p> <ul style="list-style-type: none"> • A list of all external service providers used for the storage, recycling, recovery, treatment, disposal, storage, transportation etc. of general and/or hazardous waste was requested but <u>not</u> provided, as well as the following related documentation: <ul style="list-style-type: none"> ○ external hazardous waste disposal site's WML; ○ waste transporter certificates; ○ up to date used oil recycling certificates; ○ documentation regarding collection of used oil by Olegra Oil; ○ documentation regarding use of used oil by PPC Lime Ltd; ○ the authorisation for Averda to transport and dispose of medical waste. • As this information was not provided, it was "Not Verified" whether all of waste streams are being handled, stored, recycled, recovered, treated, transported and disposed of lawfully. • In the event of unlawful waste handling etc. by an external third party, regulatory compliance action may be taken against Assmang and/or Assmang may be subjected to criminal sanctions as more fully set out in Annexure 1. • We recommend that Assmang improve its document control function and further ensure that all third-party waste service providers have the requisite licences in place which correspond with the waste which they are accepting from BRMO and are up to date and valid licences. 	


RE-USE, RECYCLING OR RECOVERY OF WASTE: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING

Does the operation re-use, recycle or recover general and/or hazardous waste?	Yes <input checked="" type="checkbox"/>	Noted	Yes <input checked="" type="checkbox"/>	Noted
• If so, does the operation ensure that the reduction, re-use, recycling or recovery of the waste uses less natural resources than disposal? [s17 of NEMWA]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, does the operation ensure the reduction, re-use, recycling or recovery is less harmful to the environment than disposal? [s17 of NEMWA]	Yes <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified

RE-USE, RECYCLING OR RECOVERY OF WASTE: COMMENTS	
<ul style="list-style-type: none"> • As per the waste inventory for the entire site, the site recycled and/or reused the following waste: <ul style="list-style-type: none"> ○ Paper (by Masakhane Projects); ○ Electronic waste (by Masakhane Interwaste); ○ Building rubble (by Black Rock Contractors); ○ Used oil (by Olegra Oil); ○ Scrap metal (by 'several companies & individual persons'); ○ Wood/timber (recycler not cited); ○ Plastic (recycler not cited); and ○ Fluorescent tubes (recycled and disposed of by Reclite). • Refer further to our comments under “EXTERNAL WASTE SERVICE PROVIDERS” with respect to the lawful recycling of all waste generated by the site. As the requested information was not provided, it was “Not Verified” whether all of waste streams are being lawfully recycled, reused and/or recovered. • Due to time constraints, it was “Not Verified” whether the site ensures that the reduction, re-use, recycling or recovery of the general and/or hazardous waste uses less natural resources than disposal and whether the operation ensures the reduction, re-use, recycling or recovery is less harmful to the environment than disposal. 	


RE-USE, RECYCLING OR RECOVERY OF WASTE: COMMENTS	
<ul style="list-style-type: none"> In the event of unlawful waste reduction, re-use, recycling or recovery by an external third party, regulatory compliance action may be taken against Assmang. We recommend that Assmang improve its document control function and further ensure that all general and/or hazardous waste which is generated by BRMO is lawfully recycled, reused and/or recovered. 	

TRANSPORTATION OF WASTE:				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
Does the operation transport general and/or hazardous waste?	N/A <input checked="" type="checkbox"/>	Noted	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, does the transporter take all reasonable steps to prevent any spillage or littering from a vehicle? [s25 of NEMWA] 	N/A <input checked="" type="checkbox"/>	Non-compliant	Yes <input checked="" type="checkbox"/>	Non-compliant
<ul style="list-style-type: none"> Where waste is transported for disposal, does the transporter, before offloading, ensure that the facility is authorised to accept the waste? [s25 of NEMWA] 	N/A <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> For hazardous waste transported for purposes <i>other</i> than disposal, does the transporter, before offloading, ensure that the facility is authorised to accept the waste and is written confirmation obtained that the waste has been accepted? [s25 of NEMWA] 			Yes <input checked="" type="checkbox"/>	Not Verified

TRANSPORTATION OF WASTE: COMMENTS	
<ul style="list-style-type: none"> Refer further to our comments under “EXTERNAL WASTE SERVICE PROVIDERS” with respect to the lawful transportation of all waste generated by the site. As the requested information was not provided, it was “Not Verified” whether all of waste streams are being transported lawfully. In terms of pollution impacts from the transportation of general and/or hazardous waste (whether all reasonable steps are taken to prevent any spillage or littering from a vehicle), in light of our site observations as set out in paragraph 10 of this report, our finding in this respect is “non-compliant”. Due to time constraints, it was “Not Verified” whether the site’s transporters, before offloading, ensure that the facility is authorised to accept the waste, and whether the site’s transporters, before offloading, ensure that the facility is authorised to accept the waste and is written confirmation obtained that the waste has been accepted. In terms of pollution impacts, please refer to our comments on the duty of care at paragraph 7 of this report. Refer further to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with the duty of care as well as section 67(2) of NEMWA (transporter waste offences). We recommend that Assmang ensure that it complies with its duty of care, the relevant waste transportation provisions under NEMWA and further ensure that any third-party waste service providers have the requisite licences in place. 	

DISPOSAL OF WASTE:				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
Does the operation dispose of general and/or hazardous waste at <i>its own</i> facilities?	Yes <input checked="" type="checkbox"/>	Noted	No <input checked="" type="checkbox"/>	Noted

DISPOSAL OF WASTE:				
QUESTION	GENERAL WASTE:		HAZARDOUS WASTE:	
	ANSWER	FINDING	ANSWER	FINDING
<ul style="list-style-type: none"> If so, is the operation's waste disposal site authorised by a WML? [s26 of NEMWA] 	Yes <input checked="" type="checkbox"/>	Compliant	N/A <input checked="" type="checkbox"/>	N/A
Does the operation dispose of general and/or hazardous waste at external facilities?	No <input checked="" type="checkbox"/>	Noted	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, is that site authorised by a WML? [s26 of NEMWA] 	N/A <input checked="" type="checkbox"/>	Not Verified	Yes <input checked="" type="checkbox"/>	Not Verified
Does the operation dispose of general and/or hazardous waste in a manner that is likely to cause pollution of the environment or harm to health and well-being? [s26 of NEMWA]	No <input checked="" type="checkbox"/>	Not Verified	No <input checked="" type="checkbox"/>	Not Verified

DISPOSAL OF WASTE: COMMENTS	
<ul style="list-style-type: none"> With respect to disposal of general waste <i>on site</i>, a copy of the WML dated 13 May 2014 authorising a general waste disposal site was provided. As such, our finding in this respect is "compliant". With respect to disposal of hazardous waste <i>on site</i>, based on our observations at the site inspection, and the discussions during the interview process, it did not appear that there was disposal of hazardous waste <i>on site</i>. As such, our finding in this respect is "N/A". In terms of the disposal of general and/or hazardous waste off-site, a waste inventory for the entire site was requested and provided and showed the waste generated and disposed of by the BRMO in 2019, namely: <ul style="list-style-type: none"> Hazardous waste: oil contamination (disposed of by Masakhane Interwaste), medical waste (disposed of by Averda), and empty chemical containers (disposed of by Masakhane Interwaste); 	

DISPOSAL OF WASTE: COMMENTS	
<ul style="list-style-type: none"> ○ Domestic waste, including building rubble (disposed of by different stakeholders including BRMO, contractors and adjacent farmers); ○ Waste rock (not cited which disposal company is used); and ○ Tailings (disposed of by Fraser Alexander). ● Refer further to our comments under “EXTERNAL WASTE SERVICE PROVIDERS” with respect to the lawful disposal of all waste generated by the site. As the requested information was not provided, it was “Not Verified” whether all of waste streams are being disposed of lawfully. Accordingly, it was also “Not Verified” whether the site disposes of general and/or hazardous waste in a manner that is likely to cause pollution of the environment or harm to health and well-being. ● In the event of unlawful waste disposal by an external third party, regulatory compliance action may be taken against Assmang and/or Assmang may be subjected to criminal sanctions as more fully set out in Annexure 1 with respect to <i>inter alia</i> section 26 of NEMWA. ● We recommend that Assmang improve its document control function and further ensure that all general and/or hazardous waste which is generated by BRMO is lawfully disposed of. 	

20 MINING-RELATED WASTE IMPACTS

MINING-RELATED WASTE IMPACTS: APPLICABLE LEGISLATION & KEY DEFINITIONS	
<ul style="list-style-type: none"> ● MPRDA ● NEMWA ● NEMAQA 	<ul style="list-style-type: none"> ● “Competent person” means “a person who- (i) is qualified by virtue of his or her knowledge, expertise, qualifications, skills and experience; and (ii) is knowledgeable with the provisions of NEMA, NEMWA, the MPRDA and other related legislation; (iii) has been trained to recognise any potential or actual problem in the performance of the work; and (iv) is registered with the legislated regulatory body for the natural scientific profession or an appropriate legislated professional body.” ● The MPRDA defines “mine” as “when- (a) used as a noun- (i) any excavation in the earth, including any portion under the sea or under other water or in <u>any residue deposit</u>, as well as any borehole, whether being worked or not, made for the purpose of searching for or winning a mineral; (ii) any other


