

Reporting of leachate monitoring for the period from 01-Jan-2020 to 31-Mar-2020

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
Cell 1/2 Sump	Base of well/borehole/sump	Field	01/01/2020		14.7	m
			01/02/2020		14.7	m
			01/03/2020		14.7	m
	Groundwater level/dip		01/01/2020		14.41	m
			01/02/2020		14.38	m
			01/03/2020		14.4	m
	Leachate level above base of sump/pit base		01/01/2020	3m above base	0.29	m
			01/02/2020	3m above base	0.32	m
			01/03/2020	3m above base	0.3	m
	Total Alkalinity as CaCO3	TM043	08/01/2020		8760	mg/l
	Biological oxygen demand	TM045	08/01/2020		101	mg/l
	Total organic carbon	TM090	08/01/2020		810	mg/l
	Ammoniacal Nitrogen as N	TM099	08/01/2020	<3,640 mg/l	2460	mg/l
			11/02/2020	<3,640 mg/l	2450	mg/l
			11/03/2020	<3,640 mg/l	1980	mg/l
	Chemical oxygen demand (unfiltered)	TM107	08/01/2020		2950	mg/l
	Electrical conductivity @20°C (lab)	TM120	08/01/2020		38300	µS/cm
			11/02/2020		402	µS/cm
			11/03/2020		34400	µS/cm
	Cadmium (filtered)	TM152	08/01/2020	<0.105 mg/l	0.0022	mg/l
	Calcium (filtered)		08/01/2020		27.8	mg/l
	Chromium (filtered)		08/01/2020		0.212	mg/l
	Copper (filtered)		08/01/2020		0.0313	mg/l

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
Cell 1/2 Sump	Iron (filtered)	TM152	08/01/2020		3.95	mg/l
	Lead (filtered)		08/01/2020		0.016	mg/l
	Magnesium (filtered)		08/01/2020		49.1	mg/l
	Manganese (filtered)		08/01/2020		0.088	mg/l
	Nickel (filtered)		08/01/2020		0.286	mg/l
	Potassium (filtered)		08/01/2020		2740	mg/l
	Sodium (filtered)		08/01/2020		4310	mg/l
	Zinc (filtered)		08/01/2020		0.16	mg/l
	4-Methylphenol	TM176	08/01/2020	<1.6 mg/l	<0.02	mg/l
	Diethyl phthalate		08/01/2020	<0.44 mg/l	<0.02	mg/l
	Chloride	TM184	11/02/2020	<19,000 mg/l	11100	mg/l
			11/03/2020	<19,000 mg/l	10300	mg/l
	Dichloromethane	TM208	08/01/2020	<0.033 mg/l	<0.003	mg/l
	Chloride	TM226	08/01/2020	<19,000 mg/l	10900	mg/l
	Sulphate		08/01/2020		51	mg/l
	Total Oxidised Nitrogen as N		08/01/2020		<0.02	mg/l
	Mecoprop	TM411	08/01/2020	<0.071 mg/l	0.107	mg/l
Cell 3/4 Sump	Base of well/borehole/sump	Field	01/01/2020		11.2	m
			01/02/2020		11.2	m
			01/03/2020		11.2	m
	Groundwater level/dip		01/01/2020		10.91	m
			01/02/2020		10.86	m
			01/03/2020		10.71	m
	Leachate level above base of sump/pit base		01/01/2020	2.8m above base	0.29	m
			01/02/2020	2.8m above base	0.34	m
			01/03/2020	2.8m above base	0.49	m
	Total Alkalinity as CaCO3	TM043	08/01/2020		4020	mg/l
	Biological oxygen demand	TM045	08/01/2020		134	mg/l
	Total organic carbon	TM090	08/01/2020		362	mg/l

