

Viking CCS Pipeline

9.25 Royal Haskoning \ ELDC Comments on EIA - Applicant's Response

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a Harbour Energy Company
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1 Introduction

- 1.1.1 This document has been prepared for the Viking CCS Pipeline (the 'Proposed Development') on behalf of Chrysaor Production (UK) Limited ('the Applicant'), in response to comments from Royal Haskoning DHV (dated 8th April 2024) on behalf of east Lindsey District Council.
- 1.1.2 In particular, this document provides response to those pertinent issues raised and included within the conclusions of the Royal Haskoning DHV report, as presented within Table 2-1.

2 Applicant's Responses

- 2.1.1 Our responses have been split into the 8 topics which were included within Table 2-1, which include:
- Ecology and Biodiversity;
 - Geology and Hydrogeology;
 - Water Environment;
 - Noise and Vibration;
 - Climate Change;
 - Socio-Economics;
 - Health and Wellbeing; and
 - Materials and Waste.
- 2.1.2 Each response has been provided within the individual tables (1 to 8) presented below.

Table 1: Chapter 6 - Ecology and Biology

Topic	Matter raised in Written Representation	Applicant response
General Ecology	Justification is there for not avoiding potential for impacts upon lamprey, chalk streams and associated designations through the use of HDD or other trenchless techniques at all connected watercourses?	<p>Natural England have confirmed in their comments (NE19) that relevant watercourses fall outside of the Humber Estuary lamprey migration routes.</p> <p><i>“Natural England welcomes the commitments to use horizontal directional drilling (‘HDD’) to cross major watercourses, reinstate minor watercourses, and secure the construction mitigation measures outlined in 7.3.28 of the shadow HRA via the Construction Environmental Management Plan (CEMP).</i></p> <p><i>In this case, we highlight that the relevant watercourses appear to fall outside the Humber Estuary lamprey migration routes. Therefore, we advise that no further assessment is required to assess potential impacts to lamprey associated with the Humber Estuary SAC/Ramsar.”</i></p> <p>The Applicant acknowledges the importance of chalk streams in the area and their unique ecological features. As such, the chalk streams in the area that are to be crossed by the Proposed Development are to be crossed by non-intrusive construction methods such as HDD or Auger-Bore and therefore the Proposed Development will have a negligible/no impact on the chalk streams in the area. Furthermore, minor watercourses (i.e., those other than chalk streams) affected by the Proposed Development will be reinstated within 2 years post construction so that any impacts will only be temporary.</p>
General Ecology	What will the time lag be between completion of works and replacement planting being installed? Provision of dead-hedging currently indicates an undetermined period.	Habitats will be reinstated within 2 years post construction. Habitat reinstatement will be completed at the optimum time of year to make sure vegetation establishes successfully. Detailed timings will be provided within the final Landscape and Ecological Management Plan.
BNG	Detail regarding the aftercare period. Aftercare should be long term (e.g. 30 years) and ensure that there are suitable measures in place to legally and financially secure it for the duration.	Post construction monitoring will be completed for 30 years where the Applicant has made a commitment to BNG and will be detailed in the final Landscape and Ecological management Plan. The final Habitat Management Plan will detail any measures required to make sure habitats meet their target condition.

Table 2: Chapter 9 - Geology and Hydrogeology

Topic	Matter raised in Written Representation	Applicant response
General Geology / Hydrogeology	Details regarding potential decommissioning techniques to be added to the chapter in order to demonstrate that there is not the potential for a preferential pathway to be created.	<p>The Applicant has assumed in Chapter 9 [APP-051] that the pipeline will remain in-situ in the decommissioning phase (as outlined in the Draft Decommissioning Strategy presented in Appendix 3-5 [APP-072]. Section 3.15 of Chapter 3 [APP-045] also states that a detailed decommissioning strategy would be developed prior to the commencement of any decommissioning activities. It is noted in Section 3.15 of Chapter 3 that special consideration will be given to key locations such as road and railway crossings and that at such locations agreed methodologies between relevant stakeholders will be employed to ensure the pipeline is left in a suitable condition.</p> <p>If above ground infrastructure or specific sections of the pipeline need to be removed or grouted, and the land reinstated during the decommissioning phase, the relevant mitigation measures outlined in Chapter 9 [APP-051] for the construction phase and included in the draft Construction Environmental Management Plan [REP1-013] will remain applicable (e.g. environmental emergency response plan (E4), preparation of a Site Waste Management Plan (E5), Soil Management Plan (F1), pre-entry meetings (E6), a watching brief (E7), and a dynamic risk assessment in accordance with Environment Agency report Land Contamination Risk Assessment (LCRM) will be undertaken if required (E8). Additionally, the mitigation measures to prevent the creation of new contaminant pathways / linkages will also be required [Section 9.8.5 of APP-051]. The mitigation measures will be outlined in a Decommissioning Environmental Management Plan, as detailed in the CEMP (Section 7.1.8 of [REP1-013]).</p> <p>The decommissioning works will be undertaken in accordance with the Environment Agency Position Statement A8 in 'The Environment Agency's approach to groundwater protection', Version 1.2 dated February 2018, if there is the potential for introducing preferential pathways into superficial and bedrock aquifers with backfill designed to suitable engineering standards at the time of decommissioning.</p>

Table 3: Chapter 11 - Water Environment

Topic	Matter raised in Written Representation	Applicant response
Flood Risk	Flood Warning and Evacuation Plans - details on what this would entail, including time to onset and depth of flooding related to evacuation.	As noted in the FRA [APP-101], a FWEP will be produced following completion of the FEED Stage and will include all relevant information regarding mitigation, site operation, evacuation and safe refuge.
Flood Risk	No consideration of the differences in flood risk during the construction phase vs the operational phase. As such, there appears to be no cross reference to the Code of Construction Practice (CoCP) in the FRA – as a document / mechanism for setting out the measures to be included during the construction phase.	An updated version of the FRA (Revision A) has been submitted at Deadline 2 which provides more detail with regards the construction phase. Construction will be undertaken in line with the measures outlined in the draft CEMP and these mitigation measures are referenced in the FRA. As is noted, construction will be undertaken in line with best practice.
Flood Risk	The FRA assesses the impact of flooding during the construction and operational phases of the development. However, there is no discussion on the decommissioning phase and reinstatement of land / drainage following completion of the project to ensure there is no long-term impact on flood risk.	For the decommissioning stage the pipeline will be left in-situ along its entire length, therefore the impacts associated with the decommissioning phase are related to the removal of above-ground facilities. The scale and nature of activities undertaken during decommissioning would be similar to, and significantly lesser, than those previously undertaken for construction. A Decommissioning Environmental Management Plan (DEMP) will be produced prior to the decommissioning phase and will include mitigation for flood risk.

