

Permit

Environmental Protection Act 1994

Environmental authority EPPR00819713

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EPPR00819713

Environmental authority takes effect on 17 March 2023

Environmental authority holder(s)

Name(s)	Registered address
Magnetic South Pty Ltd	Suite 30, Level 3 102 Adelaide Street BRISBANE ADELAIDE STREET QLD 4000

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Resource Activity, Schedule 3, 09: A mining activity involving drilling, costeaning, pitting or carrying out geological surveys causing significant disturbance	EPC881

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or

- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days)

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or
- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
- c) otherwise- one the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Planning Act 2016* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

The anniversary day of this environmental authority is the same day each year as the original take effect date unless you apply to change the anniversary day. The payment of the annual fee will be due each year on this day. An annual return will be due each year on 01 April.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Juliana McCosker
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

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Date Issued: 17 March 2023

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Other permits required

This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site. For example, this may include permits / approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access state controlled roads), the Department of Natural Resources, Mines and Energy (to clear vegetation), and the Department of Agriculture and Fisheries (to clear marine plants or to obtain a quarry material allocation).

Development Approval

This permit is not a development approval under the *Planning Act 2016*. The conditions of this environmental authority are separate, and in addition to, any conditions that may be on the development approval. If a copy of this environmental authority is attached to a development approval, it is for information only, and may not be current. Please contact the Department of Environment and Science to ensure that you have the most current version of the environmental authority relating to this site.

Conditions of environmental authority

Schedule A: General	
Condition number	Condition
A1	This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.
A2	The conditions of this environmental authority are in force until a surrender of the authority is accepted pursuant to the <i>Environmental Protection Act 1994</i> . The conditions apply unless an amendment is approved pursuant to the <i>Environmental Protection Act 1994</i> .
A3	The environmental authority holder must: <ul style="list-style-type: none"> a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority b) maintain such measures, plant and equipment in a proper and efficient condition c) operate such measure, plant and equipment in a proper and efficient condition d) ensure all instruments and devices used for the measurement and monitoring of any parameter under any condition of this environmental authority are properly calibrated.
A4	<p>Monitoring, reporting and emergency response procedures</p> <p>The environmental authority holder must record and notify the administering authority of any emergency or incident which demonstrates non-compliance with the conditions of this environmental authority.</p>
A5	The environmental authority holder must notify the administering authority by written notification within twenty four (24) hours , after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with, the conditions of this environmental authority.
A6	<p>Within ten (10) business days following the initial notification of an emergency or incident under condition A5, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following:</p> <ul style="list-style-type: none"> a) results and interpretation of any samples taken and analysed b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm c) proposed actions to prevent a recurrence of the emergency or incident.

A7	<p>Complaints</p> <p>The environmental authority holder must record all environmental complaints received about the mining activities including:</p> <ul style="list-style-type: none"> a) name, address and contact number for of the complainant b) time and date of complaint c) reasons for the complaint d) investigations undertaken e) conclusions formed f) actions taken to resolve the complaint g) any abatement measures implemented h) person responsible for resolving the complaint.
A8	<p>The environmental authority holder must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within ten (10) business days of completion of the investigation, or no later than ten (10) business days after the end of the timeframe nominated by the administering authority to undertake the investigation.</p>
A9	<p>Service, maintenance and storage areas</p> <p>The environmental authority holder must not directly or indirectly release fuels, oils, lubricants or other contaminants to any watercourse, waterway, groundwater, wetland or lake.</p>
A10	<p>The environmental authority holder must ensure that:</p> <ul style="list-style-type: none"> a) all chemical, fuel and oil storage facilities of less than ten thousand (10,000) litres on a mining tenement are designed and operated in accordance with Australian Standard 1940 – ‘The storage and handling of flammable and combustible liquids’, Section 2, Minor Storage; and b) all chemical, fuel and oil storage facilities of more than ten thousand (10,000) litres on a mining tenement are banded to contain at least one hundred (100) percent of the volume of the largest container, plus twenty-five percent of the storage capacity of the largest container up to a maximum of ten thousand (10,000) litres, together with ten percent of the storage capacity beyond ten thousand (10,000) litres; and c) chemical, fuel and oil storage facilities on a mining tenement are operated and maintained in accordance with the Australian Standard 1940 – “The Storage and Handling of flammable and combustible liquids”.
A11	<p>Hazardous contaminants</p> <p>The environmental authority holder must plan and conduct activities on site to prevent any potential or actual release of a hazardous contaminant.</p>

A12	The environmental authority holder must ensure that spills of hazardous contaminants are cleaned up as quickly as practicable. Such spillage must not be cleaned up by hosing, sweeping or otherwise releasing such contaminants to any watercourse, waterway, groundwater, wetland or lake.
A13	Bulk sampling and costeaning The environmental authority holder is not authorised to undertake costeaning or bulk sampling.

