



Appeal Decisions

Inquiry Held on 7-10 November and 14-15 November 2017

Site visit made on 15 November 2017

by Mr K L Williams BA, MA, MRTPI

an Inspector appointed by the Secretary of State for Communities and Local Government

Decision date: 04 January 2018

Appeal A: APP/Y2003/W/17/3173530

Lodge Farm, Clapp Gate, Appleby, Scunthorpe, DN15 0DB

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by Egdon Resources UK Limited against the decision of North Lincolnshire Council.
- The application, ref.MIN/2016/810, dated 31 May 2016, was refused by notice dated 11 January 2017.
- The development proposed is described in the application as the "retention of the existing wellsite and access road for the long-term production of hydrocarbons."

Summary of Decision: The appeal is dismissed.

Appeal B: APP/Y2003/W/17/3180606

Lodge Farm, Clapp Gate, Appleby, Scunthorpe, DN15 0DB

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by Egdon Resources UK Limited against the decision of North Lincolnshire Council.
- The application, ref.PA/2017/696, dated 28 April 2017, was refused by notice dated 3 July 2017.
- The development proposed is described in the application as the "retention of the existing wellsite and access road for the long-term production of hydrocarbons."

Summary of Decision: The appeal is dismissed.

Appeal C: APP/Y2003/W/17/3182879

Lodge Farm, Clapp Gate, Appleby, Scunthorpe, DN15 0DB

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission under section 73A of the Town and Country Planning Act 1990 as amended by the Planning and Compensation Act 1991 for construction of a temporary wellsite for drilling of an exploratory borehole with associated structures and works for which a previous planning permission was granted for a limited period.
- The appeal is made by Egdon Resources UK Limited against the decision of North Lincolnshire Council.
- The application, ref.PA/2017/268, is dated 21 February 2017.
- The application sought planning permission for the construction of a temporary wellsite for drilling of an exploratory borehole with associated structures and works granted planning permission for a limited period Ref: MIN/2013/0281, dated 18 June 2013.
- The permission is subject to a condition requiring that "The buildings, structures and works hereby permitted shall be removed and the use hereby permitted shall be discontinued and the land restored to its former condition within 3 years of development"

- commencing unless otherwise agreed in writing by the Local Planning Authority.”
- The reason given for the condition is “To define the terms of the planning permission and ensure that the site is returned to its former condition.”

Summary of Decision: The appeal is allowed and planning permission is granted subject to planning conditions.

Preliminary Matters

1. The Combined Statement of Common Ground (CSoCG, CDC12) contains a list of Core Documents (CD). There is also a Technical Statement of Common Ground (TSoCG, CDC13).

The Appeal Site

2. The site is in the countryside to the north-east of the village of Broughton. It comprises a broadly rectangular site extending to about 1.85 hectares. It is accessed from the B1208 and the farmyard of Lodge Farm via an unmade farm track. Ella Beck runs close to the site’s northern boundary.

Appeals A and B – Production of Hydrocarbons

The Proposed Development

3. Appeals A and B concern the use of the established wellsite for the long term production of hydrocarbons. Drawing 3334(2) P 03 shows the existing site layout. Drawing 3334(2) P 07 provides an indicative site layout with sidetrack drilling. Drawing 3334(2) P 05 provides an indicative site layout with proppant squeeze. The main elements of the proposal are summarised in the CSoCG as follows:
 - i) Site construction and civil works to construct a purpose built bunded area to facilitate storage tanks, a tanker loading plinth and installation of a surface water interceptor. The site area would be increased by 0.12 hectares to facilitate management of site access;
 - ii) The installation of production facilities and equipment. A workover would facilitate the removal of some of the existing completion, including tubing and subsurface wellbore equipment, and their replacement with a new completion;
 - iii) One or more of the following operations would be carried out to enable the production of oil and gas: a sidetrack drilling operation with a drill rig of up to 40m in height (this overall operation is expected to last 3-4 weeks); radial drilling (expected to last 1 week and included in Appeal A only); proppant squeeze; acidisation; and
 - iv) The production of oil and associated gas.
4. There is only a marginal difference between the scheme in Appeal A and that in Appeal B. It is the omission radial drilling from Appeal B. Extraction of hydrocarbons would be expected to continue for up to 15 years and to yield up to about 500 barrels of oil a day, producing about 2 million barrels overall. Extraction of gas is expected but the volume of gas is uncertain. If there is sufficient gas it would be used to generate electricity on site, which would be exported to the local electricity network. If volumes are low, gas would be managed on-site by means of an enclosed flare. A relief flare would

be required in any case. The indicative layouts also show provision for staff and security facilities.

Relevant Planning History

5. In June 2013 planning permission was granted for the construction of a temporary wellsite for an exploratory borehole with associated structures and works (MIN/2013/0281). In January 2017 the planning application which led to Appeal A was refused (MIN/2016/0810). Also in January 2017 planning permission was granted for the installation of the 4 groundwater monitoring boreholes now installed on the site (PA/2016/0808). In July 2017 the planning application which led to Appeal B was refused (PA/2017/696). By then the Environment Agency (EA) had granted a Notice of Variation and Consolidation of an Environmental Permit for the project (EPR/AB3609XX, May 2017).