Table 4: Chapter 13 - Noise and Vibration

Topic	Matter raised in Written Representation	Applicant response
General Noise	Inadequate justification of construction noise assessment criteria, disregarding low baseline sound levels in rural areas.	BS 5228-1 provides examples of how construction noise could be assessed. One of these example is the ABC method, which has been used as a basis for defining the Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL) for temporary construction noise effects. The LOAEL and SOAEL for construction noise have been tested at DCO examination and accepted as appropriate in other consented major DCO schemes such as High Speed 2, A14 Cambridge to Huntingdon, Thames Tideway, Luton Airport, Gatwick Airport and Manston Airport. As such, the construction noise criteria used are considered suitable for the Proposed Development.
General Noise	Construction noise assessment criteria require clarification.	The construction noise assessment accounts for temporary noise effects and applies appropriate criteria that have been tested and accepted at DCO examinations for numerous high-profile nationally significant infrastructure projects
General Noise	Construction noise predictions have not considered potential worst-case and appear to disregard facade reflections.	This comment is addressed in detail in a Supplementary Technical Noise Note presented within Appendix A of this document and which has been submitted at Deadline 2.
General Noise	In determining whether construction noise effects are potentially significant, it would be helpful to provide information on the duration of potential impacts.	A detailed, day by day construction methodology is not currently available and would not be prepared until after the scheme was consented and a Principal Contractor appointed. The approach for identifying likely significant effects was considered conservative by identifying likely significant effects regardless of whether the duration of the activity may last for less than a period of 10 or more days of working in any 15 consecutive days or for a total number of days exceeding 40 in any 6 consecutive months.
General Noise	The construction noise assessment identifies potentially significant effects but the required attenuation is not known; hence, it cannot be known whether the proposed mitigation measures are sufficient to mitigate the effects to a non-significant level.	This comment is addressed in detail in a Supplementary Technical Noise Note presented within Appendix A of this document and which has been submitted at Deadline 2.
General Noise	The noise level parameter used in the operational noise assessment methodology section is inconsistent. Any changes to this parameter may require the assessment to be revised.	It is acknowledged that the paragraph 13.4.36 and 13.4.37 [APP-055] makes reference to the LAeq,T metric incorrectly and should reference the LAr,Tr metric. However, this was a typographical error only and the correct values were used in the assessment and as such there is no affect on the operational noise assessment
General Noise	The assessment method for impacts on non-residential receptors requires revision to include criteria for omitted receptor types.	Whilst R46 is named as a caravan site, it is predominantly a mobile home site and all receptors within the study area are mobile homes. The other receptor queried is R29a, where night fishing takes place. There is no guidance on suitable construction noise levels for night fishing. As such, R29a was assessed as a residential receptor, which is considered to provide a conservative method of assessment as there is no evidence to suggest that night fishing activities are any more sensitive to noise that occupants of residential properties who may experience sleep disturbance due to noise. No likely significant effects at R29a were identified due to potential night-time works. As such, the assessment of non-residential receptors is considered robust.
General Noise	Potential noise effects from the use of the Southern construction compound require assessment, along with whether the compounds will be used at night. Night-time noise from the Northern Compound (if present) should also be assessed.	This comment is addressed in detail in a Supplementary Technical Noise Note presented within Appendix A of this document and which has been submitted at Deadline 2.
General Noise	The assessment of maintenance venting impacts should be moved to the operational assessment section.	Acknowledged; however, this amendment would be cosmetic and would not affect the assessment or any conclusions on likely significant effects.

Topic	Matter raised in Written Representation	Applicant response
General Noise	The operational noise assessment methodology should be updated to describe the method and noise level parameters used for assessment of effects during maintenance.	Paragraph 13.7.47 of the ES Noise and Vibration Chapter [APP-055] states that biennial maintenance activities will be undertaken so noise does not exceed 10 dB above the background noise level. This commitment is secured in Appendix 3-6: Operational Phase Mitigation [APP-073] .
General Noise	Further details are needed on the monitoring and calculation procedures, along with any required mitigation, to ensure that residual effects from maintenance venting noise will be not significant.	Paragraph 13.7.47 ES Noise and Vibration Chapter [APP-055] states that biennial maintenance activities will be undertaken so noise does not exceed 10 dB above the background noise level. This commitment is secured in Appendix 3-6: Operational Phase Mitigation [APP-073] .
General Noise	The discrepancy between Appendix 15.3 and the Chapter in terms of the additional construction traffic to be introduced requires rectification.	Construction traffic movements were calculated over a 10-hour working day from 08:00 to 18:00 so equate to an average of 6 HGV movements per hour.
General Noise	Further quantitative evidence is required to assess the effects of construction road traffic noise on roads with low traffic flows.	The assessment of construction traffic was undertaken based on calculation methods set out in the Calculation of Road Traffic Noise, which is an industry standard method. As discussed in paragraph 13.7.84 [APP-055] , this method is unreliable for low-traffic flows so a quantitative assessment is not possible and a qualitative assessment is considered appropriate. In the case in question, an average of six temporary HGV movements per hour is not considered sufficient to warrant a significant effect.
General Noise	It is not clear which of the construction works will be included in a section 61 consent application.	The requirement for a Section 61 application for specific works will be determined once a detailed construction methodology has been prepared. It should be noted that a Section 61 cannot be relied upon as mitigation and specific mitigation measures to avoid likely significant effects are secured through the DCO. However, it allows measures such as noise monitoring and a communication strategy to be agreed with the local authority.
General Noise	The distance to the night-time SOAEL from HDD works is inconsistent between the assessment and mitigation sections.	This typo has been updated in the Draft Construction Environmental Management Plan Revision B which has been submitted at Deadline 2.
General Noise	The discussion of screening in the residual effects contradicts that proposed in the mitigation section.	The Draft Construction Environmental Management Plan (Revision B) has been updated to add as additional measure to secure barriers where any exceedances of the construction noise SOAEL are predicted. This updated version has been submitted at Deadline 2.
General Noise	It is not agreed that all reasonable measures have been implemented to control construction noise impacts.	This comment is addressed in detail in a Supplementary Technical Noise Note presented within Appendix A of this document and which has been submitted at Deadline 2.
General Noise	The construction noise impact assessment methodology set out in the ES Chapter has not been used to analyse the significance of residual effects.	This comment is addressed in detail in a Supplementary Technical Noise Note presented within Appendix A of this document and which has been submitted at Deadline 2.

Table 5: Chapter 15 - Climate Change

Topic	Matter raised in Written Representation	Applicant response
General Climate Change	Insufficient information on how the emissions were calculated to assess the robustness and accuracy of the assessment outputs.	The Applicant has provided details of the activity data and emission factors databases used in the calculations, which as laid out in paragraph 15.4.3 [APP-057] are the core components of a GHG calculation. Paragraph 15.4.4. [APP-057] sets out the key emission factor databases used. The key assumptions and limitations used are set out from 15.4.25 to 15.4.27 [APP-057] giving sufficient detail of how the materials were assessed, what materials were included and excluded and how the various life cycle stages were accounted for.
General Climate Change	No information on why climate parameters have been scoped out, nor how these parameters were selected.	No major climate parameters were scoped out of the climate change or in-combination climate change impact (ICCI) assessments. The climate projections included were taken from UK projections as detailed in paragraphs 15.5.10 to 15.5.15 [APP-057] . Qualitative consideration was given to some impacts where projected data was not available, as detailed in table 15-15.
General Climate Change	CCR impact assessment, there is little data or evidence to support the determination of likelihood and consequences of impacts in Table 15-30, therefore the outcomes of the assessment are unsupported. Furthermore, there is no evidence to determine how the potential impacts on the Viking CCS pipeline in Table 15-30 and 15-31 have been identified.	The Applicant has set out the projected data used to inform the conclusion in table 15-15 [APP-057] , whilst listing the methodology for assigning likelihood and significance in tables 15-8 and 15-9 [APP-057] . These present sufficient information to ground the assessment. As a general note, an updated version of the ES Climate Change Chapter (Revision A) has been submitted at Deadline 2.

