

Government of Western Australia Department of Water and Environmental Regulation

Annual Audit Compliance Report Form

Environmental Protection Act 1986, Part V Division 3

Once completed, please submit this form either via email to <u>info@dwer.wa.gov.au</u>, or to the below postal address:

Department of Water and Environmental Regulation Locked Bag 10 Joondalup DC WA 6919

Section A – Licence details			
Licence number:	L8008/2004/3	Licence file number:	DER2014/000631
Licence holder name:	Ravensthorpe Nickel Operations Pty Ltd		
Trading as:	Ravensthorpe Nickel Operations		
ACN:	092506584		
Registered business address:	Level 1, 24 Outram Street, West Perth, WA 6005		
Reporting period:	01/05/2022 to	30/04/2023	

Section B - Statement of compliance with licence conditions

Did you comply with all of your licence conditions during the reporting period? (please tick the appropriate box)

- - section C;
 - section D (if required); and
 - sign the declaration in Section F.
- ☑ No please complete:
 - section C;
 - section D (if required);
 - section E; and
 - sign the declaration in Section F.

Section C - Statement of actual production

Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.

Prescribed premises category	Actual production quantity
5. Processing or beneficiation of metallic or non – metallic ore	6,952,335 Tons
31. Chemical manufacturing	908,233 Tons
52. Electric power generation	228,324 MWH

Section D - Statement of actual Part 2 waste discharge quantity

Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.

Prescribed premises category	Actual Part 2 waste discharge quantity
54 Sewage Facility	98.15 m³ per day

Section E – Details of non-compliance with licence condition

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no:	1.3.3	Date(s) of non- compliance:	14/05/2022	
		Compliance.		

Details of non-compliance:

MACA storm-water dam (SP3) overflowed through the spillway resulting in a storm-water discharge containing hydrocarbons into the drain surrounding SP3 and then through the road culvert and downstream into the adjacent creek line. Required freeboard not maintained.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

The impacted area is highly disturbed, and the short term impact of the incident is expected to be minor and contained to the immediately affected area. The area has been cleaned up and minimal residual impact is expected.



Cause (or suspected cause) of non-compliance:

There were 3 main contributing factors to this incident:

- There was more water remaining in the Halley's mine services area storm-water system
 due to the mining contractor relocating the bulk of their operations to the Shoemaker-Levy
 mine. In the past significant quantities of storm-water has been used for dust suppression
 and other mining operations at the Halley's mine and there is now less of a requirement
 for this.
- Due to dot point 1 and rainfall, the storm water pond was, at the time of the incident being operated above the allowed freeboard resulting in less capacity available to contain additional storm water.

Section E – Details of non-compliance with licence condition The waste oil separation system in the nearby oily water pond which usually feeds clean treated water to the storm water pond was not operating optimally. This led to some minor quantities of waste oil making it through into the clean water tank feeding the storm water pond. Some of this waste oil subsequently exited the pond via the spillway. Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance: Overflow through the SP3 spillway was stopped using sand bags. Pond level lowered using Cleanaway Industrial vac truck. Cleaned-up the deposited hydrocarbon in the impacted area. More thorough maintenance of waste oil recovery system to ensure only water enters the storm water pond. Clean water tank added to weekly inspection schedule and better management of waste oil recovery system to ensure it is operating correctly. Was this non-compliance previously reported to DWER? X Yes, and Reported to DWER verbally Date: 1 1 Reported to DWER in writing Date: 14/05/2022

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 1.3.3 Date(s) of non-compliance: 12/07/2022

Details of non-compliance:

Saline water (seawater) was released to the environment at approximately chainage 6400, along the RNO processing plant to Shoemaker – Levy saline water pipeline.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected from this incident as water flowing in the affected creek line is already saline.



