Plan Summary Preview			
Company Details			
Company Legal Name			
Northern Sun Mining Corp.			
Company Address			
Stringer's Road, South Porcupine (Ontario)			
Report Details			
Facility Name			
Redstone Mine			
Facility Address			
Stringer's Road, South Porcupine (Ontario)			
Update Comments			
Activities			
Contacts			
Select the Facility Contacts			
Facility Contacts			
Please assign the appropriate contact under each ca	ategory below.		
Public Contact: *			
Brian Kett			
Highest Ranking Employee			
Mark Trevisiol			
Person responsible for Toxic Substance Reduction F	Plan preparation		
Russell Polack			
Organization Validation			
Company and Parent Company Info	rmation		
Company Details			
Company Legal Name: *	Northern Sun Mining Corp.		

Company Trade Name: *	Norther Sun Mining Corp.		
Business Number: *	891339566		
Mailing Address			
Delivery Mode	Post Office Box		
PO Box	5114		
Rural Route Number			
Address Line 1	Stringer's Road		
City *	South Porcupine		
Province/Territory **	Ontario		
Postal Code: **	P0N1H0		
Physical Address			
Address Line 1	Stringer's Road		
City	South Porcupine		
Province/Territory	Ontario		
Postal Code	P0N1H0		
Additional Information			
Land Survey Description			
National Topographical Description			
Parent Companies			

Empty

Facility Validation

The information in this section was copied from the Single Window Information Manager (SWIM) at the time the plan summary was created. Please verify the information and update it where required. Please note that any changes made here will only be reflected in this plan summary. To ensure updates reflected in future reports, please ensure the information is updated in SWIM. After making updates in SWIM, return here and click the "Refresh" button to trigger a reload of the SWIM information. Please note all previously entered data

will be modified.

Facility Information	
Facility Name: *	Redstone Mine
NAICS Code: *	212232
NPRI Id: *	11514
ON Reg 127/01 ld	
Facility Mailing Address	
Delivery Mode	Post Office Box
PO Box	5114
Rural Route Number	
Address Line 1	Stringer's Road
City *	South Porcupine
Province/Territory **	Ontario
Postal Code: **	P0N1H0
Physical Address	
Address Line 1	Stringer's Road
City	South Porcupine
Province/Territory	Ontario
Postal Code	P0N1H0
Additional Information	
Land Survey Description	
National Topographical Description	
Geographical Address	
Latitude **	45.51626

Longitude **	-82.59238
UTM Zone **	17
UTM Easting **	488266
UTM Northing **	5351833

Contact Validation

Contact Validation			
The information in this section was copied from the Single Window Information Manager (SWIM) at the time the plan summary was created. Please verify the information and update it where required. Please note that any changes made here will only be reflected in this plan summary. To ensure updates reflected in future reports, please ensure the information is updated in SWIM. After making updates in SWIM, return here and click the "Refresh" button to trigger a reload of the SWIM information. Please note all previously entered data will be modified.			
Contacts			
Public Contact			
First Name: *	Brian		
Last Name: *	Kett		
Position: *	Environmental Coordinator		
Telephone: *	7052406450		
Ext	5052		
Fax	7052406452		
Email: *	bkett@northernsunmining.ca		
Mailing Address			
Delivery Mode	Post Office Box		
PO Box	5114		
Rural Route Number			
Address Line 1	Road		
City *	South Porcupine		

Delivery Mode	Post Office Box	
PO Box	5114	
Rural Route Number		
Address Line 1	Road	
City *	South Porcupine	

Province/Territory **	Ontario		
Postal Code: **	P0N 1H0		
Highest Ranking Employee			
First Name: *	Mark		
Last Name: *	Trevisiol		
Position: *	Site Manager		
Telephone: *	7052406450		
Ext	5001		
Fax			
Email: *	mtrevisiol@northernsunmining.ca		
Mailing Address			
Delivery Mode	General Delivery		
PO Box			
Rural Route Number			
Address Line 1			
City *	South Porcupine		
Province/Territory **	Ontario		
Postal Code: **	P0N 1H0		
Person responsible for the Toxic Sub-	stance Reduction Plan preparation		
First Name: *	Russell		
Last Name: *	Polack		
Position: *	Air Quality Specialist		
Telephone: *	7055246861		

Page 5 of 63 Printed on 21/08/2015 4:10:27 PM

Ext	495
Fax	7055241984
Email: *	Russell_Polack@Golder.com
Mailing Address	
Delivery Mode	General Delivery
PO Box	
Rural Route Number	
Address Line 1	1010 Lorne Street
City *	Sudbury
Province/Territory **	Ontario
Postal Code: **	P3C4R9
Employees	
Employees	
Number of Full-time Employees: *	
33	
Substances	
NA - 02, Arsenic (and its compounds)
NA - 02, Arsenic (and its compounds)	,
Substances Section Data	
Statement of Intent	
Are the following included in the Facility's TRA Plan?	
Use	
Is there a statement that the owner or operator of the fundamental substance at the facility?: *	acility intends to reduce the use of the toxic
No	

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRAs definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following the Ontario Ministry of the Environment and Climate Change (MOECC) guidance, processing of feedstocks in which the Toxic Substance is present due to natural deposition in previously mined and/or processed materials, meets the definition of MPO, despite the fact that the Toxic Substance travels through the Facility's concentration process without undergoing any significant chemical change.

Although the Toxic Substance is present in the feedstocks at relatively low concentrations, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of feedstock that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of six Toxic Substance Reduction Plans and Plan Summaries to date for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above.

