Island Gas Limited

Planning Application to Develop a Hydrocarbon Wellsite and Drill up to Two Exploratory Wells for a Temporary Period of up to Three Years

Springs Road, Misson, DN10 6ET

Volume 2

Planning Supporting Statement

October 2015

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1 Executive Summary

1.1 Introduction

1.1.1 This planning supporting statement forms part of an application for planning permission to develop a hydrocarbon wellsite and drill up to two exploratory hydrocarbon wells (one vertically and one horizontally) together with associated ancillary works on land off Springs Road, Misson DN10 6ET in Nottinghamshire for a temporary period of up to three years. The application has been submitted to Nottinghamshire County Council (NCC) by Island Gas Limited (IGas), a subsidiary of IGas Energy plc.

1.1.2 The planning application is accompanied by an Environmental Statement (ES) prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2011.

1.1.3 In the event that the exploratory work proves successful, a further application for planning permission to carry out appraisal works and test (which could include hydraulic fracturing) would be submitted to NCC. Any such application would also be accompanied by an ES and subject to further public consultation. If these appraisal works were successful a further planning application(s) could be submitted for additional appraisal and / or production, but any such application would also be accompanied by an ES and subject to public consultation.

1.2 Benefits

1.2.1 The proposed development is necessary to establish the potential for an emerging form of energy supply – shale gas.

1.2.2 Given the potential benefits it recognises to the economy, energy security, lower carbon emissions and employment, the Government considers that there is a need to establish, through exploratory drilling of the kind proposed in this application, whether there are sufficient recoverable quantities of shale gas present to warrant appraisal and facilitate economically viable production.

1.3 Planning Policy and Material Considerations

1.3.1 The proposed development has been assessed in terms of the relevant planning policies in the Development Plan and material considerations such as the National Planning Policy Framework (NPPF) and emerging Local Plans. This has served to confirm that the proposals comply in all respects and that the proposal is sustainable development - to which the presumption in favour of planning permission being granted (established at NPPF paragraph 14) applies.

1.3.2 As such, the NPPF (also at paragraph 14) states that planning authorities determining applications for planning permission in such circumstances should approve proposals "without delay."

1.4 Environment

1.4.1 An Environmental Impact Assessment (EIA) of the proposed development has been undertaken. Individual assessments have been carried out in order to assess the potential impacts of the development. The EIA covers the following:

- transport
- air quality;
- noise;
- landscape and visual (including lighting);
- ecology;
- historic environment and cultural heritage;
- water environment;
- contaminated land;
- public health;
- community and social;
- alternatives; and
- cumulative and combined effects.

1.4.2 The assessments are summarised in the Environmental Statement (ES) which accompanies the application. The ES presents the findings of the EIA and seeks to ensure that environmental issues associated with the proposal are taken into consideration as part of the decision making process. The ES seeks to confirm that any mitigation proposed as part of the proposed development will be effective in minimising environmental effects to an acceptable degree.

1.5 Conclusions

1.5.1 The proposed development will assess if there is a gas shale formation, and what the gas contents and properties of this formation are.

1.5.2 Environmental effects arising from the proposed development can be mitigated to an acceptable degree. The proposals are in accordance with the Development Plan and

relevant material considerations. This proposal is considered to be in accordance with the NPPF. As such Nottinghamshire County Council is requested to support the proposals in this application and grant planning permission.

2 Introduction

2.1 Preamble

2.1.1 The application seeks planning permission to develop a wellsite with associated infrastructure and to drill up to two exploratory hydrocarbon wells and at Springs Road, Misson. The exploratory drilling will be to explore and evaluate the potential for shale gas extraction from:

- Bowland Shale (primary target);
- Sandstones within the Millstone Grit Group which overlie the Bowland Shale (secondary target); and
- Carboniferous Limestone Supergroup basinal facies (tertiary target)

2.1.2 Hydrocarbon minerals are vested in the Crown and the rights to explore for and develop such resources are granted in the form of Petroleum Exploration and Development Licences (PEDLs) issued by DECC.

2.1.3 PEDL areas 139 and 140 (see Drawing No. 20) cover parts of Nottinghamshire, Doncaster and North Lincolnshire and are held by a consortium of companies made up of Total E&P UK Ltd., GP Energy Ltd., Egdon Resources UK Ltd., eCorp Oil & Gas UK Ltd. and IGas. The Application is being made by IGas, the Applicant, who are the operators of the licence.

2.1.4 This planning application to NCC seeks planning permission to drill up to two exploratory wells on a site located in PEDL 140 in order to gain information primarily on the prospectivity of the Bowland Shale and the Millstone Grit Group which occur at depth below the site.

2.1.5 The development proposed in this application **does not** involve appraisal work involving hydraulic fracturing and testing. Such operations may however be proposed in a future subsequent planning application if the results of the exploratory work prove to be favourable. Any such future application would be the subject of a full public consultation and would be subject to environmental impact assessment (EIA). Similarly, if these appraisal works were successful a further planning application could be submitted for production, but any such application would also be accompanied by an ES and subject to public consultation.

2.2 The Purpose of the Supporting Statement

2.2.1 This Supporting Statement should be read in conjunction with the submitted Planning Application Forms and Plans (Volume 1), Environmental Statement (ES) (Volume 3), ES Technical Appendices (Volume 4) and Non-Technical Summary (Volume 5). The supporting

statement sets out the description of the proposals and the overall land use context of the application site.

2.2.2 This supporting statement summarises the findings of the EIA and assesses the proposed development against the relevant planning policy tests in the Development Plan and any other material considerations. The supporting statement demonstrates that the proposals are sustainable and provide wider economic and social benefits in accordance with the sustainable development principles as identified by the National Planning Policy Framework.

2.3 Content

2.3.1 The application for planning permission comprises:

- completed application forms and certificates (Volume 1);
- the drawings (Volume 1);
- this planning supporting statement (Volume 2);
- An Environmental Impact Assessment set out in an Environment Statement (ES) (Volumes 3 – 5).

2.4 Environmental Impact Assessment

2.4.1 The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 set out which developments should be subject to Environmental Impact Assessment (EIA) and be accompanied by an Environmental Statement (ES). Some development proposals must be subject to EIA (Schedule 1 developments) and some may need to be subject to EIA if it is of a certain scale for example or in a sensitive location (Schedule 2 developments)

2.4.2 Planning applications for exploratory hydrocarbon drilling do not fall within one of the categories listed in Schedule 1 of the 2011 Regulations for which the carrying out of an Environmental Impact Assessment (EIA) is mandatory. Some exploratory and appraisal phases of hydrocarbon extraction development do fall within Paragraph 2 of Schedule 2 of the EIA Regulations and therefore further consideration is required as to whether the project is likely to give rise to significant environmental effects. The Planning Practice Guidance provides supplementary guidance on EIA and hydrocarbon extraction. It identifies that, it is unlikely that EIA will be required for exploratory drilling operations which do not involve hydraulic fracturing. However, when considering the need for an assessment, it is important to consider factors such as the nature, size and location of the proposed development. The applicant is of the view that the development does not give rise to significant environmental effects and the location of the proposed development is not significantly sensitive. However, the Applicant has undertaken an EIA on the proposed development and is volunteering the submission of an Environmental Statement so that the impacts of the proposal can be fully assessed, understood and mitigated to an acceptable degree.

2.4.3 In accordance with good practice, a request for an Environmental Impact Assessment (EIA) Scoping Opinion was submitted to NCC on 21st May 2015. The Scoping Opinion adopted on 25th June 2015 (see Appendix A of the ES – Volume 3) confirmed that NCC considered the main potential effects requiring assessment to be:

- transport
- air quality;
- noise and vibration;
- landscape and visual (including lighting);
- ecology;
- historic environment;
- water environment;
- contaminated land;
- public health;
- community and social
- Public Rights of Way
- alternatives; and
- cumulative and combined effects.

2.4.4 The ES which accompanies the application has been prepared in general accord with the EIA Scoping Opinion adopted by NCC.

2.5 Community Involvement

2.5.1 NCC's revised Statement of Community Involvement (SCI) was adopted in April 2013. At sections 5.6 and 5.7 of the SCI, NCC highlights the value of pre-application discussions with applicants and pre-application consultations (by applicants) with the local community and interested parties.

2.5.2 As such the Applicant has sought to engage with the local community in order to inform them about the proposed development and scope issues of potential concern that the development should assess. Full details of the measures taken to consult and inform the local community stakeholders about the Applicant's proposals at Springs Road, Misson are included within a Statement of Community Involvement at Appendix B of this report. The programme was designed to provide information to and seek feedback from a range of

community stakeholders in the vicinity of the development Site. The following community stakeholders have been consulted pre-submission by IGas:

- local residents / community;
- educational establishments;
- Misson Parish Council;
- Nottinghamshire County Council;
- Bassetlaw District Council;
- local businesses and interest groups; and
- local MP and MPs in the area.

3 Site and Its Surroundings

3.1 Site and Location

3.1.1 The proposed exploratory wellsite is located approximately 2.9 km to the north east of Misson village (see Drawing 1), 2.8 km to the south east of Finningley and approximately 6.4 km to the north east of Bawtry, and is within Bassetlaw District in Nottinghamshire (Grid Reference - SK706978). The site lies to the east of Springs Road, an unclassified road running on a north south axis connecting Misson village to the B1369 Bank End Road to the north of the site. The Site lies within PEDL 140.

3.1.2 The Site (the area within the application boundary) area is 5.33 ha in total which includes the internal access road, fencing and gates in addition to the wellsite. The wellsite itself will occupy an area of approximately 0.83 ha within the Site.

3.1.3 The Site forms part of existing commercial premises and is mainly hardstanding – with some grassed areas. Access to the Site is gained by an existing entrance on Springs Road.

3.1.4 The Site is located within the northern part of a 25 hectare commercial premises (owned by L Jackson & Co Ltd) for a business that specialises in the sale of ex-army trucks, vehicles, plant and equipment. Infrastructure associated with this business includes hardstanding, existing accesses to Springs Road, on-site workshops and storage buildings. The reinforced concrete hardstanding within the area of the proposed wellsite will be retained for the duration of the temporary 3 year development period beneath the temporary wellsite. The buildings and hardstanding to the immediate west and to the south west of the wellsite area are those associated with the commercial premises. The buildings are at least 8m in height from ground level to ridge and each of the five buildings covers an area of approximately 2,700 m^2.

3.1.5 Vegetation and mature hedgerows add a rural definition to the northern and eastern limits of the Site.

3.2 Surrounding Uses

3.2.1 The nearest property to the Proposed Development is Misson Springs Cottage, located to the immediate south of the existing Site access and application boundary, as shown on Drawing 3. This property and its curtilage is within the applicant's control, and if planning permission is granted, will not be used as a residential dwelling for the duration of the Proposed Development.

3.2.2 Residential properties in the vicinity of the Site include:

- Prospect Farm – around 268 m to the north of the wellsite.
- Levels Farm - around 288 m to the north of the wellsite.
- April Cottage – around 555 m to the north west of the wellsite.
- Range Farm – around 570 m to the south of the wellsite.
- Newlands Farm – around 610 m to the north west of the wellsite.
- Misson Springs Farm – around 716 m to the north west of the wellsite.
- Springs Farm Bungalow – around 875 m to the south west of the wellsite.
- Red House Farm – around 890 m to the south west of the wellsite.
- Springs Farm – around 942 m to the west of the wellsite.

3.2.3 Other than Misson, the other villages in the locality include:

- Finningley (around 2.8 km to the north west of the Site boundary);
- Westwoodside (around 3.8 km to the north east of the Site boundary);
- Misterton (around 6.2 km to the south east of the Site boundary); and
- Bawtry (around 6.4 km to the south west of the Site boundary).

3.2.4 Robin Hood Airport Doncaster Sheffield is approximately 4 km to the west of the Site.

3.2.5 Public Rights of Way (PRoW) within the vicinity of the Site are shown on Drawing 3 and include:

- Bridleway 9 (Low Deeps Lane) which meets Springs Road in the vicinity of Newlands Farm around 495 m to the north west of the Site boundary (at the closest point);
- Bridleway 8 (Deeps Lane) which meets Springs Road in the vicinity of Spring Hill Farm around 885 m to the south west of the Site boundary (at the closest point);
- Bridleway 10 (Middle Wood Lane) which meets Springs Road in the vicinity of Middle Wood Farm around 1.25 km to the south west of the Site boundary (at the closest point);
- Footpath 115 which meets Idle Bank around 1.6 km to the east of the Site boundary (at the closest point); and

- Bridleway 4 which runs along the northern bank of the River Idle around 1.7 km to the south east of the Site boundary (at the closest point).

3.2.6 The majority of the surrounding land uses are agricultural (see Drawing 5 for agricultural land classifications).

3.3 Topography

3.3.1 The topography of the Site is relatively flat with little variation across the area. Generally ground levels are around 2.50 – 2.75 m Above Ordnance Datum (AOD) with some localised areas of higher ground to the north west of the former missile pad layout. Levels from west to east along the existing access road fall from around 3.75 m AOD to 3.00 m AOD.

3.3.2 A topographic survey of the Site is included at Drawing 4.

3.4 Designations

3.4.1 There are no statutory or non-statutory environmental or planning policy designations which cover the Application Site.

3.4.2 There are no statutory ecological designations that cover the Application Site. Statutorily designated ecological sites in the vicinity of the Site include:

- Hatfield Moor Special Area of Conservation (SAC) approximately 6 km to the north of the Site;
- Thorne and Hatfield Moor Special Protection Area (SPA) approximately 6 km to the north of the Site;
- Humberhead Peatlands National Nature Reserve (SSSI/NNR) approximately 6 km to the north of the Site;
- Misson Training Area SSSI (also referred to as Misson Carr SSSI Nature Reserve) approximately 125 m to the east of the Site;
- Misson Line Bank SSSI approximately 1.7 km to the south-east of the Site;
- River Idle Washlands SSSI approximately 1.9 km to the south-east of the Site; and
- Haxey Grange Fen SSSI approximately 2.9 km to the east of the Site.

3.4.3 Non-statutorily designated ecological sites in the vicinity of the Site include various drainage ditches in the locality which are designated as Local Wildlife Sites (as shown on the Bassetlaw Core Strategy and Development Management Policies DPD Proposals Map adopted in December 2011).

3.4.4 The application Site is within an area defended from the risk of flooding from the River Idle. It is shown as within Flood Zone 3 on the Environment Agency's mapping.

3.4.5 The Site is also in a Nitrate Vulnerable Zone for Surface Water and is 300 m to the east of a Groundwater Source Protection Zone 3.

3.4.6 The Site is not covered by any national or local landscape designations.

3.4.7 The Site is not the subject of any historic environment designation e.g. Scheduled Monument, Listed Building, Registered Battlefield, Registered Park/Garden or Conservation Area. The nearest listed building is Newlands Farm (Grade II) approximately 522 m to the north west of the Site boundary and a Scheduled Monument (a medieval moat and fishpond) lies approximately 2.5km to the south of the proposed development. The Cultural Heritage Assessment in Technical Appendix J of Volume 4 identifies other designated heritage assets within 5km of the development.

3.5 Planning History

3.5.1 The application site forms part of the former RAF Misson site and is the former Misson Bloodhound missile site. Today the site is occupied by L Jackson and Co Limited, who specialise in the sale of ex-military vehicles. The development involves use of the northern part of this commercial land. If planning permission is granted for the northern part of the site to be used as an exploratory wellsite, the remainder of the site would continue in its existing use and would be fenced off from the proposed temporary development as the existing site has two accesses off Springs Road. The access to the south would serve the ex-military business and the access to the north would serve the wellsite.

3.5.2 The land use around the proposed site consists of a mix of agricultural land with some residential dwellings. A planning history search of the area consisting of a review of Bassetlaw District Council's online database, reveals that the majority of planning applications within this 1km radius are for agricultural dwellings and barns. There are some dwellings and agricultural buildings in close proximity to the site and also isolated agricultural dwellings and barns within the planning search area.

3.5.3 In the planning application search area it was noted that there are various planning applications in regards to changes of use from agricultural units to residential dwellings and the erection of storage and agricultural buildings.

3.5.4 In relation to the site itself the planning history relates essentially to its change from a former military site to a commercial industrial site.

3.5.5 The adjoining business site has its main offices located approximately 450m south west of the site. This area consists of office blocks and storage facilities for ex-military equipment. A summary of recent planning permission is as follows:- planning permission was granted in 1990 for change of use from agricultural land and to construct a new access to a storage

area (Ref: 32/90/00011), in 1997 for the erection of a storage building (Ref: 38/97/00006), in 2001 planning permission was granted for the erection of three warehouses (Ref: 32/00/00022) and in 2008 to erect a two storey office block (Ref: 32/08/00012).

3.5.6 **Boreholes Application.** There is currently a planning application (1/15/01034/CDM or ref F/3321) to drill four groups of up to 3 groundwater monitoring boreholes within the application Site which has been submitted to Nottinghamshire County Council together with the location of a site security unit. The purpose of this application is to allow the Applicant, if permitted, to monitor groundwater characteristics and establish baseline data.

4 Proposed Development

4.1 Overview

4.1.1 The Proposed Development is for the construction of a hydrocarbon wellsite and the drilling of up to two exploratory hydrocarbon wells (one vertical and one horizontal). The exploratory wells are to investigate the potential for Shale Gas extraction within Petroleum Exploration and Development Licence areas (PEDL) 139 and 140.

Gainsborough Trough

4.1.2 PEDLs 139 and 140 are located over part of the Gainsborough Trough which contains a thick sequence of sedimentary rocks including the Millstone Grit Group, Bowland Shale and Carboniferous Limestone Supergroup.

4.1.3 The Bowland Shale is the main hydrocarbon source rock for the East Midlands.

4.1.4 The British Geological Survey (BGS) report, 'The Carboniferous Bowland Shale gas study: geology and resource estimation' (BGS/DECC, 2013), contains estimates of the thickness of the Bowland Shale and Carboniferous Limestone Group across northern and central England based on integration of outcrop, well and seismic data.

4.1.5 The location of the Gainsborough Trough as mapped by the BGS is shown on Drawing 4 (extracted from the BGS Bowland Shale Gas Study report). The BGS data indicate that the strata within and overlying the Gainsborough Trough are approximately 3,500 m thick in the study area.

Licence Areas

4.1.6 IGas has the right to explore for petroleum hydrocarbons within PEDLs 139 and 140. These licence areas were originally applied for as there was a perceived potential for conventional oil and gas reserves to be present - similar to that observed at the nearby Gainsborough or Beckingham oil fields.

Objectives

4.1.7 The proposed exploratory drilling at Springs Road is to explore and evaluate the resource potential of the:

- Bowland Shale (primary target);
- sandstones within the Millstone Grit Group which overlie the Bowland Shale (secondary target); and

- Carboniferous Limestone Supergroup basinal facies (tertiary target).