MINING-RELATED WASTE IMPACTS: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> • MPRDA Regulations (GN 527) • NEMWA Listed Activities (GN 921) • Residue Regulations (GN 632) • Dust Regulations (GN 827) 	<p>place where a mineral resource is being extracted, including the mining area and all buildings, structures, machinery, <u>residue stockpiles</u>, access roads or objects situated on such area and which are used or intended to be used in connection with such searching, winning or extraction or processing of such mineral resource; and (b) used as a verb, in the mining of any mineral, in or under the earth, water or any <u>residue deposit</u>, whether by underground or open working or otherwise and includes any operation or activity incidental thereto, in, on or under the relevant mining area".</p> <ul style="list-style-type: none"> • The MPRDA defines "mineral" as "any substance, whether in solid, liquid or gaseous form, occurring naturally in or on the earth or in or under water and which was formed by or subjected to a geological process, and includes sand, stone, rock, gravel, clay, soil and <u>any mineral occurring in residue stockpiles or in residue deposits</u>, but excludes - (a) water, other than water taken from land or sea for the extraction of any mineral from such water; (b) petroleum; or (c) peat". • The MPRDA defines "mining area" as "(a) in relation to a mining right or a mining permit, means the area on which the extraction of any mineral has been authorised and for which that right or permit is granted; (b) in relation to any environmental, health, social and labour matter and any residual, latent or other impact thereto, including- (i) any land or surface adjacent or non-adjacent to the area as contemplated in subsection (i) but upon which related or incidental operations are being undertaken; (ii) any surface of land on which such road, railway line, powerline, pipe line, cableway or conveyor belt is located, under the control of the holder of such a mining right or a mining permit and which such holder is entitled to use in connection with the operations performed or to be performed under such right or permit; and (iii) all buildings, structures, machinery, <u>residue stockpiles</u>, or objects situated on or in the area as contemplated in subsections (ii)(a) and (ii)(b)." • NEMWA defines "residue" as "any debris, discard, tailings, slimes, screenings, slurry, waste rock, foundry sand, beneficiation plant waste, ash and any other waste product derived from or incidental to the operation of a mine or activity and which is stockpiled, stored or accumulated for potential re-use or recycling or which is disposed of". • NEMWA defines "residue deposit" as "any dump, tailings dam, slimes dam, ash dump, waste rock dump, in-pit deposit and any other heap, pile or accumulation of residue". • The MPRDA defines "residue deposit" as "any residue stockpile remaining at the termination, cancellation or expiry of a prospecting right, mining right, mining permit, exploration right, production right or an old order right". • The MPRDA defines "residue stockpile" means "any debris, discard, tailings, slimes, screening, slurry, waste rock, foundry sand, beneficiation plant waste, ash or any other product derived from or incidental to a mining operation and which is stockpiled, stored or accumulated for potential re-use, or which is disposed of, by the holder of a mining right, mining permit, production right or an old order right". • NEMWA defines "stockpile" as "any heap, pile, slurry pond and accumulation of any substance where such substance is stored as a product or stored for use at any mine or activity".
---	--

MINING-SPECIFIC WASTE MANAGEMENT DUTIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Does the operation:		
• avoid the generation of pollution, waste and mine residue at source? [r63 of GN 527]	Yes <input checked="" type="checkbox"/>	Non-compliant
• where it cannot be avoided, is pollution, waste and mine residue minimised, re-used or recycled? [r63 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified
• is pollution, waste and mine residue disposed of in a responsible and sustainable manner? [r63 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified

MINING-SPECIFIC WASTE MANAGEMENT DUTIES: COMMENTS	
<ul style="list-style-type: none"> • Please refer to our site observations as set out in paragraph 10 of this report. In our view, the site’s generation of pollution, waste and mine residue at source is not avoided. As such, the finding in this regard is “non-compliant”. • As per the waste inventory for the entire site, Black Rock Contractors recycled and/or reused building rubble and tailings were disposed of by Fraser Alexander. Due to time limitations, it was “Not Verified” beyond this whether pollution, waste and mine residue at source was minimised, re-used or recycled, and further whether pollution, waste and mine residue disposed of in a responsible and sustainable manner. • Refer to our comments under “DISPOSAL OF GENERAL AND HAZARDOUS WASTE” and “EXTERNAL WASTE SERVICE PROVIDERS”. Refer further to our comments on environmental compliance and enforcement in paragraph 8 of this report with respect to non-compliance with the MPRDA Regulations. • We recommend that Assmang ensure that all pollution, waste and mine residue is disposed of in a responsible and sustainable manner. 	

RESIDUE STOCKPILES AND/OR DEPOSITS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Are residue stockpiles and/or residue deposits managed in accordance with the approved EMPr? [s43A of NEMWA / r73 of GN 527 / GN 827]	Yes <input checked="" type="checkbox"/>	Non-compliant
Is any residue stockpile and/or residue deposit temporarily or permanently deposited on a site <i>not</i> contemplated in the EMPr? [s43A of NEMWA]	No <input checked="" type="checkbox"/>	Not Verified
Are the impacts, risks and management measures (including rehabilitation) for all residue stockpiles and/or residue deposits part of the EMPr? [r73 of GN527 / GN 827]	Yes <input checked="" type="checkbox"/>	Not Verified

RESIDUE STOCKPILES AND/OR DEPOSITS: COMMENTS	
<ul style="list-style-type: none"> • IMBEWU was advised during the interview process that all mine residue deposits and stockpiles are managed in accordance with the approved EMPr, all mine residue deposits and stockpiles have been classified and that the EMPr further sets out pollution control measures for same. • The following information was requested but not provided: <ul style="list-style-type: none"> ○ the 2017 consolidated EMPr, including the section in the EMPr which details the location and management of residue stockpiles/ deposits; ○ maps showing the exact location and extent (m²) of every residue stockpile / deposit; ○ classification for all residue stockpiles / deposits; ○ risk analysis of all residue stockpiles / deposits including pollution control measures; ○ proof of dust control measures at residue stockpiles/ deposits; ○ the construction dates of Gloria's current slimes dam (active), Gloria's old slimes dam (inactive), Nchwaning II's old slimes dam (active), Nchwaning II's new slimes dam (not yet operational), waste rock dump at Nchwaning II, waste 	

RESIDUE STOCKPILES AND/OR DEPOSITS: COMMENTS

- rock dumps at Black Rock Koppie and any other residue deposits and/or residue stockpiles (slimes dams / tailings deposit facilities / waste rock dumps); and
- o the date of closure of Gloria's old slimes dam (inactive).
 - Due to the lack of information and time limitations, it was "**Not Verified**" whether residue stockpiles and/or residue deposits are managed in accordance with the approved EMPr, whether any residue stockpile and/or residue deposit is temporarily or permanently deposited on a site *not* contemplated in the EMPr and whether the impacts, risks and management measures (including rehabilitation) for all residue stockpiles and/or residue deposits form part of the EMPr.
 - Refer to paragraph 10 with respect to:
 - o specific observations at the Koppie, which suggest that residue stockpiles and/or residue deposits may be temporarily or permanently deposited on a site *not* contemplated in the EMPr; and
 - o specific observations at Gloria's active slimes dam where sewage water was being pumped into the return water dam, which, in our view, is likely to be "**non-compliant**" with the approved EMPr (although we haven't seen the EMPr).
 - Further, as there is no rehabilitation being conducted of the various manganese waste stockpiles at the Koppie, this may also be "**non-compliant**" with the approved EMPr to the extent the EMPr mandates concurrent rehabilitation (although we haven't seen the EMPr).
 - Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in **Annexure 1** with respect to non-compliance with section 43A of NEMWA as well as the duty of care.
 - **We recommend that Assmang ensure that its residue stockpiles and/or residue deposits are properly managed in accordance with its approved EMPr, and that there are no residue stockpiles and/or residue deposits temporarily or permanently deposited on a site *not* contemplated in the EMPr, nor any pollution caused.**

RESIDUE STOCKPILES AND/OR DEPOSITS BEFORE 24 JULY 2015: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
For residue stockpiles and/or residue deposits established <i>before</i> 24 July 2015:		
• were these characterised to identify health or safety hazards and environmental impacts? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified
• were these classified by a 'competent person'? [r73 of GN527]	No <input checked="" type="checkbox"/>	Non-compliant
• was a risk analysis carried out on all high hazard residue stockpiles and/or residue deposits? [r73 of GN527]	No <input checked="" type="checkbox"/>	Not Verified
• was the prescribed process for site selection followed (including a feasibility study involving a safety classification, environmental classification, geotechnical investigations and groundwater investigations)? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified
• was the design of the residue stockpiles and/or residue deposits undertaken by a 'competent person'? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified
• was there an assessment of the typical soil profile of the site? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified
• was a design report and operating manual drawn up by a competent person for residue stockpiles and/or residue deposits that had a medium to high hazard and had a significant impact on the environment? [r73 of GN527]	No <input checked="" type="checkbox"/>	Not Verified
• did the holder of the right or permit in terms of MPRDA ensure:		
○ the residue deposits, including surrounding catchment paddocks, were constructed and operated in accordance with the approved EMPr? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified

RESIDUE STOCKPILES AND/OR DEPOSITS BEFORE 24 JULY 2015: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
o the design of the residue deposits was followed throughout the construction, and any design deviations were approved by the DMR and the EMPr was amended? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified
o measurements of residues transported to the site and of all surplus water removed from the site were recorded? [r73 of GN527]	No <input checked="" type="checkbox"/>	Not Verified
o security measures were implemented to limit unauthorised access to the site and intrusion into the residue deposit? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified
o action was taken in respect of pollution? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Non-compliant
o adequate measures were implemented to control dust pollution? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Non-compliant
o adequate measures were implemented to control erosion of the slopes at residue stockpiles and/or residue deposits? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified
o a system of routine maintenance and repair was implemented? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified
o the EMPr included a monitoring system? [r73 of GN527]	Yes <input checked="" type="checkbox"/>	Not Verified
To the extent residue stockpiles and/or deposits were decommissioned, did the closure plan include the environmental classification, closure objectives, final land use or capability, closure and post-closure management, cost estimates and financial provision for closure and post-closure management and residual impacts, monitoring and requirements to obtain mine closure in terms of the MPRDA? [r73 of GN527]	No <input checked="" type="checkbox"/>	Not Verified
After 24 July 2015, has the operation continued to manage its residue stockpiles and/or residue deposits in accordance with its previously approved management measures in terms of regulation 73 of the MPRDA Regulations? [r13 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified

RESIDUE STOCKPILES AND/OR DEPOSITS BEFORE 24 JULY 2015: COMMENTS


- Note that prior to 24 July 2015, residue stockpiles and/or residue deposits were regulated by the MPRDA and MPRDA Regulations. After 24 July 2015, residue stockpiles and/or residue deposits are regulated by NEMWA and the Residue Regulations. Note further that anything done in terms of regulation 73 of the MPRDA Regulations, which can be done in terms of the Residue Regulations, is regarded as having been done in terms of the Residue Regulations. This includes management measures approved in terms of MPRDA Regulations, namely these will be regarded as having been approved in terms of the Residue Regulations. A MPRDA right/permit holder must continue the management of their residue stockpiles and residue deposits in accordance with previously approved management measures (in terms of the MPRDA Regulations).
- Due to the lack of information and time limitations, it was “**Not Verified**” whether residue stockpiles and/or residue deposits established before 24 July 2015 complied with the MPRDA and MPRDA Regulations. Notably, the construction dates for the slimes dams on site were requested but not provided, and as such, it was further not possible to confirm which legislative framework applies to the various slimes dams on site.
- During the site inspection, it was noted that the waste rock dump at Nchwaning II was not classified as there was initially an intention to sell this area, and as such, “**non-compliance**” is reflected in this regard. Further dust impacts were noted at the Nchwaning II waste rock dump, and it appeared that there were not adequate measures implemented to control dust pollution.
- Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report with respect to non-compliance with the MPRDA Regulations.
- **We recommend that Assmang ensure that its residue stockpiles and/or residue deposits established before 24 July 2015 are properly managed in accordance with the MPRDA Regulations.**