The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however, the Facility would like to take this opportunity to inform the reader of the fact that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Creation

Is there a statement that	at the owner or c	operator of the	facility intends to	reduce the creation	າ of the toxic
substance at the facility	y?: *	•	•		

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

The Toxic Substance is never created within the Facility's process and therefore no statement with respect to intent to reduce creation of the Toxic Substance is required.

to intent to reduce creation of the Toxic Substance is required.				
Objectives, 7	Targets	and Descri	ption	
Objectives				
Objectives in plan:	*			
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 TRAs 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 reade as a "use" of the T			f the nature of the Facility activity which the TRA has defined	
•document how th respect to the Tox			pplicable requirements under the TRA and O.Reg.455/09 with	
Use Targets				
What is the t	argeted	l reduction	in use of the toxic substance at the	
facility? *				
No quantity target		Quantity	Unit	
\boxtimes	or			
What is the t	argeted	l timeframe	for this reduction? *	
No timeline targe	t		years	
\boxtimes		or		
Description of targ	ets			
Creation Tar	gets			
What is the t	argeted	l reduction	in creation of the toxic substance at the	
facility? *	-			
No quantity		Quantity	Unit	

target

X	or			
What is the ta	argeted	timeframe	for this reduction	? *
No timeline target	t		years	
\boxtimes		or		
Description of Targ	jet			
Reasons for	Use			
Why is the toxic su	bstance us	ed at the facility	?: *	
As a by-product				
Summarize why th	e toxic subs	stance is used a	t the facility: **	
TRA as a "use" of processed materia Substance occurs is impossible to retroxic Substance swithout undergoing within the Facility	the Toxic Sals in which naturally in duce this "uimply trave gany signiforocess. The stance is a	substance is the the Toxic Substance substance materials use" of the Toxic ls through the Fricant chemical care reason the Toxic	handling and processing ance is present due to na ance is present due to na and the Facility is a min Substance without reducacility process along with hange. It is impossible foxic Substance is reportal	has defined for the purpose of the of previously mined and/or atural deposition. Since the Toxic ning and mineral processing facility, it cing the Facility's production. The all other non-desired materials or the Toxic Substance to be created ble under the TRA and O.Reg.455/09 e ore that is processed in a large
Reasons for	Creation	n		
Why is the toxic su	bstance cre	eated at the facil	ity?: *	
This substance is	not created	at the facility		
Summarize why th	e toxic sub	stance is created	d at the facility: **	
Toxic Reduct	tion Opt	ions for Imp	olementation	
Description of	of the to	xic reductio	n option(s) to be	implemented
Is there a statemer	nt that no op	otion will be imp	emented?: *	

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

Yes, we are not implementing

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution
Empty
Product design or reformulation
Empty
Equipment or process modifications Empty
Spill or leak prevention
Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
What version of the plan is this summary based on?: *
New Plan

NA - 03, Cadmium (and its compounds)

NA - 03, Cadmium (and its compounds)

Substances Section Data

Statement of Intent

Are the following included in the Facility's TRA Plan?

Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRAs definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following MOECC guidance, processing of feedstocks in which the Toxic Substance is present due to natural deposition in previously mined and/or processed materials, meets the definition of MPO, despite the fact that the Toxic Substance travels through the Facility's concentration process without undergoing any significant chemical change. Although the Toxic Substance is present in the feedstocks at relatively low concentrations, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of feedstock that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of nine Toxic Substance Reduction Plans and Plan Summaries for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above. The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however the Facility would like to take this opportunity to inform the reader of the fact that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Creation

Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

The Toxic Substance is never created within the Facility's process and therefore no statement with respect to intent to reduce creation of the Toxic Substance is required.

Objectives, Targets and Description **Objectives** Objectives in plan: * 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 TRAs 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. **Use Targets** What is the targeted reduction in use of the toxic substance at the facility? * No quantity Quantity Unit target \times or What is the targeted timeframe for this reduction? * No timeline target years \boxtimes or Description of targets **Creation Targets** What is the targeted reduction in creation of the toxic substance at the facility? * No quantity Quantity Unit target $\overline{\mathsf{X}}$ or

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years

What is the targeted timeframe for this reduction? *

No timeline target

Page 13 of 63

\boxtimes	or		
Description of Target			
Reasons for Use			
Why is the toxic substance us	ed at the facility?	?: *	
As a by-product			

Summarize why the toxic substance is used at the facility: **

As stated elsewhere in this Plan, the Facility activity that the MOECC has defined for the purpose of the TRA as a "use" of the Toxic Substance is the handling and processing of previously mined and/or processed materials in which the Toxic Substance is present due to natural deposition. Since the Toxic Substance occurs naturally in mined materials, and the Facility is a mining and mineral processing facility, it is impossible to reduce this "use" of the Toxic Substance without reducing the Facility's production. The Toxic Substance simply travels through the Facility process along with all other non-desired materials without undergoing any significant chemical change. It is impossible for the Toxic Substance to be created within the Facility process. The reason the Toxic Substance is reportable under the TRA and O.Reg.455/09 is because the substance is a minor elemental mass contribution to the ore that is processed in a large quantity in the Facility.

Reasons for Creation

Wh۱	is the	toxic	substance	created	at the	facility	?:	*
V V I I I	<i>,</i> 13 till		3ub3tarioc	CICALCA	at the	Idonity		

This substance is not created at the facility

Summarize why the toxic substance is created at the facility: **

Toxic Reduction Options for Implementation

Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: *

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution
Empty
Product design or reformulation
Empty
Equipment or process modifications
Empty
Spill or leak prevention
Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
What version of the plan is this summary based on?: *
New Plan
NA - 04, Chromium (and its compounds)
NA - 04, Chromium (and its compounds)
Substances Section Data
Statement of Intent
Are the following included in the Facility's TRA Plan?

Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRAs definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following the Ontario Ministry of the Environment and Climate Change (MOECC) guidance, processing of feedstocks in which the Toxic Substance is present due to natural deposition in previously mined and/or processed materials, meets the definition of MPO, despite the fact that the Toxic Substance travels through the Facility's concentration process without undergoing any significant chemical change.

Although the Toxic Substance is present in the feedstocks at relatively low concentrations, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of feedstock that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of six Toxic Substance Reduction Plans and Plan Summaries to date for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above.

