

Facility Report

Information for AltaSteel

Reporting year	2016
Company	AltaSteel Ltd.
Company Mailing Address	,EDMONTON (Alberta) T5J2K1,Canada
Portable Facility?	No
NPRI ID	1106
Facility Physical Address	9401 34th Street,EDMONTON (Alberta) T6B2X6,Canada

Facility details

Business number	132980517					
DUNS	249068164					
Number of full-time employee equivalents	349					
Contact information	Steven Lechuk Manager, Health, Safety & Environment 7804687926 Steven.Lechuk@Altasteel.com					
Parent company	Parent company	Percentage ownership	Address	Business number	DUNS Number	
Typical days of operation	mon /tue /wed /thu /fri /sat /sun					
Operating hours	24.00					
Start time	07:00					
Shutdown periods	Period	Start	End	Duration (day)	Same Time Next Year	Partial Shutdown
Activities	Activities with no employee threshold					
	None of the above					
	Activities that require Part 3 reporting					
	Operation of electric arc furnaces in steel manufacturing					

Report details

Type	NPRI Inventory
Last Updated	2017-05-25 6:07:12 PM
Other years' reports	1996, 1995, 1994, 1993, 2015, 2014, 2013, 2012, 2011, 2018, 2017, 2006, 2009, 2010, 2007, 2008, 2000, 2005, 2004, 2003, 2002, 2001, 1999, 1998, 1997, 2019, 2020, 2021, 2022, 2023, 2024, 2025
Facility is case 3	No
Facility is case 4	No

Geographical details

Latitude	53.5291
Longitude	-113.3875
Datum	1983
Census sub-division	Strathcona County
Census division	Division No. 11
Economic area	Edmonton
Census metropolitan and agglomeration area	Edmonton
Ecozone	Prairie
Major drainage area	Nelson River Drainage Area

Land survey description	03-31-052-23-W4
National Topograph Description	A-032-D/083-H-11
Additional information	

Industry details

Key industrial sector	Iron and Steel
NAICS2	Manufacturing
NAICS4	Iron and steel mills and ferro-alloy manufacturing
NAICS6 Primary	Iron and steel mills and ferro-alloy manufacturing
NAICS6 Secondary	
NAICS6 Tertiary	

Pollution prevention

Plan details

Pollution prevention

Does the facility have a P2 plan?	The facility has a P2 plan
Reason for plan preparation	Plan was required by notice under the Canadian Environmental Protection Act, 1999
Recent update	The report was not updated during the reporting year
Target of plan	Substance conservation

Activities

Primary activity	Secondary activity	Comment
Materials or Feedstock Substitution	-	The mercury pollution prevention plan requiring the removal of mercury switches to the extent practicable from all scrap feedstock derived from automotive and non-automotive sources was continued in 2016.

Other environmental programs

Other facility identifiers

ID number	Program
1408-02	Alberta EPEA Approval number or Code of Practice Registration number

Permits

Permit number	Issuing Agency
NO. 9675	Edmonton Sewers Use Bylaw
NO.1408-02-00	Approval-Alberta Environment
PR14-153968142	Permit to Release - Strathcona County

Summary

Substance	CAS number	Units	Releases				Disposals and Transfers				Voluntary Report
			Air	Water	Land	Total	On-site disposals	Off-site disposals	Off-site treatment	Off-site recycling	
Arsenic (and its compounds)	NA - 02	kg	24.938	0.917	-	25.855	-	201.000	-	-	
Cadmium (and its compounds)	NA - 03	kg	4.843	0.078	-	4.921	-	931.000	-	-	
Calcium fluoride	7789-75-5	tonnes	2.467	-	-	2.467	-	31.165	-	-	
Carbon monoxide	630-08-0	tonnes	520.726	-	-	520.726	-	-	-	-	

Chromium (and its compounds)	NA - 04	tonnes	0.168	0.001	-	0.169	-	16.822	-	-
Copper (and its compounds)	NA - 06	tonnes	0.309	0.002	-	0.310	-	12.837	-	-
Dioxins and furans - total	NA - D/F	g TEQ	0.157	-	-	0.157	-	2.628	-	-
Hexachlorobenzene	118-74-1	grams	97.051	-	-	97.051	-	108.500	-	-
Hexavalent chromium (and its compounds)	NA - 19	kg	13.653	-	-	13.653	-	18.200	-	-
Lead (and its compounds)	NA - 08	kg	380.840	1.148	-	381.988	-	40602.000	-	-
Manganese (and its compounds)	NA - 09	tonnes	1.535	0.030	-	1.565	-	174.204	-	-
Mercury (and its compounds)	NA - 10	kg	116.383	0.012	-	116.395	-	17.600	-	-
Nickel (and its compounds)	NA - 11	tonnes	0.088	0.005	-	0.093	-	1.641	-	-
Nitrogen oxides (expressed as nitrogen dioxide)	11104-93-1	tonnes	60.805	-	-	60.805	-	-	-	-
PM10 - Particulate Matter <= 10 Micrometers	NA - M09	tonnes	43.362	-	-	43.362	-	-	-	-
PM2.5 - Particulate Matter <= 2.5 Micrometers	NA - M10	tonnes	22.040	-	-	22.040	-	-	-	-
Selenium (and its compounds)	NA - 12	kg	16.044	0.256	-	16.300	-	30.900	-	-
Sulphur dioxide	7446-09-5	tonnes	54.851	-	-	54.851	-	-	-	-
Total particulate matter	NA - M08	tonnes	100.187	-	-	100.187	-	-	-	-
Vanadium (except when in an alloy) and its compounds	7440-62-2	tonnes	0.012	0.003	-	0.015	-	0.446	-	-
Volatile Organic Compounds (VOCs)	NA - M16	tonnes	7.810	-	-	7.810	-	-	-	-
Zinc (and its compounds)	NA - 14	tonnes	2.588	0.005	-	2.593	-	519.463	-	-

Comments

Substance	CAS number	Comment Type	Comment
Arsenic (and its compounds)	NA - 02	On-site releases comment	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Arsenic (and its compounds)	NA - 02	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Cadmium (and its compounds)	NA - 03	On-site releases comment	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Cadmium (and its compounds)	NA - 03	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Calcium fluoride	7789-75-5	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Chromium (and its compounds)	NA - 04	On-site releases comment	Water - Increased volume of surface run-off waters discharged off site compared to the previous year

Chromium (and its compounds)	NA - 04	On-site releases comment	
Chromium (and its compounds)	NA - 04	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Copper (and its compounds)	NA - 06	On-site releases comment	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Copper (and its compounds)	NA - 06	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Dioxins and furans - total	NA - D/F	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Hexachlorobenzene	118-74-1	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Hexavalent chromium (and its compounds)	NA - 19	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Lead (and its compounds)	NA - 08	On-site releases comment	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Lead (and its compounds)	NA - 08	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Manganese (and its compounds)	NA - 09	On-site releases comment	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Manganese (and its compounds)	NA - 09	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Mercury (and its compounds)	NA - 10	On-site releases comment	Air - Measured recent individual sampling event increased concentration compared to historic average Water - Measured decreased concentration of parameter compared to previous years
Mercury (and its compounds)	NA - 10	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Nickel (and its compounds)	NA - 11	On-site releases comment	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Nickel (and its compounds)	NA - 11	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Selenium (and its compounds)	NA - 12	On-site releases comment	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Selenium (and its compounds)	NA - 12	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Vanadium (except when in an alloy) and its compounds	7440-62-2	On-site releases comment	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Vanadium (except when in an alloy) and its compounds	7440-62-2	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material
Zinc (and its compounds)	NA - 14	On-site releases comment	Air - Measured recent increased concentration of paramater compared to historic values Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Zinc (and its compounds)	NA - 14	Disposal comment	Disposals - Reduction in the off-site disposal of previously stockpiled material

Release to air

Substance	CAS number	Units	Stack/Point	Storage/Han Fugitive	Spills	Road Dust	Other	Total	
Arsenic (and its compounds)	NA - 02	kg	0.622	0.132	24.184	-	-	-	24.938
Cadmium (and its compounds)	NA - 03	kg	1.644	0.049	3.150	-	-	-	4.843
Calcium fluoride	7789-75-5	tonnes	0.105	0.249	2.114	-	-	-	2.467
Carbon monoxide	630-08-0	tonnes	410.135	-	110.591	-	-	-	520.726
Chromium (and its compounds)	NA - 04	tonnes	0.027	0.040	0.101	-	-	-	0.168
Copper (and its compounds)	NA - 06	tonnes	0.039	0.004	0.265	-	-	-	0.309
Dioxins and furans - total	NA - D/F	g TEQ	0.083	0.000	0.074	-	-	-	0.157
Hexachlorobenzene	118-74-1	grams	79.206	0.003	17.842	-	-	-	97.051
Hexavalent chromium (and its compounds)	NA - 19	kg	1.062	0.002	12.589	-	-	-	13.653
Lead (and its compounds)	NA - 08	kg	54.600	3.080	323.160	-	-	-	380.840
Manganese (and its compounds)	NA - 09	tonnes	0.368	0.333	0.834	-	-	-	1.535
Mercury (and its compounds)	NA - 10	kg	106.500	0.003	9.880	-	-	-	116.383
Nickel (and its compounds)	NA - 11	tonnes	0.005	0.002	0.081	-	-	-	0.088
Nitrogen oxides (expressed as nitrogen dioxide)	11104-93-1	tonnes	32.582	-	28.223	-	-	-	60.805
PM10 - Particulate Matter <= 10 Micrometers	NA - M09	tonnes	5.496	7.354	26.076	-	4.436	-	43.362
PM2.5 - Particulate Matter <= 2.5 Micrometers	NA - M10	tonnes	4.296	2.040	15.264	-	0.440	-	22.040
Selenium (and its compounds)	NA - 12	kg	0.837	0.026	15.181	-	-	-	16.044
Sulphur dioxide	7446-09-5	tonnes	44.659	-	10.192	-	-	-	54.851
Total particulate matter	NA - M08	tonnes	7.720	17.106	58.712	-	16.649	-	100.187
Vanadium (except when in an alloy) and its compounds	7440-62-2	tonnes	0.001	0.006	0.006	-	-	-	0.012
Volatile Organic Compounds (VOCs)	NA - M16	tonnes	4.207	-	3.603	-	-	-	7.810
Zinc (and its compounds)	NA - 14	tonnes	0.848	0.031	1.709	-	-	-	2.588

Releases to water

Substance	CAS number	Units	Direct Discharges	Leaks	Spills	Total
Arsenic (and its compounds)	NA - 02	kg	0.917	-	-	0.917
Cadmium (and its compounds)	NA - 03	kg	0.078	-	-	0.078
Chromium (and its compounds)	NA - 04	tonnes	0.001	-	-	0.001
Copper (and its compounds)	NA - 06	tonnes	0.002	-	-	0.002
Lead (and its compounds)	NA - 08	kg	1.148	-	-	1.148
Manganese (and its compounds)	NA - 09	tonnes	0.030	-	-	0.030
Mercury (and its compounds)	NA - 10	kg	0.012	-	-	0.012

compounds)	NA - 10	kg	0.012	-	-	0.012
Nickel (and its compounds)	NA - 11	tonnes	0.005	-	-	0.005
Selenium (and its compounds)	NA - 12	kg	0.256	-	-	0.256
Vanadium (except when in an alloy) and its compounds	7440-62-2	tonnes	0.003	-	-	0.003
Zinc (and its compounds)	NA - 14	tonnes	0.005	-	-	0.005