Cause (or suspected cause) of non-compliance:

There were 4 main contributing factors to this incident:

- An inspection undertaken on the morning of the 12th July, revealed that the Shoemaker-Levy saline water pipeline had split at a poly weld near the 6400 chainage mark of the SML conveyor corridor.
- An excavator was working nearby leading up to the incident and was using a pipeline crossing point immediately downstream of the pipeline weld that split.
- It is considered likely that movement in the pipeline caused by the excavator crossing repeatedly led to the weld weakening and eventually splitting.
- The cold temperatures that occurred on the morning of the incident may have contributed by increasing the brittleness of the pipeline.
- Saline water breached the pipeline v-trench and found its way into the cleared conveyor corridor and then to the nearby already saline creek-line

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

The pipeline was isolated and the weld repaired. The pipeline was then returned to service. A review of pipeline flow and leak controls was completed and changes were made to these other than to better manage heavy machinery working in the vicinity of the pipeline.

Section E – Details of non-compliance with licence condition		
Was this non-compliance previously reported to DWER?		
⊠ Yes, and		
Reported to DWER verbally	Date: / /	
⊠ Reported to DWER in writing	Date: 12/07/2022	

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 1.3.3 Date(s) of non-compliance: 13/07/2022

Details of non-compliance:

Tailings slurry was released to the environment immediately downstream of the Storm water South (top) pond at the RNO processing plant. Tailings slurry drained downstream into the nearby dry creek bed.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

The impacted area is highly disturbed, and the short term impact of the incident is expected to be minor and contained to the immediately affected area. The area has been cleaned up and minimal residual impact is expected.



Cause (or suspected cause) of non-compliance:

There were 5 main contributing factors to this incident:

- Tailings leak reported from an elbow in the main RNO tailings line (steel pipeline) on the 13 July 2022 at 4.00 am.
- The elbow was located adjacent to the upper southern storm water pond (SP2) at the RNO plant site.
- The subject elbow section of pipeline had been partially buried in the soil causing corrosion of that section which contributed to the failure.
- A section of the downstream tailings pipeline containment bunding was breached during the incident which contributed to tailings spill.
- Tailings spilled from the bunding breach into the downslope paddock area and dry creek bed

Section E – Details of non-compliance with licence condition		
Action taken to mitigate any adverse effects of non-compliance:	on-compliance and prevent recurrence of the	
 Tailings discharge was switched across to the welded HDPE backup tailings line to stop tailings flow in the main line. Corroded pipeline elbow section replaced and elevated above soil level to prevent further corrosion impact. Bunding breach repaired 		
Was this non-compliance previously reported to DWER?		
⊠ Yes, and		
☐ Reported to DWER verbally	Date: / /	
☐ Reported to DWER in writing	Date: 13/07/2022	

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 1.3.3 Date(s) of non-compliance: 24/07/2022

Details of non-compliance:

HV workshop inspection sump overflowed due to sediment buildup in system resulting in a minor spill to the external drainage system and then to the nearby ephemeral creek bed.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected



Cause (or suspected cause) of non-compliance:

There were 3 main contributing factors to this incident:

- The overflow of wash water from the HV workshop sump was primarily caused by a buildup of sediment in the HV wash down sedimentation pond which blocked the discharge pipeline.
- Excessive build-up of sediment in the pond resulted from lack of preventative maintenance (i.e. regular removal of sediment).
- Overflowing wash water could not be effectively controlled during the spill event, as minimal control mechanisms were in place.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

- HV workshop sedimentation pond to be cleaned out on a more regular basis to ensure sediment does not build up leading to a blockage in the discharge pipeline.
- Culvert gates are being investigated for installation on certain drain culverts downstream
 of the HV workshop area so that in the event of a spill these can be closed to minimize
 the risk of downstream impact

Section E – Details of non-compliance with licence condition		
Was this non-compliance previously reported to DWER?		
⊠ Yes, and		
Reported to DWER verbally	Date: / /	
Reported to DWER in writing	Date: 24/07/2022	