Relevant Planning and Energy Policies

6. The development plan comprises the saved policies of the North Lincolnshire Local Plan, 2003 (LP) and the North Lincolnshire Core Strategy, 2011 (CS). LP policy M1 provides criteria subject to which mineral applications will be permitted. They include a requirement that adequate proposals are made to minimise visual and other amenity impacts to an acceptable level. LP policy M23 deals specifically with oil and gas production. It says that production facilities will be permitted provided that the proposal incorporates environmental protection measures that are adequate to mitigate the impacts arising from a long term or permanent site. LP policy DS15 does not permit development which would adversely affect the quality and quantity of water resources by, amongst other things, pollution from the development. Policy CS18 contains criteria concerning sustainable resource use and climate change. Criterion 10 is "*Ensuring development and land use helps to protect people and the environment from unsafe, unhealthy and polluted environments, by protecting and improving the quality of the air, land and water.*"
7. The Council also cites LP policy DS13. It is headed "Groundwater Protection and Land Drainage" and the preceding text refers to the importance of the water environment in North Lincolnshire. Nevertheless, the wording of the policy explicitly limits its purpose to that of controlling the level of water in the land drainage system.
8. The policies of the National Planning Policy Framework (The Framework) are a material consideration. Sections 11 and 13 are particularly pertinent in these appeals but other sections are also relevant. Section 11 deals with conserving and enhancing the natural environment. It is consistent with paragraphs 109, 121 and 122 that unacceptable risk of soil, air, water or noise pollution should be avoided. Planning decisions should ensure that a site is suitable for its new use taking account, amongst other things, of ground conditions. Local planning authorities should focus on whether the development itself is an acceptable use of land and on the impact of those uses, rather than the control of processes or emissions themselves where they are subject to approval under pollution control regimes. They should assume that those regimes will operate effectively. It is consistent with relevant caselaw (*Frack Free Balcombe Residents Association v West Sussex*

County Council [2014] EWHC 4108 Admin) that a Local Planning Authority may consider that matters of regulatory control could be left to a statutory regulatory authority to consider.

9. Framework section 13 deals with facilitating the sustainable use of minerals. Paragraph 142 explains that minerals are essential to support sustainable economic growth and our quality of life. Paragraph 144 says that in determining planning applications great weight should be given to the benefits of mineral extraction, including to the economy. It also refers to ensuring that there are no unacceptable adverse impacts on, amongst other things, the natural environment and human health.
10. Planning Practice Guidance (PPG) is a further material consideration. Paragraph 012 (ID: 27-012-20140306) reiterates that other regulating regimes should be assumed to work effectively. Paragraph 013 (ID: 27-012-20140306) lists environmental issues which should be addressed by Minerals Planning Authorities (MPA). They include the risk of contamination to land, surface water and, in some cases, groundwater issues. With regard to hydrocarbons issues, paragraph 112 (ID: 27-112-20140306) explains that some issues may be covered by other regulatory regimes but may be relevant to MPA in specific circumstances. Whilst a range of issues may be put to MPA they should not need to carry out their own assessment as they can rely on the assessment of other regulatory bodies. However, before granting permission they will need to be satisfied that those issues can or will be adequately addressed by taking the advice of the relevant regulatory body.
11. National Energy Policy is set out in the Overarching National Policy Statement for Energy, 2011 (EN-1). EN-1 deals primarily with major infrastructure projects but can also be a material consideration in planning applications and appeals. EN-1 refers to the challenges of climate change and to meeting legally binding targets for cutting greenhouse gas emissions. It also alludes to the importance of energy to economic prosperity and social well-being and of ensuring that the UK has secure and affordable energy as it transitions to a low carbon economy. While reliance on fossil fuels must be reduced over time some fossil fuels will still be needed during that transition. Other elements of national policy, including the Annual Energy Statement, 2014, are consistent with this approach.

Main Issues

12. The main issues arising from both Appeal A and Appeal B are:
 - i) The effect of the development on groundwater and on water courses; and,
 - ii) The effect of the development on local residents, the community and the local economy.

The effect on ground and groundwater and on water courses

Geology and Hydrogeology

13. The local geology is set out in Table 3 of appendix 6 of the Environmental Management and Mitigation document (CDC25). The wellsite is underlain by

superficial blown sand deposits and by the Kellaways Formation. That formation is underlain by various formations of clay, sandstone and limestone making up the Great Oolite Group. The Great Oolite is underlain by the Inferior Oolite group which includes the Lincolnshire Limestone Formation. Hydrocarbons would be extracted from the Millstone Grit Formation at a depth of about 1580m. The Lincolnshire Limestone Formation is a Principal Aquifer. The Kellaways Sands is a Secondary A aquifer. Formations in the Great Oolite group are Secondary A or Secondary B aquifers.

