

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Grundon Sand & Gravel Limited

New Barn Farm Quarry

Off A4130

Bolsey Way

Cholsey

Nr Wallingford

Oxfordshire

OX10 9RX

Permit number

EPR/GB3709XN

New Barn Farm Quarry

Permit number EPR/GB3709XN

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

This permit will authorise a deposit for recovery activity for restoration of a sand and gravel quarry covering approximately 33.8 hectares, using inert wastes. There shall be no treatment of wastes on site. The site will receive waste by road - some will be taken directly to the relevant phase being recovered, spread and compacted; and some will be stockpiled in the operational area until it can be placed for engineering purposes.

The site is as close as 100m to residential receptors, adjacent to the A4130 road to the north-east, adjacent to Wallingford Road to the south-east, agricultural land to the south, and the Cholsey and Wallingford heritage railway runs parallel to the site to the north-west. The site is 600m away from North Wessex Downs Area of Outstanding Natural Beauty (AONB) and 620m from Chilterns AONB.

The maximum quantity of waste that can be deposited on site shall be no more than 1,400,000 m³, equivalent to 2.1 million tonnes. Annual waste acceptance shall be no more than 200,000 tonnes per annum. The deposit for recovery operation will last for approximately 19 years. The restoration will be completed in 18 phases, with infilling of each excavated phase following extraction of sand and gravel. Waste will be infilled below the water table. Topsoils and subsoils have already been stripped for screening bunds as part of the quarrying activity not covered by this permit, and will be replaced once the waste has been deposited to return the land to agricultural use.

There are no surface watercourses within the permit boundary and no point source emissions to surface water. The permitted area is located above a Secondary A aquifer and Principal Aquifer. Wastes coded EWC 17 05 04 and EWC 20 02 02 only will be used to form a sidewall attenuation layer on each phase of restoration and for infill below the water table, and in situ natural marly chalk will provide protection as a geological barrier. There will be groundwater monitoring and gas monitoring at the site, as specified by Schedule 3 of this permit.

If you need to deploy mobile plant under a mobile plant permit at a site that is subject to a site based permit to enable you to complete the recovery activity, there will be inconsistencies between the requirements of the two permits and, in this situation, those of the site based permit prevail. Therefore you must be able to deliver the desired recovery activity through use of this permit alone, without relying upon the subsequent use of a separate mobile plant permit.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPR/GB3709XN/A001	Duly made 11/02/2021	Application for a deposit for recovery activity permit.
Additional information received	07/06/2021	Response to Schedule 5 Notice: • Response letter
Additional information received	25/06/2021	Response to Schedule 5 Notice: • Revised Environmental Site Setting Report (ESSD), Rev 2

Status log of the permit		
Description	Date	Comments
		- Revised Hydrogeological Risk Assessment and Appendix A and B, Rev 1 - Revised Site Monitoring Plan, Rev 2 - Revised Stability Risk Assessment, Rev 1
Additional information received	22/07/2021	Response to Schedule 5 Notice and Request for Information: Revised Dust Emission Management Plan, Rev 2
Permit determined EPR/GB3709XN	09/11/2021	Permit issued to Grundon Sand & Gravel Limited.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/GB3709XN

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Grundon Sand & Gravel Limited ("the operator"),

whose registered office is

**Thames House
Oxford Road
Benson
Wallingford
Oxfordshire
OX10 6LX**

company registration number 00443147

to operate waste operations at

**New Barn Farm Quarry
Off A4130
Bolsey Way
Cholsey
Nr Wallingford
Oxfordshire
OX10 9RX**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Tracey Pollard	09/11/2021

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Avoidance, recovery and disposal of wastes produced by the activities

- 1.2.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.2.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

1.3 Climate change

- 1.3.1 The operator shall review and if appropriate update, at least every 4 years, the climate change adaptation risk assessment submitted with the permit application, and shall update the written management system as appropriate.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1, table S1.1 (the 'activities').

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ('plan') specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.4 Waste acceptance

- 2.4.1 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2, table S2.1;
 - (b) it has been identified as a suitable waste in the approved waste recovery plan;
 - (c) its chemical, physical and biological characteristics make it suitable for its intended use on the site; and
 - (d) it fulfils the approved waste acceptance criteria; and
 - (e) all the approved waste acceptance procedures have been completed; and
 - (f) it conforms to the description in the documentation supplied by the producer and holder; and
 - (g) It is not waste consisting solely or mainly of dusts, powders or loose fibres; and
 - (h) It is not hazardous wastes; and
 - (i) It is not waste in liquid form.
- 2.4.2 The operator shall:
- (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the site and waste at the point of deposit; and
 - (b) be satisfied that the waste conforms to the requirements of condition 2.4.1.
- 2.4.3 The total quantity of waste that shall be deposited under the permit shall be limited by the final levels shown on the final levels contour plan referenced in schedule 1 table S1.2.