RESIDUE STOCKPILES AND/OR DEPOSITS AFTER 24 JULY 2015: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
After 24 July 2015, did the operation construct any residue deposits and/or residue stockpiles? [GN 632]	Yes <input checked="" type="checkbox"/>	Noted
• If so, was a WML in terms of NEMWA obtained? [GN 921 / GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
• Does the WML include a monitoring system? [r10 of GN 632]	No <input checked="" type="checkbox"/>	Not Verified
To the extent the operation constructed any residue deposits and/or residue stockpiles after 24 July 2015:		
• did a 'competent person' follow the prescribed process for the identification and selection of the site (including compilation a feasibility study involving a health and safety classification, environmental classification, geotechnical investigations, and hydrological investigations)? [r6 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
• was the design of the residue deposits and/or residue stockpiles undertaken by a registered professional civil or mining engineer, registered under the Engineering Profession of South Africa Act 114 of 1990? [r7 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
• was there an assessment of the typical soil profile on the site? [r7 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
• was the design in compliance with GN 632? [r7 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
• were the design reports and operating manuals signed off by a registered professional civil or mining engineer? [r7 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
• prior to stockpiling or deposition, are residue stockpiles and/or residue deposits characterised to identify potential health risks, safety hazards and environmental impacts? [r4 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
• are residue stockpiles and/or residue deposits classified by a 'competent person'? [r4 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
• has a risk analysis been undertaken by a 'competent person'? [r3, r5 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
• on the basis of the risk analysis, has a 'competent person' recommended suitable pollution control measures? [r3 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified

RESIDUE STOCKPILES AND/OR DEPOSITS AFTER 24 JULY 2015: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
<ul style="list-style-type: none"> • has the mine: <ul style="list-style-type: none"> ○ identified all residue materials and residue management practices which may contaminate water? [r8 of GN 632] ○ conducted a characterisation programme of relevant materials? [r8 of GN 632] ○ conducted an impact prediction study to assess impacts on water over the life cycle of the mining operations until the impact is acceptable (including a monitoring programme and an evaluation of the effect of the mitigatory measures)? [r8 of GN 632] • does the mine ensure that: <ul style="list-style-type: none"> ○ residue stockpiles and/or residue deposits, including surrounding catchment paddocks, are constructed and operated in accordance with the approved EMPr? [r9 of GN 632] ○ the design of residue stockpiles and/or residue deposits is followed throughout the construction and operation, and any design deviations are approved by the DMR and the EMPr is amended? [r9 of GN 632] ○ measurements of residues transported to the site and of all surplus water removed from the site are recorded? [r9 of GN 632] ○ appropriate security measures are implemented to limit unauthorised access to residues? [r9 of GN 632] ○ preventative or remedial action is taken in respect of pollution? [r9 of GN 632] ○ adequate measures are implemented to control dust pollution? [r9 of GN 632] ○ adequate measures are implemented to control erosion of the slopes at residues? [r9 of GN 632] 		
	Yes <input checked="" type="checkbox"/>	Not Verified
	Yes <input checked="" type="checkbox"/>	Not Verified
	Yes <input checked="" type="checkbox"/>	Not Verified
	Yes <input checked="" type="checkbox"/>	Not Verified
	Yes <input checked="" type="checkbox"/>	Not Verified
	Yes <input checked="" type="checkbox"/>	Not Verified
	Yes <input checked="" type="checkbox"/>	Non-compliant
	Yes <input checked="" type="checkbox"/>	Not Verified
	Yes <input checked="" type="checkbox"/>	Not Verified
	Yes <input checked="" type="checkbox"/>	Not Verified

RESIDUE STOCKPILES AND/OR DEPOSITS AFTER 24 JULY 2015: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
o a system of routine maintenance and repair in respect of all residues is implemented? [r9 of GN 632]	Yes <input checked="" type="checkbox"/>	Not Verified
Is the dust generated by the mine's residue stockpiles and residue deposits managed in accordance with the Dust Regulations? [r11 of GN 632 / GN 827]	Yes <input checked="" type="checkbox"/>	Not Verified
Is there any intention to decommission or close any residue stockpiles and/or residue deposits? [r12 of GN 632]	No <input checked="" type="checkbox"/>	Not Verified

RESIDUE STOCKPILES AND/OR DEPOSITS AFTER 24 JULY 2015: COMMENTS	
<ul style="list-style-type: none"> During the interview process, IMBEWU was advised that the integrated WML/ EA granted in November 2018 for Nchwaning II covered the new slimes dam on that site (established after 24 July 2015). This integrated WML/EA was requested but <u>not</u> provided. As such, it was "Not Verified" if there was a WML in place for new residue stockpiles and/or residue deposits established after 24 July 2015, and whether this included a monitoring system in terms of regulation 10 of the Residue Regulations. Proof of compliance with the Residue Regulations for Nchwaning II's new slimes dam was requested but <u>not</u> provided. As such, it was "Not Verified" if there was compliance in this regard. The previous ELCA also noted that this new slimes dam may not be compliant in this regard. In some respects, based on site observations, different findings are noted. This includes that there were no security measures to limit unauthorised access to the Nchwaning II slimes dams. Further, the construction dates for the slimes dams on site were requested but not provided, and as such, it was further not possible to confirm which legislative framework applies to the various slimes dams on site. 	

RESIDUE STOCKPILES AND/OR DEPOSITS AFTER 24 JULY 2015: COMMENTS	
<ul style="list-style-type: none"> Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report and the table of offences and penalties in Annexure 1 with respect to non-compliance with the Residue Regulations. We recommend that Assmang ensure that any residue stockpiles and/or residue deposits established <u>after 24 July 2015</u> are properly managed in accordance with the Residue Regulations. 	

OTHER MINE WASTE IMPACTS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Is coal debris and bituminous rock at coal residue stockpiles or deposits deposited in compliance with the MHSA at a site approved in the EMPr? [r65 of GN 527]	N/A <input checked="" type="checkbox"/>	N/A
Is waste material from reduction works, beneficiation plants, coal preparation plants, screening and washing installations and generating stations at the mine disposed of in accordance with the approved EMP and on an approved demarcated site? [r69 of GN 527]	N/A <input checked="" type="checkbox"/>	Not Verified
Does dumping or impounding of rubble, litter, garbage, rubbish or discards of any description, whether solid or liquid, take place only at the site demarcated for such purpose in accordance with the approved EMP? [r69 of GN 527]	N/A <input checked="" type="checkbox"/>	Not Verified
Is a sand dump or slimes dam established on the bank of any stream, river, dam, pan, wetland or lake? [r69 of GN 527]	No <input checked="" type="checkbox"/>	Not Verified
Does coal debris accumulate on ground where there are surface fissures or cavities as a result of underground operations? [r69 of GN 527]	N/A <input checked="" type="checkbox"/>	N/A
Is there spillage of hazardous chemicals onto soils? [r70 of GN 527]	No <input checked="" type="checkbox"/>	Non-compliant

OTHER MINE WASTE IMPACTS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Are hazardous chemicals migrating to surrounding soils from the approved deposition area? [r70 of GN 527]	N/A <input checked="" type="checkbox"/>	Not Verified
Are oils, grease and hydraulic fluids disposed of into a waste disposal receptacle for collection or treatment, or at a licensed facility, or in terms of the EMP? [r70 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified
Are oils, grease and hydraulic fluid spills cleaned up by removing all contaminated soil and disposing of such soil in a waste disposal receptacle or at a licensed facility? [r70 of GN 527]	Yes <input checked="" type="checkbox"/>	Not Verified
Is there acidification, salination and mineralisation of soils through seepage of polluted water and/or the irrigation of land with water? [r70 of GN 527]	No <input checked="" type="checkbox"/>	Not Verified
Are the chemical and physical properties of top soil to be used for rehabilitation changed by introducing foreign material, gravel, rock, rubble or mine residue? [r70 of GN 527]	Yes <input checked="" type="checkbox"/>	Non-compliant
Are there granite off-cuts and related waste? [r72 of GN 527]	No <input checked="" type="checkbox"/>	N/A

OTHER MINE WASTE IMPACTS: COMMENTS	
<ul style="list-style-type: none"> As the BRMO is a manganese mine, coal residue stockpiles or deposits and coal debris are "N/A". Due to the lack of information and time limitations, it was "Not Verified" whether waste material from reduction works, beneficiation plants, screening and washing installations and generating stations at the mine are disposed of in accordance with the approved EMP and on an approved demarcated site, or whether dumping or impounding of rubble, litter, garbage, rubbish or discards of any description, whether solid or liquid, take place only at the site demarcated for such purpose in accordance with the approved EMP. 	

OTHER MINE WASTE IMPACTS: COMMENTS

- We note that the Gamagara river runs adjacent to Gloria. Due to time limitations, it was "**Not Verified**" whether the slimes dams at Gloria were established on the banks of the Gamagara river.
- During the site inspection, it was noted that there were spillages of hazardous chemicals onto soils (i.e. a "**non-compliance**", as follows:
 - there were hydrocarbon impacts throughout the site, including at the area behind the change houses at Gloria, at the area behind the decline at Gloria, Gloria's surface plant workshop and at the Black Rock mechanical workshop parking lot;
 - there were spillages from chemicals/ hazardous waste container at the area behind the decline at Gloria, and there was no bunding/ containment to contain the spread of these spillages onto *inter alia* soil; and
 - outside of Gloria's surface plant workshop, the bunded area containing chemicals was fenced off but the bunding/concrete had cracked.
- Due to time limitations, it was "**Not Verified**" whether:
 - hazardous chemicals were migrating to surrounding soils from the approved deposition area;
 - all oils, grease and hydraulic fluids are disposed of into a waste disposal receptacle for collection or treatment, or at a licensed facility, or in terms of the EMPr;
 - all oils, grease and hydraulic fluid spills are cleaned up by removing all contaminated soil and disposing of such soil in a waste disposal receptacle or at a licensed facility;
 - there is acidification, salination and mineralisation of soils through seepage of polluted water and/or the irrigation of land with water.
- As per the questionnaire answer provided, top soil is changed, which is in contravention of regulation 70 of the MPRDA Regulations.

OTHER MINE WASTE IMPACTS: COMMENTS	
<ul style="list-style-type: none"> • Based on our observations at the site inspection, it did not appear that there are granite off-cuts and related waste. As such, our finding reflects as “N/A”. • Refer to our comments on environmental compliance and enforcement in paragraph 8 of this report with respect to non-compliance with the MPRDA Regulations. • We recommend that Assmang ensure that all waste impacts at the mine are properly managed in accordance with the MPRDA Regulations. 	