Near Wellbore Treatments and Related Risks Arising at Depth

14. A range of near wellbore treatments could be undertaken to enhance hydrocarbon flows and mitigate the "skin" effect which arises when a well is drilled at depth. They also assist in hydrocarbon extraction from "tight" formations. A short side-track borehole of 20-30m could be drilled over a 3-4 week period. Radial drilling would involve up to 4 small diameter boreholes of up to 100m in length, allowing the use of high velocity water/fluid jets. Proppant squeeze would involve pumping a mix of gelled fluids and small ceramic beads at pressure through holes in the wellbore casing. This would create small fractures in the rock extending about 40m laterally from the wellbore and about 20m vertically. The injected particles would prop open fine fractures in the rock, allowing hydrocarbons to flow. Acidisation involves the injection of a diluted acid combination through the wellbore. Hydrochloric acid and hydrofluoric acid would be used. The latter would result from a combination of ammonium bifluoride and ammonium chloride applied through the wellbore perforations. If either or both of the proppant squeeze and acidisation treatments failed to be effective it is not intended to use them again.
15. The near wellbore treatments will be at depths of more than 1500m whereas the principal and secondary aquifers are much nearer the surface. In its decision document on the Environmental Permit (CDG2), the EA refers to this considerable separation distance and the intervening formations. It also alludes to the limited lateral and vertical extent of the proppant squeeze, which it says has historically taken place in conventional oilfields in Lincolnshire where sandstone formations are tight or oil flows are impeded. Subject to conditions, the EA finds the proppant squeeze and the related retention within the formation of 50-70% of the proppant fluid to be acceptable. The acid would react with minerals in the formation, resulting in a mildly acidic flow-back to the surface. The Millstone Grit aquifer is highly saline and mineralised. Having regard to the quantity and concentration to be used and the deep and saline character of the formation, the EA treats the proposed acidisation as "de-minimis". The appellant's evidence is that both hydrochloric acid and hydrofluoric acid were used at the nearby Crosby Warren site. It is argued by some objectors that this proposal is for "unconventional" hydrocarbon extraction. However, the EA confirms in CDG2 that, notwithstanding the proposed limited use of near wellbore stimulation, the hydrocarbons to be targeted are found in reservoirs within source rocks. On that basis the proposed extraction can be regarded as "conventional".
16. The Council's case is not based on harm to groundwater at these depths. I appreciate the concerns of third parties about the use of proppant squeeze

and acidisation. At the Inquiry particular concern was expressed about the use of acids, including hydrofluoric acid. Reference was also made to ongoing research by UKGEOS into geological processes and the effects of fluid injection into formations. Nevertheless, the balance of evidence in these appeals leads me to conclude that the near wellbore treatments would not result in material harm.

Risks to Nearer Surface Aquifers and to Watercourses

17. A source-pathway-receptor model is adopted in assessing potential effects. It is common ground in the TSoCG that potential contaminant sources are liquids used and stored on the site, including product oil and related by-products. Possible pathways for contaminants are from the surface vertically into the blown sands, horizontally with drainage flows, vertically through the blown sands and underlying soils and into the bedrock and combinations of horizontal flows through the bedrock. A further potential pathway is through an engineered barrier. The Lincolnshire Limestone is a high sensitivity receptor and the Secondary aquifers are moderately sensitive. It is common ground that the superficial blown sands are likely to be in hydraulic continuity with Ella Beck. The beck is a potential receptor via run-off or by a groundwater route.
18. The appellant submitted an extended range of supporting information in support of planning application PA/2017/696 (Appeal B). It included an Assessment of Flood Risk, Hydrology and Pollution Control, May 2017 (CDA19) and an Environmental Management and Mitigation document, May 2017 (CDA25). Paragraph 9.4 of Appendix 6 of CDA25 says that the likelihood of infiltration from the surface of the wellsite into the Lincolnshire Limestone aquifer and the secondary aquifers is low due to a "*hydraulic break provided by the low permeability formations that overly the Lincolnshire Limestone and the presence of an upward hydraulic gradient that prevents downward movement of water.*" However, in cross-examination Mr Dodds conceded that evidence provided in drillers' logs from monitoring boreholes on the site showed that there is no longer an upwards gradient and that there is now a downwards hydraulic gradient. It is also said in CDA19 that there are artesian conditions in the Lincolnshire Limestone formation. However, this appears to be based on initial drilling which found artesian water at a depth of 80m, whereas at that depth the Marlstone Rock formation is encountered rather than the Lincolnshire Limestone.
19. The appellant's case that there would be no harm to groundwater in the Lincolnshire Limestone also rests in part on the existence of a capping layer above that formation. Paragraph 4.22 of CDA19 refers to the Kellaways Formation comprising rocks that confine underlying aquifers, effectively capping the Lincolnshire Limestones that are below. However, Figure 3 of CDA19 shows that the Kellaways Formation underlies only about half of the appeal site. Mr Dodd's evidence is that earlier local boreholes show that artesian conditions existed in the past, for example in 1918. He says that for that to have been the case there must have been an effective capping layer and it must remain in place. Nevertheless, there is conflicting evidence on how effective any capping layer might be. Whereas Mr Dodds refers to it as an essentially impermeable layer, a British Geological Survey (BGS) glossary