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Cell 3/4 Sump	Ammoniacal Nitrogen as N	TM099	08/01/2020	<3,640 mg/l	911	mg/l
			11/02/2020	<3,640 mg/l	776	mg/l
			11/03/2020	<3,640 mg/l	824	mg/l
	Chemical oxygen demand (unfiltered)	TM107	08/01/2020		2490	mg/l
	Electrical conductivity @20°C (lab)	TM120	08/01/2020		12700	µS/cm
			11/02/2020		8990	µS/cm
			11/03/2020		9180	µS/cm
	Cadmium (filtered)	TM152	08/01/2020	<0.105 mg/l	0.000721	mg/l
	Calcium (filtered)		08/01/2020		108	mg/l
	Chromium (filtered)		08/01/2020		0.0787	mg/l
	Copper (filtered)		08/01/2020		0.00206	mg/l
	Iron (filtered)		08/01/2020		7.97	mg/l
	Lead (filtered)		08/01/2020		0.00152	mg/l
	Magnesium (filtered)		08/01/2020		51.3	mg/l
	Manganese (filtered)		08/01/2020		1.29	mg/l
	Nickel (filtered)		08/01/2020		0.109	mg/l
	Potassium (filtered)		08/01/2020		791	mg/l
	Sodium (filtered)		08/01/2020		1490	mg/l
	Zinc (filtered)		08/01/2020		0.0297	mg/l
	4-Methylphenol		08/01/2020	<1.6 mg/l	<0.01	mg/l
	Diethyl phthalate		08/01/2020	<0.44 mg/l	<0.01	mg/l
	Chloride	TM184	08/01/2020	<19,000 mg/l	2360	mg/l
			11/02/2020	<19,000 mg/l	1160	mg/l
			11/03/2020	<19,000 mg/l	1380	mg/l
	Sulphate		08/01/2020		<20	mg/l
	Total Oxidised Nitrogen as N		08/01/2020		<0.5	mg/l
	Dichloromethane	TM208	08/01/2020	<0.033 mg/l	<0.003	mg/l
	Mecoprop	TM411	08/01/2020	<0.071 mg/l	0.0395	mg/l
Cell 5 Sump	Base of well/borehole/sump	Field	01/01/2020		5.8	m

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
Cell 5 Sump	Base of well/borehole/sump	Field	01/02/2020		5.8	m
			01/03/2020		5.8	m
			01/01/2020		5.5	m
	Groundwater level/dip		01/02/2020		5.43	m
			01/03/2020		5.7	m
			01/01/2020	2m above base	0.3	m
	Leachate level above base of sump/pit base		01/02/2020	2m above base	0.37	m
			01/03/2020	2m above base	0.1	m
	Total Alkalinity as CaCO3	TM043	08/01/2020		3980	mg/l
	Biological oxygen demand	TM045	08/01/2020		66.7	mg/l
	Total organic carbon	TM090	08/01/2020		361	mg/l
	Ammoniacal Nitrogen as N	TM099	08/01/2020	<3,640 mg/l	1000	mg/l
			11/02/2020	<3,640 mg/l	909	mg/l
			11/03/2020	<3,640 mg/l	831	mg/l
	Chemical oxygen demand (unfiltered)	TM107	08/01/2020		1130	mg/l
	Electrical conductivity @20°C (lab)	TM120	08/01/2020		18900	µS/cm
			11/02/2020		13400	µS/cm
			11/03/2020		15400	µS/cm
	Cadmium (filtered)	TM152	08/01/2020	<0.105 mg/l	0.000175	mg/l
	Calcium (filtered)		08/01/2020		104	mg/l
	Chromium (filtered)		08/01/2020		0.0764	mg/l
	Copper (filtered)		08/01/2020		0.00633	mg/l
	Iron (filtered)		08/01/2020		4.64	mg/l
	Lead (filtered)		08/01/2020		0.00315	mg/l
	Magnesium (filtered)		08/01/2020		84.1	mg/l
	Manganese (filtered)		08/01/2020		1.03	mg/l
	Nickel (filtered)		08/01/2020		0.0973	mg/l
	Potassium (filtered)		08/01/2020		1590	mg/l
	Sodium (filtered)		08/01/2020		2590	mg/l