Table 6: Chapter 16 - Socio-Economics

Topic	Matter raised in Written Representation	Applicant response
General Socio-Economics	Justification for two or more significant effects required for the assessment of amenity effects	Amenity describes the benefits of enjoyment and wellbeing that receptors gain from a resource in line with its intended function. The assessment of amenity effects within the socio-economics chapter [APP-058] is concerned with the way receptors may be affected by a combination of factors, such as: noise and vibration, air quality, transport and access, and landscape and visual impacts. The potential significant effects resulting solely from one these environmental effects are assessed within the respective topic assessments. For the purposes of the socio-economics assessment, socio-economic effects on amenity are considered to arise from in-combination, or synergistic, impacts resulting from two or more significant residual environmental effects. This is based on the understanding from a socio-economic perspective that the benefits of enjoyment and wellbeing are likely to be significantly affected when compounding significant environmental effects arise at the same time. This approach to assessing amenity effects has previously been applied for a number of DCO applications including Thames Tideway Tunnel and Longfield Solar Farm, as well as for the impact assessment undertaken for the HS2 hybrid bill. In each of these instances, the method was found to be sound. The Applicant therefore considers this approach to be justifiable to assess socio-economic amenity effects for the purpose of this DCO.
General Socio-Economics	Justification for scoping out of impact of transient workforce on services such as accommodation	As noted in the Applicants response to Written Representation, the size of the expected workforce is considered unlikely to generate significant impacts with respect to temporary accommodation. On this basis, an assessment of the influx on workers on temporary accommodation has been scoped out of the assessment.
General Socio-Economics	List of LSOA's used to define Local Economic Study Area	The Local Economic Study Area has been defined using LSOAs contained within a 60-minute drive time area. A list of LSOAs has been provided within Appendix B of this document.

Table 7: Chapter 17 - Health and Wellbeing

Topic	Matter raised in Written Representation	Applicant response
General Health and Wellbeing	Clarification should be sought on the venting composition and commentary made regarding human health.	As part of the detailed design process for the vent stack, the Applicant will undertake additional atmospheric modelling based on a range of atmospheric criteria and the proposed detailed design of the Proposed Development as a whole. Through compliance with relevant legislation, associated guidance and operational mitigation measures, any potential adverse effects on human (health) and ecological receptors would be avoided.
General Health and Wellbeing	ELDC should satisfy themselves that the statement regarding the large number of GP services in the area is correct and the demand placed on them by the resident population is sufficiently low to allow for additional workforce impacts to be non-significant.	<p>The Applicant notes the comment made. To support ELDC in their consideration, reiteration of the key points of the assessment set within the context of the comment is provided here. As outlined in Section 17.5 of ES Volume II - Chapter 17: Health and Wellbeing [APP-059], there are 16 GP surgeries located within the Study Area. Of these GP surgeries, four are located within East Lindsey District Council. It is inherently difficult to apportion potential demand for GP services arising from construction workers to individual local authority areas across the route as construction activity will not be evenly spread over time, and workers will move locations fluidly. As stated in ES Volume II - Chapter 3: Description of the Proposed Development [APP-045], the peak construction workforce is anticipated to be approximately 720 construction workers. The assessment within ES Volume II - Chapter 16: Socio-economics [APP-058] notes that of the 720 peak construction workers, a proportion will already live locally (approximated at 30% of the workforce within the socio-economic assessment), and therefore will already be registered at a local practice, and would not place additional demand on GP services. Potential demand arising in East Lindsey from these construction workers would be limited to those either residing in the district, or those working in the area and requiring emergency treatment, and therefore only represent a portion of the demand arising from this peak number of construction workers. Furthermore, as stated in Paragraph 16.7.5 of ES Volume II - Chapter 16: Socio-economics [APP-058], the average number of workers on-site across the construction period will be 197 workers; a much lower number than in the peak period of construction. Therefore, any demand arising for GP services from workers overall in the Study Area will typically in all likelihood be much less in number than that during the peak period of construction. Demand arising at ELDC level would be lower still than this given the distribution of construction activities.</p> <p>In summary, a combination of factors reduce the potential for effects on GP services in the area of East Lindsey. Firstly, there are a large number of GP practices within the Study Area relative to both the peak and average number of construction workers. The health and wellbeing assessment in ES Volume II - Chapter 17: Health and Wellbeing [APP-059] has been assessed from a worst-case scenario, such that the peak construction workforce will be limited in duration and the average number of construction workers will generally be much lower throughout the construction phase. In addition, any demand arising for services in ELDC would be lower than the average number of construction workers, given that not all construction workers will reside within East Lindsey and require access to services as residents. Finally, construction activity will not be completely within East Lindsey given the location and duration of the Proposed Development, such that only a portion of any arising demand would likely arise within ELDC, subject to the programme requirements for construction. Therefore, the combination of these factors imply that the effect on the provision of healthcare services in East Lindsey would be limited.</p>

Table 8: Chapter 18: Materials and Waste

Topic	Matter raised in Written Representation	Applicant response
General Materials and Waste	Clarification on how material sensitivity has been defined.	As outlined in paragraph 18.7.4 of ES Volume II - Chapter 18: Materials and Waste [APP-060] . Material receptor sensitivity is determined as 'medium'. On balance, it was established that "the key materials required for the construction of the Proposed Development are forecast (through trend analysis and other information) to suffer from some potential issues regarding supply and stock. This sensitivity is based on professional judgement and acknowledgement that there have been some construction material supply issues during 2020-2023."
General Materials and Waste	Additional details on the estimated volumes of waste as a result of construction activities as well as the split of waste types into inert, non-hazardous or hazardous, how specific materials will be recycled and diverted from landfill.	<p>The material and waste assessment was undertaken on the basis of information available at the time of the assessment and was sufficiently detailed enough to undertake the Environmental Impact Assessment and to assess the significance of impacts.</p> <p>Additional details on the estimated volumes of waste as a result of construction activities as well as the split of waste types into inert, non-hazardous or hazardous, how specific materials will be recycled and diverted from landfill will be provided in the contractor's Site Waste Management Plan (SWMP) as part of their Construction Environmental Management Plan (CEMP). Table 5 of the Outline SWMP (ES Volume IV – Appendix 18-1: Outline Site Waste Management Plan, [APP-113]) sets out how the waste hierarchy will be applied to construction wastes, and Table 2 indicates the potential recovery rates for key waste types. The mitigation presented in the Draft CEMP [REP1-013] is secured through a requirement within the DCO, which requires a CEMP to be submitted for approval by the planning authority prior to commencement of development. As the SWMP forms part of that, the mitigation measures including waste recovery targets within that are also secured.</p>

Appendix A - Supplementary Technical Noise Note

Viking CCS Pipeline

Appendix A - Noise Technical Note

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1 Introduction

- 1.1.1 This document has been prepared for the Viking CCS Pipeline (the 'Proposed Development') on behalf of Chrysaor Production (UK) Limited ('the Applicant'). The document contains detailed information in response to comments from Royal Haskoning DHV (dated 8th April 2024) on behalf of east Lindsey District Council **[REP1-057]**.
- 1.1.2 In particular, this document provides response to those pertinent issues raised and included within the conclusions of the Royal Haskoning DHV report as follows:
- Construction noise predictions have not considered potential worst-case and appear to disregard facade reflections;
 - The construction noise assessment identifies potentially significant effects but the required attenuation is not known; hence, it cannot be known whether the proposed mitigation measures are sufficient to mitigate the effects to a non-significant level;
 - Potential noise effects from the use of the Southern construction compound require assessment, along with whether the compounds will be used at night. Night-time noise from the Northern Compound (if present) should also be assessed;
 - It is not agreed that all reasonable measures have been implemented to control construction noise impacts; and
 - The construction noise impact assessment methodology set out in the ES Chapter has not been used to analyse the significance of residual effects.

