

8.0A LANDSCAPE AND VISUAL IMPACT

A8 Chapter Alterations

A8.1 This chapter of the ES Addendum updates the ES with respect to the following:

1. **Reference to Planning Practice Guidance added.**

A8.2 The parameters within Table 4.1 of Chapter 4A Project Description and the accompanying plans have been reviewed. The amended lighting plans (Figures 12.1, 12.2 and 12.3) have also been reviewed. No changes are required to this chapter as a result and the conclusions remain valid.

Introduction

- 8.1 This chapter of the ES assesses the likely significant effects of the Proposed Development (Wisborough Green-1) in terms of Landscape and Visual Impact.
- 8.2 The chapter describes the baseline conditions currently existing at the Application Site and surroundings; the likely significant environmental effects; the mitigation measures required to prevent, reduce or offset any significant adverse effects; and the likely residual effects after these measures have been employed. This chapter has been prepared by The Terra Firma Consultancy.
- 8.3 The chapter should be read in conjunction with **Figures 8.1-8.16** and the following:
- **Appendix 8.1** LVIA Methodology
 - **Appendix 8.2** Landscape Effects Assessment
 - **Appendix 8.3** Visual Effects Assessment

Planning Policy Context

- 8.4 A study has been made of the relevant policies providing the context for landscape and visual effect at National and Local level that apply to the Application Site and its surroundings. This is summarised as follows.

National Planning Policy*National Planning Policy Framework, 2012 (Ref. 8.1)*

- 8.5 In reference to sustainable development, the framework states the environmental role of the planning system is to protect and enhance the natural environment through the improvement of biodiversity and through positive improvements in quality of the natural and built environment.
- 8.6 It states that core planning principles should take into account the character of different areas and recognise the intrinsic character and beauty of the countryside, contribute and enhance the natural environment.
- 8.7 It states that the planning system should contribute and enhance the natural and local environment by protecting and enhancing valued landscapes and soils, minimising effects on biodiversity, providing net gains where possible.
- 8.8 It refers to the aim for planning policy to minimise adverse effects on local and natural environment, through comprehensive assessment of ecological networks, provision of adequate mitigation where harm cannot be avoided, and the encouragement of opportunities for increased biodiversity.
- 8.9 In relation to the sustainable use of minerals, the framework states the need for policy criteria to ensure that permitted developments do not have unacceptable adverse effects on the natural environment and that worked lands is subject to high quality restoration.

Technical Guidance to the National Planning Policy Framework, 2012 (Ref. 8.2)

- 8.10 In the Minerals Policy section, the guidance refers to the need for landscape strategies to define key landscape opportunities and constraints, identify visual exposure and need for screening, and the preferred character of the restored landscape.
- 8.11 The strategy should address effects on the existing landscape, including working operations and haul roads. It suggests that careful consideration of phasing, provision of screening can minimise visual and landscape effect and that key stages of restoration should be fully considered and detailed.

Planning Practice Guidance, 2014 (Ref. 8.11)

- 8.11a In the Minerals section, the guidance refers to the importance of a site-specific landscape strategy to cover restoration and aftercare of minerals sites to define key landscape opportunities and constraints, identify visual exposure and the need for screening, and the preferred character of the restored landscape.**

Local Planning Policy

Chichester District Council Local Plan First Review, 1999 (Ref. 8.3)

- 8.12 One of the three objectives of the Local Plan is to secure the protection and enhancement of the physical environment (built and natural) of the District.
- 8.13 The Local Plan also sets out the need to work towards ensuring that development and growth are sustainable through regard for environmental considerations.
- 8.14 Policy RE5 includes reference to the need to give special protection to the north eastern area of Chichester District due to its historic character, by only permitting development where it would not be detrimental to the areas landscape character of historic features.

- 8.15 Policy RE8 refers to the need to protect non-designated (in terms of nature conservation) areas such as corridors or other features important to nature conservation from development likely to damage, destroy or adversely affect these areas.
- 8.16 Policy BE11 states that new development must not detract from its surroundings in terms of effect on local environment and setting in the landscape.
- 8.17 Policy BE14 requires applications to have appropriate landscaping proposals that include the use of native species, a design and layout that minimises effects on features of nature conservation and takes opportunities for habitat enhancement and creation. Proposals are required to show locations of existing trees being removed and new proposals, along with protection measures for existing trees retained.

West Sussex Minerals Local Plan, 2003 (Ref 8.4)

- 8.18 The Plan accepts that there may be areas that can accommodate mineral extraction without permanent harm and with possible opportunities for enhancement and habitat creation but that in areas of local environmental significance without statutory protection, benefits should outweigh detrimental effects.

West Sussex County Council 'A strategy for the West Sussex Landscape', 2003 (Ref 8.5)

- 8.19 The strategy is based on West Sussex County Council Landscape Character Assessment character areas. In respect of the Low Weald, which the Application Site lies within, it refers to the vision of a characteristic mix of pastures, woodlands, hedges and shaws providing an intimate and secluded landscape, the characteristic agricultural landscape and the flourishing woodland cover of the area.

8.20 The strategy sets out guidelines for development that include the need to: protect areas valued for their natural beauty; retain key landscape features to aid setting of development; minimise modification to existing landforms and vegetation; conserve and enhance trees and hedgerows; secure, where appropriate, landscape and habitat enhancement, in particular to screen and integrate development, and plant native species; respect character of rural roads by minimising alteration, ensuring entrances fit in the landscape and utilising discreet signage; minimising impact of lighting; identify and conserve surviving historic landscapes and field patterns, in particular those showing little change and greater time depth, incorporating within landscape schemes; protect, conserve and enhance ancient woodlands and trees of historic importance.

Summary

8.21 In summary, the key themes running through from national planning policy, minerals policy and landscape strategy at a county level and local level policy are the importance of sustainable development, respect for landscape character and protection of important landscapes and features. In landscape terms these themes can be summarised as the need:

- To contribute and enhance the natural and local environment;
- To respect local landscape character and distinctiveness;
- To respect local historic landscape character;
- To protect designated landscapes, wildlife habitats and good quality agricultural land;
- To minimise and mitigate the effect of any proposed development through considered design and the enhancement of existing habitats or creation of new habitats.

There are various implications of the policies on the Proposed Development.

Assessment Methodology

EIA Regulations

- 8.22 Under 'The Town and Country Planning (Environmental Impact Assessment) Regulations 2011' the development requires a full Environmental Impact Assessment.

Scope of Study

- 8.23 The geographical scope of the landscape and visual impact assessment element of the report includes the Application Site itself and a surrounding area of up to 3 km with potential to be impacted by the proposals. The extent of the study area has been agreed in discussions with West Sussex County Council to be appropriate to assess the effects of the Proposed Development.

Methodology guidance

- 8.24 General guidance for the methodology for this study is from two key documents:
- 'Landscape Character Assessment' (The Countryside Agency, 2002);
 - 'Guidelines for Landscape and Visual Impact Assessment' (Landscape Institute and IEMA, 2002); Note: This LVIA study has been carried out prior to the publication of the new 'Guidelines for Landscape and Visual Impact Assessment' in April 2013. (Ref 8.6).

Desktop Research

- 8.25 The desktop survey has involved the review of OS mapping data, aerial photographs, landscape character assessment documents and related planning policy, as well as the development proposals.

Landscape Effects Assessment

Methodology

8.26 A site visit has been made and physical aspects and landscape characteristics of the site and surrounding area noted. Study has been made of available landscape character assessments.

Evaluation criteria for landscape effects

8.27 Sensitivity of the landscape or feature of the landscape as a resource is dependent on:

- Character: the extent to which a distinct and recognisable pattern of elements occur in a particular type of landscape and how these are perceived; a sense of place.
- Quality: a judgement on the physical state, intactness and state of repair of the landscape or feature.
- Value : this can be based on landscape designations of an area, or values without formal designation recognising perceptual aspects (scenic beauty or tranquillity), special cultural associations, the influence or presence of other conservation interests or the existence of a consensus about importance either nationally or locally.
- Capacity: the scope for change in character with the existing landscape

8.28 The level of sensitivity of a landscape character or landscape feature can be defined as:

High Importance

- Positive character and quality, with valued features
- Particularly sensitive to change in general; change may be detrimental if inappropriately dealt with.
- Area or feature of high importance or rarity on a national, regional or local scale.