defines a confined aquifer as one "*whose upper and lower boundaries are low permeability layers.*" Drillers' records are available from the 4 monitoring boreholes installed at the site. The borehole 4 record does identify a grey clay layer beginning at about 12m below the site at that location. However, the rotary drilling of that borehole produced a "mush" and the clay layer has not been subject to permeability testing. Nor is a drillers log as detailed as would be a geologist's or engineer's log.

20. The Great Oolite group of formations, which lie between the Kellaways Formation and the Lincolnshire Limestone, comprises thin layers of clay, limestone, mudstone and sandstone. The Great Oolite includes formations that are classified as Secondary aquifers and there is no capping layer above them. If contaminants entered, there would be a high permeability pathway for them to travel horizontally, including towards the nearby Clapp Gate borehole from which British Steel extracts water for industrial purposes.

Pollution Prevention Measures

21. The above matters serve to emphasise the importance of ensuring that highly effective pollution prevention measures will be in place if this development is to proceed. Added weight is given to that need by the high level of dependence in North Lincolnshire on groundwater for drinking water and its importance for industrial purposes with regard to extraction of water by British Steel from the nearby Clapp Gate borehole. Moreover, if any contaminants found their way into the underlying aquifers it is unlikely to be easy to remove them.
22. The appellant's evidence, including that in CDA25, sets out the extensive range of environmental mitigation and management measures that would be put in place. The well design includes 3 sets of steel casings which are cemented in place to a depth well below formations considered to contain ground water with a resource value. Control of well design and integrity falls within the ambit of the Health and Safety Executive (HSE). There would be up to 5 storage tanks on site, each with an overflow protection device linked to a site safety and shutdown system. The storage tanks would be contained within a purpose built bund with at least 110% of the capacity of the largest storage tank. The tanks and related surface piping would be subject to regular inspection and testing. Waste products returned to the surface would include dilute spent acids, spent proppant and related fluids, rock cuttings, other fluids and naturally occurring radioactive material (NORM). Wastes would be stored on site until their transport to an authorised waste disposal site in accordance with a Waste Management Plan submitted to the EA. Chemicals would also be stored on site.
23. The site is already underlain by a Bentofix geosynthetic clay liner (GCL) which is intended to provide an impermeable layer, creating a sealed site. It is overlain with a surface dressing of stone. GCL has been used in a range of landfill and hydrocarbon drilling sites elsewhere. Soil moisture is said to maintain the integrity of the GCL and if pierced the inner core would expand to seal the rupture. The existing perimeter containment ditch would be re-lined with new GCL and would contain a perforated drainage pipe linked to the proposed surface water interceptor. The interceptor would be designed to filter out any contaminants, allowing a regulated discharge of clean, uncontaminated water to Ella Beck. The site is designed with sufficient

capacity to accommodate fluids and rainwater equivalent to that from a 1 in 100 year storm event, allowing for climate change. An Environmental Management System would be in place and site management would seek to ensure early detection of any spillages. The 4 boreholes allow the monitoring of groundwater. Three are shallow boreholes, to a depth of 6m. The fourth is to a depth of 50m, penetrating the Lincolnshire Limestone formation. Water quality in Ella Beck would also be regularly monitored.

24. There was a focus at the Inquiry on a number of matters concerning pollution mitigation and monitoring measures. The CIRIA document *"Containment Systems for the Prevention of Pollution"* provides guidance for a wide range of sites where containment systems are to be installed. It refers to the compulsory provision of a ground investigation report as part of the geotechnical design process. It should be prepared by a suitably qualified person, normally a chartered geotechnical engineer, and should be informed by both desk study and on-site investigations including those relating to permeability and stability. The appellant conceded at the Inquiry that no such report had been prepared, although the ground conditions are said to have been assessed and considered acceptable by a very experienced engineer prior to installation of the GCL. I consider this to be a serious omission, particularly as the site would operate over a very long period. In addition, Ms Wagstaff referred to the different qualities of the sub-surface material depending on the amount of water it contained. Nor is it clear from the Environmental Permit (CDG2) decision document that the absence of the necessary ground condition report was addressed through the Environmental Permitting process.
25. The provision of the necessary ground condition report may demonstrate that ground conditions are acceptable, such that there would be no risk of settlement beneath the GCL. I have considered whether this could be addressed by a condition. Mr Dodds conceded in cross-examination that a ground investigation report would have been helpful and suggested that it might be addressed retrospectively. However, there are no details of how that would be done and its results are uncertain. Nor would it be fully addressed by a condition requiring ongoing monitoring and management of the soundness and integrity of the GCL.
26. A German GCL product was used and installed in accordance with the manufacturer's specification. The appellant's evidence on the precise structure of the layers overlying the GCL was somewhat confused. Mr Abbot explained that 2 layers of geotextile were placed above the GCL. At the Inquiry Mr Dodds corrected the reference in this evidence to a sand layer above the GCL to refer to geotextile layers. In document CDG2 the EA refers both to geotextiles and a cover of stone and sand. The stone layer as installed is 300mm in depth and that depth is referred to in the *"Bentofix Installation and Acceptance Procedure (Type NSP and BFG) for Landfill Applications"* document. However, that document also advises that if frequent traffic is expected over a GCL lined area the depth of cover should be increased to at least 600mm. A further document *"Bentofix NSP Types GCL Installation Guidelines"* refers to a minimum of 300mm and says that *"Frequent traffic can be run over a soil coverage of at least 800mm. Different thicknesses or soil material might be possible due to site conditions and soils."* The EA's document *"Using Geosynthetic Clay Liners in Landfill*