Schedule B: Air and noise	
Condition number	Condition
B1	The environmental authority holder must not cause an unreasonable release of dust.
B2	The environmental authority holder must not cause unreasonable noise at a noise sensitive place.

Schedule C: Waste	
Condition number	Condition
C1	The holder of the environmental authority must not dispose of more than fifty (50) tonnes of general waste on EPC 881 per year.
C2	Regulated waste must not be disposed of within EPC881.
C3	All general and regulated waste may be temporarily stored on EPC881 prior to offsite disposal at a licensed facility.
C4	Waste must not be disposed of within areas of Endangered Regional Ecosystem.
C5	Residual drilling material can only be disposed of on-site: <ul style="list-style-type: none"> a) by mix-bury-cover method if the residual drilling material meets the approved quality criteria; or b) if it is certified by a suitably qualified third party as being of acceptable quality for disposal to land by the proposed method and that environmental harm will not result from the proposed disposal.
C6	Waste rock The environmental authority holder must, where practical, separate acid producing waste rock from benign waste rock.
C7	The environmental authority holder must dispose of acid producing waste rock in an excavation or pit and backfill as soon as practical. Backfill the excavation or pit containing acid producing waste rock with benign, low permeability material and seal the excavation or pit with a compacted capping layer at least one (1) meter thick.

Schedule D: Land	
Condition number	Condition
D1	The mining activity must not, at any one time, cause more than ten (10) hectares of land to be significantly disturbed. Roads or tracks disturbed prior to 17 March 2023 or disturbance at the locations identified in <i>Figure 2: Disturbance 2017 to 2022</i> , is excluded from this condition.
D2	The environmental authority holder must ensure that the extent, area and duration of disturbance to land, vegetation and waters is minimised. <i>Note: To minimise the area and duration of disturbance to land and vegetation the following measures or similar measures should be used: a) avoid disturbing large and/or mature trees; b) select specific trees to be cleared and avoid causing damage to surrounding vegetation; c) where practical leave the rootstock intact to promote regeneration and regrowth; d) minimise clearing of native vegetation and ground cover to the greatest extent possible.</i>
D3	Excluding campsites, no more than one thousand (1,000) square meters can be disturbed at any one location.
D4	Campsites must not, at any one time, cause more than five thousand (5,000) square meters to be disturbed.
D5	The mining activity must not be carried out in a category A environmentally sensitive area.
D6	Activities involving machinery must not be carried out within one (1) kilometre of a category A environmentally sensitive area.
D7	The mining activity must not extract more than twenty (20) cubic meters of substance from each kilometre of a riverine area.
D8	Nature conservation The environmental authority holder is authorised to carry out mining activities on EPC881, in or within five hundred (500) metres of any Endangered Regional Ecosystem.
D9	Disturbance in, or within five hundred (500) metres of, areas of Endangered Regional Ecosystems, as depicted in <i>Figure 1: EPC881 ERE & 500m Buffers and Drill Plan</i> , must only occur at the locations shown in <i>Figure 1: EPC881 ERE & 500m Buffers and Drill Plan</i> .
D10	Campsites must not be established in, or within five hundred (500) metres of, areas of Endangered Regional Ecosystems.
D11	In carrying out mining activities on EPC881, all reasonable and practicable measures must be taken to prevent or minimise the likelihood of environmental harm being caused to Endangered Regional Ecosystems as depicted in <i>Figure 1: EPC881 ERE & 500m Buffers and Drill Plan</i> .
D12	Mining activities undertaken in or within five hundred (500) metres of any endangered regional ecosystem, as depicted in <i>Figure 1: EPC881 ERE & 500m Buffers and Drill Plan</i> , must be consistent with the "EPC881 Exploration Program, Environmental Management Plan".