4.1.8 To achieve these objectives, a vertical well is to be drilled to allow full assessment of the above targets. If the second horizontal well is drilled it will enable the areal extent and composition of oil or gas bearing rocks to be identified in the target formations.

4.1.9 The site at Springs Road is well located to enable the exploration and evaluate the resource potential within the Gainsborough Trough.

Offset Wells

4.1.10 A number of wells have been drilled in the two licence blocks in the past (see Drawing 5). These include Scaftworth B2, Everton 1, Everton 2 and Misterton. These wells are termed "offset wells". Data from these wells has been used to help define the area of search within the Gainsborough Trough.

Seismic Survey

4.1.11 The results of a desk survey led the Applicant, defining an area within PEDLs 139 and 140 and within the footprint of the Gainsborough Trough to the north of Scaftworth B2 off-set well where a potential wellsite could be located. A 3D seismic survey was shot in 2014 over an area of approximately 7,000 hectares.

4.1.12 Analysis of the survey results confirmed a relatively simple geological structure in a basin centred position. The survey allowed better definition of the areas of search for a well-site within the Gainsborough Trough in which the project objectives could be met.

The Proposed Development

4.1.13 In summary, the Proposed Development is the development of a hydrocarbon wellsite and the drilling of up to two exploratory wells. The Proposed Development will be carried out in four phases:

- Phase 1: Wellsite construction and ancillary works;
- Phase 2: Drilling Operations - Rig set up (mobilisation) and drilling of up to two exploratory wells (the first one vertical and the second one horizontal) and rig removal (demobilisation);
- Phase 3: Suspension of wells and assessment of drilling results;
- Phase 4: Well abandonment, site decommissioning and restoration.

4.1.14 The proposed development is shown on Drawings 6 to 19.

4.1.15 Planning permission is sought for a temporary period of up to 3 years to allow sufficient time for the above phases.

4.2 Wellsite Construction (Phase 1)

4.2.1 Construction of the 0.83 ha wellsite will comprise the:

- installation of perimeter fencing, gates and site security – see Drawing 9 for the location and type of fencing and gates to be erected around the application Site, access and wellsite. The fencing will be up to 2.5m in height. CCTV cameras will be erected around the application site;
- excavation and installation of one large wellhead cellar to accommodate up to two wells – reinforced concrete chambers will be sunk into the ground such that the top is level with wellsite surface;
- construction of the wellsite over the existing ground surface to create a sealed and impermeable wellsite including; covering the existing site with a sand protection layer; installing a Fibertex geotextile membrane overlain by an impermeable Bentomat liner and a further Fibertex geotextile membrane; covering with MOT Type 3 aggregate or equivalent to a depth of 300 mm (depth of aggregate will vary across the site to facilitate drainage as shown on Drawings 8 and 10 - a level area in the centre of the site will be created for the rig, but outside of this area the slight downward gradient of the existing ground profile towards the edge of the site will be maintained to facilitate drainage;
- construction of the 'french drain' type surface water drainage system within the wellsite comprising a perimeter of clean stone contained within an impermeable liner within which a porous pipe will be buried as shown on Drawings 8 and 10;
- installation of a surface water attenuation tank on the eastern edge of the wellsite to which the perimeter pipe will drain, as shown on Drawings 8 and 10;
- installation of large diameter steel conductors within the wellhead cellar using a truck mounted rig. The gaps between the conductors and the floor of the cellar will be filled with concrete in order to maintain the integrity of the wellsite;
- siting of temporary security office, site office and mess facilities on the existing hardstanding;
- use of the existing hardstanding areas for the parking of staff and visitors' cars; and
- appropriate measures will be taken to prevent mud and other deleterious material being deposited on the public highway by vehicles exiting the Site.

4.2.2 This phase is expected to take approximately 14 weeks.

4.3 Drilling Operations (Phase 2)

Rig Mobilisation

4.3.1 The first step will be the set up or mobilisation of drilling rig and associated equipment, office/workshops and materials on to the site to be used throughout the drilling operation. This will include:

- main drilling unit and associated blowout preventer (BOP), choke manifold, shale shakers, de-gasser and centrifuge;
- diesel fuelled power generators, a power distribution unit, a power control room and a hydraulic power unit;
- tanks for the storage of diesel, oil based mud, water and cement;
- drilling mud pumps and tanks;
- drill casing storage area and pipe rack for the handling and storage of drill pipe;
- ancillary equipment associated with the drilling operation e.g. drilling fluid and materials, drill cuttings handling equipment, mud logging equipment, well cementing equipment, wireline logging equipment, slick line equipment, drilling motors and drill bits, casing, coiled tubing and directional drilling equipment;
- offices and staff accommodation including a drilling workshop, stores including a chemical store, a drilling mud laboratory, mud logging unit, well control room and security cabin;
- lighting for the site and rig (see Drawing 15 for lighting details);
- erection of any noise mitigation measures (see Drill Rig Assessment Parameters – 4.3.10 to 4.3.15)

4.3.2 Drawings 11 & 12 show the indicative layout and elevation of the rig and equipment on site.

4.3.3 Rig mobilisation will take approximately 2 weeks

Drilling

4.3.4 The drilling of the wells (subsurface works), following the mobilisation and arrival of the drill rig on-site, will involve:

- drilling one vertical well to a depth of approximately 3,500 m (see Table 4.1) – see Figure 1; and

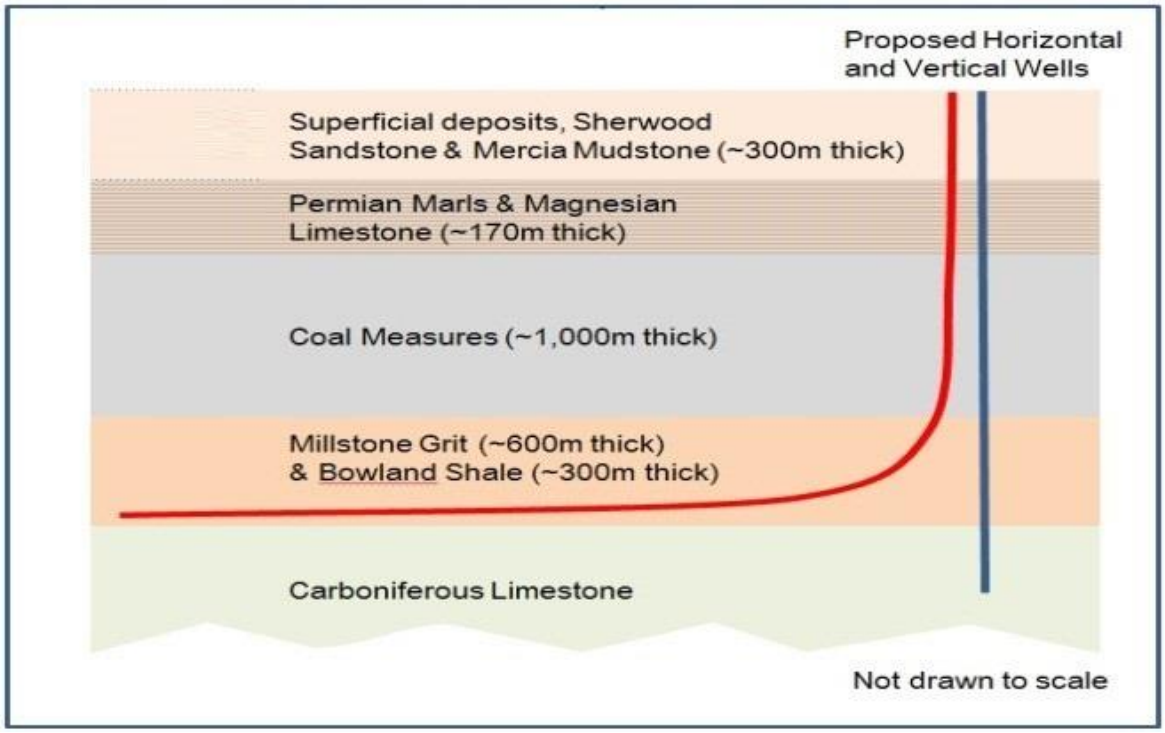
- subject to the results of the vertical well, a second well may be drilled, initially vertically before being deviated and then directed horizontally in a southerly direction within one of the potentially productive horizons – see Figure 2.

4.3.5 Between the drilling of the two wells the drill rig will be moved a short distance (i.e. between 5 and 10 m) from one well to the other. Figure 4.1 shows an indicative schematic of the proposed subsurface works with the target horizons.

Table 4.1: Anticipated Geology

Anticipated geological formations to be drilled	Notes
Mercia Mudstone Group	-
Sherwood Sandstone Group	-
Zechstein Group	-
Pennine Coal Measures Group	-
Millstone Grit Group	Secondary target
Bowland Shale	Primary target
Carboniferous Limestone Supergroup	Tertiary target

Figure: 4.1: Indicative Subsurface Works Schematic

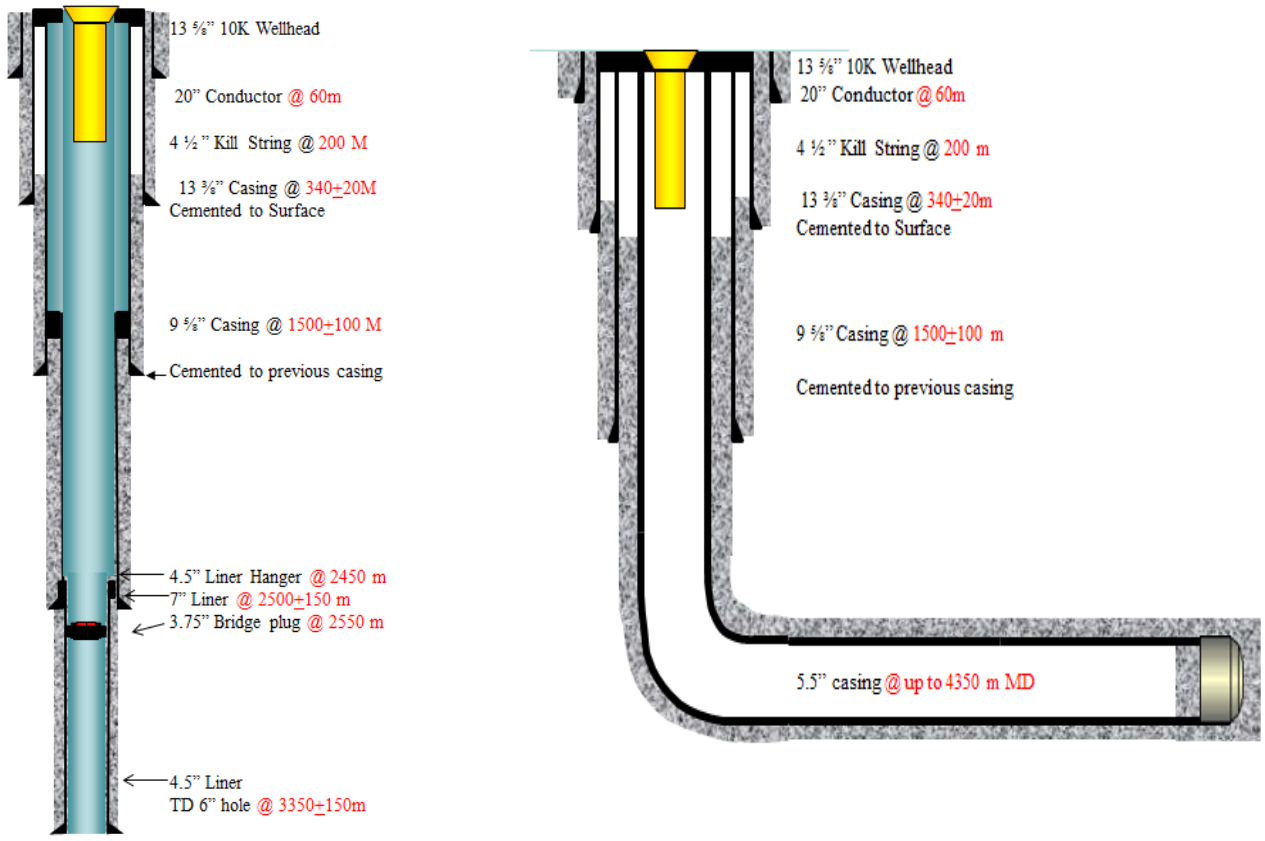


Drilling and Casing Process

4.3.6 The final well design will depend on the actual conditions encountered during drilling. Due to the need to protect the aquifer, to isolate different pressure regimes in the different well sections and to ensure sufficient strength of the well architecture, it is not possible to drill the entire well in one hole size. Instead, the well will be drilled at varying diameters which progressively decrease with depth. On completion of each well section steel casing will be run and cemented in place to line the well before the next section of well is drilled using a smaller bit. The detailed designs of the vertical and horizontal wells are likely to differ but will follow the same construction methodology. Schematics for the expected completion of the vertical and horizontal well casing are provided in Figure 4.2 below.

4.3.7 Drilling of the wells will be achieved using a drill string which comprises drill pipe, a bottom hole assembly (BHA) and drill bit. The purpose of the drill bit is to create the hole. The purpose of the BHA is to add weight to and direct the bit. A down hole motor and down hole measuring equipment may also be included in the BHA. The BHA is run on drill pipe which is rotated from the surface by a top drive motor or by rotary drive motor. The drill string is hollow to allow drilling mud to be circulated inside the pipe, through the bit and returned up the annulus. As the hole gets deeper, additional lengths of drill pipe are added to the drill string.

Figure 4.2 – Schematic for the Vertical Well Section and Horizontal Well Section



4.3.8 The drilling mud will be circulated by the mud pumps. Two types of drilling muds will be used:

- water based mud; and
- low toxicity oil-based mud (LTOBM)

4.3.9 Water based mud will be used when drilling through the Sherwood Sandstone aquifer. For deeper sections below the aquifer or where well stability can be problematic and /or maximum lubrication is required during directional drilling and to minimise well erosion and cuttings, LTOBM will be used. LTOBM is considered to be 'better' environmentally than other drilling muds (diesel oil based or conventional mineral oil based muds) in that it was developed specifically to reduce the acute toxicity of the mud without compromising technical performance. Although it is not expected that any muds will be discharged, the LTOBM and other chemicals required for the drilling process will be carefully selected and approved for use by the Applicant and will also be approved for use by the Environment Agency through the Environmental Permitting process. Secondary containment of fuel and fluid storage containers will be within the bunded wellsite and all chemicals would be stored in accordance with their COSHH guidelines.

Drill Rig Assessment Parameters

4.3.10 The drill rig to be used will be determined by rig availability at the time of drilling. There are a number of drill rigs in the UK and Europe suitable to drill the exploration wells. It is not commercially possible for the applicant to reserve an onshore rig for a future drilling operation that does not have planning permission. As such a rig can only be selected and secured by the Applicant once planning permission is granted and a more certain timeframe for drilling the wells can be established.

4.3.11 As the drill rig which would be used on-site will be dependent on availability, the Applicant has reviewed the characteristic elements of different potential drill rigs in order to ensure that the planning application and EIA assesses the characteristics and properties of the drill rig that would result in the maximum adverse impacts in relation to particular environmental and amenity effects such as noise, landscape and visual character, ecology, lighting and cultural heritage (i.e. the tallest drill rig types are assessed in the LVIA). The parameters of the drill rig considered in the technical assessments therefore varies throughout the ES to enable this maximum impact assessment approach to be followed. Table 4.2 below summarises the parameters assessed in each of the relevant technical assessments.

Table 4.2: Drill Rig Assessment Parameters

Topic Area	Assessment specific parameters	Relevant Drawings
Noise (ES Technical Appendix B)	The Noise assessment assesses likely sound power levels of different rig components and the different mitigation measures available for different noise levels generated by different rig components.	See Drawing 11: Indicative Site Layout Plan (Phase 2) Drawings 13 & 14: Indicative Noise Mitigation Plans
Landscape and visual (ES Technical Appendix D)	The LVIA assesses the effect of a maximum drill rig height of 60m on landscape and visual receptors. Rig heights of the rig types that could drill these wells vary and the final rig selected may fall within an approximate range of 32-60m high	See Drawing 12: Indicative Site Elevations & Sections (Phase 2)
	The LVIA assesses the effect of a maximum acoustic tower height of 60m and a width of 18m on landscape and visual receptors and a 7.8m acoustic barrier along the north west boundary of the site	See Drawings 13 & 14: Indicative Noise Mitigation Plans
Lighting (ES Technical Appendix E)	The lighting assessment is undertaken based on the lighting layout for a drill rig height of 60m as per the Landscape and visual assessment parameters.	See Drawing 15: Indicative Site Lighting Layout (Phase 2)
Ecology (ES Technical Appendix I)	The ecological assessment assesses the effects of noise as set out in the noise assessment (Technical Appendix B) on ecological receptors assuming night time noise levels of 42dBA are met.	See Drawing 12: Indicative Site Elevations & Sections (Phase 2) See Drawings 13 & 14: Indicative Noise Mitigation Plans
	The ecological assessment assesses the effect of the lighting layout for a drill rig height of 60m on ecological receptors as set out in the lighting assessment (Technical Appendix E).	See Drawing 15: Indicative Site Lighting Layout (Phase 2)
Cultural Heritage (ES Technical Appendix J)	The cultural heritage assessment assesses the effect of a maximum drill rig height of 60m on heritage receptors.	See Drawing 12: Indicative Site Elevations & Sections (Phase 2)
	The cultural heritage assessment assesses the maximum acoustic tower height of 60m and a width of 18m on heritage receptors.	See Drawings 13 & 14: Indicative Noise Mitigation Plans

4.3.12 All of the drill rigs considered could be accommodated within the proposed wellsite shown on Drawing 11 and would occupy a similar footprint as that shown on Drawing 11. For the purposes of the drilling phase plans the Bolden 92 drill rig is shown in the layout and elevation plans (Drawings 11 and 12). These plans are indicative.

4.3.13 Should planning permission be granted, the Applicant will accept conditions to be attached to a planning permission so that prior to the commencement of drilling operations details are submitted to and approved by NCC of the specific rig type, detailed layout and elevation plans of the rig to be used, and a noise management plan.

4.3.14 The maximum impact approach taken in the planning application and ES towards the rig characteristics will ensure that any potential significant adverse impacts of the development are considered in relation to Development Plan policy and other material considerations and as part of the EIA prior to any decision being taken. Assessment of the maximum adverse effects of the Proposed Development will also ensure that any mitigation measures identified are designed to avoid, reduce or compensate those effects.

