

THE YORK POTASH HARBOUR FACILITIES ORDER 201X

Document 7.3 – Appendix 6



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0300 123 1032
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Date: 18th January 2013

Dear Mr Richard Hunt,

**Marine and Coastal Access Act 2009
Application for a Marine Licence (Ref: MLA/2012/00336)**

The Marine Management Organisation (MMO), as the Licensing Authority, has now completed its consideration of your application dated 15 Aug 2012 for a Marine Licence under Part 4 of the Marine and Coastal Access Act 2009 to undertake the mineral extraction and associated construction from under the sea bed.

After careful consideration of all the evidence submitted to the MMO, a licence authorising the proposed marine activity is hereby attached with this letter.

The licence commences on 1 January 2017 and the works set out in the licence cannot commence before this date. If you wish to commence works earlier, you will need to apply for a licence variation.

The category of works licensed is construction and removals. Licensed works do not include any deposits of waste material within the mined area, permission to undertake intrusive investigation of the sea bed and any works required for decommissioning. Such activities will be subject to separate Marine Licence applications.

Since this Licence constitutes a statutory consent, the terms and conditions set out therein must be complied with in full and are also binding upon any agent or sub-contractor who undertakes any activity to which it refers on your behalf. You are therefore advised to read the document carefully.

Acceptance of the Licence Terms & Conditions

I would like to draw your attention in particular to the requirement for the Licence Holder to confirm receipt and understanding of the terms and conditions of the Licence. Confirmation is to be sent to the MMO using the confirmation form which will be emailed to you shortly.

Your reply should reach us within 10 days of receipt of this notice and before the start of works, failing which the Licence shall cease to be of effect.

Appealing a decision

You may appeal within 6 months of the issue of this Licence against a decision made on your application. This can include an appeal against the inclusion of any provision within the licence or the length of licence granted. A notice of appeal should be sent to the Planning Inspectorate (PINS) who will then manage and decide any appeal against our decision.

A copy of notes for the guidance of persons wishing to appeal a licensing decision is available on request.

Additional consents

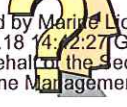
I would further advise you that the issue of this Licence does not absolve you from seeking any other consents or approvals which may be required before you embark upon the works to which it refers. For example, Planning Consent is often necessary for works to be undertaken above the low water mark. In addition, agreement may be required from any land owner having proprietary rights over the seabed and foreshore - commonly the Crown Estate Commissioners. In some cases approval of the Environment Agency may also be necessary (e.g. where the works involve a discharge or have implications for flood defences).

Terms and Conditions

Finally, if you have any queries or require clarification of any of the terms or conditions of the Licence, please do not hesitate to contact the undersigned.

Yours sincerely

Validity unknown



Digitally signed by Marine Licensing
Date: 2013.01.18 14:22:27 GMT
Reason: On behalf of the Secretary of State
Location: Marine Management
Organisation

Mr Adam Chumbley
+44 (0)191 376 2518
adam.chumbley@marinemanagement.org.uk

Licence Number: L/2013/00027
Case Ref: MLA/2012/00336



Marine Licence

Licence Number: L/2013/00027

This is a licence issued by the Marine Management Organisation (MMO) on behalf of the Secretary of State to the licence holder named below to carry out activities for which a licence is required under Part 4 of the Marine and Coastal Access Act 2009.

The licence is for licensable activities carried out as part of the project specified in Section 2 of this licence and is subject to the terms and conditions set out in this Licence.