2 Applicant's Responses

2.1 Façade Reflections

- 2.1.1 The construction noise criteria used in the assessment are based upon noise thresholds as set out in the BS 5228-1 'ABC method'. This method applies when identifying noise effects "at dwellings". However, BS 5228 is not explicit whether the noise thresholds are façade or free-field values.
- 2.1.2 The assessment of construction noise effects in ES Chapter 13 Noise and Vibration **[APP-055]** was based on free-field baseline noise levels, to assess a worst-case impact when residents are in their gardens. This aligns with the baseline noise monitoring regime, which was undertaken in free-field conditions. Predictions were undertaken based on a conservative assumption where all plant are operating at the same time in an area of the Order Limits in close proximity to individual receptors, thus represent an intended worst-case. In reality, when the plant are distributed over a wider area, noise levels at receptors are likely to be lower than the levels presented. As such, the identification of likely significant effects is considered to be robust based upon the assessment undertaken.
- 2.1.3 The mitigation measures in the Draft Construction Environmental Management Plan (CEMP) **[REP1-013]** have been updated to provide an additional column with potential distances at which the Significant Observed Adverse Effect Level (SOAEL) may be exceeded when allowing for the +3 dB façade correction. The updated (Revision B) of the Draft CEMP has been submitted at Deadline 2. Updated distances are presented in Table 2-1 with reference to distances outlined in Table 13-19 and Table 13-20 of ES Chapter 13 Noise and Vibration **[APP-055]**.

Table 2-1 Revised SOAEL Distances Accounting for Façade Correction

Construction Works Phase	ES SOAEL Distance (m)	SOAEL Distance with Façade Correction (m)
Rights of way preparation work	35	45
Pipe stringing	20	25
Trench excavation	25	30
Pre/post drainage	25	30
HDD – day	45	45*
HDD – night	280	280*
Auger	30	35
Open-cut crossing	25	30
Micro tunnel	25	30
*No façade corrections have been applied to HDD. Table 8 of Appendix 13.2 Construction Noise Calculations [APP-109] shows that twice the number of plant than necessary were accounted for in predictions. As such, noise predictions were 3 dB higher than necessary, which is equivalent to a façade correction.		

2.2 Southern Compound Noise Effects

- 2.2.1 The Southern Compound is located at the car park on the former Theddlethorpe Gas Terminal site and is approximately 13,000 m² in area. The compound would be used predominantly as a pipe storage area and is expected to hold up to 1,000 sections of pipe.
- 2.2.2 Paragraph 12.7.8 of ES Chapter 12: Traffic and Transport **[APP-054]** identifies that six trucks will transfer pipes making four trips per day each. This works out as an average of four HGV movements per hour for the period between 07:00 and 19:00. Pipes would be unloaded at the compound using a crane and stacked where possible.
- 2.2.3 Noise emissions from the Southern Compound would result from operation of the crane and HGV activity. Noise source data used to calculate potential levels of noise from southern compound activities have been referenced from Table 5 of Appendix 13.2 Construction Noise Calculations **[APP-109]** and presented in Table 2-2.

Table 2-2 Southern Compound Noise Source Data

Plant	BS 5228-1 Reference	Sound Pressure Level at 10m	Operating Time (hours)
Wheeled mobile crane	BS5228-1: Table C.4, Item 43	70	4
Lorry with lifting boom	BS5228-1: Table C.4, Item 53	77	4

- 2.2.4 The nearest receptors are to the south at a distance of approximately 40m from the Order Limits and 80m from the pipe storage areas (see Indicative Southern Construction Compound Layout **[APP-024]**) where the southern compound activity would occur.
- 2.2.5 At a distance of 80m, southern compound activities would result in a free-field noise level of 62 dB LAeq,T. This is below the Lowest Observed Adverse Effect Level of 65 dB LAeq,T and not significant.
- 2.2.6 There is potential for additional noise as a result of loading/ unloading of pipes. However, it is expected that pipes will be unloaded with care in order to avoid damage and, as such, it is not anticipated that loading/ unloading activities would result in excessive noise. However, a commitment has been added to the updated version (Revision B) of the Draft CEMP to confirm this. This has been submitted at Deadline 2.

2.3 All Reasonable Measures

- 2.3.1 Noise mitigation measures are secured within a Draft Construction Environmental Management Plan (CEMP) **[REP1-013]**, with an updated version (Revision B) submitted to the ExA at Deadline 2. The mitigation presented in the Draft CEMP is secured through a requirement within the DCO, which requires the final CEMP to be submitted for approval after the grant of development consent.
- 2.3.2 A summary of measures secured in the CEMP to control construction noise is listed below:
- Measures to control noise as defined in Annex B of BS 5228-1 will be adopted were reasonably practicable;
 - Barriers to be applied to the following activities (secured in the updated Draft CEMP submitted to the ExA at Deadline 2):
 - Horizontal Directional Drilling within 280m of a property;
 - Hydrostatic testing within 280m of a property;

- Pipeline laying works within 35m of a property; and
- Rights of way works within 45m of a property.
- Noise monitoring will be undertaken to confirm mitigation is sufficient to avoid significant effects.

2.3.3 Additionally, a commitment is made in section 8.5 of the Draft CEMP to develop a communication strategy to keep the public fully informed of the proposed programme of works. This is relevant to noise as BS 5228-1 states that:

“Local residents might be willing to accept higher levels of noise if they know that such levels will only last for a short time”.

2.3.4 Given the measures listed above, it is considered that all reasonable measures have been adopted to avoid significant noise effects. Specific measures such as the use of barriers and noise monitoring would be considered and confirmed in a Section 61 application. This would also include a trigger action plan for insulation and/ or temporary rehousing if considered necessary.