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Cell 5 Sump	Zinc (filtered)	TM152	08/01/2020		0.0665	mg/l
	4-Methylphenol	TM176	08/01/2020	<0.126 mg/l	<0.001	mg/l
	Diethyl phthalate		08/01/2020	<0.36 mg/l	<0.001	mg/l
	Chloride	TM184	08/01/2020	<19,000 mg/l	4920	mg/l
			11/02/2020	<19,000 mg/l	3130	mg/l
			11/03/2020	<19,000 mg/l	3850	mg/l
	Sulphate		08/01/2020		38	mg/l
	Total Oxidised Nitrogen as N		08/01/2020		12.5	mg/l
	Dichloromethane	TM208	08/01/2020	<0.066 mg/l	<0.003	mg/l
	Mecoprop	TM411	08/01/2020	<0.14 mg/l	0.042	mg/l
Cell 6 Sump	Base of well/borehole/sump	Field	01/01/2020		24.57	m
			01/02/2020		24.55	m
			01/03/2020		24.57	m
	Groundwater level/dip		01/01/2020		24.5	m
			01/02/2020		24.46	m
			01/03/2020		24.38	m
	Leachate level above base of sump/pit base		01/01/2020	1.5m above base	0.07	m
			01/02/2020	1.5m above base	0.09	m
			01/03/2020	1.5m above base	0.19	m
	Ammoniacal Nitrogen as N	TM099	11/03/2020	<3,640 mg/l	422	mg/l
Cell 7 Sump	Electrical conductivity @20°C (lab)	TM120	11/03/2020		5390	µS/cm
	Chloride	TM184	11/03/2020	<19,000 mg/l	605	mg/l
	Base of well/borehole/sump	Field	01/01/2020		23	m
			01/02/2020		23	m
			01/03/2020		23	m
	Groundwater level/dip		01/01/2020		22.67	m
			01/02/2020		22.46	m
			01/03/2020		22.68	m
	Leachate level above base of sump/pit base		01/01/2020	1.5m above base	0.33	m

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
Cell 7 Sump	Leachate level above base of sump/pit base	Field	01/02/2020	1.5m above base	0.54	m
			01/03/2020	1.5m above base	0.32	m
	Total Alkalinity as CaCO3	TM043	08/01/2020		8840	mg/l
	Biological oxygen demand	TM045	08/01/2020		136	mg/l
	Total organic carbon	TM090	08/01/2020		1110	mg/l
	Ammoniacal Nitrogen as N	TM099	08/01/2020	<3,640 mg/l	1800	mg/l
			11/02/2020	<3,640 mg/l	1200	mg/l
			11/03/2020	<3,640 mg/l	621	mg/l
	Chemical oxygen demand (unfiltered)	TM107	08/01/2020		3280	mg/l
	Electrical conductivity @20°C (lab)	TM120	08/01/2020		18800	µS/cm
			11/02/2020		12400	µS/cm
			11/03/2020		8290	µS/cm
	Cadmium (filtered)	TM152	08/01/2020	<0.105 mg/l	0.00014	mg/l
	Calcium (filtered)		08/01/2020		99.1	mg/l
	Chromium (filtered)		08/01/2020		0.344	mg/l
	Copper (filtered)		08/01/2020		0.00449	mg/l
	Iron (filtered)		08/01/2020		7.81	mg/l
	Lead (filtered)		08/01/2020		0.00537	mg/l
	Magnesium (filtered)		08/01/2020		70.5	mg/l
	Manganese (filtered)		08/01/2020		1.2	mg/l
	Nickel (filtered)		08/01/2020		0.193	mg/l
	Potassium (filtered)		08/01/2020		816	mg/l
	Sodium (filtered)		08/01/2020		2070	mg/l
	Zinc (filtered)		08/01/2020		0.122	mg/l
	4-Methylphenol	TM176	08/01/2020	<0.126 mg/l	<0.02	mg/l
	Diethyl phthalate		08/01/2020	<0.36 mg/l	<0.02	mg/l
	Chloride	TM184	08/01/2020	<19,000 mg/l	2410	mg/l
			11/02/2020	<19,000 mg/l	1550	mg/l
			11/03/2020	<19,000 mg/l	1090	mg/l

