

Cefn Graianog Quarry Dust and Emissions Management Plan

Client: TG Group

Ref No.: K0642-ENV-R005-03

Date: June 2025



Document control

Revision	Revision/ Review Date	Details of Issue	Authorised		
			Prepared By	Checked By	Approved By
00	June 2024	Draft	O Smith	C Heward	C Heward
01	July 2024	For Issue to NRW	O Smith	C Heward	C Heward
02	April 2025	Updated for resubmission to NRW	O Smith	C Heward	J Baxter
03	June 2025	Updated following NRW comments	G Sharkey	E Greenhalgh	E Greenhalgh
04	August 2025	Updated following NRW comments	G Sharkey	E Greenhalgh	J Baxter

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- Appendix 1. Dust Complaint Form
- Appendix 2 Visual Monitoring Check and Action Form

Drawings

- Drawing No. K0642-1000 (Proposed Permit Boundary)
- Drawing No. K0642-1002 (Site Receptor Plan)
- Drawing No. K0642-1003 (Site layout and Drainage Plan)
- Drawing No. K0642-1004 (Visual Dust Monitoring Points Plan)

1 Introduction

1.1 Background

This Dust and Emissions Management Plan has been prepared in support of a permit application for a proposed soil recycling and recovery activity at Cefn Graianog Quarry. The Site is located in Llanllfni, Caernarfon, North Wales (LL54 6SY).

The proposed permit area (referred to as 'Site' hereafter) is located within the greater quarry area of Cefn Graianog Quarry, an active sand and gravel quarry. The site surfacing will comprise hardstanding. The north/eastern boundary of the Site is bordered by an access track and the western boundary of the Site is defined by a conveyor, and beyond this, a large surface water lagoon. The southern boundary is undefined by surface features and comprises quarry workings and the quarry yard/offices further south. Farmland surrounds the Site in all directions and a forested area lies just 65 m northeast of the Site. Several residential and farming buildings are located in the area surrounding the Site, the nearest residential property of which is situated approximately 205 m to the east/southeast, on the track to the Site entrance. The other properties are located over 450 m away.

The purpose of this Dust and Emissions Management Plan is to identify which aspects of the soil recycling and recovery activity are likely to cause a potentially harmful emission of uncontrolled dust and how these emissions will be minimised.

A copy of this Dust and Emissions Management Plan will be included in the site's Environmental Management System (EMS) held at the Site Office and all members of staff will have access to this document.

In the absence of any template available from National Resources Wales (NRW), this report makes reference to the dust and emissions management plan template provided by the Environment Agency, specifically the following sections:

- Dust and Particulate Management:
 - Responsibility for Implementation of the dust management plan;
 - Sources and control of fugitive dust;
 - Potential pathways and receptors to fugitive dust;
 - Fugitive dust risk assessment;
- Visual and Quantitative Monitoring; and,
- Community Engagement, Reporting and Contingencies.

2 Dust and Particle Management

2.1 Responsibility for Implementation

The Site Manager would be responsible for implementing the dust management plan. Additional support will be provided by the Technical Competent Manager (TCM) within TG Group. Provision of an appropriate TCM is necessary to demonstrate to NRW that the applicant is a fit and proper person, a test all prospective environmental permit holders must pass to be granted a permit. The Site Manager and/or TCM would be responsible for the training of site staff.

TG Group has produced an Environmental Management System (EMS) for the site, it is intended that the dust management plan would form part of the EMS.

All staff to be employed on site would be given training and instruction on implementing the dust management plan. Training will be part of the initial induction process and reviewed annually.

All site staff would be responsible for visual monitoring of dust and would be instructed on appropriate reporting and actions.

All third-party contractors would be required to be inducted; the induction process would include their responsibility concerning compliance with the dust management plan.

The DMP will be reviewed, as a minimum, on an annual basis with the scheduled review of the Site's EMS or as required with every major increase, or alteration to the dust emissions. Following any review of the DMP, staff will be retrained on the content of the DMP.

2.2 Proposed Operations

The proposed permit area is part of the larger Cefn Graianog Quarry which is an active sand and gravel quarry operated by TG Aggregates. Sand and gravel have been extracted from this quarry since the 1970's (Report No. K0642-ENV-R001-02). The proposed permit area is shown with respect to the wider quarry on the drawing referenced K0642-1000, attached to this report.

This permit application proposes to recycle and recover inert waste primarily arising from dredging, excavation and demolition activities by means of physical treatment, limited to screening and the associated handling of material, to produce a non-waste aggregate in accordance with the WRAP quality protocol. The Site currently processes on-site material therefore the proposed activities are similar to the activities currently undertaken at the Site but proposes the use of imported wastes. The proposed activity will be undertaken on hardstanding.

It is understood that the proposed activity would fit the criteria of the Standard Rules permit SR2010 No. 12 (treatment of waste to produce soil, soil substitutes and aggregate – up to 75,000 tonnes) apart from the proximity of the Cors Gyfelog SSSI and Corsydd Eifionydd/Eifionydd Fens Special Area of Conservation (SAC) to the Site, both 415 m south of the proposed permit boundary. Hence, a bespoke permit application which considers the specific risks to the SSSI/SAC is required

The proposal summary is as follows:

- Dry processing, limited to screening and associated handling of material within the proposed permit boundary;
- Treating up to 50,000 tonnes per year with up to 20,000 tonnes (~10,000 m³) stored at any one time within the permit boundary. The proposed areas for storage of waste will be in the processing area and for product material will be in the product stockpile area;
- Waste types are proposed to include the following:
 - 01 04 08 waste gravel and crushed rocks;

- 01 04 09 waste sand and clays;
- 17 05 04 soil and stones other than those mentioned in 17 05 03;
- 17 01 01, 17 01 02, 17 01 03 concrete, bricks, tiles and ceramics;
- 17 01 07 mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06;
- 17 03 02 bituminous mixtures other than those mentioned in 17 03 01;
- 17 05 06 dredging spoil other than those mentioned in 17 05 05, and,
- 20 02 02 soil and stones.
- Surface water run-off from the permitted area to be contained and drained into a small lagoon located within the east of the permitted area, which will then be pumped into a larger lagoon to the west of the permit boundary.

The primary entrance to the Site is from the signposted track just off the A487.

3 Potential Dust and Emission Sources

3.1 On-site Dust Emission Sources

The proposed activities utilising waste also has the potential to generate fugitive emissions. The wastes to be received will include inert dredgings construction and demolition wastes.

A summary of the waste deposit treatment is shown below in Table 1 with the approximate tonnage (per year).

Table 1- Waste Types

General Waste Description	Waste soils to be treated	Soils to be stored on site at any one time	Location
Inert waste soils originating from dredging, excavation and demolition activities	50,000 t/y	20,000 t/y	Within proposed permit area, indicated on drawing referenced K0642-1003 (Site Layout and Drainage Plan)

During dry weather which result in dry ground conditions being susceptible to generating dust and during high wind conditions as defined by Scale 9 of the Beaufort Wind Scale¹, wastes can present a risk of fugitive dust emissions during transit and deposition and following placement. Fugitive dust emissions can potentially arise from the following site activities:

- Transport of waste to and upon the Site;
- Unloading of waste soils to waste stockpile area awaiting treatment;
- Treatment of waste soils via dry processing, limited to screening and associated handling;
- Wind-blown dust accumulated on site surfaces and stockpiling areas;
- Placement of waste by on-site plant; and,
- Vehicle movements on dusty roads.

¹ <https://weather.metoffice.gov.uk/guides/coast-and-sea/beaufort-scale>

Fugitive dust may present a dust nuisance to surrounding human receptors or cause an adverse impact if excessive deposits settle on sensitive habitats and smother sensitive plant life or surface water receptors as accumulated sediment.

3.2 Off-site Dust Emissions Sources

The Site is located within an active sand and gravel quarry which has the potential to generate dust emissions. Other sources of off-site dust include the surrounding roads.

The farmland surrounding the Site in all directions also has the potential to generate dust.