Off-site disposals

Substance	CAS number	Units	Landfill	Land Treatment	Undergroun d Injection	Storage	Tailings	Waste Rock	Total
Arsenic (and its compounds)	NA - 02	kg	201.0000	-	-	-	-	-	201.000
Cadmium (and its compounds)	NA - 03	kg	931.0000	-	-	-	-	-	931.000
Calcium fluoride	7789-75-5	tonnes	31.1650	-	-	-	-	-	31.165
Chromium (and its compounds)	NA - 04	tonnes	16.8220	-	-	-	-	-	16.822
Copper (and its compounds)	NA - 06	tonnes	12.8370	-	-	-	-	-	12.837
Dioxins and furans - total	NA - D/F	g TEQ	2.6275	-	-	-	-	-	2.628
Hexachlorobenzene	118-74-1	grams	108.5000	-	-	-	-	-	108.500
Hexavalent chromium (and its compounds)	NA - 19	kg	18.2000	-	-	-	-	-	18.200
Lead (and its compounds)	NA - 08	kg	40602.0000	-	-	-	-	-	40602.000
Manganese (and its compounds)	NA - 09	tonnes	174.2040	-	-	-	-	-	174.204
Mercury (and its compounds)	NA - 10	kg	17.6000	-	-	-	-	-	17.600
Nickel (and its compounds)	NA - 11	tonnes	1.6410	-	-	-	-	-	1.641
Selenium (and its compounds)	NA - 12	kg	30.9000	-	-	-	-	-	30.900
Vanadium (except when in an alloy) and its compounds	7440-62-2	tonnes	0.4460	-	-	-	-	-	0.446
Zinc (and its compounds)	NA - 14	tonnes	519.4630	-	-	-	-	-	519.463

Other years data

Year	CAS number	Substance	Units	Releases				Disposals and Transfers			
				Air	Water	Land	Total	On-site disposals	Off-site disposals	Off-site treatment	Off-site recycling
1994	1344-28-1	Aluminum oxide (fibrous forms only)	tonnes	-	-	-	0.000	-	-	-	-
1993	1344-28-1	Aluminum oxide (fibrous forms only)	tonnes	5.730	0.000	54.930	60.660	27.120	78.040	-	-
2025	NA - 02	Arsenic (and its compounds)	kg	22.237	0.462	-	22.699	-	156.323	-	-
2024	NA - 02	Arsenic (and its compounds)	kg	27.274	0.332	-	27.606	-	209.527	-	-
2023	NA - 02	Arsenic (and its compounds)	kg	25.933	0.335	-	26.268	-	241.894	-	-
2022	NA - 02	Arsenic (and its compounds)	kg	29.467	0.472	-	29.939	-	245.311	-	-
2021	NA - 02	Arsenic (and its compounds)	kg	30.510	0.195	-	30.705	-	266.079	-	-
2020	NA - 02	Arsenic (and its compounds)	kg	29.716	0.717	-	30.433	-	210.198	-	-
2019	NA - 02	Arsenic (and its compounds)	kg	31.247	0.394	-	31.641	-	281.002	-	-

2018	NA - 02	Arsenic (and its compounds)	kg	31.204	0.593	-	31.797	-	249.767	-	-
2017	NA - 02	Arsenic (and its compounds)	kg	29.710	0.742	-	30.452	-	221.634	-	-
2015	NA - 02	Arsenic (and its compounds)	kg	25.755	0.498	-	26.253	-	320.000	-	-
2014	NA - 02	Arsenic (and its compounds)	kg	32.400	0.495	-	32.895	-	804.000	-	-
2013	NA - 02	Arsenic (and its compounds)	kg	31.561	0.607	-	32.168	-	273.870	-	-
2012	NA - 02	Arsenic (and its compounds)	kg	36.080	0.513	-	36.593	-	795.250	-	-
2011	NA - 02	Arsenic (and its compounds)	kg	35.616	0.833	-	36.449	-	319.931	-	-
2010	NA - 02	Arsenic (and its compounds)	kg	35.792	0.674	-	36.466	-	329.670	-	-
2009	NA - 02	Arsenic (and its compounds)	kg	111.087	0.375	-	111.462	-	305.009	-	-
2008	NA - 02	Arsenic (and its compounds)	kg	114.158	0.257	-	114.415	-	427.439	-	-
2007	NA - 02	Arsenic (and its compounds)	kg	116.665	0.549	-	117.214	-	267.420	-	-
2006	NA - 02	Arsenic (and its compounds)	kg	105.979	0.545	-	106.524	-	244.600	-	-
2005	NA - 02	Arsenic (and its compounds)	kg	113.296	0.300	-	113.596	-	273.200	-	-
2004	NA - 02	Arsenic (and its compounds)	kg	104.682	0.300	-	104.982	-	302.000	-	-
2003	NA - 02	Arsenic (and its compounds)	kg	100.619	0.300	-	100.919	-	308.000	-	-
2002	NA - 02	Arsenic (and its compounds)	kg	85.934	0.000	-	85.934	-	422.664	-	-
2025	NA - 03	Cadmium (and its compounds)	kg	3.097	0.021	-	3.118	-	415.022	-	-
2024	NA - 03	Cadmium (and its compounds)	kg	3.798	0.017	-	3.815	-	546.016	-	-
2023	NA - 03	Cadmium (and its compounds)	kg	3.548	0.020	-	3.568	-	690.487	-	-
2022	NA - 03	Cadmium (and its compounds)	kg	4.034	0.029	-	4.063	-	611.092	-	-
2021	NA - 03	Cadmium (and its compounds)	kg	4.256	0.009	-	4.265	-	686.222	-	-
2020	NA - 03	Cadmium (and its compounds)	kg	4.145	0.030	-	4.175	-	627.429	-	-
2019	NA - 03	Cadmium (and its compounds)	kg	4.257	0.017	-	4.274	-	756.484	-	-
2018	NA - 03	Cadmium (and its compounds)	kg	4.257	0.022	-	4.279	-	736.358	-	-
2017	NA - 03	Cadmium (and its compounds)	kg	4.654	0.030	-	4.684	-	656.301	-	-
2015	NA - 03	Cadmium (and its compounds)	kg	4.853	0.054	-	4.907	-	1493.000	-	-
2014	NA - 03	Cadmium (and its compounds)	kg	6.965	0.056	-	7.021	-	4141.000	-	-
2013	NA - 03	Cadmium (and its compounds)	kg	5.822	0.072	-	5.894	-	1327.378	-	-
2012	NA - 03	Cadmium (and its compounds)	kg	7.213	0.066	-	7.279	-	3136.768	-	-
2011	NA - 03	Cadmium (and its compounds)	kg	5.634	0.160	-	5.794	-	1043.802	-	-
2010	NA - 03	Cadmium (and its compounds)	kg	5.659	0.136	-	5.795	-	979.592	-	-
2009	NA - 03	Cadmium (and its compounds)	kg	12.575	0.078	-	12.653	-	1033.246	-	-
2008	NA - 03	Cadmium (and its compounds)	kg	13.085	0.055	-	13.140	-	1689.331	-	-
2007	NA - 03	Cadmium (and its compounds)	kg	13.470	0.124	-	13.594	-	1047.313	-	-
2006	NA - 03	Cadmium (and its compounds)	kg	12.098	0.129	-	12.227	-	973.800	-	-
2005	NA - 03	Cadmium (and its compounds)	kg	13.194	0.066	-	13.260	-	1127.600	-	-
2004	NA - 03	Cadmium (and its compounds)	kg	13.383	0.079	-	13.462	-	1242.000	-	-
2003	NA - 03	Cadmium (and its compounds)	kg	12.825	0.080	-	12.905	-	960.000	-	-
2002	NA - 03	Cadmium (and its compounds)	kg	12.459	0.000	-	12.459	-	1119.630	-	-

2002	NA - 03	its compounds)	kg	12.459	0.000	-	12.459	-	1119.630	-	-
2025	7789-75-5	Calcium fluoride	tonnes	2.287	-	-	2.287	-	58.295	-	-
2024	7789-75-5	Calcium fluoride	tonnes	2.802	-	-	2.802	-	78.343	-	-
2023	7789-75-5	Calcium fluoride	tonnes	2.627	-	-	2.627	-	41.709	-	-
2022	7789-75-5	Calcium fluoride	tonnes	3.014	-	-	3.014	-	151.859	-	-
2021	7789-75-5	Calcium fluoride	tonnes	3.056	-	-	3.056	-	192.402	-	-
2020	7789-75-5	Calcium fluoride	tonnes	2.968	-	-	2.968	-	80.658	-	-
2019	7789-75-5	Calcium fluoride	tonnes	3.272	-	-	3.272	-	200.978	-	-
2018	7789-75-5	Calcium fluoride	tonnes	3.221	-	-	3.221	-	81.330	-	-
2017	7789-75-5	Calcium fluoride	tonnes	3.337	-	-	3.337	-	124.287	-	-
2015	7789-75-5	Calcium fluoride	tonnes	2.512	-	-	2.512	-	48.040	-	-
2014	7789-75-5	Calcium fluoride	tonnes	3.146	-	-	3.146	-	121.024	-	-
2013	7789-75-5	Calcium fluoride	tonnes	3.049	-	-	3.049	-	80.528	-	-
2012	7789-75-5	Calcium fluoride	tonnes	3.439	-	-	3.439	-	160.524	-	-
2011	7789-75-5	Calcium fluoride	tonnes	3.345	-	-	3.345	-	289.915	-	-
2010	7789-75-5	Calcium fluoride	tonnes	3.353	-	-	3.353	-	324.540	-	-
2009	7789-75-5	Calcium fluoride	tonnes	3.090	-	-	3.090	-	154.860	-	-
2008	7789-75-5	Calcium fluoride	tonnes	2.920	-	-	2.920	-	31.556	-	-
2007	7789-75-5	Calcium fluoride	tonnes	2.959	-	-	2.959	-	19.913	-	-
2006	7789-75-5	Calcium fluoride	tonnes	2.672	-	-	2.672	-	18.601	-	-
2005	7789-75-5	Calcium fluoride	tonnes	2.866	-	-	2.866	-	18.590	-	-
2004	7789-75-5	Calcium fluoride	tonnes	2.901	-	-	2.901	-	20.898	-	-
2003	7789-75-5	Calcium fluoride	tonnes	2.815	-	-	2.815	-	12.535	-	-
2002	7789-75-5	Calcium fluoride	tonnes	3.454	-	-	3.454	-	11.835	-	-
2001	7789-75-5	Calcium fluoride	tonnes	3.229	-	-	3.229	2.090	6.704	-	-
2000	7789-75-5	Calcium fluoride	tonnes	3.106	-	-	3.106	3.614	3.066	-	-
1999	7789-75-5	Calcium fluoride	tonnes	2.686	-	-	2.686	2.063	1.584	-	-
2025	630-08-0	Carbon monoxide	tonnes	580.069	-	-	580.069	-	-	-	-
2024	630-08-0	Carbon monoxide	tonnes	708.661	-	-	708.661	-	-	-	-
2023	630-08-0	Carbon monoxide	tonnes	675.055	-	-	675.055	-	-	-	-
2022	630-08-0	Carbon monoxide	tonnes	762.650	-	-	762.650	-	-	-	-
2021	630-08-0	Carbon monoxide	tonnes	785.364	-	-	785.364	-	-	-	-
2020	630-08-0	Carbon monoxide	tonnes	764.180	-	-	764.180	-	-	-	-
2019	630-08-0	Carbon monoxide	tonnes	802.580	-	-	802.580	-	-	-	-
2018	630-08-0	Carbon monoxide	tonnes	803.770	-	-	803.770	-	-	-	-
2017	630-08-0	Carbon monoxide	tonnes	609.590	-	-	609.590	-	-	-	-
2015	630-08-0	Carbon monoxide	tonnes	521.288	-	-	521.288	-	-	-	-
2014	630-08-0	Carbon monoxide	tonnes	650.249	-	-	650.249	-	-	-	-
2013	630-08-0	Carbon monoxide	tonnes	639.511	-	-	639.511	-	-	-	-