21 BIODIVERSITY IMPACTS

BIODIVERSITY IMPACTS: APPLICABLE LEGISLATION & KEY DEFINITIONS	
<ul style="list-style-type: none"> • NEMBA • NFA • Threatened Ecosystems List (GN 1102) • TOPS Regulations (GN 152) • CITES Regulations (GN 173) • TOPS List (GN 151) • Protected Tree List (GN 536) 	<ul style="list-style-type: none"> • “Alien species” means “(a) a species that is not an indigenous species; or (b) an indigenous species translocated or intended to be translocated to a place outside its natural distribution range in nature, but not an indigenous species that has extended its natural distribution range by natural means of migration or dispersal without human intervention”. • “Biodiversity” means “the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species, between species, and of ecosystems”. • “Forest” includes “(a) a natural forest, a woodland and a plantation; (b) the forest produce in it; and (c) the ecosystems which it makes up”. • “Indigenous species” means “a species that occurs, or has historically occurred, naturally in a free state in nature within the borders of the Republic, but excludes a species that has been introduced in the Republic as a result of human activity”. • “Invasive species” means “any species whose establishment and spread outside of its natural distribution range (a) threaten ecosystems, habitats or other species or have demonstrable potential to threaten ecosystems, habitats or other species; and (b) may result in economic or environmental harm or harm to human health”. • “Protected tree” means “a tree declared to be protected, or belonging to a group of trees, woodland or species declared to be protected, under section 12(1) or 14(2) of the NFA”. • “Restricted activity” in relation to a specimen of listed threatened or protected species (TOPS), means “(i) hunting, catching, capturing or killing any living specimen of a listed threatened or protected species by any means, method or device whatsoever, including searching, pursuing, driving, lying

BIODIVERSITY IMPACTS: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> • AIS Regulations (GN 598) • AIS List (GN 864) 	<p><i>in wait, luring, alluring, discharging a missile or injuring with intent to hunt, catch, capture or kill any such specimen; (ii) gathering, collecting or plucking any specimen of a listed threatened or protected species; (iii) picking parts of, or cutting, chopping off, uprooting, damaging or destroying, any specimen of a listed threatened or protected species; (iv) importing into the Republic, including introducing from the sea, any specimen of a listed threatened or protected species; (v) exporting from the Republic, including re-exporting from the Republic, any specimen of a listed threatened or protected species; (vi) having in possession or exercising physical control over any specimen of a listed threatened or protected species; (vii) growing, breeding or in any other way propagating any specimen of a listed threatened or protected species, or causing it to multiply; (viii) conveying, moving or otherwise translocating any specimen of a listed threatened or protected species; (ix) selling or otherwise trading in, buying, receiving, giving, donating or accepting as a gift, or in any way acquiring or disposing of any specimen of a listed threatened or protected species; or (x) any other prescribed activity which involves a specimen of a listed threatened or protected species".</i></p> <ul style="list-style-type: none"> • "Restricted activity" in relation to a specimen of alien species or listed invasive species, means "(i) importing into the Republic, including introducing from the sea, any specimen of an alien or listed invasive species; (ii) having in possession or exercising physical control over any specimen of an alien or listed invasive species; (iii) growing, breeding or in any other way propagating any specimen of an alien or listed invasive species, or causing it to multiply; (iv) conveying, moving or otherwise translocating any specimen of an alien or listed invasive species; (v) selling or otherwise trading in, buying, receiving, giving, donating or accepting as a gift, or in any way acquiring or disposing of any specimen of an alien or listed invasive species; or (vi) any other prescribed activity which involves a specimen of an alien or listed invasive species." • "Species" means "a kind of animal, plant or other organism that does not normally interbreed with individuals of another kind, and includes any sub-species, cultivar, variety, geographic race, strain, hybrid or geographically separate population." • "Specimen" means "(a) any living or dead animal, plant or other organism; (b) a seed, egg, gamete or propagule or part of an animal, plant or other organism capable of propagation or reproduction or in any way transferring genetic traits; (c) any derivative of any animal, plant or other organism; or (d) any goods which (i) contain a derivative of an animal, plant or other organism; or (ii) from an accompanying document, from the packaging or mark or label, or from any other indications, appear to be or to contain a derivative of an animal, plant or other organism".
---	---

THREATENED OR PROTECTED ECOSYSTEMS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Does the operation undertake any 'threatening processes' or otherwise impactful activities in a listed ecosystem? [Part 1 of Chapter 4 of NEMBA]	Yes <input checked="" type="checkbox"/>	Noted

BIODIVERSITY IMPACTS: GENERAL COMMENTS	
<ul style="list-style-type: none"> IMBEWU was advised during the interview process that the site has an overall biodiversity management report and posters to this effect. The biodiversity management report was requested but not provided. A biodiversity poster was provided though. We recommend that Assmang improve its document control function. 	

THREATENED OR PROTECTED ECOSYSTEMS: COMMENTS	
<ul style="list-style-type: none"> Note that 'threatening processes' have not yet been gazetted. Once gazetted, undertaking a threatening process in a listed ecosystem will require an EA in terms of NEMA. 	

TOPS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Are there any TOPS on the operation's property? [GN 151]	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, has the operation undertaken any "restricted activities" in relation to these listed TOPS? [s57 of NEMBA] 	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> If so, has a permit been obtained from the DEA? [s87 of NEMBA] 	No <input checked="" type="checkbox"/>	Compliant
<ul style="list-style-type: none"> If so, are all permit conditions adhered to? [s101 of NEMBA] 	N/A <input checked="" type="checkbox"/>	Not Verified
Does the operation undertake any restricted activities with respect to species listed under CITES? [s57 of NEMBA]	No <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, has a permit been obtained from the DEA? [s87 of NEMBA] 	No <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, are all permit conditions adhered to? [s101 of NEMBA] 	No <input checked="" type="checkbox"/>	Not Verified

TOPS: GENERAL COMMENTS	
<ul style="list-style-type: none"> • A list of all TOPS on site was requested but not provided. • IMBEWU was provided with a list of game which is situated at the BRMO's Belgravia game farm, including various buck, zebra and horses. It does not appear that any of this game is TOPS. • IMBEWU was further provided with various permits in terms of NEMBA and the NCNCA (provincial legislation) regarding harvesting, transportation etc. of flora. • It therefore appears that the site is aware of its obligation to obtain a permit which it intends to undertake a "restricted activity" in relation to a specimen of listed TOPS. As such, there is a finding of "compliance". • Due to time limitations, it was "Not Verified" if all permit conditions adhered to though. • Due to time limitations and the lack of information, it was "Not Verified" if there were any restricted activities undertaken with respect to species listed under CITES, and accordingly, if so, whether the requisite permits were obtained and adhered to. • Please refer to the table of offences and penalties in Annexure 1 with respect to non-compliance with section 57(1) of NEMBA (undertaking restricted activities involving listed TOPS without a permit). • We recommend that Assmang ensure its operations comply with the various obligations imposed vis-à-vis TOPS as set out in NEMBA. 	

PROTECTED TREES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Are there any listed protected trees on the operation's property? [GN 536]	Yes <input checked="" type="checkbox"/>	Noted
<ul style="list-style-type: none"> • If so, has the operation disturbed, damaged, destroyed, removed, transported, exported, sold, donated or otherwise disposed of any listed protected tree? [s15 of NFA / GN 536] 	Yes <input checked="" type="checkbox"/>	Noted

o If so, has a licence been obtained from the DEA? [s15 of NFA]	Yes <input checked="" type="checkbox"/>	Compliant
o If so, are all permit conditions adhered to? [NFA]	No <input checked="" type="checkbox"/>	Not Verified
Does the operation have any forests or wooded areas on its premises? [NFA]	Yes <input checked="" type="checkbox"/>	Not Verified

PROTECTED TREES: COMMENTS	
<ul style="list-style-type: none"> • A list of all protected trees on site was requested but not provided. • IMBEWU was provided with: <ul style="list-style-type: none"> o a biodiversity management poster which set out <i>inter alia</i> the most common protected plants. With respect to protected plants, it is noted that these must not be cut or related without a permit; o a letter dated 31 May 2018 regarding the withdrawal of an application for the disturbance of protected trees below powerlines in terms of the NFA; and o various licences in terms of the NFA to cut etc. indigenous trees and/or protected trees; • It therefore appears that the site is aware of its obligation to obtain a permit which it intends to disturb, damage, destroy, remove, transport, export, sell, donate or otherwise dispose of any listed protected tree. As such, there is a finding of “compliance”. • Due to time limitations, it was “Not Verified” if all permit conditions adhered to though. • Due to time limitations, it was “Not Verified” if the operation has any forests or wooded areas on its premises. • Please refer to the table of offences and penalties in Annexure 1 with respect to non-compliance with section 15 of the NFA (cutting, disturbance, damage or destruction of a protected tree without a licence). • We recommend that Assmang ensure its operations comply with the various obligations imposed vis-à-vis protected trees as set out in the NFA. 	

ALIEN SPECIES AND INVASIVE SPECIES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Has the operation conducted "restricted activities" in relation to a specimen of alien species? [s65 of NEMBA]	No <input checked="" type="checkbox"/>	Noted
• If so, has a permit been obtained from the DEA? [s87 of NEMBA]	N/A <input checked="" type="checkbox"/>	Not Verified
• If so, are all permit conditions adhered to? [s101 of NEMBA]	N/A <input checked="" type="checkbox"/>	Not Verified
Has the operation conducted "restricted activities" in relation to a specimen of a listed invasive species? [s71 of NEMBA]	N/A <input checked="" type="checkbox"/>	Not Verified
• If so, has a permit been obtained from the DEA? [s87 of NEMBA]	N/A <input checked="" type="checkbox"/>	Not Verified
• Was an assessment of the risks and impacts on biodiversity carried out before the permit was issued? [s71 of NEMBA]	N/A <input checked="" type="checkbox"/>	Not Verified
• If so, are all permit conditions adhered to? [s101 of NEMBA]	N/A <input checked="" type="checkbox"/>	Not Verified
Are there listed invasive species on the operation's land? [s73 of NEMBA]	Yes <input checked="" type="checkbox"/>	Not Verified
• If so, did the operation:		
o notify the DEA in writing of the existence of a listed invasive species on its land? [s73 of NEMBA]	No <input checked="" type="checkbox"/>	Not Verified
o take steps to control and eradicate the listed invasive and prevent it from spreading? [s73 of NEMBA]	Yes <input checked="" type="checkbox"/>	Not Verified
o take all steps to prevent and minimise harm to biodiversity? [s73 of NEMBA]	Yes <input checked="" type="checkbox"/>	Not Verified

ALIEN SPECIES AND INVASIVE SPECIES: COMMENTS	
<ul style="list-style-type: none"> A list of all alien species and listed invasive species on site was requested but not provided. IMBEWU was provided with a biodiversity management poster which set out <i>inter alia</i> the most common invasive vegetation. 	

