



ALAMOS GOLD INC.

ISLAND GOLD

TOXICS REDUCTION ACT
PUBLIC ANNUAL SUMMARY REPORT

REPORTING YEAR 2018

REPORT ON TOXIC SUBSTANCE REDUCTION PLANS (2018 Reporting Year)

This Report on Toxic Substance Reduction Plans has been prepared in accordance with, and satisfies the requirements of Section 10 of the *Toxics Reduction Act* (TRA) and Section 27 of Ontario Regulation (O.Reg.) 455/09 for all TRA toxic substances for which Toxic Substance Reduction Plans have been prepared to date.

Basic Facility Information

Mandatory Basic Facility Information Item	Details
Substance Name and Chemical Abstracts Service (CAS) Registry Number, if any	This Report on Toxic Substance Reduction Plans applies to the Toxic Substance Reduction Plans for the following prescribed Toxic Substances: Arsenic, Cadmium, Chromium, Copper, Lead, Manganese, Zinc, Cobalt, Mercury, Nickel, Selenium, Cyanides (Ionic) (Per O.Reg.455/09; “no single CAS numbers apply to these substances”), Particulate Matter, PM10, PM2.5 (Per O.Reg.455/09; “no single CAS numbers apply to these substances”), Carbon Monoxide (CAS Number 630-08-0), Nitric Acid (CAS Number 7697-37-2), and Nitrogen Oxides (CAS Number 11104-93-1), Nitrate Ion , (Per O.Reg.455/09; “no single CAS numbers apply to these substances”)
National Pollutant Release Inventory (NPRI) and O.Reg.127/01 Identification Numbers	NPRI ID: 11454 O.Reg.127/01 ID: N/A
The legal and trade names of the owner and the operator of the facility, the street address of the facility and the mailing address of the facility, if different	Alamos Gold 15 Goudreau Road, Dubreuilville, ON P0S 1B0
The number of full time employee equivalents at the facility	341
North American Industry Classification System (NAICS) codes and the six-digit NAICS Canada code	21 - Mining & Oil & Gas Extraction 2122 - Metal Ore Mining 212220 - Gold & Silver Ore Mining
Public contact	Nish Logeswaran Island Gold Mine 15 Goudreau Road, Dubreuilville, ON P0S 1B0 (705) 884-2805
The spatial coordinates of the facility expressed in Universal Transverse Mercator (UTM) within a North American Datum 83 (NAD83) datum	UTM Zone 16 681289 E, 5358152 N
Parent Company Information	Alamos Gold Inc. 181 Bay Street, Suite 3910 Toronto, Ontario, M5J 2T3 (416) 368-9932

List of All Substances for which Toxic Substance Reduction Plans Have Been Prepared at the Facility

The Facility has prepared Toxic Substance Reduction Plans for the following prescribed Toxic Substances:

Arsenic*

Cadmium*

Chromium*

Copper*

Lead*

Manganese*

Zinc*

Cobalt*

Mercury*

Nickel*

Selenium*

Cyanides (Ionic)*

Particulate Matter*

PM-10*

PM-2.5*

Carbon Monoxide (CAS Number 630-08-0)

Nitric Acid (CAS Number 7697-37-2)

Nitrogen Oxides (CAS Number 11104-93-1)

Nitrate Ion*

Ammonia (Total)*

*Per O.Reg.455/09, "no single CAS numbers apply to these substances"

Toxic Substance Accounting Information

Refer to Appendix A: TRA Toxic Substance Quantification and Accounting Summary for the information required under s.12(1) of O.Reg.455/09.

Comparison of Toxic Substance Accounting to the Previous Calendar Year

Refer to Appendix B: Comparison of Toxic Substance Quantification and Accounting to the Previous Calendar Year for the information required by s.26(2) of O.Reg.455/09.

Changes in Quantification Methods

There were no changes made to any quantification methods since the preparation of the Toxic Substance accounting information for the previous calendar year and therefore no changes outlined in the above comparison occurred due to changes in quantification methods.

Objectives of Toxic Substance Reduction Plans

Refer to Appendix C: Toxic Substance Reduction Plan Objectives for the objectives of the respective Toxic Substance Reduction Plans covered by this Report, as required by s.26(2)3 of O.Reg. 455/09.

Toxic Substance Reduction Options Identified in Toxic Substance Reduction Plans

As outlined in the Plan Summaries attached in Appendix C, no toxic substance reduction options were identified in any of the respective Plans and therefore the information required by s.26(2)4, s.26(2)5 and s.26(2)6 is not applicable for this Report.