3.3 Control Measures for On-site Dust Emissions

The Site Manager or appointed deputy will be responsible for imposing restrictions or measures listed in Tables 2 and 3 during weather conditions that could generate dust such as dry weather which result in dry ground conditions being susceptible to generating dust and during high wind conditions as defined by Scale 9 of the Beaufort Wind Scale.

In order to minimise the risk of on-site dust emissions the control measures in this section have been put in place.

3.3.1 Waste Transport

Table 2- Control Measures for Waste Transport

Issue	Responsibility	Control Measures
Dry waste in HGVs becoming airborne during transport	Site Manager or appointed deputy Drivers	<p>The main access road from the A487 to the main site and yard area of the quarry is currently surfaced with tarmac. The haul road to the west of the Site is also surfaced with asphalt/tarmac. Internal unpaved roads will be regularly graded and surfaced with suitable hardcore so that it does not become a source of mud and debris on the wheels of site traffic.</p> <p>The hard surfaced areas will allow sweeping by mechanical sweeper weekly or more regularly if there is any build-up of dust, mud or debris on the roads.</p> <p>Transporting waste to the site can result in fugitive dust emissions and accumulation of mud and debris at sensitive receptor locations. Wastes will be delivered to the Site by TG Enviro or third-party contractors. The transport of waste is regulated by Duty of Care code of practice issued under section 34(7) of the Environmental Protection Act 1990, this code requires that waste is stored securely to prevent escape during transport.</p> <p>All road-going HGVs will be subject to appropriate emission standards.</p> <p>All vehicles will arrive at site with sheeted covers which will only be removed to allow inspection of wastes by site staff. Vehicles will be re-sheeted following waste acceptance checks.</p>
Vehicle movements onsite when transporting waste may generate dust from roads	Site Manager or appointed deputy Drivers	<p>All hauliers will be informed of the Site rules at the point of entry to the Site, these will include measures to minimise dust and emissions including limiting vehicle speeds, no vehicle engine idling when stationary for prolonged periods to reduce exhaust emissions and appropriate locations to deposit wastes.</p> <p>All vehicles on site shall not exceed the speed limit of 10 mph. Speed limits will be clearly displayed using signage around the Site. If there has been a prolonged period of no rain fall, which results in dry ground conditions, speed limits will be reduced to 5 mph.</p>

Issue	Responsibility	Control Measures
		<p>The HGVs will (unless the waste is rejected) transport the waste along internal roads to the waste stockpile area where a second inspection will be undertaken by site staff prior to the placement of the waste by site plant.</p> <p>All internal roads including the hard surfaces will be inspected daily by site staff and recorded by the Site Manager. If an inspection identifies a risk of dust emissions then inspection frequency will increase to two times a day. Maintenance will also be increased accordingly.</p> <p>A tractor and bowser will be available to dampen down roads where there is any build-up of dust on internal roads.</p> <p>All site haul roads and access roads will be regularly maintained and cleaned to prevent the accumulation of mud and dusty material. Maintenance includes repairing potholes with repairs actioned within 72 hours of identification of damage. Road surfaces will be cleaned when there is any accumulation of mud or dusty materials to reduce the amount of mud or dusty materials tracked off-site.</p> <p>The Site Manager or appointed deputy will ensure dusty haul roads are wetted down to reduce wind whipped dust. Wetting of haul roads would be undertaken as a preventative measure if it is suspected that dust from the haul roads may be a problem.</p>
Dry wastes on site may generate dust emissions	Site Manager or appointed deputy Drivers	<p>Site staff will enforce strict waste acceptance protocols to manage the deposit of potentially dusty wastes. All waste will be subject to pre-acceptance checks to confirm suitability before the waste arrives on site (this will be regulated by the environmental permit). On site verification checks will confirm acceptability, these checks will consist of reviewing associated paperwork and inspection of the load.</p> <p>It is unlikely that any specific dusty loads will be received, however if the load is identified as unsuitable prior to deposit it will be rejected.</p> <p>If the load is identified as having the potential to generate dust at the point of deposit it would be damped with water spray prior to placement or reloading or rejection. In all cases all subsequent loads from the same source will be suspended until confirmed suitable.</p>
Vehicles leaving the site may become contaminated with on-site wastes, which may be transports off-site.	Site Manager or appointed deputy Drivers	<p>Any vehicles leaving site would be required to be inspected prior to site egress and wheels, if there is a build-up or mud and debris will be cleaned to reduce the risk of fugitive dust emissions on the public highway.</p>

3.3.2 Waste Deposit in Stockpile Areas and Waste Treatment

Table 3 Control Measures for Stockpile Areas and Waste Treatment

Issue	Responsibility	Control Measures
Depositing of waste may generate dust emissions	Site operatives	<p>Site operatives supervising deposit of the incoming waste material in the waste stockpile area prior to treatment will be in constant communication with the site office to advise on the current conditions at the stockpile area and the condition of on-site roads. Supervising site operatives will also advise the site office if dusty loads incorrectly described by the supplier have been accepted.</p> <p>Waste drop heights are to be minimised, it may be necessary for other site plant to be present by the HGVs (e.g. excavator) to help implement this. These vehicles will be subject to the same operational controls to reduce the risk of</p>

Issue	Responsibility	Control Measures
		dust emissions. This applies to materials that have been treated and stored in on-site product stockpile areas pending removal/export.
<p>Stockpiled waste may generate dust, mud and debris if not stored correctly.</p> <p>Wind whipping of stockpiles</p>	<p>Site Manager or appointed deputy</p>	<p>The surfacing of the stockpile areas and waste treatment areas are surfaced with suitable hardstanding.</p> <p>Any holes or soft spots that develop will be repaired immediately. The hardstanding allows sweeping by mechanical sweeper on a regular basis. A tractor and bowser will be available to dampen hard surfacing if dust builds up.</p> <p>Stockpiles of both waste and product, stored on-site, will not exceed 5 m in height, this is in line with the quarry rules. Waste will be stored with consideration of the location of nearby sensitive receptors and prevailing winds.</p> <p>Prior to waste operations a bund will be constructed along the southern boundary of the site to manage surface water. This will also act as a wind break for stockpiles on site to reduce the risk of wind whipping.</p> <p>The waste stockpiles and weather will be monitored daily and if there are weather conditions, such as long periods of no rainfall and high wind conditions as defined by Scale 9 of the Beaufort Wind Scale, or signs of dust the following procedures will be implemented</p> <ul style="list-style-type: none"> • Dampening down waste and product at point of deposit in the stockpile areas; • Selecting deposit areas within stockpile areas that are sheltered from the wind; • Dampening down stockpiles using bowser with spray nozzle or potentially covering them with sheeting; • Restricting waste types that can be deposited (i.e. not accepting wastes with a high dust generation potential); and • Suspending waste acceptance operations.
<p>Treatment activities (dry processing) and equipment may generate dust emissions</p>	<p>Site Manager or appointed deputy</p>	<p>The activity will use the same plant already used for quarry activities. This plant has previously been suitable for ensuring dust emissions has not impacted nearby sensitive receptors.</p> <p>If the waste treatment activities are identifying to be generating dust emissions this will be investigated. The investigation will identify the source of the dust emissions and activities in relation to this will cease until resolved.</p>

3.3.3 Dust Suppression Water Management

The Site Manager or appointed deputy will be responsible for imposing restrictions or measures during weather conditions that could generate dust such as dry weather which result in dry ground conditions being susceptible to generating dust and during high wind conditions as defined by Scale 9 of the Beaufort Wind Scale.

In the event there is a buildup of dust on internal roads and hard surfaces, clean water from the various surface water ponds located on site will be used for dust suppression, using a bowser towed by a tractor, and cleaning of wheels.

During drought conditions, if the large surface water lagoon dries up operations that pose any risk to creating dust will be suspended. Operations will not commence until the water source has replenished or an alternative source is found.

3.3.4 General Maintenance / House Keeping

The Site Manager or appointed deputy will be responsible for imposing restrictions or measures during weather conditions that could generate dust such as dry weather which result in dry ground conditions being susceptible to generating dust and during high wind conditions as defined by Scale 9 of the Beaufort Wind Scale.