ALIEN SPECIES AND INVASIVE SPECIES: COMMENTS	
<ul style="list-style-type: none"> • Due to time limitations and the lack of information, it was "Not Verified" if BRMO conducted "restricted activities" in relation to alien species, and accordingly obtained a permit and adhered thereto. • Due to time limitations and the lack of information, it was "Not Verified" if: <ul style="list-style-type: none"> ○ BRMO conducted "restricted activities" in relation to listed invasive species; ○ If so, accordingly assessed the risks and impacts on biodiversity, obtained a permit and adhered to the permit's conditions; ○ If so, notified the DEA of the existence of a listed invasive species on its land, took steps to control and eradicate the listed invasive and prevent it from spreading and took all steps to prevent and minimise harm to biodiversity. • Please refer to the table of offences and penalties in Annexure 1 with respect to non-compliance with: <ul style="list-style-type: none"> ○ section 65 of NEMBA (undertaking restricted activities involving alien species without a permit); ○ section 71 of NEMBA (undertaking restricted activities involving listed invasive species without a permit); and ○ section 73 of NEMBA (the failure to take all the required steps to prevent or minimise harm to biodiversity where carrying out a restricted activity involving a listed invasive species). • We recommend that Assmang ensure its operations comply with the various obligations imposed vis-à-vis alien species and listed invasive species as set out in NEMBA. 	

22 PROTECTED AREAS AND VELD FIRES

PROTECTED AREAS AND VELD FIRES: APPLICABLE LEGISLATION & KEY DEFINITIONS	
<ul style="list-style-type: none"> • NEMPA • NFA • MCAA • ECA 	<ul style="list-style-type: none"> • "Forest" includes "(a) a natural forest, a woodland and a plantation; (b) the forest produce in it; and (c) the ecosystems which it makes up". • "Marine protected area" means "an area declared as a marine protected area in terms of section 22A of NEMPA". • "National park" means "(a) an area which was a park in terms of the National Parks Act 57 of 1976, immediately before its repeal by NEMPA, and includes a park established in terms of an agreement between a local community and the Minister which has been ratified by Parliament; or (b) an

PROTECTED AREAS AND VELD FIRES: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> • WHCA • Lake Areas Development Act 39 of 1975 (repealed) • National Parks Act 57 of 1976 (repealed) • NVFFA 	<p>area declared or regarded as having been declared in terms of section 20 of NEMPA as a national park, and includes an area declared in terms of section 20 of NEMPA as part of an area referred to in paragraph (a) or (b) above."</p> <ul style="list-style-type: none"> • "Nature reserve" means "(a) an area declared, or regarded as having been declared, in terms of section 23 of NEMPA as a nature reserve; or (b) an area which before or after the commencement of NEMPA was or is declared or designated in terms of provincial legislation for a purpose for which that area could in terms of section 23(2) of NEMPA be declared as a nature reserve, and includes an area declared in terms of section 23(1) of NEMPA as part of an area referred to in paragraph (a) or (b) above". • "Protected area" means "any of the protected areas referred to in section 9 of NEMPA, namely: (a) special nature reserves, national parks, nature reserves (including wilderness areas) and protected environments; (b) world heritage sites; (c) marine protected areas; (d) specially protected forest areas, forest nature reserves and forest wilderness areas declared in terms of the NFA; and (e) mountain catchment areas declared in terms of the MCAA". • "Protected environment" means "(a) an area declared, or regarded as having been declared, in terms of section 28 of NEMPA as a protected environment; (b) an area which before or after the commencement of NEMPA was or is declared or designated in terms of provincial legislation for a purpose for which that area could in terms of section 28(2) of NEMPA be declared as a protected environment; or (c) an area which was a lake area in terms of the Lake Areas Development Act 39 of 1975, immediately before its repeal by NEMPA, and includes an area declared in terms of section 28(1) of NEMPA as part of an area referred to in paragraph (a), (b) or (c) above". • "Special nature reserve" means "(a) an area which was a special nature reserve in terms of ECA immediately before its repeal by NEMPA; or (b) an area declared, or regarded as having been declared, in terms of section 18 of NEMPA as a special nature reserve, and includes an area declared in terms of section 18 of NEMPA as part of an area referred to in paragraph (a) or (b) above". • "Veldfire" means "a veld, forest or mountain fire". • "Wilderness area" means "an area designated in terms of section 22 or 26 of NEMPA for the purpose of retaining an intrinsically wild appearance and character or capable of being restored to such and which is undeveloped and roadless, without permanent improvements or human habitation". • "World heritage site" means "a world heritage site in terms of the WHCA".
---	---

PROTECTED AREAS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Are there any "protected areas" in close proximity to the operation?	Yes <input checked="" type="checkbox"/>	Noted

PROTECTED AREAS: COMMENTS

- Due to time constraints, the proximity of the site to any protected areas was not further investigated.

MINING AND/OR PROSPECTING IN PROTECTED AREAS: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Does any prospecting and/or mining-related activities take place in:		
• a special nature reserve? [s48 of NEMPA]	No <input checked="" type="checkbox"/>	Not Verified
• a nature reserve? [s48 of NEMPA]	No <input checked="" type="checkbox"/>	Not Verified
• a national park? [s48 of NEMPA]	No <input checked="" type="checkbox"/>	Not Verified
• a protected environment? [s48 of NEMPA]	No <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> ○ if so, did the Minister of Environmental Affairs and Mineral Resources provide their written permission? [s48 of NEMPA] 	N/A <input checked="" type="checkbox"/>	Not Verified
• a world heritage site? [s48 of NEMPA]	N/A <input checked="" type="checkbox"/>	Not Verified
• a specially protected forest area, forest nature reserve and/or forest wilderness areas declared in terms of the NFA? [s48 of NEMPA]	N/A <input checked="" type="checkbox"/>	Not Verified
• a mountain catchment area declared in terms of the MCAA? [s48 of NEMPA]	N/A <input checked="" type="checkbox"/>	Not Verified

MINING AND/OR PROSPECTING IN PROTECTED AREAS: COMMENTS	
<ul style="list-style-type: none"> Due to time constraints, it was further not possible to verify whether the site fell within an area shielded from mining in terms of section 48 of NEMPA. As such, our findings reflect as "Not Verified". However, based on the site observations, it did not appear so. Please refer to the table of offences and penalties in Annexure 1 with respect to non-compliance with section 48 of NEMPA (undertaking prospecting and mining activities in a protected area). We recommend that Assmang ensure that no mining takes place within an area shielded from mining in terms of section 48 of NEMPA. 	

VELD FIRES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
Is it possible for a veld fire to start or spread from the operation's property? [s12 of NVFFA]	No <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> If so, has the operation prepared and maintained firebreaks on its side of the boundary between its land and any adjoining land? [s12 of NVFFA] 	N/A <input checked="" type="checkbox"/>	Not Verified
When preparing firebreaks does the operation take steps to:		
<ul style="list-style-type: none"> transplant any plant which is protected? [s16 of NVFFA] 	Yes <input checked="" type="checkbox"/>	Not Verified
<ul style="list-style-type: none"> position the firebreak so as to avoid protected plants or trees? [s16 of NVFFA] 	Yes <input checked="" type="checkbox"/>	Not Verified

VELD FIRES: COMMENTS	
<ul style="list-style-type: none"> Due to time constraints, it was "Not Verified" whether there is compliance with section 12 and 16 of the NVFFA. Please refer to the table of offences and penalties in Annexure 1 with respect to non-compliance with section 12(1) of the NVFFA, namely the failure to prepare a firebreak when obliged to do so. 	

23 HERITAGE RESOURCES

HERITAGE RESOURCES: APPLICABLE LEGISLATION & KEY DEFINITIONS

<ul style="list-style-type: none"> NHRA 	<ul style="list-style-type: none"> "Archaeological" means "(a) material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures; (b) rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation; (c) wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act 15 of 1994, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation; and (d) features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found". "Heritage resource" means "any place or object of cultural significance". "Object" means "any movable property of cultural significance which may be protected in terms of any provisions of this Act, including - (a) any archaeological artefact; (b) palaeontological and rare geological specimens; (c) meteorites; and (d) other objects referred to in section 3 of the NHRA". "Palaeontological" means "any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace". "Place" includes "(a) a site, area or region; (b) a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure; (c) a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures; (d) an open space, including a public square, street or park; and (e) in relation to the management of a place, includes the immediate surroundings of a place". "Site" means "any area of land, including land covered by water, and including any structures or objects thereon".
--	--

HERITAGE RESOURCES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS

QUESTION	ANSWER	FINDING
Has the operation undertaken any activity that may:		

HERITAGE RESOURCES: QUESTIONS, ANSWERS AND COMPLIANCE FINDINGS		
QUESTION	ANSWER	FINDING
• alter or demolish any structure or part of a structure which is older than 60 years? [s34 of NHRA]	No <input checked="" type="checkbox"/>	Not Verified
• destroy, damage, excavate, alter, deface, disturb any archaeological or palaeontological site or any meteorite? [s35 of NHRA]	No <input checked="" type="checkbox"/>	Not Verified
• destroy, damage, alter, exhume or remove any graves? [s36 of NHRA]	No <input checked="" type="checkbox"/>	Not Verified
o If so, have the required permits been obtained from SAHRA? [s34-36 of NHRA]	N/A <input checked="" type="checkbox"/>	Not Verified
o If so, is the operation in compliance with such permits? [NHRA]	N/A <input checked="" type="checkbox"/>	Not Verified
Does the operation take place in the vicinity of any area, object, building etc that receives protection under the NHRA? [NHRA]	Yes <input checked="" type="checkbox"/>	Noted
Has the operation:		
• constructed a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 metres in length? [s38 of NHRA]	No <input checked="" type="checkbox"/>	Not Verified
• constructed a bridge or similar structure exceeding 50 metres in length? [s38 of NHRA]	Yes <input checked="" type="checkbox"/>	Not Verified
• any development or other activity which will change the character of a site? [s38 of NHRA]	Yes <input checked="" type="checkbox"/>	Not Verified
• re-zoned a site exceeding 10 000 m ² in extent?	No answer	Not Verified
o If so, has the operation notified SAHRA?	Yes <input checked="" type="checkbox"/>	Not Verified
o If so, has SAHRA directed the operation to undertake a heritage impact assessment?	Yes <input checked="" type="checkbox"/>	Not Verified

HERITAGE RESOURCES: COMMENTS	
• IMBEWU was advised during the interview process that:	