Licence Holder

Name: York Potash
Company 07251600
Registration
No:
Address: UNIT 7-10
MANOR COURT
MANOR GARTH
EASTFIELD
SCARBOROUGH
YO11 3TU

Licence Date:

Valid From 1st January 2017

Valid to: 1st January 2037

Date of issue: 18th January 2013

Validity unknown

Digitally signed by Marine Licensing
Date: 2013.01.18 14:42:24 GMT
Reason: On behalf of the Secretary of State
Location: Marine Management
Organisation

Mr Adam Chumbley
+44 (0)191 376 2518
adam.chumbley@marinemanagement.org.uk

Section 1: General

1.1 Interpretation

In this licence:-

- (a) "the Act" means the Marine and Coastal Access Act 2009.
- (b) "Licensable Activity" means any activity listed in s.66(1) of the Act and section 2.2 of this licence.
- (c) "MMO" means the Marine Management Organisation.
- (d) "Sea" means any area submerged at mean high water spring tide and the waters of every estuary, river or channel, so far as the tide flows at mean high water spring tide.
- (e) "Sea Bed" means the solid surface of the Earth which lies under the Sea.
- (f) "Dredging" means using any device to move material (whether or not suspended in water) from one part of the sea or sea bed to another part.
- (g) "Licensing Authority" means the Secretary of State.
- (h) "Vessel" means hovercraft, and any other craft capable of travelling on, in or under water, whether or not self-propelled.
- (i) "Location" and "Disposal Site" and "Disposal Sites" means those locations listed in section 2.4 of this Licence.
- (j) "Licence Holder" means the individual(s) and Organisation(s) named above to whom this licence is issued.
- (k) All times shall be taken to be Greenwich Mean Time (GMT).
- (l) All geographical co-ordinates contained within this Licence are in WGS84 format (latitude and longitude degrees and minutes to three decimal places) unless stated otherwise.

1.2 Contacts

Except where otherwise indicated, the main point of contact with the MMO and the address for email and postal returns and correspondence shall be:-

**Marine Management Organisation
Marine Consents Team
Lancaster House**

**Hampshire Court
Newcastle upon Tyne
NE4 7YH**

**Tel: 0300 123 1032
Fax: 0191 376 2681
Email: marine.consents@marinemanagement.org.uk**

Any references to the Local District Marine Officer shall mean the relevant District Marine Officer in the area(s) located at:-

**Marine Management Organisation
Neville House
Central Riverside
Bell Street
North Shields
NE30 1LJ**

**Tel: 0191 257 4520
Fax: 0191 257 1595
Email: northshields@marinemanagement.org.uk**

1.3 Returns to be made to the MMO by the Licence Holder

Table 1, below, sets out the returns that the Licence Holder must make and the corresponding dates by which they must reach the MMO.

IMPORTANT: No operations licensed herein may start until the Licence Holder has notified the MMO in writing that it accepts the terms and conditions of this licence. The notification may be sent to the MMO by post or email, using the contact details set out above in section 1.2.

Table 1

Return No.	Return Description	Return Deadline
1	Licence Holder to accept terms and conditions of Licence.	Within 10 working days from licence Date of Issue.
2	Licence Holder to notify Local District Marine Officer of proposed start of works date.	No less than 5 working days before work is due to start.

1.4 Inspection of records etc.

The Licence Holder shall-

(a) Permit any person who is appointed by the MMO for the purpose to inspect, and make notes from, all books, papers, maps and other records of any kind kept by the Licence Holder in pursuance of this licence or in connection with activities associated with this licence.

(b) Furnish that person at reasonable times with such information and provide him at reasonable times with such reasonable assistance as he may request in connection with or arising out of an inspection in pursuance of this clause.

1.5 Rights of access

Any person or persons authorised by the MMO shall be entitled at all reasonable times to enter into and upon any of the Licence Holders installations, vessels or equipment used or to be used in connection with the activities authorised by this licence in accordance with Chapter 2, Part 8 of the Act.

1.6 Variation, suspension, revocation and transfer

(1) A licensing authority may by notice vary, suspend or revoke a licence granted by it if it appears to the authority that there has been a breach of any of its provisions.

(2) A licensing authority may by notice vary, suspend or revoke a licence granted by it if it appears to the authority that:

(a) In the course of the application for the licence, any person either supplied information to the authority that was false or misleading or failed to supply information, and

(b) If the correct information had been supplied the authority would have, or it is likely that the authority would have, refused the application or granted the licence in different terms.