Engineering" is also relevant. It says that "*Where you expect repeated traffic over the covered GCL, you should place an additional thickness of protective soils; 600mm is an appropriate amount of protection.*" Parts of the appeal site are likely to be subject to regular traffic movements, for example by oil tankers and other vehicles serving the site.

27. The appellant's evidence is not sufficient to show why a thicker layer of stone is not required over at least part of the site. It has not, for example, been demonstrated that the effect of the geotextile layer in distributing pressure would be sufficient to reduce the depth needed to that now in place. This is a serious deficiency in the appellant's case given the long period over which hydrocarbon production would continue and the important role of the material overlying the GCL in ensuring its continued integrity. This is not a matter which would be fully addressed by the draft GCL monitoring and management condition discussed at the Inquiry.
28. While conceding that the GCL was not completely impermeable, Mr Dodds asserted that it was of such a low permeability that it would take many months for any contaminant to pass through it. He agreed that no calculations had been made of the likely rate of leakage through the GCL but considered that on-site management would be able to detect and deal with any spillage onto the site surface within a short period. Nevertheless, this matter adds weight to the need to ensure an appropriate depth of cover over the GCL, particularly in the more trafficked parts of the site.
29. The avoidance of contaminants reaching Ella Beck through run-off relies on the proposed interceptor being able to remove any traces of contaminants so that only clean water would be discharged. It is not disputed that an interceptor could be designed to achieve that. Figure 4 of CDA25 gives a conceptual depiction of an interceptor. The EA does not regulate the discharge of clean surface waters but the Environmental Permit requires a monitoring standard or method to be agreed in writing. Details of the interceptor and its location could also be controlled by planning condition.
30. There is conflicting evidence on the likely effectiveness of the monitoring boreholes. Appendix H of Ms Wagstaff's evidence shows the location of the 3 shallow boreholes and the direction of shallow groundwater flow. Figures 1-4 of Mr Dodds' Technical Note shows the boreholes in relation to the local geology. The Council is concerned that the absence of shallow monitoring boreholes along most of the site boundary near Ella Beck could result in some contaminants avoiding detection. A further concern is that the shallow boreholes do not penetrate the full depth of the superficial deposits so that heavier pollutants would need to be picked up through traces of them at a higher level. It is also argued that the design of the shallow boreholes could prevent lighter contaminants from being detected. In response, Mr Dodds asserted that traces of any contaminants would find their way into the water columns within the monitoring boreholes and would then be detected. Nevertheless, he conceded that full penetration of the relevant horizons would be preferable. The need for a fully effective monitoring system is not disputed and there is likely to be scope for agreement on these points between the main parties. I am satisfied that this matter which could be addressed by condition.

Conclusions on the effect on ground and groundwater and on water courses

31. I take into account the extensive range of mitigation and management measures proposed by the appellant. However, having regard to my conclusions in respect of a ground investigations report and on the GCL cover layer, it has not been shown that a material risk of harm to groundwater resources and to water quality in Ella Beck would not remain.