All internal roads including the hard surfaces will be inspected daily by site staff and recorded by the Site Manager. The daily visual monitoring sheet can be seen in appendix 2. The Site Manager will enforce any necessary mitigation measures previously discussed to ensure there is no build up dust on internal roads and hard surfaces.

Road surfaces will be maintained to prevent and repair potholes with repair actioned within 72 hours of identification of damage.

Road surfaces will be cleaned if there is any accumulation of mud or dusty materials to reduce the amount of mud or dusty materials tracked off-site. The Site Manager or appointed deputy will ensure dry dusty waste and dusty haul roads are wetted down to reduce wind whipped dust. Wetting of haul roads would be undertaken as a preventative measure if it is suspected that dust from the haul roads may be a problem.

Any vehicles leaving site would be required to be inspected prior to site egress and wheels, if there is a build up or mud and debris wheels will be cleaned to reduce the risk of fugitive dust emissions on the public highway.

Site staff will be vigilant to excessive mud tracked from the site by visiting HGV's and site plant. Any vehicles observed to be carrying mud in their tyres would be directed to have their wheels cleaned. Drivers will be reminded as part of the site induction of their responsibility to maintain clean vehicles and not to track mud onto the public highway.

The asphalt access/egress road and haul road to the west may be swept by a standard mechanical road sweeper, the type that commonly operates safely on public highways adjacent to footpaths.

All systems involving water usage for dust management including dampening down of roads and on site wheel cleaning would be operational throughout the waste soil recycling and recovery activity, and maintained accordingly.

Monitoring and appropriate maintenance of the site access will form part of the EMS for the site.

All personnel employed on site will undertake visual monitoring for dust.

Any problems observed will immediately be reported to the Site Manager (or nominated deputy) who will be responsible for investigating the cause and implementing any necessary remedial plan.

All plant will be maintained in accordance with the manufacturer's instruction, critical spacers will be retained on site and hire arrangements will be in place for short term replacement of critical items of plant including such as bowser and road sweeper.

Dust generation is not expected to increase materially as the waste soil recycling and recovery activity is carried out alongside the quarrying activity. It is considered unlikely that significant dust emissions will be generated from this activity alone.

3.4 Remedial Actions for On-site Dust Emissions

In the unlikely event that unacceptable dust emissions arise from the site, one or more of the following remedial actions will be undertaken:

- Operations identified as generating unacceptable emissions of dust will be suspended until effective remedial actions have been taken or weather conditions resulting in the fugitive emissions have moderated;
- Additional dust suppression will be employed by spraying water onto affected areas;
- Where practicable on-site vehicle movement routes may be reconsidered with regard to location (i.e. relocating further from the receptor at risk), speed limits will be further reduced from 10mph to 5mph, or surfaces and gradients altered;
- All vehicles leaving the site will be inspected prior to egress and wheel cleaning may be employed if required, such as using a mobile pressure washer, brush and bucket, etc;
- Waste handling procedures may be altered and waste acceptance procedures reviewed, such as covering dusty wastes upon deposit, or stopping accepting problematic wastes; and,
- Quantitative monitoring may be implemented, if complaints are received and the corrective actions above have not resolved the problem, as discussed further in Section 7.

A record relating to the management and monitoring of dust will be maintained in the site log. This record will include the following details: a record of all dust events including date, time and the cause of the problem; a record of all complaints; details on the corrective action taken and any subsequent changes to operational procedures.

4 Potential Pathways

4.1 Airborne Pathways

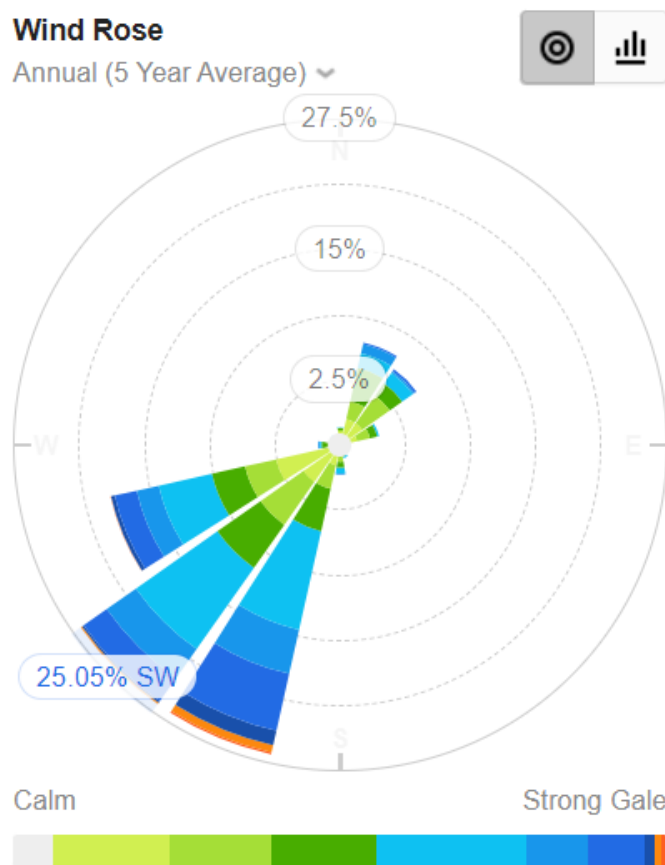
The potential pathways for dust and particulates to reach sensitive receptors are via the air or over land, namely via the wind. Waste is most likely to become during dry weather which result in dry ground conditions being susceptible to generating dust and during high wind conditions as defined by Scale 9 of the Beaufort Wind Scale. Transit of airborne emissions will be determined by the prevailing wind direction and physical obstructions.

Wind statistics have been referenced from data obtained at Porthmadog Weather Station² located 14.9 km southeast of the Site. The frequency the wind blows toward potentially sensitive receptors is detailed in Table 4.

The relevant wind rose is presented below in Figure 1, this data shows a statistical representation of data obtained between 2019 and 2025. Predominant wind direction is from the southwest blowing towards the northeast at ~22% (Figure 1).

²² <https://wind.willyweather.co.uk/wl/gwynedd/porthmadog.html>

Figure 1 Porthmadog Wind Direction Distribution % (2019 – 2025)



4.2 Overland Pathways

Transit of emissions which could travel overland will primarily be limited by the distances to receptors from site and the locations of receptors in relation to the prevailing wind direction and less so by physical barriers such as the trees.

5 Potential Sensitive Receptors

5.1 Receptor Locations

When identifying the receptors, the closest and the most sensitive (if different from the closest) have been considered in each direction from the hazard. Account has been taken of the mechanism of transport to the sensitive receptor e.g. proximity to highway access / egress points for mud and wind direction for airborne dust. Recent wind direction from Porthmadog has been used to establish hazard pathways to adjacent receptors.

Probability of exposure is determined by the distance of the receptor to the site and the likelihood of the hazard reaching the receptor i.e. frequency of prevailing wind in that direction. The probability of exposure is irrespective of the type of hazard presented.

A review of the sensitive receptors has been completed in relation to the site; a list of receptors is shown in Table 4. The nearest sensitive receptors to the site are identified in drawing referenced K0642-1002, of which the most susceptible to dust are the following:

- Cors Gyfelog Site of Special Scientific Interest (SSSI) and Corsydd Eifionydd/Eifionydd Fens Special Area of Conservation (SAC);
- Graianog (north) Site of Importance for Nature Conservation (SINC);
- Cefn Graianog SINC;
- Purple moor grass and rush pastures protected habitat; and,
- Nearby residential/farming properties and campground.

Wind statistics have been referenced from data obtained at Porthmadog Weather Station (14.9 km to the southeast) for a 5-year period and details provided in Table 4 with reference to the relevant receptors identified in the vicinity of the site. The wind rose is reproduced as Figure 1.

The Environment Agency (Agency) guidance template for dust management requires consideration to be given to the impact of dust emissions on receptors within a 1km of the site boundary. Although Table 4 identifies potential receptors within a greater distance beyond 1km from the site boundary, these are considered to be at low risk.

A review of other local sources of dust and particulates has been completed in relation to the site and an assessment of each receptor type (in regard to sensitivity to dust) has been summarised in Table 5. Greatest sensitivity relates to habitats, residential, recreational, commercial uses, and public amenity.