2.5 Site Engineering

- 2.5.1 No construction of site engineering in the area for waste deposit shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.2 The construction of site engineering in the area for waste deposit shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or all the approved waste acceptance procedures have been completed; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.

- 2.5.3 The operator shall submit a CQA Validation Report to the Environment Agency within 4 weeks following the construction of the area for deposit.
- 2.5.4 No waste shall be recovered in the area for waste deposit until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.5.5 No construction of site infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.6 The construction of the site infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.7 The operator shall submit a CQA Validation Report within 4 weeks following the construction of the site infrastructure.
- 2.5.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.5.1 and 2.5.5 do not apply and the relevant site infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.5.9 For the purposes of conditions 2.5.1, 2.5.4 and 2.5.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of 4 weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
- (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.
- 2.5.10 Where the Environment Agency has required further information under condition 2.5.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
- (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 The limits given in schedule 3 shall not be exceeded.
- 3.1.2 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.3 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
- (a) between nine and six months prior to the sixth anniversary of the granting of the permit, and
 - (b) between nine and six months prior to every subsequent six year anniversary of the granting of the permit.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Noise and vibration

- 3.3.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.3.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Monitoring

- 3.4.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) Groundwater specified in table S3.2;
 - (b) Ground gas specified in table S3.3;
- 3.4.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.4.3 The operator shall undertake a topographical survey of the site referenced to ordnance datum that shall be used to produce a plan of a scale adequate to show the surveyed features of the site:
- (a) prior to commencement of the recovery activity; and
 - (b) on completion of the recovery activity to show final waste levels.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;

- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made or, in the case of the following records, until permit surrender:
 - (i) off-site environmental effects;
 - (ii) matters which affect the condition of the land and groundwater;
 - (iii) waste types and quantities;
 - (iv) the results of groundwater monitoring;
 - (v) the results of ground gas monitoring

4.1.2 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery, origin and the identity of the carrier and producer of any waste that is received for recovery. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

4.1.3 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.2 ; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall submit the topographical survey plans required by condition 3.4.3 (a) and (b) to the Environment Agency within one month of the completion of the survey.

4.3 Notifications

4.3.1 In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

- (a) inform the Environment Agency,
- (b) take the measures necessary to limit the environmental consequences of such an incident or accident, and
- (c) take the measures necessary to prevent further possible incidents or accidents;

4.3.2 In the event of a breach of any permit condition the operator must immediately—

- (a) inform the Environment Agency, and

- (b) take the measures necessary to ensure that compliance is restored within the shortest possible time.

- 4.3.3 In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.4 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.5 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.6 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:
 - (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
Where the operator is a corporate body other than a registered company:
 - (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
- 4.3.7 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
 - (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.8 The operator shall notify the Environment Agency in writing:
 - (a) at least 14 days before the commencement of the recovery activity;
 - (b) within 14 days of completion of the recovery activity.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made 'immediately', in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities	
Description of activities for waste operations	Limits of activities
R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Secure storage of wastes listed in Table S2.1 for the purpose of recovery. Storage of wastes listed in Table S2.1 shall be limited to three years.
R5: Recycling/reclamation of other inorganic compounds	Use of waste types specified in Table S2.1 for the purposes of construction work and/or restoration, reclamation or improvement of land.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Document(s) provided in response to section 3a – technical standards, Part B4 of the application form.	02/11/2020
Application	Approved waste recovery plan document consisting of the following document: - New Barn Farm Quarry: Waste Recovery Plan, Report reference: 65659R3Rev1 March 2020, Report status: Final Report - Final levels contour plan (drawing reference DG/GC/NBF/MIN/09, dated January 2016) (within the Waste Recovery Plan)	02/11/2020
Response to Schedule 5 Notice dated 20/04/2021	Hydrogeological Risk Assessment consisting of the following document: New Barn Farm Quarry: Hydrogeological Risk Assessment, dated 24 June 2021, Report reference: 65659R2Rev1 June 2021, Report status: Final.	25/06/2021
Response to Schedule 5 Notice dated 20/04/2021	Waste acceptance criteria (reference Appendix G within New Barn Farm Quarry: Environmental Setting and Site Design Report, dated 25/06/2021, Report reference: 65659R1 Rev2, June 2021, Report status: Final)	25/06/2021
Response to Schedule 5 Notice dated 20/04/2021	Site Monitoring Plan document reference: New Barn Farm: Site Monitoring Plan, dated 25/06/2021, Report reference: 65659R6Rev2, June 2021, Report status: Final.	25/06/2021
Response to Schedule 5 Notice dated 20/04/2021 and Request for Information dated 13/07/2021	Approved Dust Management Plan (reference New Barn Farm: Dust and Emissions Management Plan, dated 22 July 2021, Report reference: 65659R8 Rev2, July 2021 Report status: Final), submitted in response to question 6 of the Schedule 5 notice number 1 and Request for Information dated 13/07/2021.	22/07/2021