The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however, the Facility would like to take this opportunity to inform the reader of the fact that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Creation Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: No If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: * The Toxic Substance is never created within the Facility's process and therefore no statement with respect to intent to reduce creation of the Toxic Substance is required. Objectives, Targets and Description **Objectives** Objectives in plan: * 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 TRAs 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. **Use Targets** What is the targeted reduction in use of the toxic substance at the facility? * No quantity Quantity Unit target |x|or What is the targeted timeframe for this reduction? *

No timeline target		years
\boxtimes	or	

Description of targets

Creation Tar	gets				
What is the ta	argeted re	duction in cre	eation of the	toxic substance at the	
facility? *					
No quantity target	Qua	antity		Unit	
X	or				
What is the ta	argeted tin	neframe for t	his reduction	า? *	
No timeline target		year	S		
×	or				
Description of Targ	et				
Reasons for	Use				
Why is the toxic su	bstance used	at the facility?: *			
As a by-product					
Summarize why the	e toxic substar	nce is used at the fa	acility: **		
As stated elsewhere in this Plan, the Facility activity that the MOECC has defined for the purpose of the TRA as a "use" of the Toxic Substance is the handling and processing of previously mined and/or processed materials in which the Toxic Substance is present due to natural deposition. Since the Toxic Substance occurs naturally in mined materials, and the Facility is a mining and mineral processing facility, it is impossible to reduce this "use" of the Toxic Substance without reducing the Facility's production. The Toxic Substance simply travels through the Facility process along with all other non-desired materials without undergoing any significant chemical change. It is impossible for the Toxic Substance to be created within the Facility process. The reason the Toxic Substance is reportable under the TRA and O.Reg.455/09 is because the substance is a minor elemental mass contribution to the ore that is processed in a large quantity in the Facility.					
TRA as a "use" of processed materia Substance occurs is impossible to reconstruction Toxic Substance swithout undergoing within the Facility pris because the substance of the s	Is in which the naturally in minduce this "use" imply travels the gany significare orocess. The restance is a minduce is a	ned materials, and of the Toxic Substance of	the Facility is a managed without reduces along with the contraction of the contraction o	nining and mineral processing facility, it ucing the Facility's production. The th all other non-desired materials for the Toxic Substance to be created able under the TRA and O.Reg.455/09	
TRA as a "use" of processed materia Substance occurs is impossible to reconstruction Toxic Substance swithout undergoing within the Facility processes in the subspace of the	Is in which the naturally in minduce this "use" imply travels the gany significant orocess. The restance is a mindity.	ned materials, and of the Toxic Substance of	the Facility is a managed without reduces along with the contraction of the contraction o	nining and mineral processing facility, it ucing the Facility's production. The th all other non-desired materials for the Toxic Substance to be created able under the TRA and O.Reg.455/09	
TRA as a "use" of processed materia Substance occurs is impossible to reconstruction Toxic Substance swithout undergoing within the Facility processes the subspannity in the Face Reasons for the subspansion of the subspans	Is in which the naturally in minduce this "use" imply travels the grany significant orocess. The restance is a mindity. Creation	ned materials, and of the Toxic Substance of the Toxic Substance of the Facility of the Change eason the Toxic Sunor elemental mas	the Facility is a managed without reduces along with the contraction of the contraction o	nining and mineral processing facility, it ucing the Facility's production. The th all other non-desired materials for the Toxic Substance to be created able under the TRA and O.Reg.455/09	
TRA as a "use" of processed materia Substance occurs is impossible to reconstruction Toxic Substance swithout undergoing within the Facility pris because the substance of the s	Is in which the naturally in miduce this "use" imply travels the gany significant process. The restance is a midity. Creation bstance create	ned materials, and of the Toxic Substance of the Toxic Substance of the Facility of chemical change eason the Toxic Sunor elemental mas ed at the facility?: *	the Facility is a managed without reduces along with the contraction of the contraction o	nining and mineral processing facility, it ucing the Facility's production. The th all other non-desired materials for the Toxic Substance to be created able under the TRA and O.Reg.455/09	

Page 18 of 63

Toxic Reduction Options for Implementation

Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: *

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution
Empty
Product design or reformulation
Empty
Equipment or process modifications
Empty
Spill or leak prevention
Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan

License Number of the toxic substance reduction planner who made recommendations in the toxic

substance reduction plan for this substance (format TSRPXXXX): *

TSRP0002

License Number of the	toxic substance reductio	n planner who has	s certified the toxic	c substance reduction
plan for this substance	(format TSRPXXXX): *	•		

TSRP0002

What version of the plan is this summary based on?: *

New Plan

NA - 05, Cobalt (and its compounds)

NA - 05, Cobalt (and its compounds)

Substances Section Data

Statement of Intent

Are the following included in the Facility's TRA Plan?

Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRAs definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following MOECC guidance, processing of feedstocks in which the Toxic Substance is present due to natural deposition in previously mined and/or processed materials, meets the definition of MPO, despite the fact that the Toxic Substance travels through the Facility's concentration process without undergoing any significant chemical change. Although the Toxic Substance is present in the feedstocks at relatively low concentrations, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of feedstock that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of nine Toxic Substance Reduction Plans and Plan Summaries for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above. The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however the Facility would like to take this opportunity to inform the reader of the fact that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Creation

Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

The Toxic Substance is never created within the Facility's process and therefore no statement with respect to intent to reduce creation of the Toxic Substance is required.