Medium Importance

- Generally positive in character and quality, but which may have alteration to, degradation or erosion of features resulting in areas of more mixed character and diminished value.
- Moderately sensitive to change in general; change may be detrimental if inappropriately dealt with; tolerant of some change.
- Area of feature of medium importance or rarity on a regional or local scale

Low Importance

- Generally negative in character and quality, with few if any valued features
- Tolerant of substantial change
- Area or feature of low importance and rarity at a local scale.

8.29 Scale or magnitude of landscape effects is described by reference to the:

- Loss or addition of key elements of the baseline pre-development landscape character or feature
- Introduction of elements in the landscape and resultant changes in character

8.30 The quantification of the magnitude of landscape effects can be defined as high, medium, low or negligible and can be either adverse or beneficial. This is defined more fully below:

| | | |
|------------|------------|---|
| Adverse | High | Total loss of or major alteration to key elements of the baseline pre-development landscape character or feature, or introduction of elements considered to be uncharacteristic when set within the attributes of the receiving landscape. |
| | Medium | Partial loss of or alteration to one or more key elements of the baseline pre-development landscape character or feature, or introduction of elements that may be prominent but may not necessarily be considered substantially uncharacteristic when set within the attributes of the receiving landscape. |
| | Low | Minor loss or alteration to one or more key elements of baseline pre-development landscape character or feature, or introduction of elements that are not uncharacteristic when set within the attributes of the receiving landscape. |
| Neutral | Negligible | No perceptible change to key elements of the baseline pre-development landscape character or feature. |
| Beneficial | Low | Minor beneficial change to one or more key elements of the baseline pre-development landscape character or feature. |
| | Medium | Medium beneficial change to one or more key elements of the baseline pre-development landscape character or feature, or introduction of elements that may have a moderate beneficial benefit to the receiving landscape. |
| | High | Large beneficial improvement created by loss or reduction of adverse key elements of baseline pre-development landscape character or feature, or addition of beneficial landscape features. |

8.31 The criteria determining the significance of landscape effects are the sensitivity of the landscape receptors, and the magnitude of landscape effect as described above. The table below shows how the significance is assessed and encompasses both adverse and beneficial significance.

| | | Sensitivity of Landscape | | |
|-------------------------------|-------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | | High | Medium | Low |
| Magnitude of landscape effect | High | Major adverse significance | Major / Moderate adverse significance | Moderate adverse significance |
| | Medium | Major / Moderate adverse significance | Moderate adverse significance | Moderate / Minor adverse significance |
| | Low | Moderate adverse significance | Moderate / Minor adverse significance | Minor adverse significance |
| | Negligible | Negligible significance | Negligible significance | Negligible significance |
| | Low beneficial | Minor beneficial significance | Minor beneficial significance | Minor beneficial significance |
| | Medium beneficial | Moderate beneficial significance | Moderate beneficial significance | Moderate beneficial significance |
| | High beneficial | Major beneficial significance | Major beneficial significance | Major beneficial significance |

Visual Effects Assessment

Methodology

- 8.32 A set of photographs were taken to represent viewpoints in the surrounding area. These were taken using a Nikon D60 digital SLR camera. Most photographs were taken with the lens set at a focal length of 35mm. This is equivalent to 50mm on a non-digital SLR, which is generally accepted to most closely represent views seen with the naked eye. Photographs are noted where a wide-angle focal length setting was used in order to show close up foreground views, or where a zoom setting was used to show more detail in a distant view.
- 8.33 The aperture used for all photography was f/11 and the camera was set to automatically determine the appropriate shutter speed using a film speed setting of ISO-100.
- 8.34 An exercise has been undertaken to establish the visibility of the drilling rig from viewpoint where there are blocks of woodland between the viewer and the site. This was undertaken by plotting the viewer at 1.5m height on the correct AOD height and distance from site, with the site plotted at the correct AOD and the rig located at 45m height and with the intervening blocks of woodland plotted at the correct AOD. These diagrams can be seen at **Figure 8.16**.
- 8.35 Other viewpoints are assumed to have a view of the rig, however there maybe intervening hedgerows, hedgerow trees and individual trees that may restrict views.

Evaluation Criteria

8.36 Sensitivity of visual receptors is dependent on the:

- Location, angle and context of the viewpoint
- Activity or occupation of the receptor and the expectation of view that brings
- Importance of the view; this can be determined by number of people affected and popularity i.e. appearance in guidebooks, tourism maps, facilities provided for its enjoyment or references in art or literature.

8.37 The level of sensitivity can be defined as:

High Sensitivity

- Viewpoints within a high quality landscape.
- A recognised viewpoint referred to on maps and guidebooks.
- View receptors with a high interest in their environment and prolonged viewing opportunities i.e. where engaged in leisurely pursuits that involve aesthetic appreciation of their surroundings such as walking and cycling.
- Occupiers of residential properties, where there are a large number of properties with similar views.

Medium Sensitivity

- Viewpoints within a medium quality landscape.
- View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business.
- Occupiers of residential properties, where there are a small number of properties with similar views.

Low Sensitivity

- Viewpoints within a low quality landscape.
- View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis.

8.38 Scale or magnitude of visual change is described by reference to the:

- Loss or addition of features in a view
- Changes in the composition of the view, including the proportion of the view occupied by the proposed development
- Degree of contrast or integration of changes with the existing landscape in terms of scale, mass, line, height, colour and texture,
- Duration of change i.e. permanent or temporary, intermittent or continuous
- Distance of viewpoint from the proposed development
- Extent of area over which the changes would be visible.
- Angle of view in relation to main activity of receptor

8.39 Quantification of the magnitude of change of visual effects can be defined as high, medium, low or and can be either adverse or beneficial. This is defined more fully below:

| | | |
|------------|-------------------|--|
| Adverse | High | The proposals form an immediately apparent total loss of or major alteration to key elements of scene that are substantially uncharacteristic in the overall scene and change its character detrimentally. |
| | Medium | The proposals form a partial loss of or alteration to one or more key elements of the scene, or introduce elements to the scene, that may be prominent and readily noticed and uncharacteristic in the overall visual character. |
| | Low | The proposals form a minor loss or alteration to one or more key elements of the scene, or introduction of elements that are uncharacteristic when set in the overall visual character. |
| Neutral | Negligible | No perceptible change to elements of the scene or overall visual character. |
| Beneficial | Low | Minor changes to one or more key elements of the scene that may change the scene or overall visual character beneficially. |
| | Medium | Moderate changes to one or more key elements of the scene, or introduction of elements, that may change the scene or overall visual character beneficially. |
| | High | Large changes to one or more of the key elements of the scene, or introduction of prominent elements, that may change the scene or overall visual character beneficially. |

8.40 The criteria determining the significance of visual effects are the sensitivity of receptors and the magnitude of visual effect as described above. The table below shows how the significance is assessed and encompasses both adverse and beneficial significance.

| | | Sensitivity of receptor | | |
|----------------------------|-------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | | High | Medium | Low |
| Magnitude of visual effect | High | Major adverse significance | Major / Moderate adverse significance | Moderate adverse significance |
| | Medium | Major / Moderate adverse significance | Moderate adverse significance | Moderate / Minor adverse significance |
| | Low | Moderate adverse significance | Moderate / Minor adverse significance | Minor adverse significance |
| | Negligible | Negligible significance | Negligible significance | Negligible significance |
| | Low beneficial | Minor beneficial significance | Minor beneficial significance | Minor beneficial significance |
| | Medium beneficial | Moderate beneficial significance | Moderate beneficial significance | Moderate beneficial significance |
| | High beneficial | Major beneficial significance | Major beneficial significance | Major beneficial significance |

Limitations and Assumptions

8.41 In the production of the LVIA the following limitation and assumptions apply:

- elevations of viewpoints are estimated from OS data;
- distance of viewpoints are approximated from the centre of the Application Site.
- in the interests of consistency the term 'negligible' has been used in this report. However, this has also been used to include instances where the effect is 'nil' or there is 'no effect'.

Baseline Conditions

8.42 A full description of the Proposed Development, including phasing and timescales, is provided in Chapter 4 of the ES – Project Description.

Baseline Landscape

8.43 A comprehensive study of the landscape features and character of the Application Site and immediate surrounding area has been undertaken.

Landscape sensitivity

8.44 Sensitivity of the features and character has been assessed using the criteria set out in **Appendix 8.1**, and is set out in the Landscape Effects Assessment Table at **Appendix 8.2**.