Section E – Details of non-compliance with licence condition Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period. Date(s) of non-Condition no: 3.5.1 10/2022 compliance: Details of non-compliance: Dust deposition in DDG08 for October, 2022 exceeded licence target of 4g/m3/month. What was the actual (or suspected) environmental impact of the non-compliance? NOTE - please attach maps or diagrams to provide insight into the precise location of where the noncompliance took place. No impact expected **DDG10** DDG03 DDG02 DDG11 DDG04 DDG12 M 7400175 DDG06 DDG05 Cause (or suspected cause) of non-compliance: Unclear. No specific cause could be determined however evidence suggests it was not mining related Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance: Investigated possible causes however no corrective action plan could be determined in this case, as RNO continues to implement dust management controls Was this non-compliance previously reported to DWER? Yes, and 1 ☐ Reported to DWER verbally 1 Date: Reported to DWER in writing 28/11/2022 Date:

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 1.3.2 Date(s) of non-compliance: 03/11/2022

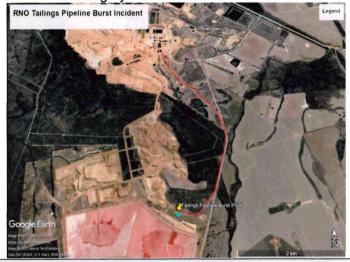
Details of non-compliance:

Tailings slurry was released to the environment at the North East shoulder of the Tailings Storage Facility. Tailings slurry drained downwards around the burst point

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected as the area is highly disturbed



Cause (or suspected cause) of non-compliance:

The HDPE spool failure seemed to be from the internal lifting of the pipe spool lining due to overpressure for a HDPE material as opposed to a steel spool.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

- Cleanup initiated.
- Increased monitoring/surveillance on the pipeline.
- 12 new steel spool bends ordered and delivered in mid-January 2023 to replace all
 existing spools on the pipeline.
- Replacement work began in early February.
- New spares will be preserved undercover to avoid any damage due to weather.

Was this non-compliance previously reported to DWER?

☐ Yes, and

☐ Reported to DWER verbally

☐ Reported to DWER in writing

☐ Date: 03/11/2022

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 1.3.2 Date(s) of non-compliance: 28/11/2022

Details of non-compliance:

Tailings slurry was released to the environment at the North of the Tailings Storage Facility 1 dividing wall. Tailings slurry drained downwards around the leak point as seen in Fig 1. See Pictures attached.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected as the area is highly disturbed.



Cause (or suspected cause) of non-compliance:

The HDPE spool failure seemed to be from the internal lifting of the pipe spool lining due to overpressure for a HDPE material as opposed to a steel spool.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

- · Cleanup initiated.
- Increased monitoring/surveillance on the pipeline.
- 12 new steel spool bends ordered and delivered in mid-January 2023 to replace all existing spools on the pipeline.
- Replacement work began in early February.
- New spares will be preserved undercover to avoid any damage due to weather.

⊠ Yes, and	
☐ Reported to DWER verbally	Date: / /
□ Reported to DWER in writing	Date: 28/11/2022

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: Date(s) of non-compliance: 04/12/2022

Details of non-compliance:

Tailings slurry was released to the environment at the North of the Tailings Storage Facility adjacent to the southern access road. Tailings slurry drained downwards around the leak point.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected as the area is highly disturbed.



Cause (or suspected cause) of non-compliance:

The HDPE spool failure seemed to be from the internal lifting of the pipe spool lining due to overpressure for a HDPE material as opposed to a steel spool.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

- Cleanup initiated.
- Increased monitoring/surveillance on the pipeline.
- 12 new steel spool bends ordered and delivered in mid-January 2023 to replace all existing spools on the pipeline.
- · Replacement work began in early February.
- New spares will be preserved undercover to avoid any damage due to weather

Yes, and	
☐ Reported to DWER verbally	Date: / /
□ Reported to DWER in writing	Date: 04/12/2022

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 1.3.2 Date(s) of non-compliance: 13/12/2022

Details of non-compliance:

Tailings slurry was released to the environment along the South access road. Tailings slurry drained downwards around the burst point.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected as the area is highly disturbed.