4.3.15 The rig selected for this development will be the rig which is available to drill the wells and will meet the night time noise levels and which minimises the visual impact of noise mitigation measures. The noise mitigation measures propose that for certain rigs in order to ensure that night time noise levels are met an acoustic enclosure up to 60m high (dependent on the rig height) may be required. Whilst the landscape assessment concludes that such a structure for this temporary proposal is acceptable, if a rig is available and noise can be mitigated to the approved night time noise levels without such an acoustic enclosure – then this rig type would be selected over any other rig available. The noise mitigation of an acoustic enclosure up to a height of 60 m is regarded as a mitigation measure which the applicant will seek to avoid using/implementing and would only erect if no other quieter rigs were available at the time of commissioning. In addition, the Applicant is willing to accept conditions limiting the maximum height of the rig and associated mitigation up to 60m and a night time noise limit of 42dB $L_{Aeq,T}$.

4.4 Evaluation (Phase 3)

4.4.1 At the completion of the drilling programme (Phase 2), the wells will be suspended and made safe in accordance with the relevant regulations and industry best practice (e.g. Oil and Gas UK Guidelines for Abandonment of Wells, Issue 5, July 2015) and all the above ground equipment including the drill rig and facilities referred to above will be removed from Site (see Drawing 16), with the exception of:

- the wellhead and the Christmas Tree;
- site offices and security; and
- fencing and gates.

4.4.2 The evaluation phase (Phase 3) itself will comprise the period during which the information gathered during the drilling phase will be assessed by the Applicant, between 3 and 6 months. If the results show that there is value in further appraisal of the well(s) (which could involve well stimulation including hydraulic fracturing and flow testing), then a further application for planning permission will be submitted. If the results are negative, the Site will be abandoned, decommissioned and restored as described below.

4.5 Abandonment, Decommissioning and Restoration (Phase 4)

4.5.1 If the results of the exploration work do not warrant further development, the wells will be abandoned and decommissioned in accordance with the relevant regulations and industry best practice.

Decommissioning

4.5.2 At the abandonment and decommissioning phase, all plant will be shut down and any services such as telecommunications, power, water supplies and other buried pipelines shall be severed and made safe.

4.5.3 The wellheads and any surface valve arrangements will be removed and the well will be plugged and abandoned in accordance with DECC, HSE, Environment Agency and industry (Oil and Gas UK) requirements. This is expected to involve:

- the isolation of aquifers from hydrocarbon bearing intervals and from the surface by permanent barriers in the form of cement plugs;
- the removal of the wellheads and near surface casings to at least 1.5 m below the final ground surface profiles.

Restoration

4.5.4 All construction materials, services below the geotextile membranes and remaining on-site infrastructure (site offices, security and fencing / gates) will all be removed from the site to be reused, recycled or disposed of at a suitably permitted waste disposal facility.

4.5.5 The wellsite area will then be restored to its original condition.

4.5.6 During this phase in particular, appropriate measures will be taken to prevent mud and other deleterious material being deposited on the public highway by vehicles exiting the Site.

4.6 On-site Arrangements

Materials

4.6.1 All domestic water requirements for the four phases of development (e.g. for accommodation and offices) will be imported by tanker onto site. Wellsite construction materials will be required to be imported to Site during Phase 1.

4.6.2 The base case for the Proposed Development is that water required to make up other Site operations and drilling fluids during Phase 2 will also be imported by tanker (see Technical Appendix A) and stored on-site.

4.6.3 During phase 2 cement for the well cellars, chemicals, fuels for the generators and LTOBM for the drilling operations will also be required to be imported.

Waste Management

4.6.4 Spoil arising from the construction of the well cellar and attenuation tank will be stored on site. Drill cuttings produced during Phase 2 (expected to be around 3,700 tonnes) will be temporarily stored in containers within the sealed section of the Site (within the wellsite). Drill cuttings would be removed from Site weekly to a suitably permitted waste disposal/treatment facility. Any waste water / fluids from the drilling process will be stored as required within the wellsite area and will be removed periodically by tanker to a suitably permitted waste water treatment works (WWTW).

4.6.5 All sewage/waste will be collected in a tank and taken off site to a licensed waste disposal / treatment facility. Skips will be provided for the segregation, collection and containment of non-hazardous solid waste e.g. packaging waste.

Site Drainage

4.6.6 The proposed Site Drainage arrangements are shown on Drawing 10. The Site has been designed so that the central area is level (as shown on Drawing 7 and 10) and the perimeter levels fall away slightly to the wellsite edge and containment bund to facilitate the drainage of surface water away from the centre of the wellsite. A lined perimeter of clean stone will be laid contained within an impermeable liner within which a French drain will be buried. Surface water will drain through the clean stone, into the pipe which will drain to a below ground attenuation tank. The tank will be sized to provide sufficient capacity to accommodate site run-off in the event of a 1 in 100 year storm event. The surface drainage system will also have sufficient capacity to contain 110% of the volume of the largest tank on the wellsite. The capacity of the tank will be maintained by using a vacuum tanker to remove run-off water which is not recovered for storage and re-use in the drilling process, as necessary. Water removed in this way will be taken off-site to a suitably permitted WWTW for treatment / disposal. Once constructed the drainage system will be maintained until the wellsite is removed during Phase 4.

Lighting

4.6.7 Lighting to be provided is as shown on Drawings 7 and 15 and will include:

- operations / maintenance lighting for use when necessary during the hours of darkness and when needed to provide sufficient illumination to ensure the safety of people moving in and around the items of equipment;

- general / security lighting to be erected around the perimeter of the wellsite for use during drilling operations only; and
- a red, medium intensity obstacle light at the top of the drill rig as required by Robin Hood Airport Doncaster Sheffield (RHADS).

4.6.8 Drilling operations during Phase 2 will be undertaken 24 hours per day, seven days per week and therefore during hours of darkness lighting will be required for the rig, anti-collision lights at high level and low level lighting to illuminate the drill rig floor, ground and intermediate level working areas. All such lighting will be directed inwards and downwards and shrouded to minimise light spillage.

Fencing

4.6.9 The proposed fencing is shown on Drawing 9 and will be erected during Phase 1.

4.6.10 The existing access onto Springs Road will be utilised and will be gated and fenced to the north and the south (within the existing hedgerows with 2.5 m high welded mesh fencing. The access route through the existing commercial premises will be fenced to the north and the south with 2.0 m high palisade fencing with secondary access gates to the north and south to allow movements associated with the existing use to pass through. The 2.0 m high palisade fencing will be continued around and to the south of the former missile pads and will adjoin the existing commercial premises perimeter fencing to the south east of the former missile pads. 2.0 m high chain linked fencing (topped with three strands of barbed wire) will be used to fence along the north western edge of the application boundary and will adjoin the existing commercial premises perimeter fencing to the north west. A further level of security will be provided by a secondary / inner perimeter surrounding the wellsite using 2.5 m high hoarding. This will positioned just outside of the existing hardstanding route around the former missile pads and will also be gated as necessary for vehicle and pedestrian access.

Utilities

4.6.11 Power throughout the phases of the Proposed Development will be provided by on-site diesel driven generators. Telephone cables will be brought into the Site. All sewage/waste will be collected in a tank and taken off site to a suitably permitted WWTW.

4.7 Duration

4.7.1 Planning permission will be sought for an overall period of up to three years beginning on the date when the development is commenced. Phase 1 (Wellsite construction) will take approximately 3 months, Phase 2 (Drilling Operations) will take approximately 9 months, Phase 3 (Evaluation) will take approximately 6 months and Phase 4 (Decommissioning and Restoration will take some 6 months. It should be noted that Phase 2 may not follow on

straight after the completion of Phase 1 as the timing between these two phases may be determined by rig availability.

4.7.2 A breakdown of the expected 9 month period for drilling operations (Phase 2) is set out in Table 4.3 below.

Table 4.3: Breakdown of the Period for Drilling Operations

Activity	Approximate Duration (weeks)
Rig mobilisation	1 to 2
Drilling of vertical well	14
Rig movement	1
Drilling of horizontal well	19
Rig demobilisation	1 to 2

4.8 Operational Hours

4.8.1 Operations during the construction, drilling, evaluation and restoration phases will take place within the times shown in Table 4.4 below.

Table 4.4: Operational Hours

	Construction (Phase 1)	Drilling (Phase 2)	Evaluation (Phase 3)	Restoration (Phase 4)
Monday to Friday	07:00 to 19:00	Continuous	07:00 to 19:00	07:00 to 19:00
Saturdays	07:00 to 13:00	Continuous	07:00 to 13:00	07:00 to 13:00
Sundays	None	Continuous	None	None
Bank Holidays	None	Continuous	None	None

4.8.2 HGV traffic movements during the construction, drilling, evaluation and restoration phases will take place between 07:00 and 19:00 Mondays to Fridays and between 07:00 and 13:00 on Saturdays. There will be no traffic movements outside these times and on Sundays or

Bank Holidays. Light vans and cars are likely to be used during rig crew changeover which will fall outside these hours but with minimal impact.

4.8.3 Drilling operations need to take place continuously, 24 hours a day, seven days a week to enable the wells to be drilled and cased as quickly and efficiently as possible.

4.9 Access and Traffic Generation

4.9.1 All traffic generated by the Proposed Development will be routed to and from the A614 at Blaxton, Bank End Road (B1396) and Springs Road. The Applicant is willing to enter a S106 legal agreement to secure the routeing of HGVs.

4.9.2 The daily average number of traffic movements during the construction, drilling, evaluation and restoration phases (where one vehicle performing a return journey generates two movements) will be as shown in Table 4.5 below.

Table 4.5: Average Number of Movements per Day

	Wellsite Construction	Rig Mobilisation / Demobilisation*	Drilling	Evaluation	Restoration
HGVs	36	12 – 16	10	0	36
Light Vehicles	20	10	40	10	20

* over a two week period

4.9.3 The number of traffic movements generated during rig mobilisation i.e. delivery of the drilling rig and related facilities and set up, will be dependent on the rig which is chosen. On a maximum adverse basis however, it will generate between 120 and 160 HGV movements over a period of up to 2 weeks. This equates to between 12 and 16 HGV movements per day on average. During the same period around 280 associated light vehicle movements will be generated, mainly transporting personnel. This equates to an average of 10 light vehicle movements per day. Around 10 rig components will need to be transported on low loaders and two mobile cranes will be required to lift the rig and site accommodation into position. The delivery of the drill rig may require an oversized / abnormal load vehicle, experience at other oil and gas sites has been to secure the delivery outside of normal working hours. Any oversized / abnormal load deliveries will be a one off during the development of the site and therefore the impact is considered to be minimal.

4.9.4 Movement of the drilling rig across the well cellar to the position required to drill the subsequent horizontal exploratory well is likely to generate around 10 HGV movements per day and an average of 10 car/light van movements per day over a period of some 4 days.

4.9.5 Drilling of the horizontal exploratory well would generate the same type and number of vehicle movements per day as the drilling of the vertical exploratory well, but over a longer period – around 19 weeks instead of 14.

4.9.6 Demobilisation of the drilling rig and related facilities is likely to generate the same type and number of vehicle movements per day as the rig mobilisation and over an equivalent period.

4.9.7 Evaluation of the results of drilling is an offsite operation and there will be little activity at the wellsite itself. There may be visitors or staff going to the Site for monitoring or security purposes etc. and so hours or operation and a small number of vehicle movements have been included.

4.10 Staff

4.10.1 The approximate of people employed at the Site per day during the construction, drilling, evaluation and restoration phases will be as shown in Table 4.6 below. During drilling operations manpower will comprise two teams of 10 working 12 hour shifts. These teams will be transported to and from the Site as deemed appropriate at the time.

4.10.2 Other personnel engaged at the Site would include security personnel and consultants carrying out monitoring work, suppliers, services providers and management support staff.

Table 4.6: Staff Numbers

	Construction (Phase 1)	Drilling (Phase 2)	Evaluation (Phase 3)	Restoration (Phase 4)
Staff	15 - 20	20	5	10
Other Personnel	2 – 5	3 - 8	2	2

4.11 Environmental Design and Management

4.11.1 Environmental design and management measures are also referred to as embedded mitigation and are measures that are built into the design of a development or scheme to avoid, reduce or compensate any adverse effects on the environment that may otherwise have a greater likelihood of occurring. Embedded mitigation measures are taken into account in the assessment of the Proposed Development prior to further or additional mitigation measures being recommended if required as a result of the assessment undertaken. A full breakdown of embedded mitigation measures is included within the ES (Volume 3) at Section 4.11.

5 Development Plan

5.1 Introduction

5.1.1 The application for planning permission which this supporting statement forms part of is to be determined by NCC (in its capacity as Minerals Planning Authority). In accordance with Section 38(6) of the Planning and Compulsory Purchase Act 2004, *"determination must be made in accordance with the plan unless material considerations indicate otherwise."*

5.1.2 The degree to which the proposed development conforms to relevant Development Plan policies is considered here. A similar analysis of the 'material considerations' which are also relevant is provided in section 6 below.

5.2 Development Plan

5.2.1 The Development Plan in this case includes:

- Nottinghamshire Minerals Local Plan (saved policies) 2005; and
- Bassetlaw Core Strategy & Development Management Policies DPD 2011.

Nottinghamshire Minerals Local Plan 2005

5.2.2 The Nottinghamshire Minerals Local Plan (MLP) was adopted in December 2005.

5.2.3 Transitional arrangements, under the Planning and Compulsory Purchase Act 2004, allowed the MLP policies to be saved until 4th December 2008. As the policies were not to be replaced by that date, NCC applied for a direction from the Secretary of State (under paragraph 1(3) of Schedule 8 of the Planning and Compulsory Purchase Act 2004), to save certain policies in the MLP for a further period.

5.2.4 The Secretary of State's direction was issued on 4th December 2008 and confirmed that all the MLP policies were to be saved with exception of Policy M3.2 (Planning Obligations), Policy M3.21 (Protected Species), Policy M6.5 (Hoveringham (Bleasby) Allocation), Policy M6.9 (Lound Allocation), Policy M6.10 (Misson (Finningley) Allocation), Policy M7.4 (Scrooby Top Allocation) and Policy M11.1 (Kirton Allocation).

5.2.5 The 'saved policies' will remain part of the Development Plan until replaced by policies in the new Nottinghamshire Minerals and Minerals Site Allocations Local Plans - when adopted.

5.2.6 It is considered that the following saved MLP policies are the most relevant in this case:

- M2.1 (Sustainable Development Objectives)

- M3.1 (Information in support of Planning Applications)
- M3.3 (Visual Intrusion)
- M3.4 (Screening)
- M3.5 (Noise)
- M3.7 (Dust)
- M3.8 (Water Environment)
- M3.9 (Flooding)
- M3.12 (Highway Safety and Protection)
- M3.13 (Vehicular Movements)
- M3.14 (Vehicular Routeing)
- M3.17 (Biodiversity)
- M3.19 (Sites of Special Scientific Interest)
- M3.20 (Regional and Local Designated Sites)
- M3.21 (Protected Species)
- M3.22 (Landscape Character)
- M3.24 (Archaeology)
- M3.25 (Listed Buildings, Conservation Areas, Registered Battlefields and Historic Parks and Gardens)
- M3.27 (Cumulative Impact)
- M5.1 (Mineral Exploration)
- M5.2 (Deep Boreholes in Sensitive Areas)
- M5.3 (Retention of Haul Roads and Hardstanding)
- M13.1 (Oil Exploration)
- M13.6 (Boreholes – Conflict with other Underground Mineral Resources)
- M13.7 (Reclamation of Oil and Methane Sites)

5.2.7 A full summary of the main Development Plan polices is included below, this acts as an appraisal of the main Development Plan Policy Tests and how the EIA assessment work has demonstrated that the potential for significant impact is within acceptable levels or is capable of being mitigated to meet acceptable levels. An audit of all Development Plan policy can be found within Appendix A to this statement.

Policy M2.1 - Sustainable Development Objectives

5.2.8 The sustainable development objectives are listed in section 2.5 of the plan. They comprise the conservation of minerals, minimising the environmental impact of mineral operations, sensitive working and restoration practices, protection of designated assets, and mineral safeguarding. The principles of sustainable development and how the proposals comply with these objectives are explored in greater detail below (Material Considerations – the NPPF). Exploration of potential mineral reserve ensures that mineral is not needlessly sterilised. Full EIA assessment has been carried out and the findings are demonstrated in more detail within the Environmental Statement. The EIA demonstrates that the environmental impact of mineral operations is within acceptable thresholds and will not give rise to significant adverse impact upon nearby sensitive receptors. By reason of the above, the development accords with the objectives of Policy M2.1

M3.1 - Information in support of Planning Applications

5.2.9 Policy M3.1 contains a schedule of information requirements to assist the Mineral Planning Authority with making a balanced assessment of factors in determining Planning Applications. All relevant information from the list in this policy is included in the application and the accompanying ES. It follows that the proposals accord with Policy M3.1.

M3.3 - (Visual Intrusion)

5.2.10 Policy M3.3 seeks to ensure that the development limits the potential for adverse visual impact. Detail on the potential visual impact from the proposals is assessed in detail within the Environmental Statement. The Landscape and Visual Impact Assessment has considered the visual appearance of the development within the wider landscape and the proximity of sensitive receptors. The proposed drill rig in of up to 60 metres in height, and therefore there will be visual impact. Where the vertical nature of the structure protrudes above the horizon line, this has been assessed as forming a minor component in a wide open view, the assessment has considered the rig with a full enclosure if required for noise mitigation purposes. The LVIA has demonstrated that in only 3 of the 18 viewpoints, there would be a moderate impact upon visual amenity. This is mitigated by the temporary duration of operations and that the proposals are entirely reversible. Post drilling phase, the visual impact is reduced to neutral.

M3.4 - (Screening)

5.2.11 Policy M3.4 states that measures should be taken to reduce the visual impact of minerals developments, and where appropriate, should maximise the potential to enhance the landscape and wildlife potential through appropriate planting. Policy M3.4 recommends measures should be taken to retain features of interest and screen the site through use of walls, fences, earth mounding and/or tree and shrub planting. The development site is well screened from Springs Road and from surrounding uses by the large industrial buildings associated with the existing site use and surrounding vegetation. The temporary nature of the development means that additional planting is not an appropriate mitigation as it would not have time to mature and act as a screen and therefore screening of equipment and the lower parts of the rig will be achieved by fencing. Additional fencing proposed includes the use of palisade and wire mesh fences on the outermost security layer, and 2.5m high hoarding around the immediate perimeter of the wellsite. The addition of fencing to screen the site, coupled with the screening and filtering effect of existing vegetation and built form, will mitigate the visual impacts of the proposed development at ground level from immediate neighbouring uses and from distant views.