The effect on local residents, the community and the local economy

32. A number of matters concerning potential adverse effects were raised by local residents and others. The appellant assesses the risk of the proposed proppant squeeze inducing a seismic event leading to discernible vibration at the surface to be extremely remote. Approval of a Fracturing Plan by the Oil and Gas Authority would be required and there would be monitoring of ground vibration. Evidence is submitted of alleged seismic events at a site in Lancashire, said to result from oil extraction. That scheme concerned hydraulic fracturing for shale gas or oil, which is not proposed here. In this case hydraulic fracturing would be of a small scale and carried out at very considerable depth. Examples elsewhere in the world are cited and there have been seismic events elsewhere in Lincolnshire. Nevertheless, the balance of evidence does not suggest an unacceptable risk of harm through seismic activity in this case. There is also concern about very long term risks arising well after hydrocarbon extraction has finished. The EA decision document on the Environmental Permit (CDG2) sets out in detail the legal and evidential requirements which would be put in place to ensure that the decommissioned well would not cause any ongoing adverse impacts.
33. The appeal site is in the countryside and is not close to dwellings. It is limited in extent, close to agricultural buildings and has little visual impact. If planning permission was granted conditions could be imposed controlling daytime and night time noise to acceptable levels. The site is in a low flood risk area and is designed with a capacity to accommodate rainwater equivalent to that from a 1 in 100 year storm event. The proposal is acceptable with regard to flood risk.
34. Concerns are also expressed about the potential effect of emissions on local air quality and on human health, particularly in respect of the proposed flaring of gas. Reference is made to existing local air quality issues, the potential for local harm, research into harmful health effects related to oil and gas production and the need for a stronger national approach to air quality. Framework paragraph 124 refers to avoiding unacceptable impacts on health and paragraph 124 refers to cumulative effects on air quality. There is some uncertainty over the amount of gas that would be flared. The Environmental Permit imposes an upper limit of 10 tonnes per day. The appellant has provided an Air Quality Assessment (CDA25, Appendix 6). It assesses the effects of 3 different rates of flaring of gas and it takes into account prevailing local meteorological conditions. It examines the effects with regard to nitrogen dioxide, Volatile Organic Compounds (VOC) and carbon monoxide and finds that they would not result in any significant impact. While there would be some effect on local air quality I find that it would not be sufficient to be unacceptable.

35. Some local residents are concerned about the traffic movements from the development resulting in congestion and a risk of accidents. The appellant's traffic assessment shows that there would be significant HGV movements only for short periods, for example during site mobilisation and de-mobilisation. Related vehicle movements would otherwise be low and HGV movements would use a designated route to and from the A18. There was no objection from the Highway Authority subject to conditions and the effect would not be materially harmful to highway safety. The vehicle crossing of Ella Beck and the underlying culvert were assessed for the purposes of the exploration phase and strengthening was carried out.
36. It is not unusual for hazardous materials to be handled on industrial or other sites and their control is a matter for the HSE. The decision document on the Environmental Permit (CDG2) enumerates the wastes that would be produced and refers to the arrangements that would need to be put in place for their safe disposal and related requirements.
37. The above matters do not render the proposals unacceptable. However, as I set out above, there is a high level of dependency in the area on clean groundwater resources, both for drinking water and for use by British Steel, a major local industrial employer. It follows from my conclusion on the first main issue that it has not been shown that a risk of material harm to local residents, the wider community and local industry would not remain.

Other matters

38. The alleged inconsistency of the proposed extraction of hydrocarbons with the necessary approach to climate change is the subject of numerous objections to these proposals. It was addressed by third parties at the Inquiry. The thrust of these objections is that the development conflicts with the need for urgent action to respond effectively to the threats posed by climate change. The use of the fossil fuels produced would result in the discharge of additional greenhouse gases into the atmosphere. Reference is made to the Paris Agreement 2016, to which the UK is a signatory, and to its intention to keep global warming to well below 2°C above pre-industrial levels. Evidence from recent research is cited, suggesting a serious risk of significantly exceeding this level on current trajectories and of dangerous levels of CO₂ emissions. It is argued that this shows the need to avoid exploiting oil and gas reserves such as these. There is also reference to the availability of other fuel sources, including renewable energy. The appellant's argument that exploiting UK reserves will reduce reliance on imports is refuted and reference is made to fossil fuel exports from the UK and to a declining demand for gas. The Committee on Climate Change's 2016 report on Onshore Petroleum includes a recommendation that the UK's unabated fossil fuel energy consumption must be reduced over time, while gas consumption must remain in line with carbon budgets.
39. Framework paragraph 93 says that planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability, providing resilience to the impacts of climate change and supporting the delivery of renewable energy, low carbon energy and associated infrastructure. Much of the evidence submitted by objectors post-dates the statement of national energy policy in EN-1. Nevertheless it remains part of national energy policy that fossil fuels have a role to play in

providing for UK energy needs during the transition to a low carbon economy. In that context the proposed extraction of hydrocarbons is consistent with national policy for energy.

40. I place little weight on the risk of this development creating a precedent for the proliferation of similar schemes or processes elsewhere, or the risk that the proposed processes could be varied. Any further proposals would fall to be determined with regard to relevant policies, material considerations and relevant regulatory regimes. Nor do alleged failures to adhere to or enforce planning conditions elsewhere mean that similar problems would arise in this case. Reference is also made to matters concerning the Petroleum Exploration and Development Licences (PEDL). The PEDL licencing regime is regulated by the Oil and Gas Authority and this matter has no direct bearing on my decisions in these appeals.