(3) A licensing authority may by notice vary, suspend or revoke a licence granted by it if it appears to the authority that the licence ought to be varied, suspended or revoked:

(a) Because of a change in circumstances relating to the environment or human health;

(b) Because of increased scientific knowledge relating to either of those matters;

(c) In the interests of safety of navigation;

(d) For any other reason that appears to the authority to be relevant.

1.7 Force Majeure

If by reason of force majeure any substances or articles are deposited otherwise than at the Disposal Sites specified in section 5 of this Licence, below, then the full details of the circumstances must be notified to the MMO within 48 hours of the incident occurring. Force majeure may be deemed to apply when, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the substances or articles otherwise than at the specified Disposal Sites because the safety of human life or the vessel is threatened.

Section 2: Project Details

2.1 Licence Categories

The category of works hereby licensed is: Construction and removals. Works do not include any deposits of waste material within the mined area.

This licence does not include permission to undertake intrusive investigation of the sea bed. Such activities will be subject to separate Marine Licence applications.

2.2 Description of project

Project Title

York Potash Mining, mineral extraction and subsequent construction activities.

2.3 Works Methodology

The works will be carried out using the generic methodology as attached in schedule 1 to this licence. Detailed methodology to be agreed with the MMO prior to the commencement of the works based upon site specific data.

2.4 Location

The Licence Holder, and any third parties specified in section 2.5 of this licence, may engage in the Licensed Activity at the following locations:

Removals (inc. Grab Samples)

York Potash Area of Interest (WGS84) as defined by the following coordinates:

54°24.4658'N 00°29.4984'W
54°36.1007'N 00°29.0693'W
54°38.0772'N 00°28.9538'W
54°14.2369'N 00°04.0635'W
54°14.1240'N 00°19.4220'W
54°24.4658'N 00°29.4984'W

2.5 Agents/contractors/sub-contractors

The third parties permitted to engage in the Licensed Activity are:

Name of Agent, Contractor or sub-contractor	Function
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York Potash	Removals
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2.6 Persons Responsible for the Deposit of the Substances or Articles

The operators, vessels and vehicles permitted to engage in the Licensed Activity are:

Name of Vessel or Vehicle Registration	Operator	Type(s)
None	None	None

The Master or the Officer of the Watch of each of these vessels and vehicles undertaking the Licensed Activity must maintain a written log of operations recording, in the English Language, the following information:

- (a) The name of the vessel.
- (b) The quantity and type of each substance or article loaded for deposit.
- (c) The date and time of departure from the port or site at which the substances or articles are loaded for deposit in the sea and time of arrival (and date if different) at the Disposal Sites on each occasion that it proceeds to and from such area.
- (d) Latitude and Longitude position (in degrees and minutes and decimal of a minute to at least one decimal place) of the vessel at intervals of not more than 20 minutes throughout the course of any disposal element of the Licensed Activity being undertaken, which for the purpose of this Licence shall be the commencement of loading each consignment of material for deposit in the Sea to the completion placement of that material at the Disposal Sites.
- (e) The time taken to complete the disposal Licensed Activity operation and a statement of the reasons for any delays.
- (f) Courses and speeds together with any alterations throughout each consignment disposal (multiple changes may be recorded as "various").
- (g) The rate of deposit, together with any variations, throughout the disposal Licensed Activity.
- (h) Weather, Sea-state, wind and tidal set, and rate throughout the disposal Licensed Activity.
- (i) The signature of the Master at the foot of each log sheet or page of the record.

All deposit vessels are required to carry an Admiralty Chart of appropriate scale to be used in navigation on which the coordinates of the licensed Disposal Sites should be marked.

2.7 Distribution of copies

The Licence Holder must ensure that a copy of this licence and any subsequent revisions or amendments is given to all third parties listed in section 2.5, above, and the Masters of all vessels and transport managers responsible for the vehicles listed in section 2.6.