2.4 Mitigation Attenuation and Residual Effects

2.4.1 The final pipeline route and detailed construction methodology would not be prepared until the Proposed Development was consented. For this reason, the assessment of construction noise assumes a worst-case where construction works could potentially take place at the closest point on the Order Limits to individual sensitive receptors. This approach allows flexibility to be applied in any post-consent design work through applying the following hierarchy of mitigation measures to avoid significant noise effects:

- Avoid undertaking activities within a certain distance from sensitive receptors – as the final pipeline route within the Order limits would not be confirmed until the post consent period, there is flexibility on the distance of the pipeline route to sensitive receptors. This flexibility allows some scope to avoid passing in close proximity to sensitive receptors and thus reduce the potential for likely significant effects. Avoidance distances for construction activities are summarised in Table 2-1.
- Where works are required within this distance, mitigation in the form of screening will be applied – where it is not practicable to comply with the avoidance distances for construction activities, screening would be applied to reduce construction noise levels at nearby sensitive receptors. Screening can provide up to 10 dB attenuation when the screen blocks line-of-sight between the source and the receiver. The actual level of attenuation that can be provided is dependent on a number of factors:
 - The dimensions of the screen – the higher and wider a screen is, the less noise will flank round the sides and top;
 - Location of the screen in relation to the source – the closer the screen is to the source, the better the screen is at attenuating noise;
 - The type of noise source – static noise sources are easier to screen than mobile noise sources; and
 - Screen construction – a screen should be solid and impervious with a minimum surface density of 10 kg/m².
- Noise monitoring would be undertaken to confirm that mitigation is sufficient to avoid significant noise effects – if noise monitoring identified that agreed noise thresholds were exceeded, additional mitigation measures would be explored and immediately implemented.

2.4.2 As mitigation measures are a hierarchy that are dependent on factors that would not be certain until post-consent design works are complete, the level of attenuation provided cannot be explicitly defined. However, the hierarchy of mitigation provides a suitable approach to ensure that likely significant effects can be avoided even when considering reasonable worst case assumptions. This is reflected in the identification of residual effects (Table 13-35 of ES Chapter 13 Noise and Vibration **[APP-055]**), which identifies that the hierarchy of mitigation measures would be sufficient to avoid significant noise effects.

Appendix B – List of LSOA's

Economic Impact Study Area, LSOAs

Barnsley 014B	Doncaster 012A	Doncaster 006D
Barnsley 022D	Doncaster 012B	Doncaster 006E
Doncaster 009A	Doncaster 013B	Doncaster 006F
Doncaster 009B	Doncaster 012C	Doncaster 018A
Doncaster 009C	Doncaster 013C	Doncaster 018B
Doncaster 009D	Doncaster 013D	Doncaster 018C
Doncaster 005A	Doncaster 012D	Doncaster 018D
Doncaster 005B	Doncaster 012E	Doncaster 018E
Doncaster 005C	Doncaster 027A	Doncaster 018F
Doncaster 009E	Doncaster 025A	Doncaster 015A
Doncaster 005D	Doncaster 024A	Doncaster 030C
Doncaster 005E	Doncaster 025B	Doncaster 016A
Doncaster 005F	Doncaster 025C	Doncaster 016B
Doncaster 011A	Doncaster 024B	Doncaster 020A
Doncaster 011B	Doncaster 025D	Doncaster 021A
Doncaster 011C	Doncaster 024C	Doncaster 021B
Doncaster 011D	Doncaster 022A	Doncaster 020B
Doncaster 014A	Doncaster 022B	Doncaster 020C
Doncaster 014B	Doncaster 022C	Doncaster 016C
Doncaster 014D	Doncaster 023B	Doncaster 016D
Doncaster 017A	Doncaster 023C	Doncaster 037A
Doncaster 017B	Doncaster 028D	Doncaster 036A
Doncaster 017C	Doncaster 023D	Doncaster 037B
Doncaster 017D	Doncaster 032A	Doncaster 037C
Doncaster 002A	Doncaster 035A	Doncaster 036B
Doncaster 002B	Doncaster 035B	Doncaster 037D
Doncaster 002C	Doncaster 035C	Doncaster 036C
Doncaster 002D	Doncaster 035D	Doncaster 037E
Doncaster 002E	Doncaster 035E	Doncaster 036D
Doncaster 002F	Doncaster 032B	Doncaster 026A
Doncaster 002G	Doncaster 032C	Doncaster 026B
Doncaster 023A	Doncaster 032D	Doncaster 026C
Doncaster 028A	Doncaster 034A	Doncaster 026D
Doncaster 029A	Doncaster 033A	Doncaster 026E
Doncaster 029B	Doncaster 034B	Doncaster 024D
Doncaster 029C	Doncaster 034C	Doncaster 027C
Doncaster 029D	Doncaster 034D	Doncaster 027D
Doncaster 028B	Doncaster 034E	Doncaster 025E
Doncaster 029E	Doncaster 033B	Doncaster 038B
Doncaster 029F	Doncaster 033C	Doncaster 038C
Doncaster 009F	Doncaster 008A	Doncaster 039A
Doncaster 013A	Doncaster 006A	Doncaster 039B
Doncaster 010A	Doncaster 006B	Doncaster 033D
Doncaster 009G	Doncaster 006C	Doncaster 039C
Doncaster 010B	Doncaster 008B	Doncaster 039D
Doncaster 010C	Doncaster 008C	Doncaster 039E
Doncaster 010D	Doncaster 008D	Doncaster 021C
Doncaster 010E	Doncaster 008E	Doncaster 021D

Doncaster 021E	Rotherham 034B	Wakefield 010C
Doncaster 020D	Rotherham 034E	Wakefield 011D
Doncaster 007A	Rotherham 012B	Wakefield 010D
Doncaster 007B	Rotherham 012C	Wakefield 011E
Doncaster 007C	Rotherham 027B	Wakefield 015A
Doncaster 007D	Rotherham 027D	Wakefield 012A
Doncaster 004A	Rotherham 027E	Wakefield 012B
Doncaster 004B	Rotherham 025F	Wakefield 015C
Doncaster 004C	Rotherham 021B	Wakefield 012C
Doncaster 004D	Rotherham 021C	Wakefield 018A
Doncaster 004E	Rotherham 021D	Wakefield 015D
Doncaster 007E	Rotherham 023E	Wakefield 012D
Doncaster 007F	Rotherham 010B	Wakefield 012E
Doncaster 001A	Rotherham 010C	Wakefield 034E
Doncaster 001B	Rotherham 021E	Wakefield 018C
Doncaster 001C	Rotherham 019E	Wakefield 041C
Doncaster 001D	Rotherham 019F	Wakefield 034F
Doncaster 003A	Rotherham 010D	Wakefield 044A
Doncaster 003B	Rotherham 033A	Kingston upon Hull 025A
Doncaster 003C	Rotherham 033B	Kingston upon Hull 025B
Doncaster 003D	Rotherham 031D	Kingston upon Hull 018A
Doncaster 003E	Rotherham 033C	Kingston upon Hull 025C
Doncaster 003F	Rotherham 018B	Kingston upon Hull 025D
Doncaster 003G	Rotherham 018C	Kingston upon Hull 015A
Doncaster 022D	Rotherham 018D	Kingston upon Hull 018B
Doncaster 019A	Rotherham 020A	Kingston upon Hull 018C
Doncaster 019B	Rotherham 020B	Kingston upon Hull 005A
Doncaster 019C	Rotherham 020C	Kingston upon Hull 005B
Doncaster 019E	Rotherham 020D	Kingston upon Hull 012A
Doncaster 015B	Rotherham 018E	Kingston upon Hull 012B
Doncaster 015C	Rotherham 018F	Kingston upon Hull 005C
Doncaster 015D	Rotherham 020E	Kingston upon Hull 005D
Doncaster 015E	Rotherham 020F	Kingston upon Hull 028A
Doncaster 019F	Rotherham 026B	Kingston upon Hull 028B
Doncaster 022F	Rotherham 026C	Kingston upon Hull 028C
Doncaster 015F	Rotherham 034D	Kingston upon Hull 027A
Rotherham 026A	Rotherham 026D	Kingston upon Hull 019A
Rotherham 030C	Wakefield 001B	Kingston upon Hull 028D
Rotherham 030D	Wakefield 003A	Kingston upon Hull 027B
Rotherham 031B	Wakefield 003B	Kingston upon Hull 028E
Rotherham 012A	Wakefield 001E	Kingston upon Hull 004A
Rotherham 019A	Wakefield 005A	Kingston upon Hull 034A
Rotherham 019B	Wakefield 005D	Kingston upon Hull 034D
Rotherham 034A	Wakefield 011A	Kingston upon Hull 034B
Rotherham 018A	Wakefield 011B	Kingston upon Hull 002A
Rotherham 019C	Wakefield 010A	Kingston upon Hull 004B
Rotherham 034C	Wakefield 011C	Kingston upon Hull 004C
Rotherham 019D	Wakefield 010B	Kingston upon Hull 002B