5.2.12 The drill rig will be a tall vertical structure up to 60m high. The combination of the low lying topography with a lack of elevated vantage points, intervening vegetation and the sparsely populated nature of the Study Area restricts views towards the Proposed Development. Where the vertical nature of Phase 2 protrudes above the horizon line, this will generally form only a minor component of a wide open view. Based on the results of the visual assessment, Photoviewpoints 1, 2 and 16 would potentially exhibit a visual effect at the temporary operational stage. However, the period of operation of the drill rig which forms the element generating the effect is of short duration, entirely reversible, and it is assessed that taking the very low magnitude of effect into consideration it is not significant on visual amenity overall. All remaining visual effects are predicted to be non-significant or neutral at all stages.

M3.5 - (Noise)

5.2.13 Policy M3.5 states noise emissions outside the boundary of the mineral workings must not exceed acceptable levels. Conditions will be imposed where appropriate in relation to hours of operation, type of machinery / vehicles used, sound-proofing of Plant, setting of maximum noise levels, stand-off distances and requiring the use of acoustic screening.

5.2.14 Noise from construction traffic will lead to a very small temporary increase in traffic noise which is likely to be barely noticeable and is therefore not considered a significant impact

5.2.15 Noise from construction of the site compound will be below the criteria for a significant impact contained in BS 5228, even if it is assumed as a very worst case that all plant will operate at the same time for 100% of the time, which is extremely unlikely. In reality, noise levels will be significantly less than predicted in this assessment for the majority of the construction period.

5.2.16 The design of the drilling rig will incorporate significant mitigation measures to minimise noise levels to the lowest reasonably practicable level.

5.2.17 Noise from drilling will be well below the noise standards contained in the PPG for minerals extraction sites (which includes oil and gas extraction in its definition of minerals extraction sites) once mitigation measures have been applied.

5.2.18 The predicted residual noise level is below the WHO guideline limits for onset of sleep disturbance effects.

5.2.19 Drilling will result in, at most, a temporary 1 dB increase in ambient noise in the daytime and 4 dB in the evening, (i.e. in the periods when amenity is the primary concern). This temporary and short term increase in ambient noise is not considered significant.

5.2.20 By reason of the above, the proposed development complies with the objectives of Policy M3.5.

M3.7 - (Dust and Air Quality)

5.2.21 Policy M3.7 sets out criteria that proposals must meet before being granted planning permission. In terms of air quality, the site does not fall within an Air Quality Management Area. The proposed development has limited potential to impact upon overall air quality. Activities that have the potential to impact upon air quality include: excavation works for the installation of the wellhead cellar and surface water attenuation tank, emissions of particulate matter arising from wellsite activities, emissions from operations at the site such as the primary generator, and road traffic emissions generated as a result of the proposed development. The Air Quality assessment has reviewed all sensitive receptors to air quality disturbance including residential property and sites of ecological interest which fall within proximity of the site. Emissions from offsite vehicle movements has been assessed as not significant upon any receptor locations. In terms of on site operations, given the duration of potential impact (less than a year) the predicted changes to air quality at nearby residential property is assessed as very small/imperceptible in magnitude. In regards to the nearby Misson Carr SSSI, there is the potential for some impact on the nearest part of the SSSI to the site operations. The predicted 24 hour NOx concentration is slightly above the national air quality objective value. On alluvial soils in the western part of the SSSI, ground flora is characterised by an abundance of nettle cleavers, great willowherb and bramble all of which are highly tolerant of the existing nitrogen deposition and the mosses present are all common and tolerant species. The area does not have the less tolerant lichen species that are sparsely scattered in the central core of humid, wet woodland. The westward extension of the SSSI also has an indented boundary, which increases the edge to area ratio and the zone of agricultural influence. Hence the part of the SSSI closest to the Proposed Development that would receive the greatest contribution of nitrogen from its emissions is also an area where the flora is most tolerant of nutrient nitrogen deposition. The effects would be minimal in the area with the most sensitive vegetation.

5.2.22 However, the assessment is based upon a worst case scenario and given the short duration of operations, the potential for ongoing/long term impact is diminished.

5.2.23 In order to suppress dust generation, conditions will be imposed where appropriate in relation to site layout and stockpiling, containment of machinery, use of dust mitigation equipment, design of operations, use of binders, limiting on-site vehicle speed, soil handling strategies, and provision of monitoring facilities. Activities proposed at Springs Road have the potential to generate dust emissions, and control measures are proposed to mitigate the potential impacts of dust emissions on nearby sensitive receptors. These measures are contained within the Dust Management Plan (contained within the Air Quality Assessment at Technical Appendix D to the Environmental Statement). To summarise, in order to reduce the impact of dust emissions at the site to an acceptable level, HGVs entering and leaving the site are to be sheeted, excavated materials will be covered and removed from the site as soon as is practicable, and any hardstanding areas will be regularly cleaned using wet sweeping methods. A Dust Management Plan will be utilised and regular inspections undertaken. The measures proposed will be sufficient to minimise impact of dust emissions beyond the site boundary.

5.2.24 By reason of the above, the proposal accords with the objectives of Policy M3.7

M3.8 - (Water Environment)

5.2.25 Policy M3.8 outlines that, unless adequately mitigated through engineering measures and/or operational management systems, planning permission for minerals development will not be granted where: surface water flows are altered, critical groundwater levels are affected, and there are risks of polluting ground or surface waters.

5.2.26 A full hydrological and hydrogeological assessment has been undertaken as part of the EIA (see Technical Appendices F and G to the Environmental Statement).

5.2.27 The assessment of effects has identified that when taking into account the environmental design and management of the Proposed Development, there are no significant effects on groundwater and groundwater dependent receptors, with no groundwater abstraction proposed. No additional mitigation measures are included and therefore an assessment of residual effects is not required. It has also been assessed that there are no other schemes in the study area that will result in significant cumulative effects.

5.2.28 The standard embedded mitigation measures proposed would reduce the risk of many impacts occurring during the construction, operational, decommissioning and restoration phases. These include implementation of Environment Agency Pollution Prevention Guidance, construction staff awareness and training, implementation of environmental protection plans and the appropriate discharge/disposal of Site runoff.

5.2.29 The assessment has identified that incidents such as significant pollution events have a low probability of occurrence due to the procedures and measures that would be put in place. The 'maximum adverse impact' events have been identified.

5.2.30 Adverse residual effects on the key hydrological receptors have been assessed as minor adverse to negligible and therefore not significant.

5.2.31 Accordingly the proposal is in accordance with the objectives of Policy M3.8.

M3.9 - (Flooding)

5.2.32 Policy M3.9 explains planning permission will not be granted where there is an unacceptable impact on flood flows and flood storage capacity, or on the integrity/function of flood defences and local land drainage systems, unless conditions can be imposed to protect flood defences from the adverse effects of development.

5.2.33 The application site is within Flood Zone 3a as mapped by the Environment Agency i.e. an area at high risk of flooding. The Flood Risk Assessment included in the ES which accompanies this application assessed that risk and considers the flood defences and other management systems which exist in relation to the River Idle corridor. The assessment also considers the proposed development in terms of the Exception Test.

5.2.34 The account of the alternative sites included in the ES explains the factors which limit the choice of potential site locations and shows that the “areas of search” lie entirely within Flood Zones 2 and 3a.

5.2.35 On the basis of the relevant information contained in the ES (as referred to above) NCC is invited to conclude that there are no reasonably available alternative sites appropriate for the proposed development in areas with a lower probability of flooding (which are consistent with wider sustainability objectives) when it applies the Sequential Test.

5.2.36 As described in the FRA, the proposed development is categorised as ‘Less Vulnerable’ development, being exploratory works for a minerals working and processing operation. The PPG indicates that Less Vulnerable development is appropriate within Flood Zone 3a without the need for an Exception Test. However, the site will operate a closed system where surface water will be managed on site with sufficient capacity to manage storm waters and therefore will not affect the flood capacity of the area of cause flooding to other land. The proposed development will not lead to increased risk of flooding elsewhere.

M3.12 - (Highway Safety and Protection)

5.2.37 Policy M3.12 sets out measures the planning authority require in order to prevent damage to the highway and highway contamination through mud and other deleterious material, namely: wheel cleaning facilities, sheeting of lorries, and metalling haul roads near the point of access to the public highway.

5.2.38 The proposals for mitigating mud and deleterious material from entering the public highway is contained within the Dust Management Plan (see Technical Appendix C to the Environmental Statement). Measures include the monitoring and cleaning of vehicles in addition to effective site management practices including reducing vehicle management speeds and ensuring that excavation/construction activities are not undertaken in adverse weather conditions.

5.2.39 An assessment of highway capacity has been undertaken including consideration of the junction capacity on the preferred haulage route. The junction is considered acceptable to accommodate the levels of traffic over the timescales proposed. It is not considered that the proposed development would impact upon highway safety and therefore the proposal accords with this policy.

M3.13 - (Vehicular Movements)

5.2.40 Policy M3.13 states planning permission for minerals development will only be granted where the highway network can satisfactorily accommodate the vehicle movements likely to be generated and would not cause unacceptable impact upon the environment and disturbance to local amenity.

5.2.41 The EIA and specifically Technical Appendix B to the Environmental Statement (Transport) has assessed the highway network and capacity for the amount of vehicular traffic to be generated by the proposal. Given the low background levels of traffic using the route at present, it is concluded that the highway has sufficient capacity for the proposal. The proposed environmental effect of traffic has been assessed in terms of the potential for impact from vehicle movements and vehicle emissions on nearby sensitive receptors. In regards to air quality, the additional traffic generated would not raise the concentration of pollutants above the national air quality standard averages at any receptor location.

5.2.42 The resulting changes in road traffic noise levels indicates that for receptors along the B1396 and A614 route corridors the resulting noise impacts are likely to be imperceptible, and the result impact is considered to be very low. For receptors along the Springs Road corridor noise level changes may just be perceptible, however the resulting impact is considered to be low. The resulting *temporary* changes in road traffic noise levels are therefore considered to have a low impact and more so because of the limited duration.

M3.14 - (Vehicular Routeing)

5.2.43 Policy M3.14 explains that in granting planning permission for minerals development the County Council will as appropriate: impose conditions requiring the posting of site notices and/or issuing instructions to lorry drivers detailing routes to be avoided, seek to negotiate planning obligations in order to secure highway improvements and negotiate agreements to specify agreed vehicular routes.

5.2.44 Technical Appendix A to the Environmental Statement provides the Transport Assessment. This outlines the most appropriate route that HGVs will take, ensuring that there will be no HGVs travelling through the village of Misson. The Applicant is willing to secure the routeing of HGVs by legal obligation. By reason of the above, the proposal accords with the requirements of Policy M3.14 for vehicle routeing.

M3.17 - (Biodiversity)

5.2.45 Policy M3.17 seeks to protect the integrity and continuity of habitats or features identified as priorities in the UK and/or Nottinghamshire Local Biodiversity Action Plan. The Policy states planning permission will not be granted for minerals development that adversely affects the integrity or continuity of the above habitats, unless an overriding need for development is demonstrated which outweighs the nature conservation importance of the feature. The Policy proposes biodiversity offsetting if loss of habitat or feature cannot be avoided.

5.2.46 The ecological impact of the proposal has been assessed as part of the Environmental Impact Assessment (Technical Appendix I). There are no direct impacts upon features of biodiversity/ecological interest as the proposal utilises a previously developed piece of land which does not contain BAP habitat/nature conservation designations nor connecting habitat. By reason of the above, the proposed development accords with the objectives of Policy M3.17.

M3.19 - (Sites of Special Scientific Interest)

5.2.47 Policy M3.19 states that planning permission will not be granted for minerals development which would have an adverse effect, directly or indirectly, on the special interest of an SSSI or a candidate SSSI unless the benefits of the development outweigh the nature conservation considerations. An assessment of adverse impact will take into account the scope for mitigation and/or compensatory measures.

5.2.48 The proposed development does not directly impact upon SSSIs as none are located within the Application Site. Notwithstanding this, an assessment for indirect impact has been undertaken given proximity to the Misson Carr SSSI. As part of the EIA, the air quality assessment has identified there is the potential for some limited adverse air quality impact on the nearest part of the SSSI due to the site operations. The predicted 24 hour NOx concentration / Acid Deposition is slightly above the national air quality objective value. However, the species sensitive to high NOx level / acid deposition are located further away from the proposed wellhead and subsequently the impact is considered to be minimal. By reason of the above, the longer term potential for adverse impact upon the SSSI is assessed as being low and the proposals accord with the objectives of Policy M3.19.

M3.20 - (Regional and Local Designated Sites)

5.2.49 Policy M3.20 states that planning permission for minerals development will only be granted in areas which are regional or local designated sites if the importance of the development

outweighs the regional or local value of the site, after measures to mitigate/compensate any adverse impact are taken into account.

5.2.50 The ecological impact of the proposal has been assessed as part of the Environmental Impact Assessment (Technical Appendix I). There are no direct impacts upon nature conservation designation as a result of the construction phase as there are no designations affected by the proposals (as non-exist on the application area) nor direct habitat connectivity.

M3.21 - (Protected Species)

5.2.51 Policy M3.21 states planning permission for mineral development will not be granted until a full survey of affected species has been carried out, and minerals development likely to cause harm to protected species will only be permitted if there is an overriding need for the development, or the protection and conservation of species can be secured by condition or planning obligations.

5.2.52 Technical Appendix I to the Environmental Statement contains a full ecological impact assessment. Based upon the findings of the Extended Phase 1 Habitat Survey, a detailed species survey was undertaken to assess the potential for impact upon breeding birds, badgers, great crested newts and reptiles.

5.2.53 The field survey identified the presence of breeding birds within the vicinity. With the exception of Barn Owls, the bird fauna is assessed of being no greater than local ecology and nature conservation value. The Barn Owl is likely to be part of a breeding pair within the vicinity. However, the presence of Barn Owls represents less than 1% of the Country population and therefore is designated district ecology and nature conservation value. There were no records of badger identified. Two species of reptile were recorded and nearby ponds were assessed for potential habitat for Great Crested Newt. These ponds were assessed as unfavourable habitat for Great Crested Newts.

5.2.54 Although there are no direct impacts upon habitat identified, there is the potential for indirect impact as a result of disturbance from construction. Primarily this relates to noise, physical site disturbance, vibration and light intrusion on breeding birds and reptiles. The proposed development includes mature boundary plantations and screening that will assist in reducing construction noise and disturbance. Prior to the commencement of development, an ecologist would undertake a site walkover to confirm there have been no change in baseline conditions. Security fencing would be installed in winter if possible when the potential for disturbance to reptiles is at a minimum.

5.2.55 The magnitude of effect on breeding birds is assessed as negligible and not significant. The assessment concludes that it is unlikely that reptiles would be deterred from using retained habitats. In addition the surface water drainage scheme has been designed so that there would be no risk of reptiles becoming trapped in the drainage system. The magnitude of

effects on reptiles is assessed as negligible and not significant. By reason of the above, the proposal accords with the objectives of Policy M3.21.

M3.22 - (Landscape Character)

5.2.56 Policy M3.22 explains that operators must demonstrate that landscape character and local distinctiveness are fully taken into consideration within development proposals. The Policy states minerals development will not be permitted if it is likely to adversely impact upon the character and distinctiveness of the landscape unless there are reasons of overriding public interest or where mitigation measures can reduce the impact to an acceptable level. Policy M3.22 predates and is non-compliant with the NPPF which states at paragraph 109 that the planning system should contribute to and enhance the natural and local environment, seeking to protect and enhance valued landscapes.

5.2.57 The potential for impact upon landscape character forms part of the Landscape and Visual Impact Assessment contained within Appendix E of the Environmental Statement. The site was assessed as being of low landscape value due to the existing land use and lack of conservation interest. The overall study area is assessed as being of overall medium landscape value. Direct impacts on the site are predicted to be non-significant at all stages given the site's existing use and its industrialised context. The development is assessed as having indirect landscape effects by reason of the visibility of an industrial feature within the existing rural context. However, due to the short term nature of the operations and the reversible nature of the proposed development no significant adverse landscape effects are predicted. By reason of the above, the proposal accords with the objectives of Policy M3.22.

M3.24 - (Archaeology)

5.2.58 Policy M3.24 states that planning permission will not be granted for minerals development which would destroy or degrade nationally important archaeological remains and their settings, whether scheduled or not. Planning permission will only be granted for development which would affect archaeological remains of less than national importance where it can be demonstrated that the importance of the development outweighs the regional or local significance of the remains, and where appropriate provision is made for the excavation and recording of the remains.

5.2.59 Technical Appendix J to the Environmental Statement contains an assessment of archaeological potential. The assessment identifies that there is negligible archaeological potential within the proposed development site. This is due to the marshy and poorly draining conditions of the land until the 17th century. These conditions make it unsuitable for habitation and construction. The choice of this area was then favourable for agriculture and as a bombing range. As the hardstanding are to remain in situ, it is concluded that the potential for impact upon archaeological remains is low and therefore no archaeological recording is proposed. By reason of the above, the proposal accords with the objectives of Policy M3.24.

M3.25 - (Listed Buildings, Conservation Areas, Registered Battlefields and Historic Parks and Gardens)

5.2.60 Policy M3.25 states planning permission will not be granted for minerals development which would cause an unacceptable level of harm to the character, appearance, condition or setting of conservation areas, listed buildings, historic battlefields, and historic parks and gardens.

5.2.61 Technical Appendix J to the Environmental Statement contains an assessment of Cultural Heritage. The assessment reviewed a search area of 5 km from the site to ascertain the presence of features of cultural heritage importance and to assess the potential for impact.

5.2.62 The former RAF Misson site (including the Application Area), is considered to be of medium significance as a non-designated asset of historic interest. One scheduled monument and 25 listed buildings were identified within the search area.

5.2.63 There will be no direct impact upon identified features of historic interest as none fall within the application site. At the construction phase, potential for accidental damage to the missile hardstanding is identified. However, the potential for damage is minimised by the position of the drill rig to avoid any of the extant cable runs which connect the missile pads. The impact upon the overall asset is identified as minimal. There will be no impact upon the setting of the scheduled monument which is over 3km away from the site. This is the asset of a medieval moat and fishpond located immediately south-east of Misson village (NHLE: 1008629), approximately 2.5 km to the south of the proposed development. Whilst the development will fall within the setting of the Scheduled Monument, the setting does not contribute greatly to the significance or understanding of the asset.

5.2.64 During the operational phase, potential for impact upon the nearby Scheduled Monument was assessed. The views towards the asset contribute to its significance. The surrounding landscape has been altered as a result of land drains and as a bombing range and the assessment considers the setting does not contribute greatly to the significance or understanding of the asset.