Amendments to Toxic Substance Reduction Plans

On April 18, 2019, the Ministry of the Environment, Conservation and Parks announced a Regulation Decision Notice on the Environmental Registry of Ontario (ERO Number 013-4235) which indicated that facilities are no longer required to review existing plans.

No Amendments have been made to any Toxic Substance Reduction Plans.

Certification Statement

As of June 1 2019, I certify that I have read the Report on the toxic substance reduction plans for the substances listed below and am familiar with its content and to my knowledge the information contained in the Report is factually accurate and the Report complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under the Act.

Arsenic*

Cadmium*

Chromium*

Copper*

Lead*

Manganese*

Zinc*

Cobalt*

Mercury*

Nickel*

Selenium*

Cyanides (Ionic)*

Particulate Matter*

PM-10*

PM-2.5*

Carbon Monoxide (CAS Number 630-08-0)

Nitric Acid (CAS Number 7697-37-2)

Nitrogen Oxides (CAS Number 11104-93-1)

Nitrate Ion*

*Per O.Reg.455/09, "no single CAS numbers apply to these substances"

Austin Hemphill - General Manager

Name and Position



30 May 2019

Signature

date

APPENDIX A: TRA TOXIC SUBSTANCE QUANTIFICATION AND ACCOUNTING SUMMARY

TRA Toxic Substance Quantification and Accounting Summary

Toxic Substance	CAS No.*	Public Reportable Values (Report to Public)			
		Unit	Use	Creation	Contained in Product
Ammonia	N/A	tonnes	>0 to 1	>10 to 100	>0 to 1
Arsenic	N/A-2	kg	>10,000 to 100,000	>0 to 1	>0 to 1
Cadmium	N/A-3	kg	>100 to 1000	>0 to 1	>0 to 1
Chromium	N/A-4	tonnes	>10 to 100	>0 to 1	>0 to 1
Cobalt	N/A-5	kg	>10 to 100	>0 to 1	>0 to 1
Copper	N/A-6	tonnes	>10 to 100	>0 to 1	>0 to 1
Lead	N/A-8	kg	>1000 to 10,000	>0 to 1	>0 to 1
Manganese	N/A-9	tonnes	>100 to 1000	>0 to 1	>0 to 1
Mercury	N/A-15	kg	>0 to 1	>0 to 1	>0 to 1
Nickel	N/A-10	tonnes	>10 to 100	>0 to 1	>0 to 1
Selenium	N/A-12	kg	>0 to 1	>0 to 1	>0 to 1
Zinc	N/A-14	tonnes	>10 to 100	>0 to 1	>0 to 1
Cyanides	N/A-7	tonnes	>10 to 100	>0 to 1	>0 to 1
Nitrate Ion	N/A-11	tonnes	>0 to 1	>10 to 100	>0 to 1
Nitric Acid	7697-37-2	tonnes	>10 to 100	>0 to 1	>0 to 1
PM	N/A - M08	tonnes	>0 to 1	>10 to 100	>0 to 1
PM-10	N/A - M09	tonnes	>0 to 1	>10 to 100	>0 to 1
PM-2.5	N/A - M10	tonnes	>0 to 1	>10 to 100	>0 to 1
Nitrogen Oxides	11104-93-1	tonnes	>0 to 1	>100 to 1000	>0 to 1
Carbon Monoxide	630-08-0	tonnes	>0 to 1	>100 to 1000	>0 to 1

Notes:

* Substances with CAS Numbers starting with "N/A" do not have CAS Numbers in NPRI or TRA guidance. The CAS Numbers assigned to those substances are arbitrary CAS Numbers used for the purpose of this workbook.

**APPENDIX B: COMPARISON OF TOXIC SUBSTANCE QUANTIFICATION AND ACCOUNTING TO
THE PREVIOUS CALENDAR YEAR**

Reporting Comparison - TRA Toxic Substance Quantification and Accounting

The table below provides a comparison between the three TRA reportable activity quantities for each substance (Use, Creation, Contained in Product) for the current and previous year. The TRA requires a comment in the SWIM report for increases or decreases in these activities as compared to the previous year and therefore the comment provided on the column on the far right of each table should be provided within SWIM.