Objectives, Targets and Description							
Objectives	J	•					
Objectives in plan: *							
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 TRAs 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 respect to the Toxi			plicable requirements	under the TRA and O.Reg.455/09 with			
Use Targets							
What is the ta	argeted	reduction in	n use of the toxi	c substance at the			
facility? *							
No quantity target		Quantity		Unit			
\boxtimes	or						
What is the ta	argeted	timeframe	for this reduction	n? *			
No timeline target	:		years				
\boxtimes		or					
Description of targe	ets						
Creation Targ	nets						
		reduction in	n creation of the	toxic substance at the			
facility? *	9						
No quantity target		Quantity		Unit			
\boxtimes	or						

No timeline target years

What is the targeted timeframe for this reduction? *

\boxtimes	or					
Description of Target						
Reasons for Use						
Why is the toxic substance us	ed at the facility?	?: *				
As a by-product						

Summarize why the toxic substance is used at the facility: **

As stated elsewhere in this Plan, the Facility activity that the MOECC has defined for the purpose of the TRA as a "use" of the Toxic Substance is the handling and processing of previously mined and/or processed materials in which the Toxic Substance is present due to natural deposition. Since the Toxic Substance occurs naturally in mined materials, and the Facility is a mining and mineral processing facility, it is impossible to reduce this "use" of the Toxic Substance without reducing the Facility's production. The Toxic Substance simply travels through the Facility process along with all other non-desired materials without undergoing any significant chemical change. It is impossible for the Toxic Substance to be created within the Facility process. The reason the Toxic Substance is reportable under the TRA and O.Reg.455/09 is because the substance is a minor elemental mass contribution to the ore that is processed in a large quantity in the Facility.

Reasons for Creation

Why is	the toxi	c substance	created a	at the	facility?	. *

This substance is not created at the facility

Summarize why the toxic substance is created at the facility: **

Toxic Reduction Options for Implementation

Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: *

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution
Empty
Product design or reformulation
Empty
Equipment or process modifications
Empty
Spill or leak prevention
Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
What version of the plan is this summary based on?: *
New Plan
NA - 06, Copper (and its compounds)
NA - 06, Copper (and its compounds)
Substances Section Data
Statement of Intent
Are the following included in the Facility's TRA Plan?

Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRAs definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following the Ontario Ministry of the Environment and Climate Change (MOECC) guidance, processing of feedstocks in which the Toxic Substance is present due to natural deposition in previously mined and/or processed materials, meets the definition of MPO, despite the fact that the Toxic Substance travels through the Facility's concentration process without undergoing any significant chemical change.

Although the Toxic Substance is present in the feedstocks at relatively low concentrations, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of feedstock that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of six Toxic Substance Reduction Plans and Plan Summaries to date for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above.

The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however, the Facility would like to take this opportunity to inform the reader of the fact that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Creation Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: No If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: * The Toxic Substance is never created within the Facility's process and therefore no statement with respect to intent to reduce creation of the Toxic Substance is required. Objectives, Targets and Description **Objectives** Objectives in plan: * 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 TRAs 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. **Use Targets** What is the targeted reduction in use of the toxic substance at the facility? * No quantity Quantity Unit target |x|or What is the targeted timeframe for this reduction? * No timeline target years

Description of targets

or

N

Creation Targ	gets				
What is the ta	argeted	l reduction	in creation of the	e toxic substance at the	
facility? *	_				
No quantity target		Quantity		Unit	
\boxtimes	or				
What is the ta	argeted	l timeframe	for this reduction	on? *	
No timeline target			years		
×		or			
Description of Targ	et				
Reasons for I	Jse				
Why is the toxic sul	ostance us	sed at the facility	/?: *		
As a by-product					
Summarize why the	e toxic sub	stance is used a	at the facility: **		
As stated elsewhere in this Plan, the Facility activity that the MOECC has defined for the purpose of the TRA as a "use" of the Toxic Substance is the handling and processing of previously mined and/or processed materials in which the Toxic Substance is present due to natural deposition. Since the Toxic Substance occurs naturally in mined materials, and the Facility is a mining and mineral processing facility, it is impossible to reduce this "use" of the Toxic Substance without reducing the Facility's production. The Toxic Substance simply travels through the Facility process along with all other non-desired materials without undergoing any significant chemical change. It is impossible for the Toxic Substance to be created within the Facility process. The reason the Toxic Substance is reportable under the TRA and O.Reg.455/09 is because the substance is a minor elemental mass contribution to the ore that is processed in a large quantity in the Facility.					
Reasons for 0	Creatio	n			
Why is the toxic sul	ostance cr	eated at the fac	ility?: *		
This substance is r	not created	d at the facility			
Summarize why the	e toxic sub	estance is create	ed at the facility: **		
Toxic Reduct	ion Op	tions for Im	plementation		

Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: *

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution
Empty
Product design or reformulation
Empty
Equipment or process modifications
Empty
Spill or leak prevention
Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan

License Number of the toxic substance reduction planner who made recommendations in the toxic

substance reduction plan for this substance (format TSRPXXXX): *

Page 28 of 63

TSRP0002

License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *

TSRP0002

What version of the plan is this summary based on?: *

New Plan

NA - 08, Lead (and its compounds)

NA - 08, Lead (and its compounds)

Substances Section Data

Statement of Intent

Are the following included in the Facility's TRA Plan?

Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRAs definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following the Ontario Ministry of the Environment and Climate Change (MOECC) guidance, processing of feedstocks in which the Toxic Substance is present due to natural deposition in previously mined and/or processed materials, meets the definition of MPO, despite the fact that the Toxic Substance travels through the Facility's concentration process without undergoing any significant chemical change.

Although the Toxic Substance is present in the feedstocks at relatively low concentrations, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of feedstock that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of six Toxic Substance Reduction Plans and Plan Summaries to date for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above.

