Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Island Gas Ltd

Bletchingley Central
Tilburstow Hill Road
South Godstone
Surrey
RH9 8LJ

Variation application number

EPR/VP3632ZJ/V002

Permit number

EPR/VP3632ZJ

Bletchingley Central
Permit number EPR/VP3632ZJ

Introductory note

This introductory note does not form a part of the permit

Under the Environmental Permitting (England & Wales) Regulations 2016 (Schedule 5, Part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made.

All the conditions of the permit have been varied and are subject to the right of appeal.

This variation is to add or change –

1) Installation Activities, Oil storage and handling has been changed to a schedule 1.2 A(1)(e)(i) activity under the Industrial Emissions Directive and updated Environmental Permitting (England and Wales) Regulations 2016, as a result of renumbering in the updated regulations (previously 1.2A(1)(h)(i) in the existing permit). The oil storage and handling activities on site have not changed from those currently permitted. The flaring of natural gas has been changed from a mining waste activity to a Section 5.1 Installation A1 activity for incineration hazardous waste (>10 tonnes per day) based on the flare maximum design capacity of 21.78 tonnes, despite typical volumes flared on site being below this (0.2 tonnes per day).
2) A Mining Waste Operation, as defined by the Mining Waste Directive and Schedule 20 of the Environmental Permitting (England and Wales) Regulations 2016 as amended, relating to the management of extractive waste not involving a Mining Waste Facility. The Mining Waste activities authorised under this permit include: venting of gas from storage tanks, well maintenance and well workovers. Well maintenance includes hot oil washing, wax dissolver treatment and acid treatment for scale removal. These are not new activities, and were previously covered by the operators operating techniques in their existing permit.

There are no groundwater activities associated with this permit. All site surface water and produced water is collected and stored in a tank prior to being exported offsite. There are no other changes to the permit.

The site comprises of a single on-shore crude oil well extraction site, known as Bletchingley Central and consists of two wells (wells 5 & 6). There is a separate well (BL2) which is currently suspended/under review for future development. This is not included under this permit and will require a separate permit variation to add in future. The remaining abandoned wells associated with the Bletchingley oil field (BL1, 3 and 4) have all been fully decommissioned in accordance with the relevant regulations and do not form part of this permit. The site area is approximately 0.41 ha centred on TQ 34723 47970. It is located in a rural area and is surrounded by agricultural land to the south west of South Godstone.

The installation consists of the loading, unloading, handling, storage of, and the physical and thermal treatment of crude oil at the site. These activities are described under Schedule 1, Part 2, Section 1.2 A(1) (e)(i) of the Environmental Permitting Regulations 2010 (as amended). Crude oil is extracted from an oil bearing reservoir using Venturi jet pumps. It is then then passed through an oil heater and three phase separator to remove water and natural gas from the crude oil. The stabilised crude oil is stored within two bunded bulk storage tanks, with a third used for produced water. The total storage capacity is 149 tonnes.

Associated activities include: storage of raw materials, storage of ‘produced’ water, utilisation of natural gas from the production process as a primary fuel for the duel fuel oil bath heater which heats the crude oil to enhance the separation and the generation of electricity using a diesel generator. Flaring of surplus gas is listed as a separate Installation activity as the capacity of the flare is greater than 10 tonnes per day.

A proportion of the oil from the separation process is used in the extraction process Venturi jet pumps, the remainder of the oil and the 'produced water' is stored on site prior to being sent off site by road tankers.

Natural gas separated on site from the production process is utilised as a primary fuel for the dual fuel oil bath heater, the oil bath heater can also be run on kerosene if required. There are four atmospheric release points to air from the crude oil heater exhaust, diesel generator exhaust, tank storage vent and ground flare.

There are no discharges to groundwater, surface water or sewer. Bund and surface run off collected within the perimeter ditch sump is removed by suction tanker as required and transported to the nearby IGas Palmers Wood wellsite for processing through the separator to remove any hydrocarbons present, prior to storage. The produced water is transported from site by road tanker to nearby Palmers Wood site for re-injection.

A new Standard Rules RSR Permit is required for the temporary storage of 'out of scope' produced water prior to exporting from site for re-injection at other IGas sites (e.g. Palmers Wood).

The application is within the relevant distance criteria of a Special Area of Conservation – Mole Gap to Reigate Escarpment (Approximately 9 km). There are also 7 local Wildlife Sites and 10 Ancient woodlands within 2 km of the site.