Kingston upon Hull 002C
Kingston upon Hull 002D
Kingston upon Hull 002E
Kingston upon Hull 002F
Kingston upon Hull 004D
Kingston upon Hull 014A
Kingston upon Hull 014B
Kingston upon Hull 014C
Kingston upon Hull 014D
Kingston upon Hull 019B
Kingston upon Hull 023A
Kingston upon Hull 019C
Kingston upon Hull 019D
Kingston upon Hull 023B
Kingston upon Hull 023C
Kingston upon Hull 019E
Kingston upon Hull 023D
Kingston upon Hull 023E
Kingston upon Hull 016A
Kingston upon Hull 026A
Kingston upon Hull 016B
Kingston upon Hull 016C
Kingston upon Hull 026B
Kingston upon Hull 026C
Kingston upon Hull 026D
Kingston upon Hull 026E
Kingston upon Hull 013A
Kingston upon Hull 013B
Kingston upon Hull 013C
Kingston upon Hull 013D
Kingston upon Hull 020A
Kingston upon Hull 016D
Kingston upon Hull 013E
Kingston upon Hull 016E
Kingston upon Hull 022A
Kingston upon Hull 011A
Kingston upon Hull 007A
Kingston upon Hull 010A
Kingston upon Hull 010B
Kingston upon Hull 011D
Kingston upon Hull 011E
Kingston upon Hull 006A
Kingston upon Hull 006B
Kingston upon Hull 034E
Kingston upon Hull 009A
Kingston upon Hull 010C
Kingston upon Hull 009B
Kingston upon Hull 009C

Kingston upon Hull 010D
Kingston upon Hull 010E
Kingston upon Hull 009D
Kingston upon Hull 009E
Kingston upon Hull 017A
Kingston upon Hull 021A
Kingston upon Hull 021B
Kingston upon Hull 017B
Kingston upon Hull 021C
Kingston upon Hull 021D
Kingston upon Hull 021E
Kingston upon Hull 020B
Kingston upon Hull 017C
Kingston upon Hull 024A
Kingston upon Hull 024B
Kingston upon Hull 029C
Kingston upon Hull 029D
Kingston upon Hull 024C
Kingston upon Hull 024D
Kingston upon Hull 031A
Kingston upon Hull 030A
Kingston upon Hull 031B
Kingston upon Hull 025E
Kingston upon Hull 027C
Kingston upon Hull 027D
Kingston upon Hull 027E
Kingston upon Hull 018D
Kingston upon Hull 024E
Kingston upon Hull 015B
Kingston upon Hull 015C
Kingston upon Hull 018E
Kingston upon Hull 015D
Kingston upon Hull 015E
Kingston upon Hull 008A
Kingston upon Hull 008B
Kingston upon Hull 003A
Kingston upon Hull 003B
Kingston upon Hull 003C
Kingston upon Hull 003D
Kingston upon Hull 003E
Kingston upon Hull 008C
Kingston upon Hull 008D
Kingston upon Hull 033A
Kingston upon Hull 033B
Kingston upon Hull 033C
Kingston upon Hull 031D
Kingston upon Hull 033D
Kingston upon Hull 031E

Kingston upon Hull 030B
Kingston upon Hull 030C
Kingston upon Hull 030D
Kingston upon Hull 030E
Kingston upon Hull 020C
Kingston upon Hull 020D
Kingston upon Hull 017F
Kingston upon Hull 022B
Kingston upon Hull 022C
Kingston upon Hull 020E
Kingston upon Hull 022D
Kingston upon Hull 022E
Kingston upon Hull 007B
Kingston upon Hull 006C
Kingston upon Hull 004E
Kingston upon Hull 007C
Kingston upon Hull 004F
Kingston upon Hull 007D
Kingston upon Hull 006D
Kingston upon Hull 007E
Kingston upon Hull 006E
Kingston upon Hull 014E
Kingston upon Hull 012C
Kingston upon Hull 008E
Kingston upon Hull 012D
Kingston upon Hull 008F
Kingston upon Hull 008G
East Riding of Yorkshire 020A
East Riding of Yorkshire 020B
East Riding of Yorkshire 013A
East Riding of Yorkshire 013B
East Riding of Yorkshire 014A
East Riding of Yorkshire 013C
East Riding of Yorkshire 014B
East Riding of Yorkshire 013D
East Riding of Yorkshire 023A
East Riding of Yorkshire 022A
East Riding of Yorkshire 023B
East Riding of Yorkshire 022B
East Riding of Yorkshire 025A
East Riding of Yorkshire 022C
East Riding of Yorkshire 023C
East Riding of Yorkshire 025B
East Riding of Yorkshire 022D
East Riding of Yorkshire 023D
East Riding of Yorkshire 025C
East Riding of Yorkshire 023E
East Riding of Yorkshire 022E