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Permitted waste types and quantities for use of waste in deposit for recovery	
Maximum quantity	The total quantity of waste accepted at the site shall be less than 200,000 tonnes per year. The total quantity of waste to be accepted at the site shall not exceed 2.1 million tonnes (1,400,000 m³).
Waste code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 01	wastes from mineral excavation
01 01 02	wastes from non metalliferous excavation (to be deposited above the watertable only)
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those containing dangerous substances (to be deposited above the watertable only)
01 04 09	waste sand and clays (to be deposited above the watertable only)
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete (to be deposited above the watertable only)
17 01 02	bricks (to be deposited above the watertable only)
17 01 03	tiles and ceramics (to be deposited above the watertable only)
17 01 07	mixtures of concrete, bricks, tiles and ceramics (to be deposited above the watertable only)
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	road base and road planings other than those contained in coal tar (to be deposited above the watertable only)
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones (excluding topsoil and peat) (to be deposited both below and above the watertable)
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 05	glass (to be deposited above the watertable only)
19 12 09	minerals (for example sand, stones) from the treatment of waste aggregates that are otherwise naturally occurring minerals - excludes fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard (to be deposited above the watertable only)
19 12 12	Construction and demolition wastes that have undergone mechanical treatment other than those mentioned in 19 12 13. crushed bricks, tiles, concrete and ceramics (including mixtures of materials) - excludes metal from reinforced concrete, fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard (to be deposited above the watertable only)
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those containing dangerous substances (to be deposited above the watertable only)

Table S2.1 Permitted waste types and quantities for use of waste in deposit for recovery	
Maximum quantity	The total quantity of waste accepted at the site shall be less than 200,000 tonnes per year. The total quantity of waste to be accepted at the site shall not exceed 2.1 million tonnes (1,400,000 m ³).
Waste code	Description
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones (excluding topsoil and peat) (to be deposited both below and above the watertable)

Schedule 3 – Emissions and monitoring

Table S3.1 Groundwater – emission limits and monitoring requirements					
Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
GWP2	Sulphate	40 mg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Groundwater risk assessment for your environmental permit (www.gov.uk), or such other subsequent guidance as may be agreed in writing with the Environment Agency.
GWP2	Ammoniacal Nitrogen as N	0.4 mg/l			
GWP2	Arsenic	0.001 mg/l			
GWP3	Sulphate	50 mg/l			
GWP3	Ammoniacal Nitrogen as N	0.36 mg/l			
GWP3	Arsenic	0.007 mg/l			
GWP1D	Sulphate	40 mg/l			
GWP1D	Ammoniacal Nitrogen as N	0.53 mg/l			
GWP1D	Arsenic	0.001 mg/l			
GWP4D	Sulphate	35 mg/l			
GWP4D	Ammoniacal Nitrogen as N	0.54 mg/l			
GWP4D	Arsenic	0.001 mg/l			

Table S3.2 Ground water – other monitoring requirements			
Location or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method
GWP1, GWP2, GWP3, GWP4, GWP1D, GWP2D, GWP3D, GWP4D as shown on plan Figure 2.1 Proposed monitoring location (within the Site Monitoring Plan)	Field pH, field electrical conductivity, field temperatureLab pH, lab electrical conductivity, alkalinity as CaCO ₃ , ammoniacal nitrogen as N, chloride, total oxidised nitrogen as N, sulphate, dissolved organic carbon, calcium, sodium, magnesium, potassium, arsenic, iron, manganese, antimony, cadmium,	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Groundwater risk assessment for your environmental permit (www.gov.uk), or such other subsequent guidance as may be agreed in writing with the Environment Agency.