The schedules specify the changes made to the 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/VP3632ZJ/A0001	Duly made 28/02/2013	Application for the loading and unloading or handling of, the storage of or the physical chemical or thermal treatment of crude oil (Section 1.2 A1 (h)(i))
Additional information received in response to schedule 5 notice dated 27/03/2013.	24/05/2013; 26/04/2013; 12/06/2013 and 28/06/2013	Information received by email
Additional information received in response to schedule 5 notice dated 16/07/2013	29/07/2013	Information received by email – Response to Schedule 5, H1 emission points, Bletchingley Safety documents poster, Fire risk assessment, EPP document, Environmental risk appraisal.
Permit determined	11/09/2013	Issued to Island Gas Limited
Application for variation and consolidation under permit review EPR/VP3632ZJ/V002	Duly made 29/06/2017	Application to vary the mining waste operation and groundwater activities and update the permit to modern conditions.
Additional information received in response to schedule 5 notice dated 01/09/2017	07/11/2017	Information received by email
Variation determined EPR/VP3632ZJ/V002 [Billing references: PAS AP3433YJ] Mining Waste Reference EAWML	13/12/2018	Varied and consolidated permit issued in modern condition format. Site name changed from Bletchingley Wellsite 5 to Bletchingley Central.

Other permits relating to this installation		
Operator	**Permit number**	**Date of issue**
Island Gas Ltd	Standard Rules radioactive substances permit for NORM wastes from oil and gas production (SR2014 No4) EPR/RB3694DS	13/12/2018

End of introductory note.

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number

EPR/VP3632ZJ

Issued to

Island Gas Ltd ("the operator"),

whose registered office is

7 Down Street
London
W1J 7AJ

company registration number 04962079

to operate an installation and a mining waste operation at

Bletchingley Central
Tilburstow Hill Road
South Godstone
Surrey
RH9 8LJ

to the extent set out in the schedules.

The notice shall take effect from 13/12/2018

Name	Date
Principal Permitting Team Leader	**13/12/2018**

Authorised on behalf of the Environment Agency.

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation, and as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/VP3632ZJ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/VP3632ZJ/V002 authorising,

Island Gas Ltd ("the operator"),

whose registered office is

7 Down Street
London
W1J 7AJ

company registration number 04962079

to operate an installation and a mining waste operation at

Bletchingley Central
Tilburstow Hill Road
South Godstone
Surrey
RH9 8LJ

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

Name	Date
Principal Permitting Team Leader	**13/12/2018**

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, so far as is practicable, including those risks 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 the permit.

1.2 Energy efficiency

1.2.1 For the following activities referenced in schedule 1, table S1.1 (A1 to A5) The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 For the following activities referenced in schedule 1, table S1.1 (A1 to A5) The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

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

1.4.1 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;

(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.

1.4.2 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.

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.

2.3.3 The operator shall:

(a) review the waste management plan at least every five years from the date of initial approval and submit any written revisions to the Environment Agency for approval.

(b) implement the approved waste management plan from the date of approval, unless otherwise agreed in writing by the Environment Agency

2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

(a) the nature of the process producing the waste;

(b) the composition of the waste;

(c) the handling requirements of the waste;

(d) the hazardous property associated with the waste, if applicable; and

(e) the waste code of the waste.

2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 table S3.1.

3.1.2 The limits given in schedule 3 table S3.1 shall not be exceeded.

3.1.3 Subject to any other condition of this permit, periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

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 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 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.

3.2.4 The Operator shall take appropriate measures:

(a) to prevent the input of hazardous substances to groundwater; and

(b) where a non-hazardous pollutant is not controlled by an emission limit, to limit the input of such non-hazardous pollutants to groundwater so as to ensure that such inputs do not cause pollution of groundwater.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour 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 odour management plan, to prevent or where that is not practicable to minimise the odour.

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 odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 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.

3.4.2 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.

3.5 Monitoring

3.5.1 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) point source emissions specified in tables S3.1

(b) process monitoring specified in table S3.2;

3.5.2 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.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 The operator shall carry out:

(a) regular calibration, at an appropriate frequency, of systems and equipment provided for carrying out any monitoring and measurements necessary to determine compliance with this permit; and

(b) regular checking, at an appropriate frequency, that such systems and equipment are serviceable and correctly used.

3.5.5 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 table S3.1 unless otherwise agreed in writing by the Environment Agency.