HERITAGE RESOURCES: COMMENTS

- there is a bridge crossing the Gamagara river and a heritage impact assessment was done; and
- a heritage-related study was done for the entire BRMO site, there were archaeological resources found at Gloria and at the Koppie, and there is currently a second phase of a heritage impact assessment being undertaken.
- The following information was requested but **not** provided:
 - proof of any notification to SAHRA of the bridge crossing over the Gamagara river;
 - proof of any notification to SAHRA of archaeological resources at Gloria / Koppie area;
 - proof of any other notification to SAHRA of heritage resources;
 - confirmation from SAHRA that no heritage impact assessment was required for bridge crossing over Gamagara river;
 - heritage impact assessments for archaeological resources at Gloria / Koppie area;
 - any other heritage impact assessments.
- Due to time constraints and the lack of information, the various heritage-related legal obligations were "**Not Verified**". Please refer to the table of offences and penalties in **Annexure 1** with respect to non-compliance with:
 - section 34(1) of the NHRA (the alteration or demolition any structure older than 60 years without a permit);
 - section 35(4) of the NHRA (the destruction, damage, excavation, alteration, defacing or disturbance of any archaeological or palaeontological site or any meteorite without a permit); and
 - section 36(3) of the NHRA (the destruction, damage, alteration, exhumation or removal of any graves without a permit).
- **We recommend that Assmang ensure that it complies in full with the NHRA.**

24 ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
ECA – Asbestos Regulations	Regulation 8(1): A contravention of any provision of the Asbestos Regulations.	<ul style="list-style-type: none"> Regulation 8(1): A fine not exceeding R100 000 or to imprisonment for a period not exceeding 10 years, or to both such fine and imprisonment, and to a fine not exceeding three times the commercial value of anything in respect of which the offence was committed.
NEMA	Section 49A(1)(a): The commencement of a NEMA Listed Activity without an EA in contravention of section 24 of NEMA.	<ul style="list-style-type: none"> Section 49B(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 49A of NEMA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA. Section 24G of NEMA: To the extent that there has been commencement of a NEMA Listed Activity without an EA, section 24G of NEMA provides for an <i>ex post facto</i> application process, provided an administrative fine not exceeding R5 million is paid.
NEMA	Section 49A(1)(c): A failure to comply with a condition of an EA or an approved EMP _r issued in terms of NEMA.	<ul style="list-style-type: none"> Section 49B(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 49A of NEMA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
NEMA	Section 49A(1)(e) and (f): To unlawfully and intentionally or negligently commit any act or omission which causes significant pollution or degradation of the environment or is likely to cause significant pollution or degradation of the environment, in contravention of section 28 of NEMA (duty of care).	<ul style="list-style-type: none"> Section 49B(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 49A of NEMA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NEMA	Section 49A(1)(g): A failure to comply with a directive issued in terms of NEMA.	<ul style="list-style-type: none"> Section 49B(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 49A of NEMA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NEMA	Section 49A(1)(i): A failure to comply with section 30(3), 30(4), 30(5) or 30(6) of NEMA (control of incidents).	<ul style="list-style-type: none"> Section 49B(2): For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 49A of NEMA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NEMA	Section 49A(1)(k):	<ul style="list-style-type: none"> Section 49B(2): For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	A failure to comply with a compliance notice issued in terms of section 31L of NEMA.	<p>second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both.</p> <ul style="list-style-type: none"> Schedule 3 of NEMA: Section 49A of NEMA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA
NEMA – EIA Regulations	<p>Regulation 48(1)(d):</p> <p>A failure to comply with regulation 34 of the EIA Regulations, namely auditing of compliance with an EA, EMPr and closure plan.</p>	<ul style="list-style-type: none"> Section 49B(2): For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both.
NEMA – EIA Regulations	<p>Regulation 48(1)(e):</p> <p>A failure to comply with regulation 37 of the EIA Regulations, namely amendments of an EMPr or closure plan.</p>	<ul style="list-style-type: none"> Section 49B(2): For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both.
NEMA – Financial Provision Regulations	<p>Regulation 18(1): A contravention of:</p> <ul style="list-style-type: none"> regulation 4 (determination of financial provision); regulation 5 (scope of financial provision); regulation 6 (method for determining financial provision); regulation 7 (availability of financial provision); 	<ul style="list-style-type: none"> Regulation 19: A fine not exceeding R10 million or to imprisonment for a period not exceeding 10 years, or to both such fine or such imprisonment.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	<ul style="list-style-type: none"> • regulation 9(1) (general requirements for financial provision); • regulation 10 (determination of financial provision by applicant); • regulation 11 (review, assessment and adjustment of financial provision); • regulation 12(5) (submission of a declaration, signed by the independent auditor of the holder of a right or permit); • regulation 13 (responsibility of holder of a right or permit); or • regulation 16(6) (approval from the Minister for care and maintenance). <p>Regulation 18(2): A contravention of the following regulations relating to transitional arrangements: regulations 17(5), 17(11), 17(12), 17(14), 17(16), 17(17) or 17(19).</p>	

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
NEMA – PCB Regulations	<p>Regulation 10(1): A contravention of:</p> <ul style="list-style-type: none"> • regulation 3 (general prohibitions); • regulation 4 (phase-out time frames); • regulation 5(1) and 5(5) (registration); • regulation 6(1), 6(2) and 6(4) (PCB phase-out plans and inventories); • regulation 7 (testing and labelling); • regulation 8 (classification, retro-filling and reclassification of equipment); or • regulation 9 (reporting). 	<ul style="list-style-type: none"> • Regulation 10(1): A fine not exceeding R10 million or to imprisonment for a period not exceeding 10 years or to both such fine and imprisonment.
NEMAQA	<p>Section 51(1)(a): The commencement of a NEMAQA Listed Activity without an AEL in contravention of Chapter 5 of NEMAQA.</p>	<ul style="list-style-type: none"> • Section 52(1): For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. • Schedule 3 of NEMA: Section 51(1)(a) of NEMAQA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
NEMAQA – Boiler Regulations	Section 51(2) of NEMAQA: A failure to comply with controlled emitter emission standards established under section 24(1) of NEMAQA.	<ul style="list-style-type: none"> Section 52(1): For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 51(2) of NEMAQA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NEMAQA – Dust Regulations	Regulation 8: A failure to comply with: <ul style="list-style-type: none"> regulations 4(2) or 4(3) (dustfall monitoring programme); regulations 6(1), 6(3) or 6(4) (measures for the control of dust); or regulation 7 (ambient air quality monitoring for PM₁₀). 	<ul style="list-style-type: none"> Regulation 9: For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both.
NEMAQA – GHG Regulations	Regulation 16(b): A failure to comply with: <ul style="list-style-type: none"> regulations 5(1) or 5(2) (registration); regulations 6(1) or 6(3) (changes to registration details); regulation 7(1) or 7(3) (reporting requirements); 	<ul style="list-style-type: none"> Regulation 17: For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	<ul style="list-style-type: none"> regulation 9 (reporting completeness); regulation 13 (record keeping); or the provision of false or misleading information to the competent authority. 	
NEMAQA – GHG PPP Regulations	<p>Regulation 8: A failure to comply with:</p> <ul style="list-style-type: none"> regulation 4(1) (failure to submit a pollution prevention plan); regulation 5(1) (failure to submit an annual progress report); or the supply of false or misleading information to the Minister. 	<ul style="list-style-type: none"> Regulation 9: For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both.
NEMAQA – ODS Regulations	<p>Regulation 9: A contravention of:</p> <ul style="list-style-type: none"> regulation 3 (prohibition of production, importation, exportation, use or placing on the market of ODS and equipment); regulation 4 (general prohibition of stockpiling); regulation 5 (phase out schedule for HCFCs, HCFC-141b and equipment charged with HCFC 22); 	<ul style="list-style-type: none"> Regulation 9(2): For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	<ul style="list-style-type: none"> regulation 6 (reclamation or destruction of ODS); regulation 7 (discharge or release of ODS); regulation 8 (importers or exporters of ODS); the intentional supply of false or misleading information in any application; the contravention or failure to comply with a condition or requirement of an approval. 	
NEMBA	<p>Section 101(1)(a): A contravention of:</p> <ul style="list-style-type: none"> section 57(1) of NEMBA (undertaking restricted activities involving listed TOPS without a permit); section 65(1) of NEMBA (undertaking restricted activities involving alien species without a permit); and section 71(1) of NEMBA (undertaking restricted activities involving listed invasive species without a permit). 	<ul style="list-style-type: none"> Section 102(1): A fine not exceeding R10 million, or an imprisonment for a period not exceeding ten years, or to both such a fine and such imprisonment. Section 102(2): If a person is convicted of an offence involving a specimen of a listed TOPS or an alien species without a permit, a fine may be determined, either in terms of section 102(1) or equal to three times the commercial value of the specimen or activity in respect of which the offence was committed, whichever is the greater. Section 102(2A): If a person is convicted of an offence involving a specimen of a listed invasive species, a fine may be determined, either in terms of section 102(1) or equal to the estimated cost associated with the control of the specimen in respect of which the offence was committed or both.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
		<ul style="list-style-type: none"> Schedule 3 of NEMA: Sections 57(1) read with 101(1)(a), 65(1) read with 101(1)(a) and 71(1) read with 101(1)(a) of NEMBA fall within Schedule 3 of NEMA and as such, these offences may attract personal director liability in terms of section 34(7) of NEMA.
NEMBA	<p>Section 101(2)(a): The failure to take all the required steps to prevent or minimise harm to biodiversity where carrying out a restricted activity involving a listed invasive species in contravention of section 73 of NEMBA.</p>	<ul style="list-style-type: none"> Section 102(1): A fine not exceeding R10 million, or an imprisonment for a period not exceeding ten years, or to both such a fine and such imprisonment. Section 102(2A): If a person is convicted of an offence involving a specimen of a listed invasive species, a fine may be determined, either in terms of section 102(1) or equal to the estimated cost associated with the control of the specimen in respect of which the offence was committed or both.
NEMPA	<p>Section 89(1)(a): Undertaking prospecting and mining activities in a protected area in contravention of section 48 of NEMPA.</p>	<ul style="list-style-type: none"> Section 89(2): For a first offence, a fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both. For a second/subsequent offence, a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 48(1) read with 89(1) of NEMPA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NEMWA	<p>Section 67(1)(a):</p>	<ul style="list-style-type: none"> Section 68(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	Commencing with NEMWA Listed Activity without a WML in contravention of section 20 of NEMWA.	<ul style="list-style-type: none"> Schedule 3 of NEMA: Sections 20(a) and (b) read with 67(1)(a) of NEMWA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA. Section 24G of NEMA: To the extent that there has been commencement of a NEMWA Listed Activity without a WML, section 24G of NEMA provides for an <i>ex post facto</i> application process, provided an administrative fine not exceeding R5 million is paid.
NEMWA	Section 67(1)(a): Unauthorised disposal of waste in contravention of section 26(1) of NEMWA.	<ul style="list-style-type: none"> Section 68(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 26(1)(a) read with 67(1)(a) of NEMWA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NEMWA	Section 67(1)(a): A failure to take all reasonable measures to: <ul style="list-style-type: none"> dispose of waste in an environmentally sound manner in contravention of section 16(1)(c) of NEMWA; manage the waste in such a manner that it does not endanger health or the environment or 	<ul style="list-style-type: none"> Section 68(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Sections 16(1)(c), (d), (e), (f) read with 67(1)(a) of NEMWA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	<p>cause a nuisance through noise, odour or visual impacts in contravention of section 16(1)(d) of NEMWA;</p> <ul style="list-style-type: none"> prevent any employee or any person under his or her supervision from contravening NEMWA in contravention of section 16(1)(e) of NEMWA; or prevent the waste from being used for an unauthorised purpose in contravention of section 16(1)(f) of NEMWA. 	
NEMWA	<p>Section 67(1)(a): A failure to comply with the provisions related to residue stockpiles and residue deposits in section 43A of NEMWA.</p>	<ul style="list-style-type: none"> Section 68(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 67(1)(a) of NEMWA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NEMWA	<p>Section 67(1)(b): A contravention of:</p> <ul style="list-style-type: none"> section 21 of NEMWA (general requirements for storage of waste); section 22(1) of NEMWA (storage of general waste); or section 27(2) of NEMWA (littering). 	<ul style="list-style-type: none"> Section 68(2): A fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both, in addition to any other penalty or award that may be imposed or made in terms of the NEMA. Schedule 3 of NEMA: Sections 21 read with 67(1)(b), 22(1) read with 67(1)(b), 27(2) read with 67(1)(b) of NEMWA fall within Schedule 3

