



Environmental Protection Authority

Referral of a Proposal by the Proponent to the Environmental Protection Authority under Section 38(1) of the *Environmental Protection Act 1986*.

EPA REFERRAL
FORM
PROPONENT

PURPOSE OF THIS FORM

Section 38(1) of the *Environmental Protection Act 1986* (EP Act) provides that where a development proposal is likely to have a significant effect on the environment, a proponent may refer the proposal to the Environmental Protection Authority (EPA) for a decision on whether or not it requires assessment under the EP Act. This form sets out the information requirements for the referral of a proposal by a proponent.

Proponents are encouraged to familiarise themselves with the EPA's *General Guide on Referral of Proposals* [see Environmental Impact Assessment/Referral of Proposals and Schemes] before completing this form.

A referral under section 38(1) of the EP Act by a proponent to the EPA must be made on this form. A request to the EPA for a declaration under section 39B (derived proposal) must be made on this form. This form will be treated as a referral provided all information required by Part A has been included and all information requested by Part B has been provided to the extent that it is pertinent to the proposal being referred. Referral documents are to be submitted in two formats – hard copy and electronic copy. The electronic copy of the referral will be provided for public comment for a period of 7 days, prior to the EPA making its decision on whether or not to assess the proposal.

CHECKLIST

Before you submit this form, please check that you have:

	Yes	No
Completed all the questions in Part A (essential).	✓	
Completed all applicable questions in Part B.	✓	
Included Attachment 1 – location maps.	✓	
Included Attachment 2 – additional document(s) the proponent wishes to provide (if applicable).	✓	
Included Attachment 3 – confidential information (if applicable).		✓
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but excluding confidential information.	✓	

Following a review of the information presented in this form, please consider the following question (a response is optional).


Do you consider the proposal requires formal environmental impact assessment?	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Not sure
If yes, what level of assessment?	
<input checked="" type="checkbox"/> Assessment on Proponent Information	<input type="checkbox"/> Public Environmental Review

Polaris considers that the proposal requires formal environmental impact assessment at the level of "Assessment on Proponent Information – Category A" in accordance with Clause 10.1 of the *Environmental Impact Assessment Administrative Procedures 2012*.

The rationale for the API-A level of assessment is outlined in Section 6.2 within the supporting document.

PROPONENT DECLARATION (to be completed by the proponent)

I, **Sean Gregory** (*full name*) declare that I am authorised on behalf of **Polaris Metals Pty Ltd** (being the person responsible for the proposal) to submit this form and further declare that the information contained in this form is true and not misleading.

Signature 	Name (print) Sean Gregory
Position – General Manager (Technical Services)	Company – Mineral Resources Limited
Date – 20 December 2013	

PART A - PROPONENT AND PROPOSAL INFORMATION

(All fields of Part A must be completed for this document to be treated as a referral)

1 PROPONENT AND PROPOSAL INFORMATION

1.1 Proponent

Name	Polaris Metals Pty Ltd
Joint Venture parties (if applicable)	Not applicable
Australian Company Number (if applicable)	Not applicable
Postal Address (where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State)	1 Sleat Road Applecross WA 6153
Key proponent contact for the proposal: <ul style="list-style-type: none">• name• address• phone• email	David Temple-Smith Mineral Resources Limited 1 Sleat Road Applecross WA 6153 P: 08 9329 3700 David.temple-smith@mineralresources.com.au
Consultant for the proposal (if applicable): <ul style="list-style-type: none">• name• address• phone• email	Not applicable

1.2 Proposal

Title	Jackson 4 Iron Ore Mine and Haul Road
Description	This proposal is to construct and operate an iron ore mine, haul road and mine infrastructure in the eastern Goldfields region of Western Australia, 50 kilometres north of Koolyanobbing
Extent (area) of proposed ground disturbance.	831 hectares
Timeframe in which the activity or development is proposed to occur (including start and finish dates where applicable).	Q4 2013
Details of any staging of the proposal.	No staging of the proposal
Is the proposal a strategic proposal?	No
Is the proponent requesting a declaration that the proposal is a derived proposal? If so, provide the following information on the strategic assessment within which the referred proposal was identified: <ul style="list-style-type: none">• title of the strategic assessment; and• Ministerial Statement number.	No
Please indicate whether, and in what way, the proposal is related to other proposals in the	This proposal is not related to other proposals elsewhere in the region.

region.	
Does the proponent own the land on which the proposal is to be established? If not, what other arrangements have been established to access the land?	M77/1242 L77/250, L77/252 and L77/254
What is the current land use on the property, and the extent (area in hectares) of the property?	Current land use is a mixture of pastoral lease, vacant crown land and conservation park. The mining lease covers an area of about 12 km ² .