Site Location and setting

- 8.45 The Application Site is set on 1.56 hectares of land that forms part of Hookhurst Farm (which is set to the east of Skiff Lane to the north east of the site), to the south of Kirdford Road within a rural landscape with scattered settlements and strong patterns of woodland and pasture, interspersed with more open arable fields. The closest settlements are dwellings at Barkfold Manor to the west, Old Farm to the south east and buildings on Kirdford Road to the north west of Wisborough Green (see **Figure 8.1**).
- 8.46 The Application Site is agricultural land, of a Grade 3 classification, used for arable. It should be noted that the ALC information is unclear for this site. There is no subdivision of the Grade 3 classification and there appears to be an area of Grade 4 classification slightly further to the south east. The Application Site is set within an open field that extends further than the site area.
- 8.47 The main site area is set to the north eastern section of a large arable field that is approximately 0.5km from north to south and the same east to west. To the immediate north west is a section of woodland that juts southwards into the arable field. This woodland is part of a larger area of woodland that lies to the north and east of the wider field the site is set within. To the south and west the wider field is open with a few scattered mature trees. The access track to the site runs from Kirdford Road to the north west to the south west corner of the of the site (see **Figures 8.5, and 8.7-8.9**).
- 8.48 The sensitivity of the land use of the Application Site is assessed as of medium importance; the agricultural nature of the land use is part of a wider extent of similar land use patterns, without designation, but characteristic of the surrounding area.

Statutory Designations

- 8.49 There are no statutory designations covering the Application Site itself, but other designations lie within the study area (see **Figure 8.2**).

- 8.50 Northup Copse is designated in part as ancient woodland, along with other woodlands and parts of woodland not abutting the Application Site in the study area.
- 8.51 There are three Sites of Nature Conservation Interest (SNCI) designations within the LVIA study area; part of Northup Copse to the north of the stream (not the section of woodland adjacent to the wider field the Application Site is set within); Dunhurst Copse to the north within 1 km of the Application Site and Mackerel's Common and Great Common between 2 and 3km to the north west of the Application Site.
- 8.52 There are 2 Sites of Special Scientific Interest (SSSI) in the study area; The Mens, a woodland designated for size, structural diversity and fungal and lichen species diversity which runs southwards from the southern edge of the wider field the Application Site is set within beyond the extent of the study area and the Upper Arun a site designated for flora and a diverse dragonfly population. These are also Special Area of Conservation.
- 8.53 The South Downs National Park (SDNP) lies in part within the study area to the south of the Application Site, at its closest approximately 600m from the Application Site.
- 8.54 There are two Scheduled Monuments (SMs) with the study area; Wephurst Glass House sited approximately 2.8km to the north west of the Application Site and Brownings Moated Site approximately 2.5km to the south west of the Application Site. There are no trees covered by tree preservation orders on or adjacent to the Application Site.

Topography

- 8.55 The main Application Site area slopes downwards from south to north, lying at between approx. 20.5m AOD on the southern boundary and 16.5m AOD the northern boundary. It falls relatively evenly along the west and east boundaries. The road level at the access point is 18m AOD and the access track rises gently to 19.5m AOD at the compound boundary.

- 8.56 To the north the land falls downwards to Boxal Brook rising up beyond within woodland. To the east the land falls to a stream before rising gradually to the south the rises gently to a higher point with the wider field before falling to a stream beyond. Further to the south the land rises gradually. To the west land is relatively flat. (See **Figure 8.3**).
- 8.57 The sensitivity of the topography of the Application Site is assessed as of medium importance; the nature of the landform is part of a wider extent of similarly land, without designation, but characteristic of surrounding area.

Access and Public Rights of Way

- 8.58 The Application Site is not open to public access, but the LVIA study area contains a good network of public rights of way (PROW) to the west, north and east. To the south there is a large area without public rights of way between the Application Site and a 2km radius, but there are public rights of way beyond this (see **Figure 8.4**).
- 8.59 The closest PROWs to the Application Site are as follows. A footpath (*PROW ref. 768*) lies at approx. 100m to the north, and runs in a westerly direction, from its junction with Kirdford Road towards Kirdford. A second PROW, a bridleway (*PROW ref. 2851/1*) is 625m to the west, and runs west for 125m and then turns to run northwards. A third PROW lies at approx. 625m from the Application Site and runs between Kirdford Road and a small lane off the A272 on the western edge of Wisborough Green.
- 8.60 The sensitivity of the access and public right of way in relation to the Application Site is assessed as of low importance as there are none directly running through or adjacent to the Application Site.

Vegetation

- 8.61 To the immediate west, to the north and south of the Application Site lies Northup Copse, the southern section of a larger woodland area, Dunhurst Copse which covers a large area of land to the north of the Application Site. Adjacent to the Application Site the woodland is comprised mainly of mature Oak and Ash trees, with a dense understory of holly, blackthorn, hazel and field maple. The wood is dense and, even without leaf cover, it is only possible to see into the understory a very short distance. The wood is designated in part as Ancient and Semi-natural Woodland (see **Figure 8.2**), with the area to the west and east designated but the area to the north adjacent to the stream not.
- 8.62 Within the arable field to the south of the Application Site there are two individual mature oak trees.
- 8.63 The entrance to the Application Site is through an existing field gate sited in an unmanaged native hedgeline with mature trees either side of the entrance.

Arboricultural survey

- 8.64 A full arboricultural assessment has been undertaken in line with BS5837: 2012. This gives advice on tree condition, root protection zones and management recommendations and is included as **Appendix 7.5**.
- 8.65 A summary of the key points is as follows:
- There are no freestanding trees within the site itself; all trees are entirely contained within the site boundaries;
 - No trees are lost as a result of the Proposed Development.

- 8.66 The sensitivity of the vegetation of the Application Site and directly bounding the Application Site is assessed as of medium importance due to the positive value of the surrounding trees and woodland, their importance on a local scale and the part ancient woodland designation of Northup Copse.

Ecology

- 8.67 The effects of the Proposed Development on the ecology of the Application Site and surrounding area are dealt with in Chapter 7 Ecology.

Landscape Character

- 8.68 There are two levels of landscape character assessment that cover the Application Site: national and county.

- 8.69 In the '*National Landscape Character Assessment*', 2005, (Ref 8.7) the Application Site lies within Character Area 121: Low Weald.

- 8.70 In the '*West Sussex: Landscape Character Assessment*', 2003 (Ref 8.8), the Application Site lies within Character Area LW2: North Western Low Weald.

- 8.71 There is no Landscape Character Assessment available at District (local) Level.

- 8.72 The main characteristics of the landscape character running through from national to local assessment can be summarised as:

- Land is low lying with gentle undulation
- Mix of small to medium size fields with some larger arable fields
- Mix of woodlands, copses and shaws creating a well wooded character and semi-enclosed landscape, allowing only occasional longer views
- Variable hedgerow network with mature trees within

8.73 The key issues relating to the change and the landscape character can be summarised as:

- Removal of hedgerows
- Decline of individual trees in hedgerows and fields
- Lack of management of woodlands and hedgerows
- PROW vulnerable to increased use and poor drainage
- Effect of pylons and introduction of modern farm buildings

8.74 The key opportunities identified as relating to the landscape character can be summarised as the:

- Conservation of rural character
- Conservation and management of existing trees, woodland and hedgerows
- Strengthening of hedgerow network, with planting of hedgerow trees and restoration of historic field patterns
- Increase tree cover around agriculture, village and development.
- Protect character of rural lanes

8.75 The sensitivity of the landscape character of the Application Site is assessed as of medium importance as, when its features are assessed as a whole, it is representative of the key characteristics that define the Landscape Character Area it lies within, but forms part of a wider extent of area with similar landscape character.

Historic landscape character

8.76 West Sussex County Council's Historic Landscape Characterisation provides information on time depth, broad character type and character type. (*Ref 8.9 Excerpt from West Sussex Historic Landscape Character, undated*)

8.77 The Application Site is set within the broad character type 'fieldscapes'. It is part of a larger area of fields with a character type classified as 'Informal fieldscapes' of 'Modern to WWII' time depth dating from 1914 - 1945 AD.

- 8.78 The former broad character type is also 'fieldscapes'; with a former character type of 'Informal Fieldscapes' dating from Post-medieval 1800 – 1914 AD).
- 8.79 The field patterns on the Application Site have been consistently classified as informal fieldscapes since 1800. The wider area they are set within is a mix of woodland and fieldscapes of a medieval (1066 - 1499 AD) time depth and a mix of woodland and fieldscapes of a Post-medieval 1800 - 1914 AD) time depth.
- 8.80 The sensitivity of the historic landscape character of the Application Site is assessed as of low importance due the recent time depth broadly uncharacteristic of the surrounding area of older historic landscape character and historic field patterns that the Application Site lies within.

