

NOTTINGHAMSHIRE MINERALS LOCAL PLAN – CALL FOR SITES 2017/18

BANTYCOCK QUARRY EXTENSION - BANTYCOCK SOUTH

1. Location

- Proposed boundary of the site
- The extent of the excavations
- Proposed access to the site
- Location of processing plant
- Phasing
- An OS map of the site

Bantycok South site is a southern extension to Bantycok Quarry. See drawing nos. BAN-109 and BAN-110.

2. Reserve data

- Quantity and quality of recoverable reserves

At this location the gypsum occurs in the Newark seams of Triassic Mercia Mudstone strata (See figure 1), and is overlain by Scunthorpe Mudstone, Westbury Mudstone and Blue Anchor Formations.

The western half of the site has been fully investigated by means of cored boreholes. Boreholes from adjoining land (to the north and west) have also been used within the geological model for the reserve estimation.

The overburden is on average 27m thick; with 2m of this consisting of superficial drift deposits. On average the base of the gypsum deposits is 42m below surface, the gypsum deposits are a series of thin seams of gypsum inter-bedded with Mercia Mudstone, currently 7 seams provide the bulk of the recovered material from the adjoining Bantycok Quarry. The total cumulative thickness of gypsum averages 3.5m and the interburden has a cumulative thickness of approximately 11.5m. The highest grade seams are the Grey Rock, Top Rock, Bottom White and Blue Rock seams (see figure 2).

The reserves available have been estimated at between 7.5 and 8.5 million tonnes, split approximately 25:75, between the high grade material suitable for processing at the nearby Jericho works and lower grade material suitable for export and use by British Gypsum in plaster and plasterboard manufacture.

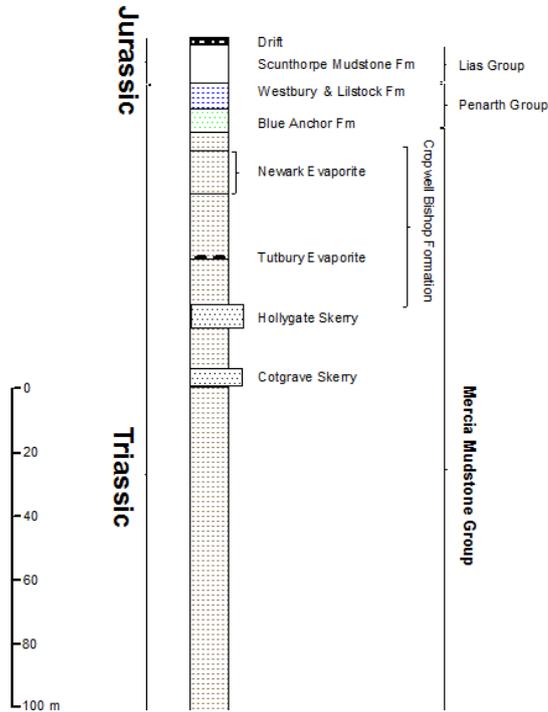


Figure 1: Geological succession.

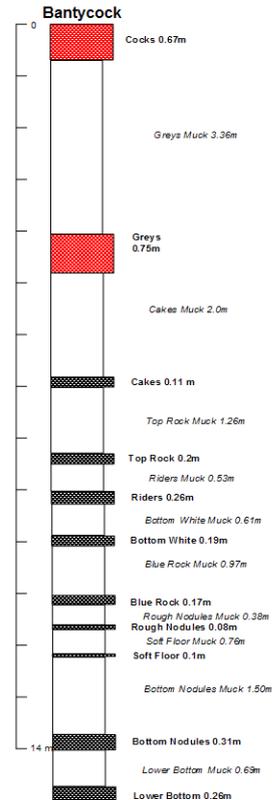


Figure 2: Detailed typical geological seam section from Bantycoc Quarry.

- Output per annum

The planned annual output is estimated based on complex business projections, which is determined by demand from the plaster and plasterboard factories and the availability of synthetic gypsum, otherwise known as desulphurgypsum (DSG).

- Proposed start date

The proposed start date for the Bantycoc South extension is based on complex business projections of the projected demand for both the high grade and the lower grade gypsum products. The earliest start date would be 2023-2025, which is within the Plan period.