The Licence Holder must also keep a copy of this licence at
UNIT 7-10
MANOR COURT
MANOR GARTH
EASTFIELD
SCARBOROUGH
YO11 3TU

Section 3: Licence Conditions

3.1 Prior to the Commencement of the Works

The Licence Holder must submit the pre-works returns specified in Table 1 of section 1.3, above.

- 3.1.1** The License Holder must supply the MMO with (1) a construction and detailed mining methodology, (2) an Environmental Risk Assessment and (3) subsidence predictions. These are required to be submitted for approval at least 6 months prior to removal of the mineral taking place.

Reason: To ensure the proposed works will not result in damage to the marine environment including subsidence under the wave platform and in the coastal zone.

- 3.1.2** That a suitable programme of monitoring and reporting with a resolution suitable for the detection of subsidence in the coastal zone, be agreed between the developer and the licensing authority.

Reason: To establish a programme to monitor the impacts of extraction within the coastal zone.

3.2 During the Works

- 3.2.1** The Licence Holder must submit on the 1st April each year during operation, a plan of the area of mineral extraction for the forthcoming year and a report of mining activity for the previous year to the Licensing Authority.

Reason: To ensure that the Licensing Authority is aware of the area of extraction below MHWS within the marine licensed area and can monitor any impacts as and when required.

- 3.2.2** The Licence Holder must ensure that the extraction operation is carried out in accordance with the method statement submitted and agreed by to the Licensing Authority.

Reason: To ensure that works are carried out to appropriate specifications.

- 3.2.3** The Licence Holder must ensure that should subsidence be detected, in the coastal zone (as described in the application), extraction of materials within this zone, should cease until a suitable method of continuing that will not cause subsidence can be agreed between the applicant and the licensing authority.

Reason: To inform extraction that will not result in subsidence in the coastal zone.

- 3.2.4** The Licence shall be deemed to become invalid and shall be liable to be revoked in the event that the Licence Holder fails to make full payment of the final licence charge within a period of 28 days following the respective due date for payment.

3.3 Conditions upon completion of the Works

None

Section 4: Changes to this licence

Should the Licence Holder become aware that any of the information on which the granting of this licence was based has changed or is likely to change, they shall notify the MMO at the earliest opportunity.

Should the Licence Holder wish to undertake the Licensed Activity in a manner that is contrary to the terms and conditions of this licence they shall inform the MMO at the earliest opportunity and in any event shall not carry out the Licensed Activity in manner contrary to the terms and conditions of this licence unless and until permission has been given by MMO.

Section 5: Disposal Sites

There are no disposal sites for this project.