Used

Reportable Substance	CAS	Reporting Units	Reported Value for the Previous Year	Total Reported Release for the Current Year	% Change	Comment if Change +/- 10%
Ammonia (Total)	N/A	tonnes	NR	NR	—	—
Arsenic	N/A-2	kg	58,537.150	37,890.095	-35%	Less reportable waste rock disposed (reported to TRA as a "use")
Cadmium	N/A-3	kg	358.528	201.466	-44%	Less reportable waste rock disposed (reported to TRA as a "use")
Chromium	N/A-4	tonnes	12.595	13.761	9%	—
Cobalt	N/A-5	kg	12,040.852	8,396.684	-30%	Less reportable waste rock disposed (reported to TRA as a "use")
Copper	N/A-6	tonnes	14.729	16.145	10%	—
Lead	N/A-8	kg	11,960.455	4,633.509	-61%	Less reportable waste rock disposed (reported to TRA as a "use")
Manganese	N/A-9	tonnes	218.294	243.322	11%	Increased production
Mercury	N/A-15	kg	9.092	10.137	11%	Increased production
Nickel	N/A-10	tonnes	14.463	15.827	9%	—
Selenium	N/A-12	kg	290.476	219.667	-24%	Less reportable waste rock disposed (reported to TRA as a "use")
Zinc	N/A-14	tonnes	18.938	20.687	9%	Increased production
Cyanides	N/A-7	tonnes	30.368	35.974	18%	Increased production
Nitrate Ion	N/A-11	tonnes	NR	NR	—	—
Nitric Acid	7697-37-2	tonnes	17.760	17.940	1%	—
PM	N/A - M08	tonnes	0.000	0.000	NC	—
PM-10	N/A - M09	tonnes	0.000	0.000	NC	—
PM-2.5	N/A - M10	tonnes	0.000	0.000	NC	—
Nitrogen Oxides	11104-93-1	tonnes	0.000	0.000	NC	—
Carbon Monoxide	630-08-0	tonnes	0.000	0.000	NC	—

Created

Reportable Substance	CAS	Reporting Units	Reported Value for the Previous Year	Total Reported Release for the Current Year	% Change	Comment if Change +/- 10%
Ammonia (Total)	N/A	tonnes	NR	NR	—	—
Arsenic	N/A-2	kg	0.000	0.000	—	—
Cadmium	N/A-3	kg	0.000	0.000	—	—
Chromium	N/A-4	tonnes	NR	NR	—	—
Cobalt	N/A-5	kg	0.000	0.000	—	—
Copper	N/A-6	tonnes	0.000	0.000	—	—
Lead	N/A-8	kg	0.000	0.000	—	—
Manganese	N/A-9	tonnes	0.000	0.000	—	—
Mercury	N/A-15	kg	0.000	0.000	—	—
Nickel	N/A-10	tonnes	0.000	0.000	—	—
Selenium	N/A-12	kg	0.000	0.000	—	—
Zinc	N/A-14	tonnes	0.000	0.000	—	—
Cyanides	N/A-7	tonnes	0.000	0.000	—	—
Nitrate Ion	N/A-11	tonnes	NR	NR	—	—
Nitric Acid	7697-37-2	tonnes	0.000	0.000	—	—
PM	N/A - M08	tonnes	113.964	83.210	-27%	Decrease in "creation" due to less open wood burning
PM-10	N/A - M09	tonnes	72.046	51.417	-29%	Decrease in "creation" due to less open wood burning
PM-2.5	N/A - M10	tonnes	63.483	43.716	-31%	Decrease in "creation" due to less open wood burning
Nitrogen Oxides	11104-93-1	tonnes	209.989	215.984	3%	—
Carbon Monoxide	630-08-0	tonnes	482.998	300.097	-38%	Decrease in "creation" due to less open wood burning

Contained in Product

Reportable Substance	CAS	Reporting Units	Reported Value for the Previous Year	Total Reported Release for the Current Year	% Change	Comment if Change +/- 10%
Ammonia (Total)	N/A	tonnes	NR	NR	NR	—
Arsenic	N/A-2	kg	0.000	0.434	—	Small amount of waste rock reported as used in construction (treated as "product" in TRA)
Cadmium	N/A-3	kg	0.000	0.003	—	Small amount of waste rock reported as used in construction (treated as "product" in TRA)
Chromium	N/A-4	tonnes	NR	0.000	—	—
Cobalt	N/A-5	kg	0.000	0.080	—	Small amount of waste rock reported as used in construction (treated as "product" in TRA)
Copper	N/A-6	tonnes	0.000	0.000	—	—
Lead	N/A-8	kg	0.000	0.141	—	Small amount of waste rock reported as used in construction (treated as "product" in TRA)
Manganese	N/A-9	tonnes	0.000	0.000	—	—
Mercury	N/A-15	kg	0.000	0.000	—	—
Nickel	N/A-10	tonnes	0.000	0.000	—	—
Selenium	N/A-12	kg	0.000	0.002	—	Small amount of waste rock reported as used in construction (treated as "product" in TRA)
Zinc	N/A-14	tonnes	0.000	0.000	—	—
Cyanides	N/A-7	tonnes	0.000	0.000	—	—
Nitrate Ion	N/A-11	tonnes	NR	NR	NR	—
Nitric Acid	7697-37-2	tonnes	0.000	0.000	—	—
PM	N/A - M08	tonnes	0.000	0.000	—	—
PM-10	N/A - M09	tonnes	0.000	0.000	—	—
PM-2.5	N/A - M10	tonnes	0.000	0.000	—	—
Nitrogen Oxides	11104-93-1	tonnes	0.000	0.000	—	—
Carbon Monoxide	630-08-0	tonnes	0.000	0.000	—	—