2012	630-08-0	Carbon monoxide	tonnes	656.289	-	-	656.289	-	-	-	-
2011	630-08-0	Carbon monoxide	tonnes	652.039	-	-	652.039	-	-	-	-
2010	630-08-0	Carbon monoxide	tonnes	654.815	-	-	654.815	-	-	-	-
2009	630-08-0	Carbon monoxide	tonnes	560.987	-	-	560.987	-	-	-	-
2008	630-08-0	Carbon monoxide	tonnes	569.789	-	-	569.789	-	-	-	-
2007	630-08-0	Carbon monoxide	tonnes	581.631	-	-	581.631	-	-	-	-
2006	630-08-0	Carbon monoxide	tonnes	449.094	-	-	449.094	-	-	-	-
2005	630-08-0	Carbon monoxide	tonnes	478.791	-	-	478.791	-	-	-	-
2004	630-08-0	Carbon monoxide	tonnes	322.978	-	-	322.978	-	-	-	-
2003	630-08-0	Carbon monoxide	tonnes	339.738	-	-	339.738	-	-	-	-
2002	630-08-0	Carbon monoxide	tonnes	265.735	-	-	265.735	-	-	-	-
2025	NA - 04	Chromium (and its compounds)	tonnes	0.099	0.001	-	0.099	-	13.494	-	-
2024	NA - 04	Chromium (and its compounds)	tonnes	0.121	0.001	-	0.122	-	17.935	-	-
2023	NA - 04	Chromium (and its compounds)	tonnes	0.115	0.001	-	0.116	-	21.577	-	-
2022	NA - 04	Chromium (and its compounds)	tonnes	0.130	0.001	-	0.131	-	20.517	-	-
2021	NA - 04	Chromium (and its compounds)	tonnes	0.137	0.000	-	0.137	-	21.587	-	-
2020	NA - 04	Chromium (and its compounds)	tonnes	0.130	0.001	-	0.131	-	16.531	-	-
2019	NA - 04	Chromium (and its compounds)	tonnes	0.140	0.000	-	0.140	-	21.062	-	-
2018	NA - 04	Chromium (and its compounds)	tonnes	0.138	0.001	-	0.139	-	18.896	-	-
2017	NA - 04	Chromium (and its compounds)	tonnes	0.166	0.001	-	0.167	-	16.736	-	-
2015	NA - 04	Chromium (and its compounds)	tonnes	0.169	0.001	-	0.169	-	26.711	-	-
2014	NA - 04	Chromium (and its compounds)	tonnes	0.221	0.000	-	0.222	-	68.227	-	-
2013	NA - 04	Chromium (and its compounds)	tonnes	0.196	0.001	-	0.196	-	23.286	-	-
2012	NA - 04	Chromium (and its compounds)	tonnes	0.240	0.001	-	0.241	-	50.951	-	-
2011	NA - 04	Chromium (and its compounds)	tonnes	0.200	0.001	-	0.201	-	20.203	-	-
2010	NA - 04	Chromium (and its compounds)	tonnes	0.201	0.001	-	0.202	-	19.449	-	-
2009	NA - 04	Chromium (and its compounds)	tonnes	1.513	0.000	-	1.513	-	18.545	-	-
2008	NA - 04	Chromium (and its compounds)	tonnes	1.528	0.000	-	1.528	-	28.111	-	-
2007	NA - 04	Chromium (and its compounds)	tonnes	1.557	0.001	-	1.558	-	17.720	-	-
2006	NA - 04	Chromium	tonnes	1.406	0.001	-	1.407	-	16.209	-	-

2006	NA - 04	(and its compounds)	tonnes	1.406	0.001	-	1.407	-	16.209	-	-
2005	NA - 04	Chromium (and its compounds)	tonnes	1.510	0.000	-	1.510	-	18.085	-	-
2004	NA - 04	Chromium (and its compounds)	tonnes	1.468	0.001	-	1.469	-	21.953	-	-
2003	NA - 04	Chromium (and its compounds)	tonnes	1.449	0.001	-	1.450	-	15.214	-	-
2002	NA - 04	Chromium (and its compounds)	tonnes	1.500	0.000	-	1.500	0.000	21.653	-	-
2001	NA - 04	Chromium (and its compounds)	tonnes	1.497	0.000	-	1.497	3.006	9.645	-	-
2000	NA - 04	Chromium (and its compounds)	tonnes	1.781	0.000	-	1.781	6.234	5.288	-	-
1999	NA - 04	Chromium (and its compounds)	tonnes	1.630	0.001	-	1.631	6.252	4.774	-	-
1998	NA - 04	Chromium (and its compounds)	tonnes	2.105	0.001	-	2.106	11.243	-	-	-
1997	NA - 04	Chromium (and its compounds)	tonnes	2.200	0.001	-	2.201	11.939	2.930	-	-
1996	NA - 04	Chromium (and its compounds)	tonnes	0.305	0.001	-	0.306	8.951	1.549	-	-
1995	NA - 04	Chromium (and its compounds)	tonnes	0.264	0.001	1.726	1.991	9.268	3.560	-	-
1994	NA - 04	Chromium (and its compounds)	tonnes	0.328	0.002	7.938	8.268	9.251	0.693	-	-
1993	NA - 04	Chromium (and its compounds)	tonnes	0.620	0.000	11.060	11.680	7.390	0.900	-	-
2025	NA - 06	Copper (and its compounds)	tonnes	0.249	0.001	-	0.250	-	9.176	-	-
2024	NA - 06	Copper (and its compounds)	tonnes	0.306	0.000	-	0.306	-	12.422	-	-
2023	NA - 06	Copper (and its compounds)	tonnes	0.291	0.000	-	0.291	-	15.424	-	-
2022	NA - 06	Copper (and its compounds)	tonnes	0.331	0.001	-	0.332	-	13.617	-	-
2021	NA - 06	Copper (and its compounds)	tonnes	0.348	0.000	-	0.348	-	14.302	-	-
2020	NA - 06	Copper (and its compounds)	tonnes	0.338	0.001	-	0.339	-	12.147	-	-
2019	NA - 06	Copper (and its compounds)	tonnes	0.364	0.001	-	0.365	-	14.811	-	-
2018	NA - 06	Copper (and its compounds)	tonnes	0.363	0.001	-	0.364	-	14.245	-	-
2017	NA - 06	Copper (and its compounds)	tonnes	0.350	0.002	-	0.352	-	12.003	-	-
2015	NA - 06	Copper (and its compounds)	tonnes	0.294	0.001	-	0.295	-	20.854	-	-
2014	NA - 06	Copper (and its compounds)	tonnes	0.379	0.001	-	0.380	-	53.297	-	-
2013	NA - 06	Copper (and its compounds)	tonnes	0.348	0.001	-	0.350	-	17.561	-	-
2012	NA - 06	Copper (and its compounds)	tonnes	0.402	0.001	-	0.403	-	44.946	-	-
2011	NA - 06	Copper (and its compounds)	tonnes	0.375	0.002	-	0.376	-	15.632	-	-
2010	NA - 06	Copper (and its compounds)	tonnes	0.377	0.001	-	0.379	-	14.769	-	-
2009	NA - 06	Copper (and its compounds)	tonnes	0.582	0.001	-	0.583	-	15.282	-	-
2008	NA - 06	Copper (and its compounds)	tonnes	0.568	0.001	-	0.569	-	24.415	-	-
2007	NA - 06	Copper (and its compounds)	tonnes	0.581	0.001	-	0.582	-	15.146	-	-

2006	NA - 06	Copper (and its tonnes compounds)		0.523	0.001	-	0.524	-	13.887	-	-
2005	NA - 06	Copper (and its tonnes compounds)		0.563	0.001	-	0.564	-	15.368	-	-
2004	NA - 06	Copper (and its tonnes compounds)		0.586	0.001	-	0.587	-	17.247	-	-
2003	NA - 06	Copper (and its tonnes compounds)		0.565	0.001	-	0.566	-	15.521	-	-
2002	NA - 06	Copper (and its tonnes compounds)		0.541	0.001	-	0.542	-	20.305	-	-
2001	NA - 06	Copper (and its tonnes compounds)		0.536	0.000	-	0.536	3.532	11.332	-	-
2000	NA - 06	Copper (and its tonnes compounds)		0.635	0.000	-	0.635	7.722	6.551	-	-
1999	NA - 06	Copper (and its tonnes compounds)		0.492	0.001	-	0.493	7.043	5.340	-	-
1998	NA - 06	Copper (and its tonnes compounds)		0.716	0.001	-	0.717	14.347	-	-	-
1997	NA - 06	Copper (and its tonnes compounds)		0.748	0.002	-	0.750	15.021	136.450	-	-
2025	NA - D/F	Dioxins and furans - total	g TEQ	0.076	-	-	0.076	-	2.011	-	-
2024	NA - D/F	Dioxins and furans - total	g TEQ	0.093	-	-	0.093	-	2.645	-	-
2023	NA - D/F	Dioxins and furans - total	g TEQ	0.089	-	-	0.089	-	3.235	-	-
2022	NA - D/F	Dioxins and furans - total	g TEQ	0.087	-	-	0.087	-	2.804	-	-
2021	NA - D/F	Dioxins and furans - total	g TEQ	0.104	-	-	0.104	-	2.915	-	-
2020	NA - D/F	Dioxins and furans - total	g TEQ	0.102	-	-	0.102	-	2.575	-	-
2019	NA - D/F	Dioxins and furans - total	g TEQ	0.119	-	-	0.119	-	3.065	-	-
2018	NA - D/F	Dioxins and furans - total	g TEQ	0.119	-	-	0.119	-	3.030	-	-
2017	NA - D/F	Dioxins and furans - total	g TEQ	0.119	-	-	0.119	-	2.542	-	-
2015	NA - D/F	Dioxins and furans - total	g TEQ	0.157	-	-	0.157	-	4.365	-	-
2014	NA - D/F	Dioxins and furans - total	g TEQ	0.131	-	-	0.131	-	11.363	-	-
2013	NA - D/F	Dioxins and furans - total	g TEQ	0.126	-	-	0.126	-	3.602	-	-
2012	NA - D/F	Dioxins and furans - total	g TEQ	0.132	-	-	0.132	-	9.410	-	-
2011	NA - D/F	Dioxins and furans - total	g TEQ	0.150	-	-	0.150	-	3.122	-	-
2010	NA - D/F	Dioxins and furans - total	g TEQ	0.151	-	-	0.151	-	2.901	-	-
2009	NA - D/F	Dioxins and furans - total	g TEQ	0.143	-	-	0.143	-	3.035	-	-
2008	NA - D/F	Dioxins and furans - total	g TEQ	0.145	-	-	0.145	-	4.586	-	-
2007	NA - D/F	Dioxins and furans - total	g TEQ	0.149	-	-	0.149	-	3.026	-	-
2006	NA - D/F	Dioxins and furans - total	g TEQ	0.134	-	-	0.134	-	2.750	-	-
2005	NA - D/F	Dioxins and furans - total	g TEQ	0.143	-	-	0.143	-	3.060	-	-
2004	NA - D/F	Dioxins and furans - total	g TEQ	0.120	-	-	0.120	-	3.590	-	-
2003	NA - D/F	Dioxins and furans - total	g TEQ	0.143	-	-	0.143	-	4.110	-	-
2002	NA - D/F	Dioxins and furans - total	g TEQ	0.183	-	-	0.183	-	7.003	-	-
2001	NA - D/F	Dioxins and furans - total	g TEQ	0.196	-	-	0.196	2.518	8.080	-	-
2000	NA - D/F	Dioxins and furans - total	g TEQ	0.196	-	-	0.196	5.627	4.774	-	-
1996	107-21-1	Ethylene glycol	tonnes	-	1.476	0.084	1.560	-	1.386	1.476	0.614
1995	107-21-1	Ethylene glycol	tonnes	-	1.996	0.515	2.511	-	6.053	-	1.740
1994	107-21-1	Ethylene glycol	tonnes	-	2.780	1.064	3.844	-	5.647	-	0.597
2025	118-74-1	Hexachloroben	grams	81.068	-	-	81.068	-	83.028	-	-