Table 4- Sensitive Receptors

Receptor Number	Receptor	Receptor Type	Approx. Distance from Site Boundary (m)	Direction from Site	Freq (%) Prevailing Wind Direction
1	Residential/farming properties/campground	Residential / Agricultural	325 – 780	W - NW	0.3 - 0.5
2	Residential property located on access track to quarry	Residential / Agricultural	205	ESE	0.8
3	Properties off A487	Residential / Agricultural	780 - > 1000	NE - SE	0.9 - 25.1
4	Cors Gyfelog	Site of Special Scientific Interest	415	S	1.4
5	Corsydd Eifionydd/Eifionydd Fens	Special Area of Conservation	415	S	1.4
6	Cors Gyfelog	National Nature Reserve	455	SSE	0.0
7	Public Footpath	Public Footpaths	140	S	1.4
8	Public route of access	Public route of access	Along northeastern boundary of the Site	NE	25.1
9	Traffic free off-road cycle route along old railway track	Cycle route	150	E	1.8
10	Ancient Semi Natural Woodland	Ancient Semi Natural Woodland	892	NW	0.3
11	Unnamed roads and A487	Highways	0 - 1000	All directions	0.3 – 7.3
12	Silt Lagoons associated with quarry	Waterbody	30 – 220	W	0.5
13	3 No Inland river not influenced by tidal action	Watercourse	205 - 241	N - NE	2.4 – 25.1
14	4 No Inland river not influenced by tidal action	Watercourse	119 - 229	E - SE	0.9 - 1.8
15	2 No Inland river not influenced by tidal action	Watercourse	157 - 235	S - SW	1.4 – 7.3
16	1 No Inland river not influenced by tidal action	Watercourse	205	N	2.4
17	Afon Desach	Watercourse	800	WNW	0.3 - 0.5
18	Purple moor grass and rush pastures	Protected Habitat	57	NE	25.1
19	Graianog North Site of Importance for Nature Conservation (SINC)	Site of Importance for Nature Conservation (SINC) / Local Wildlife Site	19 - 300	NNW	1.1
20	Cefn Graianog Site of Importance for Nature Conservation (SINC)	Site of Importance for Nature Conservation (SINC) / Local Wildlife Site	145 - > 1000	NNE - SSE	0.0 - 25.1
1	Residential/farming properties/campground	Residential / Agricultural	325 – 780	W - NW	0.3 - 0.5

Receptor Number	Receptor	Receptor Type	Approx. Distance from Site Boundary (m)	Direction from Site	Freq (%) Prevailing Wind Direction
2	Residential property located on access track to quarry	Residential / Agricultural	205	ESE	0.8
3	Properties off A487	Residential / Agricultural	780 - > 1000	NE - SE	0.9 - 25.1
4	Cors Gyfelog	Site of Special Scientific Interest	415	S	1.4
5	Corsydd Eifionydd/Eifionydd Fens	Special Area of Conservation	415	S	1.4
6	Cors Gyfelog	National Nature Reserve	455	SSE	0.0
7	Public Footpath	Public Footpaths	140	S	1.4
8	Public route of access	Public route of access	Along northeastern boundary of the Site	NE	25.1
9	Traffic free off-road cycle route along old railway track	Cycle route	150	E	1.8
10	Ancient Semi Natural Woodland	Ancient Semi Natural Woodland	892	NW	0.3
11	Unnamed roads and A487	Highways	0 - 1000	All directions	0.3 – 7.3
12	Silt Lagoons associated with quarry	Waterbody	30 – 220	W	0.5
13	3 No Inland river not influenced by tidal action	Watercourse	205 - 241	N - NE	2.4 – 25.1
14	4 No Inland river not influenced by tidal action	Watercourse	119 - 229	E - SE	0.9 - 1.8
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16	1 No Inland river not influenced by tidal action	Watercourse	205	N	2.4
17	Afon Desach	Watercourse	800	WNW	0.3 - 0.5
18	Purple moor grass and rush pastures	Protected Habitat	57	NE	25.1
19	Graianog North Site of Importance for Nature Conservation (SINC)	Site of Importance for Nature Conservation (SINC) / Local Wildlife Site	19 - 300	NNW	1.1
20	Cefn Graianog Site of Importance for Nature Conservation (SINC)	Site of Importance for Nature Conservation (SINC) / Local Wildlife Site	145 - > 1000	NNE - SSE	0.0 - 25.1

Frequency stats from [Black Rock Sands, Porthmadog, Gwynedd - WillyWeather](#). The prevailing wind direction is the direction / frequency towards the receptor.

Table 5- Types of Receptors

Receptor Type	Sensitivity to Dust
Habitats / Watercourses	High
Residential	High
Recreational	High
Commercial	High
Public Amenity	High
Public Highways / Railways / Footpaths	Moderate
Industrial / Agricultural	Low to Moderate

5.2 Receptor Types

Habitats and Watercourses

The Cors Gyfelog SSSI and Corsydd Eifionydd/Eifionydd Fens SAC are located 415 m south of the Site, the Cors Gyfelog National Nature Reserve is situated 455 m south/southeast of the Site, the Graianog (north) SINC lies 19 m north/northwest and an Ancient Semi Natural Woodland is located 892 m northwest of the Site. It is noted that none of these receptors are located downwind of the prevailing wind direction, which is from the southwest toward the northeast (Figure 1).

The Cefn Graianog SINC is located 145 m northeast and the protected habitat for purple moor grass and rush pastures is located 57 m northeast of the Site, in the prevailing wind direction. The control measures discussed in Section 3 will be implemented to reduce the likelihood of any dust generated from the activity travelling towards these receptors, including ceasing operations during periods of higher risk (i.e. Dry with strong winds towards the northeast) until more favourable conditions prevail.

There are 3 No. rivers located 205-241 m north to northeast, 4 No. rivers located 119-229 m east to southeast, 2 No. rivers located 157-235 m south to southwest, one river located 205 m north of the site and the Afon Desach, located 800 m west/northwest of the Site. The 3 No. rivers located 205-241 m north to northeast and the Afon Desach (however distant) are located downwind of the prevailing wind direction.

Residential, recreational, industrial and commercial premises

The potential emissions from the Site are likely to have a similar impact on persons occupying residential and recreational premises (campground). Exposure of emissions to persons at agricultural premises may be lower as they are more likely to be inside during the working day or they may be transient visitors to the premises. Certain agricultural premises may generate similar emissions similar to the Site and the employees may be desensitised as a result.

Fine dust particulates may be able to travel further than larger particles that may settle on surfaces nearby. Finer particulates may elicit an unpleasant or harmful respiratory effect from sensitive individuals, whilst settlement of dust may be unsightly or damaging by smothering to sensitive flora. Dust is less likely to affect internal spaces; however, a sustained source of fine suspended particulates may eventually permeate inside buildings.

The proposed permitted activities are unlikely to generate dust in such sufficient quantities that a plume would be visible beyond the site boundary. The proposed working hours and may affect persons in residential housing, but have little effect on persons in businesses operating to normal working hours e.g. 0900 to 1700.

The closest residential property is located on the access track to the quarry, 205 m east/southeast of the Site. More residential properties are located 325-780 m west/northwest and 780 to over 1000

m northeast to southeast, off the A487. Although some of the properties along the A487 are located in the prevailing wind direction (towards the northeast), these are at a large distance and therefore dust particles are unlikely to reach these properties.

For conservatism this management plan assumes the residences are occupied during the operational hours of the Site by members of the public most sensitive to emissions from the Site.

It is likely that the combination of operational controls, distance to the receptors and the prevailing wind direction prevent most potentially harmful emissions from reaching receptors. As such these receptors noted above are considered unlikely to be sensitive to dust emissions associated with the Site.

Highways, railways and footpaths

The transitory nature of highways, cycle routes or footpaths means receptors using those locations will be exposed to potential emissions from the Site for shorter (albeit variable) periods of time than residences and agricultural premises. Pedestrians will have longer and more direct exposure to emissions compared to vehicle users who are less likely to be exposed to emissions and for significantly shorter periods of time.