1.3 Location

Name of the Shire in which the proposal is located.	Shire of Yilgarn
For urban areas: <ul style="list-style-type: none"> • street address; • lot number; • suburb; and • nearest road intersection. 	Not applicable
For remote localities: <ul style="list-style-type: none"> • nearest town; and • distance and direction from that town to the proposal site. 	Koolyanobbing is located 50 km south of the proposal.
Electronic copy of spatial data - GIS or CAD, geo-referenced and conforming to the following parameters: <ul style="list-style-type: none"> • GIS: polygons representing all activities and named; • CAD: simple closed polygons representing all activities and named; • datum: GDA94; • projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); • format: Arcview shapefile, Arcinfo coverages, Microstation or AutoCAD. 	Enclosed?: Yes

1.4 Confidential Information

Does the proponent wish to request the EPA to allow any part of the referral information to be treated as confidential?	No
If yes, is confidential information attached as a separate document in hard copy?	Not applicable

1.5 Government Approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	No
Is approval required from any Commonwealth or State Government agency or Local Authority for	Yes

any part of the proposal? If yes, please complete the table below.			
Agency/Authority	Approval required	Application lodged Yes / No	Agency/Local Authority contact(s) for proposal
Department of Mines and Petroleum	Mining Proposal	No	Clare Grosser
Department of Environmental Regulation	Works Approval and License	No	To be advised
Department of Water	License to construct and operate bores	No	To be advised
Department of Aboriginal Affairs	Consent to disturb Aboriginal heritage	No	To be advised

PART B - ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT

2. ENVIRONMENTAL IMPACTS

Describe the impacts of the proposal on the following elements of the environment, by answering the questions contained in Sections 2.1-2.11:

- 2.1 flora and vegetation;
- 2.2 fauna;
- 2.3 rivers, creeks, wetlands and estuaries;
- 2.4 significant areas and/ or land features;
- 2.5 coastal zone areas;
- 2.6 marine areas and biota;
- 2.7 water supply and drainage catchments;
- 2.8 pollution;
- 2.9 greenhouse gas emissions;
- 2.10 contamination; and
- 2.11 social surroundings.

These features should be shown on the site plan, where appropriate.

For all information, please indicate:

- (a) the source of the information; and
- (b) the currency of the information.

2.1 Flora and Vegetation

2.1.1 Do you propose to clear any native flora and vegetation as a part of this proposal?

[A proposal to clear native vegetation may require a clearing permit under Part V of the EP Act (Environmental Protection (Clearing of Native Vegetation) Regulations 2004)]. Please contact the Department of Environment and Conservation (DEC) for more information.

- (please tick) Yes **If yes**, complete the rest of this section.
 No **If no**, go to the next section

2.1.2 How much vegetation are you proposing to clear (in hectares)?

No more than 831 hectares comprised of the mine (104 ha), accommodation camp (15 ha), haul road (293 ha), waste rock landform (360 ha) and ancillary infrastructure (59 ha).

2.1.3 Have you submitted an application to clear native vegetation to the DEC (unless you are exempt from such a requirement)?

- Yes No **If yes**, on what date and to which office was the application submitted of the DEC?

2.1.4 Are you aware of any recent flora surveys carried out over the area to be disturbed by this proposal?

Yes

No

If yes, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

Ecologia Environment (2013). J4 Mine and Haul Road Flora and Vegetation Assessment. Unpublished report prepared for Polaris Metals Pty Ltd. Rev 2 December 2013.

2.1.5 Has a search of DEC records for known occurrences of rare or priority flora or threatened ecological communities been conducted for the site?

Yes

No

If you are proposing to clear native vegetation for any part of your proposal, a search of DEC records of known occurrences of rare or priority flora and threatened ecological communities will be required. Please contact DEC for more information.

Refer to Appendix 1 of the supporting document for the results of searches of DEC records for known occurrences of rare or priority flora or threatened ecological communities.