2025	118-74-1	zene	grams	81.068	-	-	81.068	-	83.028	-	-
2024	118-74-1	Hexachloroben	grams	99.431	-	-	99.431	-	109.177	-	-
		zene									
2023	118-74-1	Hexachloroben	grams	94.480	-	-	94.480	-	133.550	-	-
		zene									
2022	118-74-1	Hexachloroben	grams	107.370	-	-	107.370	-	115.730	-	-
		zene									
2021	118-74-1	Hexachloroben	grams	111.110	-	-	111.110	-	120.330	-	-
		zene									
2020	118-74-1	Hexachloroben	grams	108.210	-	-	108.210	-	106.300	-	-
		zene									
2019	118-74-1	Hexachloroben	grams	113.720	-	-	113.720	-	126.530	-	-
		zene									
2018	118-74-1	Hexachloroben	grams	113.610	-	-	113.610	-	124.950	-	-
		zene									
2017	118-74-1	Hexachloroben	grams	113.840	-	-	113.840	-	105.000	-	-
		zene									
2015	118-74-1	Hexachloroben	grams	97.199	-	-	97.199	-	180.300	-	-
		zene									
2014	118-74-1	Hexachloroben	grams	121.845	-	-	121.845	-	469.300	-	-
		zene									
2013	118-74-1	Hexachloroben	grams	119.925	-	-	119.925	-	148.800	-	-
		zene									
2012	118-74-1	Hexachloroben	grams	123.500	-	-	123.500	-	394.600	-	-
		zene									
2011	118-74-1	Hexachloroben	grams	157.626	-	-	157.626	-	128.950	-	-
		zene									
2010	118-74-1	Hexachloroben	grams	157.894	-	-	157.894	-	119.825	-	-
		zene									
2009	118-74-1	Hexachloroben	grams	37.371	-	-	37.371	-	125.380	-	-
		zene									
2008	118-74-1	Hexachloroben	grams	40.650	-	-	40.650	-	206.425	-	-
		zene									
2007	118-74-1	Hexachloroben	grams	41.440	-	-	41.440	-	124.975	-	-
		zene									
2006	118-74-1	Hexachloroben	grams	37.500	-	-	37.500	-	113.475	-	-
		zene									
2005	118-74-1	Hexachloroben	grams	40.340	-	-	40.340	-	126.175	-	-
		zene									
2004	118-74-1	Hexachloroben	grams	33.390	-	-	33.390	-	130.000	-	-
		zene									
2003	118-74-1	Hexachloroben	grams	31.600	-	-	31.600	-	-	-	-
		zene									
2002	118-74-1	Hexachloroben	grams	29.370	-	-	29.370	-	-	-	-
		zene									
2001	118-74-1	Hexachloroben	grams	28.498	-	-	28.498	-	-	-	-
		zene									
2000	118-74-1	Hexachloroben	grams	0.000	-	-	0.000	-	-	-	-
		zene									
2025	NA - 19	Hexavalent	kg	12.120	-	-	12.120	-	11.024	-	-
		chromium (and									
		its compounds)									
2024	NA - 19	Hexavalent	kg	14.864	-	-	14.864	-	4.497	-	-
		chromium (and									
		its compounds)									
2023	NA - 19	Hexavalent	kg	14.125	-	-	14.125	-	5.490	-	-
		chromium (and									
		its compounds)									
2022	NA - 19	Hexavalent	kg	16.053	-	-	16.053	-	5.040	-	-
		chromium (and									
		its compounds)									
2021	NA - 19	Hexavalent	kg	16.640	-	-	16.640	-	5.190	-	-
		chromium (and									
		its compounds)									
2020	NA - 19	Hexavalent	kg	16.160	-	-	16.160	-	5.010	-	-
		chromium (and									
		its compounds)									
2019	NA - 19	Hexavalent	kg	16.930	-	-	16.930	-	7.180	-	-
		chromium (and									
		its compounds)									
2018	NA - 19	Hexavalent	kg	16.920	-	-	16.920	-	8.420	-	-
		chromium (and									
		its compounds)									
2017	NA - 19	Hexavalent	kg	16.051	-	-	16.051	-	10.190	-	-
		chromium (and									
		its compounds)									
2015	NA - 19	Hexavalent	kg	13.682	-	-	13.682	-	31.300	-	-

2015	NA - 19	chromium (and its compounds)	kg	13.682	-	-	13.682	-	31.300	-	-
2014	NA - 19	Hexavalent chromium (and its compounds)	kg	17.171	-	-	17.171	-	122.800	-	-
2013	NA - 19	Hexavalent chromium (and its compounds)	kg	16.873	-	-	16.873	-	39.100	-	-
2012	NA - 19	Hexavalent chromium (and its compounds)	kg	18.991	-	-	18.991	-	132.400	-	-
2011	NA - 19	Hexavalent chromium (and its compounds)	kg	17.304	-	-	17.304	-	43.800	-	-
2010	NA - 19	Hexavalent chromium (and its compounds)	kg	17.386	-	-	17.386	-	40.912	-	-
2009	NA - 19	Hexavalent chromium (and its compounds)	kg	16.671	-	-	16.671	-	42.519	-	-
2008	NA - 19	Hexavalent chromium (and its compounds)	kg	18.259	-	-	18.259	-	74.855	-	-
2007	NA - 19	Hexavalent chromium (and its compounds)	kg	18.632	-	-	18.632	-	48.112	-	-
2006	NA - 19	Hexavalent chromium (and its compounds)	kg	16.471	-	-	16.471	-	46.498	-	-
2005	NA - 19	Hexavalent chromium (and its compounds)	kg	18.527	-	-	18.527	-	53.081	-	-
2004	NA - 19	Hexavalent chromium (and its compounds)	kg	26.523	-	-	26.523	-	49.213	-	-
2003	NA - 19	Hexavalent chromium (and its compounds)	kg	0.762	-	-	0.762	-	73.000	-	-
2002	NA - 19	Hexavalent chromium (and its compounds)	kg	0.973	-	-	0.973	-	92.690	-	-
2025	NA - 08	Lead (and its compounds)	kg	305.141	0.091	-	305.232	-	26117.092	-	-
2024	NA - 08	Lead (and its compounds)	kg	374.257	0.073	-	374.330	-	33993.917	-	-
2023	NA - 08	Lead (and its compounds)	kg	351.550	0.081	-	351.631	-	41106.000	-	-
2022	NA - 08	Lead (and its compounds)	kg	399.400	0.135	-	399.535	-	36901.810	-	-
2021	NA - 08	Lead (and its compounds)	kg	412.910	0.055	-	412.965	-	40410.000	-	-
2020	NA - 08	Lead (and its compounds)	kg	402.250	0.268	-	402.518	-	35966.000	-	-
2019	NA - 08	Lead (and its compounds)	kg	417.910	0.180	-	418.090	-	43566.000	-	-
2018	NA - 08	Lead (and its compounds)	kg	416.930	0.306	-	417.236	-	44553.000	-	-
2017	NA - 08	Lead (and its compounds)	kg	408.700	0.519	-	409.219	-	37987.000	-	-
2015	NA - 08	Lead (and its compounds)	kg	376.454	0.678	-	377.132	-	65714.000	-	-
2014	NA - 08	Lead (and its compounds)	kg	508.740	0.651	-	509.391	-	170922.000	-	-
2013	NA - 08	Lead (and its compounds)	kg	456.019	0.864	-	456.883	-	54931.000	-	-
2012	NA - 08	Lead (and its compounds)	kg	544.945	0.742	-	545.687	-	152073.000	-	-
2011	NA - 08	Lead (and its compounds)	kg	479.896	1.134	-	481.030	-	51042.000	-	-
2010	NA - 08	Lead (and its compounds)	kg	482.021	0.941	-	482.961	-	46600.649	-	-
2009	NA - 08	Lead (and its compounds)	kg	493.356	0.535	-	493.891	-	48954.227	-	-
2008	NA - 08	Lead (and its compounds)	kg	411.527	0.367	-	411.894	-	80014.112	-	-
2007	NA - 08	Lead (and its compounds)	kg	425.814	0.703	-	426.517	-	49428.000	-	-

2006	NA - 08	Lead (and its compounds)	kg	381.024	0.703	-	381.727	-	44816.000	-	-
2005	NA - 08	Lead (and its compounds)	kg	417.144	0.361	-	417.505	-	50189.000	-	-
2004	NA - 08	Lead (and its compounds)	kg	455.580	0.417	-	455.997	-	53986.000	-	-
2003	NA - 08	Lead (and its compounds)	kg	498.880	0.429	-	499.309	-	55364.000	-	-
2002	NA - 08	Lead (and its compounds)	kg	503.133	0.000	-	503.133	-	74790.980	-	-
2001	NA - 08	Lead (and its compounds)	tonnes	0.472	0.000	-	0.472	13.816	44.324	-	-
2000	NA - 08	Lead (and its compounds)	tonnes	0.505	0.000	-	0.505	29.094	24.682	-	-
1999	NA - 08	Lead (and its compounds)	tonnes	0.415	0.000	-	0.415	33.788	25.848	-	-
1998	NA - 08	Lead (and its compounds)	tonnes	0.625	0.000	-	0.625	72.139	-	-	-
1997	NA - 08	Lead (and its compounds)	tonnes	0.588	0.002	-	0.590	73.844	12.363	-	-
1996	NA - 08	Lead (and its compounds)	tonnes	0.809	0.002	-	0.811	66.208	7.182	-	-
1995	NA - 08	Lead (and its compounds)	tonnes	0.289	0.002	0.011	0.302	67.507	18.764	-	-
1994	NA - 08	Lead (and its compounds)	tonnes	0.212	0.004	0.052	0.268	71.762	42.273	-	-
1993	NA - 08	Lead (and its compounds)	tonnes	2.920	0.000	0.020	2.940	53.210	54.950	-	-
2025	NA - 09	Manganese (and its compounds)	tonnes	0.879	0.012	-	0.891	-	176.636	-	-
2024	NA - 09	Manganese (and its compounds)	tonnes	1.076	0.007	-	1.083	-	235.418	-	-
2023	NA - 09	Manganese (and its compounds)	tonnes	1.002	0.007	-	1.009	-	276.004	-	-
2022	NA - 09	Manganese (and its compounds)	tonnes	1.128	0.011	-	1.139	-	258.553	-	-
2021	NA - 09	Manganese (and its compounds)	tonnes	1.167	0.004	-	1.171	-	265.488	-	-
2020	NA - 09	Manganese (and its compounds)	tonnes	1.126	0.015	-	1.141	-	201.918	-	-
2019	NA - 09	Manganese (and its compounds)	tonnes	1.199	0.008	-	1.207	-	253.291	-	-
2018	NA - 09	Manganese (and its compounds)	tonnes	1.179	0.012	-	1.191	-	219.285	-	-
2017	NA - 09	Manganese (and its compounds)	tonnes	1.589	0.017	-	1.606	-	191.671	-	-
2015	NA - 09	Manganese (and its compounds)	tonnes	1.453	0.019	-	1.472	-	277.631	-	-
2014	NA - 09	Manganese (and its compounds)	tonnes	1.880	0.017	-	1.897	-	693.548	-	-
2013	NA - 09	Manganese (and its compounds)	tonnes	1.658	0.022	-	1.680	-	234.855	-	-
2012	NA - 09	Manganese (and its compounds)	tonnes	1.959	0.019	-	1.978	-	602.547	-	-
2011	NA - 09	Manganese (and its compounds)	tonnes	1.636	0.033	-	1.669	-	235.240	-	-
2010	NA - 09	Manganese (and its compounds)	tonnes	1.609	0.028	-	1.636	-	219.684	-	-
2009	NA - 09	Manganese (and its compounds)	tonnes	2.264	0.016	-	2.280	-	210.932	-	-
2008	NA - 09	Manganese	tonnes	2.357	0.011	-	2.368	-	324.903	-	-