The expected start date for Bantycoc South has been brought forward due to the dramatic change in availability of DSG over the last few years. The shift away from coal-fired power stations has resulted in a significant reduction in the availability of DSG,

which is a by-product of burning coal. 3 coal power stations closed in 2016, most are expected to halt operations by 2022 and the remaining ones not fitted with updated with carbon capture technology will be forced to close in October 2025.

The significant reduction in DSG means that there is a greater demand for natural gypsum and the life of the existing reserves is reduced. This is coupled with increasing demand for gypsum from the construction industry, as plaster-based building products become more popular and new housing and infrastructure plans get underway.

- Expected life of site

The anticipated future levels of output from Bantycok South are between 350,000 and 500,000 tonnes/annum; this gives a life for the quarry extension of between 15 – 24 years. The anticipated direction of working / phasing of working is shown on Drawing No. BAN-109. It is expected that material would continue to be processed at the existing location in the quarry and transported to the works.

3. Role of site/markets

- Is this a new Greenfield site or an extension? If a green field site is it replacing an existing mineral working within or outside the County?

The site is an extension to the adjoining operational Bantycok Quarry.

- What is your planned market area i.e. main destinations/economic limits?

It is likely that the site would continue to serve two main markets:- the most important being the high-grade, high-purity (optically bright) gypsum being used for industrial application (medical, food & paint additives etc.) as current at the Jericho Works and Artex at Ruddington (Nottinghamshire). The lower grade gypsum would continue to supply British Gypsum for use in plaster and plasterboard manufacture at East Leake (Nottinghamshire) and Barrow (Leicestershire).

The high grade gypsum from Newark is used at the Jericho Works to produce plasters for specialist uses, which include: ceramics, construction products, fibrous and decorative plaster, dental and personal care, food, agriculture, environmental and specialist industries. These high quality products are exported worldwide, as far as Australia.

- Is this an optimum location in terms of serving the markets? If so why?

In terms of its location, this deposit is geologically controlled; no other deposits of this purity are available in the UK and Europe. The site is conveniently located for the A1 and A46 Trunk Roads for distribution.

4. Availability of mineral

- Do you have the legal and surface or underground rights to work all of the mineral including access to a public highway or any other transport route?

British Gypsum own the freehold surface and minerals rights to the area shown in green on Drawing No. BAN-111. We are currently in discussions with the owners of the land outlined in blue and yellow.

Gypsum would be hauled via internal haul roads to the current crossing point to either the Jericho works or exported to British Gypsum plants at East Leake and Barrow.

5. Landowner Consent

- **Legal site owner**
- **Is the legal owner of the site also a minerals operator**
- **Has the legal owner made a formal agreement with any mineral operator for minerals exploration and/or minerals extraction.**

British Gypsum own the freehold surface and minerals rights to the area shown in green on Drawing No. BAN-111. The remainder of the allocation area is owned by two separate land owners, which is outlined in blue and yellow. We are currently in discussions with these two land owners to secure the surface and mineral rights for the remainder of the allocation area.

6. Agricultural land quality

- Agricultural land classifications found within the site

The land is mapped as grade three agricultural land and is used predominately for cattle grazing or growing grass / silage feed crops. The restoration proposals will return the majority of the land back to agricultural production with biodiversity / wildlife corridors enhancing the land.

7. Sensitive Receptors

- Is the site located within 250m of any sensitive receptors?

The area south of Newark is sparsely populated; currently the dominant land use is farming. Four properties would be impacted the most by the development – Balderton Grange (owned by the Company), two properties at Cowtham House and Shire Farm.

Shire Farm lies to the south of the Shire Dyke and would be screened from the development by soil bunds and tree planting.

The sensitivity of the surrounding landscape has been reduced by the presence of the A1 Trunk Road, power lines, landfill site and the existing quarry / spoil heaps. The quarry

development is short term, with progressive restoration returning the land to agricultural use.