The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however, the Facility would like to take this opportunity to inform the reader of the fact that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Creation

is there a state	ement that the	owner or opera	tor of the facilit	ty intends to rec	duce the creation	of the toxic
substance at tl	ne facility?: *	•		•		

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

The Toxic Substance is never created within the Facility's process and therefore no statement with re	spect
to intent to reduce creation of the Toxic Substance is required.	•

Objectives, T	argets	and Descrip	otion	
Objectives				
Objectives in plan:	*			
explanation of how impossible to reduce	r the Facil the TRAs ce the "use	ity's position with definition of the e" of the Toxic Su	word "use", as applied bstance without reduc	ent of Intent by providing an to the Toxic Substance, renders it ing Facility production;
as a "use" of the To			the nature of the Facili	ty activity which the TRA has defined
•document how the respect to the Toxic			plicable requirements	under the TRA and O.Reg.455/09 with
Use Targets				
What is the ta	argeted	reduction in	n use of the toxi	ic substance at the
facility? *				
No quantity target		Quantity		Unit
\boxtimes	or			
What is the ta	argeted	timeframe	for this reductio	n? *
No timeline target			years	
\boxtimes		or		
Description of targe	ets			
Creation Targ	gets			
What is the ta	argeted	reduction in	n creation of the	e toxic substance at the
facility? *				
No quantity target		Quantity		Unit
×	or			

Page 31 of 63 Printed on 21/08/2015 4:10:28 PM

What is the targ	eted timeframe	for this reduction? *
No timeline target		years
×	or	
Description of Target		
Reasons for Use	9	
Why is the toxic substa	nce used at the facility	?: *
As a by-product		
Summarize why the tox	xic substance is used a	ut the facility: **
TRA as a "use" of the processed materials in Substance occurs nature is impossible to reduce Toxic Substance simple without undergoing any within the Facility process.	Toxic Substance is the which the Toxic Substant In Michael which the Toxic Substant In Michael which the Toxic was travels through the Formula in Substant In Toxic Page 18 which was the Toxic In Michael Substant In Michael Sub	activity that the MOECC has defined for the purpose of the handling and processing of previously mined and/or tance is present due to natural deposition. Since the Toxic s, and the Facility is a mining and mineral processing facility, it is Substance without reducing the Facility's production. The facility process along with all other non-desired materials change. It is impossible for the Toxic Substance to be created exic Substance is reportable under the TRA and O.Reg.455/09 all mass contribution to the ore that is processed in a large
Reasons for Cre	eation	
Why is the toxic substa		lity?: *
This substance is not o	reated at the facility	
Summarize why the tox	cic substance is created	d at the facility: **
Toxic Reduction	Options for Imp	plementation
Description of th	ne toxic reductio	on option(s) to be implemented
Is there a statement that	at no option will be imp	lemented?: *
Yes, we are not implen	nenting	
If you answered "No" to	this question, please	add the option(s) under the appropriate Toxic Substance

Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution
Empty
Product design or reformulation
Empty
Equipment or process modifications Empty
Spill or leak prevention Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
What version of the plan is this summary based on?: *
New Plan

NA - 09, Manganese (a	and its compounds)
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NA - 09, Manganese (and its compounds)

Substances Section Data

Statement of Intent

Are the following included in the Facility's TRA Plan?

Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRAs definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following the Ontario Ministry of the Environment and Climate Change (MOECC) guidance, processing of feedstocks in which the Toxic Substance is present due to natural deposition in previously mined and/or processed materials, meets the definition of MPO, despite the fact that the Toxic Substance travels through the Facility's concentration process without undergoing any significant chemical change.

Although the Toxic Substance is present in the feedstocks at relatively low concentrations, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of feedstock that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of six Toxic Substance Reduction Plans and Plan Summaries to date for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above.

The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however, the Facility would like to take this opportunity to inform the reader of the fact that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Creation

Is there a statement that	at the owner or operat	or of the facility inte	ends to reduce the c	reation of the toxic
substance at the facility	y?: *	•		

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

The Toxic Substance is never created within the Facility's process and therefore no statement with re	spect
to intent to reduce creation of the Toxic Substance is required.	•

Objectives, Targets and Description				
Objectives				
Objectives in plan:	*			
explanation of how impossible to redu	or the Facil v the TRAs uce the "use er with an u	ity's position with definition of the definition of the Toxic Suunderstanding of	word "use", as applied lbstance without reduci	ent of Intent by providing an to the Toxic Substance, renders it ing Facility production;
	e Facility h	as fulfilled the ap	plicable requirements (under the TRA and O.Reg.455/09 with
Use Targets				
	argeted	reduction in	n use of the toxi	c substance at the
facility? *				
No quantity target		Quantity		Unit
\boxtimes	or			
What is the t	argeted	timeframe	for this reduction	n? *
No timeline targe	t		years	
X		or		
Description of targ	ets			
Creation Tar	gets			
		reduction in	n creation of the	toxic substance at the
facility? *				
No quantity target		Quantity		Unit
X	or			

Page 36 of 63 Printed on 21/08/2015 4:10:28 PM

What is the targ	geted timeframe	e for this reduction? *
No timeline target		years
\boxtimes	or	
Description of Target		
Reasons for Us	se	
Why is the toxic subst	ance used at the facilit	y?: *
As a by-product		
Summarize why the to	oxic substance is used	at the facility: **
TRA as a "use" of the processed materials i Substance occurs na is impossible to reduce Toxic Substance simple without undergoing all within the Facility pro-	Toxic Substance is the n which the Toxic Substance is the turally in mined material te this "use" of the Toxic bly travels through the lay significant chemical cess. The reason the Tance is a minor elemen	ractivity that the MOECC has defined for the purpose of the e handling and processing of previously mined and/or stance is present due to natural deposition. Since the Toxic als, and the Facility is a mining and mineral processing facility, it is Substance without reducing the Facility's production. The Facility process along with all other non-desired materials change. It is impossible for the Toxic Substance to be created oxic Substance is reportable under the TRA and O.Reg.455/09 tal mass contribution to the ore that is processed in a large
Reasons for Cr	eation ·	
Why is the toxic subst	ance created at the fac	cility?: *
This substance is not	created at the facility	
Summarize why the to	oxic substance is create	ed at the facility: **
Toxic Reductio	n Options for Im	plementation
Description of t	he toxic reduction	on option(s) to be implemented
Is there a statement the	nat no option will be im	plemented?: *
Yes, we are not imple	menting	
		e add the option(s) under the appropriate Toxic Substance

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution
Empty
Product design or reformulation Empty
Equipment or process modifications
Empty
Spill or leak prevention
Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
What version of the plan is this summary based on?: *
New Plan

NA - 11, Nickel (and its compounds)

NA - 11, Nickel (and its compounds)

Substances Section Data

Statement of Intent

Are the following included in the Facility's TRA Plan?

Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRAs definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following the Ontario Ministry of the Environment and Climate Change (MOECC) guidance, processing of feedstocks in which the Toxic Substance is present due to natural deposition in previously mined and/or processed materials, meets the definition of MPO, despite the fact that the Toxic Substance travels through the Facility's concentration process without undergoing any significant chemical change.

Although the Toxic Substance is present in the feedstocks at relatively low concentrations, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of feedstock that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of six Toxic Substance Reduction Plans and Plan Summaries to date for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above.

The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however, the Facility would like to take this opportunity to inform the reader of the fact that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Creation

is there a statement that the owner o	r operator of the facility	/ intends to reduce the (creation of the toxic
substance at the facility?: *			

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

The Toxic Substance is never created within the Facility's process and therefore no statement with re	spect
to intent to reduce creation of the Toxic Substance is required.	•

Objectives,	Targets :	and Descrip	tion	
Objectives				
Objectives in plan	. *			
 explanation of horimpossible to reduce provide the readers a "use" of the document how the 	for the Facili w the TRAs uce the "use er with an u Toxic Substa ne Facility ha	ty's position with definition of the very of the Toxic Sunderstanding of tance; and	vord "use", as applied to be tance without reducing the nature of the Facility.	ent of Intent by providing an to the Toxic Substance, renders it ng Facility production; by activity which the TRA has defined under the TRA and O.Reg.455/09 with
respect to the Tox	kic Substand	ce.		
Use Targets				
What is the t	argeted	reduction in	use of the toxi	c substance at the
facility? *				
No quantity target		Quantity		Unit
\boxtimes	or			
	targeted	timeframe f	or this reduction	n? *
No timeline targe	et		years	
\boxtimes		or		
Description of targ	gets			
Creation Tar	gets			
What is the t	argeted	reduction in	r creation of the	toxic substance at the
facility? *				
No quantity target		Quantity		Unit
X	or			

Page 41 of 63 Printed on 21/08/2015 4:10:28 PM

What is the targeted timeframe for this reduction? *				
No timeline target		years		
\boxtimes	or			
Description of Target				
Reasons for Use				
Why is the toxic substance	used at the facility	?: *		
As a by-product				
TRA as a "use" of the Toxic processed materials in white Substance occurs naturally is impossible to reduce this Toxic Substance simply transitional without undergoing any significant within the Facility process.	s Plan, the Facility as C Substance is the control of the Toxic Substance in the Toxic Substance of the Toxic Subs	activity that the MOECC has defined for the purpose of the handling and processing of previously mined and/or ance is present due to natural deposition. Since the Toxic is, and the Facility is a mining and mineral processing facility, it is Substance without reducing the Facility's production. The acility process along with all other non-desired materials shange. It is impossible for the Toxic Substance to be created exic Substance is reportable under the TRA and O.Reg.455/09 all mass contribution to the ore that is processed in a large		
Summarize why the toxic s	ubstance is created	d at the facility: **		
Toxic Reduction O Description of the		olementation on option(s) to be implemented		
Is there a statement that no	option will be imp	lemented?: *		
Yes, we are not implement	ing			
If you answered "No" to this	s question, please	add the option(s) under the appropriate Toxic Substance		

Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution
Empty
Product design or reformulation
Empty
Equipment or process modifications Empty
Spill or leak prevention Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
What version of the plan is this summary based on?: *
New Plan

NA - 22, Phosphorus (total)

NA - 22, Phosphorus (total)

Substances Section Data

Statement of Intent

Are the following included in the Facility's TRA Plan?

Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRAs definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following MOECC guidance, processing of feedstocks in which the Toxic Substance is present due to natural deposition in previously mined and/or processed materials, meets the definition of MPO, despite the fact that the Toxic Substance travels through the Facility's concentration process without undergoing any significant chemical change. Although the Toxic Substance is present in the feedstocks at relatively low concentrations, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of feedstock that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of nine Toxic Substance Reduction Plans and Plan Summaries for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above. The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however the Facility would like to take this opportunity to inform the reader of the fact that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Creation

Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

The Toxic Substance is never created within the Facility's process and therefore no statement with respect to intent to reduce creation of the Toxic Substance is required.

Objectives, Targets	and Descrip	otion	
Objectives			
Objectives in plan: *			
The Objectives of the Plan ar •provide support for the Facil explanation of how the TRAs impossible to reduce the "use"	ity's position with definition of the	word "use", as applied	to the Toxic Substance, renders it
•provide the reader with an uas a "use" of the Toxic Subst		the nature of the Facilit	ty activity which the TRA has defined
•document how the Facility h respect to the Toxic Substant		pplicable requirements u	under the TRA and O.Reg.455/09 with
Use Targets			
What is the targeted	reduction i	n use of the toxi	c substance at the
facility? *			
No quantity target	Quantity		Unit
⊠ or			
What is the targeted	timeframe	for this reduction	n? *
No timeline target		years	
\boxtimes	or		
Description of targets			
Creation Targets			
What is the targeted	reduction is	n creation of the	toxic substance at the
facility? *			
No quantity target	Quantity		Unit
⊠ or			

No timeline target years

What is the targeted timeframe for this reduction? *

\boxtimes	or		
Description of Target			
Reasons for Us	е		
Why is the toxic substa	nce used at the fa	cility?: *	
As a by-product			
Summarize why the tox	ric substance is us	ed at the facility: **	

As stated elsewhere in this Plan, the Facility activity that the MOECC has defined for the purpose of the TRA as a "use" of the Toxic Substance is the handling and processing of previously mined and/or processed materials in which the Toxic Substance is present due to natural deposition. Since the Toxic Substance occurs naturally in mined materials, and the Facility is a mining and mineral processing facility, it is impossible to reduce this "use" of the Toxic Substance without reducing the Facility's production. The Toxic Substance simply travels through the Facility process along with all other non-desired materials without undergoing any significant chemical change. It is impossible for the Toxic Substance to be created within the Facility process. The reason the Toxic Substance is reportable under the TRA and O.Reg.455/09 is because the substance is a minor elemental mass contribution to the ore that is processed in a large quantity in the Facility.