2008	NA - 09	(and its compounds)	tonnes	2.357	0.011	-	2.368	-	324.903	-	-
2007	NA - 09	Manganese (and its compounds)	tonnes	2.432	0.022	-	2.454	-	202.611	-	-
2006	NA - 09	Manganese (and its compounds)	tonnes	2.183	0.022	-	2.205	-	184.881	-	-
2005	NA - 09	Manganese (and its compounds)	tonnes	2.382	0.011	-	2.393	-	210.712	-	-
2004	NA - 09	Manganese (and its compounds)	tonnes	2.554	0.012	-	2.566	-	231.679	-	-
2003	NA - 09	Manganese (and its compounds)	tonnes	2.864	0.013	-	2.877	-	211.258	-	-
2002	NA - 09	Manganese (and its compounds)	tonnes	2.834	0.011	-	2.845	-	283.469	-	-
2001	NA - 09	Manganese (and its compounds)	tonnes	2.661	0.011	-	2.672	48.050	154.156	-	-
2000	NA - 09	Manganese (and its compounds)	tonnes	2.815	0.014	-	2.829	105.225	89.266	-	-
1999	NA - 09	Manganese (and its compounds)	tonnes	2.467	0.018	-	2.485	100.474	76.902	-	-
1998	NA - 09	Manganese (and its compounds)	tonnes	3.344	0.021	-	3.365	189.091	-	-	-
1997	NA - 09	Manganese (and its compounds)	tonnes	3.411	0.019	-	3.430	208.473	16.318	-	-
1996	NA - 09	Manganese (and its compounds)	tonnes	3.278	0.016	-	3.294	203.134	8.639	-	-
1995	NA - 09	Manganese (and its compounds)	tonnes	3.054	0.014	17.940	21.008	203.370	17.850	-	-
1994	NA - 09	Manganese (and its compounds)	tonnes	2.460	0.026	82.524	85.010	214.208	13.583	-	-
1993	NA - 09	Manganese (and its compounds)	tonnes	5.960	0.030	124.570	130.560	157.820	17.540	-	-
2025	NA - 10	Mercury (and its compounds)	kg	3.271	0.000	-	3.271	-	10.359	-	-
2024	NA - 10	Mercury (and its compounds)	kg	4.012	0.000	-	4.013	-	13.570	-	-
2023	NA - 10	Mercury (and its compounds)	kg	4.017	0.000	-	4.017	-	14.870	-	-
2022	NA - 10	Mercury (and its compounds)	kg	4.596	0.000	-	4.596	-	14.340	-	-
2021	NA - 10	Mercury (and its compounds)	kg	4.643	0.000	-	4.643	-	15.790	-	-
2020	NA - 10	Mercury (and its compounds)	kg	4.502	0.001	-	4.503	-	12.880	-	-
2019	NA - 10	Mercury (and its compounds)	kg	4.541	0.000	-	4.541	-	15.200	-	-
2018	NA - 10	Mercury (and its compounds)	kg	4.541	0.002	-	4.543	-	13.510	-	-
2017	NA - 10	Mercury (and its compounds)	kg	28.351	0.002	-	28.353	-	11.340	-	-
2015	NA - 10	Mercury (and its compounds)	kg	54.955	0.017	-	54.972	-	27.800	-	-
2014	NA - 10	Mercury (and its compounds)	kg	68.913	0.017	-	68.930	-	75.900	-	-
2013	NA - 10	Mercury (and its compounds)	kg	77.243	0.021	-	77.264	-	24.100	-	-
2012	NA - 10	Mercury (and its compounds)	kg	79.609	0.018	-	79.627	-	61.400	-	-
2011	NA - 10	Mercury (and its compounds)	kg	11.345	0.028	-	11.373	-	20.619	-	-
2010	NA - 10	Mercury (and its compounds)	kg	11.399	0.024	-	11.423	-	19.130	-	-

2009	NA - 10	Mercury (and its compounds)	kg	13.984	0.014	-	13.998	-	19.871	-	-
2008	NA - 10	Mercury (and its compounds)	kg	13.677	0.011	-	13.688	-	33.927	-	-
2007	NA - 10	Mercury (and its compounds)	kg	13.920	0.024	-	13.944	-	21.239	-	-
2006	NA - 10	Mercury (and its compounds)	kg	12.572	0.023	-	12.595	-	19.829	-	-
2005	NA - 10	Mercury (and its compounds)	kg	13.533	0.012	-	13.545	-	21.753	-	-
2004	NA - 10	Mercury (and its compounds)	kg	10.853	0.011	-	10.864	-	23.754	-	-
2003	NA - 10	Mercury (and its compounds)	kg	11.243	0.011	-	11.254	-	18.700	-	-
2002	NA - 10	Mercury (and its compounds)	kg	10.762	0.000	-	10.762	-	23.563	-	0.077
2001	NA - 10	Mercury (and its compounds)	kg	10.869	0.010	-	10.879	4.510	14.500	-	0.053
2000	NA - 10	Mercury (and its compounds)	kg	9.610	0.010	-	9.620	8.550	7.279	-	0.016
2025	NA - 11	Nickel (and its compounds)	tonnes	0.073	0.002	-	0.075	-	1.415	-	-
2024	NA - 11	Nickel (and its compounds)	tonnes	0.089	0.001	-	0.090	-	1.862	-	-
2023	NA - 11	Nickel (and its compounds)	tonnes	0.085	0.001	-	0.086	-	2.191	-	-
2022	NA - 11	Nickel (and its compounds)	tonnes	0.096	0.002	-	0.098	-	2.072	-	-
2021	NA - 11	Nickel (and its compounds)	tonnes	0.100	0.001	-	0.101	-	2.171	-	-
2020	NA - 11	Nickel (and its compounds)	tonnes	0.097	0.003	-	0.100	-	1.691	-	-
2019	NA - 11	Nickel (and its compounds)	tonnes	0.103	0.002	-	0.105	-	2.206	-	-
2018	NA - 11	Nickel (and its compounds)	tonnes	0.102	0.003	-	0.105	-	2.001	-	-
2017	NA - 11	Nickel (and its compounds)	tonnes	0.102	0.004	-	0.106	-	1.679	-	-
2015	NA - 11	Nickel (and its compounds)	tonnes	0.089	0.003	-	0.092	-	2.594	-	-
2014	NA - 11	Nickel (and its compounds)	tonnes	0.112	0.002	-	0.115	-	6.346	-	-
2013	NA - 11	Nickel (and its compounds)	tonnes	0.109	0.003	-	0.111	-	2.197	-	-
2012	NA - 11	Nickel (and its compounds)	tonnes	0.123	0.003	-	0.125	-	5.780	-	-
2011	NA - 11	Nickel (and its compounds)	tonnes	0.117	0.005	-	0.122	-	2.227	-	-
2010	NA - 11	Nickel (and its compounds)	tonnes	0.118	0.004	-	0.121	-	2.216	-	-
2009	NA - 11	Nickel (and its compounds)	tonnes	0.418	0.002	-	0.420	-	2.225	-	-
2008	NA - 11	Nickel (and its compounds)	tonnes	0.422	0.001	-	0.423	-	3.269	-	-
2007	NA - 11	Nickel (and its compounds)	tonnes	0.431	0.003	-	0.434	-	2.062	-	-
2006	NA - 11	Nickel (and its compounds)	tonnes	0.389	0.003	-	0.392	-	1.872	-	-
2005	NA - 11	Nickel (and its compounds)	tonnes	0.418	0.002	-	0.420	-	2.075	-	-
2004	NA - 11	Nickel (and its compounds)	tonnes	0.410	0.002	-	0.412	-	2.452	-	-
2003	NA - 11	Nickel (and its compounds)	tonnes	0.395	0.002	-	0.397	-	2.048	-	-
2002	NA - 11	Nickel (and its compounds)	tonnes	0.395	0.001	-	0.396	-	2.764	-	-
2001	NA - 11	Nickel (and its compounds)	tonnes	0.406	0.001	-	0.407	0.432	1.385	-	-
2000	NA - 11	Nickel (and its compounds)	tonnes	0.479	0.002	-	0.481	0.982	0.833	-	-
1999	NA - 11	Nickel (and its compounds)	tonnes	0.435	0.002	-	0.437	0.937	0.706	-	-
1998	NA - 11	Nickel (and its compounds)	tonnes	0.514	0.002	-	0.516	1.622	-	-	-
1997	NA - 11	Nickel (and its compounds)	tonnes	0.524	0.002	-	0.526	1.627	1.940	-	-
1996	NA - 11	Nickel (and its compounds)	tonnes	0.416	0.002	-	0.418	0.988	1.146	-	-

1996	NA - 11	compounds)	tonnes	0.416	0.002	-	0.418	0.988	1.146	-	-
1995	NA - 11	Nickel (and its compounds)	tonnes	0.296	0.002	0.090	0.388	1.272	4.318	-	-
1994	NA - 11	Nickel (and its compounds)	tonnes	0.135	0.003	0.413	0.551	1.041	0.554	-	-
1993	NA - 11	Nickel (and its compounds)	tonnes	0.150	0.000	0.140	0.290	0.790	0.720	-	-
2025	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	73.040	-	-	73.040	-	-	-	-
2024	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	83.719	-	-	83.719	-	-	-	-
2023	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	82.756	-	-	82.756	-	-	-	-
2022	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	76.291	-	-	76.291	-	-	-	-
2021	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	82.520	-	-	82.520	-	-	-	-
2020	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	78.490	-	-	78.490	-	-	-	-
2019	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	81.100	-	-	81.100	-	-	-	-
2018	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	74.550	-	-	74.550	-	-	-	-
2017	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	76.860	-	-	76.860	-	-	-	-
2015	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	60.948	-	-	60.948	-	-	-	-
2014	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	72.294	-	-	72.294	-	-	-	-
2013	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	69.570	-	-	69.570	-	-	-	-
2012	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	69.615	-	-	69.615	-	-	-	-
2011	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	69.730	-	-	69.730	-	-	-	-