D13	When carrying out mining activities within any Endangered Regional Ecosystem, the holder of the environmental authority must do so in accordance with Conditions D14 to D21 (inclusive) .
D14	Drill Sites, tracks and seismic gridlines must be located outside of Endangered Regional Ecosystems, where practicable.
D15	Sumps must not be greater than ten (10) square metres , and is the only area on a drill site that may be topsoil stripped.
D17	Tracks must not be spaced less than two hundred and fifty (250) metres apart, and must be less than five (5) metres in width.
D18	Tracks must be constructed and maintained such that: <ul style="list-style-type: none"> a) existing access and fence line tracks are preferentially used; b) any tracks constructed link natural clearings; c) line of site clearing is avoided; d) new crossings over watercourses are avoided and is only permitted when no reasonable alternative is available; and e) all tracks are constructed and maintained with adequate drainage to avoid accelerated erosion.
D19	Spacing's between seismic gridlines must not be less than five hundred (500) metres apart.
D20	All equipment such as earthmoving and drilling equipment must be used in a manner which prevents the spread of weeds, minimises unnecessary disturbance of topsoil and ground cover vegetation; and avoids mature trees.
D21	An annual activities report must be prepared by 1 April each year and made available to the administering authority on request. The report must include, for the preceding calendar year : <ul style="list-style-type: none"> a) details of disturbance undertaken, b) details of the rehabilitation processes completed including photographs of rehabilitation activities completed, c) demonstration of compliance with the conditions of this environmental authority including an assessment of the amount (hectares) of significant disturbance undertaken, and d) a program of works for the subsequent twelve (12) month period.
D22	Notwithstanding condition D9 , the total disturbance from mining activities, conducted following 17 March 2023 , must not result in significant residual impact to prescribed environmental matters.
D23	From 17 March 2023 , records demonstrating that each impact to a prescribed environmental matter did not, or is not likely to, result in a significant residual impact to that matter must be: <ul style="list-style-type: none"> a) completed by an appropriately qualified person; and b) kept for the life of the environmental authority.
D24	From 17 March 2023 , activities conducted in areas of prescribed environmental matters must comply with the conditions of D14 to D20 (inclusive) as if it were an Endangered Regional Ecosystem.

D25	Prior to carrying out activities in a category C environmentally sensitive area, the environmental authority holder must consult with the relevant administering authority. If it is determined through the consultation that additional conditions are necessary, the holder must comply with those conditions.
D26	The holder of the environmental authority must prevent the spread of Declared Plants by ensuring that all vehicles and machinery are adequately cleaned before taking the vehicles and machinery out of a Declared Plant Area.
D27	<p>Erosion and Sediment Control</p> <p>The environmental authority holder must design, install and maintain adequate banks and/or diversion drains to minimise the potential for storm water runoff to enter disturbed areas.</p>
D28	The environmental authority holder must design, install and maintain adequate erosion and sediment control structures wherever necessary to prevent or minimise erosion of disturbed areas and the sedimentation of any watercourse, waterway, wetland or lake.
D29	<p>Topsoil and overburden management</p> <p>The environmental authority holder must ensure that topsoil is removed and stockpiled prior to carrying out any mining activity and prevent or minimise the mixing and erosion of topsoil and overburden stockpiles.</p>
D30	<p>Drilling, excavating, and sampling</p> <p>The environmental authority holder must ensure:</p> <ul style="list-style-type: none"> a) all marker pegs are marked with contrasting colour so as to be clearly visible; b) all marker pegs are removed from the tenement at the completion of exploration activities; c) all permanent markers (example, concrete plugs or steel plates) are installed at ground level and made safe.
D31	<p>The environmental authority holder must not drill, excavate, or clear vegetation:</p> <ul style="list-style-type: none"> a) in standing waters, wetlands, or lakes; or b) on the sloped banks or within three (3) meters of the top of the bank or five (5) meters of the toe of the bank; or c) within, or on the levee banks of the normal flow channel.
D32	The environmental authority holder must not directly or indirectly release wastewater to any watercourse, waterway, groundwater, wetland or lake.
D33	<p>The environmental authority holder must decommission all non-artesian drill holes, apart from those still required for monitoring purposes, as soon as practical but no later than six (6) months after the hole was drilled by undertaking the following actions:</p> <ul style="list-style-type: none"> a) where practical dispose of all unused drill chips to the hole or to a sump pit and; b) cap the hole at a depth that is appropriate for the previous land use of the area (unless the land owner stipulates a future use which requires the cap to be placed deeper); and c) backfill the hole above the cap with soil or material similar to the surrounding soil or material.