Visibility

- 8.81 A comprehensive photographic appraisal was undertaken from public footpaths and roads in the possible zone of visual influence, out to a radius of approximately 3km from the Application Site. The extent of the study area has been agreed in discussions with West Sussex County Council to be appropriate to assess the effects of the Proposed Development. The main aim of the photographic survey was to establish an understanding of the visibility of the Application Site.
- 8.82 The visual effects assessment survey was undertaken in winter, with deciduous trees and shrubs without leaf.
- 8.83 **Figures 8.5** and **8.6** show the location of viewpoint photographs; viewpoints are colour-coded to show visibility during Phase 2: Mobilisation and drilling. **Figures 8.5a** and **8.6a** show the location of viewpoint photographs; viewpoints are colour-coded to show visibility during Phase 4b: Retention.

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- 8.84 **Figures 8.10 – 8.15** show the photographs taken from the viewpoints located on **Figures 8.5 and 8.6**, along with text to indicate their direction and approximate distance from the centre of Application Site and a description of the view and visibility of the Application Site.

Viewpoint receptors and sensitivity

- 8.85 Sensitivity of receptors has been assessed using the criteria set out in sections 8.36-8.37 and this is set out in the Visual Effects Assessment at **Appendix 8.3**.

Viewpoint categorisation

- 8.86 Within the zone of visual influence views of the Application Site fall broadly into 9 categories, with viewpoints being described in each category to include receptor sensitivity as assessed against criteria set out in sections 8.36-8.37.

Close views within 1 km of the Application Site from public rights of way

- 8.87 The land immediately surrounding the Application Site is broadly flat to the west, falling down to a shallow valley and rising again to the north and east and gently undulating to the south.
- 8.88 Viewpoints 6, 7 and 10 are set within and look through woodland to the north and north-west of the Application Site, with the dense woodland screening the Application Site from view.
- 8.89 Viewpoint 11 is set adjacent to commercial development to the north of Barkfold Manor and again looks through woodland to the north west of the Application Site, with the dense woodland screening it from view.

- 8.90 Viewpoint 12 is set adjacent to the complex of buildings at Barkfold Manor and looks across a paddock towards the Application Site; views of the Application Site ground plane are restricted by the intervening hedges along Kirdford Road with mature trees set within. Viewpoint 13 is set at the entrance of the access road to Barkfold Manor and, again, views of the Application Site ground plane are restricted by the hedges to the access track and roadside vegetation.
- 8.91 Viewpoint 34 is set on slightly higher ground to the north of the Application Site and looks across pastoral land towards woodland to the north of the Application Site, with views of the ground plane restricted by intervening vegetation adjacent to the footpath and the woodland beyond.
- 8.92 Viewpoint 49 is set in a field on slightly higher ground to the west of the Application Site; views of the ground plane of the Application Site are restricted by the intervening woodland of Northup Copse.
- 8.93 Receptor sensitivity is medium from these viewpoints.

Close views within 1 km of the Application Site from roads

- 8.94 The land immediately surrounding the Application Site is broadly flat to the west, falling down to a shallow valley and rising again to the north and east and gently undulating to the south.
- 8.95 Viewpoint 1 looks directly at the access to the Application Site from Kirdford Road and partial views of the Application Site ground plane are possible, however intervening woodland to the immediate west of the Application Site restricts views of the majority of the ground plane. The access track route is clearly visible.
- 8.96 Viewpoints 2 and 3 look east along Kirdford Road towards the Application Site access; views of the Application Site ground plane are restricted by the intervening hedges along Kirdford Road with mature trees set within.

- 8.97 Viewpoints 4 and 5 look west from lower ground along Kirdford Road towards the Application Site access; views of the ground plane of the Application Site are restricted by intervening woodland. The Application Site access is partially visible but is restricted by the angle of the view and roadside vegetation.
- 8.98 Viewpoint 8 is set on Kirdford Road looking east towards the Application Site; there are partial views of the ground plane of the Application Site, however intervening woodland to the immediate west of the Application Site restricts views of the majority of the ground plane. Part of the access track route is partially visible. Pylons are clearly visible in this view.
- 8.99 Viewpoint 9 is set on Kirdford Road looking east towards the Application Site through an opening in the roadside hedge; views of the Application Site ground plane are restricted by the intervening field hedge set within the arable fieldscape to the west of the Application Site. Pylons are clearly visible in this view.
- 8.100 Viewpoint 48 is set on Kirdford Road and looks west through a field gate towards the Application Site; views of the Application Site ground plane are restricted by the intervening vegetation and Northup Copse woodland.
- 8.101 Viewpoint 50 is set at the road junction between Kirdford Road and Skiff Lane and looks west towards the Application Site; views of the Application Site ground plane are restricted by the intervening vegetation of Northup Copse woodland.
- 8.102 Receptor sensitivity is low from these viewpoints.

Middle distance views from between 1 and 2 km from the Application Site from public rights of way

- 8.103 The land rises to the south west, north and northeast and in part to the east at 2km distance, but falls to a valley to the southeast, which links to the River Arun valley beyond.

- 8.104 Viewpoints 35 and 37 are set on higher ground to the northeast of the Application Site and look across pastoral land; views of the Application Site ground plane are restricted by the intervening vegetation, in the case of viewpoint 35 adjacent to the footpath, and Dunhurst Copse woodland closer to the Application Site.
- 8.105 Viewpoint 40 is set on slightly higher ground to the east of the Application Site and looks across pastoral land towards development to the north of Wisborough Green on Durbans Road; views of the Application Site are restricted by intervening development, vegetation and Northup Copse woodland closer to the Application Site. Pylons are clearly visible in the view.
- 8.106 Receptor sensitivity is medium from these viewpoints.

Middle distance views from between 1 and 2 km from the Application Site from roads

- 8.107 The land rises to the south west, north and northeast and in part to the east at 2km distance, but falls to a valley to the southeast, which links to the River Arun valley beyond.
- 8.108 Viewpoints 14 and 25 are set on Kirdford Road and Viewpoint 26 within Kirdford Village, and look east towards the Application Site; there are no views of the ground plane of the Application Site due to intervening vegetation and, from the village green, development as well.
- 8.109 Viewpoint 38 is set on higher ground looking south west towards the Application Site; views of the Application Site are restricted by intervening vegetation and Northup Copse woodland closer to the Application Site.
- 8.110 Viewpoints 44 and 45 are set on the A272 looking northwest towards the Application Site; views from 44 are restricted by roadside vegetation and views from 45 look across a low lying field towards intervening vegetation which restricts views of the Application Site.

8.111 Viewpoints 46 and 47 are set within Wisborough Green and look northwest towards the Application Site; views from 46 are restricted by development with the village itself and views from 47 look across pastoral land towards intervening vegetation which restricts views of the Application Site. Pylons are clearly visible in view 47.

8.112 Receptor sensitivity is low from all these viewpoints.

Long distance views from between 2km and 3km from the Application Site from public rights of way

8.113 Land rises to the southwest, west, and north, with a lower valley to the west where the River Kird runs westwards, and lower land to the southwest along the Upper Arun River valley.

8.114 Viewpoints 28, 29, 30 and 32 are set on slightly higher ground and look southeast across pastoral land towards the Application Site; views of the Application Site are restricted by distance and intervening vegetation.

8.115 Viewpoints 33 and 36 are set on higher ground and look southwest across pastoral land towards the Application Site; views of the Application Site are restricted by distance, landform and intervening vegetation.

8.116 Viewpoint 39 is set on higher ground to the north of Newpound Common Green looking southwest towards the Application Site; views of the Application Site are restricted by intervening vegetation running between the footpath and the adjacent road running parallel to it.

8.117 Viewpoint 41 is set on slightly higher ground looking west towards the Application Site; views of the Application Site are restricted by distance, landform and intervening vegetation.

8.118 Viewpoints 42 and 43 are set on lower ground looking northwest towards the Application Site; views of the Application Site are restricted by distance, landform and intervening vegetation.

8.119 Receptor sensitivity is medium from these viewpoints.

Long distance views from between 2km and 3km from the Application Site from roads

8.120 Land rises to the southwest, west, and north, with a lower valley to the west where the River Kird runs westwards, and lower land to the southwest along the Upper Arun River valley.