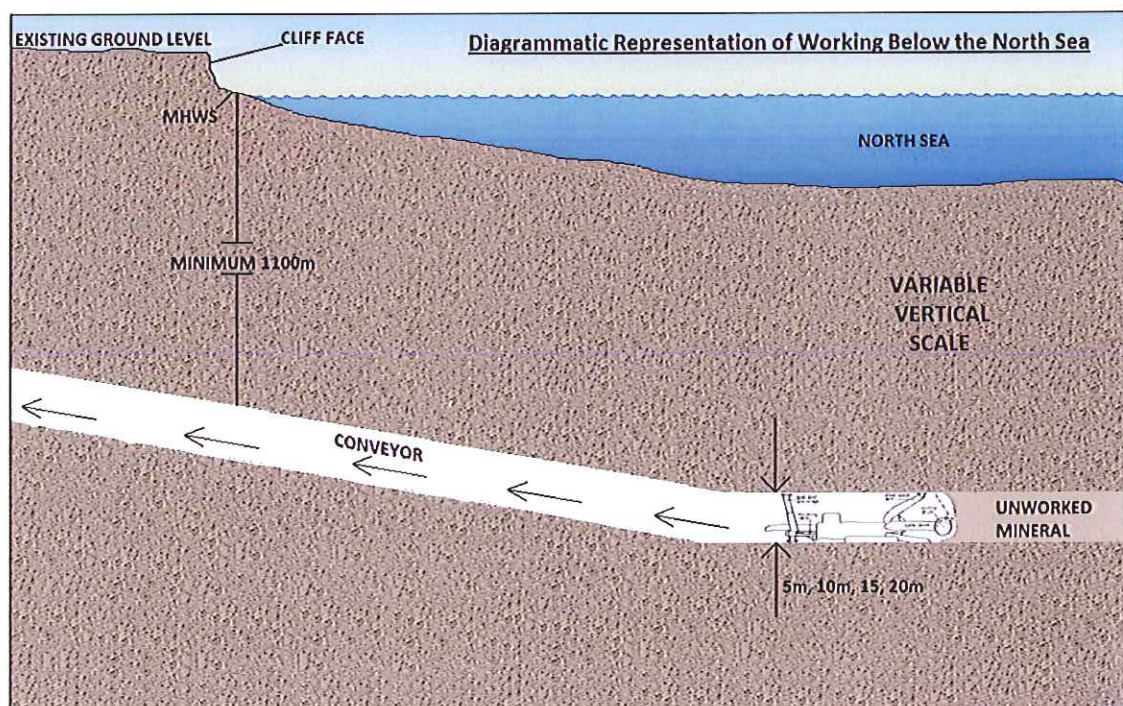
1 Introduction

York Potash has submitted an application for a marine license to the Marine Management Organisation (MMO) and the MMO has responded requesting some clarification. The information below seeks to provide that clarification.

1.1 Side Profile Drawing

The drawing below has been put together to show a hypothetical situation and is only diagrammatic in its representation.

It shows the Mean High Water Spring and



1.1.1 Heading 3

The mining method to be used will be room and pillar mining – this method along with the potential techniques to be used are summarised below. It is likely that only continuous miners will be used but depending on seam conditions a combination of the methods could be employed.

1.1.1.1 Room and Pillar

Room and Pillar Mining is very common and used to mine a variety of minerals. The method involves the mining of a series of “rooms” that can vary in width, height and length that are

separated by supporting pillars that can also vary in size depending on the mineral mined and the material in the roof and floor of the mining area.

The percentage of extracted mineral typically varies from 50% to 75% within a mining block although this can be increased by using a backfill material to fill the voids enabling further mining of the pillars at a later stage. The following three mining methods are variants of Room and Pillar.