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
		of NEMA and as such, these offences may attract personal director liability in terms of section 34(7) of NEMA.
NEMWA	Section 67(1)(h): A contravention of or failure to comply with a condition of a WML issued in terms of NEMWA.	<ul style="list-style-type: none"> Section 68(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 67(1)(h) of NEMWA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NEMWA	Section 67(2): The failure by a person in control of a vehicle, or in a position to control the use of a vehicle, that is used to transport waste for the purpose of offloading that waste: <ul style="list-style-type: none"> to take all reasonable steps to prevent spillage of waste or littering from the vehicle; to dispose of waste at a facility which is not authorised to accept such waste; to ensure that waste is disposed of at a facility that is authorised to accept such waste; to comply with any duty set out in section 25(4) of NEMWA (duties of persons transporting waste), 	<ul style="list-style-type: none"> Section 68(2): A fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both, in addition to any other penalty or award that may be imposed or made in terms of the NEMA. Schedule 3 of NEMA: Section 67(2)(a), (b), (c), (d), (e) falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	or the intentional or negligent causation of spillage or littering from the vehicle.	
NEMWA – Contaminated Land Provisions	<p>Section 67(1)(a) and (g):</p> <p>A contravention of:</p> <ul style="list-style-type: none"> section 38(2) or 38(3) of NEMWA (Minister/MEC’s declaration of a remediation order and/or orders to undertake other measures); or section 37(1) of NEMWA (failure to conduct a site assessment or to submit a site assessment report). 	<ul style="list-style-type: none"> Section 68(1): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Section 38 (2) and (3) read with 67(1)(a) and section 67(1)(g) of NEMWA fall within Schedule 3 of NEMA and as such, these offences may attract personal director liability in terms of section 34(7) of NEMA.
NEMWA – Contaminated Land Provisions	<p>Section 67(1)(b):</p> <p>A contravention of:</p> <ul style="list-style-type: none"> section 36(5) of NEMWA (notification to Minister/MEC of significant land contamination); or section 40(1) of NEMWA (transfer of remediation sites). 	<ul style="list-style-type: none"> Section 68(2): A fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both, in addition to any other penalty or award that may be imposed or made in terms of the NEMA. Schedule 3 of NEMA: Section 36(5) read with 67(1)(b) and 40(1) read with 67(1)(b) of NEMWA fall within Schedule 3 of NEMA and as such, these offences may attract personal director liability in terms of section 34(7) of NEMA.
Norms and Standards under NEMWA including <i>inter</i>	<p>Section 67(1)(f):</p> <p>A contravention of or failure to comply with a norm or standard established in terms NEMWA.</p>	<ul style="list-style-type: none"> Section 68(2): A fine not exceeding R5 million or imprisonment for a period not exceeding five years, or both, in addition to any other penalty or award that may be imposed or made in terms of the NEMA.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
alia Waste Sorting Norms and Waste Sorting Norms		<ul style="list-style-type: none"> Schedule 3 of NEMA: Section 67(1)(f) of NEMWA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NEMWA – Residue Regulations	Regulation 14: A contravention of: <ul style="list-style-type: none"> regulation 3 (assessment of impacts and analyses of risks); regulation 4 (characterisation); regulation 5 (classification); regulation 6 (investigation and site selection); regulation 7 (design); regulation 8 (impact management); regulation 9 (duties of the holder); regulation 10 (monitoring and reporting system); or regulation 11 (dust management and control). 	<ul style="list-style-type: none"> Regulation 14(2): Imprisonment for a period not exceeding 15 years, an appropriate fine or both a fine and imprisonment.
NEMWA – Tyre Regulations	Regulation 11: A contravention of: <ul style="list-style-type: none"> regulation 4 (prohibitions); regulation 5 (registration); 	<ul style="list-style-type: none"> Regulation 11(2): Imprisonment for a period not exceeding 15 years, an appropriate fine or both a fine and imprisonment.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	<ul style="list-style-type: none"> regulation 6 (duties of tyre dealers); regulation 7(1)-(2) (submission and contents of a waste tyre stockpile abatement plan); regulation 9(5) or 9(6) (consideration of a waste tyre stockpile abatement plan); regulation 10(1)-(4), 10(6) or 10(7) (storage of waste tyres); a waste tyre management plan; a waste tyre stockpile abatement plan; or a written instruction in terms of regulation 12(1)(b). 	
<p>NEMWA – Waste Classification Regulations</p>	<p>Regulation 13: A contravention of:</p> <ul style="list-style-type: none"> regulations 4(2), 4(3), 4(4), 4(5) or 4(6) (waste classification); regulation 5 (safety data sheets); regulation 6 (general waste management); regulation 7(1) (waste treatment); regulation 8(1) (waste disposal to landfill); regulation 10(1) or 10(3) (records of waste generation and management); 	<ul style="list-style-type: none"> Regulation 13(2): A fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or both.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	<ul style="list-style-type: none"> regulation 11(1), 11(2), 11(4), 11(5), 11(6), 11(7) or 11(8) (waste manifest system); or regulation 12 (implementation and transitional provisions). 	
NFA	<p>Section 62(2)(c): Cutting, disturbance, damage or destruction of a protected tree referred to in section 15(1)(a) of the NFA without a licence.</p>	<ul style="list-style-type: none"> Section 58: For a first category offence, a fine or imprisonment for a period of up to three years, or to both. Schedule 3 of NEMA: Section 15(1)(a) of NFA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NHRA	<p>Section 51(1)(c): The alteration or demolition any structure older than 60 years without a permit in contravention of section 34(1) of NHRA.</p>	<ul style="list-style-type: none"> Section 51(1)(c) and item 3 of the Schedule: A fine or imprisonment for a period not exceeding two years or to both such fine and imprisonment. Schedule 3: Section 34(1) of NHRA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NHRA	<p>Section 51(1)(b): The destruction, damage, excavation, alteration, defacing or disturbance of any archaeological or palaeontological site or any meteorite without a permit in contravention of section 35(4) of NHRA.</p>	<ul style="list-style-type: none"> Section 51(1)(b) and item 2 of the Schedule: A fine or imprisonment for a period not exceeding three years or to both such fine and imprisonment. Schedule 3: Section 35(4) of NHRA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
NHRA	Section 51(1)(b): The destruction, damage, alteration, exhumation or removal of any graves without a permit in contravention of section 36(3) of NHRA.	<ul style="list-style-type: none"> Section 51(1)(b) and item 2 of the Schedule: A fine or imprisonment for a period not exceeding three years or to both such fine and imprisonment. Schedule 3: Section 36(3) of NHRA falls within Schedule 3 of NEMA and as such, this offence may attract personal director liability in terms of section 34(7) of NEMA.
NVFFA	Section 25(3)(a): The failure to prepare a firebreak when obliged to do so in contravention of section 12(1) of the NVFFA.	<ul style="list-style-type: none"> Section 24(2): A first conviction of a second category offence, a fine or imprisonment for a period of up to one year, or to both.
NWA	Section 151(1)(a): The "use [of] water otherwise than as permitted under th[e] [NWA]", namely undertaking a water use without being in possession of a WUL, alternatively a GA.	<ul style="list-style-type: none"> Section 151(2): For a first offence, a fine of an unspecified amount or imprisonment not exceeding a period of five years, or both. For a second/subsequent offence, a fine of an unspecified amount or imprisonment for a period not exceeding ten years, or both.
NWA	Section 151(1)(c): The failure to comply with any condition attached to a permitted water use issued in terms of the NWA.	<ul style="list-style-type: none"> Section 151(2): For a first offence, a fine of an unspecified amount or imprisonment not exceeding a period of five years, or both. For a second/subsequent offence, a fine of an unspecified amount or imprisonment for a period not exceeding ten years, or both.
NWA	Section 151(1)(d):	<ul style="list-style-type: none"> Section 151(2): For a first offence, a fine of an unspecified amount or imprisonment not exceeding a period of five years, or both. For