	chromium, copper, lead, nickel, selenium, zinc, barium, mercury, molybdenum, antimony, fluoride		
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Table S3.3 Ground gas - monitoring requirements				
Location or description of point of measurement	Parameter	Limit (including unit)	Monitoring frequency	Monitoring standard or method
GWP1, GWP2, GWP3, GWP4 as shown on plan Figure 2.1 Proposed monitoring location (within the Site Monitoring Plan)	Methane	No limit	Monthly	As per LFTGN03 (September 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Where the concentration of methane at any in-waste monitoring location exceeds the specified action level, the operator shall investigate the root cause in accordance with their gas action plan and waste acceptance procedures. Record whether the ground is: waterlogged frozen snow covered
	Carbon Dioxide	No limit		
	Oxygen	No limit		
	Atmospheric pressure	No limit		

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data		
Parameter	Reporting period	Period ends
Groundwater monitoring Parameters as required by schedule 3, table S3.2	Every 3 months	31 March, 30 June, 30 September, 31 December
Ground gas monitoring Parameters as required by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December

Table S4.2 Reporting forms		
Media/parameter	Reporting format	Date of form
Groundwater	Form Groundwater 1 or other form as agreed in writing by the Environment Agency	08/03/2021
Ground gas	Form Gas 1 or other form as agreed in writing by the Environment Agency	20/04/2021
Topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	-

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

‘accident’ means an accident that may result in pollution.

‘Annex I’ means Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

‘Annex II’ means Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

‘application’ means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

‘authorised officer’ means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

‘Background concentration’ means such concentration of that substance as is present in:

- For emissions to groundwater, the groundwater quality up-gradient of the site; or
- For emissions of ground gas, the ground or air outside the site and not attributable to the site

‘Construction Proposals’ means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the site or new phase of the site.

‘CQA Validation Report’ means the final ‘as built’ construction and engineering details of the area of the site for deposit or of the Site Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- ‘As-built’ plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the engineering of the site or new Phase of the site or Site Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

‘emissions to land’ includes emissions to groundwater.

‘emissions of substances not controlled by emission limits’ means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

‘groundwater’ means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

‘List of Wastes’ means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

‘inert waste’ means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater

‘No impact’ means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

‘quarter’ means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

‘R’ means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

‘Site infrastructure’ means any specified element of the:

- permanent capping;
- surface water drainage systems;
- groundwater monitoring boreholes;
- ground gas monitoring boreholes;
- ground gas management systems;

within the site.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

‘Waste Framework Directive’ or ‘WFD’ means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

‘year’ means calendar year ending 31 December.

When the following terms appear in the waste code list in Schedule 2, table S2.1, for that table, they have the meaning given below:

“hazardous substance” means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008.

“heavy metal” means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“PCBs” means

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 %by weight.

