



## Annual Audit Compliance Report Form

*Environmental Protection Act 1986, Part V*

### Section A – Licence Details

Licence number:	L8596/2011/1	Licence file number:	<a href="#">Click here to enter text.</a>
Licence holder:	Polaris Metals Pty Ltd		
Trading as:	Polaris Metals Pty Ltd		
ACN:	ABN: 18 085 223 570		
Registered address:	1 Sleat Road, Applecross, Western Australia 6153		
Reporting period:	1 January 2018 to 31 December 2018		

### 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)

☐ Yes – please complete:

- 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 at 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
Category 5	1,171,813 tonnes

### 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
Category 54	3,576 m3

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:	2.1.1	Date(s) of non-compliance:	14/02/2018
Details of non-compliance:			
Exceedances in Total Suspended Solids (44mg/L) and <i>E.coli</i> (>100000 cfu)			
What was the actual (or suspected) environmental impact of the non-compliance?			
<b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
As the water was irrigated into the designated wastewater irrigation area and away from active work areas, the risk of adverse environmental impact is considered to be low.			
Cause (or suspected cause) of non-compliance:			
An investigation into the above exceedances identified an increase in pH in the source water. The pH fluctuation was connected with the changeover of source water from J4 to Carina. This was compounded by the fact the dosing of caustic, once required to increase the pH for optimal bacteria growth aided in making the water too alkaline thus killing off the bacteria in the aeration tank causing the exceedances..			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Changes to the chlorination system were undertaken in April 2018 to reduce the thermotolerant coliforms levels reporting to the irrigation field. An assessment of the vegetation in the irrigation field was conducted on the 4 December 2018. Photographic monitoring was established at the site and an on ground assessment of the vegetation was undertaken. The results of the monitoring suggest only minor impacts to the vegetation health and condition.			
Was this non-compliance previously reported to DER?			
<input checked="" type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DER verbally		Date:	
<input checked="" type="checkbox"/> Reported to DER in writing		Date: 28 November 2018 (Email in response to DWER compliance inspection report)	

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:	2.1.1	Date(s) of non-compliance:	21/03/2017
Details of non-compliance:			
Exceedances in Biological Oxygen Demand (22mg/L), Total Nitrogen (36mg/L) and E.coli (>300000 cfu)			
What was the actual (or suspected) environmental impact of the non-compliance?			
<b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
As the water was irrigated into the designated wastewater irrigation area and away from active work areas, the risk of adverse environmental impact is considered to be low.			
Cause (or suspected cause) of non-compliance:			
Issues with the chlorination system of the wastewater treatment plant resulted in the high level of Thermotolerant coliforms recorded in March. The cause of the exceedance in Biological Oxygen Demand and Total Nitrogen was likely due to the reduced ability of the camp WWTP to process a reduced amount of wastewater (as identified in May 2018).			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
<p>In April 2018, changes to the WWTP chlorination system were undertaken to reduce the Thermotolerant coliforms levels reporting to the irrigation field.</p> <p>An assessment of the vegetation in the irrigation field was conducted on the 4 December 2018. Photographic monitoring was established at the site and an on ground assessment of the vegetation was undertaken. The results of the monitoring suggest only minor impacts to the vegetation health and condition.</p>			
Was this non-compliance previously reported to DER?			
<input checked="" type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DER verbally		Date:	
<input checked="" type="checkbox"/> Reported to DER in writing		Date: 28 November 2018 (Email in response to DWER compliance inspection report)	


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:	2.1.1	Date(s) of non-compliance:	5/04/2018
Details of non-compliance:			
Exceedances in Total Suspended Solids (54mg/L) and <i>E.coli</i> (2800 cfu)			
What was the actual (or suspected) environmental impact of the non-compliance?			
<b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
As the water was irrigated into the designated wastewater irrigation area and away from active work areas, the risk of adverse environmental impact is considered to be low.			
Cause (or suspected cause) of non-compliance:			
<p>The increase in TDS was linked with an elevation in TDS found in Reverse Osmosis (RO) process water. The RO membrane filters were found to be at the end of the operation life and were replaced.</p> <p>Issues with the chlorination system of the wastewater treatment plant resulted in the high level of Thermotolerant coliforms recorded.</p>			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
<p>The RO membrane filters were found to be at the end of the operation life and were replaced. Changes to the WWTP chlorination system were also undertaken to reduce the Thermotolerant coliforms levels reporting to the irrigation field. The increase in Chlorination contributed to the steady decline in Thermotolerant coliforms to levels just above target limits.</p> <p>An assessment of the vegetation in the irrigation field was conducted on the 4 December 2018. Photographic monitoring was established at the site and an on ground assessment of the vegetation was undertaken. The results of the monitoring suggest only minor impacts to the vegetation health and condition.</p>			
Was this non-compliance previously reported to DER?			
<input checked="" type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DER verbally		Date:	
<input checked="" type="checkbox"/> Reported to DER in writing		Date: 7 May 2018	