2.1.6 Are there any known occurrences of rare or priority flora or threatened ecological communities on the site?

Yes

No

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

Five Priority taxa (one P1, three P3, and one P4) were recorded in the proposal area during the survey. No threatened taxa are known to occur nor were any such taxa recorded during the survey. The Priority taxa are:

- *Calytrix creswellii* (P1)
- *Neurachne annularis* (P3)
- *Melichrus* sp. *Bungalbin Hill* (F.H. & M.P Mollemans 3069)(P3), and
- *Grevillea georgeana* (P3)
- *Banksia arborea* (P4)

There are no known occurrences of threatened ecological communities in the proposal area. The proposal intersects portions of the Mt Jackson Range Priority Ecological Community.

2.1.7 If located within the Perth Metropolitan Region, is the proposed development within or adjacent to a listed Bush Forever Site? (You will need to contact the Bush Forever Office, at the Department for Planning and Infrastructure)

Yes

No

If yes, please indicate which Bush Forever Site is affected (site number and name of site where appropriate).

Not applicable

2.1.8 What is the condition of the vegetation at the site?

The majority (64%) of the 281 surveyed quadrats were assessed to be excellent condition, 33% of quadrats were in good condition whilst 2 quadrats were in poor condition due to vegetation clearing within open drill lines.

2.2 Fauna

2.2.1 Do you expect that any fauna or fauna habitat will be impacted by the proposal?

(please tick)

Yes

If yes, complete the rest of this section.

No

If no, go to the next section.

2.2.2 Describe the nature and extent of the expected impact.

Refer to Section 4.6 and Section 5.3 of the supporting document for the nature and extent of the expected impact on fauna.

2.2.3 Are you aware of any recent fauna surveys carried out over the area to be disturbed by this proposal?

Yes

No

If yes, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

Ecologia Environment (2013). J4 Mine and Haul Road Terrestrial and Subterranean Fauna Assessment. Unpublished report prepared for Polaris Metals Pty Ltd. Rev 0 December 2013.

2.2.4 Has a search of DEC records for known occurrences of Specially Protected (threatened) fauna been conducted for the site?

Yes

No

(please tick)

Refer to Appendix 2 of the supporting document for the results of searches of DEC records for known occurrences of Specially Protected (threatened) fauna for the site.

2.2.5 Are there any known occurrences of Specially Protected (threatened) fauna on the site?

Yes

No

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

Refer to Table 11 and Table 12 in the supporting document for details regarding known occurrences of Specially Protected fauna.

2.3 Rivers, Creeks, Wetlands and Estuaries

2.3.1 Will the development occur within 200 metres of a river, creek, wetland or estuary?

(please tick)

Yes

If yes, complete the rest of this section.

No

If no, go to the next section.

2.3.2 Will the development result in the clearing of vegetation within the 200 metre zone?

Yes

No

If yes, please describe the extent of the expected impact.

2.3.3 Will the development result in the filling or excavation of a river, creek, wetland or estuary?

Yes

No

If yes, please describe the extent of the expected impact.

2.3.4 Will the development result in the impoundment of a river, creek, wetland or estuary?

Yes

No

If yes, please describe the extent of the expected impact.

2.3.5 Will the development result in draining to a river, creek, wetland or estuary?

Yes No **If yes**, please describe the extent of the expected impact.

2.3.6 Are you aware if the proposal will impact on a river, creek, wetland or estuary (or its buffer) within one of the following categories? (please tick)

Conservation Category Wetland	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Perth's Bush Forever site	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (Swan & Canning Rivers) Policy 1998	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
The management area as defined in s4(1) of the <i>Swan River Trust Act 1988</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Which is subject to an international agreement, because of the importance of the wetland for waterbirds and waterbird habitats (e.g. Ramsar, JAMBA, CAMBA)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure

2.4 Significant Areas and/ or Land Features

2.4.1 Is the proposed development located within or adjacent to an existing or proposed National Park or Nature Reserve?

Yes No **If yes**, please provide details.

The proposed development is situated about 1.5 km from the western boundary of the Helena-Aurora Range Conservation Park (HARCP). A portion of the haul road traverses the south-west corner of the HARCP.

2.4.2 Are you aware of any Environmentally Sensitive Areas (as declared by the Minister under section 51B of the EP Act) that will be impacted by the proposed development?

Yes No **If yes**, please provide details.

2.4.3 Are you aware of any significant natural land features (e.g. caves, ranges etc) that will be impacted by the proposed development?

Yes No **If yes**, please provide details.

The mine is situated in the Jackson Range within a banded iron geological formation. The mine will impact a relatively small proportion of the overall extent of this range in terms of its structure, composition and appearance.