Several unnamed roads lie 0-1000 m in all directions of the Site and the A487 lies 770 m east. None of these receptors lie downwind of the Site.

6 Dust Risk Assessment

6.1 Site Dust Emissions

The risk potential to each receptor as identified in Section 5 (Table 4) and shown on drawing referenced K0642-1002 from dust potentially generated from the Site is presented in Table 6 below.

This table evaluates the unmitigated risk to sensitive receptors from uncontrolled dust emissions and the control measures to be implemented at the Site in order to minimise and mitigate this risk, producing a revised residual risk to receptors.

With appropriate risk management measures in place, the overall risk from dust generated from site is considered “low” and the proposed soil recycling/recovery activity is unlikely to produce any further dust that is already produced within the quarrying activity. The effects from windblown emissions are envisaged to be minimal and not detrimental to sensitive receptors.

Table 6- Dust Fugitive Emission Risk Assessment and Management

Hazard / Pathway	Receptor				Probability of Exposure	Unmitigated Consequence	Initial Risk	Risk Management	Residual Risk
	No.	Dist. (m)	Direc.	Freq (%)					
Dust through Air: from vehicle movements, deposits/stockpiles of wastes and dust generated from dry processing	1	325 – 780	W - NW	0.3 - 0.5	Medium – moderate proximity to Site, infrequently downwind	High – dust annoyance (residential)	Medium	No excessively dusty wastes to be accepted at the Site. Site staff will be appropriately trained and enforce strict waste acceptance protocols to manage the deposit of potentially dusty wastes.	Low
	2	205	ESE	0.8	Medium – moderate proximity to Site, infrequently downwind	High – dust annoyance (residential)	Medium		
	3	780 - > 1000	NE - SE	0.9 - 25.1	Medium – distant from Site but frequently downwind	High – dust annoyance (residential)	Medium		
	4	415	S	1.4	Medium – moderate proximity to Site, infrequently downwind	Medium – potential to deposit on sensitive wildlife (SSSI)	Medium	All vehicles transporting materials to and from Site will be sheeted and will be regularly maintained in accordance with the manufacturer's instructions.	
	5	415	S	1.4	Medium – moderate proximity to Site, infrequently downwind	Medium – potential to deposit on sensitive wildlife (SAC)	Medium		
	6	455	SSE	0.0	Low – moderate proximity to Site, never downwind	Medium – potential to deposit on sensitive wildlife (nature reserve)	Low	Onsite vehicle speed limit of 10 mph enforced to ensure that vehicle movements do not generate excessive dust.	
	7	140	S	1.4	High – close proximity to Site, infrequently downwind	Low – transient dust annoyance (footpath)	Medium		
	8	Along north eastern boundary	NE	25.1	High – close proximity to Site, frequently downwind	Low – transient dust annoyance (public route)	Medium	Dampening of site roads/surfaces as necessary using a tanker/bowser during long periods of no rainfall.	
	9	150	E	1.8	Medium – moderate proximity to Site, infrequently downwind	Low – transient dust annoyance (cycle path)	Low		
	10	892	NW	0.3	Low – distant from Site, infrequently downwind	Medium – potential to deposit on sensitive trees (ancient woodland)	Low	Daily visual inspection by appropriate site staff at suitable locations taking account of the prevailing wind direction.	
	11	0 - 1000	NW-SW	0.3 – 7.3	High – close proximity to Site, occasionally downwind	Low – transient dust annoyance (roads)	Medium		
	12	30 – 220	W	0.5	High – close proximity to Site, infrequently downwind	Low – not sensitive to dust (lagoon)	Medium	All vehicles will be inspected prior to leaving site for mud and wheels cleaned if necessary to prevent mud / dust being trailed onto adjacent roads and creating a hazard / nuisance.	
	13	205 - 241	N - NE	2.4 – 25.1	Medium – moderate proximity to Site, frequently downwind	Medium – potential for dust accumulation in watercourse / waterbody (rivers)	Medium		

Hazard / Pathway	Receptor				Probability of Exposure	Unmitigated Consequence	Initial Risk	Risk Management	Residual Risk
	No.	Dist. (m)	Direc.	Freq (%)					
Dust through Air: from vehicle movements, deposits/stockpiles of wastes and dust generated from dry processing	14	119 - 229	E - SE	0.9 - 1.8	High – close proximity from Site, infrequently downwind	Medium – potential for dust accumulation in watercourse / waterbody (rivers)	Medium	A street sweeper will regularly clean site access road of any mud trailed on from site vehicles.	Low
	15	157 - 235	S - SW	1.4 – 7.3	Medium – moderate proximity to Site, occasionally downwind	Medium – potential for dust accumulation in watercourse / waterbody (rivers)	Medium	Drop height of materials will be minimised.	
	16	205	N	2.4	Medium – moderate proximity to Site, infrequently downwind	Medium – potential for dust accumulation in watercourse / waterbody (river)	Medium	Site to be kept tidy and hard standings to be kept clean to minimise dust.	
	17	800	WNW	0.3 - 0.5	Low – distant from Site, infrequently downwind	Medium – potential for dust accumulation in watercourse / waterbody (rivers)	Low	A complaints procedure is in place onsite and all complaints and remedial action will be recorded in accordance with the Site's EMS.	
	18	57	NE	25.1	High – close proximity from Site, frequently downwind	High – potential for dust accumulation in protected habitat	High		
	19	19 - 300	NNW	1.1	Medium – close proximity to site, infrequently downwind	High – potential for dust accumulation at SINC	Medium		
	20	145 - > 1000	NNE - SSE	0.0 - 25.1	Medium – moderate to distant from site, infrequently to frequently downwind	High – potential for dust accumulation at SINC	Medium	Materials in stockpiles within the stockpile areas will be dampened down/sheeted If weather conditions deem it necessary.	

7 Monitoring

7.1 Meteorological Conditions

The Site Manager will be responsible for monitoring the weather conditions on a daily basis (or more regularly if deemed necessary). This will be done in advance via online sources such as the [Met Office](#) forecast website for Caernarfon (Gwynedd)³ or from local broadcasts on television/radio for the area. If weather conditions are dry and wind conditions are forecast over a strong gale as defined by Scale 9 of the Beaufort Wind Scale then the Site Manager will visually monitor the site activities for potential dust emissions, and if required, restrictions will be put in place such as those discussed in Section 3.3.2 (dampening down stockpiles, using sheeting to cover stockpiles, ceasing waste treatment operations if necessary, etc.).

Visual monitoring of the weather conditions may be aided by the installation of a windsock nearby to the operations to show the wind direction and strength. All site staff would be responsible for reporting any adverse weather conditions to the Site Manager or the next level of management if the Site Manager is not available.

7.2 Visual Dust Monitoring

Visually monitoring will occur once daily for dust by the Site Manager and continuously by the operatives in the course of their duties to establish whether any dust is likely to leave the Site. This will include dust arising from vehicles arriving at site.

Records will be completed for each inspection and all site staff would be responsible for reporting dust and particulate problems as soon as practicable to the Site Manager or the next level of management if the Site Manager is not available.

The following locations (illustrated on Drawing Ref: K0642.1004) will be targeted for visual dust monitoring at the frequency above with additional checks throughout the day around the SSSI:

1. Site office/weighbridge (continuous monitoring of vehicles);
2. Point of waste deposition in the stockpile area;
3. Materials stockpiled in the stockpile areas;
4. Subject to prevailing wind direction (i.e. up and down wind), appropriate areas of the site perimeter.

The following information will be recorded during each round of monitoring:

- Name of assessor and position at facility e.g. weighbridge clerk etc.;
- Nature of any problem identified including location, source, date, time, duration, prevailing weather conditions and likely cause;
- On-site activities and operational condition at the time of the monitoring visit (this should include any of the abnormal events detailed in Section 7.8 below);
- Records of the likely source of any dust, even if it is not from the facility; and
- Details on the corrective action taken, realistic timeframes for remedial works and any subsequent changes to monitoring and operational procedures.