East Riding of Yorkshire 018E	North East Lincolnshire 001G	North East Lincolnshire 008C
North East Lincolnshire 024E	North East Lincolnshire 016A	North East Lincolnshire 008D
North East Lincolnshire 024D	North East Lincolnshire 016B	North East Lincolnshire 009D
North East Lincolnshire 018A	North East Lincolnshire 016C	North Lincolnshire 017A
North East Lincolnshire 014A	North East Lincolnshire 016D	North Lincolnshire 018B
North East Lincolnshire 014B	North East Lincolnshire 016E	North Lincolnshire 015A
North East Lincolnshire 014C	North East Lincolnshire 016F	North Lincolnshire 017B
North East Lincolnshire 014D	North East Lincolnshire 008A	North Lincolnshire 020A
North East Lincolnshire 018B	North East Lincolnshire 008B	North Lincolnshire 020B
North East Lincolnshire 002A	North East Lincolnshire 021A	North Lincolnshire 020C
North East Lincolnshire 006A	North East Lincolnshire 021C	North Lincolnshire 020D
North East Lincolnshire 006B	North East Lincolnshire 021D	North Lincolnshire 006A
North East Lincolnshire 006C	North East Lincolnshire 022E	North Lincolnshire 006B
North East Lincolnshire 002D	North East Lincolnshire 021E	North Lincolnshire 006C
North East Lincolnshire 006D	North East Lincolnshire 005A	North Lincolnshire 006D
North East Lincolnshire 004A	North East Lincolnshire 005B	North Lincolnshire 006E
North East Lincolnshire 004B	North East Lincolnshire 012E	North Lincolnshire 023A
North East Lincolnshire 004C	North East Lincolnshire 024A	North Lincolnshire 023B
North East Lincolnshire 009A	North East Lincolnshire 024B	North Lincolnshire 023C
North East Lincolnshire 004D	North East Lincolnshire 024C	North Lincolnshire 023D
North East Lincolnshire 013A	North East Lincolnshire 005C	North Lincolnshire 001A
North East Lincolnshire 013B	North East Lincolnshire 005D	North Lincolnshire 001B
North East Lincolnshire 024G	North East Lincolnshire 005E	North Lincolnshire 001C
North East Lincolnshire 024F	North East Lincolnshire 019A	North Lincolnshire 001D
North East Lincolnshire 020A	North East Lincolnshire 019B	North Lincolnshire 001E
North East Lincolnshire 018C	North East Lincolnshire 015A	North Lincolnshire 001F
North East Lincolnshire 024H	North East Lincolnshire 015B	North Lincolnshire 019A
North East Lincolnshire 018D	North East Lincolnshire 019C	North Lincolnshire 018C
North East Lincolnshire 020B	North East Lincolnshire 019D	North Lincolnshire 018D
North East Lincolnshire 012A	North East Lincolnshire 019E	North Lincolnshire 018E
North East Lincolnshire 011A	North East Lincolnshire 015C	North Lincolnshire 019B
North East Lincolnshire 012B	North East Lincolnshire 015D	North Lincolnshire 019C
North East Lincolnshire 011B	North East Lincolnshire 023A	North Lincolnshire 019D
North East Lincolnshire 011C	North East Lincolnshire 023B	North Lincolnshire 011A
North East Lincolnshire 012C	North East Lincolnshire 023C	North Lincolnshire 011B
North East Lincolnshire 012D	North East Lincolnshire 023D	North Lincolnshire 011C
North East Lincolnshire 011D	North East Lincolnshire 023E	North Lincolnshire 004A
North East Lincolnshire 020D	North East Lincolnshire 003A	North Lincolnshire 011D
North East Lincolnshire 022B	North East Lincolnshire 003B	North Lincolnshire 011E
North East Lincolnshire 022C	North East Lincolnshire 003C	North Lincolnshire 011F
North East Lincolnshire 022D	North East Lincolnshire 003D	North Lincolnshire 013A
North East Lincolnshire 007A	North East Lincolnshire 003E	North Lincolnshire 013B
North East Lincolnshire 001A	North East Lincolnshire 007C	North Lincolnshire 013C
North East Lincolnshire 001B	North East Lincolnshire 023F	North Lincolnshire 013D
North East Lincolnshire 001C	North East Lincolnshire 007D	North Lincolnshire 016A
North East Lincolnshire 001D	North East Lincolnshire 013C	North Lincolnshire 012A
North East Lincolnshire 001E	North East Lincolnshire 013D	North Lincolnshire 016B
North East Lincolnshire 001F	North East Lincolnshire 013E	North Lincolnshire 016C

North Lincolnshire 017C	North Lincolnshire 008D	East Lindsey 016C
North Lincolnshire 016D	North Lincolnshire 007D	East Lindsey 016D
North Lincolnshire 017D	North Lincolnshire 008E	East Lindsey 013C
North Lincolnshire 012B	North Lincolnshire 009C	East Lindsey 017A
North Lincolnshire 005A	North Lincolnshire 009D	East Lindsey 018A
North Lincolnshire 005B	Boston 001A	East Lindsey 002A
North Lincolnshire 003A	Boston 001B	East Lindsey 013D
North Lincolnshire 005C	Boston 001C	East Lindsey 009A
North Lincolnshire 005D	Boston 002A	East Lindsey 001B
North Lincolnshire 003B	Boston 004A	East Lindsey 001C
North Lincolnshire 003C	Boston 008A	East Lindsey 001D
North Lincolnshire 005E	Boston 008B	East Lindsey 011A
North Lincolnshire 003D	Boston 004B	East Lindsey 011B
North Lincolnshire 009A	Boston 006A	East Lindsey 011C
North Lincolnshire 008A	Boston 007B	East Lindsey 011D
North Lincolnshire 007A	Boston 007C	East Lindsey 009B
North Lincolnshire 008B	Boston 007D	East Lindsey 010D
North Lincolnshire 008C	Boston 003B	East Lindsey 009C
North Lincolnshire 007B	Boston 008C	East Lindsey 007A
North Lincolnshire 009B	Boston 001D	East Lindsey 005A
North Lincolnshire 007C	Boston 001E	East Lindsey 005B
North Lincolnshire 002A	Boston 003C	East Lindsey 005C
North Lincolnshire 002B	Boston 004C	East Lindsey 018B
North Lincolnshire 002C	Boston 004D	East Lindsey 002B
North Lincolnshire 004B	Boston 004E	East Lindsey 003A
North Lincolnshire 002D	Boston 002C	East Lindsey 003B
North Lincolnshire 004C	Boston 009B	East Lindsey 002C
North Lincolnshire 004D	Boston 002D	East Lindsey 001E
North Lincolnshire 010A	Boston 006B	East Lindsey 004A
North Lincolnshire 015C	Boston 006C	East Lindsey 007B
North Lincolnshire 010B	Boston 009C	East Lindsey 015A
North Lincolnshire 010C	Boston 003D	East Lindsey 012A
North Lincolnshire 010D	Boston 002E	East Lindsey 003C
North Lincolnshire 014A	Boston 008D	East Lindsey 003D
North Lincolnshire 012C	Boston 009D	East Lindsey 004C
North Lincolnshire 014B	Boston 008E	East Lindsey 003E
North Lincolnshire 014C	Boston 007E	East Lindsey 003F
North Lincolnshire 014D	East Lindsey 008A	East Lindsey 014A
North Lincolnshire 015D	East Lindsey 008B	East Lindsey 014B
North Lincolnshire 012D	East Lindsey 008C	East Lindsey 015B
North Lincolnshire 022A	East Lindsey 001A	East Lindsey 014C
North Lincolnshire 022B	East Lindsey 013A	East Lindsey 015C
North Lincolnshire 021A	East Lindsey 013B	East Lindsey 015D
North Lincolnshire 022C	East Lindsey 010A	East Lindsey 018C
North Lincolnshire 021B	East Lindsey 010B	East Lindsey 005D
North Lincolnshire 021C	East Lindsey 010C	East Lindsey 013E
North Lincolnshire 021D	East Lindsey 016A	East Lindsey 013F
North Lincolnshire 022D	East Lindsey 016B	East Lindsey 018D