3.5.6 If required by the Environment Agency, the operator shall:

(a) take such samples and conduct such measurements, tests, surveys, analyses and calculations, including environmental measurements and assessments, at such times and using such methods and equipment as the Environment Agency may specify; and

(b) keep samples, provide samples, or dispatch samples for tests at a laboratory, as the Environment Agency specifies, and ensure that the samples or residues thereof are collected from the laboratory within three months of receiving written notification that testing and repackaging in accordance with the relevant legislation are complete.

3.5.7 On a monthly basis, or as agreed in writing with the Environment Agency; the Operator shall analyse the flare feed gas. The analysis shall include speciation and concentration of organic substances, carbon monoxide, sulphur containing compounds, halogen containing compounds and moisture. A

report of the analysis shall be submitted to the Environment Agency within 28 days of completion of each analysis.

3.5.8 The operator shall by calculation determine the emissions of the substances identified in table S3.1, based on the most recent feed gas composition analysis, feed gas flow rate and combustion efficiency of the flare.

4 Information

4.1 Records

4.1.1 All records required to be made by schedules 3, 4 and 5 to 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; and

(ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall maintain convenient access, in either electronic or hard copy, to the records, plans and management system required to be maintained by this permit.

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 For the following activities referenced in schedule 1, table S1.1 (A1 to A5) A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the annual production /treatment data set out in schedule 4 table S4.2; and

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

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 S4.4; 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, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report

assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

4.3.1 In the event:

(a) 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—

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) of a breach of any permit condition the operator must immediately—

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) 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.

4.3.2 The information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be supported by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 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.

4.3.4 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.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

(c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 For the following activities referenced in schedule 1, table S1.1 (A1-A5) 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.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator proposes to make an amendment to the approved waste management plan, which 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 implementing the amended waste management plan in place of the original; and

(b) the notification shall contain a description of the proposed amendment.

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			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
A1	S1.2 A(1)(e)(i): The loading, unloading, handling or storage of, or the physical, chemical or thermal treatment of crude oil.	Production of fluids extracted from the resource formation by pump, phase separation and storage of products (crude oil), produced water and waste prior to onward transport.	From receipt of production fluids at wellheads BL5 & BL6 to the despatch of products (crude oil) and waste. Oil shall be stored in vessels which are of sufficient strength and structural integrity to ensure that it is unlikely to burst or leak in its ordinary use. Provisions shall be made to minimise the emissions of non methane volatile organic compounds (NMVOC) and methane from the oil storage tank vent. Any water, contaminated with crude oil, which is drained off from the storage vessel and is not being recycled for reinjection must be collected for treatment before disposal. Any water collected in the secondary containment (bund) must be sampled and analysed before release to controlled water. If found to be contaminated with crude oil, it must be collected for treatment before disposal. Any road tanker loading systems must be fully contained and the delivery system shall be fitted with dry break couplings. During loading of road tankers, the road tanker shall be back vented to the bulk storage tank, or routed to a suitable vent treatment system.
A2	S5.1 A(1)(a): The incineration of hazardous waste in a waste incineration plant or waste co-incineration plant with a capacity exceeding 10 tonnes per day.	Flaring of waste gas from onshore oil and gas production activities using a ground flare.	From the receipt of waste gas into the flare to the despatch of waste combustion gases.
	Directly Associated Activity		
A3	Storage of additional raw materials.	Raw materials directly associated with the production of crude oil.	From receipt of raw materials to the despatch for use.
A4	Use of bath heater for oil/water separation	Gas /kerosene fired bath heater with a net rated thermal input of 0.3MW	From the receipt of produced gas (or kerosene) to the despatch of waste combustion gases.

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
A5	Use of diesel generator to produce electricity	Diesel generator with a net rated thermal input of 0.8MW	From the receipt of diesel on site to the despatch of waste combustion gases.
	Description of activities for waste operations	**Limits of activities**	
A6	The management of extractive waste from production activities, not involving a waste facility. The management of extractive waste generated by well workover.	Permitted waste types shall conform to the description in the approved waste management plan. The activities shall be limited to those described in the approved Waste Management Plan referenced in Table S1.2 below. The storage of extractive waste is limited to temporary storage in secure containment as part of the collection and transportation of waste from the site. Well stimulation by hydraulic fracturing is not permitted.	