2.5 Coastal Zone Areas (Coastal Dunes and Beaches)

2.5.1 Will the development occur within 300metres of a coastal area?

- (please tick) Yes **If yes**, complete the rest of this section.
 No **If no**, go to the next section.

2.5.2 What is the expected setback of the development from the high tide level and from the primary dune?

2.5.3 Will the development impact on coastal areas with significant landforms including beach ridge plain, cusped headland, coastal dunes or karst?

- Yes No **If yes**, please describe the extent of the expected impact.

2.5.4 Is the development likely to impact on mangroves?

- Yes No **If yes**, please describe the extent of the expected impact.

2.6 Marine Areas and Biota

2.6.1 Is the development likely to impact on an area of sensitive benthic communities, such as seagrasses, coral reefs or mangroves?

- Yes No **If yes**, please describe the extent of the expected impact.

2.6.2 Is the development likely to impact on marine conservation reserves or areas recommended for reservation (as described in *A Representative Marine Reserve System for Western Australia*, CALM, 1994)?

- Yes No **If yes**, please describe the extent of the expected impact.

2.6.3 Is the development likely to impact on marine areas used extensively for recreation or for commercial fishing activities?

- Yes No **If yes**, please describe the extent of the expected impact, and provide any written advice from relevant agencies (e.g. Fisheries WA).

2.7 Water Supply and Drainage Catchments

2.7.1 Are you in a proclaimed or proposed groundwater or surface water protection area?

(You may need to contact the Department of Water (DoW) for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

Yes No **If yes**, please describe what category of area.

The proposal is situated in the Goldfields proclaimed groundwater area.

2.7.2 Are you in an existing or proposed Underground Water Supply and Pollution Control area?

(You may need to contact the DoW for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

Yes No **If yes**, please describe what category of area.

2.7.3 Are you in a Public Drinking Water Supply Area (PDWSA)?

(You may need to contact the DoW for more information or refer to the DoW website. A proposal to clear vegetation within a PDWSA requires approval from DoW.)

Yes No **If yes**, please describe what category of area.

2.7.4 Is there sufficient water available for the proposal?

(Please consult with the DoW as to whether approvals are required to source water as you propose. Where necessary, please provide a letter of intent from the DoW)

Yes No (please tick)

Approvals from the DoW will be required to construct bores and abstract groundwater. These approvals will be sought in 2014.

2.7.5 Will the proposal require drainage of the land?

Yes No **If yes**, how is the site to be drained and will the drainage be connected to an existing Local Authority or Water Corporation drainage system? Please provide details.

2.7.6 Is there a water requirement for the construction and/ or operation of this proposal?

(please tick) Yes **If yes**, complete the rest of this section.

No **If no**, go to the next section.

2.7.7 What is the water requirement for the construction and operation of this proposal, in kilolitres per year?

Up to 2,000,000 kilolitres per year will be required for construction and mining operations. Mining will eventually occur below the water table, and therefore the pit will need to be dewatered.

2.7.8 What is the proposed source of water for the proposal? (e.g. dam, bore, surface water etc.)

The proposed source of water for the proposal is groundwater abstracted from the pit area.

2.8 Pollution

2.8.1 Is there likely to be any discharge of pollutants from this development, such as noise, vibration, gaseous emissions, dust, liquid effluent, solid waste or other pollutants?

(please tick) Yes **If yes**, complete the rest of this section.

No **If no**, go to the next section.

2.8.2 Is the proposal a prescribed premise, under the Environmental Protection Regulations 1987?

(Refer to the EPA's *General Guide for Referral of Proposals to the EPA under section 38(1) of the EP Act 1986* for more information)

Yes No **If yes**, please describe what category of prescribed premise.

Several aspects associated with the proposal are prescribed premises. The relevant categories are:

- Category 6 – mine dewatering,
- Category 89 - landfill
- Category 85 - wastewater treatment

2.8.3 Will the proposal result in gaseous emissions to air?

Yes No **If yes**, please briefly describe.

2.8.4 Have you done any modelling or analysis to demonstrate that air quality standards will be met, including consideration of cumulative impacts from other emission sources?

Yes No **If yes**, please briefly describe.

2.8.5 Will the proposal result in liquid effluent discharge?

Yes

No

If yes, please briefly describe the nature, concentrations and receiving environment.

Refer to Section 2.4.6 of the supporting document for details regarding liquid effluent discharge.

2.8.6 If there is likely to be discharges to a watercourse or marine environment, has any analysis been done to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met?

Yes

No

If yes, please describe.