2010	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	69.350	-	-	69.350	-	-	-	-
2009	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	136.234	-	-	136.234	-	-	-	-
2008	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	161.953	-	-	161.953	-	-	-	-
2007	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	166.161	-	-	166.161	-	-	-	-
2006	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	150.299	-	-	150.299	-	-	-	-
2005	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	152.325	-	-	152.325	-	-	-	-
2004	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	152.374	-	-	152.374	-	-	-	-
2003	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	203.364	-	-	203.364	-	-	-	-
2002	11104-93-1	Nitrogen oxides (expressed as nitrogen dioxide)	tonnes	178.983	-	-	178.983	-	-	-	-
2025	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	30.121	-	-	30.121	-	-	-	-
2024	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	35.946	-	-	35.946	-	-	-	-
2023	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	34.219	-	-	34.219	-	-	-	-
2022	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	38.888	-	-	38.888	-	-	-	-
2021	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	40.337	-	-	40.337	-	-	-	-
2020	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	39.490	-	-	39.490	-	-	-	-
2019	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	44.360	-	-	44.360	-	-	-	-
2018	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	42.880	-	-	42.880	-	-	-	-

2017	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	56.960	-	-	56.960	-	-	-	-
2015	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	45.529	-	-	45.529	-	-	-	-
2014	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	55.515	-	-	55.515	-	-	-	-
2013	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	52.529	-	-	52.529	-	-	-	-
2012	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	58.653	-	-	58.653	-	-	-	-
2011	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	58.784	-	-	58.784	-	-	-	-
2010	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	57.258	-	-	57.258	-	-	-	-
2009	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	54.171	-	-	54.171	-	-	-	-
2008	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	53.538	-	-	53.538	-	-	-	-
2007	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	54.737	-	-	54.737	-	-	-	-
2006	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	39.297	-	-	39.297	-	-	-	-
2005	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	92.660	-	-	92.660	-	-	-	-
2004	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	75.242	-	-	75.242	-	-	-	-
2003	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	86.728	-	-	86.728	-	-	-	-
2002	NA - M09	PM10 - Particulate Matter <= 10 Micrometers	tonnes	83.131	-	-	83.131	-	-	-	-
2025	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	15.429	-	-	15.429	-	-	-	-
2024	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	18.398	-	-	18.398	-	-	-	-
2023	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	17.451	-	-	17.451	-	-	-	-
2022	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	19.913	-	-	19.913	-	-	-	-
2021	NA - M10	PM2.5 -	tonnes	20.744	-	-	20.744	-	-	-	-

2021	NA - M10	Particulate Matter <= 2.5 Micrometers	tonnes	20.744	-	-	20.744	-	-	-	-
2020	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	20.030	-	-	20.030	-	-	-	-
2019	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	22.490	-	-	22.490	-	-	-	-
2018	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	21.680	-	-	21.680	-	-	-	-
2017	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	31.070	-	-	31.070	-	-	-	-
2015	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	22.933	-	-	22.933	-	-	-	-
2014	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	29.114	-	-	29.114	-	-	-	-
2013	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	27.119	-	-	27.119	-	-	-	-
2012	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	30.509	-	-	30.509	-	-	-	-
2011	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	29.627	-	-	29.627	-	-	-	-
2010	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	29.881	-	-	29.881	-	-	-	-
2009	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	26.075	-	-	26.075	-	-	-	-
2008	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	29.053	-	-	29.053	-	-	-	-
2007	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	29.739	-	-	29.739	-	-	-	-
2006	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	22.928	-	-	22.928	-	-	-	-
2005	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	54.229	-	-	54.229	-	-	-	-
2004	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	53.140	-	-	53.140	-	-	-	-
2003	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	63.455	-	-	63.455	-	-	-	-
2002	NA - M10	PM2.5 - Particulate Matter <= 2.5 Micrometers	tonnes	63.751	-	-	63.751	-	-	-	-
2025	NA - 12	Selenium (and its compounds)	kg	14.279	0.113	-	14.392	-	28.076	-	-

2024	NA - 12	Selenium (and its compounds)	kg	17.514	0.087	-	17.601	-	37.574	-	-
2023	NA - 12	Selenium (and its compounds)	kg	16.709	0.085	-	16.794	-	33.960	-	-
2022	NA - 12	Selenium (and its compounds)	kg	18.988	0.108	-	19.096	-	38.640	-	-
2021	NA - 12	Selenium (and its compounds)	kg	19.698	0.043	-	19.741	-	44.690	-	-
2020	NA - 12	Selenium (and its compounds)	kg	19.167	0.140	-	19.307	-	31.820	-	-
2019	NA - 12	Selenium (and its compounds)	kg	20.113	0.065	-	20.178	-	47.500	-	-
2018	NA - 12	Selenium (and its compounds)	kg	20.108	0.088	-	20.196	-	35.440	-	-
2017	NA - 12	Selenium (and its compounds)	kg	19.149	0.108	-	19.257	-	33.760	-	-
2015	NA - 12	Selenium (and its compounds)	kg	16.458	0.154	-	16.612	-	49.300	-	-
2014	NA - 12	Selenium (and its compounds)	kg	20.686	0.160	-	20.846	-	158.000	-	-
2013	NA - 12	Selenium (and its compounds)	kg	20.412	0.223	-	20.635	-	53.400	-	-
2012	NA - 12	Selenium (and its compounds)	kg	22.909	0.213	-	23.122	-	175.400	-	-
2011	NA - 12	Selenium (and its compounds)	kg	23.010	0.536	-	23.546	-	77.137	-	-
2025	7446-09-5	Sulphur dioxide	tonnes	38.750	-	-	38.750	-	-	-	-
2024	7446-09-5	Sulphur dioxide	tonnes	47.506	-	-	47.506	-	-	-	-
2023	7446-09-5	Sulphur dioxide	tonnes	45.161	-	-	45.161	-	-	-	-
2022	7446-09-5	Sulphur dioxide	tonnes	51.696	-	-	51.696	-	-	-	-
2021	7446-09-5	Sulphur dioxide	tonnes	53.016	-	-	53.016	-	-	-	-
2020	7446-09-5	Sulphur dioxide	tonnes	51.640	-	-	51.640	-	-	-	-
2019	7446-09-5	Sulphur dioxide	tonnes	54.270	-	-	54.270	-	-	-	-
2018	7446-09-5	Sulphur dioxide	tonnes	54.220	-	-	54.220	-	-	-	-
2017	7446-09-5	Sulphur dioxide	tonnes	64.350	-	-	64.350	-	-	-	-
2015	7446-09-5	Sulphur dioxide	tonnes	54.919	-	-	54.919	-	-	-	-
2014	7446-09-5	Sulphur dioxide	tonnes	68.767	-	-	68.767	-	-	-	-
2013	7446-09-5	Sulphur dioxide	tonnes	67.748	-	-	67.748	-	-	-	-
2012	7446-09-5	Sulphur dioxide	tonnes	69.700	-	-	69.700	-	-	-	-
2011	7446-09-5	Sulphur dioxide	tonnes	69.224	-	-	69.224	-	-	-	-
2010	7446-09-5	Sulphur dioxide	tonnes	69.552	-	-	69.552	-	-	-	-
2009	7446-09-5	Sulphur dioxide	tonnes	58.747	-	-	58.747	-	-	-	-
2008	7446-09-5	Sulphur dioxide	tonnes	59.455	-	-	59.455	-	-	-	-
2007	7446-09-5	Sulphur dioxide	tonnes	60.573	-	-	60.573	-	-	-	-
2006	7446-09-5	Sulphur dioxide	tonnes	56.173	-	-	56.173	-	-	-	-
2005	7446-09-5	Sulphur dioxide	tonnes	60.210	-	-	60.210	-	-	-	-
2004	7446-09-5	Sulphur dioxide	tonnes	43.388	-	-	43.388	-	-	-	-
2003	7446-09-5	Sulphur dioxide	tonnes	45.521	-	-	45.521	-	-	-	-
2002	7446-09-5	Sulphur dioxide	tonnes	41.085	-	-	41.085	-	-	-	-
2024	NA - M08	Total particulate matter	tonnes	85.189	-	-	85.189	-	-	-	-
2023	NA - M08	Total particulate	tonnes	81.311	-	-	81.311	-	-	-	-

2023	NA - M08	matter	tonnes	81.311	-	-	81.311	-	-	-	-
2022	NA - M08	Total particulate matter	tonnes	92.131	-	-	92.131	-	-	-	-
2021	NA - M08	Total particulate matter	tonnes	96.818	-	-	96.818	-	-	-	-
2020	NA - M08	Total particulate matter	tonnes	95.700	-	-	95.700	-	-	-	-
2019	NA - M08	Total particulate matter	tonnes	107.020	-	-	107.020	-	-	-	-
2018	NA - M08	Total particulate matter	tonnes	103.560	-	-	103.560	-	-	-	-
2017	NA - M08	Total particulate matter	tonnes	128.740	-	-	128.740	-	-	-	-
2015	NA - M08	Total particulate matter	tonnes	108.952	-	-	108.952	-	-	-	-
2014	NA - M08	Total particulate matter	tonnes	130.454	-	-	130.454	-	-	-	-
2013	NA - M08	Total particulate matter	tonnes	126.379	-	-	126.379	-	-	-	-
2012	NA - M08	Total particulate matter	tonnes	141.016	-	-	141.016	-	-	-	-
2011	NA - M08	Total particulate matter	tonnes	144.821	-	-	144.821	-	-	-	-
2010	NA - M08	Total particulate matter	tonnes	138.355	-	-	138.355	-	-	-	-
2009	NA - M08	Total particulate matter	tonnes	166.965	-	-	166.965	-	-	-	-
2008	NA - M08	Total particulate matter	tonnes	164.602	-	-	164.602	-	-	-	-
2007	NA - M08	Total particulate matter	tonnes	168.090	-	-	168.090	-	-	-	-
2006	NA - M08	Total particulate matter	tonnes	140.705	-	-	140.705	-	-	-	-
2005	NA - M08	Total particulate matter	tonnes	149.146	-	-	149.146	-	-	-	-
2004	NA - M08	Total particulate matter	tonnes	151.502	-	-	151.502	-	-	-	-
2003	NA - M08	Total particulate matter	tonnes	162.029	-	-	162.029	-	-	-	-
2002	NA - M08	Total particulate matter	tonnes	159.136	-	-	159.136	-	-	-	-
2025	NA - M08	Total Particulate Matter	tonnes	72.259	-	-	72.259	-	-	-	-
2025	NA - 40	Vanadium (and tonnes its compounds)	tonnes	0.036	0.002	-	0.038	-	0.566	-	-
2024	NA - 40	Vanadium (and tonnes its compounds)	tonnes	0.045	0.001	-	0.046	-	0.695	-	-
2023	NA - 40	Vanadium (and tonnes its compounds)	tonnes	0.042	0.002	-	0.044	-	0.624	-	-
2022	NA - 40	Vanadium (and tonnes its compounds)	tonnes	0.048	0.002	-	0.051	-	0.906	-	-
2021	NA - 40	Vanadium (and tonnes its compounds)	tonnes	0.050	0.001	-	0.050	-	1.040	-	-
2020	NA - 40	Vanadium (and tonnes its compounds)	tonnes	0.048	0.003	-	0.052	-	0.559	-	-
2019	NA - 40	Vanadium (and tonnes its compounds)	tonnes	0.052	0.002	-	0.054	-	0.974	-	-