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	Attachment 5 – Operating Techniques of the application EPR/ VP3632ZJ/A001 document in response to section 3a – technical standards, Part B3 of the application form.	18/01/2013
Further information	In response to Schedule 5 notice, dated 27/03/2013 email responses	24/05/2013; 26/04/2013; 12/06/2013 and 28/06/2013
Further information	In response to Schedule 5 notice, dated 16/07/2013	29/07/2013
Application and Response to Schedule 5 Notice dated 01/09/2017	The response to section C3 of the Application, and additional information provided in the Schedule 5 Notice response.	31/05/2017 and 07/11/2017
Waste Management Plan	All of document. Updated in response to Schedule 5 notice.	07/11/2017
Site Condition Report	All of document. Updated in response to Schedule 5 notice, dated 20/04/2017.	19/07/2017
Application	Completed Gap Analysis Tool response, version 2 July 2017 Final	19/07/2017
Secondary and tertiary containment plan as approved under IC1	All of document	Date of approval of IC1
Leak detection and repair plan as approved under IC2	All of document	Date of approval of IC2
Gas management system improvement plan as approved under IC4	All of document	Date of approval of IC5
Vapour recovery plan as approved under IC6	All of document	Date of approval of IC7

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Site surface water management plan as approved under IC7	All of document	Date of approval of IC8

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1 *Containment*	The operator shall submit a written 'secondary and tertiary containment plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of a review conducted, by a competent person, in accordance with the methodology detailed within CIRIA C736 (2014), of the condition and extent of secondary and tertiary containment systems where all polluting liquids and solids are being stored, treated, and/or handled. This review should consider, but is not limited to, the storage vessels, separators, bath heaters, bunds, loading and unloading areas, transfer pipework/pumps, temporary storage areas, and liners underlying the site. The plan must contain dates for the implementation of individual improvement measures necessary for the secondary and tertiary containment systems to adhere to the standards detailed/referenced within CIRIA C736 (2014), or equivalent. The plan shall be implemented in accordance with the Environment Agency's written approval.	13/09/2019
IC2 *Leak detection*	The operator shall submit a written 'leak detection and repair plan', and associated procedures and shall obtain the Environment Agency's written approval to it. The plan will identify, measure and reduce emissions of volatile organic compounds and other substances to air, appropriate to their operations and in accordance with European standard EN15446 or an equivalent standard. The plan shall be implemented in accordance with the Environment Agency's written approval.	13/06/2019
IC3 *Management system*	The operator shall review and update the written management system (referred to in condition 1.1.1) to ensure the procedures are in place to meet the requirements resulting from the variation of this permit. In particular the review should ensure that the following points are included in the management system: i) The procedure for identifying bund fill levels, e.g. high level alarm on unmanned sites ii) The procedures for testing the impermeable membrane and subsequent remediation measures if required.	13/03/2019
IC4 *Gas management*	The operator shall submit a written gas management improvement plan and shall obtain the Environment Agency's written approval for it. The plan must contain detailed consideration of all available options for the beneficial utilisation of all of the available gas from your activities, including gas that is not already utilised, gas vented from storage vessels and gas vented during the loading and unloading of road vehicles where relevant. Where such utilisation is not feasible, your plan must consider in detail all available options, both combustion and non-combustion based (including but not necessarily limited to flaring, vapour recovery, scrubbing and adsorption), for the disposal or abatement / mitigation of your waste gas so as to minimise its environmental impacts as far as available techniques allow. The gas management improvement plan shall also refer to the review of emissions undertaken as a result of IC5. If emission limits were not being met, the plan shall including actions that will be taken to ensure that emission limits are met. The plan must contain dates for the implementation of the identified improvement measures. The plan shall be implemented in accordance with the Environment Agency's written approval.	13/06/2020