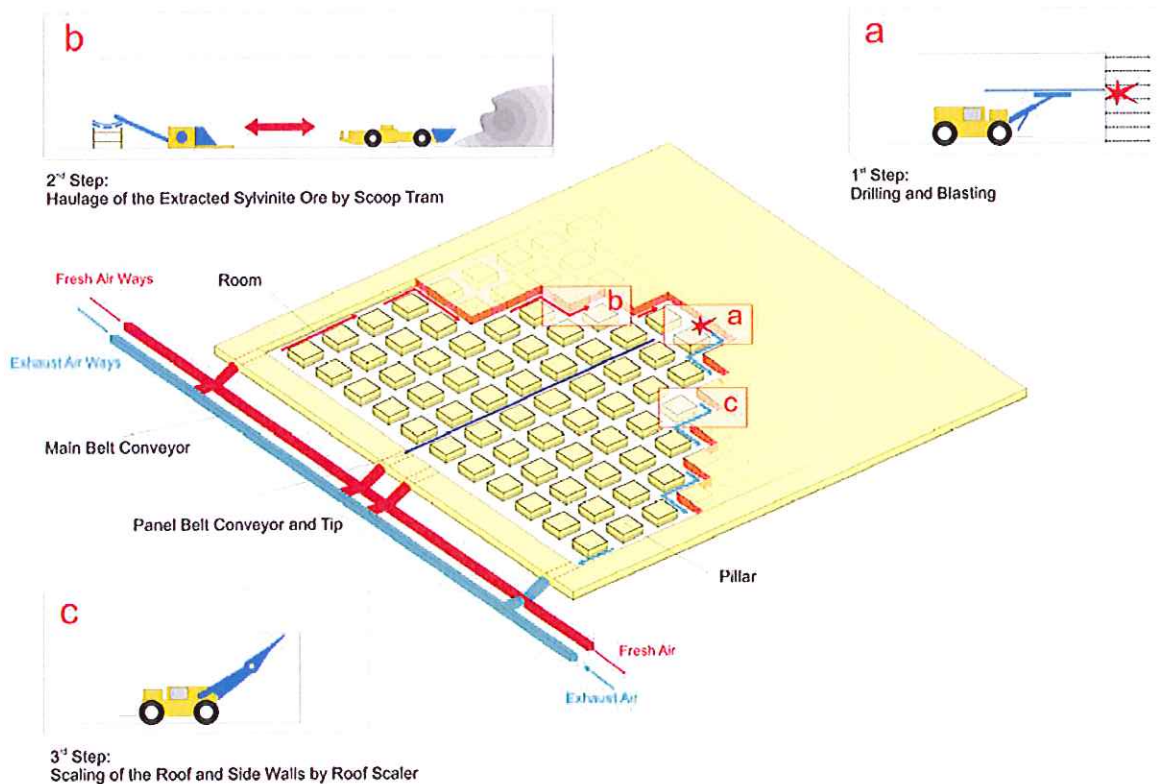
2 Mining Methods

2.1 Room and Pillar/Drill and Blast

The figure below illustrates the principles of a Drill and Blast room and pillar operation with the rooms first being drilled with several large relief holes, then a series of drill holes that are filled with explosives prior to blasting. Once blasted, the loose rock is loaded out by scoop trams to a crusher before being transported to the shaft by a series of conveyors. The