³ <https://weather.metoffice.gov.uk/forecast/gckyqc8wy#?date=2025-02-24>

The Site Manager will be informed immediately of any findings of dust attributed to the Site and will authorise remedial measures to be taken.

Quantitative monitoring is not required at this Site.

8 Community Engagement, Reporting and Contingencies

8.1 Overview

Prevention will be viewed as the most effective means of controlling dust before an adverse impact occurs from uncontrolled emissions. The Source → Pathway → Receptor model determined above allows for the identification of the critical control points where dust can arise, how it can travel to a receptor and the likely impact.

The performance of a dust management system will ultimately be judged by the impact of the waste recycling and recovery activity on the receptors. Should complaints be received, a procedure will be in place to effectively deal with the issue in a sensitive, efficient and auditable manner.

The controls for each potential dust source are detailed in previous sections of this report. The management of those controls will be based on the on-going visual daily monitoring regime on site. The monitoring regime can work as an early warning system against potential problems (e.g. meteorological monitoring) or a diagnostic tool to establish the cause of a dust event.

8.2 Complaints Process

Any complaints received at the waste facility or via the Regulatory Bodies including the NRW and Local Authority, will be recorded using the form in Appendix 1.

This will instigate further visual dust monitoring at the location of the complaint and on-site to determine the extent and location of the dust generating materials and/or process will be identified. Where possible, as much information and detail about the complaint will be recorded, whether this is from the relevant authority or a complaint direct to the Site. This information will assist in the investigation and determining the source of the dust e.g. differentiating between potential dust from the Site or other off-site activities.

All complaints and queries will be logged in accordance with the environmental management system (EMS) as soon as is practicably possible. All complaints logged will be subject to investigation, and complainants responded to within 48 hours of receipt, where possible. All responses will be through trained and experienced staff.

In the event that a substantiated dust complaint or 5 or more in a 24-hour period is received arising from the facility, additional monitoring will be undertaken at the nearest sensitive receptors. The person conducting the survey shall make note of any dust at each monitoring point including those not of obvious waste facility site origin.

Complaints regarding dust from the facility will be investigated in accordance with the protocol, and appropriate records maintained which may include:

- Complaints received including name and contact details of complainant (if known), and the complainants description of the dust;
- Nature of problem including date, time, duration, prevailing weather conditions and cause of the problem;
- On-site activities and operational conditions at the time of the complaint;
- Records of the likely source of the dust, even if it is clearly not from the facility;
- Details on the corrective action taken and any subsequent changes to monitoring and operational procedures; and,

- NRW will be proactively informed by TG Group of the complaint and TG Group will confirm to the best of its knowledge the information described above.

If the investigations show that site operations are causing dust, mud or debris accumulation at a sensitive receptor the identified activity will cease until sufficient mitigations strategies, discussed in section 3.4, are implemented. The site will ensure that all dust, mud or debris is cleared from the area of concern for the complaint.

TG Group will ensure that the complainant has all the relevant contact details of the site (i.e. the Site Manager) and the officer responsible at NRW. TG Group will be in regular contact with the complainant and NRW whilst the cause of the dust is being investigated and remediated.

An evaluation of the effectiveness of the techniques used will be carried out on completion of any remedial measures, or if the complaints persist. Records of the above will be retained by site for future reference.

8.3 Means of Contact

The facility will be readily contactable to outside organisations and to members of the public. The site signage board (placed in a readily visible location) contains the necessary contact details for both the site operations and NRW. The company website also contains the necessary contact details for the Site.

<https://www.tggroup.co.uk/>

Any complaints received directly to site will be notified to NRW. Should an off-site issue arise, therefore, the complainant has a readily available means of getting in touch with TG Group.

8.4 Complaints Screening

As part of each dust complaint received, they will be objectively assessed against the wider environment to ensure that the source of the emission is traced back to the correct source. It is essential that the source is correctly identified in order that mitigating measures can be applied effectively and correctly. The complaint will also be assessed against previous records to place the nature of the complaint into context.

If patterns in complaints emerge, community groups or individuals (subject to their agreement) will be called upon to act as an additional dust monitoring resource.

8.5 Complaints Investigation

In the event that dust is found to be causing a problem from the site facility, as determined and confirmed by investigation into off-site complaints, or during routine monitoring, measures will be taken to determine the source of this dust and the following courses of action as detailed below shall be taken to ascertain if the dust is coming from the facility;

- Additional dust monitoring as detailed above to identify the extent of the dust emission and potential cause for the dust i.e. waste material and/or activity;
- Examination of the operational activities at the time of the dust complaint;
- Examination of the meteorological conditions at the time of the complaint;
- Carry out a review of the operational procedure and controls and instigate any control measures immediately following identification of the problem; and,
- Further visual monitoring will be carried out to ensure the issue has been addressed and to monitor the effectiveness of any control measures undertaken.

It is recognised that whilst complainants are encouraged to report valid complaints to the regulatory bodies, complaints that are received/submitted directly to the Site are able to be investigated more rapidly. As a result, complaints reported directly can be substantiated, reviewed and actioned quicker. With the complainant still able to report the complaint to the regulatory bodies after, should it be necessary.

Nevertheless, all complaints will be investigated.

8.6 Contingency and Emergency Plans

In the event that dust is proven to be from the Site and found to be causing a problem, as determined by the investigation of off-site complaints or during routine on-site monitoring, action will be taken to determine the source and the following courses of action. Control and mitigation measures for each stage of the waste management process are as described in Section 3 and summarised in Table 6.

Abnormal Events

This Dust and Emissions Management Plan assumes that the facility will be running under expected operational conditions. There are however circumstances that could result in a dust emission from the Site if not appropriately considered in advance, discussed below.

Strong Winds

Daily visual inspection of the site infrastructure will be undertaken and recorded. Additional inspection for damage resulting from high wind events will also be undertaken and contingency actions identified below considered should high wind conditions result in escape of significant dust emissions.

Hot / Dry Conditions

The warmer the weather the greater the potential for wastes to become dry and dusty, particularly when stored outside and when agitated. Daily inspections will be undertaken of the waste to ensure waste delivered to the Site is not dusty and stockpiles of waste are kept to an operational minimum and wetted down/sheeted if required to reduce dust emissions.

During prolonged periods of hot weather inspection frequency will be increased and the surface area of stored waste will be kept to a minimum.

Implementation of the Contingency plan and / or Emergency Plan

Unavailability should only take place due to unscheduled maintenance, emergency situations and for Health and Safety reasons such as a fire at the Site (although considered highly unlikely). In such cases the site staff will initially inform the Site Manager who will in turn inform service managers, the Local Authority and NRW. Site staff will implement measures to store or divert wastes as required.

Operator's Experience with Contingency / Emergency Situations

TG Group has a policy of continuous review of emergency and contingency procedures which helps improve procedures across TG Group's operations.

Review and Update of Contingency and Emergency Plans

The Contingency Plan and Emergency Plan will be reviewed following any incident where they have had to be followed. They will be updated as necessary with any lessons learned.

8.7 Records and Reviews

Records relating to the management and monitoring of dust will be maintained as necessary and will include the following details:

- The results of inspections and visual monitoring carried out by site personnel;
- Weather conditions including atmospheric pressure, wind speed and wind direction;
- Problems including date, time, duration, prevailing weather conditions and cause of the problem;
- Complaints received including name and address of the complainant; and
- Details of the corrective action taken, and any subsequent changes to operational procedures.

The Dust and Emissions Management Plan will be reviewed annually with the scheduled review of the Site's Environmental Management System or with every major decrease, or alteration to the dust generated at site (i.e. a change to dust source term, pathway or receptor).

8.8 Communication Tools

Stakeholders will typically include the Local Authority, NRW, Parish Councils and members of the local community. Other stakeholders may include local businesses and/or householders should the facility be deemed to impact upon them.

In addition, and as covered within the complaints section, contact details will be made available so that any complaints can be directed to site and an investigation undertaken immediately.

8.9 Remedial Actions for On-Site Dust Emissions

Fugitive dust emissions can potentially arise from the following site activities:

- Transport of waste to and upon the Site;
- Unloading of waste soils to waste stockpile area awaiting treatment;
- Treatment of waste soils via dry processing, limited to screening and associated handling;
- Wind-blown dust accumulated on site surfaces and stockpiling areas;
- Placement of waste by on-site plant; and,
- Vehicle movements on dusty roads.