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Cell 7 Sump	Sulphate	TM184	08/01/2020		356	mg/l
	Total Oxidised Nitrogen as N		08/01/2020		1.08	mg/l
	Dichloromethane	TM208	08/01/2020	<0.066 mg/l	<0.003	mg/l
	Mecoprop	TM411	08/01/2020	<0.14 mg/l	0.0355	mg/l
Lechate Holding Lagoon	Base of well/borehole/sump	Field	01/01/2020		8.5	m
			01/02/2020		8.5	m
			01/03/2020		8.5	m
	Groundwater level/dip		01/01/2020		2.1	m
			01/02/2020		1.9	m
			01/03/2020		2.3	m
	Total Alkalinity as CaCO3	TM043	08/01/2020		5570	mg/l
	Biological oxygen demand	TM045	08/01/2020		81.6	mg/l
	Total organic carbon	TM090	08/01/2020		568	mg/l
	Ammoniacal Nitrogen as N	TM099	08/01/2020	<3,640 mg/l	1280	mg/l
			11/02/2020	<3,640 mg/l	1210	mg/l
			11/03/2020	<3,640 mg/l	983	mg/l
	Chemical oxygen demand (unfiltered)	TM107	08/01/2020		1780	mg/l
	Electrical conductivity @20°C (lab)	TM120	08/01/2020		19400	µS/cm
			11/02/2020		17500	µS/cm
			11/03/2020		16200	µS/cm
	Cadmium (filtered)	TM152	08/01/2020		0.000197	mg/l
	Calcium (filtered)		08/01/2020		99.9	mg/l
	Chromium (filtered)		08/01/2020		0.133	mg/l
	Copper (filtered)		08/01/2020		0.00851	mg/l
	Iron (filtered)		08/01/2020		3.61	mg/l
	Lead (filtered)		08/01/2020		0.00454	mg/l
	Magnesium (filtered)		08/01/2020		75.8	mg/l
	Manganese (filtered)		08/01/2020		1.1	mg/l
	Nickel (filtered)		08/01/2020		0.139	mg/l

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Lechate Holding Lagoon	Potassium (filtered)	TM152	08/01/2020		1350	mg/l
	Sodium (filtered)		08/01/2020		2420	mg/l
	Zinc (filtered)		08/01/2020		0.0619	mg/l
	4-Methylphenol	TM176	08/01/2020		<0.02	mg/l
	Diethyl phthalate		08/01/2020		<0.02	mg/l
	Chloride	TM184	08/01/2020	<19,000 mg/l	4240	mg/l
			11/02/2020	<19,000 mg/l	3840	mg/l
			11/03/2020	<19,000 mg/l	3520	mg/l
	Sulphate		08/01/2020		<20	mg/l
	Total Oxidised Nitrogen as N		08/01/2020		<0.5	mg/l
LMP5a	Dichloromethane	TM208	08/01/2020		<0.003	mg/l
	Mecoprop	TM411	08/01/2020		0.0375	mg/l
	Base of well/borehole/sump	Field	01/01/2020		8.7	m
			01/02/2020		8.7	m
			01/03/2020		8.7	m
	Groundwater level/dip		01/01/2020		8.7	m
			01/02/2020		8.68	m
			01/03/2020		8.7	m
	Leachate level above base of sump/pit base		01/01/2020	1.5m above base	0	m
			01/02/2020	1.5m above base	0.02	m
LMP5b			01/03/2020	1.5m above base	0	m
	Base of well/borehole/sump		01/01/2020		6.8	m
			01/02/2020		6.8	m
			01/03/2020		6.8	m
	Groundwater level/dip		01/01/2020		6.76	m
			01/02/2020		6.7	m
			01/03/2020		6.74	m
	Leachate level above base of sump/pit base		01/01/2020	1.5m above base	0.04	m
			01/02/2020	1.5m above base	0.1	m

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LMP5b	Leachate level above base of sump/pit base	Field	01/03/2020	1.5m above base	0.06	m
LMP6a	Base of well/borehole/sump		01/01/2020		11.4	m
			01/02/2020		11.4	m
			01/03/2020		11.4	m
	Groundwater level/dip		01/01/2020		11.4	m
			01/02/2020		11.4	m
			01/03/2020		11.4	m
	Leachate level above base of sump/pit base		01/01/2020	1.5m above base	0	m
			01/02/2020	1.5m above base	0	m
			01/03/2020	1.5m above base	0	m
LMP7a	Base of well/borehole/sump		01/01/2020		10.48	m
			01/02/2020		10.47	m
			01/03/2020		10.47	m
	Groundwater level/dip		01/01/2020		10.25	m
			01/02/2020		10.27	m
			01/03/2020		10.32	m
	Leachate level above base of sump/pit base		01/01/2020	1.5m above base	0.23	m
			01/02/2020	1.5m above base	0.2	m
			01/03/2020	1.5m above base	0.15	m
LMP7b	Base of well/borehole/sump		01/01/2020		4	m
			01/02/2020		4	m
			01/03/2020		4	m
	Groundwater level/dip		01/01/2020		4	m
			01/02/2020		4	m
			01/03/2020		4	m
	Leachate level above base of sump/pit base		01/01/2020	1.5m above base	0	m
			01/02/2020	1.5m above base	0	m
			01/03/2020	1.5m above base	0	m
M1A	Base of well/borehole/sump		01/01/2020		16.4	m