Cause (or suspected cause) of non-compliance:

The HDPE spool failure seemed to be from the internal lifting of the pipe spool lining due to overpressure for a HDPE material as opposed to a steel spool.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

- Cleanup initiated.
- Increased monitoring/surveillance on the pipeline.
- 12 new steel spool bends ordered and delivered in mid-January 2023 to replace all existing spools on the pipeline.
- Replacement work began in early February.
- New spares will be preserved undercover to avoid any damage due to weather.

⊠ Yes, and	
☐ Reported to DWER verbally	Date: / /
⊠ Reported to DWER in writing	Date: 13/12/2022

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no:

3.5.1

Date(s) of non-compliance:

December, 2022

Details of non-compliance:

Dust deposition in DDG08 for December, 2022 exceeded licence target of 4g/m3/month.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected



Cause (or suspected cause) of non-compliance:

Given the prevailing wind directions for December and the fact that other DDGs located around the mining and processing areas did not exceed the target, it is unclear what has caused the target exceedance. Of particular note in this regard are DDG02 (0.55 g/m2/month), DDG03 (0.61 g/m2/month) and DDG04 (0.55 g/m2/month) which are located immediately downwind form the Hale-Bopp mining area and Tailings Storage Facility (TSF) when the wind is from the south east.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

Investigated possible causes however no corrective action plan could be determined in this case.

⊠ Yes, and	
Reported to DWER verbally	Date: / /
Reported to DWER in writing	Date: 22/01/2023

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 1.3.2 Date(s) of non-compliance: 11/01/2023

Details of non-compliance:

Tailings slurry was released to the environment at the North of the Tailings Storage Facility 1 dividing wall. Tailings slurry drained downwards around the leak point.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected as the area is highly disturbed



Cause (or suspected cause) of non-compliance:

The HDPE spool failure seemed to be from the internal lifting of the pipe spool lining due to overpressure for a HDPE material as opposed to a steel spool.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

- Cleanup initiated.
- Increased monitoring/surveillance on the pipeline.
- 12 new steel spool bends ordered and delivered in mid-January 2023 to replace all existing spools on the pipeline.
- Replacement work began in early February.
- New spares will be preserved undercover to avoid any damage due to weather.

Was this non-compliance previously reported to DWER?		
⊠ Yes, and		
☐ Reported to DWER verbally	Date: / /	
⊠ Reported to DWER in writing	Date: 11/01/2023	

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 1.3.2 Date(s) of non-compliance: 07/02/2023

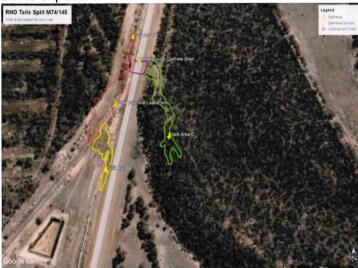
Details of non-compliance:

Tailings slurry was released to the environment at the North East of the Tailings Storage Facility. Tailings slurry drained over to the opposite vegetation through the concrete drain.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

The impacted area is highly disturbed, and the short term impact of the incident is expected to be minor and contained to the immediately affected area. The area has been cleaned up and minimal residual impact is expected.



Cause (or suspected cause) of non-compliance:

The HDPE spool failure seemed to be from the internal lifting of the pipe spool lining due to overpressure for a HDPE material as opposed to a steel spool.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

- Cleanup initiated.
- Increased monitoring/surveillance on the pipeline.
- 12 new steel spool bends ordered and delivered in mid-January 2023 to replace all existing spools on the pipeline.
- Replacement work began in early February.
- New spares will be preserved undercover to avoid any damage due to weather.