5.2.65 Due to the proximity of Newlands Farm (Grade II Listed), the rig will introduce a new feature within the skyline, visible from the house. The proposed lighting will also increase the visibility of the site. The level of impact is assessed as minimal resulting in a minor adverse effect. Consideration was also given to impact upon Misson Springs Cottage. The drill rig will be seen in context of other structures and therefore the significance of impact is minimal as much of the historic context is removed.

5.2.66 In regards to other identified assets, it has been considered that the RAF base introduced an industrial element in their historic setting. Whilst the drill rig will be visible from a number of these assets, the impact on the significance of these assets is assessed as limited.

5.2.67 By reason of the above, the proposed development is considered to have minimal impact upon cultural heritage and therefore accords with the objectives of Policy M3.25

M3.27 - (Cumulative Impact)

5.2.68 Policy M3.27 explains planning permission will not be granted for minerals development which would result significant adverse cumulative impact on the environment and/or the amenity of local communities.

5.2.69 The Environmental Statement considered the potential cumulative impact as a result of the proposed development. The Cumulative Impact Assessment considers the totality of environmental impacts and whether they come close to the thresholds of environmental acceptability. In addition to the potential for combined impacts from the proposal and other identified developments within proximity. The proposed development accords with the principles of Policy M3.27.

M5.1 - (Mineral Exploration)

5.2.70 Policy M5.1 sets out that proposals for mineral exploration will be permitted, subject to satisfactory environmental, amenity and reclamation safeguards being put in place.

5.2.71 The policies identified above are primarily related to the environmental and amenity impact of the development. As has been stated, the potential for adverse impact upon the environment or residential amenity are within acceptable levels with the inclusion, where necessary of mitigation/safeguarding measures. Adverse effects on residential amenity have been considered within the noise, landscape, lighting, traffic and air quality assessments. The ES also includes Section 1 of Chapter 16 that assesses Public Health impacts. To ensure that residential amenity is protected these assessments identify mitigation measures which will be included into the design of the scheme. The proposed development is for a temporary structure which upon removal from the site will be reclaimed to its current use. As a result of the above, the proposed development accords with the principles of Policy M5.1.

M5.2 - (Deep Boreholes in Sensitive Areas)

5.2.72 Policy M5.2 states planning permission for exploratory deep boreholes located in environmentally sensitive areas will only be granted where there is satisfactory evidence that exploration could not be achieved from more acceptable sites.

5.2.73 The Environmental Statement assesses alternative locations for mineral exploration. The Applicant is constrained by where they can explore for hydrocarbon reserves by the licences that have been granted. Following this, a four stage process is undertaken involving desk based assessment, a 3D seismic survey, identification of ‘areas of search’ for drilling of exploratory wells to verify the seismic survey data and an environmental constraints/opportunity assessment within and nearby potential sites. Prior to the submission of this application a Scoping Opinion was requested on a site in proximity to the Application

Area as proposed. The Alternatives assessment considers how the application site was selected and the constraints to working the alternatives.

5.2.74 The proposed development is located within an appropriate site with development being undertaken without significant adverse impacts upon the environment or amenity. The proposals are in accordance with Policy M5.2.

Policy M5.3 – Retention of Haul Roads and Hardstanding

5.2.75 Policy M5.3 states that proposals to retain sections of haul road and hard standing following exploratory drilling will not be permitted except where they provide clear agricultural or other benefits. The proposals will ensure the removal of all materials brought onto site to facilitate the exploratory borehole. The development will ensure the protection and retention of the existing hardstanding on the site due to its cultural heritage interest as a Bloodhound missile site.

M13.6 - (Boreholes – Conflict with other Underground Mineral Resources)

5.2.76 Policy M13.6 states that where proposals for borehole exploration and production coincide with areas containing other underground mineral resources the County Council will need to be satisfied that their exploitation will not be unreasonably affected.

5.2.77 The proposed development is the exploration for mineral resource. It does not affect or sterilise other underground mineral resources. The proposed development therefore accords with the objectives of policy M13.6.

M13.7 – (Reclamation of Oil and Methane Sites)

5.2.78 Policy M13.7 states that conditions will be imposed requiring the site to be restored back to its original use as soon as practical once the development is no longer required. The proposed development has been phased to ensure that the site is restored back to its original condition at the earliest opportunity.

Bassetlaw Core Strategy & Development Management Policies DPD, 2011

5.2.79 The Bassetlaw Core Strategy & Development Management Policies DPD (Core Strategy) was adopted in December 2011 and replaced all of the saved policies in the Local Plan adopted in 2001. The adopted Core Strategy Proposals Map shows the site to be within an area at risk of flooding and with Local Wildlife Sites (LWS) to the north and east (the eastern one of which is also shown as a SSSI).

5.2.80 It follows that the following Core Strategy policies are the most relevant in this case:

- DM9 (Green Infrastructure, Biodiversity and Geodiversity, Landscape and Open Space and Sports Facilities);
- DM12 (Flood Risk, Sewerage and Drainage)

5.2.81 An assessment of the degree to which the proposed development complies with these policies is presented below, serving to demonstrate that the proposed development fully complies with the relevant Core Strategy policies in all respects.

DM9 - (Green Infrastructure, Biodiversity and Geodiversity, Landscape and Open Space and Sports Facilities)

5.2.82 Policy DM9 states that development proposals are expected to support the Council's strategic approach to the protection and enhancement of green infrastructure, delivered through initiatives such as the Idle Valley Project. Development proposals are expected to demonstrate that they: protect and enhance green infrastructure assets affected by the proposal and take opportunities to improve linkages between green corridors, and provide robust delivery mechanisms and means of ensuring the long-term management of green infrastructure. Development proposals are expected to restore or enhance habitats and species' populations, demonstrating that they will not adversely affect or result in the loss of sensitive ecological features such as protected vegetation and species. Compensation measures can be provided as a last resort, where mitigation measures cannot be delivered.

5.2.83 The Policy states new development proposals must be designed to be sensitive to their landscape setting. They will be expected to enhance the distinctive qualities of the relevant landscape character policy zone, as identified in the Bassetlaw Character Assessment. Proposals should conserve, restore, reinforce and create landscape forms and features accordingly.

5.2.84 As has been identified above, the proposal does not have a direct impact upon sites of conservation value or habitat importance. The proposals have the potential for operations to adversely affect species of ecological importance by reason of noise, dust, lighting etc. However, all of the potential adverse impacts are mitigated to within acceptable levels.

5.2.85 The proposed drill rig is located on an existing industrialised site. However the height of the proposed rig structure will form an incongruous element in the landscape. The EIA includes a detailed Landscape and Visual Impact Assessment which identifies that although there will be some impact, the proposal is for a temporary period and is reversible. Therefore any adverse impact on landscape character is limited.

5.2.86 By reason of the above, the proposed development accords with the objectives of Policy DM9.

DM12 - (Flood Risk, Sewerage and Drainage)

5.2.87 Policy DM12 states that development in Flood Zones 2, 3a and 3b that are not defined by national planning guidance as being suitable for these zones will not be supported while development sites remain available in sequentially superior locations across the District. Site specific Flood Risk Assessments are required for all developments in flood risk areas, as defined on the Proposals Map. Regarding sewerage and drainage, the Policy explains

that all new development other than minor extensions are required to incorporate Sustainable Drainage Systems (SuDS) and provide details of adoption, ongoing maintenance and management. Proposals will be required to provide reasoned justification for not using SuDS techniques, where ground conditions and other key factors show them to be technically feasible.

5.2.88 The Environmental Statement has been accompanied by a Flood Risk Assessment (Technical Appendix H). The application site does fall within Flood Zone 2 and 3. However, mineral exploration is identified as a compatible form of development for these zones. As discussed above, additional surface water drainage and mitigation proposals are incorporated as part of the overall drainage strategy. By reason of the above the development accords with the objectives of Policy DM12.

6 Material Considerations

6.1 Introduction

6.1.1 The 'material considerations' referred to in Section 38(6) of the Planning and Compulsory Purchase Act 2004 include national planning policies and guidance, emerging local plans and evidential material taken into account as part of the local plan making process.

6.1.2 The national planning policies and guidance which are considered to be particularly relevant in this case are:

- National Planning Policy Framework 2012;
- Planning Practice Guidance 2014;
- Annual Energy Statement;
- Shale gas and oil policy statement by DECC and DCLG, 13 August 2015

6.1.3 The relevant emerging Local Plans are:

- Nottinghamshire Minerals Local Plan;
- Bassetlaw Local Plan; and
- Misson Neighbourhood Plan.

6.1.4 The Infrastructure Act 2015 is not considered as a material consideration as its provisions either relate to property matters, community payments and notification or instances where hydraulic fracturing is proposed – which is not the case here.

6.2 National Planning Policy Framework

6.2.1 The National Planning Policy Framework (NPPF) for England was published on 27th March 2012. Paragraph 14 states that a presumption in favour of sustainable development, should be seen as a "*golden thread running through both plan-making and decision-taking*" and goes on to explain that when determining applications for planning permission, planning authorities should:

- approve development proposals that accord with the development plan without delay; and
- grant permission where the development plan is absent, silent or relevant policies are out-of-date unless i) any adverse impacts of doing so would significantly and

demonstrably outweigh the benefits, when assessed against the policies in the NPPF taken as a whole, or ii) specific policies in the NPPF indicate development should be restricted unless material considerations indicate otherwise.

6.2.2 The purpose of the planning system remains one of contributing to sustainable development and to that end, any development that complies with the policies that form NPPF, is considered to be 'sustainable development.' Sustainable development contains three dimensions (defined by paragraph 7):

- Economic role
- Social role
- Environmental role

6.2.3 The policies set out in paragraphs 18 to 219 of the NPPF constitute the Government's view of what sustainable development means in practice for the planning system (see NPPF paragraph 6) and these policies are grouped under 13 headings.

6.2.4 The NPPF policies under the following six headings are particularly relevant in this case:

- competitive economy;
- sustainable transport;
- flooding;
- natural environment;
- historic environment; and
- minerals.

Competitive Economy

6.2.5 Paragraph 17 establishes a set of core land use planning principles. These encourage Planning to, 'proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the Country needs'.

6.2.6 Paragraph 18 identifies that, 'the government is committed to securing economic growth in order to create jobs and prosperity, building on the Country's inherent strengths, and to meeting the twin challenges of global completion and of a low carbon future'.

6.2.7 In terms of building a strong, competitive economy, paragraph 19 confirms that "*The Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth. Planning should operate to encourage and not act as*

an impediment to sustainable growth. Therefore significant weight should be placed on the need to support economic growth through the planning system."

6.2.8 Minerals can only be extracted where they are found. The presence and extent of shale gas reserve is an inherent strength to the Country. Although alternative energy sources are being explored, it is an increasing challenge to meet the UK's energy demands, particularly the demands of industry. For the foreseeable future, there is a strong role for fossil fuels to play in being able to secure a supply for this demand.

Sustainable Transport

6.2.9 In terms of promoting sustainable transport, paragraph 32 states that *"All developments that generate significant amounts of movement should be supported by a…….Transport Assessment. Plans and decisions should take account of whether: i) the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure, ii) safe and suitable access to the site can be achieved for all people; and iii) improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."*

6.2.10 As the effects of the proposed traffic generation have been considered in the Transport Assessment included in Technical Appendix A of the ES which accompanies this application and i) more sustainable transport modes such as rail and waterways are not feasible in this case, ii) safe and suitable access can be provided, iii) the proposed traffic routeing arrangements will be effective in mitigating the effects of the traffic generated, the proposals clearly accord with the aims of the NPPF policy on sustainable transport as stated at paragraph 32.

Flood Risk

6.2.11 Paragraph 100 states that "Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere".

6.2.12 Paragraphs 101 and 102 add that "Development should not be ….. permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding" and that "A sequential approach should be used in areas known to be at risk from any form of flooding" and that "If, following application of the Sequential Test, it is not possible, consistent with wider sustainability objectives, for the development to be located in zones with a lower probability of flooding, the Exception Test can be applied if appropriate."

6.2.13 The application site is in Flood Zone 3. A sequential test assessment is included in the Technical Appendices at Appendix G2. The assessment sets out the reasons why it is

considered that NCC should conclude that the proposals satisfy the Sequential Test and the above requirements in the NPPF.

Natural Environment

6.2.14 Paragraph 118 states that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles: i) if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; ii) proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest; iii) development proposals where the primary objective is to conserve or enhance biodiversity should be permitted; iv) opportunities to incorporate biodiversity in and around developments should be encouraged; v) planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and vi) various named wildlife sites should be given the same protection as European sites.

6.2.15 Paragraph 120 seeks to ensure that new development prevents risk of pollution. This includes potential effects on health, the natural environment and general amenity.

6.2.16 Paragraph 123 advises that planning decisions should aim to avoid noise impact giving rise to adverse impact on health and quality of life.

6.2.17 Paragraph 124 seeks to ensure that proposed development does not detrimentally impact upon local air quality.

6.2.18 Paragraph 125 encourages good design to limit the impact of light pollution on local amenity, intrinsically dark landscapes and nature conservation.

6.2.19 The EIA assessment work has reviewed the potential for adverse impact upon the health of the natural environment and on the amenity of individuals and the local community. With the imposition of suitable mitigation, the proposed development is likely to be effective in protecting and minimising impacts upon the natural environment and amenity, health and quality of life.

Conserving and Enhancing the Historic Environment

6.2.20 The NPPF seeks to protect and enhance the historic environment and indicates how planning applications should be dealt with in this regard. Paragraph 128 advises that:-, 'In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance'.

6.2.21 The EIA has assessed the potential for impact upon the historic environment. There is limited impact due to the temporary nature of the operations. Accordingly the proposals are in accordance with the Development Plan and National Policy.

Minerals

6.2.22 Paragraph 142, at the very start of section 13, advises that minerals are essential to support economic growth and quality of life and that it is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs.

6.2.23 At paragraph 143 the NPPF local planning authorities are directed to "identify and include policies for extraction of mineral resource of local and national importance in their area…" At Annex 2 such minerals are defined as "Minerals which are necessary to meet society's needs, including gas ……. ."

6.2.24 At paragraph 144 the NPPF states that, when determining planning applications, local planning authorities should inter alia, i) give great weight to the benefits of the mineral extraction, including to the economy, ii) ensure that there would be no unacceptable adverse impacts, iii) ensure that noise and dust emissions are controlled, iv) provide for restoration and after-care to high standards.

6.2.25 As the proposed development is a form of mineral extraction within the meaning ascribed in the NPPF and the submitted scheme satisfied the other tests in paragraph 144, it can be seen the proposals should be viewed as providing benefits to the economy and that such benefits should be given great weight by NCC when it determines this application.

6.3 Planning Practice Guidance

6.3.1 The Planning Practice Guidance (PPG), originally published by the Department of Communities and Local Government (DCLG) in March 2014, at Minerals paragraph 91 (reference ID: 27-091-20140306) states that "*as an emerging form of energy supply, there is a pressing need to establish – through exploratory drilling – whether or not there are sufficient recoverable quantities of unconventional hydrocarbons such as shale gas ……present to facilitate economically viable full scale production*."

6.3.2 At Minerals paragraph 110 (reference ID:27-110-20140306) the PPG describes the roles played by the key regulators as follows:

- Department of Energy and Climate Change (now Oil and Gas Authority) – issues Petroleum Licences, gives consent to drill under the Licence once other permissions and approvals are in place, and have responsibility for assessing risk of and monitoring seismic activity, as well as granting consent to flaring or venting;
- Mineral Planning Authorities – grant planning permission for the location of any wells and wellsites, and impose conditions to ensure that the impact on the use of the land is acceptable;
- Environment Agency – protect water resources (including groundwater aquifers), ensure appropriate treatment and disposal of mining waste, emissions to air, and suitable treatment and manage any naturally occurring radioactive materials; and
- Health and Safety Executive - regulates the safety aspects of all phases of extraction, in particular responsibility for ensuring the appropriate design and construction of a well casing for any borehole.

6.3.3 At Minerals paragraph 120 (reference ID: 27-120-20140306) the PPG addresses the question of whether mineral planning authorities should take account of the environmental effects of the production phase of hydrocarbon extraction at the exploration phase. It answers that question by stating that "*individual applications for the exploratory phase should be considered on their own merits. They should not take account of hypothetical future activities for which consent has not yet been sought, since the further appraisal and production phases will be the subject of separate planning applications and assessments*" and goes on to say that "*when determining applications for subsequent phases, the fact that exploratory drilling has taken place on a particular site is likely to be material in determining the suitability of continuing to use that site only insofar as it establishes the presence of hydrocarbon resources*".

6.3.4 Finally at Minerals paragraph 124 (reference ID: 27-124-20140306) the PPG considers if mineral planning authorities need to assess demand for, or consider alternatives to oil and gas resources when determining planning applications and answers this question by stating that "*mineral planning authorities should take account of Government energy policy, which makes it clear that energy supplies should come from a variety of sources. This includes onshore oil and gas, as set out in the Government's Annual Energy Statement published in October 2013*".

Annual Energy Statement

6.3.5 The reference to the Government's Annual Energy Statement at Minerals paragraph 124 in the PPG needs to be updated - as the latest statement was presented to Parliament in October 2014.

6.3.6 At paragraph 207 the Government reports “continued progress has been made by Government to encourage the safe and sustainable exploration for shale gas, bringing the UK closer to the economic production of this valuable resource”.

6.3.7 At paragraph 211 the Government notes that “existing EU Environmental Directives ensure Member States are well placed to manage the environmental risks associated with shale gas and oil extraction”.

6.3.8 At paragraph 213 it is confirmed that DECC “will also continue to work with other government departments and local and regional organisations to maximise the economic opportunity and benefit to the UK and prepare the workforce appropriately. A government-supported Ernst & Young supply chain report published in April (Getting ready for UK shale gas, Ernst & Young, Apr 2014), indicated there could be significant benefits for jobs and growth from a successful UK shale industry: over 64,000 jobs at peak could be supported across the wider economy, with more than 6,000 jobs on shale gas pads themselves. Many of these would be highly skilled, high quality jobs, with above average pay”.

Shale gas and oil policy statement by DECC and DCLG, 13 August 2015

6.3.9 On 13 August 2015 the Secretaries of State for Energy and Climate Change and for Communities and Local Government published a combined policy paper to set out the Government’s view that there is a national need to ‘explore and develop our shale gas and oil in a safe, sustainable and timely way.’

6.3.10 Section 2 of the statement states, ‘Exploring and developing our shale gas and oil resources could potentially bring substantial benefits and help meet our objectives for secure energy supplies, economic growth and lower carbon emissions.’ The statement continues by making reference to the figures within the 2014 Ernst & Young supply chain report. Section 2 concludes by stating, ‘the Government therefore considers that there is a clear need to seize the opportunity now to explore and test our shale potential.’