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M1A	Base of well/borehole/sump	Field	01/02/2020		16.4	m
			01/03/2020		16.4	m
			01/01/2020		16.1	m
	Groundwater level/dip		01/02/2020		15.97	m
			01/03/2020		16	m
			01/01/2020	2m above base	0.3	m
	Leachate level above base of sump/pit base		01/02/2020	2m above base	0.43	m
			01/03/2020	2m above base	0.4	m
			01/01/2020		10.5	m
M1B	Base of well/borehole/sump		01/02/2020		10.5	m
			01/03/2020		10.5	m
			01/01/2020		10.47	m
	Groundwater level/dip		01/02/2020		10.43	m
			01/03/2020		10.36	m
			01/01/2020	2m above base	0.03	m
	Leachate level above base of sump/pit base		01/02/2020	2m above base	0.07	m
			01/03/2020	2m above base	0.14	m
			01/01/2020		21	m
M2A	Base of well/borehole/sump		01/02/2020		21	m
			01/03/2020		21	m
			01/01/2020		20.64	m
	Groundwater level/dip		01/02/2020		20.6	m
			01/03/2020		20.68	m
			01/01/2020	2m above base	0.36	m
	Leachate level above base of sump/pit base		01/02/2020	2m above base	0.4	m
			01/03/2020	2m above base	0.32	m
			01/01/2020		19.8	m
M2B	Base of well/borehole/sump		01/02/2020		19.8	m
			01/03/2020		19.8	m
			01/01/2020		19.8	m

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M2B	Groundwater level/dip	Field	01/01/2020		19.42	m
			01/02/2020		19.51	m
			01/03/2020		19.45	m
	Leachate level above base of sump/pit base		01/01/2020	2m above base	0.38	m
			01/02/2020	2m above base	0.29	m
			01/03/2020	2m above base	0.35	m
M3A	Base of well/borehole/sump		01/01/2020		21.5	m
			01/02/2020		21.5	m
			01/03/2020		21.5	m
	Groundwater level/dip		01/01/2020		20.78	m
			01/02/2020		21	m
			01/03/2020		21.16	m
	Leachate level above base of sump/pit base		01/01/2020	1.8m above base	0.72	m
			01/02/2020	1.8m above base	0.5	m
			01/03/2020	1.8m above base	0.34	m
M3B	Base of well/borehole/sump		01/01/2020		15.5	m
			01/02/2020		15.5	m
			01/03/2020		15.5	m
	Groundwater level/dip		01/01/2020		15.23	m
			01/02/2020		15.14	m
			01/03/2020		15.28	m
	Leachate level above base of sump/pit base		01/01/2020	1.8m above base	0.27	m
			01/02/2020	1.8m above base	0.36	m
			01/03/2020	1.8m above base	0.22	m
M4A	Base of well/borehole/sump		01/01/2020		19	m
			01/02/2020		19	m
			01/03/2020		19	m
	Groundwater level/dip		01/01/2020		18.72	m
			01/02/2020		18.64	m

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
M4A	Groundwater level/dip	Field	01/03/2020		18.75	m
	Leachate level above base of sump/pit base		01/01/2020	1.8m above base	0.28	m
			01/02/2020	1.8m above base	0.36	m
			01/03/2020	1.8m above base	0.25	m
M4B	Base of well/borehole/sump		01/01/2020		17	m
			01/02/2020		17	m
			01/03/2020		17	m
	Groundwater level/dip		01/01/2020		16.81	m
			01/02/2020		16.82	m
			01/03/2020		16.8	m
	Leachate level above base of sump/pit base		01/01/2020	1.8m above base	0.19	m
			01/02/2020	1.8m above base	0.18	m
			01/03/2020	1.8m above base	0.2	m

(1) The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

(2) Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.

(3) For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

(4) The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated; refer to laboratory data sheets for specific uncertainty.

(5) Depths reported as metres (m) are metres below ground level unless are labelled as leachate head above base of sump.

(6) For details of the sampling method, frequency and parameters measured / analysed for, refer to the site Environmental Monitoring Management Plan (EMMP).

(7) Where blank, there is no defined compliance limit specified for the monitoring location / parameter.

Signature:.....

Date: 24 April 2020

(Authorised to sign as representative of
Operator)