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:	2.1.1	Date(s) of non-compliance:	14/05/2018
Details of non-compliance:			
Exceedances in Total Suspended Solids (54mg/L), Total Nitrogen (28mg/L) and <i>E.coli</i> (130000 cfu)			
What was the actual (or suspected) environmental impact of the non-compliance?			
<b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
As the water was irrigated into the designated wastewater irrigation area and away from active work areas, the risk of adverse environmental impact is considered to be low.			
Cause (or suspected cause) of non-compliance:			
<p>An extensive investigation was completed. The outcome from the investigation identified that the reduction in camp numbers from &gt; 100 to approx. 30 personnel has adversely affected the plants ability to process the waste water.</p> <p>As per the licence the WWTP was originally designed to manage camp numbers greater than 100. This compounded by the fact the WWTP is an older model which requires manual inputs to deal with fluctuations in camp numbers has contributed to the identified exceedances.</p> <p>The investigation also highlighted that the head on the media filter on the plant needed to be replaced.</p>			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
<p>A specialist contractor was mobilised to site to manually alter the parameters on the plant in line with the current camp numbers. A new head was also fitted on the media filter on the week of the 11 June 2018.</p> <p>An assessment of the vegetation in the irrigation field was conducted on the 4 December 2018. Photographic monitoring was established at the site and an on ground assessment of the vegetation was undertaken. The results of the monitoring suggest only minor impacts to the vegetation health and condition.</p>			
Was this non-compliance previously reported to DER?			
<input checked="" type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DER verbally		Date:	
<input checked="" type="checkbox"/> Reported to DER in writing		Date: 7 June 2018	

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:	2.1.1	Date(s) of non-compliance:	30/07/2018
Details of non-compliance:			
Exceedances in Total Suspended Solids (140mg/L), Biological Oxygen Demand (26mg/L) Total Nitrogen (32mg/L) and Total Phosphorus (6.5mg/L)			
What was the actual (or suspected) environmental impact of the non-compliance?			
<b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
As the water was irrigated into the designated wastewater irrigation area and away from active work areas, the risk of adverse environmental impact is considered to be low.			
Cause (or suspected cause) of non-compliance:			
On receiving the lab results an investigation was undertaken. The outcome of the investigation identified that there is not enough biomass being generated for sufficient microbial activity to treat the waste water. This is linked with the drop in camp numbers seen during the month of July as Polaris began transitioning its personnel to its newly acquired Koolyanobbing mine site. In August 2018, camp numbers dropped down to just two occupants (caretakers).			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
<p>Polaris decommissioned the wastewater treatment plant between 10-13 September 2018. After this time, no further discharges to the environment took place.</p> <p>Waste from the two caretakers is now collected in the sludge tank which is isolated from the rest of the system. The sludge tank will be emptied as required by a licenced contractor.</p> <p>Should the use of the Carina WWTP be required in the future Polaris will liaise with the DWER prior to use and will reinstate all monitoring and reporting requirements under the licence).</p> <p>An assessment of the vegetation in the irrigation field was conducted on the 4 December 2018. Photographic monitoring was established at the site and an on ground assessment of the vegetation was undertaken. The results of the monitoring suggest only minor impacts to the vegetation health and condition.</p>			
Was this non-compliance previously reported to DER?			
<input checked="" type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DER verbally		Date:	
<input checked="" type="checkbox"/> Reported to DER in writing		Date: 28 August 2018	

## 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 particular<sup>1</sup>. I/We consent to the Annual Audit Compliance Report being published on the Department of Environment Regulation's (DER) website.

Signature <sup>2</sup> :		Signature:	
Name: (printed)	Paul Smallbone	Name: (printed)	
Position:	Project Manager	Position:	
Date:	29/01/2018	Date:	
Seal (if signing under seal):			

<sup>1</sup> 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.

<sup>2</sup> 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.