Not applicable

2.8.7 Will the proposal produce or result in solid wastes?

Yes

No

If yes, please briefly describe the nature, concentrations and disposal location/ method.

Refer to Section 2.4.6 of the supporting document for details regarding disposal of solid waste.

2.8.8 Will the proposal result in significant off-site noise emissions?

Yes

No

If yes, please briefly describe.

2.8.9 Will the development be subject to the Environmental Protection (Noise) Regulations 1997?

Yes

No

If yes, has any analysis been carried out to demonstrate that the proposal will comply with the Regulations?

Please attach the analysis.

2.8.10 Does the proposal have the potential to generate off-site, air quality impacts, dust, odour or another pollutant that may affect the amenity of residents and other "sensitive premises" such as schools and hospitals (proposals in this category may include intensive agriculture, aquaculture, marinas, mines and quarries etc.)?

Yes

No

If yes, please describe and provide the distance to residences and other "sensitive premises".

The proposal will generate dust emissions during construction and operation; however there are no residents or other 'sensitive premises' in proximity to the proposal.

2.8.11 If the proposal has a residential component or involves “sensitive premises”, is it located near a land use that may discharge a pollutant?

Yes

No

Not Applicable

If yes, please describe and provide the distance to the potential pollution source

2.9 Greenhouse Gas Emissions

2.9.1 Is this proposal likely to result in substantial greenhouse gas emissions (greater than 100 000 tonnes per annum of carbon dioxide equivalent emissions)?

Yes

No

If yes, please provide an estimate of the annual gross emissions in absolute and in carbon dioxide equivalent figures.

2.9.2 Further, if yes, please describe proposed measures to minimise emissions, and any sink enhancement actions proposed to offset emissions.

2.10 Contamination

2.10.1 Has the property on which the proposal is to be located been used in the past for activities which may have caused soil or groundwater contamination?

Yes

No

Unsure

If yes, please describe.

2.10.2 Has any assessment been done for soil or groundwater contamination on the site?

Yes

No

If yes, please describe.

2.10.3 Has the site been registered as a contaminated site under the *Contaminated Sites Act 2003*? (on finalisation of the CS Regulations and proclamation of the CS Act)

Yes

No

If yes, please describe.

2.11 Social Surroundings

2.11.1 Is the proposal on a property which contains or is near a site of Aboriginal ethnographic or archaeological significance that may be disturbed?

Yes

No

Unsure

If yes, please describe.

Refer to Section 3.7.1 of the supporting document for details regarding Aboriginal heritage sites.

2.11.2 Is the proposal on a property which contains or is near a site of high public interest (e.g. a major recreation area or natural scenic feature)?

Yes No **If yes, please describe.**

The proposal is situated in the Jackson Range, about 1.5 km west of the Helena-Aurora Range Conservation Park. While the HARCP has natural scenic features with some recreation value, the portion of the Jackson Range in proximity to the proposal is unremarkable in this regard.

2.11.3 Will the proposal result in or require substantial transport of goods, which may affect the amenity of the local area?

Yes No **If yes, please describe.**

3. PROPOSED MANAGEMENT

3.1 Principles of Environmental Protection

3.1.1 Have you considered how your project gives attention to the following Principles, as set out in section 4A of the EP Act? (For information on the Principles of Environmental Protection, please see EPA Position Statement No. 7, available on the EPA website)

- | | | |
|--|---|--|
| 1. The precautionary principle. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. The principle of intergenerational equity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. The principle of the conservation of biological diversity and ecological integrity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Principles relating to improved valuation, pricing and incentive mechanisms. | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 5. The principle of waste minimisation. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

Refer to Section 6.1 of the supporting document for a discussion on how the proposal is consistent with the object of the *Environmental Protection Act 1986* and related Principles of Environmental Protection.

3.1.2 Is the proposal consistent with the EPA's Environmental Protection Bulletins/Position Statements and Environmental Assessment Guidelines/Guidance Statements (available on the EPA website)?

Yes No

Refer to Section 6.2 for discussion regarding the consistency of the proposal with EPA Position Statements, Assessment Guidelines and Guidance Statements.

3.2 Consultation

3.2.1 Has public consultation taken place (such as with other government agencies, community groups or neighbours), or is it intended that consultation shall take place?

Yes

No

If yes, please list those consulted and attach comments or summarise response on a separate sheet.

Refer to Table 2 in the supporting document for details of stakeholder consultation undertaken with respect to the proposal.