D34	<p>The environmental authority holder must isolate non-artesian aquifers where a drill hole intersects more than one water bearing strata by casing or plugging the hole as soon as practical after the hole is no longer required, but no later than two (2) months after the hole was drilled, apart from those holes that are still required for monitoring purposes if:</p> <ul style="list-style-type: none"> a) the flow difference between aquifers exceeds five hundred (500) litres per hour; and b) the difference in electrical conductivity of water is greater than ten (10) percent of the lower value.
D35	<p>Conditions D33 and D34 do not apply to a non-artesian exploration drill hole if:</p> <ul style="list-style-type: none"> a) the land owner and the environmental authority holder have agreed that it should be left for conversion to a water bore; and b) the land owner gives a written undertaking to accept responsibility for the hole; and c) the details of the agreement and the drill hole (such as its GPS location and the drill logs showing the water bearing strata and flow rates) are provided to the Department of Resources within thirty (30) days of the land owner giving the undertaking; and d) the hole is temporarily capped so as to prevent possible ingress of surface waters and associated sediments and pollutants.
D36	<p>The environmental authority holder must ensure that exploration drill holes that strike artesian flows of water that exceeds five hundred (500) litres per hour for seven (7) days must be either:</p> <ul style="list-style-type: none"> a) decommissioned as soon as practical, but no later than one (1) month after the hole was drilled, apart from holes that are still required for monitoring or evaluation purposes; or b) capped to allow for future conversion into a controlled artesian bore by a licensed water bore driller; or c) converted into a controlled artesian bore by a licensed water bore driller, provided that: <ul style="list-style-type: none"> i) the land owner has undertaken in writing to accept responsibility for the drill hole; and ii) the explorer provides details of the agreement and the drill hole to the Department of Resources within thirty (30) days of obtaining the landowner's agreement.
D37	<p>The environmental authority holder must ensure that exploration drill holes that are to be retained for future mineral resource evaluation purposes are cased and capped. Holes to be retained for more than three years must be capped with steel casing and appropriately identified.</p>
D38	<p>Gridlines and geophysical surveys</p> <p>The environmental authority holder must plan and determine the final position of gridlines and geophysical lines (including, but not limited to, seismic lines) in consultation with the landowner.</p>

D39	<p>When constructing gridlines and geophysical lines (including, but not limited to, seismic lines), the environmental authority holder must ensure that the area and duration of disturbance to land and vegetation is minimised by undertaking the following measures:</p> <ul style="list-style-type: none"> a) conduct surveying of gridlines on foot; b) use existing gates, tracks, roads and seismic lines; c) before deciding on the location of new seismic lines, record the location of all underground or surface pipelines, cables, power lines, etc. and avoid these areas; d) in planning for drilling and sampling activities, where possible, ensure the activities occur at least one hundred (100) metres from riverine areas; e) construct seismic lines that do not exceed the width necessary to safely undertake the survey; f) use Global Positioning Systems , or other techniques, to reduce the need for line of sight clearing; g) maintain buffer widths of at least twenty-five (25) metres between all disturbed areas; h) minimise the use of bulldozers and excavators when cutting gridlines and/or seismic lines; and i) notify landowners at least twenty-four (24) hours prior to detonating seismic explosives.
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Schedule E: Rehabilitation	
Condition number	Condition
E1	The environmental authority holder must rehabilitate areas disturbed by mining activities to a stable landform similar to that of surrounding undisturbed areas, unless otherwise stated in the conditions of this environmental authority
E2	The environmental authority holder must ensure disturbed areas of Endangered Regional Ecosystem are rehabilitated with native plant species endemic to the area and must achieve the same vegetation type and density of cover to that of the surrounding undisturbed areas of the Endangered Regional Ecosystem.
E3	For disturbance conducted following 17 March 2023 , to any prescribed environmental matter, the disturbed area must be rehabilitated in such a way that promotes revegetation of native plant species consistent with those relevant to the prescribed environmental matter.
E4	For all other areas not specified in condition E2 and E3 , the environmental authority holder must spread seeds or plant species that will promote revegetation of a similar species and density of cover to that of the surrounding undisturbed areas or vegetation that is appropriate for providing erosion control and stabilisation of the disturbed areas.
E5	Rehabilitation of riverine areas disturbed by mining activities, must be completed as soon as practical after completion of mining activity and prior to the onset of the wet season.
E6	Rehabilitation processes on all of areas disturbed by mining activities in areas of Endangered Regional Ecosystems, as depicted in <i>Figure 1: EPC881 ERE & 500m Buffers and Drill Plan</i> , must be completed as soon as practical but no longer than three (3) months after completion of the mining activity.