rooms cleared of blasted material are then scaled to remove loose rock from the roof and walls prior to any roof supports being installed, if required.

The room size can vary from 6-8m wide and up to 6m high depending on the mining cut to be taken and the rock mechanics requirements and is therefore the most flexible of the room and pillar options.

Room and Pillar and Drill and Blast Mining



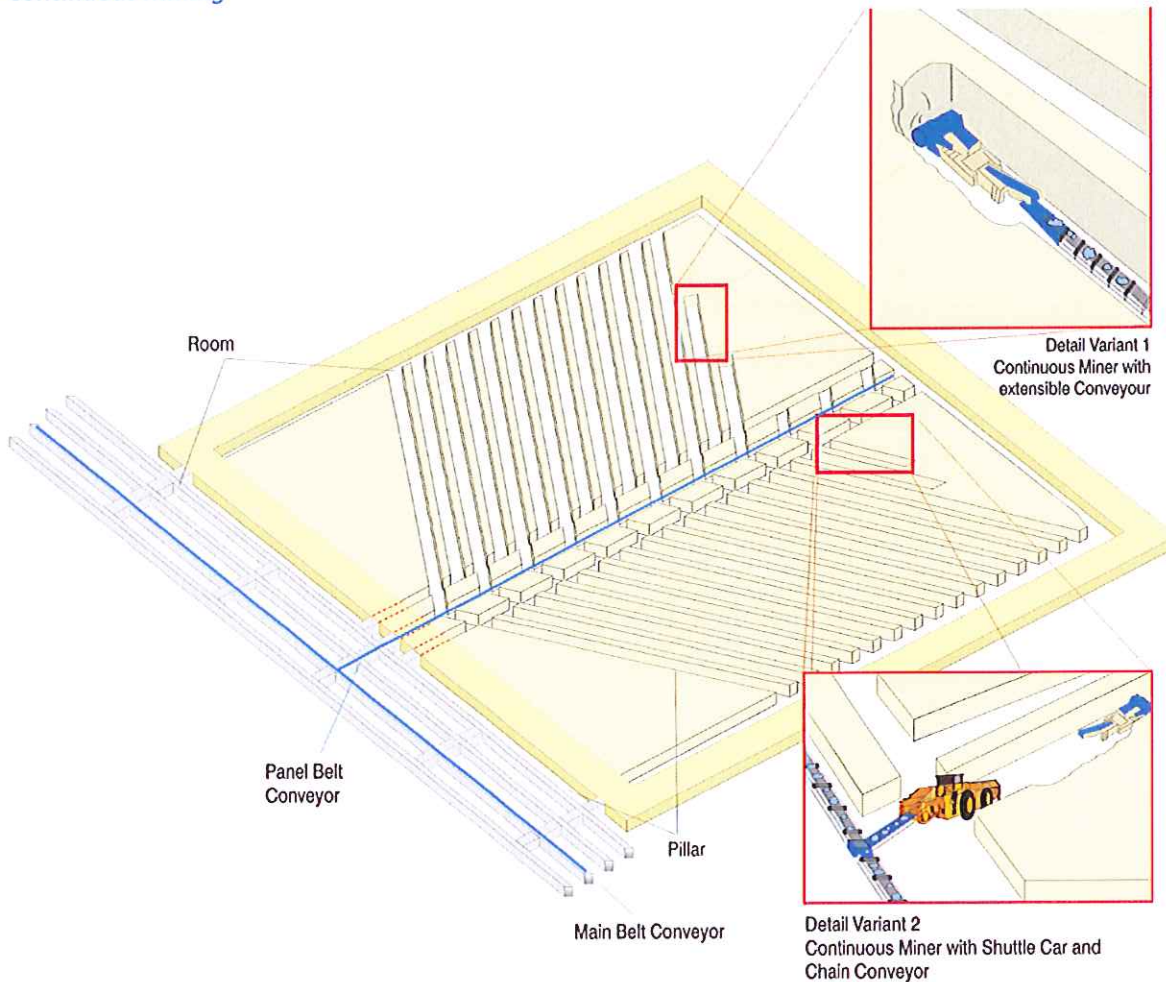
Source – Ercosplan.