The Site Manager or appointed deputy will be responsible for imposing restrictions or suitable mitigation measures during weather conditions that could generate dust such as dry weather which result in dry ground conditions being susceptible to generating dust and during high wind conditions as defined by Scale 9 of the Beaufort Wind Scale. If dust, mud or debris build up is noted during site inspections or during operations then the Site manager or appointed deputy will investigate the source of the emissions and impose restrictions or suitable mitigation measures.

The restrictions or suitable mitigation measures which may be undertaken are outlined below:

- Operations identified as generating unacceptable emissions of dust will be suspended until effective remedial actions have been taken or weather conditions resulting in the fugitive emissions have moderated;
- Additional dust suppression will be employed by spraying water onto affected areas;

- Where practicable on-site vehicle movement routes may be reconsidered with regard to location (i.e. relocating further from the receptor at risk), speed limits will be further reduced from 10 mph to 5 mph, or surfaces and gradients altered;
- All vehicles leaving the Site will be inspected prior to egress and wheel cleaning may be employed if required, such as using a mobile pressure washer;
- Waste handling procedures may be altered and waste acceptance procedures reviewed, such as covering or dampening dusty wastes upon deposit in the waste stockpile area, or stopping accepting problematic wastes.

A record relating to the management and monitoring of dust will be maintained in the site log. This record will include the following details: a record of all dust events including date, time and the cause of the problem; a record of all complaints; details on the corrective action taken and any subsequent changes to operational procedures.

9 Drawings

Drawing No. K0642-1000 (Proposed Permit Boundary)

Drawing No. K0642-1002 (Site Receptor Plan)

Drawing No. K0642-1003 (Site layout and Drainage Plan)

Drawing No. K0642-1004 (Visual Dust Monitoring Points Plan)

A3



349000mN

348800mN

348600mN



245600mE

245800mE

246000mE

246200mE

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GENERAL NOTES

GENERAL NOTES:

- 1. DO NOT SCALE OFF DRAWING.
- 2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
- 3. ALL LEVELS IN METRES (ORDNANCE DATUM) UNLESS OTHERWISE NOTED.

LEGEND

PERMIT BOUNDARY

P01	19/04/24	FOR REVIEW	GH	OS	JB
Rev	Date	Description	By	Chk	App



PROJECT
CEFN GRAIANOG QUARRY
PERMIT APPLICATION

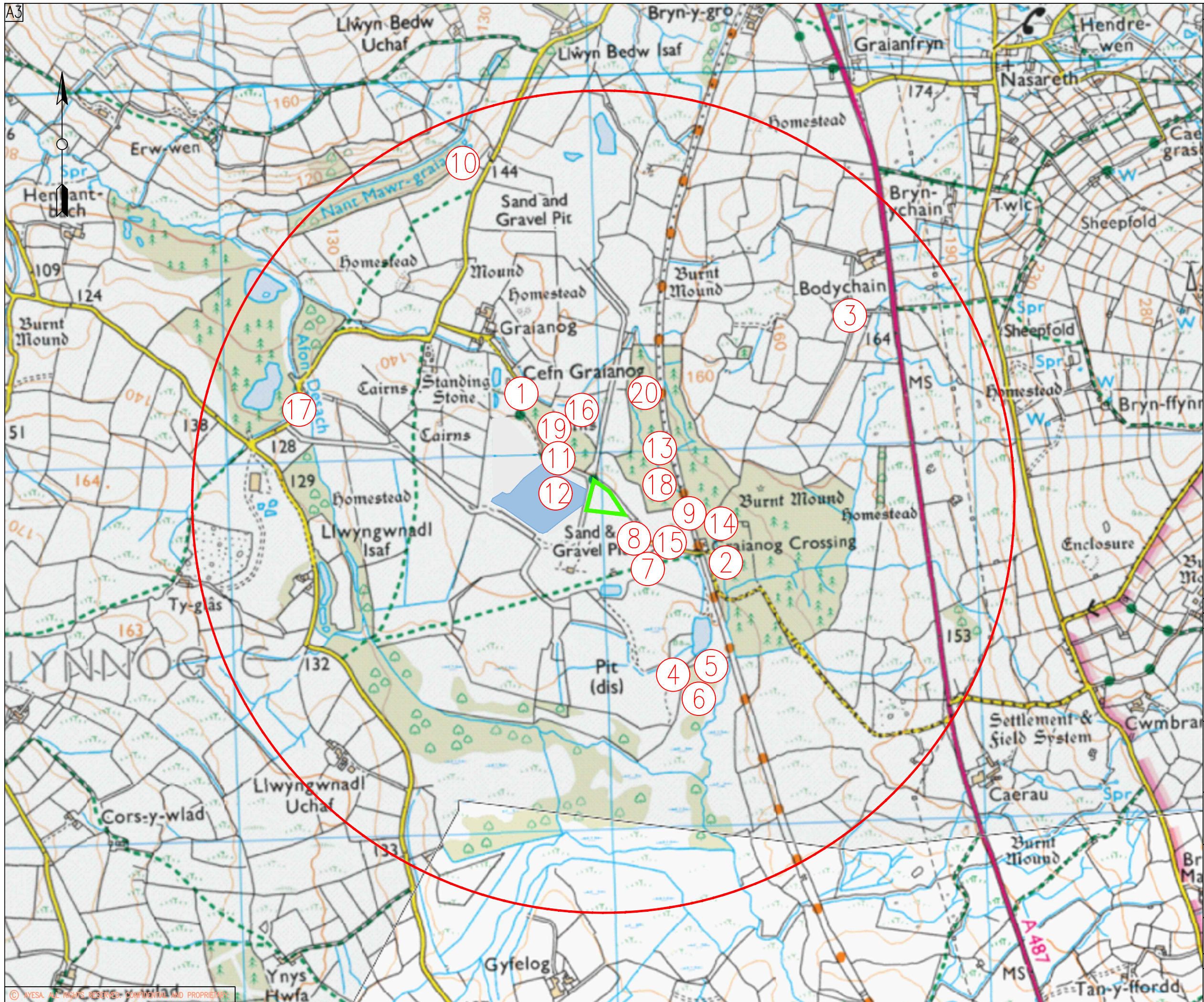
DRAWING TITLE
PERMIT BOUNDARY PLAN

STATUS
FINAL

Date: 15/04/25 Scale: 1:2000 Drawn: JM Chk: GH App: GH

Project No: K0642 Drg. No: K0642-1001 Rev: P01

SUITABILITY
-



GENERAL NOTES

- GENERAL NOTES:**
1. DO NOT SCALE OFF DRAWING.
 2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
 3. ALL LEVELS IN METRES (ORDNANCE DATUM) UNLESS OTHERWISE NOTED.

LEGEND

- PERMIT BOUNDARY
- 1000m BUFFER ZONE
- 1 RECEPTOR MARKER

01	24.02.25	AMENDS	JM	OS	JB
Rev	Date	Description	By	Chk	App



PROJECT
CEFN GRAIANOG QUARRY PERMIT APPLICATION

DRAWING TITLE
SITE RECEPTOR PLAN

STATUS
FINAL SUITABILITY
 —

Date: 17/05/24 Scale: 1:10,000 Drawn: JM Chk: OS App: JB

Project No: K0642 Drg. No: K0642-1002 Rev: 01

A3



GENERAL NOTES

GENERAL NOTES:

1. DO NOT SCALE OFF DRAWING.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
3. ALL LEVELS IN METRES (ORDNANCE DATUM) UNLESS OTHERWISE NOTED.