E7	Notwithstanding condition E5 and condition E6 , rehabilitation processes on all areas disturbed by mining activities, apart from those areas currently being utilised for mining activities under this environmental authority, must be completed as soon as practical but no longer than six (6) months after completion of works in those areas.
E8	For any infrastructure to remain after all mining activities have ceased, the environmental authority holder must obtain the written agreement of the landowner stating they will take over responsibility for that infrastructure. Infrastructure may only be retained where its use aligns with the post mining land use for the disturbed area.

END OF CONDITIONS

Definitions

Key terms and/or phrases used in this document are defined in this section. Where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

'Approved quality criteria' for residual drilling material means the criteria for waste that is not regulated waste in Schedule 9 of the *Environmental Protection Regulation (2019)*.

'Banks' means the feature which confines major flows within a watercourse. They are steeper than a terrace and are generally of a slope greater than 1:1 on outer bends.

'Bunded' means enclosed in earth mounds or similar structures (e.g. a concrete block wall), whether impervious or not, constructed to contain spilled material (e.g. petrol, diesel, oil etc).

'Campsite' means the area encompassing any dwelling, amenities (e.g. toilet block, power generator), sewage or general waste disposal facility and includes the office area and vehicle parking areas associated with a temporary or permanent mining camp.

'Costeaning' means the digging of a trench or pit across the seam or ore body for exposing, sampling and mapping of the ore body.

'Density of cover' in reference to trees and/or shrubs, it means the number of trees or shrubs in a specified area (e.g. 50 trees per square kilometre). With reference to understorey plant species (e.g. grasses and forbs), it means the percentage of surface area covered by a particular species.

'Disturbance' of land includes:

- a) roads, tracks, campsites, drilling, excavating, sampling, seismic activities, gridlines, geophysical surveys.
- b) compacting, removing, covering, exposing, or stockpiling of earth;
- c) removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion;
- d) carrying out mining within a watercourse, waterway, wetland or lake;
- e) the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls;
- f) permanent and temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dams/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.); or
- g) releasing of contaminants into the soil or underlying geological strata.
- h) Any area that has had its natural state altered by the action or interference of carrying out an activity associated with the project.

'Disturbed' means any area that has had its natural state altered by the action or interference of carrying out an activity associated with the project.

'Environmental authority' or **'authority'** means a licence or approval issued by the administering authority under the *Environmental Protection Act 1994 (Qld)*.

'General waste' (existing definition updated) means waste other than regulated waste. For the purpose of this environmental authority, general waste does not include waste rock, overburden, and the contents of tailings dams.

'Hazardous contaminant' means a contaminant that, if improperly treated, stored, disposed of or otherwise managed, is likely to cause serious or material environmental harm because of:

- a) its quantity, concentration, acute or chronic toxic effects, carcinogenicity, teratogenicity, mutagenicity, corrosiveness, explosiveness, radioactivity, flammability; or
- b) its physical, chemical or infectious characteristics (e.g.: spills of mercury, cyanide, petrol, diesel or oil).

'Infrastructure' includes roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, pipelines, powerlines, airstrips, helipads and other similar structures.

'Land' means land excluding waters and the atmosphere, that is, the term has a different meaning from the term as defined in the *Environmental Protection Act 1994*. For the purposes of the *Acts Interpretation Act 1954*, it is expressly noted that the term 'land' in this environmental authority relates to physical land and not to interests in land.