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC5 *Air*	The operator shall monitor point source emissions to air in accordance with table S3.1. The operator shall submit a review of emissions compared to the emission limits in table S3.1 to the Environment Agency and obtain the Environment Agency's written approval of the report.	13/06/2019
IC6 *Vapour recovery*	The operator shall submit a written plan for vapour capture and recovery from loading and unloading activities and shall obtain the Environment Agency's written approval to it. The plan must detail the installation of a vapour capture / recovery system during the loading and unloading of road vehicles. The plan must contain dates for the implementation of the identified improvement measures. The plan shall be implemented in accordance with the Environment Agency's written approval.	13/06/2019
IC7 *Surface water*	The operator shall submit a written 'site surface water management plan' and shall obtain the Environment Agency's written approval to it. The plan will be based on the understanding from the conceptual site model and environmental risk assessment where the risks to the water environment are clearly detailed. The plan shall include details of how rainwater is managed, collected, stored and treated where necessary prior to discharge or disposal. The plan shall contain dates for the implementation of any improvement measures necessary to ensure that there are no uncontrolled contaminated water discharges to the environment from the site. The plan shall be implemented in accordance with the Environment Agency's written approval.	13/09/2019
IC8 *Site Condition Report*	The operator shall undertake a review of the Site Condition Report (as provided in Table S1.2) to ensure Article 22 of the Industrial Emissions Directive is complied with. The review shall include at least the following: i) consideration of oil storage areas including oil storage vessels, bunds, loading and unloading areas and other potential sources of contamination as shown in the site location plan ii) reference to any historical spillages, the chemicals involved and locations iii) baseline soil sample results and groundwater data	13/12/2019

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
-	-

The storage of hazardous extractive waste is limited to temporary storage in secure containment as part of the collection and transportation of waste from the site. The storage of extractive waste shall not exceed a period of 3 months.

Non-extractive wastes are not accepted as part of the permitted activities and there are no restrictions on raw materials or fuel under this schedule.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 [point A1 on site plan in Schedule 7]	Storage Tank Vent Stack	Gas vented	-	Month	Monthly	Calculation to determine the quantity of gas vented over the reference
		Hydrogen sulphide	5.7 mg/m^3	-	Monthly	As approved in writing with the Environment Agency
A2 [point A2 on site plan in Schedule 7]	Gas /Kerosene fired bath heater (0.3MW thermal input)	-	-	-	-	-
A3 [point A3 on site plan in Schedule 7]	Diesel Generator (0.8MW thermal input)	-	-	-	-	-
A4 [point A4 on site plan in Schedule 7]	Gas flare (max design capacity 21.78 tonnes per day)	Oxides of nitrogen			Monthly by calculation	As approved in writing with the Environment Agency
		Carbon monoxide			Monthly by calculation	
		Total volatile organic compounds (VOCs)			Monthly by calculation	
		Methane	-		Monthly by calculation	As approved in writing with the Environment Agency
		Flare gas feed flow rate	-		Continuous	As approved in writing with the Environment Agency
		Temperature	> 800 deg C		Frequency and method as approved in writing with the Environment Agency after completion of improvement condition IC4.	

Table S3.2 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Gas to Oil Ratio of production from the installation	Gas to oil Ratio	Monthly	As agreed in writing with the Environment Agency	
Concentration and volume of all process chemicals added to produced water		Monthly	N/A	
Flare feed gas volume and composition		Monthly	As agreed in writing with the Environment Agency	

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point reference & location	**Source**	**Parameter**	**Limit (incl. Unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
Transfer of produced water to Palmers Wood Oilfield for reinjection.	Production of crude oil	None	None	N/A	N/A	None

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	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Emissions to air Parameters as required by condition 3.5.1.	A1, A2, A3, A4	Every 6 months	1 January, 1 July
Process monitoring Parameters as required in table S3.2	As specified in table S3.2	Every 12 months	1 January

Table S4.2: Annual production/treatment	
Parameter	Units
Crude Oil Production	tonnes
Average Water Cut	% production
Average Gas to Oil Ratio	scf / bbl
Methane Flared	Standard cubic feet

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Crude Oil Production	Annually	tonnes
Average Water Cut	Annually	% production
Average Gas to Oil Ratio	Annually	scf / bbl

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air	Form air 1 or other form as agreed in writing by the Environment Agency	13/12/2018
Other performance indicators as specified in Table 4.1, S4.2 and S4.3	Form performance 1 or other form as agreed in writing by the Environment Agency	13/12/2018

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 malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
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	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
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 for the detection of any significant adverse environmental effect	
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.

"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.

"approved waste management plan" means a plan of the type described in Article 5(1) of Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, approved as part of the grant or variation of an environmental permit and as revised from time to time.

"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 surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

"Competent Authority" means, in relation to –

(a) London, the London Fire and Emergency Planning Authority;

(b) an area where there is a fire and civil defence authority, that authority;

(c) the Isles of Scilly, the Council of the Isles of Scilly;

(d) an area in the rest of England, the county council for that area, or where there is no county council for that area, the district council for that area;

"disposal". Means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations 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.

"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.