LEGEND

- PERMIT BOUNDARY
- PRODUCT STOCKPILE AREA
- WASTE STOCKPILE & PROCESSING AREA
- SURFACE WATER COLLECTION POINT
- SURFACE WATER CONTAINMENT BUND
- DIRECTION OF SURFACE WATER DRAINAGE
- - - DIRECTION OF SURFACE WATER PUMPED FROM COLLECTION POINT INTO EXISTING LAGOONS

Rev	Date	Description	By	Chk	App
P04	24.02.25	TEXT ADDED AND AMENDS	GH	OS	JB
P03	24.02.25	AMENDS	JM	OS	JB
P01	19.04.24	FOR REVIEW	GH	OS	JB



CLIENT



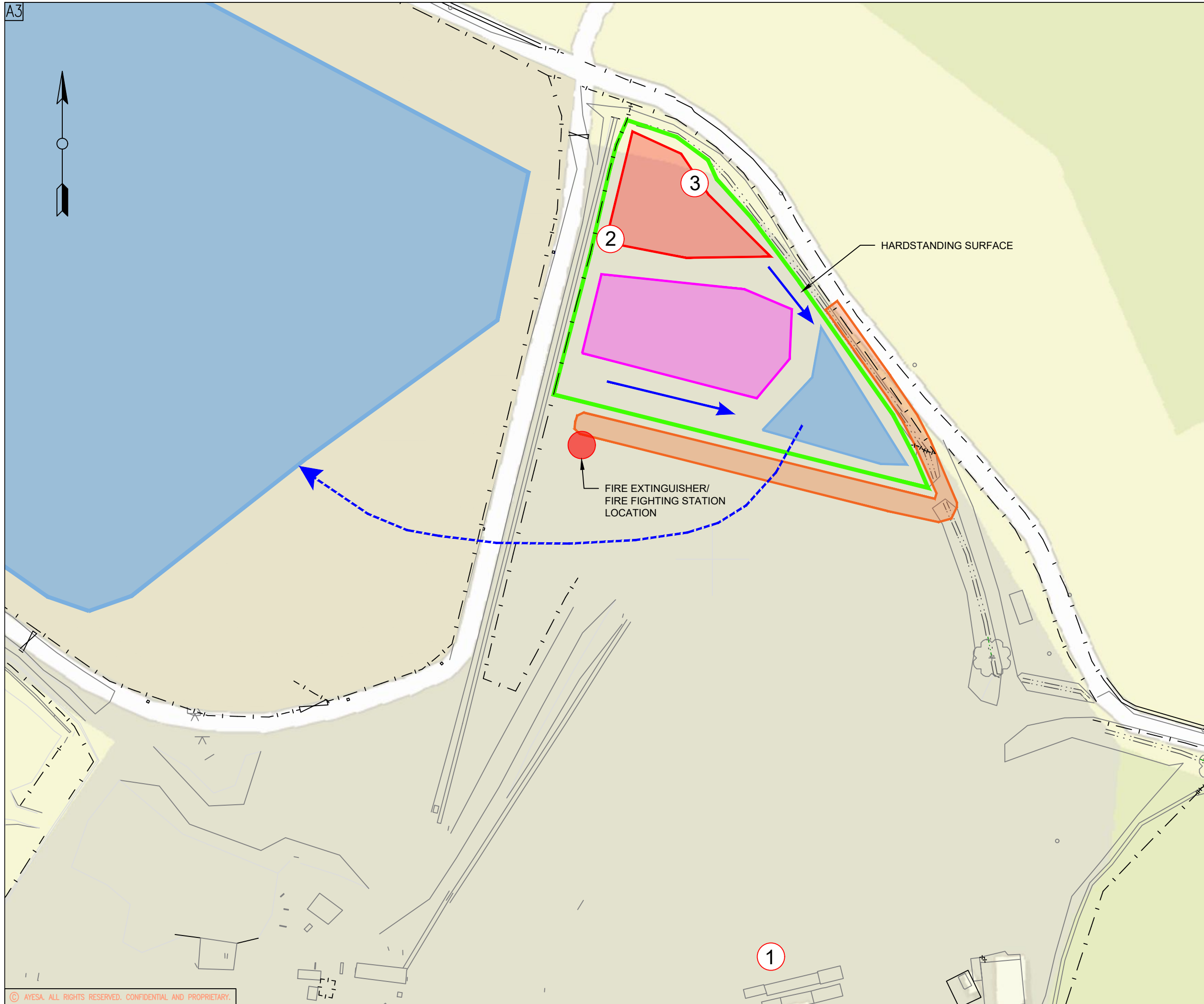
PROJECT
**CEFN GRAIANOG QUARRY
 PERMIT APPLICATION**

DRAWING TITLE
SITE LAYOUT AND DRAINAGE PLAN

STATUS **FOR REVIEW** SUITABILITY **-**

Date: 17/05/24	Scale: 1:1'000	Drawn: JM	Chk: OS	App: JB
Project No: K0642	Drg. No: K0642-1003	Rev: P04		

A3



GENERAL NOTES

- GENERAL NOTES:**
- DO NOT SCALE OFF DRAWING.
 - ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
 - ALL LEVELS IN METRES (ORDNANCE DATUM) UNLESS OTHERWISE NOTED.

LEGEND

- PERMIT BOUNDARY
- STOCKPILE AREA
- PROCESSING AREA
- SURFACE WATER COLLECTION POINT
- SURFACE WATER CONTAINMENT BUND
- DIRECTION OF SURFACE WATER DRAINAGE
- DIRECTION OF SURFACE WATER PUMPED FROM COLLECTION POINT INTO EXISTING LAGOONS
- 1 SITE OFFICE/ WEIGHBRIDGE (CONTINUOUS MONITORING OF VEHICLES)
- 2 POINT OF WASTE DEPOSITION IN THE STORAGE AREA
- 3 MATERIALS STOCKPILED IN THE STORAGE AREA
- 4 TBC- SUBJECT TO PREVAILING WIND DIRECTION

Rev	Date	Description	By	Chk	App



PROJECT
 CEFN GRAIANOG QUARRY
 PERMIT APPLICATION

DRAWING TITLE
 VISUAL DUST MONITORING LOCATIONS
 PLAN

STATUS FOR REVIEW SUITABILITY -

Date: 25/02/25 Scale: 1:1'000 Drawn: JM Chk: OS App: JB

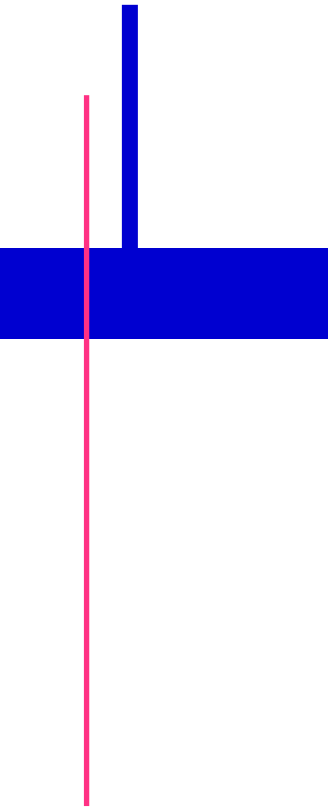
Project No: K0642 Drg. No: K0642-1004 Rev: 03



Appendix 1

Dust Complaint Form

Customer Details	
Customer Name	
Address	
Postcode	
Customer Contact Details	
Tel	
Email	
Date	
Complaint Ref Number	
Complaint Details	
Investigation Details	
Investigation carried out by	
Position	
Date & Time investigation carried out	
Weather conditions	
Wind direction and speed	
Investigation findings	
Feedback given to Environment Agency and / or local authority	
Date feedback given	
Feedback given to public	
Date feedback given	
Review and Improve	
Improvements needed to prevent a reoccurrence	
Proposed date for completion of the improvements	
Actual date for completion	
If different insert reason for delay	
Does the dust and emissions management plan need to be updated	
Date that the dust and emissions management plan was updated	
Closure	
Site Manager review date	
Site Manager signature to confirm no further action required	



Appendix 2

Visual Monitoring Check and Action Form

Site: Cefn Graianog Quarry Week Commencing: ___ / ___ / ___

Observer: _____

Day	Weather (wind/rain/temp)	Dust Sources Observed (haul roads, stockpiles, processing, vehicle movements)	Dust Control Measures in Place (sprays, covers, sweeping, wheel wash)	Boundary Dust (N / S / E / W)	Corrective Action Needed	Initials of Observer
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						