East Lindsey 006A	Lincoln 004F	North Kesteven 001E
East Lindsey 006B	Lincoln 002B	North Kesteven 005B
East Lindsey 009D	Lincoln 004G	North Kesteven 001F
East Lindsey 001F	Lincoln 002C	North Kesteven 012D
East Lindsey 001G	Lincoln 009B	North Kesteven 012E
East Lindsey 003G	Lincoln 009C	North Kesteven 009A
East Lindsey 006C	Lincoln 009D	North Kesteven 007C
East Lindsey 017B	Lincoln 010A	North Kesteven 005C
East Lindsey 017C	Lincoln 009E	North Kesteven 005D
East Lindsey 017D	Lincoln 009F	North Kesteven 005E
East Lindsey 008D	Lincoln 003F	North Kesteven 014A
East Lindsey 014D	Lincoln 002D	North Kesteven 014B
East Lindsey 012C	Lincoln 001C	North Kesteven 014C
East Lindsey 012D	Lincoln 003G	North Kesteven 014D
East Lindsey 008E	Lincoln 001D	North Kesteven 013A
East Lindsey 016E	Lincoln 011G	North Kesteven 009C
East Lindsey 016F	Lincoln 010B	North Kesteven 008D
East Lindsey 016G	Lincoln 011H	North Kesteven 007D
East Lindsey 007C	Lincoln 010C	North Kesteven 003E
Lincoln 004A	Lincoln 010D	North Kesteven 003F
Lincoln 004B	Lincoln 008D	North Kesteven 010B
Lincoln 004C	Lincoln 010E	North Kesteven 010D
Lincoln 003A	Lincoln 006B	North Kesteven 004E
Lincoln 004D	Lincoln 006C	North Kesteven 004F
Lincoln 007A	Lincoln 006D	South Holland 001A
Lincoln 007C	North Kesteven 008A	South Holland 001B
Lincoln 009A	North Kesteven 007A	West Lindsey 011A
Lincoln 007D	North Kesteven 003B	West Lindsey 001A
Lincoln 005A	North Kesteven 007B	West Lindsey 001B
Lincoln 006A	North Kesteven 004A	West Lindsey 011B
Lincoln 008B	North Kesteven 004B	West Lindsey 011C
Lincoln 008C	North Kesteven 001A	West Lindsey 011D
Lincoln 011A	North Kesteven 001B	West Lindsey 008A
Lincoln 011B	North Kesteven 004C	West Lindsey 011E
Lincoln 011C	North Kesteven 001C	West Lindsey 006A
Lincoln 011D	North Kesteven 004D	West Lindsey 006B
Lincoln 011E	North Kesteven 005A	West Lindsey 006C
Lincoln 011F	North Kesteven 006A	West Lindsey 006D
Lincoln 003B	North Kesteven 003C	West Lindsey 004A
Lincoln 005C	North Kesteven 006B	West Lindsey 004B
Lincoln 005D	North Kesteven 006C	West Lindsey 002A
Lincoln 003C	North Kesteven 006D	West Lindsey 004C
Lincoln 003D	North Kesteven 008B	West Lindsey 004D
Lincoln 001A	North Kesteven 003D	West Lindsey 004E
Lincoln 001B	North Kesteven 012A	West Lindsey 004F
Lincoln 003E	North Kesteven 012B	West Lindsey 005A
Lincoln 004E	North Kesteven 012C	West Lindsey 005B
Lincoln 002A	North Kesteven 001D	West Lindsey 001C

West Lindsey 007A	Selby 003D	East Lindsey 004E
West Lindsey 003A	Selby 003E	North Kesteven 013B
West Lindsey 003B	Selby 003F	North Kesteven 013C
West Lindsey 003C	Selby 005E	North Kesteven 014E
West Lindsey 003D	Selby 010C	North Kesteven 014F
West Lindsey 010A	Selby 010D	North Kesteven 013D
West Lindsey 010B	Bassetlaw 002A	North Kesteven 003H
West Lindsey 010C	Bassetlaw 001A	Kingston upon Hull 029E
West Lindsey 009A	Bassetlaw 002B	Kingston upon Hull 035D
West Lindsey 009C	Bassetlaw 015A	Kingston upon Hull 035E
West Lindsey 005C	Bassetlaw 008A	Kingston upon Hull 029F
West Lindsey 009D	Bassetlaw 008B	Doncaster 014E
West Lindsey 002B	Bassetlaw 008C	Doncaster 014F
West Lindsey 002C	Bassetlaw 008D	North Lincolnshire 018F
West Lindsey 002D	Bassetlaw 008E	North Lincolnshire 018G
West Lindsey 007B	Bassetlaw 005A	North East Lincolnshire 009E
West Lindsey 010D	Bassetlaw 005B	East Riding of Yorkshire 032G
West Lindsey 010E	Bassetlaw 005C	East Riding of Yorkshire 032H
West Lindsey 002E	Bassetlaw 005D	Doncaster 019G
West Lindsey 002F	Bassetlaw 010D	Doncaster 019H
West Lindsey 007C	Bassetlaw 010E	Doncaster 022G
West Lindsey 007D	Bassetlaw 008F	Doncaster 022H
West Lindsey 005D	Bassetlaw 003A	Doncaster 027E
West Lindsey 008B	Bassetlaw 001B	Doncaster 027F
West Lindsey 008C	Bassetlaw 001C	Doncaster 028E
West Lindsey 008D	Bassetlaw 001D	Doncaster 028F
West Lindsey 003E	Bassetlaw 001E	Doncaster 038D
West Lindsey 001D	Bassetlaw 001F	Doncaster 038E
Selby 003A	Bassetlaw 004E	Rotherham 028E
Selby 003B	Bassetlaw 002C	Rotherham 028F
Selby 005A	Bassetlaw 002D	Rotherham 034G
Selby 007A	Bassetlaw 015C	Wakefield 005F
Selby 007B	Bassetlaw 003B	Wakefield 024G
Selby 006A	Bassetlaw 002E	Wakefield 024H
Selby 007C	Bassetlaw 003C	Wakefield 024I
Selby 008A	Bassetlaw 015D	Boston 002F
Selby 008B	Bassetlaw 015F	Boston 002G
Selby 008C	Bassetlaw 014C	Boston 003E
Selby 002C	Newark and Sherwood 004A	Boston 003F
Selby 010A	Newark and Sherwood 004B	Boston 009E
Selby 010B	Newark and Sherwood 004C	Boston 009F
Selby 009A	Newark and Sherwood 004D	East Lindsey 012E
Selby 009B	Kingston upon Hull 033E	East Lindsey 012F
Selby 007E	East Riding of Yorkshire 043F	Lincoln 005E
Selby 008D	West Lindsey 001G	Lincoln 005F
Selby 008E	Rotherham 012E	Lincoln 007E
Selby 009D	Rotherham 012F	Lincoln 007F
Selby 003C	East Lindsey 004D	Lincoln 008E

Lincoln 008F
North Kesteven 003I
North Kesteven 003J
West Lindsey 009E
West Lindsey 009F
East Riding of Yorkshire 011H
East Riding of Yorkshire 011I
East Riding of Yorkshire 024F
East Riding of Yorkshire 032I
East Riding of Yorkshire 032J
East Riding of Yorkshire 044E
East Riding of Yorkshire 044F
Selby 005H
Selby 005I
Selby 005J
Selby 005K
Kingston upon Hull 011F
Kingston upon Hull 017G
Kingston upon Hull 029G
Kingston upon Hull 029H
Kingston upon Hull 031H
Kingston upon Hull 031I
Kingston upon Hull 034C
Kingston upon Hull 035A
Kingston upon Hull 035B
Kingston upon Hull 035C
North East Lincolnshire 002E
North East Lincolnshire 007E
North East Lincolnshire 007F
North East Lincolnshire 020F
North East Lincolnshire 021F
North East Lincolnshire 021G
North East Lincolnshire 022F
North East Lincolnshire 022G
North Lincolnshire 015E
North Lincolnshire 015F
North Lincolnshire 015G