6.4 Emerging Local Plans

Nottinghamshire Minerals Local Plan

6.4.1 The latest Minerals and Waste Development Scheme (MWDS) published by NCC on 13th September 2012 is out of date. The timetable for the preparation and adoption of the new Minerals Local Plan (MLP) published on the County Council’s website states that examination will take place in March 2015 and that the target date for adoption is June 2015. This is also out of date.

6.4.2 Consultation on the Preferred Approach stage of the new MLP ended on 18th December 2013. Two additional consultations on sand and gravel provision have since taken place – the latest in October 2014.

6.4.3 NCC has advised that the next stage will be the publication of a Submission Draft in autumn 2015. This would appear to mean that adoption is now not likely to take place until mid / late 2016 at the earliest.

6.4.4 It can be expected that interested parties will wish to consider how proposed development relates to policy MP12 (Hydrocarbon Minerals) and the relevant environmental policies in chapter 5 e.g. policies DM1 (Protecting Local Amenity), DM2 (Water Resources and Flood Risk), DM4 (Protection and Enhancement of Biodiversity and Geodiversity), DM5 (Landscape Character), DM6 (Historic Environment), DM8 (Cumulative Impact), DM9 (Highway Safety and Vehicle Movements / Routeing), DM11 (Restoration, After-use and After-care), DM12 (Airport Safeguarding), DM13 (Mineral Safeguarding and Consultation Areas), DM18 (Mineral Exploration) in the new MLP be included here.

6.4.5 In regards to the policies within Chapter 5, it is considered that the environmental and amenity impact of the proposals has been assessed under the provisions of the adopted Minerals Local Plan (see above) and therefore how the development accords with these policies is not replicated. However, for completeness we have reviewed the Mineral Planning Authorities Preferred Strategy/Approach in regards to Policy MP12 – Hydrocarbon Minerals.

6.4.6 Policy MP12 is split into the four phases of exploration, appraisal, extraction and restoration. As reiterated within the development description section above, the proposal is solely for the exploration of mineral reserve. Should a viable reserve be located then a further planning application will be submitted for the appraisal stages. Therefore, consideration has been given to the exploration and restoration sections of the policy.

6.4.7 Policy MP12 supports proposals for hydrocarbon extraction provided that they do not give rise to unacceptable impacts on the environment or residential amenity. Where development lie within environmentally sensitive areas, evidence needs to be provided to demonstrate that exploration could not be achieved in a more acceptable location.

6.4.8 The policy emphasis is therefore in support for mineral exploration. As we have identified above the EIA has demonstrated that the proposals do not give rise to unacceptable impacts upon the environment and residential amenity and the proposal is not sited within an environmentally sensitive area. It is therefore concluded that the proposal accords with the principal of this policy.

6.4.9 In regards to restoration, Policy MP12 seeks to ensure that hydrocarbon development applications are accompanied with detail on how the site would be restored back to original use. This is provided as part of the proposal and the site can be returned to its existing use.

Bassetlaw Local Plan

6.4.10 On 3rd December 2014 Bassetlaw District Council decided to withdraw its Site Allocations Local Plan (SALP) following consultation on the Preferred Options earlier that year. The Council has now begun work on a new Local Plan.

6.4.11 It follows that preparation of the new Local Plan is still at an early stage. For this reason no assessment has been made of the degree to which the proposed development complies with this emerging Local Plan in Appendix A to this supporting statement.

Misson Neighbourhood Plan

6.4.12 In accordance with the Town and Country Planning Act 1990 (as amended) and the Neighbourhood Planning (General) Regulations 2012, Misson Parish Council made an application (on 14th November 2014) to Bassetlaw District Council to be recognised as a Neighbourhood Area for the purpose of producing a Neighbourhood Plan.

6.4.13 The period for making representations on the Parish Council's application closed on 9th January 2015. The proposed Neighbourhood Plan Area includes IGas' application site.

6.4.14 Preparation of the Neighbourhood Plan has yet to begin. For this reason it has not been possible to make an assessment of the degree to which the proposed development will comply with this emerging plan and no reference is therefore made to it in Appendix A to this supporting statement.

7 Planning Balance

7.1 Introduction

7.1.1 IGas is seeking planning permission for the drilling of two exploratory boreholes (one vertical and one horizontal) to assess the potential for shale gas extraction at Springs Road, Misson. The proposed development will be undertaken over a temporary period of 3 years.

7.1.2 In the determination of a planning application it NCC can be expected to first balance the competing issues before reaching an overall conclusion. In arriving at this 'planning balance' it is usual to consider:

- the weight to be given to the relevant development plan policies and material considerations; and
- the likely environmental effects.

7.1.3 Accordingly both of these matters are given further consideration here.

7.2 Weight

7.2.1 When determining the application in accordance with the development plan and/or material considerations in accordance with Section 38(6) of the Planning and Compulsory Purchase Act 2004, NCC is required to attach appropriate weight to each having regard to a number of factors.

Development Plan

7.2.2 Assessment of the relevant Development Plan policies has been provided within Section 5. In regards to all policy tests, with the implementation of appropriate mitigation where necessary, the proposed development meets the relevant Development Plan policy tests in terms of acceptable land uses and safeguarding the environment and amenity of sensitive receptors.

7.2.3 Notwithstanding the above, the saved policies of the MLP and the Bassetlaw Core Strategy both pre-date the NPPF.

7.2.4 Paragraph 215 of the NPPF confirms that, as from 27th March 2013, due weight should be given to relevant policies in existing plans according to their degree of consistency with the NPPF on the basis that the closer the policies in the plan to the policies in the NPPF, the greater the weight that may be given.

7.2.5 It is therefore likely that, in accordance with paragraph 215, NCC will consider it appropriate to attach weight to the policies of the NPPF in preference to some of the saved policies of the MLP.

Material Considerations

7.2.6 The NPPF supersedes the adoption of the Nottinghamshire Minerals and Local Plan in addition to the adopted Bassetlaw Core Strategy. In accordance with the NPPF, there is a presumption in favour of sustainable development. The NPPF states that the purpose of the planning system is to contribute to sustainable development and identifies three dimensions to sustainable development: economic, social and environmental.

7.2.7 The proposed development is for the exploration into the feasibility of energy mineral extraction which has the longer term potential to secure and contribute to the UK's energy needs. In addition, there is the potential to support economic growth through direct employment and infrastructure development/improvements. The accompanying EIA has formally assessed the potential for environmental impact as a result of the proposal and in all circumstances the impact is within acceptable levels or can be made acceptable through the use of appropriate mitigation.

7.2.8 Where development is considered to be sustainable in accordance with the relevant policy tests, for decision taking this means approving development without delay.

7.3 Economic

7.3.1 This Planning Application is for the installation of an exploratory wellsite to assess the shale gas resource prospect. The longer term potential economic and UK energy benefits are a material consideration for this Planning Application. There are clear benefits in securing indigenous sources of energy supply and clear benefits through job creation. This Planning Application for an exploratory wellsite will provide up to 20 jobs over a three year period. The economic benefits associated with this planning application are small scale. The economic and social benefits that could arise with the production of shale gas could be significant. However, it is not appropriate to go into any detail of what might be achieved at this time. Should the results from the exploration prove positive then further planning applications with EIA will be prepared and submitted to the County Council. As we get closer to fully understanding the resource potential then the socio-economic benefits will be able to be properly assessed.

7.3.2 Nevertheless, without this initial stage of exploratory development the Applicant cannot proceed to further stages. This Planning Application provides the platform for enabling further development that could realise significant economic benefits. It is our contention that the longer term potential benefits are given material weight in the planning balance in the determination of this Planning Application. There is the clear intention set out in the recent Government policy paper 'Shale gas and oil policy statement by DECC and DCLG', that

states ‘there is a clear need to seize the opportunity now to explore and test our shale potential.’

7.4 Environmental

7.4.1 The Planning Application for this proposed development is for a temporary period of time over a small area of land with measures put in place to ensure the restoration back to original condition.

7.4.2 An EIA has been undertaken for the proposed development and the findings are reported in the ES that accompanies this Planning Application. The findings of the ES are clear that the proposed development will not have any impact upon the environment or local amenity that cannot be mitigated to acceptable levels and the policies within the Development Plan and emerging Development Plan documents are met.

7.5 Conclusions

7.5.1 The proposed development fully complies in all material respects with the NPPF – meaning that the proposal is sustainable development - to which the presumption in favour of sustainable development established at paragraph 14 applies. They also demonstrate how the proposals benefit from the Government’s overarching support for the exploratory work needed to establish the potential for shale gas extraction – as set out in the PPG, the Annual Energy Statement and the DECC/DCLG policy statement.

7.5.2 The assessment provided within this supporting statement serves to demonstrate that the proposed development fully complies in all respects with the relevant saved policies of the MLP and relevant policies in the Bassetlaw Core Strategy. As such, the NPPF (at paragraph 14) states that planning authorities determining applications for planning permission in such circumstances should approve proposals “without delay.”

7.5.3 The assessment provided at Appendix A serves to demonstrate that the proposed development fully complies in all respects with the relevant policies of the emerging new MLP, should NCC decide that this is a material consideration to be given some weight when it determines this application.

7.5.4 The planning balance is therefore one which clearly supports the grant of permission.

Appendix A. Development Plan

Appendix A - Development Plan

Nottingham Minerals Local Plan

M2.1	Planning permission for minerals development will only be granted where it has been demonstrated that the Plan's sustainable development objectives have, where appropriate, been fully addressed.
Analysis	*The sustainable development objectives are listed in section 2.5 of the plan. They comprise the conservation of minerals, minimising the environmental impact of mineral operations, sensitive working and restoration practices, protection of designated assets, and mineral safeguarding. For the reasons explained below, the proposed development complies with the aims of Policy M2.1 in all respects.*
M3.1	Planning permission for minerals development will not be granted unless sufficient information is provided to enable a balanced assessment of all relevant factors. Such information should include as appropriate details of: (a) present use of the site; (b) geology; (c) estimated mineral content, output and life of workings; (d) quality of material; (e) need for the mineral; (f) measures taken to maximise the potential for re-use and recycling of materials on site; (g) method of extraction with depth, direction and phasing of working; (h) surface drainage and hydrogeology; (i) layout and design of buildings and operational areas (including haul roads); (j) soil survey and soil conservation measures; (k) transport arrangements (including access, traffic generation and routeing); (l) hours of operation; (m) employment; (n) measures to minimise pollution and environmental disturbance; (o) impact on existing and adjacent land uses; (p) an assessment of the landscape and ecological value of the area and the potential impact of the development; (q) an assessment of archaeological remains and historic features and measures for their preservation and recording; (r) impact on public rights of way; (s) an overall scheme of restoration; (t) landscaping measures and boundary treatment of the site; (u) integrated working and reclamation scheme; (v) aftercare; (w) after-use; (x) long term management provisions.
Analysis	*All relevant information from the list in this policy is included in the application and the accompanying ES. It follows that the proposals accord with Policy M3.1*

M3.3	Planning permission for minerals development will only be granted where any adverse visual impact can be kept to an acceptable level. Where appropriate, conditions will be imposed to ensure that plant, structures, buildings and storage areas are: (a) located in such a position as to minimise impact on adjacent land; (b) kept as low as practicable to minimise visual intrusion; (c) of appropriate colour, cladding or suitably treated to reduce their visual impact; (d) satisfactorily maintained to preserve their external appearance; (e) removed upon cessation of extraction and the site restored to an acceptable level. In addition, measures should be taken by sympathetic design and/or screening to avoid unacceptable light intrusion caused by extraneous light from the development.
Analysis	*The LVIA included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.3.*
M3.4	Where planning permission for minerals development is granted, conditions will be imposed to ensure that screening and landscape proposals reduce visual impact. Such conditions should, where appropriate, include: (a) measures to retain, enhance, protect and manage existing features of interest and value for screening and their contribution to the reclamation of the site; (b) measures to screen the site by the use of walls, fences, earth mounding and/ or tree & shrub planting; (c) details of the method of working, and phasing to cause least visual intrusion; (d) details of the location, form, number, species, size, method of planting, site preparation and any necessary measures for replacing plant material which fails following initial planting. Where appropriate, screening proposals should maximise the potential to enhance the landscape and wildlife potential through appropriate planting.
Analysis	*The LVIA included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.4.*
M3.5	Planning permission for minerals development will only be granted where noise emissions outside the boundary of the mineral workings do not exceed acceptable levels. Where appropriate conditions will be imposed to: (a) restrict hours of operation; (b) require the use of conveyors instead of dumptrucks; (c) sound-proof fixed and mobile plant; (d) set maximum noise levels at sensitive locations; (e) impose stand-off distances between operations and noise sensitive locations; (f) require the use of acoustic screening such as baffle mounds or fencing.
Analysis	*The noise assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.5.*

M3.7	Planning permission for minerals development will only be granted where dust generation will not lead to an unacceptable impact. Where appropriate conditions will be imposed to suppress dust generation. Such conditions may relate to the: (a) layout of the site, design of stockpiles; (b) containment of conveyors and processing plant and dust collection equipment; (c) use of bowsers, sprays, and vapour masts on haul roads, stockpiles, transfer points; (d) design of material – handling systems, drop heights, wind guards, loading points; (e) use of binders on haul roads and stockpiles; (f) limiting on-site vehicle speed; (g) soil handling strategies; (h) limiting levels of dust measured in a specific way; provision of monitoring facilities.
Analysis	*The air quality assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.7.*
M3.8	Planning permission for minerals development will only be granted where: (a) surface water flows are not detrimentally altered; (b) groundwater levels, where critical, are not affected; (c) there are no risks of polluting ground or surface waters. Unless engineering measures and/ or operational management systems can adequately mitigate such risks.
Analysis	*The hydrology and hydrogeological assessments included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.8.*
M3.9	Planning permission for minerals development will not be granted where there is an unacceptable impact on flood flows and flood storage capacity, or on the integrity or function of flood defences and local land drainage systems, unless conditions can be imposed to protect flood defences from both the temporary and permanent adverse effects of the development.
Analysis	*The flood risk assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.9.*
M3.12	Planning permission for minerals development will only be granted where measures are in place to the County Council's satisfaction that prevents damage to the highway and also prevents mud and other deleterious material contaminating public highways. Such measures may include: (a) wheel cleaning facilities; (b) sheeting of lorries; (c) metalling haul roads near their point of access to the public highway.
Analysis	*The transport assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.12 insofar as damage to the highway is concerned. The proposed arrangements for the construction and abandonment / restoration stages also recognise the need to take appropriate steps to avoid mud and debris being carried over on the public highway.*

M3.13	Planning permission for minerals development will only be granted where the highway network can satisfactorily accommodate the vehicle movements likely to be generated and would not cause unacceptable impact upon the environment and disturbance to local amenity.
Analysis	*The transport assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.13*
M3.17	Planning permission will not be granted for minerals development which will adversely affect the integrity or continuity of habitats or features identified as priorities in the UK and/ or Nottinghamshire Local Biodiversity Action Plan, unless an overriding need for development is demonstrated which outweighs the nature conservation importance of the feature. If the loss of the habitat or feature cannot be avoided, provision will be made, where practicable, for the creation of an equivalent habitat or feature, either on the development site or under the terms of a voluntary agreement on a suitable alternative location within the county.
Analysis	*The ecology assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.17*
M3.19	Planning permission will not be granted for minerals development which would have an adverse effect, directly or indirectly, on the special interest of an SSSI or a candidate SSSI unless the reasons for the development outweigh the nature conservation considerations. The assessment of any adverse impact will take account of the scope for mitigation and/or compensatory measures to replace the loss.
Analysis	*The ecology assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.19*
M3.20	Planning permission for minerals development in areas which are regional or local designated sites will only be granted where it can be demonstrated that the importance of the development outweighs the regional or local value of the site, taking into account measures to mitigate/compensate against any adverse impact.
Analysis	*The ecology assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.20*
M3.21	Planning permission for minerals development likely to cause harm to protected species or their habitats will only be permitted if the protection and conservation of species can be secured by condition or planning obligations, or if there is an overriding need for the development. Planning permission for mineral development will not be granted until a full survey of the affected species has been carried out.
Analysis	*The ecology assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.21*

M3.22	Operators must demonstrate that landscape character and local distinctiveness are fully taken into consideration within development proposals. Planning permission will not be granted for minerals development which is likely to adversely impact upon the character and distinctiveness of the landscape unless there are reasons of overriding public interest or where ameliorative measures can reduce the impact to an acceptable level.
Analysis	*Policy M3.22 is non-compliant with NPPF. However, the LVIA included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.22.*
M3.24	Planning permission will not be granted for minerals development which would destroy or degrade nationally important archaeological remains and their settings, whether scheduled or not. Planning permission will only be granted for development which would affect archaeological remains of less than national importance where it can be demonstrated that the importance of the development outweighs the regional or local significance of the remains and where appropriate provision is made for the excavation and recording of the remains.
Analysis	*The cultural heritage assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.24.*
M3.25	Planning permission will not be granted for minerals development which would cause an unacceptable level of harm to the character, appearance, condition or setting of conservation areas, listed buildings, historic battlefields and historic parks and gardens.
Analysis	*The cultural heritage assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.25.*
M3.27	Planning permission will not be granted for minerals development which would result cumulatively in a significant adverse impact on the environment and/ or the amenity of local communities.
Analysis	*The cumulative impact assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy M3.27.*
M5.1	Proposals for mineral exploration will be permitted, subject to satisfactory environmental, amenity and reclamation safeguards.
Analysis	*The proposal includes satisfactory environmental, amenity and reclamation safeguards and therefore accords with Policy M5.1.*
M5.2	Planning permission for exploratory deep boreholes located in environmentally sensitive areas will only be granted where there is satisfactory evidence that exploration could not be achieved from more acceptable sites.
Analysis	*The wellsite is not located within an environmentally sensitive area - which are defined in section 5.18 as including "features such as SSSIs or archaeological sites which could be damaged by mineral exploration, and residential and other buildings where drilling would create an unacceptable level of disturbance". Accordingly there is not conflict with Policy M5.2*
M5.3	Proposals to retain sections of haul road and hard standing following exploratory drilling will not be permitted except where they provide clear agricultural or other benefits.
Analysis	*The proposals will ensure the removal of all materials brought onto site to facilitate the exploratory borehole. The development will ensure the protection and retention of the existing hardstanding on the site due to its cultural heritage interest as a Bloodhound missile site.*

M13.1	Where oil exploration boreholes are proposed in environmentally sensitive locations, the County Council will need to be satisfied that, within the 'area of search', the siting of the proposed development would have the least impact.
Analysis	*Although the proposal relates to gas exploration rather than oil exploration it is reasonable to consider it in the light of Policy M13.1.* *The wellsite is not located within an environmentally sensitive area - which are defined in section 5.18 as including "features such as SSSIs or archaeological sites which could be damaged by mineral exploration, and residential and other buildings where drilling would create an unacceptable level of disturbance". Accordingly there is no requirement to demonstrate that the proposed site would have the least impact relative to others in the "areas of search".*
M13.6	Where proposals for borehole exploration and production coincide with areas containing other underground mineral resources the County Council will need to be satisfied that their exploitation will not be unreasonably affected.
Analysis	*The wellsite is underlain by coal seams at depth. The past history of hydrocarbon exploration and production drilling in the East Midlands coalfield indicates that the development proposed in this application will not be held to unreasonably affect the potential exploitation of coal resources. This is likely to be confirmed by the Coal Authority when consulted by NCC.*
M13.7	Where planning permission for oil and methane development is granted, conditions will be imposed requiring the site to be restored back to its original use as soon as practical once the development is no longer required.
Analysis	The proposed development has been phased to ensure that the site is restored back to its original condition at the earliest opportunity.