"extractive waste" means waste resulting from the prospecting, extraction, treatment and storage of mineral resources and the working of quarries, excluding waste which does not directly result from these operations.

"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.

"Hazardous waste" has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

"Industrial Emissions Directive" means Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions

"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. All of the criteria listed in Article 1 of Commission Decision 2009/359 must be fulfilled.

“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.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“mining waste facility” means a waste facility as defined in Article 3(15) of Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, where a mining waste operation is carried out.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes 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

“year” means calendar year ending 31 December.

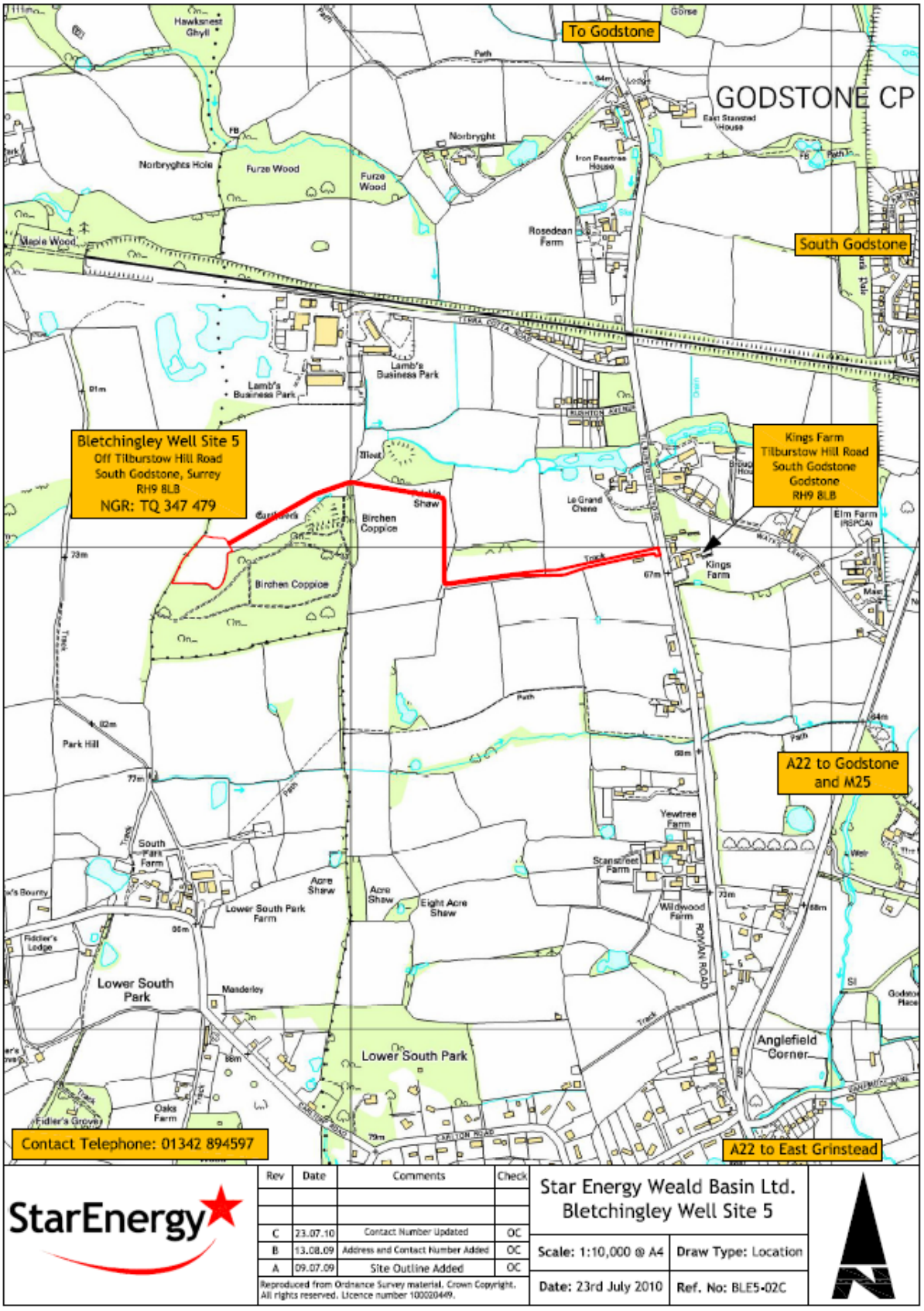
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 KPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