2019	NA - 40	its compounds)	tonnes	0.052	0.002	-	0.054	-	0.974	-	-
2018	NA - 40	Vanadium (and its compounds)	tonnes	0.051	0.002	-	0.053	-	0.619	-	-
2017	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.016	0.003	-	0.019	-	0.610	-	-
2015	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.013	0.002	-	0.014	-	0.663	-	-
2014	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.015	0.002	-	0.016	-	1.565	-	-
2013	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.014	0.002	-	0.016	-	0.672	-	-
2012	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.016	0.002	-	0.018	-	1.546	-	-
2011	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.016	0.002	-	0.018	-	1.109	-	-
2010	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.015	0.002	-	0.017	-	1.163	-	-
2009	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.015	0.001	-	0.016	-	0.770	-	-
2008	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.013	0.001	-	0.014	-	0.913	-	-
2007	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.013	0.001	-	0.014	-	0.587	-	-
2006	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.012	0.001	-	0.013	-	0.513	-	-
2005	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.013	0.001	-	0.014	-	0.547	-	-
2004	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.014	0.001	-	0.015	-	0.749	-	-
2003	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.015	0.001	-	0.016	-	0.435	-	-
2002	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.014	0.001	-	0.015	-	0.629	-	-
2001	7440-62-2	Vanadium (except when in an alloy) and its compounds	tonnes	0.013	0.001	-	0.014	0.074	0.236	-	-
2025	NA - M16	Volatile Organic Compounds (total)	tonnes	7.207	-	-	7.207	-	-	-	-
2024	NA - M16	Volatile Organic Compounds (Total)	tonnes	8.686	-	-	8.686	-	-	-	-
2023	NA - M16	Volatile Organic	tonnes	9.352	-	-	9.352	-	-	-	-

2023	NA - M16	Compounds (Total)	tonnes	9.352	-	-	9.352	-	-	-	-
2022	NA - M16	Volatile Organic Compounds (Total)	tonnes	7.796	-	-	7.796	-	-	-	-
2021	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	8.503	-	-	8.503	-	-	-	-
2020	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	7.170	-	-	7.170	-	-	-	-
2019	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	8.230	-	-	8.230	-	-	-	-
2018	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	8.180	-	-	8.180	-	-	-	-
2017	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	8.500	-	-	8.500	-	-	-	-
2015	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	7.758	-	-	7.758	-	-	-	-
2014	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	8.433	-	-	8.433	-	-	-	-
2013	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	8.144	-	-	8.144	-	-	-	-
2012	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	8.623	-	-	8.623	-	-	-	-
2011	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	8.773	-	-	8.773	-	-	-	-
2010	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	8.321	-	-	8.321	-	-	-	-
2009	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	7.863	-	-	7.863	-	-	-	-
2008	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	65.948	-	-	65.948	-	-	-	-
2007	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	67.264	-	-	67.264	-	-	-	-
2006	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	60.938	-	-	60.938	-	-	-	-
2005	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	65.492	-	-	65.492	-	-	-	-
2004	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	54.594	-	-	54.594	-	-	-	-
2003	NA - M16	Volatile Organic Compounds	tonnes	52.110	-	-	52.110	-	-	-	-

2003	NA - M16	(VOCs)	tonnes	52.110	-	-	52.110	-	-	-	-
2002	NA - M16	Volatile Organic Compounds (VOCs)	tonnes	56.760	-	-	56.760	-	-	-	-
2025	NA - 14	Zinc (and its compounds)	tonnes	1.839	0.001	-	1.840	-	415.766	-	-
2024	NA - 14	Zinc (and its compounds)	tonnes	2.256	0.001	-	2.257	-	538.449	-	-
2023	NA - 14	Zinc (and its compounds)	tonnes	2.021	0.001	-	2.022	-	649.513	-	-
2022	NA - 14	Zinc (and its compounds)	tonnes	2.295	0.003	-	2.298	-	546.221	-	-
2021	NA - 14	Zinc (and its compounds)	tonnes	2.415	0.001	-	2.416	-	602.218	-	-
2020	NA - 14	Zinc (and its compounds)	tonnes	2.343	0.004	-	2.347	-	539.533	-	-
2019	NA - 14	Zinc (and its compounds)	tonnes	2.410	0.002	-	2.412	-	636.764	-	-
2018	NA - 14	Zinc (and its compounds)	tonnes	2.399	0.003	-	2.402	-	616.031	-	-
2017	NA - 14	Zinc (and its compounds)	tonnes	2.435	0.003	-	2.438	-	539.678	-	-
2015	NA - 14	Zinc (and its compounds)	tonnes	2.335	0.003	-	2.338	-	823.397	-	-
2014	NA - 14	Zinc (and its compounds)	tonnes	3.371	0.003	-	3.374	-	2100.866	-	-
2013	NA - 14	Zinc (and its compounds)	tonnes	2.739	0.004	-	2.743	-	679.244	-	-
2012	NA - 14	Zinc (and its compounds)	tonnes	3.446	0.003	-	3.449	-	1506.069	-	-
2011	NA - 14	Zinc (and its compounds)	tonnes	2.578	0.015	-	2.593	-	495.662	-	-
2010	NA - 14	Zinc (and its compounds)	tonnes	2.589	0.013	-	2.602	-	445.031	-	-
2009	NA - 14	Zinc (and its compounds)	tonnes	3.278	0.008	-	3.286	-	452.911	-	-
2008	NA - 14	Zinc (and its compounds)	tonnes	2.962	0.005	-	2.967	-	714.550	-	-
2007	NA - 14	Zinc (and its compounds)	tonnes	3.068	0.013	-	3.081	-	436.711	-	-
2006	NA - 14	Zinc (and its compounds)	tonnes	2.728	0.014	-	2.742	-	388.438	-	-
2005	NA - 14	Zinc (and its compounds)	tonnes	2.997	0.008	-	3.005	-	427.348	-	-
2004	NA - 14	Zinc (and its compounds)	tonnes	3.257	0.010	-	3.267	-	452.061	-	-
2003	NA - 14	Zinc (and its compounds)	tonnes	3.518	0.011	-	3.529	-	412.899	-	-
2002	NA - 14	Zinc (and its compounds)	tonnes	3.482	0.010	-	3.492	-	523.265	-	-
2001	NA - 14	Zinc (and its compounds)	tonnes	3.175	0.012	-	3.187	93.995	301.558	-	-
2000	NA - 14	Zinc (and its compounds)	tonnes	3.673	0.014	-	3.687	199.586	169.316	-	-
1999	NA - 14	Zinc (and its compounds)	tonnes	4.044	0.017	-	4.061	232.138	178.042	-	-
1998	NA - 14	Zinc (and its compounds)	tonnes	4.930	0.022	-	4.952	377.540	-	-	-
1997	NA - 14	Zinc (and its compounds)	tonnes	4.582	0.021	-	4.603	406.601	71.887	-	-
1996	NA - 14	Zinc (and its compounds)	tonnes	6.408	0.016	-	6.424	317.807	47.342	-	-
1995	NA - 14	Zinc (and its compounds)	tonnes	2.400	0.014	0.156	2.570	316.646	128.638	-	-

Substance detail
Carbon monoxide

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	410.135000000	M3 - Source Testing
Fugitive	tonnes	110.591000000	E2 - Published Emission Factors

Additional information

Contextual information

Nature of activities related to the substance	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)
Comments on releases	
Comments on releases to land – other	

Substance detail

Hexavalent chromium (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	kg	1.062000000	M3 - Source Testing
Storage / Handling	kg	0.001800000	E1 - Site Specific Emission Factors
Fugitive	kg	12.589000000	O - Engineering Estimates

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)
Comments on releases	
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate	Receiving facility	Quantity transferred
Landfill	kg	18.200000000	M3 - Source Testing	Clean Harbors Canada Inc. - Ryley Landfill,50117 Rge Rd 173, Ryley, AB, Canada,Ryley	18.200000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)

Substance detail

PM2.5 - Particulate Matter <= 2.5 Micrometers

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	4.296000000	M3 - Source Testing
Storage / Handling	tonnes	2.040000000	E1 - Site Specific Emission Factors
Fugitive	tonnes	15.264000000	E1 - Site Specific Emission Factors
Road dust	tonnes	0.440000000	O - Engineering Estimates

Additional information

Contextual information

Nature of activities related to the substance	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)
Comments on releases	
Comments on releases to land – other	

Substance detail

Zinc (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	0.848200000	M3 - Source Testing
Storage / Handling	tonnes	0.030800000	E1 - Site Specific Emission Factors
Fugitive	tonnes	1.709000000	O - Engineering Estimates

Releases to water

Type	Units	Quantity	Basis of estimate	Receiving waterbody	Quantity released to waterbody
Direct Discharges	tonnes	0.004900000	M3 - Source Testing	Gold Bar Creek	0.004900000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00400000
Average Concentration (ppm)	0.012000
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Air - Measured recent increased concentration of paramater compared to historic values Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate	Receiving facility	Quantity transferred
Landfill	tonnes	519.463000000	M3 - Source Testing	Clean Harbors Canada Inc. - Ryley Landfill,50117 Rge Rd 173, Ryley, AB, Canada,Ryley	519.463000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	No Significant Change (i.e. < 0 - 10%)
Reasons for change from previous year	

Substance detail

Volatile Organic Compounds (VOCs)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	4.207000000	M3 - Source Testing
Fugitive	tonnes	3.603000000	E1 - Site Specific Emission Factors

Additional information

Contextual information

Nature of activities related to the substance	No Significant Change (i.e. < 0 - 10%)
Reasons for change from previous year	
Comments on releases	
Comments on releases to land – other	

Substance detail

Lead (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	kg	54.600000000	M3 - Source Testing
Storage / Handling	kg	3.080200000	E1 - Site Specific Emission Factors
Fugitive	kg	323.160000000	O - Engineering Estimates

Releases to water

Type	Units	Quantity	Basis of estimate	Receiving waterbody	Quantity released to waterbody
Direct Discharges	kg	1.148000000	M3 - Source Testing	Gold Bar Creek	1.148000000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits

Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00010000
Average Concentration (ppm)	0.002900
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate	Receiving facility	Quantity transferred
Landfill	kg	40602.000000000	M3 - Source Testing	Clean Harbors Canada Inc. - Ryley Landfill,50117 Rge Rd 173, Ryley, AB, Canada,Ryley	40602.000000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)

Substance detail

Chromium (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	0.027200000	M3 - Source Testing
Storage / Handling	tonnes	0.040100000	E1 - Site Specific Emission Factors
Fugitive	tonnes	0.101100000	O - Engineering Estimates

Releases to water

Type	Units	Quantity	Basis of estimate		
Direct Discharges	tonnes	0.000900000	M3 - Source Testing	Receiving waterbody	Quantity released to waterbody
				Gold Bar Creek	0.000900000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00080000
Average Concentration (ppm)	0.043100
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - By-Product,Process - Formulation Component
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate		
Landfill	tonnes	16.822000000	M3 - Source Testing	Receiving facility	Quantity transferred
				Clean Harbors Canada	16.822000000
				Inc. - Ryley	
				Landfill,50117 Rge Rd	
				173, Ryley, AB,	

Type	Units	Quantity	Basis of estimate		
Landfill	tonnes	16.822000000	M3 - Source Testing	Canada,Ryley	16.822000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)

Substance detail

Mercury (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate	
Stack / Point	kg	106.500000000	M3 - Source Testing	
Storage / Handling	kg	0.002500000	E1 - Site Specific Emission Factors	
Fugitive	kg	9.880000000	O - Engineering Estimates	