2.2 Continuous Mining

The schematic below illustrates a potential layout for Continuous Mining with a Chevron pattern of rooms separated by long pillars. The rooms are cut by a continuous miner which is a tracked machine with large rotating cutting drum laced with cutting picks that then either loads the cut ore into shuttle cars (large trucks) or onto a continuous haulage system that carries the ore to a crusher and onto the conveyor system.

Continuous Mining is highly productive particularly when used with a continuous haulage system which facilitates maximum cutting potential. Following the cutting cycle, roof support would be set if required. This method would facilitate an initial mining cut of 5m but with the potential for taking a second cut increasing the height to 10m. This is the method of mining that has been selected for the DSS Base Case.

Continuous Mining



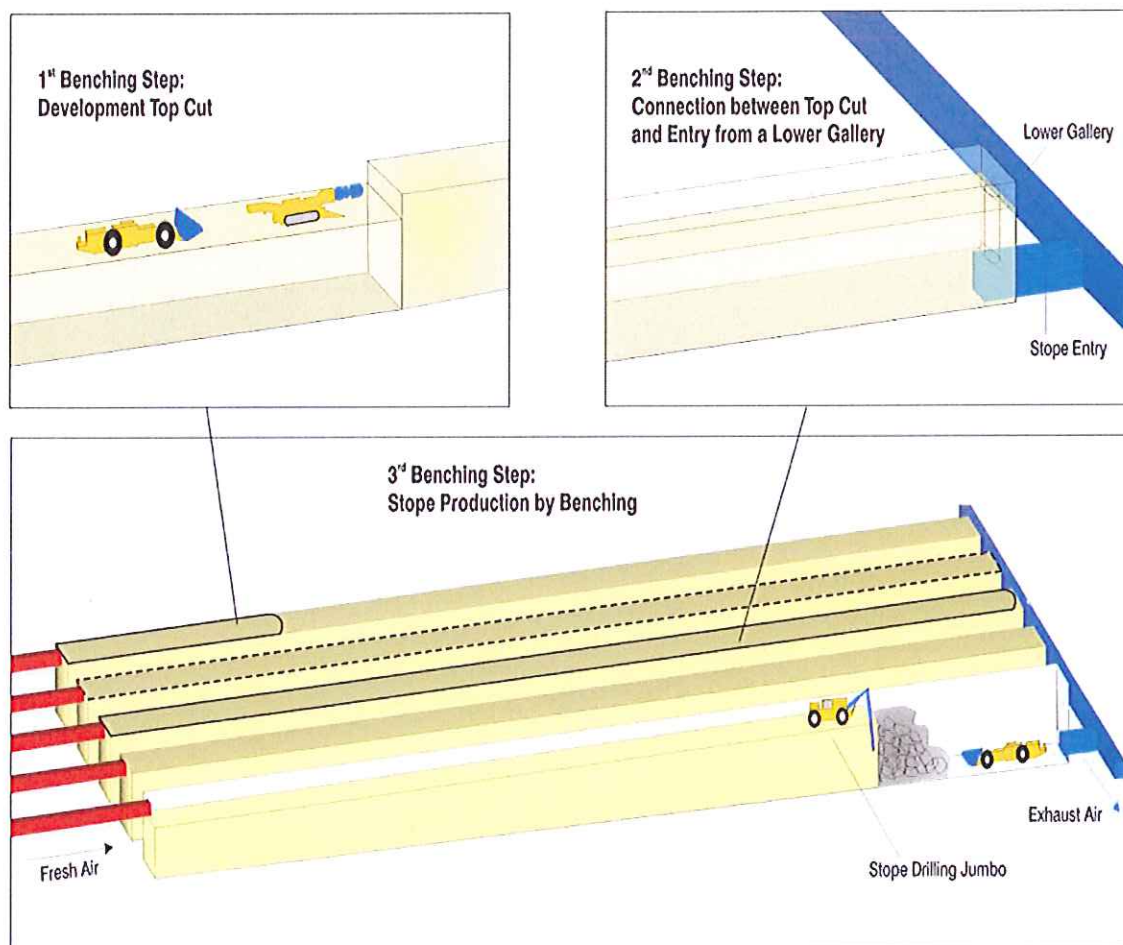
Source – Ercosplan.

2.3 Combination Method

The Combination Method as illustrated below uses both continuous miners and drilling and blasting with a first cut taken by the continuous miner followed by a benching operation using the drill and explosives and could be used effectively in areas of thicker seam.

Whilst this method has been included for completeness it is likely that even in thicker seam areas the second cut would be taken using the continuous miner for a total cut of up to 10m.

Combination Method



3 Pre-application discussions

The applicant was involved with pre-application discussions that resulted in the request for Screening of the proposals for EIA. These discussions resulted in the negative Screening Opinion that was given by the MMO under ref. MLP/2011/00068.

The MMO case officer for this Screening Opinion was Mr A Chumbley.

4 Additional Structures

I can confirm that there are no other structures to be placed in the marine environment within the license application area.

5 Overall description of all projects

The following is a description of the overall projects involved in bringing the mineral to market so that the underground extraction in the license area can be put in context.

Offshore – the mineral would be extracted by means of the methods shown above and transported by conveyor to a primary crushing facility at the base of the shafts.

Onshore – the mineral would be crushed and placed in skips that are then hoisted vertically to approximately 85m below the surface and placed on a conveyor to take it to secondary crushing and grinding equipment just below the surface. Once it is discharged into the receiving hopper it falls within the pipeline project.

Pipeline/Mineral Transport – the mineral, now a fine powder is mixed in tanks with saturated brine and pumped into the pipelines that sit 1.2m below the surface and take the mineral to Teesside. On arrival at Teesside the slurry is dewatered using cyclones or centrifuges and/or a filter press. The process water is returned to the minehead in a pipeline and the mineral is then conveyed to a processing plant or direct to the port for loading.

Processing Plant – the processing plant at Teesside will consist of different thermal and separation processes and will allow three main products to be separated, potassium sulphate, magnesium sulphate or hydroxide and gypsum (calcium sulphate).

In effect the works in the marine environment provide the raw material for the manufacture of these products.