Notes:
 "NR" - Not reportable
 "NC" - No change

APPENDIX C: TOXIC SUBSTANCE REDUCTION PLAN OBJECTIVES

TOXIC SUBSTANCE REDUCTION PLAN OBJECTIVES

The following are plan objectives taken from respective Toxic Substance Reduction Plans. This information is included in this Report on Plans in order to satisfy s.26(2)3 of O.Reg.455/09.

Arsenic, Cadmium, Chromium, Copper, Lead, Manganese, Zinc, Cobalt, Mercury, Nickel, Selenium

The Objectives of the Plan are as follows:

- provide support for the Facility's position with respect to the Statement of Intent by providing an explanation of how the TRA's definition of the word "use", as applied to the Toxic Substance, renders it impossible to reduce the "use" of the Toxic Substance without reducing Facility production;
- provide the reader with an understanding of the nature of the Facility activity which the TRA has defined as a "use" of the Toxic Substance; and
- document how the Facility has fulfilled the applicable requirements under the TRA and O. Reg. 455/09 with respect to the Toxic Substance.

Cyanides (Ionic)

The objectives of this Plan are as follows:

- provide the reader with information on measures currently in place at the Facility which influence the way in which the Toxic Substance is used at the Facility;
- provide support for the Facility's position with respect to the Statement of Intent of this Plan; and
- document how, by preparing this Plan, the Facility has fulfilled the applicable requirements under the TRA and O.Reg.455/09 with respect to the Toxic Substance.

Nitric Acid

The objectives of this Plan are as follows:

- provide support for the Facility's position with respect to the Statement of Intent of this Plan; and
- document how, by preparing this Plan, the Facility has fulfilled the applicable requirements under the TRA and O.Reg.455/09 with respect to the Toxic Substance.

Ammonia (Total)

The Objectives of the Plan are as follows:

- provide the reader with information on measures currently in place at the Facility which control the "creation" and subsequent release of the Toxic Substance;
- provide support for the Facility's position with respect to the Statement of Intent of this Plan; and

- document how the Facility has fulfilled the applicable requirements under the TRA and O.Reg.455/09 with respect to the Toxic Substance.

Nitrate Ion

The Objectives of the Plan are as follows:

- provide the reader with information on measures currently in place at the Facility which control the “creation” and subsequent release of the Toxic Substance;
- provide support for the Facility’s position with respect to the Statement of Intent of this Plan; and
- document how the Facility has fulfilled the applicable requirements under the TRA and O.Reg.455/09 with respect to the Toxic Substance.

Nitrogen Oxides

The Objectives of the Plan are as follows:

- provide the reader with information on measures currently in place at the Facility which control the “creation” and subsequent release of the Toxic Substance;
- provide support for the Facility’s position with respect to the Statement of Intent of this Plan; and
- document how the Facility has fulfilled the applicable requirements under the TRA and O.Reg.455/09 with respect to the Toxic Substance.

Carbon Monoxide

The Objectives of the Plan are as follows:

- provide the reader with information on measures currently in place at the Facility which control the “creation” and subsequent release of the Toxic Substance;
- provide support for the Facility’s position with respect to the Statement of Intent of this Plan; and
- document how the Facility has fulfilled the applicable requirements under the TRA and O.Reg.455/09 with respect to the Toxic Substance.

Particulate Matter, PM-10, PM-2.5

The Objectives of the Plan are as follows:

- provide the reader with information on measures currently in place at the Facility which control the “creation” and subsequent release of the Toxic Substance;
- provide support for the Facility’s position with respect to the Statement of Intent of this Plan; and
- document how the Facility has fulfilled the applicable requirements under the TRA and O.Reg.455/09 with respect to the Toxic Substance.