8.121 Viewpoint 24 is set on higher ground looking northeast towards the Application Site; views of the Application Site are restricted by distance and intervening vegetation. Pylons are clearly visible in the view.

8.122 Viewpoint 27 is set on slightly higher ground to the west of Kirdford looking east towards the Application Site; views of the Application Site are restricted by intervening vegetation on the immediate roadside.

8.123 Receptor sensitivity is low from these viewpoints.

Views from the South Downs National Park from public rights of way

8.124 Land rises to the southwest within the SDNP boundary.

8.125 Viewpoints 15, 19, 20 and 23 are set on higher ground looking northeast towards the Application Site; views of the Application Site are restricted by distance and intervening vegetation. Pylons are clearly visible from Viewpoints 15 and 23.

8.126 Receptor sensitivity is high from these viewpoints.

Views from the South Downs National Park from roads

- 8.127 Land rises to the southwest within the SDNP boundary.
- 8.128 Viewpoints 16, 17, 18 and 21 are set on higher ground looking northeast towards the Application Site; views of the Application Site are restricted by distance and intervening vegetation.
- 8.129 Receptor sensitivity is low from these viewpoints.

Views from SMs

- 8.130 Viewpoint 22 is set on higher ground looking northeast towards the Application Site and is the closest point on publically accessible land to the Brownings Moat SM, which is set at around 10m lower than the viewpoint itself; views of the Application Site are restricted by distance and intervening vegetation.
- 8.131 Receptor sensitivity is low from this viewpoint.
- 8.132 Viewpoint 31 is set on higher ground looking southwest towards the Application Site and is the closest point on publically accessible land to the Wephurst Glass House SM, which is set within dense woodland; views of the Application Site are restricted by landform, distance and intervening vegetation.
- 8.133 Receptor sensitivity is medium from this viewpoint.

Summary of visibility

- 8.134 The Application Site is generally well screened by the surrounding woodlands, trees and hedgerows. This strong existing vegetation framework to the Application Site and surrounding area also serves to prevent views of the ground plane of the Application Site from the majority of viewpoints, including from the part of the study area set within the

South Downs National Park. However there are partial views available of the Application Site itself and the entrance from close viewpoints on Kirdford Road.

8.135 The table below summarises the sensitivities of the visual receptors assessed using the criteria outlined in 8.36-8.36.

| Viewpoint numbers | Position | Assessed sensitivity of receptor | Reasons |
|-------------------|--|----------------------------------|--|
| 1- 5 | Road | Low | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. |
| 6 | Public Right of Way (Ancient and semi-natural woodland & Site of Nature Conservation Interest) | Medium | View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business |
| 7 | Public Right of Way (Ancient and semi-natural woodland) | Medium | View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business |
| 8-9 | Road | Low | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. |
| 10-11 | Public Right of Way (Ancient and semi-natural woodland) | Medium | View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business |
| 12-13 | Public Right of Way | Medium | View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business |
| 14 | Road | Low | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. |
| 15 | Public Right of Way (South Downs National Park) | High | Viewpoints within a high quality landscape. View receptors with a high interest in their environment and prolonged viewing opportunities i.e. where engaged in leisurely pursuits that involve aesthetic appreciation of their surroundings such as walking and cycling. |
| 16-18 | Road (South Downs National Park) | Low | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. |
| 19-20 | Public Right of Way | High | Viewpoints within a high quality landscape. |

| Viewpoint numbers | Position | Assessed sensitivity of receptor | Reasons |
|-------------------|---|----------------------------------|---|
| | (South Downs National Park) | | View receptors with a high interest in their environment and prolonged viewing opportunities i.e. where engaged in leisurely pursuits that involve aesthetic appreciation of their surroundings such as walking and cycling. |
| 21 | Road (South Downs National Park) | Low | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. |
| 22 | Road (Nearest publicly accessible point to Scheduled Monument) | Medium | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. However, sensitivity raised to Medium to reflect position on SDNP boundary and proximity to Scheduled Monument. |
| 23 | Public Right of Way (South Downs National Park & Ancient and semi-natural woodland) | High | Viewpoints within a high quality landscape. View receptors with a high interest in their environment and prolonged viewing opportunities i.e. where engaged in leisurely pursuits that involve aesthetic appreciation of their surroundings such as walking and cycling. |
| 24-27 | Road | Low | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. |
| 28-29 | Public Right of Way (Site of Nature Conservation Interest) | Medium | Viewpoints within a medium quality landscape. View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business. |
| 30 | Public Right of Way | Medium | Viewpoints within a medium quality landscape. View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business. |
| 31 | Public Right of Way (Nearest publicly accessible point to Scheduled Monument) | Medium | Viewpoints within a medium quality landscape. View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business. |
| 32-37 | Public Right of Way | Medium | Viewpoints within a medium quality landscape. View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business. |
| 38 | Road | Low | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. |

| Viewpoint numbers | Position | Assessed sensitivity of receptor | Reasons |
|-------------------|---------------------|----------------------------------|--|
| 39-43 | Public Right of Way | Medium | Viewpoints within a medium quality landscape. View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business. |
| 44-48 | Road | Low | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. |
| 49 | Public Right of Way | Medium | Viewpoints within a medium quality landscape. View receptors with a moderate interest in their environment i.e. where engaged in outdoor sport or recreation activities (other than appreciation of the landscape), or travelling through engaged in daily business. |
| 50 | Road | Low | View receptors with a passing or momentary interest in their environment i.e. where attention is focused on work or some similar activity or travelling through at speed on occasional basis. |

Assessment of effects

8.136 The effects of the Proposed Development have been assessed with regard to four phases of development:

- Phase 1. Construction of access road and well site
- Phase 2. Mobilisation of drill rig and drilling operations
- Phase 3a. Testing (vertical; gas) (omitted if no hydrocarbons found); or
- Phase 3b. Testing (vertical; oil) (omitted if no hydrocarbons found); or
- Phase 3a. Contingent testing (lateral; gas) (omitted if no hydrocarbons found); or
- Phase 3b. Contingent testing (lateral; oil) (omitted if no hydrocarbons found); and then either
- Phase 4a. Restoration; or
- Phase 4b. Retention.

8.137 In line with the methodology set out in sections 8.22-8.41, the assessment of each phase has looked at the sensitivity of landscape features, landscape character, historic landscape character or viewpoint categories, the magnitude of change the Proposed Development brings to each, likely significant landscape and visual effects of that change

in relation to the sensitivity, the mitigation measures required to prevent, reduce or offset those effects and the likely residual landscape and visual effects after the mitigation measures have been implemented.

8.138 An assessment of the rig visibility has been undertaken, as this is the tallest structure onsite and as such determines the zone of visual influence (see Plan 3582 P08), and is included as **Figure 8.16**. The rig visibility diagram assesses the potential visibility of the upper section of the drilling rig from all viewpoints where there are substantial blocks of woodland in the possible line of sight to the Proposed Development. The assessment of visibility is carried out with the assumption that there are no views possible through blocks of woodland to the bunding, portacabins and lower section of the rig, but that the angle and elevation of the view may allow views of the rig over woodlands in some cases. The assessment does not take account of smaller or narrower shelterbelts or hedgerow trees. Therefore it is assumed that the resultant rig visibility indicated is the worst case scenario.

8.139 Descriptions of the significance of the effects, details of the proposed mitigation and the significance of the residual effects are set out in the sections below (8.142 to 8.231). These, along with the assessment of sensitivity and magnitude of change, are also tabulated in the Effects Assessment Tables in Appendices 8.2 and 8.3.

Likely Significant Effects

8.140 In this section, an assessment of the landscape and visual effects of the Proposed Development without mitigation has been undertaken for the predicted effects during all phases. In later sections the mitigation proposals and residual effects of the Proposed Development after mitigation are described.

Phase 1: Construction of access road and well site

Landscape Effects

- 8.141 During the construction phase there will be physical alteration of the Application Site. The sensitivity of landscape features and character varies, as does the magnitude of change.
- 8.142 With the assessed medium sensitivity, the high magnitude of change through the loss of agricultural land and soils has a major/moderate adverse effect on the land use.
- 8.143 The storage of soils in bunds and the creation of a ditch brings a low magnitude of change to the topography of the Application Site. With an assessed medium sensitivity, this has a moderate/minor adverse effect on topography.
- 8.144 Access, assessed as having low sensitivity, is not affected by the Proposed Development.
- 8.145 The encroachment of the access track on the root protection zones of 5 trees, the crown-lifting of two trees and the loss of a 1.5m length of hedge at the entrance to the access track to allow for minor widening will bring a low magnitude of change to the vegetation of the Application Site. With an assessed medium sensitivity, this has a moderate/minor adverse effect on vegetation.
- 8.146 The introduction of elements of an industrial nature into the otherwise agricultural landscape of the surrounding area brings a medium magnitude of change to landscape character. With an assessed medium sensitivity, this has a moderate adverse effect on landscape character.
- 8.147 The loss of agricultural land with a significant time depth and historic landscape character brings a medium magnitude of change to historic landscape character. With an assessed low sensitivity, this has a moderate/minor adverse effect on historic landscape character.