Releases to water

Type	Units	Quantity	Basis of estimate		
Direct Discharges	kg	0.012000000	M3 - Source Testing	Receiving waterbody	Quantity released to waterbody
				Gold Bar Creek	0.012000000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00010000
Average Concentration (ppm)	0.000000
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Air - Measured recent individual sampling event increased concentration compared to historic average
	Water - Measured decreased concentration of parameter compared to previous years
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate	Receiving facility	Quantity transferred
Landfill	kg	17.600000000	M3 - Source Testing	Clean Harbors Canada Inc. - Ryley Landfill,50117 Rge Rd 173, Ryley, AB, Canada,Ryley	17.600000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)

Substance detail

Nickel (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	0.005300000	M3 - Source Testing
Storage / Handling	tonnes	0.001700000	E1 - Site Specific Emission Factors
Fugitive	tonnes	0.081000000	O - Engineering Estimates

Releases to water

Type	Units	Quantity	Basis of estimate		
Direct Discharges	tonnes	0.004700000	M3 - Source Testing	Receiving waterbody	Quantity released to waterbody
				Gold Bar Creek	0.004700000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00020000
Average Concentration (ppm)	0.025600
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - By-Product,Process - Formulation Component
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate		
Landfill	tonnes	1.641000000	M3 - Source Testing	Receiving facility	Quantity transferred
				Clean Harbors Canada	1.641000000
				Inc. - Ryley	
				Landfill,50117 Rge Rd	
				173, Ryley, AB,	
				Canada,Ryley	

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material

Comments on exclusions in tailing and waste rock

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	No Significant Change (i.e. < 0 - 10%)
Reasons for change from previous year	

Substance detail

Hexachlorobenzene

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	grams	79.206000000	M3 - Source Testing
Storage / Handling	grams	0.003000000	E1 - Site Specific Emission Factors
Fugitive	grams	17.842000000	E1 - Site Specific Emission Factors

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)
Comments on releases	
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate	Receiving facility	Quantity transferred
Landfill	grams	108.500000000	M3 - Source Testing	Clean Harbors Canada Inc. - Ryley Landfill,50117 Rge Rd 173, Ryley, AB, Canada,Ryley	108.500000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)

Substance detail

Selenium (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	kg	0.837000000	M3 - Source Testing
Storage / Handling	kg	0.026200000	E1 - Site Specific Emission Factors
Fugitive	kg	15.181000000	O - Engineering Estimates

Releases to water

Type	Units	Quantity	Basis of estimate		
Direct Discharges	kg	0.256000000	M3 - Source Testing	Receiving waterbody	Quantity released to waterbody
				Gold Bar Creek	0.256000000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00040000
Average Concentration (ppm)	0.000700
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Water - Increased volume of surface run-off waters discharged off site compared to the previous year

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate	Receiving facility	Quantity transferred
Landfill	kg	30.900000000	M3 - Source Testing	Clean Harbors Canada Inc. - Ryley Landfill,50117 Rge Rd 173, Ryley, AB, Canada,Ryley	30.900000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)

Substance detail

Arsenic (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	kg	0.622000000	M3 - Source Testing
Storage / Handling	kg	0.132000000	E1 - Site Specific Emission Factors
Fugitive	kg	24.184000000	O - Engineering Estimates

Releases to water

Type	Units	Quantity	Basis of estimate	Receiving waterbody	Quantity released to
Direct Discharges	kg	0.917000000	M3 - Source Testing		

Type	Units	Quantity	Basis of estimate		
Direct Discharges	kg	0.917000000	M3 - Source Testing	Receiving waterbody	waterbody
				Gold Bar Creek	0.917000000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00040000
Average Concentration (ppm)	0.005500
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate		
Landfill	kg	201.000000000	M3 - Source Testing	Receiving facility	Quantity transferred
				Clean Harbors Canada	201.000000000
				Inc. - Ryley	
				Landfill,50117 Rge Rd	
				173, Ryley, AB,	
				Canada,Ryley	

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	No Significant Change (i.e. < 0 - 10%)
Reasons for change from previous year	

Substance detail

Manganese (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	0.367600000	M3 - Source Testing
Storage / Handling	tonnes	0.332700000	E1 - Site Specific Emission Factors
Fugitive	tonnes	0.834200000	O - Engineering Estimates

Releases to water

Type	Units	Quantity	Basis of estimate	
Direct Discharges	tonnes	0.030200000	M3 - Source Testing	Receiving waterbody
				Quantity released to waterbody
				Gold Bar Creek
				0.030200000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00200000
Average Concentration (ppm)	0.083500
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - By-Product,Process - Formulation Component
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate		
Landfill	tonnes	174.204000000	M3 - Source Testing	Receiving facility	Quantity transferred
				Clean Harbors Canada	174.204000000
				Inc. - Ryley	
				Landfill,50117 Rge Rd	
				173, Ryley, AB,	
				Canada,Ryley	

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)

Substance detail

PM10 - Particulate Matter <= 10 Micrometers

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	5.496000000	M3 - Source Testing
Storage / Handling	tonnes	7.354000000	E1 - Site Specific Emission Factors
Fugitive	tonnes	26.076000000	E1 - Site Specific Emission Factors
Road dust	tonnes	4.436000000	O - Engineering Estimates

Additional information

Contextual information

Nature of activities related to the substance	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)
Comments on releases	
Comments on releases to land – other	

Substance detail

Sulphur dioxide

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	44.659000000	M3 - Source Testing
Fugitive	tonnes	10.192000000	E2 - Published Emission Factors

Additional information

Contextual information

Nature of activities related to the substance	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)
Comments on releases	
Comments on releases to land – other	

Substance detail

Cadmium (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	kg	1.644000000	M3 - Source Testing
Fugitive	kg	3.150000000	M3 - Source Testing
Storage / Handling	kg	0.049000000	E1 - Site Specific Emission Factors

Releases to water

Type	Units	Quantity	Basis of estimate		
Direct Discharges	kg	0.078000000	M3 - Source Testing	Receiving waterbody	Quantity released to waterbody
				Gold Bar Creek	0.078000000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00020000
Average Concentration (ppm)	0.000200
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Water - Increased volume of surface run-off waters discharged off site compared to the

Comments on releases	previous year
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate	Receiving facility	Quantity transferred
Landfill	kg	931.000000000	M3 - Source Testing	Clean Harbors Canada Inc. - Ryley Landfill,50117 Rge Rd 173, Ryley, AB, Canada,Ryley	931.000000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)

Substance detail

Vanadium (except when in an alloy) and its compounds

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	0.000500000	M3 - Source Testing
Fugitive	tonnes	0.005500000	M3 - Source Testing
Storage / Handling	tonnes	0.005500000	E1 - Site Specific Emission Factors

Releases to water

Type	Units	Quantity	Basis of estimate		
Direct Discharges	tonnes	0.003400000	M3 - Source Testing	Receiving waterbody	Quantity released to waterbody
				Gold Bar Creek	0.003400000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	
Average Concentration (ppm)	0.021900
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - By-Product,Process - Formulation Component
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate		
Landfill	tonnes	0.446000000	M3 - Source Testing	Receiving facility	Quantity transferred
				Clean Harbors Canada	0.446000000
				Inc. - Ryley	
				Landfill,50117 Rge Rd	
				173, Ryley, AB,	
				Canada,Ryley	

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	No Significant Change (i.e. < 0 - 10%)
Reasons for change from previous year	

Substance detail

Total particulate matter

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	7.720000000	M3 - Source Testing
Storage / Handling	tonnes	17.106000000	E1 - Site Specific Emission Factors
Fugitive	tonnes	58.712000000	E1 - Site Specific Emission Factors
Road dust	tonnes	16.649000000	O - Engineering Estimates

Additional information

Contextual information

Nature of activities related to the substance	No Significant Change (i.e. < 0 - 10%)
Reasons for change from previous year	
Comments on releases	
Comments on releases to land – other	

Substance detail

Dioxins and furans - total

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	g TEQ	0.082800000	M3 - Source Testing
Storage / Handling	g TEQ	0.000100000	M3 - Source Testing
Fugitive	g TEQ	0.073600000	M3 - Source Testing

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)
Comments on releases	
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000

Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate		
Landfill	g TEQ	2.627500000	M3 - Source Testing	Receiving facility	Quantity transferred

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Other (specify in comments field)
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)

Substance detail

Nitrogen oxides (expressed as nitrogen dioxide)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	32.582000000	M3 - Source Testing
Fugitive	tonnes	28.223000000	E2 - Published Emission Factors

Additional information

Contextual information

Nature of activities related to the substance	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)
Comments on releases	
Comments on releases to land – other	

Substance detail

Copper (and its compounds)

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	0.039400000	M3 - Source Testing
Storage / Handling	tonnes	0.004000000	E1 - Site Specific Emission Factors
Fugitive	tonnes	0.265100000	O - Engineering Estimates

Releases to water

Type	Units	Quantity	Basis of estimate	Receiving waterbody	Quantity released to waterbody
Direct Discharges	tonnes	0.001900000	M3 - Source Testing	Gold Bar Creek	0.001900000

Concentration of the Substance (Waterbody)

Information in Sampling and Detection Limits	
Was the quantity reported above estimated using half the detection limit for some or all values?	No
Method Detection Limit (ppm)	0.00100000
Average Concentration (ppm)	0.001100
More than one method detection limit applies	No
Concentration Comment(s)	

Additional information

Contextual information

Nature of activities related to the substance	Manufacture - Impurity
Reasons for change from previous year	Other (specify in comments field)
Comments on releases	Water - Increased volume of surface run-off waters discharged off site compared to the previous year
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate	Receiving facility	Quantity transferred
Landfill	tonnes	12.837000000	M3 - Source Testing	Clean Harbors Canada Inc. - Ryley Landfill,50117 Rge Rd 173, Ryley, AB, Canada,Ryley	12.837000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal Reasons for change from previous year Comments on disposals Comments on exclusions in tailing and waste rock	Production Residues,Pollution abatement residues
	No Significant Change (i.e. < 0 - 10%)
	Disposals - Reduction in the off-site disposal of previously stockpiled material

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	No Significant Change (i.e. < 0 - 10%)
Reasons for change from previous year	

Substance detail

Calcium fluoride

Releases

Releases to air

Type	Units	Quantity	Basis of estimate
Stack / Point	tonnes	0.105000000	M3 - Source Testing
Storage / Handling	tonnes	0.248500000	E1 - Site Specific Emission Factors
Fugitive	tonnes	2.113600000	M3 - Source Testing

Additional information

Contextual information

Nature of activities related to the substance	Process - Reactant,Otherwise Use - Manufacturing Aid
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)
Comments on releases	
Comments on releases to land – other	

Quarterly releases

Quarter	Release percentage
Q1	25.000000
Q2	25.000000
Q3	25.000000
Q4	25.000000

Off-site disposals

Type	Units	Quantity	Basis of estimate	Receiving facility	Quantity transferred
Landfill	tonnes	31.165000000	M3 - Source Testing	Clean Harbors Canada Inc. - Ryley Landfill,50117 Rge Rd 173, Ryley, AB, Canada,Ryley	31.165000000

Additional information on disposals

Contextual information

Reason(s) for substance disposal	Production Residues,Pollution abatement residues
Reasons for change from previous year	Pollution Prevention Activities
Comments on disposals	Disposals - Reduction in the off-site disposal of previously stockpiled material
Comments on exclusions in tailing and waste rock	

Additional information on off-site recycling

Contextual information

Transfers for off-site recycling

Reason(s) for substance recycling	
Reasons for change from previous year	No Significant Change (i.e. < 0 - 10%)