Bassetlaw Core Strategy and Development Management Policies DPD

DM9	Development proposals will be expected to support the Council's strategic approach to the delivery, protection and enhancement of multi-functional Green Infrastructure…….Particular support will be given to proposals that will further the development of: • The Idle Valley Project; • The Trent Vale Partnership; • Sherwood Forest Regional Park. Development proposals will be expected to demonstrate, in line with the Council's Green Infrastructure work, that: i. they protect and enhance green infrastructure assets affected by the development and take opportunities to improve linkages between green corridors; ii. where they overlap with or will affect existing green infrastructure nodes or corridors, such assets are protected and enhanced to improve public access and use; iii. where opportunities exist, development proposals provide improvements to the green infrastructure network that benefit biodiversity through the incorporation of retained habitats and by the creation of new areas of habitat; and iv. they provide robust delivery mechanisms for, and means of ensuring the long-term management of, green infrastructure……...Where new development may have an adverse impact on green infrastructure, alternative scheme designs that minimise impact must be presented to the Council for consideration before the use of mitigation measures (e.g. off-site or through financial contributions for improvements elsewhere) is considered. Development proposals will be expected to take opportunities to restore or enhance habitats and species' populations and to demonstrate that they will not adversely affect or result in the loss of features of recognised importance, including: i. Protected trees and hedgerows; ii. Ancient woodlands; iii. Sites of Special Scientific Interest (SSSI); iv. Regionally Important Geodiversity Sites; v. Local Wildlife Sites (Sites of Importance for Nature Conservation (SINC)); vi. Local and UK Biodiversity Action Plan Habitats (including Open Mosaic Habitats on Previously Developed Land); and vii. Protected Species……. New development proposals in and adjoining the countryside will be expected to be designed so as to be sensitive to their landscape setting. They will be expected to enhance the distinctive qualities of the landscape character policy zone in which they would be situated……Proposals will be expected to respond to the local recommendations made in the Assessment by conserving, restoring, reinforcing or creating landscape forms and features accordingly……...

Analysis	*In terms of Green Infrastructure, the Misson Training Area Site of Special Scientific Interest (SSSI) to the east is noted on the woodland and trees inventory and as "minor node" in the network in the Bassetlaw Green Infrastructure Study.* *The assessments included in the ES which accompanies this application together serve to demonstrate that the proposed development will not give rise to significant adverse effects in terms of the SSSI or any other feature which falls within the scope of Policy DM9.*
DM12	Proposals for the development of new units in Flood Zones 2, 3a and 3b that are not defined by national planning guidance as being suitable for these zones will not be supported while development sites remain available in sequentially superior locations across the District. Reference should be made to the Council's Strategic Flood Risk Assessment when making assessments about likely suitability. Site specific Flood Risk Assessments will be required for all developments in flood risk areas, even where flood defences exist, as defined on the Proposals Map……. All new development (other than minor extensions) will be required to incorporate Sustainable Drainage Systems (SuDS) and provide details of adoption, ongoing maintenance and management. Proposals will be required to provide reasoned justification for not using SuDS techniques, where ground conditions and other key factors show them to be technically feasible. Preference will be given to systems that contribute to the conservation and enhancement of biodiversity and green infrastructure in the District.
Analysis	*The flood risk assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy DM12.*

Nottinghamshire Minerals Local Plan Preferred Approach Consultation Document

MP12	Exploration 1. Proposals for hydrocarbon exploration will be supported provided they do not give rise to any unacceptable impacts on the environment or residential amenity. 2. Where proposals lie within an environmentally sensitive area, evidence must be provided to demonstrate that exploration could not be achieved in a more acceptable location and that within the area of search the proposed location would have least impact. Appraisal 3. Where hydrocarbons are discovered, proposals to appraise, drill and test the resource will be permitted provided that they are consistent with an overall scheme for the appraisal and delineation of the resource and do not give rise to any unacceptable impacts on the environment or residential amenity. Extraction 4. Proposals for the extraction of hydrocarbons will be supported provided they are consistent with an overall scheme enabling the full development of the resource and do not give rise to unacceptable impacts on the environment or residential amenity. Restoration 5. All applications for hydrocarbon development will be accompanied with details of how the site would be restored back to its original use once the development is no longer required. The retention of haul roads and hard standing will be permitted only where there are clear agricultural or other benefits of doing so. 6. Where proposals for hydrocarbon development coincide with areas containing other underground mineral resources, evidence must be provided to demonstrate that their potential for future exploitation will not be unreasonably affected.
Analysis	*As the ES which accompanies this application demonstrates that the proposed development will not give rise to unacceptable effects and the site is not in an environmentally sensitive area, it follows that the application benefits from the support provided in the first part of Policy MP12.* *The proposed scheme provides for suitable restoration and therefore complies with the penultimate part of Policy MP12.* *The wellsite is underlain by coal seams at depth. The judgement to be made in relation to the final part of Policy MP12 is therefore one for the Coal Authority to make when consulted by NCC. Given the long history of hydrocarbon exploration in this part of the east Midlands, the Coal authority can be expected to raise no objections on the grounds of adverse effects on the potential exploitation of coal resources.*
DM1	Proposals for minerals development will be supported where it can be demonstrated that any potential adverse impacts on amenity associated with the following considerations are avoided and/or adequately mitigated to an acceptable level: a. Visual intrusion; b. Noise; c. Blast vibration; d. Dust; e. Air emissions; f. Lighting; g. Transport; h. Proximity to properties; i. Stability of the land at and around the site, both above and below ground level.
Analysis	*The assessments included in the ES which accompanies this application together serve to demonstrate that the proposed development will not give rise to significant adverse effects in terms of the matters listed in this policy. Accordingly the proposed development accords with Policy DM1.*

DM2	Water resources 1. Proposals for minerals development will be supported where it can be demonstrated that: a. surface water flows at or in the vicinity of the site are not detrimentally altered; b. groundwater quality and levels, where critical, are not altered; c. there are no risks of polluting ground or surface waters; d. Water resources, where required should be used as efficiently as possible. Flooding 2. Proposals for minerals development will be supported where it can be demonstrated there will be no unacceptable impact on: a. flood flows and storage capacity; b. the integrity or function of flood defences or structures acting as flood defences; c. local land drainage systems; d. Local communities.
Analysis	*The hydrology, hydrogeological and flood risk assessments included in the ES which accompanies this application together serve to demonstrate that the proposed development will not give rise to significant adverse effects in terms of the matters referred to in this policy. Accordingly the proposed development accords with Policy DM2.*
DM4	1. Proposals for minerals development will be supported where it can be demonstrated that: a) there will be no significant adverse impacts on habitats or species or, where impacts cannot be avoided, adequate mitigation and/or compensation relative to the importance of the resource can be put in place; and b) they will not give rise to any significant effects on the integrity of a European site, either alone or in combination with other plans or projects, as a result of changes to air or water quality, hydrology, noise, light and dust and that any impacts identified can be mitigated. 2. Nottinghamshire's biodiversity and geological resources will be enhanced by ensuring that minerals development: a) retains, protects, restores and enhances features of biodiversity or geological interest, and provides for appropriate management of these features, and in doing so contributes to targets within the Nottinghamshire Local Biodiversity Action Plan; or b) appropriately mitigates for unavoidable adverse impacts on biodiversity and geology, with compensatory measures used only as a last resort; c) makes provision for habitat adaptation and species mitigation, allowing species to respond to the impacts of climate change; and d) maintains and enhances the biodiversity network both within the county and beyond through the protection and creation of local wildlife sites and corridors and links and stepping stones between areas of natural green space. 3. Where appropriate, the authority will consider the use of conditions and/or planning obligations to provide appropriate compensatory measures for unavoidable damage to Nottinghamshire's biodiversity and geological resources.
Analysis	*The ecology assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy DM4.*

DM5	1. Proposals for minerals development will be supported where it can be demonstrated that it will not adversely impact on the character and distinctiveness of the landscape unless there is no available alternative and the need for development outweighs the landscape interest and the harmful impacts can be adequately mitigated; 2. Restoration proposals should take account of the relevant landscape character policy area as set out in the Landscape Character Assessments covering Nottinghamshire and, where appropriate, the Areas of Multiple Environmental Sensitivity Study.
Analysis	*The LVIA included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy DM5.*
DM6	1. Proposals for minerals development will be supported where it can be demonstrated that: a) the development would protect and where appropriate enhance nationally important historical assets and their settings; b) the importance of the development outweighs the significance of any regionally or locally important designated or non-designated heritage assets that would be directly or indirectly affected by the development and where appropriate provision is made for the excavation and recording of any affected archaeological remains. 2. No development shall take place within the archaeological resource area at South Muskham.
Analysis	*The cultural heritage assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy DM6.*
DM8	1. Proposals for minerals development will be supported where it can be demonstrated that there are no unacceptable cumulative impacts on the environment or on the amenity of a local community, either in relation to the collective effect of different impacts of an individual proposal, or in relation to the effects of a number of developments occurring either concurrently or successively.
Analysis	*The cumulative impact assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy DM8.*
DM9	1. Proposals for minerals development will be supported where it can be demonstrated that: a) the highway network can satisfactorily and safely accommodate the vehicle movements, including peaks in vehicle movements, likely to be generated; b) the transportation of minerals would not cause unacceptable impact on the environment and disturbance to local amenity; c) where appropriate, adequate vehicle routeing schemes have been put in place to minimise the impact of traffic on local communities; d) measures have been put in place to prevent material such as mud contaminating public highways.
Analysis	*The transport assessment included in the ES which accompanies this application demonstrates that the proposed development accords with the aims of Policy DM9.*

DM11	1. Proposals for minerals development will be supported where it can be demonstrated that the scheme includes details to allow an appropriate phased sequence of extraction, restoration, after-use and after-care which will enable long term maintenance and enhancement of the environment. Restoration 2. Where it is impracticable to submit full restoration details at the planning stage proposals should include: a) an overall concept plan with sufficient detail to demonstrate that the scheme is feasible in both technical and economic terms; and b) illustrative details of contouring, landscaping and any other relevant information as appropriate. 3. Mineral extraction proposals which rely on the importation of waste for restoration must: a) include satisfactory evidence that the waste will be available over an appropriate timescale in the types and quantities assumed; b) provide the optimum reclamation solution; and c) provide evidence that it is not practical to re-use or recycle the waste. After-use 4. Where proposals for the after use includes habitat creation, applicants will be required to demonstrate how they contribute to the delivery of the Nottinghamshire Local Biodiversity Action Plan and have regard to the biodiversity led restoration strategy. 5. Where proposals for the after use is agricultural, applicants will be required to make provision for the retention or replacement of soils and any necessary drainage, access, hedges and fences. 6. The after-use will be required to have regard to the wider context of the site, in terms of the character of the surrounding landscape and historic environment and existing land uses in the area. 7. Where opportunities arise, after-use proposals should provide benefits to the local and wider community which may include enhancement and creation of biodiversity and geodiversity interests, linking of site restoration to other green infrastructure initiatives, enhanced landscape character, improved public access, employment, tourism or provision of climate change mitigation measures. Aftercare 8. Restoration proposals will be subject to a minimum five year period of aftercare. Where proposals or elements of proposals, such as features of biodiversity interest, require a longer period of management the proposal will only be permitted if it includes details the period of extended aftercare and how this will be achieved.
Analysis	*The restoration and related proposals included in the proposed scheme accord with the aims of Policy DM11.*
DM12	1. Proposals for minerals development within the following Airfield Safeguarding Areas will be supported where the applicant can demonstrate that the proposed extraction, restoration and after use will not constitute a hazard to air traffic: a) East Midlands Airport; b) Gamston (Retford) Airport; c) Hucknall Aerodrome; d) Netherthorpe Airfield; e) Nottingham City Airport; f) Robin Hood Airport Doncaster Sheffield; g) RAF Scampton MoD Aerodrome; h) RAF Syerston MoD Aerodrome; i) RAF Waddington MoD Aerodrome. Any new safeguarding area notified to the Council during the Plan period will also be safeguarded. 2. All proposals within the safeguarding zones will be required to consult the relevant airfields.
Analysis	*The views of Robin Hood Airport Doncaster Sheffield have been provided to IGas and suggest that no objection will be raised on safeguarding grounds when the Airport is consulted on the application by NCC.*

DM13	Safeguarding Areas 1. Economically important mineral resources will be safeguarded from unnecessary sterilisation by non-mineral development through the designation of minerals safeguarding areas as identified on the Policies Map. 2. Development within minerals safeguarding areas will have to demonstrate that proven mineral resources of economic importance will not be unnecessarily sterilised as a result of the development and that the development would not pose a serious hindrance to future extraction in the vicinity. 3. Where this cannot be demonstrated, and where there is a clear and demonstrable need for the non-minerals development, prior extraction will be sought where practicable. Consultation Areas 4. District and Borough Councils within Nottinghamshire will consult the County Council as Minerals Planning Authority on proposals for non-minerals development within the designated Mineral Consultation Area, as shown on the Policies Map. 5. The Minerals Planning Authority will resist inappropriate development within the Mineral Consultation Areas.
Analysis	*The justification provided for Policy DM13 explains that temporary developments are exempted from the requirements to both safeguard and consult. It follows that Policy DM13 is not relevant to the determination of this application.*
DM18	Proposals for mineral exploration will be permitted, subject to satisfactory environmental, amenity and restoration safeguards.
Analysis	*As the proposed development includes satisfactory environmental, amenity and restoration safeguards it follows that it benefits from the presumption in favour of approval set out in Policy DM18.*

Appendix B. Community Involvement

Appendix B: Community Involvement

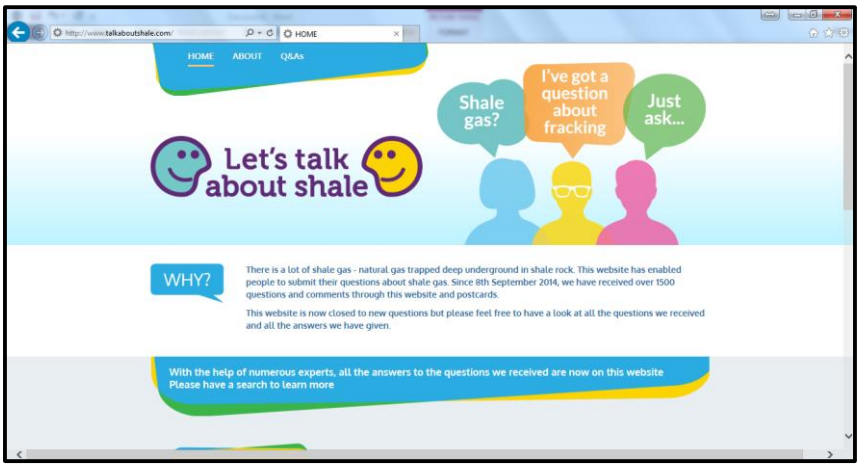
1 Introduction

1.1.1 In support of their application for an exploratory wellsite at Springs Road, Misson, IGas, the Applicant has actively undertaken community and stakeholder engagement prior to the formal submission of a Planning Application. This Appendix contains the details and evidence of all engagement activities undertaken by IGas as referred to in Section 2.5 of this Planning Supporting Statement.

1.1.2 Community involvement in the planning process is important in ensuring that development proposals take into account the views and aspirations of the local community and stakeholders. In accordance with good practice, all developers looking to submit planning applications for major development should undertake an element of community involvement.

1.1.3 IGas has prepared a Community Engagement Strategy which underpins all of their stakeholder engagement. It includes an analysis of all of their stakeholders and is updated regularly. A record is also kept of all our stakeholder engagement activities. There is a dedicated project Community Engagement Officer to liaise with local people, business and the community.

1.1.4 Prior to securing a site IGas were involved in a cross industry pilot to find out what people wanted to know about shale gas. The 'Let's Talk About Shale' project targeted specific areas where shale gas developments were likely and gathered questions from the public. These were then answered and verified by independent experts before being uploaded to a dedicated website (www.talkaboutshale.com). The East Midlands was one of the areas focused on and over 1500 questions were received.



1.1.5 IGas has a dedicated team who manage their community engagement programmes in accordance with their own policies and procedures on engagement. In addition to public consultation, there has been liaison with statutory consultees to agree the scope of environmental assessment work as well as with the Mineral Planning Officers at Nottinghamshire County Council.

1.1.6 This document sets out the level of consultation that has been undertaken by IGas and describes the methods in which stakeholders have been consulted. It also sets out further plans for community engagement post submission of the Planning Application.

2 Policy/ Legislative Guidance

2.1 The National Planning Policy Framework – March 2012

2.1.1 The NPPF advises that 'early engagement has significant potential to improve the efficiency and effectiveness of the planning application system for all parties. Good quality pre-application discussion enables better coordination between public and private resources and improved outcome for the community' (para 188).

2.1.2 Local Planning Authorities have a key role to play in encouraging other parties to take maximum advantage of the pre-application stage. Para 189 advises that developers should be encouraged to take up any pre-application services that are offered as well as encouraging developers to engage with the local community.

2.1.3 Para 190 – 191 encourages pre-submission consultation with statutory consultees and consenting bodies to resolve any potential issues at the earliest opportunity. This is also beneficial to establish what information is required and the level of detail as early as possible.

2.2 Nottinghamshire County Council's Statement of Community Involvement 2013

2.2.1 NCC's revised Statement of Community Involvement (SCI) was adopted in April 2013. At sections 5.6 and 5.7 of the SCI, NCC highlights the value of pre-application discussions with applicants and pre-application consultations (by applicants) with the local community and interested parties.

3 Community Engagement

3.1.1 The programme of engagement was designed to provide information and seek feedback from a range of community stakeholders in the vicinity of the development Site and as stated above the project has a dedicated Community Engagement Officer. The following community stakeholders have been actively engaged through the programme:

- local residents / community;
- educational establishments;
- Misson Parish Council;
- local businesses and interest groups; and
- local MP and MPs in the area.