Visual Effects

- 8.148 During construction, views of the Proposed Development will only be available from some of the close viewpoints on Kirdford Road.

- 8.149 Where these close views are from the road to the west and at the entrance to the Application Site access track, with low receptor sensitivity (viewpoints 1 & 8), the magnitude of change is low, with partial views of the construction traffic and partial views of the south western corner of the built elements of the Proposed Development through the existing field gate (viewpoint 1) and over the intervening hedgeline (viewpoint 8) having a minor adverse effect.
- 8.150 Where these close views are from the road to the east of the entrance to the Application Site access track, with low receptor sensitivity (viewpoints 4 & 5), the magnitude of change is low, with partial views of the construction traffic and entrance to the Application Site with increased signage, having a minor adverse effect.
- 8.151 Views from the other viewpoints are not affected due to lack of visibility of the Application Site and the Proposed Development the effects are therefore negligible.

Phase 2: Mobilisation of drill rig and drilling operations (vertical and contingent lateral)

Landscape Effects

- 8.152 During the mobilisation and drilling phase the effects on the landscape features and the historic character of the Application Site remain the same as in the previous phase.
- 8.153 The presence of the drill rig will introduce more elements of an industrial nature into the otherwise agricultural landscape of the surrounding area, bringing a high magnitude of change to landscape character. With an assessed medium sensitivity, this has a major/moderate adverse effect on landscape character

Visual Effects

- 8.154 During this phase the presence of the drilling rig increases the height of the Proposed Development. The visibility of the rig has been assessed (see section 8.139) and the

magnitude of change for all viewpoints from which the rig is visible (**Appendix 8.2**) has increased.

- 8.155 Where close views are from PROW, to the west, north and east of the Application Site, with clear views of the upper sections of the rig, over the top of vegetation, with medium receptor sensitivity (viewpoints 12, 13, 34 and 49), the magnitude of change is low, having a moderate/minor adverse effect.
- 8.156 Where close views are from the road to the west and east of the Application Site, with partial views of the construction traffic, partial views of the south western corner of the built elements of the Proposed Development, and clear views of the upper sections of the rig, over the top of vegetation through the existing field gate (viewpoint 1) and over the intervening hedgeline (viewpoint 8) having a minor adverse effect, with low receptor sensitivity, the magnitude of change is medium, having a moderate/minor adverse effect.
- 8.157 Where these close views are from the road to the east of the entrance to the Application Site access track, with low receptor sensitivity (viewpoints 4 & 5), the magnitude of change is low, with partial views of the construction traffic and entrance to the Application Site with increased signage, having a minor adverse effect.
- 8.158 Where close views are from roads, from the west and east of the Application Site, with clear views of the upper sections of the rig only over the top of vegetation, with low receptor sensitivity (viewpoints 2, 3, 9 and 48), the magnitude of change is low, having a minor adverse effect.

- 8.159 Where middle distance views are from PROW to the north east of the Application Site, with clear views of the upper sections of the rig only over the top of vegetation, with medium receptor sensitivity (viewpoints 35 and 37), the magnitude of change is low, having a moderate/minor adverse effect.
- 8.160 Where middle distance views are from roads to the west, northeast and southeast of the Application Site, with clear views of the upper sections of the rig only over the top of vegetation, with low receptor sensitivity (viewpoints 14, 25, 38, 44 and 45), the magnitude of change is low, having a minor adverse effect.
- 8.161 Where long distance views are from PROW to the northwest, northeast and east of the Application Site, with views of the upper sections of the rig only over the top of vegetation, with medium receptor sensitivity (viewpoints 28, 30, 32, 36, 39 and 41), the magnitude of change is low, having a moderate/minor adverse effect.
- 8.162 Where long distance views are from roads to the west of the Application Site, with views of the upper sections of the rig only over the top of vegetation, with low receptor sensitivity (viewpoint 27), the magnitude of change is low, having a minor adverse effect.
- 8.163 Where views are from roads within the SDNP, with views of the upper sections of the rig only over the top of vegetation, with low receptor sensitivity (viewpoint 17), the magnitude of change is low, having a minor adverse effect.
- 8.164 Views from the other viewpoints are not affected due to lack of visibility of the Application Site and the Proposed Development and therefore the effects are negligible.

Phase 3a: Testing (vertical; gas)

Landscape Effects

- 8.165 Effects remain the same as Phase 2 due to the presence on site of the drilling rig.

Visual Effects

8.166 Effects remain the same as Phase 2 due to the presence on site of the drilling rig.

Phase 3b: Testing (vertical; oil)

Landscape Effects

8.167 Effects remain the same as Phase 2 due to the presence on site of the drilling rig.

Visual Effects

8.168 Effects remain the same as Phase 2 due to the presence on site of the drilling rig.

Phase 3a: Testing (lateral; gas)

Landscape Effects

8.169 Effects revert to the same as Phase 1 due to the removal of the drilling rig but the continued presence of the bunding and portacabins.

Visual Effects

8.170 Effects revert to the same as Phase 1 due to the removal of the drilling rig but the continued presence of the bunding and portacabins.

Phase 3b: Testing (lateral; oil)

Landscape Effects

8.171 Effects revert to the same as Phase 1 due to the removal of the drilling rig but the continued presence of the bunding and portacabins.

Visual Effects

- 8.172 Effects revert to the same as Phase 1 due to the removal of the drilling rig but the continued presence of the bunding and portacabins.

Phase 4a: Restoration*Landscape Effects*

- 8.173 With the assessed medium sensitivity of the land use, the medium magnitude of change through the restoration of agricultural land and soils has a moderate adverse effect reducing over time through the re-establishment of agricultural use to negligible.
- 8.174 With the assessed medium sensitivity of the topography, the low magnitude of change through the removal of all bunding and restoration of all levels has a moderate/minor adverse effect reducing with the completion of the restoration to negligible.
- 8.175 Access, assessed as having low sensitivity, is not affected by the Proposed Development.
- 8.176 The encroachment of the access track on the root protection zones of 5 trees and the removal of 1.5m hedge at the entrance to the access track will bring a low magnitude of change to the vegetation of the Application Site. With an assessed medium sensitivity, this has a moderate/ minor adverse effect on vegetation reducing with the completion of the restoration to negligible.
- 8.177 The removal of all elements of an industrial nature into the otherwise agricultural landscape of the surrounding area and the removal of all bunding and restoration of existing levels brings a low magnitude of change to landscape character. With an assessed medium sensitivity, this has a moderate/minor adverse effect on landscape character reducing over time through the re-establishment of agricultural use to negligible.

8.178 The restoration of the agricultural land brings a low magnitude of change to historic landscape character. With an assessed low sensitivity, this has a minor adverse effect on historic landscape character reducing over time through the re-establishment of agricultural use to negligible.

Visual Effects

8.179 During restoration views of the Proposed Development will only be available from close viewpoints due to the removal of the drilling rig.

8.180 Where these close views are from the road to the west and at the entrance to the Application Site access track, with low receptor sensitivity (viewpoints 1 & 8), the magnitude of change is low, with partial views of the de-construction traffic and partial views of the south western corner of the built elements of the Proposed Development through the existing field gate (viewpoint 1) and over the intervening hedgeline (viewpoint 8) reducing throughout the restoration process, having a minor adverse effect reducing to negligible.

8.181 Where these close views are from the road to the east of the entrance to the Application Site access track, with low receptor sensitivity (viewpoints 4 & 5), the magnitude of change is low, with partial views of the de-construction traffic and entrance to the Application Site with increased signage reducing throughout the restoration process, having a minor adverse effect reducing to negligible.

8.182 Views from the other viewpoints are not affected due to lack of visibility of the Application Site and the Proposed Development.