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	The failure to comply with a directive issued under sections 19 (duty of care) or section 53 (rectification of contraventions) of the NWA.	a second/subsequent offence, a fine of an unspecified amount or imprisonment for a period not exceeding ten years, or both.
NWA	Section 151(1)(d): The failure to comply with a directive issued under section 20 of the NWA (control of emergency incidents).	<ul style="list-style-type: none"> Section 151(2): For a first offence, a fine of an unspecified amount or imprisonment not exceeding a period of five years, or both. For a second/subsequent offence, a fine of an unspecified amount or imprisonment for a period not exceeding ten years, or both.
NWA	Section 151(1)(i) and (j): To unlawfully and intentionally or negligently commit any act or omission which pollutes or is likely to pollute a water resource, or which otherwise detrimentally affects or is likely to affect a water resource, in contravention of section 19 of the NWA (duty of care).	<ul style="list-style-type: none"> Section 151(2): For a first offence, a fine of an unspecified amount or imprisonment not exceeding a period of five years, or both. For a second/subsequent offence, a fine of an unspecified amount or imprisonment for a period not exceeding ten years, or both. Schedule 3 of NEMA: Sections 151(i) and (j) of the NWA fall within Schedule 3 of NEMA and as such, these offences may attract personal director liability in terms of section 34(7) of NEMA.
NWA	Section 151(1)(k): The failure to register a dam with a safety risk.	<ul style="list-style-type: none"> Section 151(2): For a first offence, a fine of an unspecified amount or imprisonment not exceeding a period of five years, or both. For a second/subsequent offence, a fine of an unspecified amount or imprisonment for a period not exceeding ten years, or both.
NWA – Dam Regulations	Regulation 48:	<ul style="list-style-type: none"> Regulation 48: A fine of an unspecified amount or imprisonment not exceeding a period of five years.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
	Non-compliance with any of the provisions under the Dam Regulations.	
NWA – Mining Water Regulations	<p>Regulation 14: Non-compliance with the following:</p> <ul style="list-style-type: none"> • regulation 2 (information and notification); • regulation 4 (restrictions on locality); • regulation 5 (restrictions on use of material); • regulation 6 (capacity requirements of clean and dirty water systems); • regulation 7 (protection of water resources); • regulation 8 (security and additional measures); • regulation 9 (temporary or permanent cessation of mine or activity); • regulation 1 (additional regulations relating to winning sand and alluvial minerals from watercourse or estuary); • regulation 11 (additional regulations for rehabilitation of coal residue deposits); • regulation 12 (technical investigation and monitoring); or • regulation 13 (general). 	<ul style="list-style-type: none"> • Regulation 14(1): A fine or imprisonment for a period not exceeding five years. • Regulation 14(2): Whenever an act or omission by a manager or employee of a mine or activity – <ul style="list-style-type: none"> (a) constitutes an offence in terms of the Mining Water Regulations, and takes place with the express or implied permission of the person in control of a mine or activity, that person is, in addition to the manager or employee, liable to conviction for that offence; or (b) would constitute an offence by the person in control of a mine or activity in term of the Mining Water Regulations that manager or employee is, in addition to that person, liable to conviction for that offence.

ANNEXURE 1: ENVIRONMENTAL OFFENCES AND PENALTIES		
Act	Offence	Penalty
MPRDA	Section 98(a)(vi): Non-compliance with any directive, notice, suspension, order, instruction or condition issued in terms of the MPRDA.	<ul style="list-style-type: none"> Section 99: A fine not exceeding R10 000.
MRPDA	Section 98(a)(viii): Non-compliance with any other provision of the MRPDA such as section 102 (the amendment of rights, permits, programmes and plans).	<ul style="list-style-type: none"> Section 99(1)(g): A fine or to imprisonment for a period not exceeding six months or both.

25 ANNEXURE 2: SCOPE OF ELCA AND EXCLUSIONS

1. This environmental legal compliance audit ("**ELCA**"), in accordance with IMBEWU's proposal dated 22 February 2019, is an assessment of compliance with the key national environmental legislation associated with Assmang's BRMO operations and is focused on key environmental compliance issues based on our past experience of similar operations. As such, this ELCA is not a complete assessment of the state of compliance with all potentially relevant environmental law but rather only key national environmental legislation. Similarly, only the key legal risks and key potential liabilities presented by any non-compliance have been highlighted.
2. This ELCA is based on the law as at 30 June 2019.
3. This ELCA is designed to identify areas of compliance, non-compliance or possible non-compliance and to identify areas that require further investigation by the BRMO's personnel. This ELCA does not confirm environmental legal compliance unless specifically stated.
4. This ELCA has been informed through *inter alia*:
 - our evaluation of the ELCA questionnaire as completed by BRMO's personnel;
 - our evaluation of the documents provided by BRMO's personnel;
 - our observations at the site visit on; and
 - our on-site interviews with BRMO's personnel during the site visit.
5. The purpose of the site visit was to obtain further information, including corroborating documentation, and undertake site observations in order to determine the current state of environmental legal compliance.

6. Issues may have arisen that could not be fully addressed in this ELCA. Such issues are highlighted as requiring possible further investigation outside this ELCA process. This is due to either shortcomings in the available information, alternatively where issues have arisen which could not be adequately addressed within the scope, budget or time limitations of this ELCA.
7. As the ELCA is focused on national environmental legislation, it specifically excludes an assessment of the operation's compliance with provincial and municipal environmental legislation, as well as any authorisations issued under such legislation.
8. This ELCA further does not constitute an authorisation audit (whether, without limitation, of an environmental authorisation, environmental management programme, waste management licence, atmospheric emission licence, water use licence or similar authorisation, permit or licence), namely an environmental legal compliance audit of Assmang's BRMO's compliance with the conditions of any of its authorisations.
9. It is further beyond the scope of this ELCA to undertake an assessment of compliance with the Regulations on the Use of Water for Mining and Related Activities Aimed at the Protection of Water Resources published under the National Water Act 36 of 1998, as amended in GN 704 in GG 20119 of 4 June 1999, as amended.
10. The ELCA further excludes:
 - mine health and safety legislation and issues;
 - occupational health and safety legislation and issues;
 - mineral rights issues;
 - town and regional planning and building legislation and issues;
 - common law issues;
 - contractual issues. This means that compliance with environmental clauses in any relevant leases and/or other contracts has not been assessed;

- non-environmental management provisions in the Mineral and Petroleum Resources Development Act 28 of 2002, as amended, such as, without limitation compliance with social and labour plans; and
- technical legal compliance issues.

11. Regarding contractual issues (which are outside the scope of this ELCA), we are not aware of any preceding or current transactions or contractual arrangements with Assmang's BRMO, which may have a bearing on environmental liabilities and compliance requirements.

12. Note that an ELCA associated with water uses and water management practices can be factually and legally complex, and is largely dependent on factors such as the age of the operation, the nature and complexity of the water uses, the extent of available factual information and the necessity to determine whether any "existing lawful water uses" under the National Water Act 36 of 1998 exist.

13. Given that the ELCA was not a "technical" compliance evaluation, IMBEWU has placed absolute reliance on appropriate scientific or technical documents that have been produced internally or by third party consultants/ specialists, including, without limitation:

- performance assessments of environmental management programmes;
- compliance evaluations in terms of the Regulations on the Use of Water for Mining and Related Activities Aimed at the Protection of Water Resources published under the National Water Act 36 of 1998, as amended in GN 704 in GG 20119 of 4 June 1999, as amended;
- surface and groundwater monitoring results and reports;
- air (dust and gaseous emissions) monitoring results and reports;
- internal and external compliance audits of water use licences;
- internal and external compliance audits of environmental authorisations;
- internal and external compliance audits of atmospheric emission licences;
- internal and external compliance audits of waste management licences; and/or
- any other internal and external compliance audit of an environmental licence, permit or authorisation.

14. It is essential for Assmang's BRMO to provide all requested information and documentation to IMBEWU in order for IMBEWU to determine the current state of compliance. We have therefore requested copies of all relevant information, documents, permits and reports in order to inform ourselves as to the current, factual state of compliance. Reliance has been placed on all information, documents, permits and reports provided to us by Assmang's BRMO, the content of which documents are, unless specifically stated otherwise, believed to be reliable and correct. We have not reviewed any documents from the perspective of their adequacy or accuracy for the intended purpose. The factual information as provided by Assmang's BRMO has not been verified unless otherwise specifically stated.
15. The content of any provided documents and reports by third party consultants and/or specialists has further not been verified and is not necessarily endorsed by IMBEWU unless otherwise stated. We express no views on the content, conclusions and recommendations contained in these reports unless otherwise specifically stated in this ELCA report.
16. The ELCA report findings are dependent on the information and documentation provided by Assmang's BRMO personnel, discussions with Assmang's BRMO personnel prior to, during and after the site visit, the auditor's interpretations of the applicable national environmental legislation and the prevailing on-site circumstances at the time of the site visit. To the extent that IMBEWU may have misinterpreted the content of any information or documentation that may have been supplied, IMBEWU must be advised accordingly. IMBEWU therefore reserves the right to, at its own discretion and at any time, amend this ELCA report should any new information or documentation be provided that would alter any findings currently contained in this ELCA report.
17. The issues dealt with in this ELCA report are often complex areas of law and the views expressed in this ELCA report are our view on the issues, based on the available information and on our research for purposes of this ELCA. In many instances there are alternative arguments as to the legal position and a court may ultimately come to a conclusion that differs from that which we have expressed. This often makes it prudent for the relevant regulatory authority's views on the environmental legal compliance requirements to be obtained (subject to their response being reviewed from a legal perspective if necessary). As this involves legal compliance issues with potentially serious consequences for non-

compliance (including criminal offences), any such interaction with the authorities should be undertaken with due caution and, if necessary, based on further legal advice and with further legal assistance.

18. Please take note of the following regarding the questionnaire as sent to Assmang on 8 July 2019:

- the questions contained in the ELCA questionnaire are often open-ended in terms of time frames. The focus of this ELCA has been on assessing the current state of environmental legal compliance (that is, as at the date of the site inspection and interview process) and we have not, unless specifically indicated, attempted to assess or resolve all instances of historical non-compliance;
- the questionnaire was a *pro forma* document that took no account of site-specific issues;
- the ELCA questionnaire was based on the law as at 30 June 2019; and
- the ELCA questionnaire may be used by Assmang for purposes of internal compliance. Frequent changes in legislation means that the questionnaire will have to be updated from time to time. Note however that the questionnaire may not be made available to any external parties, including to Assmang's external legal advisors or consultants.

19. It should always be recognised that obligations and potential liabilities for any environmental pollution or significant environmental degradation that may be associated with any historical, current or future pollution could arise through inter alia section 19 of the National Water Act 36 of 1998, as amended, section 28 of the National Environmental Management Act 107 of 1998, as amended and Part 8 of Chapter 4 of the National Environmental Management: Waste Act 59 of 2008, as amended.

20. With the aforementioned in mind, and although IMBEWU has exercised all care, skill and diligence in the drafting of this ELCA report, IMBEWU shall not be liable for any loss or damage caused by or arising out of circumstances over which IMBEWU has no control, such as, without limitation, the failure by Assmang to inform IMBEWU of any misunderstanding of facts or circumstances as detailed in the ELCA report and/or the use and interpretation of the ELCA report by Assmang, its employees, their representatives or agents, or any third party or regulator.

21. For further details on the scope of the ELCA, please refer to the IMBEWU proposal dated 22 February 2019.