'Mix-bury-cover method' means the stabilisation of residual drilling material in the bottom of a sump by mixing with subsoil and which occurs in accordance with the following methodology:

- a) the base of the subsoil and residual solid mixture must be separated from the groundwater table by at least one metre of a continuous layer of impermeable subsoil material ($k_w=10-8\text{m/s}$) or subsoil with a clay content of greater than 20%; and
- b) the residual solids is mixed with subsoil in the sump and cover; and
- c) the subsoil and residual solids is mixed at least three parts subsoil to one part waste (v/v); and
- d) a minimum of one metre of clean subsoil must be placed over the subsoil and residual solids mixture; and
- e) topsoil is replaced.

'Native vegetation' – means vegetation that occurs naturally in a certain area.

'Noise sensitive place' means any of the following places –

- a) a dwelling;
- b) a library, childcare centre, kindergarten, school, college, university or other educational institution;
- c) a hospital, surgery or other medical institution;
- d) a protected area or an area identified under a conservation plan as a critical habitat or an area of major interest, under the *Nature Conservation Act 1992*;
- e) a marine park under the *Marine Parks Act 2004*; and
- f) a park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment).

'Progressive rehabilitation' means rehabilitation (defined below) undertaken progressively or a staged approach to rehabilitation as mining operations are ongoing.

'Prescribed environmental matters' as per the definition of the latest version of the *Environmental Offsets Act 2014*.

'Rehabilitation processes' means the measures and actions taken to achieve rehabilitation outcomes including any or all of the following:

- a) removing all unwanted infrastructure;
- b) backfilling mine excavations (e.g. pits) and capping drill holes;
- c) reshaping the land surface to a stable landform similar to that of surrounding undisturbed areas;
- d) spreading of topsoil;
- e) spreading seed or planting seedlings to promote revegetation;
- f) benching ridge cuts and removing any overhanging material.

'Residual drilling material' means waste drilling materials including muds and cuttings or cement returns from drill holes which are left behind after drilling fluids are removed.

'Riverine area' means the land adjoining and associated with watercourses, including the bed, banks, adjoining terraced land and riparian vegetation.

'Significantly disturbed' land means land that:

- a) is contaminated land; or
- b) has been disturbed and human intervention is needed to rehabilitate it.

Significantly disturbed land includes:

- a) areas where soil has been compacted, removed, covered, exposed or stockpiled;
- b) areas where vegetation has been removed or destroyed to an extent where the land has been made susceptible to erosion; (vegetation & topsoil)
- c) areas where land use suitability or capability has been diminished;
- d) areas within a watercourse, waterway, wetland or lake where mining project activities occur;
- e) areas submerged by tailings or hazardous contaminant storage and dam walls in all cases;
- f) areas under temporary infrastructure. Temporary infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after mining has ceased; or
- g) areas where land has been contaminated.

Significantly disturbed land does not include:

- a) areas off lease (e.g. roads or tracks which provide access to the mining lease);
- b) areas previously significantly disturbed which have achieved the rehabilitation outcomes;
- c) by agreement with the administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the mine operator (such as climatic conditions);

- d) areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be left by agreement with the landowner. The agreement to leave permanent infrastructure must be recorded in writing and lodged with the administering authority;
- e) disturbances that pre-existed the grant of the tenure unless those areas are disturbed during the term of the tenure.

‘Significant Residual Impact’ as determined by the latest version of the Queensland Government’s ‘Queensland Environmental Offsets Policy – Significant Residual Impact Guideline’

‘Unreasonable noise’ means noise that:

- a) causes unlawful environmental harm; and
- b) is unreasonable, having regard to the following matters:
 - i) its characteristic;
 - ii) its intrusiveness
 - iii) the time at which it is made;
 - iv) where it can be heard;
 - v) other noises ordinarily present at the place where it can be heard; and
- c) exceeds quality objectives defined in Schedule 1 of the Environmental Protection (Noise) Policy 2019 ‘Acoustic quality objectives’.

‘Unreasonable release’ of dust to the air environment, means a release of dust, that:

- a) causes unlawful environmental harm; and
- b) is unreasonable having regard to the following matters:
 - i) its characteristic;
 - ii) its intrusiveness;
 - iii) other releases of dust at the place affected by the release;
 - iv) where the effect of the release of dust can be noticed; or
 - v) the order in which the person releasing the dust started to carry out the activity from which the release is made and persons affected by the release started to carry out other activities that may be affected by the release of dust.