Phase 4b: Retention

Landscape Effects

- 8.183 With the assessed medium sensitivity, the high magnitude of change through the continued loss of agricultural land and soils has a major/moderate adverse effect on the land use.
- 8.184 The continued storage of soils in bunds and the presence of a ditch brings a low magnitude of change to the topography of the Application Site. With an assessed medium sensitivity, this has a moderate/minor adverse effect on topography. Access, assessed as having low sensitivity, is not affected by the Proposed Development.
- 8.185 The encroachment of the access track on the root protection zones of 5 trees and the removal of 1.5m hedge at the entrance to the access track will bring a low magnitude of change to the vegetation of the Application Site. With an assessed medium sensitivity, this has a moderate/minor adverse effect on vegetation.
- 8.186 The retention of changes to levels through bunding and the loss of agricultural land brings a medium magnitude of change to landscape character. With an assessed medium sensitivity, this has a moderate adverse effect on landscape character.
- 8.187 The loss of agricultural land with a significant time depth and historic landscape character brings a medium magnitude of change to historic landscape character. With an assessed low sensitivity, this has a moderate/minor adverse effect on historic landscape character.

Visual Effects

- 8.188 During retention views of the Proposed Development will only be available from close viewpoints.
- 8.189 Where these close views are from the road to the west and at the entrance to the Application Site access track, with low receptor sensitivity (viewpoints 1 & 8), the magnitude of change is low, with partial views of the de-construction traffic and partial views of the south western corner of the retained built elements of the Proposed

Development through the existing field gate (viewpoint 1) and over the intervening hedgeline (viewpoint 8) having a minor adverse effect.

- 8.190 Views from the other viewpoints are not affected due to lack of visibility of the Application Site and the Proposed Development.

Mitigation Measures

Phase 1: Construction of access road and well site

- 8.191 Soil stripping and storage will be carefully managed; topsoil and subsoil will be stored separately to avoid contamination, bunding will be carefully shaped to ensure soils are free draining and not compacted.
- 8.192 The compound and access track will be carefully sited to minimise encroachment into tree root protection zones, with a root protection measures along the access track and no dig construction used for bitmac surfacing at the Application Site access entrance. Tree protection fencing will be erected to protect existing trees and woodland. (See Construction Environmental Management Plan in Chapter 6)

Phase 2: Mobilisation of drill rig and drilling operations

- 8.193 No additional mitigation is proposed.

Phase 3a: Testing (vertical; gas)

- 8.194 No additional mitigation is proposed.

Phase 3b: Testing (vertical; oil)

- 8.195 No additional mitigation is proposed.

Phase 3a: Testing (lateral; gas)

8.196 No additional mitigation is proposed.

Phase 3b: Testing (lateral; oil)

8.197 No additional mitigation is proposed.

Phase 4a: Restoration

8.198 The careful reuse of the stored site soils is proposed. The 1.5m length of hedge removed at the site entrance will be replanted.

Phase 4b: Retention

8.199 No additional mitigation is proposed.

Residual Effects

Phase 1: Construction of access road and well site

Residual Landscape Effects

8.200 The loss of agricultural land and soils gives a major/moderate adverse effect on the land use which can be partly mitigated. This alters the residual effect to moderate adverse.

8.201 The storage of soils in bunds and the creation of a ditch brings a low magnitude of change to the topography of the Application Site. With an assessed medium sensitivity, this gives a moderate adverse effect on topography character. These effects cannot be mitigated against and the residual effect remains the same.

8.202 Access, assessed as having low sensitivity, is not affected by the Proposed Development.

8.203 The encroachment of access track on the root protection zone of trees gives a moderate/minor adverse effect on vegetation, which can be partly mitigated, altering the residual effect to minor adverse.

8.204 The introduction of elements of an industrial nature into the otherwise agricultural landscape of the surrounding area has a moderate adverse effect on landscape character, which cannot be mitigated against and the residual effect remains the same.

8.205 The loss of agricultural land has a moderate/minor adverse effect on historic landscape character, which cannot be mitigated against and the residual effect remains the same.

Residual Visual Effects

8.206 Adverse effects of the Proposed Development cannot be mitigated against and therefore the residual effect remains the same.

Phase 2: Mobilisation of drill rig and drilling operations

Residual Landscape Effects

8.207 The residual landscape effects remain the same as Phase 1.

Residual Visual Effects

8.208 Adverse effects of the Proposed Development cannot be mitigated against and therefore the residual effect remains the same.

Phase 3a: Testing (vertical; gas)

Residual Landscape Effects

8.209 The residual landscape effects remain the same as Phase 2.

Residual Visual Effects

8.210 The residual visual effects remain the same as Phase 2.

Phase 3b: Testing (vertical; oil)

Residual Landscape Effects

8.211 The residual landscape effects remain the same as Phase 2.

Residual Visual Effects

8.212 The residual visual effects remain the same as Phase 2.

Phase 3a: Testing (lateral; gas)

Residual Landscape Effects

8.213 The residual landscape effects revert to the same as Phase 1.

Residual Visual Effects

8.214 The residual visual effects revert to the same as Phase 1.

Phase 3b: Testing (vertical; oil)

Residual Landscape Effects

8.215 The residual landscape effects revert to the same as Phase 1.

Residual Visual Effects

8.216 The residual visual effects revert to the same as Phase 1.

Phase 4a: Restoration*Residual Landscape Effects*

8.217 With restoration of the agricultural land, the moderate adverse effect reducing to negligible can be partly. This alters the residual effect to moderate/minor adverse reducing over time through the re-establishment of agricultural use to negligible.

8.218 Adverse effects of the Proposed Development on topography cannot be mitigated against and therefore the residual effect on the topography of the Application Site remains moderate/minor adverse reducing to negligible with the completion of the restoration. Access is not affected by the Proposed Development.

8.219 The encroachment of access track on the root protection zone of trees and the removal of 1.5m hedge at the entrance to the access track gives a moderate/minor adverse effect on vegetation, which can be partly mitigated, altering the residual effect to minor adverse reducing to negligible with the removal of the access and the replanting of the hedge during restoration.

8.220 Adverse effects of the Proposed Development cannot be mitigated against and therefore the residual effect on landscape character of the Application Site remains moderate/minor adverse reducing to negligible with the completion of the restoration.

8.221 Adverse effects of the Proposed Development cannot be mitigated against and therefore the residual effect on historic character of the Application Site remains minor adverse reducing to negligible with the completion of the restoration.

Visual Effects

- 8.222 Adverse effects of the Proposed Development cannot be mitigated against and therefore the residual effect remains the same.

Phase 4b: Retention*Residual Landscape Effects*

- 8.223 With the careful storage of soils on site the major/moderate adverse effects of the Proposed Development on land use can be partly mitigated. This alters the residual effect to moderate adverse.
- 8.224 The adverse effects of the Proposed Development on the topography through the continued storage of soils in bunds and the presence of a ditch cannot be mitigated against, therefore the effect remains moderate adverse.
- 8.225 Access is not affected by the Proposed Development.
- 8.226 The encroachment of access track on the root protection zone of trees and the removal of 1.5m hedge at the entrance to the access track gives a moderate/minor adverse effect on vegetation, which can be partly mitigated, altering the residual effect to minor adverse.
- 8.227 The adverse effects of the Proposed Development on landscape character cannot be mitigated against and the residual effect remains moderate adverse.
- 8.228 The adverse effects of the Proposed Development on historic character cannot be mitigated against and the residual effect remains moderate/minor adverse.

Residual Visual Effects

- 8.229 Adverse effects of the Proposed Development cannot be mitigated against and therefore the residual effect on close viewpoints remains the same.

Cumulative Effects

- 8.230 It is not anticipated that there are any cumulative effects of the Proposed Development.

Summary

- 8.231 In carrying out assessments on most developments, the permanent effects of the development are usually more significant than the temporary effects during construction. However, in the case of the Proposed Development, many of the effects are temporary. The most significant adverse landscape and visual effects are during the construction and operational phases.
- 8.232 Whilst the Proposed Development has adverse landscape effects, these are most significant during the construction and mobilisation and drilling phases, due to loss of the agricultural landscape affecting both land use and landscape character. The scheme also respects the existing field patterns rather having an adverse effect on these. The proposals also take care to respect the majority of the root protection zones of existing trees to the Application Site boundary and within the Application Site itself.
- 8.233 With the benefit of the well wooded surrounding landscape there is no single clear view into the Application Site. However the Proposed Development has adverse visual effects, these are most significant in close views from Kirdford Road during the mobilisation and drilling phase, due to the height of the rig, which cannot be mitigated.
- 8.234 In the restoration of the Application Site to existing landscape conditions, all adverse effects are reversed, returning the Application Site to greenfield.