Overall Conclusion on Appeals A and B

41. In reaching my overall conclusion I give great weight to the benefits which would arise from this development. It would contribute to the provision of secure energy supplies and would be consistent with providing for a mix of energy sources during the transition to a low carbon economy. An established site would be used and there would be a degree of national and local economic benefit to the rural economy. I also take into account the EA's primary role as regulator in the protection of water resources. The EA has considered the proposals acceptable subject to conditions, resulting in the issue of the Environmental Permit. Nevertheless, these matters do not outweigh other considerations. It is consistent with PPG that a decision maker should be satisfied with regard to issues concerning the effect of development on groundwater resources and water courses. Having regard to my conclusions on the absence of a ground conditions survey report and of sufficient evidence on the adequacy of the GCL covering, it has not been shown that unacceptable adverse impacts to groundwater resources and water courses would not arise during the life of the development. The development does not meet the requirement arising from LP policies M1 and M23 to show that the proposed environmental protection measures would be adequate to mitigate impacts. It would not be consistent with criterion 10 of policy CS18. Nor has it been shown that the requirements of Framework paragraphs 109, 121 and 122, to which I refer above, would be met. Having regard to the above and to all other matters raised I therefore conclude that Appeals A and B should not succeed.

Appeal C – The Planning Condition Appeal

Preliminary Matters

42. At the Inquiry the appellant suggested that if this appeal was to succeed the date by which site restoration was required should be extended by 12 months from the date of this decision. However, that would go beyond the date specified in planning application PA/2017/268 and therefore beyond the scope of this appeal. It might also prejudice those who were not party to the discussion of this matter at the Inquiry. I have therefore determined the appeal on the basis of extending the period to 28 April 2018. That would be 4 years from the commencement of the development.

Main Issue

43. The main issue in this appeal is the effect of extending the temporary period of the permission on the character and appearance of the area and on living conditions of local residents.

Reasons

44. Appeal C is against the Council's refusal to allow an extension of the period at the end of which restoration of the wellsite would be required, beyond that specified in condition no.24 of planning permission MIN/2013/0281. That period was expressed in condition no.24 as 3 years from the date on which the development commenced. Development was started on 28 April 2014 so that restoration was required by 28 April 2017. Planning application PA/2017/268 sought to extend the period for restoration by 12 months, to 28 April 2018.
45. The Council's position by the close of the Inquiry was that if Appeals A and B were allowed then Appeal C should also succeed. If, as I have now concluded, Appeals A and B should not succeed then the Council considers that hydrocarbon production would be ruled out and there would be no merit in allowing an extended period.
46. It is consistent with Framework paragraph 144 that provision should be made for site restoration and aftercare at the earliest opportunity. In respect of oil and gas appraisal boreholes, LP policy M22 also requires adequate proposals for restoration on completion. Extending the temporary period would not be consistent with these policies. On the other hand, as the appellant points out, a significant level of investment has already been made in this site. The proposed extended period would be of a modest duration and would help to avoid the risk of abortive work if, for example, the appellants were to pursue an alternative or revised scheme for the site.
47. The site is currently on a care and maintenance footing. In the context of nearby farm buildings it does not have a significant adverse visual impact on its surroundings. Nor is it harmful to the living conditions of local residents.
48. I conclude that these material considerations outweigh the policy conflicts. The balance of evidence is that Appeal C should succeed. I shall therefore grant a new planning permission subject to those conditions which remain necessary and relevant. Those conditions are needed to protect residential amenity and the environment. I have taken into account the draft conditions discussed at the Inquiry and set out in Inquiry document 33. For the reasons set out above, condition no.11 limits sets a date of 28 April 2018 by which the site must be restored. The conditions are set out in the Schedule attached to this decision.

FORMAL DECISIONS

Appeal A: APP/Y2003/W/17/3173530

49. The appeal is dismissed.

Appeal B: APP/Y2003/W/17/3180606

50. The appeal is dismissed.

Appeal C: APP/Y2003/W/17/3182879

51. The appeal is allowed and planning permission is granted for the construction of a temporary wellsite for the drilling of an exploratory borehole with associated structures and works at Lodge Farm, Clapp Gate, Appleby, Scunthorpe, DN15 0DB effective from 28 April 2017 in accordance with the application ref: PA/2017/268 21 dated 21 February 2017 without compliance with condition no.24 previously imposed on planning permission MIN/2013/0281 and subject to the conditions set out in the Schedule to this decision.

K Williams

INSPECTOR

APPEARANCES

FOR THE LOCAL PLANNING AUTHORITY: Mr A Evans, of Counsel.
He called:

Ms S Wagstaff, BA, MSc, FGS, JBA Consulting.
CGeol, EurGeol.

Ms K Atkinson, BA (Hons), Dip TP, KVA Planning Consultancy.
MA, MRTPI.

FOR THE APPELLANT: Mr R Glover, Partner, Squire Patton Boggs LLP.

He called:

Mr M Abbot, BSc (Hons), FGS. Egdon Resources Plc.

Mr J Foster. Zetland Group Ltd.

Mr J Dodds, BSc (Hons), Envireau Ltd.
DUC, MSc, CGeol, FGS.

Mr P Foster, BSc (Hons), Barton Willmore.
DipTp, MRTPI, MRICS.