Reasons for Creation

Wh۱	is the	toxic	substance	created	at the	facility	?:	*
V V I I I	<i>,</i> 13 till		Substante	CICALCA	at the	Idonity		

This substance is not created at the facility

Summarize why the toxic substance is created at the facility: **

Toxic Reduction Options for Implementation

Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: *

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution
Empty
Product design or reformulation
Empty
Equipment or process modifications
Empty
Spill or leak prevention
Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
What version of the plan is this summary based on?: *
New Plan
NA - M08, Total Particulate Matter
NA - M08, Total Particulate Matter
Substances Section Data
Statement of Intent
Are the following included in the Facility's TRA Plan?

l	J	S	e

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

The Toxic Substance cannot be "used" in the Facility process and therefore no statement with respect to intent to reduce use of the Toxic Substance is required.

Creation

Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement. A statement of the Facility's intent to reduce its "creation" of the Toxic Substance has not been included as a part of this Plan. The Toxic Substance has triggered reporting under the TRA and O.Reg.455/09 due to two activities at the Facility which are interpreted as "creations" of the Toxic Substance under the TRA framework. The first activity that has been classified as a "creation" of the Toxic Substance for the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substances is the generation by physical means of suspended particulate matter in various size fractions commonly referred to as dust; which is subsequently released either as stack or fugitive emissions.

The second activity that has been classified as a "creation" of the Toxic Substance is the generation of suspended particulate matter as a by-product of combustion of fuels in stationary equipment. The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however in this case, "end of pipe" emissions of suspended particulate matter is the determining factor of the Facility's TRA reporting status with respect to the Toxic Substance.

Despite the Facility's reporting status with respect to the Toxic Substance, the Facility feels that it has previously optimized its control of the "creation" and subsequent release of the Toxic Substance to the greatest extent that can reasonably be expected. This opinion is supported by the following two aspects:

Compliance with Regulatory Requirements

It is well documented that release of suspended particulate matter is an inherent by-product of mining and mineral processing and that the activities leading to the release of suspended particulate matter are essential to the process of mining and mineral processing. In recognition of this, the MOECC has imposed various regulatory requirements related to the release of suspended particulate matter, which include: - Ontario Regulation 419/05, under which a Facility must demonstrate compliance with substance-specific ground-level concentration limits of emitted substances, including suspended particulate matter in all forms that are reportable under the NPRI and TRA reporting programs: -The requirement for any Facility that may discharge any contaminant to the atmosphere to apply for and obtain an Environmental Compliance Approval (ECA) for air which approves the facility's emissions and provides performance limits, documentation requirements and reporting requirements which a Facility must meet in order to maintain compliance with the ECA on an ongoing basis.

-The requirement for qualifying a facility to prepare and implement a "Fugitive Dust Best Management Practices Plan." This document outlines controls in place with respect to minimizing suspended particulate matter releases in the form fugitive dust at the facility, along with the decision making process that was used to identify fugitive dust emission sources and to develop appropriate best management practices for each type of source. A qualifying facility's Fugitive Dust Best Management Practices Plan must be approved by the MOECC as a part of the ECA implementation process. Northern Sun Mining Corporation currently meets and/or exceeds all of the above regulatory requirements which are designed to control the release of the Toxic Substance and minimize potential off-site impacts resulting from the release of the Toxic Substance. As a result of satisfying all of the above noted regulatory requirements in addition to voluntary actions with respect to suspended particulate matter releases (Fugitive Dust Management, Dust Collectors).

Objectives, Targets and Description

Objectives

Objectives in plan: *

The objectives of this 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.

Use Targets

What is the targeted reduction in use of the toxic substance at the

facility? *				
No quantity target		Quantity		Unit
\boxtimes	or			
What is the	targeted	timeframe	for this reductio	n? *
No timeline target		years		
\boxtimes		or		
Description of targ	gets			
Creation Tar	gets			
What is the t	targeted	reduction in	n creation of the	e toxic substance at the
facility? *				
No quantity target		Quantity		Unit
\boxtimes	or			
What is the t	targeted	timeframe	for this reductio	n? *
No timeline targe	•		years	
\boxtimes		or		
Description of Tar	get			
Reasons for	Use			
Why is the toxic s	ubstance us	sed at the facility	?: *	
This substance is	not used a	t the facility		
Summarize why the toxic substance is used at the facility: **				
Reasons for	Creatio	n		

Why is the toxic substance created at the facility?: *

As a by-product

Summarize why the toxic substance is created at the facility: **

The Toxic Substance has triggered reporting under the TRA and O.Reg.455/09 due to two activities at the Facility which are defined as "creations" of the Toxic Substance under the TRA framework. The first activity that has been classified as a "creation" of the Toxic Substance is the generation by physical means of suspended particulate matter in various size fractions as dust; which is subsequently released either as stack or fugitive emissions. The second activity that has been classified as a "creation" of the Toxic Substance is the generation of particulate matter as a by-product of combustion of fuels in stationary equipment. The Toxic Substance cannot be used in the Facility process.

For the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substance, the calculated "release" values have been assumed to be equal to the amount "created" for each emission source, despite the fact that some of these releases are controlled releases. Section 12(6) of O.Reg.455/09 provides considerations for determining the "Best Available Methods" for tracking and quantifying the Toxic Substance. MOECC guidance pertaining to this section of O.Reg.455/09 states that the importance of selecting Best Available Methods is to provide the best decision making information when determining which toxics reduction options, if any, are worthwhile to implement. It should be noted that, given the Facility's decision to not include in this Plan a statement of its intent to reduce the "creation" of the Toxic Substance (as supported by the information provided in the Statement of Intent section of the Plan), no decisions will be made with respect to toxics reduction based on the calculated "creation" values for the Toxic Substance. Taking this into consideration, the Facility used judgement based on relevance and effort required to obtain information and feels that it has gone to reasonable efforts in identifying and applying the Best Available Methods for quantifications in this case.