3.2 Local Residents / Community

3.2.1 Section 3 of this Supporting Statement provides a detailed description of the location of the Proposed Development (also shown on Drawings 1 to 6). There are several settlements within Bassetlaw District Council which are in the vicinity of the application Site; Misson Springs, Misson, Finningley, Blaxton and Hatfield Woodhouse. As such the applicant has set out at an early stage, prior to the submission of any planning application, to inform the community about the proposed operations of the company and their intentions to develop an exploratory wellsite in the area and to find out local views. The following summarises the methods of engaging with different sectors of the local community.

Community Liaison Group

3.2.2 In June 2014 members of various parishes in Bassetlaw District were invited by the Applicant to join them to create a Community Liaison Group (CLG). Each parish was asked to nominate one person from the respective Parish Council and one member from the local community. The CLG began with representation from 10 parishes in the area.

3.2.3 Once the Springs Road Site was identified a further 7 parishes were invited to become involved, as they were in close proximity to either the site location or our proposed transport routes. The parishes currently represented on the CLG are Misson, Haxey and Westwoodside, Wroot, Blaxton, Finningley, Walkeringham, Gringley, Mattersey, Everton, Scaftworth, Austerfield, Aukley, Cantley with Branton, Bawtry, Hatfield, Woodhouse, Beckingham and Misterton. In order to assist new members to gain the level of information held by longer serving members a special meeting was held in June 2015 to provide the necessary information and answer questions.

3.2.4 The CLG is a forum between IGas and the community, with its representatives transferring information from IGas back to the community and bringing the communities concerns and comments to the meetings. Information is posted on parish websites and fed back verbally to local residents. The group meets monthly or more often if required.

3.2.5 The group has proved an effective tool in ensuring that the local community are kept up to date with current information and have access to specialist information. It also provides a method for local communities to have their questions and concerns addressed through their parish representatives. The parish councils in these areas are very effective and inclusive.

3.2.6 In November 2014 IGas arranged a site visit to their Coal Bed Methane producing site at Doe Green. This site is very similar to how a producing Shale Gas site would appear. Another visit is proposed for the new members of the CLG.

3.2.7 To date presentations have been given to the CLG by IGas specialists covering the subjects of Seismic Acquisition, a Technical Briefing, Water Resources / Usage and an explanation of the planning process.

3.2.8 Several members of the CLG were also provided with the opportunity to attend the Brownfield Briefing's Shale and Coal Gas Methane Seminar in January

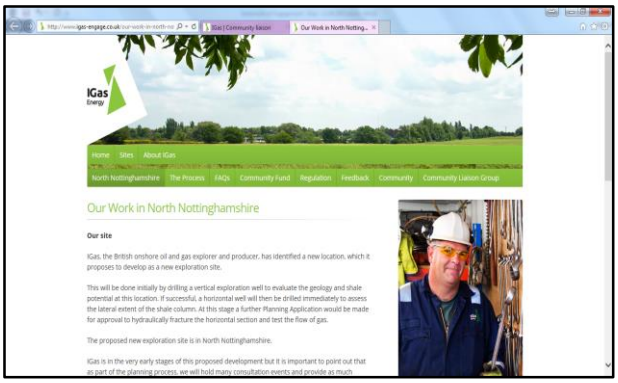
3.3 **Other engagement methods with local residents**

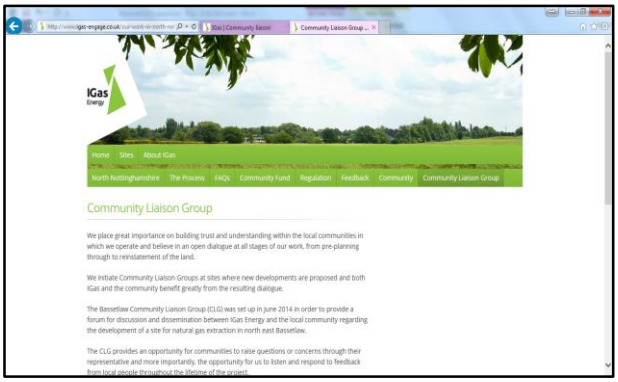
3.3.1 On three occasions letters have been sent out to the 45 residents who live closest to the site. The first was to inform them of our site selection, the second was following our public exhibition and the third was following our change of site. In each of these letters the Applicant offered to go and visit people in their homes (or a place the individuals felt suitable) to explain the details of the development and answer their questions. As a result of this three families have been visited by the Project Director and Community Engagement Coordinator and a number of telephone calls have been taken to answer questions about the development proposals

3.3.2 A representative of IGas met with Misson Parish Council at their Annual Village Meeting and gave a presentation before answering questions in June 2015. It has been agreed that a second visit will be made once the planning application is submitted, to go over the details of the application.

IGas Engage Website

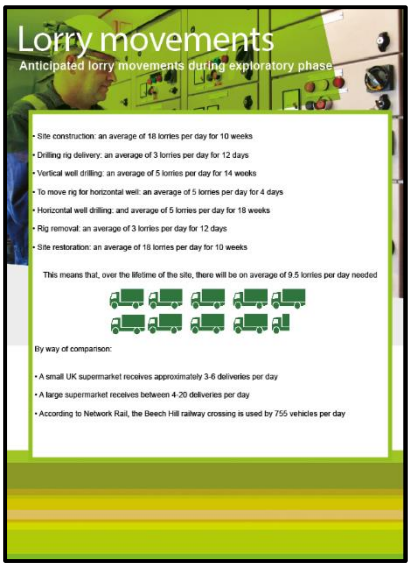
3.3.3 The applicant has created a website to engage with the community at www.igas-engage.co.uk. The IGas Engage website is dedicated to community engagement and has a section specific to our Springs Road development. It contains minutes of all CLG meetings, a copy of our brochure and an online feedback form where people can ask questions or make comment. It also has a link to the 'Let's Talk About Shale' website which provides independently sourced answers to questions about shale gas exploration and development.





Public Displays/ Meetings

3.3.4 Two public exhibitions have been held prior to submission of the planning application, both events were held in Austerfield. The first was held on the 16th of July 2014 to explain to the public plans for the East Midlands and to answer questions and listen to the views of local residents. The event attracted over 100 people, most of whom were local.



3.3.5 Transport was offered to people from their homes to the venue and back to ensure it was accessible to all and the event was run between 3pm and 8pm for the same reason.

3.3.6 A further public exhibition was held on the 3rd March 2015 once a site had been identified. Again, over 7000 leaflets were distributed along with posters and adverts in local media. This event utilised the same boards as before but with 3 updates. Over 90 people attended the meeting, again mostly locals.

3.3.7 At the request of Gringley Parish Council an open day was held in their local hall in January of 2015 to provide information and answer questions about the development. The event ran from 11am until 4pm and over 20 local people attended.

In March of 2014 IGas representatives attended a meeting of Bawtry Town Council and presented on opportunities for shale gas development within the East Midlands. This was before a site was identified.

4 Elected Representatives Consultation

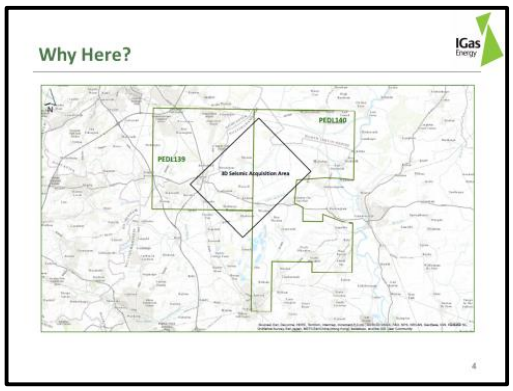
4.1 Misson Parish Council Liaison

4.1.1 The applicant has engaged with Misson Parish Council through letters and conversation in addition to the CLG events. On 3rd June 2015 a representative from the applicant company attended a Parish Council and annual village meeting to talk about the Proposed Development at Springs Road.

4.2 Nottinghamshire County Councillors

4.2.1 IGas sent a letter of introduction to Nottinghamshire County Councillors in May 2014 which invited them to tour existing well sites in their areas. Several e-mails have also been sent out with updates on progress of the application, including invitations to public events. Elected Members have also been offered a briefing on the proposal.

4.2.2 Several of the County Councillors attend the CLG regularly and others receive CLG updates by e-mail.



4.3 Local MP and MPs in the area

4.3.1 Letters have been sent to MPs in the area advising them of the company's operations and proposals and contact has been had with local MP John Mann. Letters have also been sent to local MEPs.

5 Local Business and interest Groups

5.1.1 IGas representatives have had meetings with various local interest groups including the Nottinghamshire Ramblers Association, Bassetlaw Community and Voluntary Service, New Opportunities Fund and we have communicated with The Nottinghamshire Wildlife Trust.

5.1.2 Presentations have been given to the County Landowners Association, Lincolnshire County Council, North East Bassetlaw Forum and East Midlands Chamber of Commerce.

5.1.3 Meetings have been held with North Nottinghamshire College and East Midlands Chamber of Commerce, and North Nottinghamshire Envoys.

5.1.4 Meetings are scheduled with the Federation of Small Businesses, the Women's Institute and the local Probus group.

5.1.5 Communications with these stakeholders will be ongoing throughout the application determination period and if the proposal is granted planning permission, communications will be ongoing to inform the local community about how the Proposed Development is progressing and what stage operations are at.

6 Mineral and Local Planning Authority Engagement

6.1.1 Discussions have been undertaken with:

- Nottinghamshire County Council;
- Bassetlaw District Council.

6.2 Nottinghamshire County Council

6.2.1 In addition to the consultation with Members, prior to the submission of the application a number of meetings were held between IGas and Planning Officers of Nottinghamshire County Council to discuss the development proposals. The objective of these meetings was to establish the scope of environmental/technical work required and to consider any significant matters which would need to be considered as part of the application and addressed in the Environmental Statement.

6.2.2 In addition to the above, and as part of the Environmental and Technical Assessment work undertaken in support of the EIA and Environmental Statement, liaison and consultation has been undertaken with consultees including representatives from various departments within Nottinghamshire County Council.

6.2.3 Meetings and engagement with the various consultees has been an iterative process which has fed into the areas of specialist assessment work and ultimately the development design and mitigation strategies.

6.3 Bassetlaw District Council

6.3.1 A letter of introduction was sent to Bassetlaw District Council and as a result of this a team of people from IGas were invited to meet with the CEO and other senior officials to brief them about future developments.

6.3.2 Regular correspondence has been sent to Elected Members and senior officials, notifying them of exhibitions.

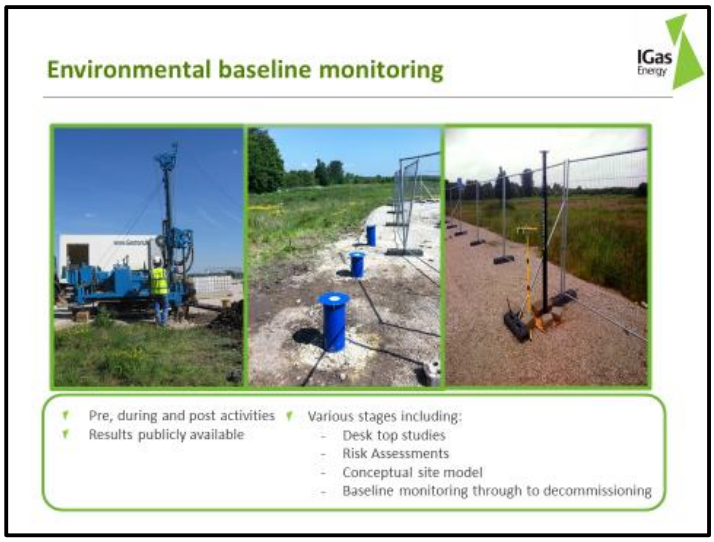
6.3.3 The Elected Member for the ward in which Misson Springs is located attends the CLG on a regular basis and other Elected Members are kept up to date by e-mail.

6.3.4 The project Community Engagement Coordinator has met with the Head of Economic Development for Bassetlaw District Council to find out more about the North Nottingham Envoys and to discuss how our development may impact on the area during exploration and in the future.

6.3.5 In addition to the above, and as part of the Environmental and Technical Assessment work undertaken in support of the EIA and Environmental Statement, liaison and consultation has been undertaken with representatives from various departments within Bassetlaw District Council to scope and agree suitable monitoring and viewpoint locations for the assessment work.

7 Statutory Consultees

7.1.1 As part of the Environmental and Technical Assessment work undertaken in support of the EIA and Environmental Statement, liaison and consultation has been undertaken with representatives from various statutory consultees. Agreement has been sought on the scope of assessment work, monitoring work and where applicable discussions have been had regarding potential mitigation. Discussions have been held with the Environment Agency, the Nottinghamshire Wildlife Trust and Natural England.



8 Pre-Application Comments Arising From Public Consultation

8.1.1 Summarised below are what have been identified as the key and common planning, environmental and amenity issues and concerns which have been gathered as a result of public exhibitions and in talking to local residents, business and the local community. This list is not exhaustive but gathers together common themes.

Traffic and Highways Safety

8.1.2 Concerns about the number of vehicle movements and the highway safety of traffic travelling through Misson village.

8.1.3 As a result it is proposed that no traffic is routed through Misson. The application has all traffic approach and leaving the site from the north, with no traffic travelling through Misson.

8.1.4 Concerns were also expressed about traffic turning right out of Springs Road and travelling north along Idle Bank Road as locals felt Idle Bank Road was not safe.

8.1.5 The application proposes that no HGV traffic turn right out of Springs Road and only approaches and leaves Springs Road from the west.

8.1.6 Concerns about vehicle speeds particularly at Beech Hill Level Crossing.

8.1.7 Concern about the numbers of vehicle movements associated with the development and concern about traffic during 24 hour drilling and that traffic and HGV movements will be throughout the night during drilling. Also concerns about the cumulative impact of traffic associated on the highways with other existing traffic.

8.1.8 The Traffic Assessment in the ES considers the traffic movements associated with each phase of the development and the capacity of the local roads and the highway to accommodate them.

Logistics

8.1.9 Questions were asked about where water used at the site would come from and how wastes would be disposed of. Locals were concerned about their water supply being affected.

8.1.10 The description of the development and operations sets out how these materials will be brought to and taken from site.

Hydrological Issues

Groundwater Source Protection Zones

8.1.11 Local people have expressed concern about the proximity of the Groundwater Source Protection Zone close to the Springs Road site and the adverse impact of drilling close to this.

8.1.12 Concerns were raised about how groundwater and local surface water features would be impacted by water required for the development in terms of water levels and how the water quality would be affected by drilling operations and associated drilling chemicals. There were concerns about the knock on impacts of these issues on local residents, businesses and wildlife.

8.1.13 Concerns were expressed about how spills on the wellsite would be contained and the safety of the wells would be secured to prevent ground or groundwater contamination.

8.1.14 The Hydrological and Contaminated Land Assessments in the ES address the above concerns.

Ecological Impacts

8.1.15 Concern about impact of the development on local wildlife – but in particular a number of SSSIs in the vicinity of the Application site including River Idle Washland, Misson Carr SSSI and Misson Line Bank.

8.1.16 The Ecological Assessment in the ES considers the existing wildlife at the site and around the vicinity of the wellsite, in particularly looking at designated wildlife sites and important protected species and habitats.

Cultural Heritage

8.1.17 Concern about the impact on the removal of the hardstanding former missile launch pads. Investigations were undertaken as to how the wellsite could be constructed and it was decided that the wellsite was temporary and could be constructed without taking up the existing hard standing and launch pads associated with the site's former use. Sand can be placed to protect the existing hardstanding area under the wellsite and plant and equipment can be placed having due regard to the features under the wellsite.

8.1.18 Concern about the impact on listed buildings within Misson Parish and also on the Scheduled Ancient Monument.

8.1.19 The Cultural Heritage Assessment has assessed the impact on listed buildings and on any Scheduled Ancient Monuments in the vicinity of the wellsite.

Impact on the Health of Local Residents

8.1.20 Concerns have been expressed on how the development will affect the health of the local community and residents with concern raised about: disturbance from drilling noise, noise of traffic, chemicals used in the drilling process and their impacts on ground/soils and water contamination through to the impact of the development on air quality from traffic fumes. Assessments have been undertaken on noise, air quality, hydrology and ground contamination taking into consideration how these will affect local residents and the community. A section is included in the ES on Health pulling together information on the separate assessments which are important when considering residents and community health.

Landscape Impact

8.1.21 Concerns about the impact of the development on the rural landscape character and also concerns about the visibility of the plant and in particular the rig as the local topography is flat.

8.1.22 The Landscape Assessment in the ES assesses these concerns.

Environmental and Community Impacts from Noise and Air Quality.

8.1.23 The ES includes assessments looking at both the noise and air quality impacts of the development on and off site, including that associated with traffic.

Lighting

8.1.24 Concerns were expressed about the impact of lighting in an existing unlit area. The concerns were both in relation to impact on local residents around the wellsite and on local wildlife in Misson Carr SSSI.

8.1.25 A lighting assessment is included as part of the ES

Other issues

8.1.26 Concerns about interference with broadband services to the local area.

8.1.27 An assessment has been undertaken as part of the EIA and included in the ES.

8.1.28 Residents have expressed concern about the vibration from drilling operations.

8.1.29 The noise assessment includes a section on the impacts of vibration from the development.

8.1.30 Concerns about hydraulic fracturing and what this development could lead to in the future.

8.1.31 This application is associated with the drilling of two exploratory wells and is a temporary time limited development. If these wells are drilled and are successful the Applicant would need to apply to Notts CC for planning permission for any appraisal activity and that activity could also include hydraulic fracturing. Any such planning application would need to be accompanied by an EIA and would be subject to full public and statutory consultation.

8.1.32 Concerns about being kept informed of developments as the residents of the area feel marginalised and are concerned they will be 'forgotten about.' This is addressed in the Stakeholder Engagement Strategy and plans in place to ensure this is not the case.

9 Ongoing/Further Liaison

9.1.1 A dedicated phone line (020 3675 6058) which can be used by the community to ask questions or voice concerns is provided and this is operational at all times.

9.1.2 As stated above communications with stakeholders and others will be ongoing throughout the application determination period and if the proposal is granted planning permission, communications will be ongoing to inform the local community and other interested parties about how the proposed development is progressing and what stage operations are at.

10 Conclusion

The level of consultation undertaken by the Applicant, IGas has resulted in a range of feedback from statutory consultees, Nottinghamshire County Council, local Council Members and the public. These comments coupled with the responses received to the Scoping Request have helped shape the development proposals and ensure the best outcome for stakeholders.