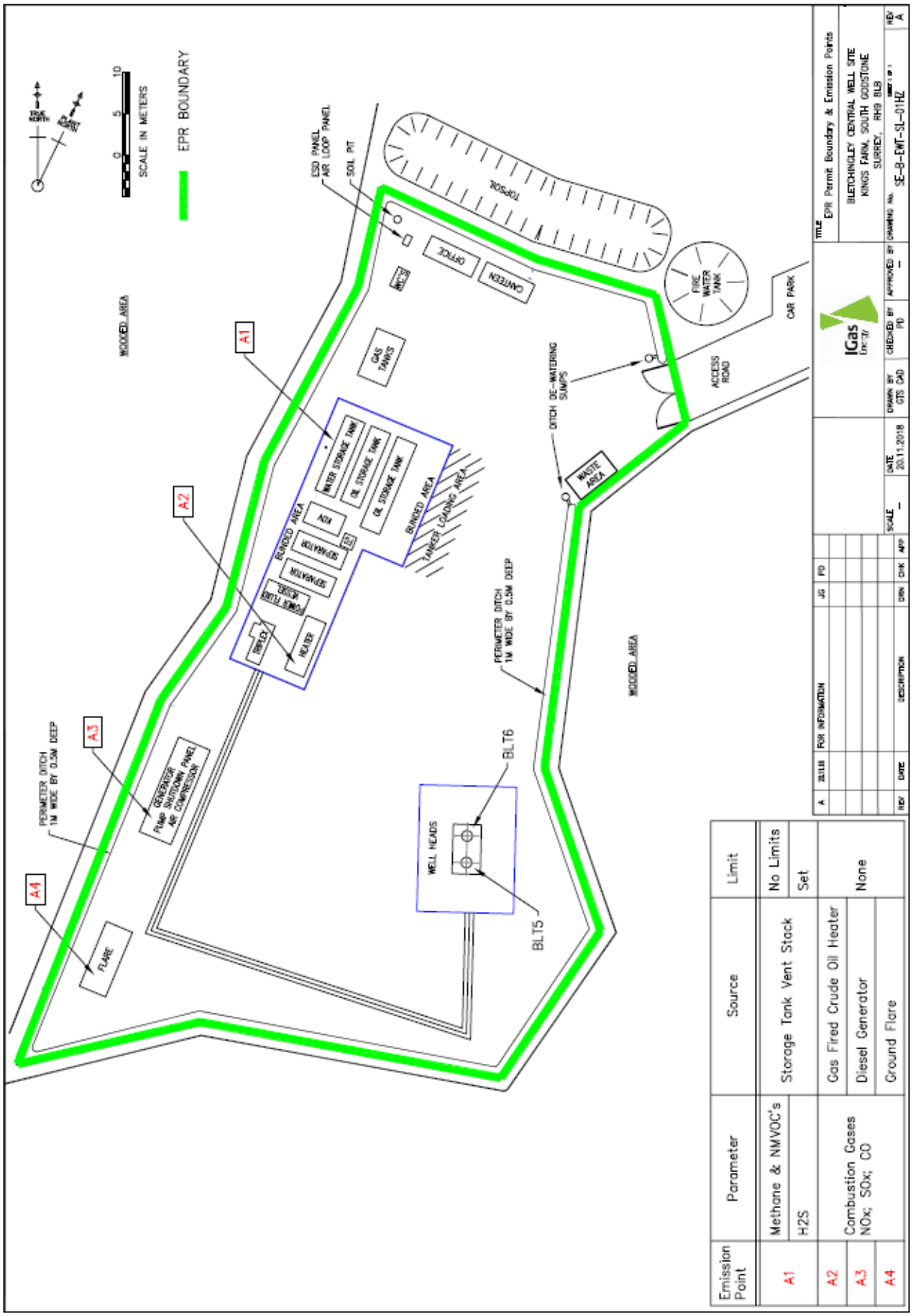
Schedule 7 – Site plan

Plan1: Site Location Plan



"©Crown Copyright. All rights reserved. Environment Agency, 100024198, 2018."

Plan 2: Site layout plan showing emission points



END OF PERMIT

Reporting forms

Permit Number: Operator:

Facility: Form Number: Air1

Reporting of emissions to air for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]

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)

Permit Number:

Operator:

Facility:

Form Number:
Performance1

Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

Parameter	Units
	tonnes

Operator's comments:

Signed ……. Date……..

(Authorised to sign as representative of Operator)