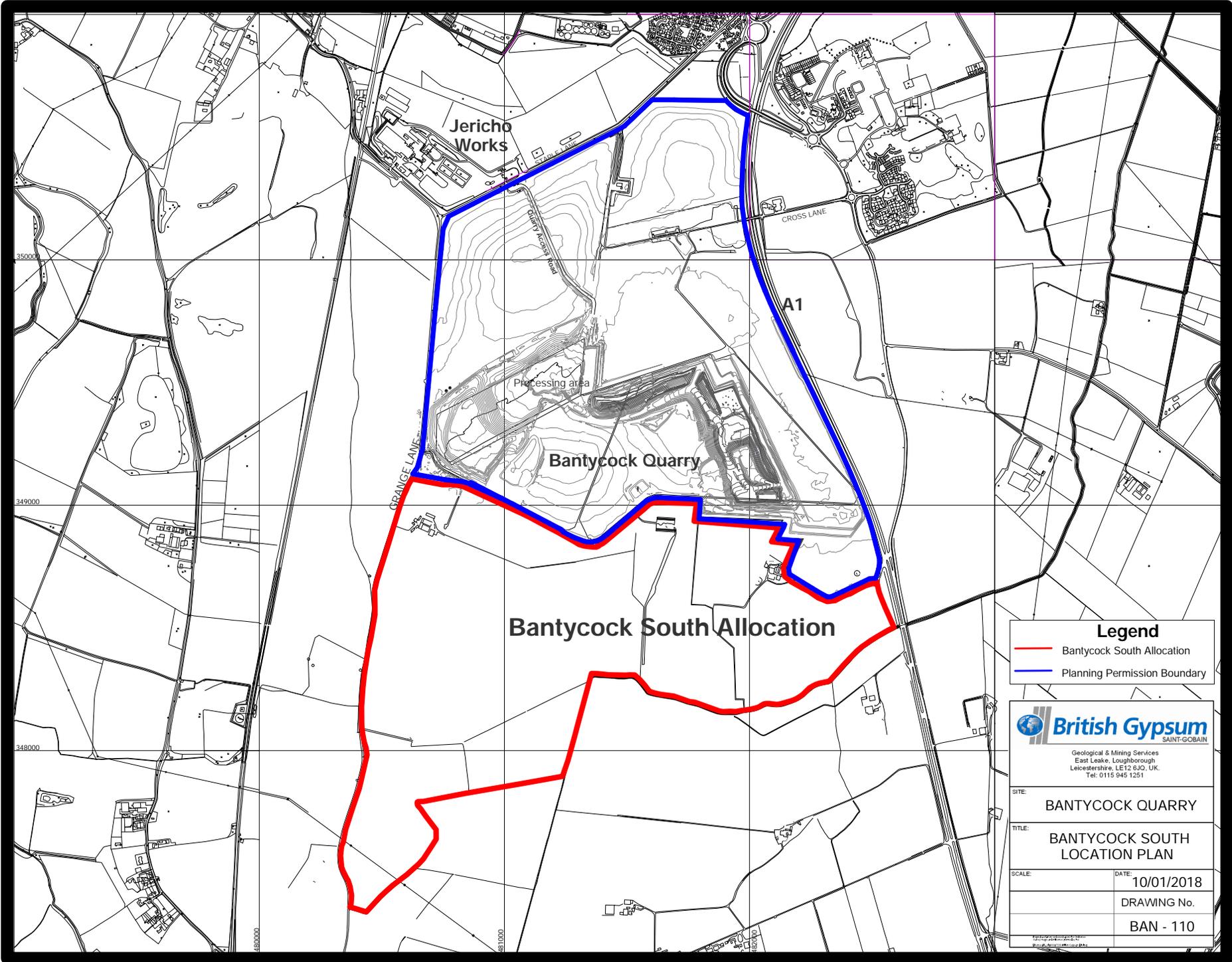
8. Reclamation

- Proposed reclamation schemes - What opportunities for environmental benefits do you see arising from the scheme?
- If the reclamation of the site depends on importing fill please indicate type of waste, main sources and timescales.

Due to the high stripping ratio (overburden and interburden to gypsum), the strip mining methodology of working and the natural bulking of the overburden of around 6% it will not be necessary to import materials to achieve a restoration profile.

The restoration master plan would envisage, as with Bantycok Quarry, returning the majority of the land back to agricultural production with nature conservation corridors. The post restoration proposals will provide a mixture of agricultural, woodland, grassland and hedgerow planting. Biodiversity will be significantly increased.

Jennifer Saunders MRTPI
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British Gypsum
10th January 2018



Legend

- Bantycoc South Allocation
- Planning Permission Boundary

British Gypsum
SAINT-GOBAIN

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SITE: **BANTYCOCK QUARRY**

TITLE: **BANTYCOCK SOUTH LOCATION PLAN**

SCALE:	DATE: 10/01/2018
	DRAWING No.
	BAN - 110