- 8.235 If retention of the Application Site is required following the finding of hydrocarbons, the removal of much of the operational structure and equipment from the Application Site reduces the adverse landscape and visual effects of the construction and operational phases.
- 8.236 If the Application Site achieves permission and goes into production, the long term aim will be to restore the Application Site to greenfield once production ceases, also mitigating the significant adverse landscape and visual effects of the production site.
- 8.237 **Table 8.2** contains a summary of the likely significant landscape and visual effects of the Proposed Development.

Table 8.2: Table of Significance – Landscape and Visual Impact

| Potential Effect | Nature of Effect (Permanent/ Temporary) | Significance (Major/Moderate/Minor) (Beneficial/Adverse/Negligible) | Mitigation / Enhancement Measures | Geographical Importance* | | | | | | | Residual Effects (Major/Moderate/Minor) (Beneficial/Adverse/Negligible) |
|---|---|--|--|--------------------------|----|---|---|---|---|---|---|
| | | | | I | UK | E | R | C | D | L | |
| Phase 1: Construction of access road and well site | | | | | | | | | | | |
| Loss of agricultural land | Temporary | Major/moderate adverse | Careful storage of soils | | | | | | | ✓ | Moderate adverse |
| Changes to topography | Temporary | Moderate/minor adverse | - | | | | | | | ✓ | Moderate/minor adverse |
| Some encroachment on tree root protection zones along access. Loss of small section of hedge at entrance. | Temporary | Moderate/minor adverse | Use of root protection measures along access track and no dig construction at entrance | | | | | | | ✓ | Minor adverse |
| Change in landscape character | Temporary | Moderate adverse | - | | | | | | | ✓ | Moderate adverse |
| Change to historic landscape character | Temporary | Moderate/minor adverse | - | | | | | | | ✓ | Moderate/minor adverse |
| Site visibility | Temporary | Minor adverse (majority viewpoints negligible) | - | | | | | | | ✓ | Minor adverse (majority viewpoints negligible) |
| Phase 2: Mobilisation of drill rig and drilling operations | | | | | | | | | | | |
| Loss of agricultural land | Temporary | Major/moderate adverse | Careful storage of soils | | | | | | | ✓ | Moderate adverse |
| Changes to topography | Temporary | Moderate/minor adverse | - | | | | | | | ✓ | Moderate/minor adverse |
| Some encroachment on tree root protection zones along access. Loss of small section of hedge at entrance. | Temporary | Moderate/minor adverse | Use of root protection measures along access track and no dig construction at entrance | | | | | | | ✓ | Minor adverse |
| Change in landscape character | Temporary | Major/moderate adverse | - | | | | | | | ✓ | Major/moderate adverse |
| Change to historic landscape character | Temporary | Moderate/minor adverse | - | | | | | | | ✓ | Moderate/minor adverse |
| Site visibility | Temporary | Ranges from moderate/minor adverse to minor adverse (some viewpoints negligible) | - | | | | | | | ✓ | Ranges from moderate/minor adverse to minor adverse (some viewpoints negligible) |

| Phase 3a / 3b: Testing (vertical; gas and oil) | | | | | | | | | | |
|---|----------------------|--|--|--|--|--|--|--|---|--|
| Loss of agricultural land | Temporary | Major/moderate adverse | Careful storage of soils | | | | | | ✓ | Moderate adverse |
| Changes to topography | Temporary | Moderate/minor adverse | - | | | | | | ✓ | Moderate/minor adverse |
| Some encroachment on tree root protection zones along access. Loss of small section of hedge at entrance. | Temporary | Moderate/minor adverse | Use of root protection measures along access track and no dig construction at entrance | | | | | | ✓ | Minor adverse |
| Change in landscape character | Temporary | Major / moderate adverse | - | | | | | | ✓ | Major / moderate adverse |
| Change to historic landscape character | Temporary | Moderate/minor adverse | - | | | | | | ✓ | Moderate/minor adverse |
| Site visibility | Temporary | Ranges from moderate/minor adverse to minor adverse (some viewpoints negligible) | - | | | | | | ✓ | Ranges from moderate/minor adverse to minor adverse (some viewpoints negligible) |
| Phase 3a / 3b: Testing (lateral; gas and oil) | | | | | | | | | | |
| Loss of agricultural land | Contingent/temporary | Major/moderate adverse | Careful storage of soils | | | | | | ✓ | Moderate adverse |
| Changes to topography | Contingent/temporary | Moderate/minor adverse | - | | | | | | ✓ | Moderate/minor adverse |
| Some encroachment on tree root protection zones along access. Loss of small section of hedge at entrance. | Contingent/temporary | Moderate/minor adverse | Use of root protection measures along access track and no dig construction at entrance | | | | | | ✓ | Minor adverse |
| Change in landscape character | Contingent/temporary | Major / moderate adverse | - | | | | | | ✓ | Major / moderate adverse |
| Change to historic landscape character | Contingent/temporary | Moderate/minor adverse | - | | | | | | ✓ | Moderate/minor adverse |
| Site visibility | Contingent/temporary | Minor adverse (most viewpoints negligible) | - | | | | | | ✓ | Minor adverse (most viewpoints negligible) |

| Phase 4a: Restoration | | | | | | | | | | |
|---|-----------|--|--|--|--|--|--|--|---|---|
| Restoration of agricultural land | Temporary | Moderate adverse reducing to negligible | Careful re-use of soils | | | | | | ✓ | Moderate/minor adverse reducing to negligible |
| Restoration of topography | Temporary | Moderate/minor adverse reducing to negligible | - | | | | | | ✓ | Moderate / minor adverse reducing to negligible |
| Some encroachment on tree root protection zones along access. Loss of small section of hedge at entrance. | Temporary | Moderate/minor adverse reducing to negligible | Use of root protection measures along access track and no dig construction at entrance | | | | | | ✓ | Minor adverse |
| Change in landscape character | Temporary | Moderate/minor adverse reducing to negligible | - | | | | | | ✓ | Moderate/minor adverse reducing to negligible |
| Change to historic landscape character | Temporary | Minor adverse reducing to negligible | - | | | | | | ✓ | Minor adverse reducing to negligible |
| Site visibility | Temporary | Minor adverse; reducing to negligible (majority viewpoints negligible) | - | | | | | | ✓ | Negligible |
| Phase 4b: Retention | | | | | | | | | | |
| Loss of agricultural land | Temporary | Major/moderate adverse | Careful storage of soils | | | | | | ✓ | Moderate adverse |
| Changes to topography | Temporary | Moderate/minor adverse | - | | | | | | ✓ | Moderate/minor adverse |
| Some encroachment on tree root protection zones along access. Loss of small section of hedge at entrance. | Temporary | Moderate/minor adverse | Use of root protection measures along access track and no dig construction at entrance | | | | | | ✓ | Minor adverse |
| Change in landscape character | Temporary | Moderate adverse | - | | | | | | ✓ | Moderate adverse |
| Change to historic landscape character | Temporary | Moderate/minor adverse | - | | | | | | | Moderate/minor adverse |
| Site visibility | Temporary | Minor adverse (majority viewpoints negligible) | - | | | | | | ✓ | Minor adverse (majority viewpoints negligible) |
| * Geographical Level of Importance I = International; UK = United Kingdom; E = England; R = Regional; C = County; D = District; L = Local | | | | | | | | | | |

References (Ref)

- 8.1 National Planning Policy Framework (2012)
- 8.2 Technical Guidance to the National Planning Policy Framework (2012)
- 8.3 The South East Plan (adopted May 2009)
- 8.4 Chichester District Council (Adopted April 1999) '*Local Plan First Review*'
- 8.5 Chichester District Council (Adopted April 1999) '*General Development Control Policies*'
- 8.6 West Sussex County Council (2003) '*Minerals Local Plan*'
- 8.7 West Sussex County Council (2005) '*A Strategy for the West Sussex Landscape*'
- 8.8 Landscape Institute and the Institute of Environmental Management and Assessment (2002) '*Guidelines for Landscape and Visual Impact Assessment*', Spon Press
- 8.9 Natural England (2005) '*National Landscape Character Assessment*'
- 8.10 West Sussex County Council (2003) '*West Sussex: Landscape Character Assessment*'
- 8.11 West Sussex County Council (undated) 'Excerpt from West Sussex Historic Landscape Character'
- 8.12 **Planning Practice Guidance to the National Planning Policy Framework (2014)**