⊠ Yes, and	
☐ Reported to DWER verbally	Date: / /
⊠ Reported to DWER in writing	Date: 07/02/2023

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no:	3.5.2	Date(s) of non-	2022 - 2023
Condition no.	0.0.2	compliance:	2022 2020

Details of non-compliance:

Table 3.5.2

- Monitoring bore MB22 not sampled for water quality in July 2022, October 2022 and January 2022 as per licence requirement.
- Monitoring bore MB2 not sampled for water quality for the 2022-2023 reporting period as per licence requirement.
- Monitoring bores RWC20 and RWC27(D) not sampled in July 2022
- Standing water levels were not recorded from RWC49 and RWC 50 in July 2022.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No environmental impact resulted from these non-compliances. RNO monitoring bore locations



Cause (or suspected cause) of non-compliance:

- 1. MB22 was impacted by conveyor construction works in late 2020.
- 2. MB2 was dry for the reporting period and has consistently been dry for the life of the operation so far.
- 3. RWC20 and RWC27 (D) were temporarily not accessible during the July 2022 sampling run.
- 4. RWC49 and RWC50 were temporarily not accessible during the July 2022 sampling run.

Section E – Details of non-compliance with licence condition				
Action taken to mitigate any adverse effects of non-compliance:	on-compliance and prevent recurrence of the			
 MB22 was re-drilled right next to its origin collected in April 2023 sampling program. MB2 will continue to be monitored and will continue to be monitored. 				
sufficient. • Access to RWC20 and RWC27 (D) has b	·			
issue going forward.	restored and is not anticipated to be an issue			
Was this non-compliance previously reported to	DWER?			
⊠ Yes, and				
Reported to DWER verbally	Date: / /			
Reported to DWER in writing	Date:			

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 3.5.1 Date(s) of non-compliance: March, 2023

Details of non-compliance:

Dust deposition in DDG01 for March, 2023 exceeded licence target of 4g/m3/month.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected



Cause (or suspected cause) of non-compliance:

Given the prevailing wind directions and speed which shows (2-5 m/s and 5-10 m/s) for DDG01 in March, 2023, it could be deduced that there is a possible mining and processing operations attributed impact for DDG01. It is great to note the DDG locations around DDG01 (DDG03, and DDG04) has not been impacted, as such, RNO operations attributed impact on DDG01 will seem minimal. This shows uncertainty as to the major impact source.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

Investigated possible causes however no corrective action plan could be determined in this case. Lab result was received on 03/05/2023.

was this non-compliance previously reported to DWER?				
⊠ Yes, and				
☐ Reported to DWER verbally	Date: / /			
□ Reported to DWER in writing	Date: 04/05/2023			

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no: 3.5.1 Date(s) of non-compliance: March, 2023

Details of non-compliance:

Dust deposition in DDG11 for March, 2023 exceeded licence target of 4g/m3/month.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No impact expected



Cause (or suspected cause) of non-compliance:

Given the prevailing wind directions and speed which shows (2-5 m/s and 5-10 m/s) for DDG11 in March, 2023, it could be deduced that the impact on DDG11 is from the farmland ripping activity immediately South Easterly of the DDG11 location.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

Investigated possible causes however no corrective action plan could be determined in this case. Lab result was received on 03/05/2023.

∑ Yes, and	
Reported to DWER verbally	Date: / /
□ Reported to DWER in writing	Date: 04/05/2023

Section F - Declaration

I / We declare that the information in this Annual Audit Compliance Report is true and correct and is not false or misleading in a material particular¹.

I / We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation's (DWER) website.

			1
Signature ² :		Signature:	
Name: (printed)		Name: (printed)	
Position:		Position:	
Date:	29/06/2023	Date:	29/06/2023
Seal (if signing under seal):			

¹ It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular.

² AACRs can only be signed by the licence holder or an authorised person with the legal authority to sign on behalf of the licence holder.