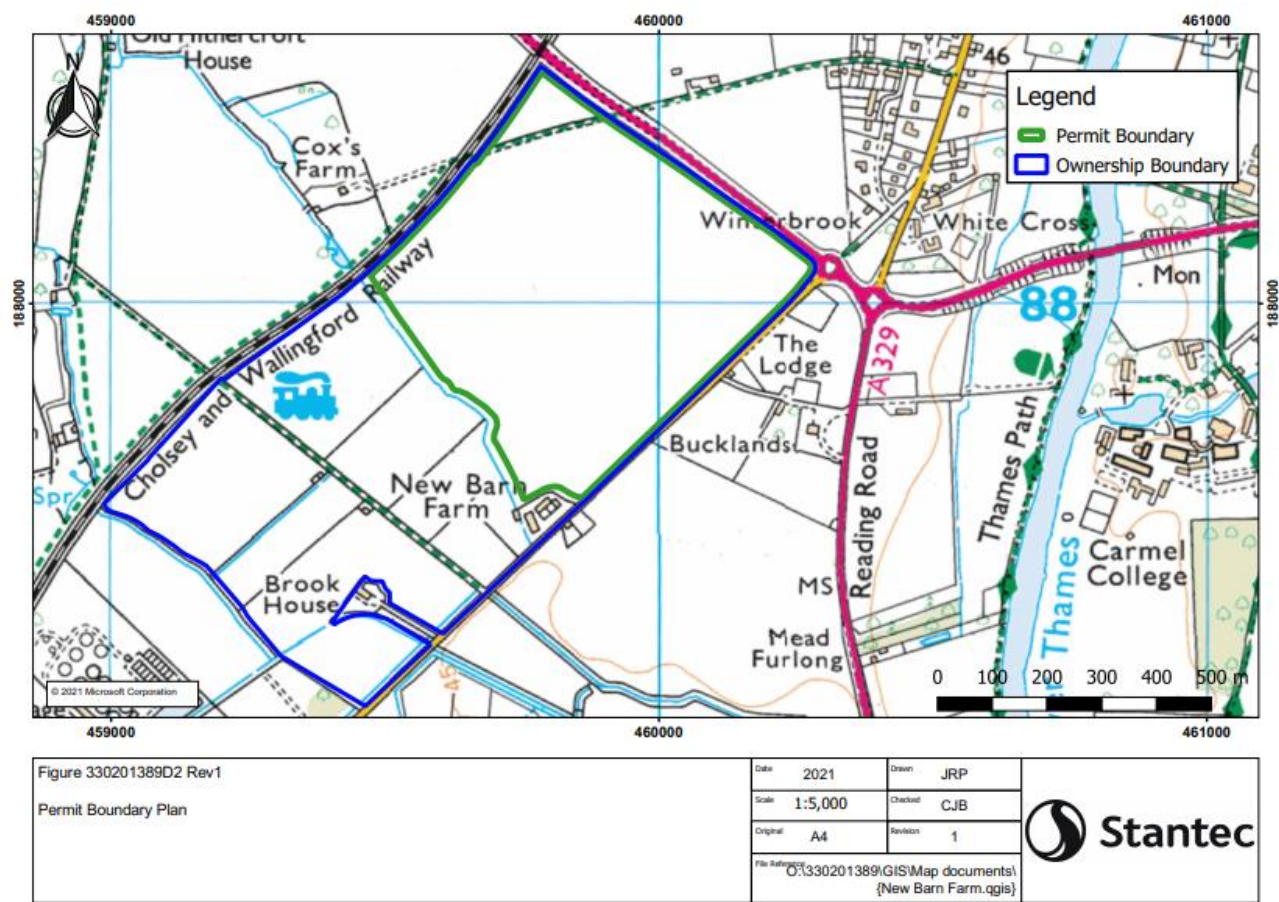
“transition metals” means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“stabilisation” means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste.

“solidification” means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste.

“partly stabilised wastes” means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

Schedule 7 – Site plan



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END OF PERMIT

Reporting Forms

Surface Water and/or Groundwater Monitoring Form

Permit number: EPR/GB3709XN

Operator: Grundon Sand & Gravel Limited

Facility name: New Barn Farm Quarry

Surface Water and/or Groundwater Monitoring Form: version 1, 08/03/2021

Reporting of groundwater monitoring for the period from [DD/MM/YY] to [DD/MM/YY]

Monitoring point	Substance / parameter	Trigger level	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴
[e.g. GW1]	[e.g. pH]	[e.g. >5 and <9 pH units]	[e.g. instantaneous]	[e.g. BS ISO 5667-11:200]	[State result]	[State relevant dates and time periods]	[State uncertainty if not 95% confidence interval]

Monitoring point	Substance / parameter	Trigger level	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- ¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- ² Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
- ³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- ⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Permit Number: EPR/GB3709XN
Facility: New Barn Farm Quarry

Operator: Grundon Sand & Gravel Limited

Form Number: G1 / 20/04/2021

Reporting of landfill gas monitoring for the period from DD/MM/YYYY to DD/MM/YYYY

Monitoring Point	Substance / Parameter	Compliance limit	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
GWP1, GWP2, GWP3, GWP4 as shown on plan Figure 2.1 Proposed monitoring location (within the Site Monitoring Plan)	Methane	no limit					
GWP1, GWP2, GWP3, GWP4 as shown on plan Figure 2.1 Proposed monitoring location (within the Site Monitoring Plan)	Carbon Dioxide	no limit					
GWP1, GWP2, GWP3, GWP4 as shown on plan Figure 2.1 Proposed	Oxygen	no limit					

Monitoring Point	Substance / Parameter	Compliance limit	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
monitoring location (within the Site Monitoring Plan)							
GWP1, GWP2, GWP3, GWP4 as shown on plan Figure 2.1 Proposed monitoring location (within the Site Monitoring Plan)	Atmospheric Pressure	no limit					

1. The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
2. Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
3. For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
4. The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

(Authorised to sign as representative of Operator)