‘Waterway’ means a naturally occurring feature where surface water runoff normally collects, such as a clearly defined swale or gully, but only flows in response to a local rainfall event.

“watercourse” - Means a river, creek or stream in which water flows permanently or intermittently in a visibly defined channel (natural, artificial or artificially improved) with:

- a) continuous bed and banks;
- b) an extended period of flow for some months after rain ceases, and
- c) an adequacy of flow that sustains basic ecological processes and maintains biodiversity.

END OF DEFINITIONS

Figure 1: EPC881 ERE & 500m Buffers & Drill Plan

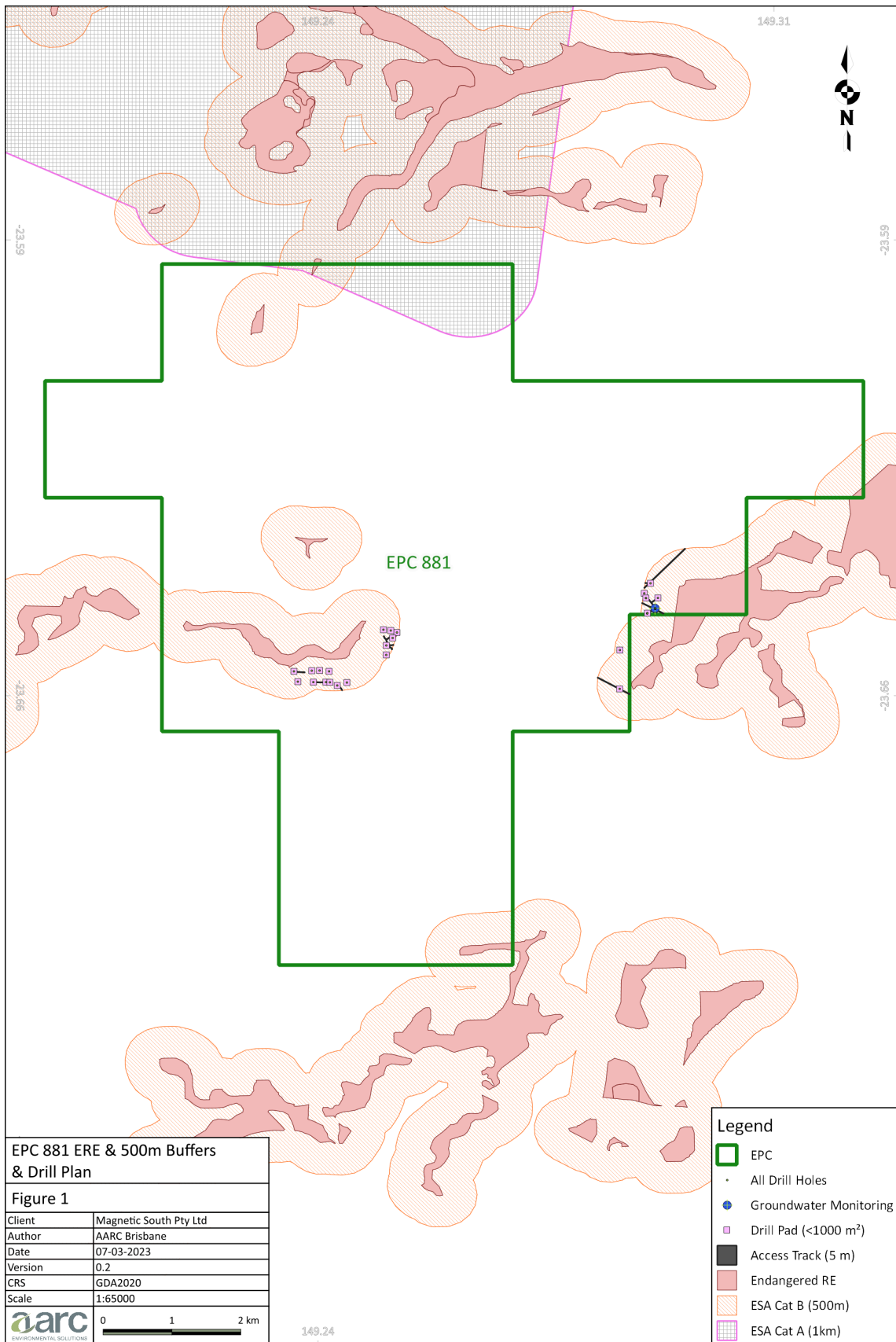
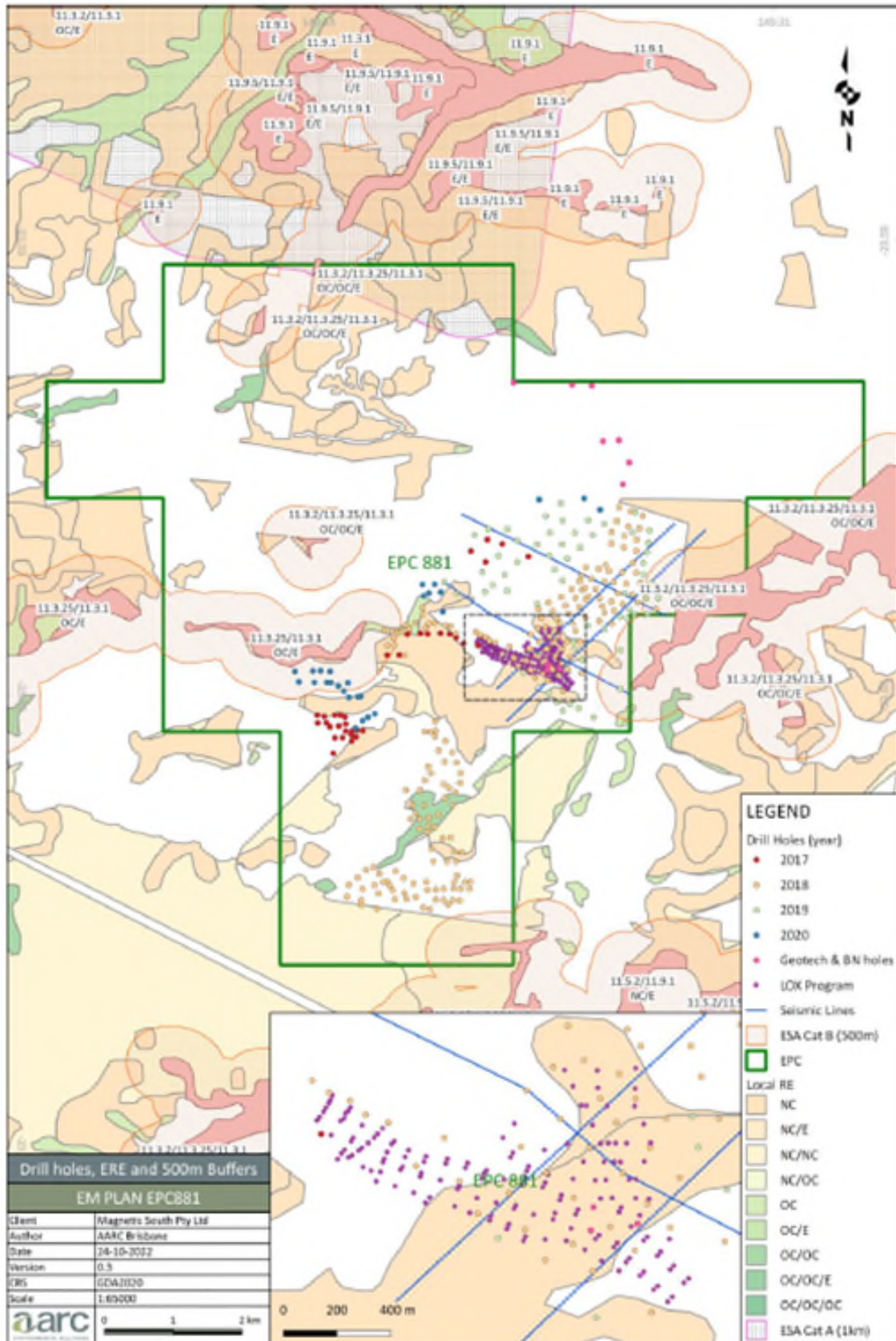


Figure 2: Disturbance 2017 to 2022



END OF ENVIRONMENTAL AUTHORITY