INTERESTED PERSONS:

Ms Dunn	Local resident.
Mr Foster	Unite Union.
Ms McWhirter	Weald Action Group.
Mrs Betts	Local resident (statement read by Ms Williams).
Dr Simpson	Local resident.
Mrs Turner	Local resident.
Mr McLeod	Local resident.
Ms Dale	Local resident.
Mr Glover	Local resident.
Ms Clayton	Local resident.
Ms Williams	Local resident.
Mr Frackman	Campaigner against "fracking".
Mr Roberts	Local resident.

DOCUMENTS SUBMITTED AT THE INQUIRY

1. Council's list of appearances.
2. Appellant's list of appearances.
3. Council's opening statement.
4. Appellant's opening statement.
5. Council's composite document.
6. JBA Consulting map of bedrock geology and aquifer designation.
7. Glossary of groundwater and groundwater related terms.
8. Extract from Planning Practice Guidance Minerals.
9. Lithology lexicon document.
10. Example of engineer's borehole log.
11. Bentofix Installation and Acceptance Procedure (Type NSP and BFG) for Landfill Applications.
12. Council's set of photographs, 1 November 2017.
13. Environment Agency document: Using Geosynthetic Clay Liners in Landfill Engineering (version 3).
14. Construction Quality Assurance Plan document.
15. Photograph of sketch prepared by Mr Dodds.
16. Appellant's response to questions raised during cross examination of Mr Abbot.
17. How to Map Hydrocarbon Contamination of Groundwater Without Analysing for Organics (Abstract).
18. Community Union letter of 10 November 2017.
19. GMB Union email of 13 November 2017.
20. Use of Hydrofluoric Acid at Crosby Warren document.
21. Ms Dunn's statement.
22. Mrs Betts's statement.
23. Mr Foster's statement and related documents.
24. Ms McWhirter's statement and related documents.
25. Ms Williams's statement and related documents.
26. Dr Simpson's statement.
27. Mrs Clayton's statement.
28. Mr McLeod's statement and related documents.
29. Mrs Turner's statement and related documents.
30. Mr Robert's statement.
31. Mr Frackman's statement and related documents.
32. Schedule of suggested conditions.
33. Revised schedule of suggested conditions.
34. Mrs Clayton's summing up.
35. Mr McLeod's summing up.
36. Mrs Turner's summing up.
37. Ms Williams summing up.
38. Council's closing statement.
39. Appellant's closing statement.
40. Bentofix GCL Installation Guidelines.
41. Ms Wagstaff's Qualifications and Experience document.
42. Anglian Water Planning Application Report, January 2017.

Schedule of Conditions for Appeal C: APP/Y2003/W/17/3182879,

1. The development hereby permitted shall be carried out in accordance with the following approved plans: 3334 P 01, 3334 P 02, 3334 P 03, 3334 P 04, 3334 P 05, 3334 P 06, 3334 P 07, 3334 P 08, 3334 P 09, 3334 P 10, 3334 P 11 and 3334 P 12.
2. Earthworks associated with site restoration and HGV deliveries shall only take place between the hours of 7:00 hours and 17:30 hours Monday to Friday and Saturday 7:00 hours to 13:00 hours with no deliveries on Sundays or Bank Holidays.
3. Noise from the approved exploration well site shall not exceed 42dB $L_{Aeq,5min}$ when measured at any noise sensitive dwelling between 7pm and 7am Monday to Sunday inclusive.
4. Noise from the approved exploration well site shall not exceed 60dB L_{Amax} when measured at any noise sensitive dwelling between 7pm and 7am Monday to Sunday inclusive.
5. Noise from the approved exploration well site shall not exceed 55dB $L_{Aeq, 1h}$ when measured at any noise sensitive dwelling between 7am and 7pm Monday to Sunday inclusive.
6. Noise from the approved exploration well site shall not exceed 70dB L_{Amax} when measured at any noise sensitive dwelling between 7am and 7pm Monday to Sunday inclusive.
7. The lighting layout for the scheme shall be as set out in drawing number 3334 P06, dated February 2013, and shall be implemented and retained during the life of the development.
8. The site shall be maintained as a bunded, sealed site with sufficient containment capacity to prevent pollutants from discharging to land.
9. The development shall only be carried out in accordance with the approved Flood Risk Assessment (FRA) dated January 2013. Specifically, the surface water runoff generated by the 100 year critical storm shall be limited to 5 litres per second so that the risk of flooding off site is not increased. Sufficient attenuation must be supplied in the ring ditch to prevent any negative impact on the site for the aforementioned storm event.
10. The Biodiversity Management Plan submitted with application MIN/2013/0281 shall be carried out in accordance with the approved details and timings, and the approved features shall be retained thereafter.
11. The buildings, structures and works hereby permitted shall be removed, the use hereby permitted shall be discontinued and the land restored to its condition before the implementation of planning permission MIN/2013/0281 no later than 28 April 2018.