Toxic Reduction Options for Implementation

Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: *

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Materials or feedstock substitution

Empty

Product design or reformulation

Empty

Equipment or process modifications

Empty
Spill or leak prevention
Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0002
What version of the plan is this summary based on?: *
New Plan
NA - M09, PM10 - Particulate Matter <= 10 Microns NA - M09, PM10 - Particulate Matter <= 10 Microns
Substances Section Data
Statement of Intent Are the following included in the Facility's TRA Plan?
Use
Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *
No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **

The Toxic Substance cannot be "used" in the Facility process and therefore no statement with respect to intent to reduce use of the Toxic Substance is required.

Creation

Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

Page 54 of 63

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement. A statement of the Facility's intent to reduce its "creation" of the Toxic Substance has not been included as a part of this Plan. The Toxic Substance has triggered reporting under the TRA and O.Reg.455/09 due to two activities at the Facility which are interpreted as "creations" of the Toxic Substance under the TRA framework. The first activity that has been classified as a "creation" of the Toxic Substance for the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substances is the generation by physical means of suspended particulate matter in various size fractions commonly referred to as dust; which is subsequently released either as stack or fugitive emissions.

The second activity that has been classified as a "creation" of the Toxic Substance is the generation of suspended particulate matter as a by-product of combustion of fuels in stationary equipment. The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however in this case, "end of pipe" emissions of suspended particulate matter is the determining factor of the Facility's TRA reporting status with respect to the Toxic Substance.

Despite the Facility's reporting status with respect to the Toxic Substance, the Facility feels that it has previously optimized its control of the "creation" and subsequent release of the Toxic Substance to the greatest extent that can reasonably be expected. This opinion is supported by the following two aspects:

Compliance with Regulatory Requirements

It is well documented that release of suspended particulate matter is an inherent by-product of mining and mineral processing and that the activities leading to the release of suspended particulate matter are essential to the process of mining and mineral processing. In recognition of this, the MOECC has imposed various regulatory requirements related to the release of suspended particulate matter, which include: - Ontario Regulation 419/05, under which a Facility must demonstrate compliance with substance-specific ground-level concentration limits of emitted substances, including suspended particulate matter in all forms that are reportable under the NPRI and TRA reporting programs: -The requirement for any Facility that may discharge any contaminant to the atmosphere to apply for and obtain an Environmental Compliance Approval (ECA) for air which approves the facility's emissions and provides performance limits, documentation requirements and reporting requirements which a Facility must meet in order to maintain compliance with the ECA on an ongoing basis.

-The requirement for qualifying a facility to prepare and implement a "Fugitive Dust Best Management Practices Plan." This document outlines controls in place with respect to minimizing suspended particulate matter releases in the form fugitive dust at the facility, along with the decision making process that was used to identify fugitive dust emission sources and to develop appropriate best management practices for each type of source. A qualifying facility's Fugitive Dust Best Management Practices Plan must be approved by the MOECC as a part of the ECA implementation process. Northern Sun Mining Corporation currently meets and/or exceeds all of the above regulatory requirements which are designed to control the release of the Toxic Substance and minimize potential off-site impacts resulting from the release of the Toxic Substance. As a result of satisfying all of the above noted regulatory requirements in addition to voluntary actions with respect to suspended particulate matter releases (Fugitive Dust Management, Dust Collectors).

Objectives, Targets and Description

Objectives

Objectives in plan: *

The objectives of this 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.

Use Targets

What is the targeted reduction in use of the toxic substance at the

facility? *				
No quantity target		Quantity		Unit
X	or			
What is the ta	argeted	timeframe	for this reductio	n? *
No timeline target	:		years	
\boxtimes		or		
Description of targe	ets			
Creation Targ	gets			
What is the ta	argeted	reduction in	n creation of the	e toxic substance at the
facility? *				
No quantity target		Quantity		Unit
\boxtimes	or			
What is the ta	argeted	timeframe	for this reductio	n? *
No timeline target	•		years	
\boxtimes		or		
Description of Targ	et			
Reasons for	Use			
Why is the toxic su		ed at the facility	?: *	
This substance is a	not used at	the facility		
Summarize why the	e toxic sub	stance is used a	t the facility: **	
Reasons for	Creatio	n		

Why is the toxic substance created at the facility?: *

As a by-product

Summarize why the toxic substance is created at the facility: **

The Toxic Substance has triggered reporting under the TRA and O.Reg.455/09 due to two activities at the Facility which are defined as "creations" of the Toxic Substance under the TRA framework. The first activity that has been classified as a "creation" of the Toxic Substance is the generation by physical means of suspended particulate matter in various size fractions as dust; which is subsequently released either as stack or fugitive emissions. The second activity that has been classified as a "creation" of the Toxic Substance is the generation of particulate matter as a by-product of combustion of fuels in stationary equipment. The Toxic Substance cannot be used in the Facility process.

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Toxic Reduction Options for Implementation

Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: *

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.). If you answered "Yes" please provide an explanation below why your facility is not implementing an option. Explanation of the reasons why no option will be implemented: **

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

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TSRP0002
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TSRP0002
What version of the plan is this summary based on?: *
New Plan
NA - M10, PM2.5 - Particulate Matter <= 2.5 Microns NA - M10, PM2.5 - Particulate Matter <= 2.5 Microns
Substances Section Data
Statement of Intent
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X	or			
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\boxtimes		or		
Description of targe	ets			
Creation Targ	gets			
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Reasons for	Use			
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TSRP0002
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TSRP0002
What version of the plan is this summary based on?: *
New Plan