

## **RESPONSE TO CONSULTATION RESPONSES FROM NATURAL ENGLAND DATED 4 MAY AND 16 JUNE 2010**

- 1.1 This note responds to the request for clarification and further information set out in NE's letters of 4 May and 16 June to the North York Moors National Park Authority and North Yorkshire County Council respectively.

### **Landscape and Access**

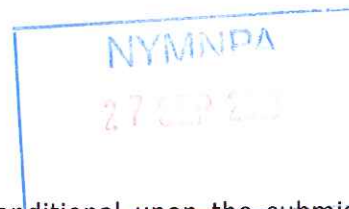
- 1.2 We anticipate that any planning permission would be conditional upon the submission and approval of a scheme of landscaping which incorporates details of fencing, ground preparation works, location, species, planting density and height of all proposed trees and shrubs, grass and wild flower mix, a programme of implementation and maintenance. However, for the purposes of understanding the likely visual impact of the proposed development, we set out below the proposed fencing, materials and finishes of the gas storage facility at the Hurrell Lane site.

#### **(a) Fencing**

- 1.3 The fencing around the site is an engineered fence system with robust design and a low visual impact that will blend in to almost any situation. To assist blending into the surroundings, planting could be encouraged to grow on to it although this will depend on site security visibility issues.

#### **(b) Finish to General Equipment**

- 1.4 In landscape and visual terms, recessive colouring and finishes are the most desirable to enable the buildings to fit within the local landscape. A subtle grey colour will recede into the landscape and will provide a good balance if the buildings are seen against a backdrop of either vegetation or sky. Non-reflective materials with a reflective value of 36% or less will also reduce the potential visibility of structures on the site.
- 1.5 Consequently, the majority of the equipment (storage tanks, pipe work etc) will be painted or polyester powder coated (subject to equipment manufacturer's requirements) with a matt finish, mid grey colour - RAL reference: 7004 (Signal Grey).



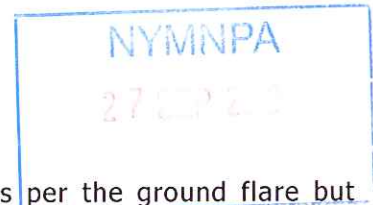
- 1.6 When viewed from close range through the dense planting, the mid grey matt finish will allow these elements to blend into the shadows of the surrounding foliage. Although some of these elements may be visible from mid to long range views, the matt grey finish will help them to blend into the background as much as possible.

**(c) Ground Flare**

- 1.7 In order to reduce the visual impact of the 15m high Ground Flare from medium to long distance views, Moorland Energy propose a finish of graduated horizontal bands ranging from mid grey at low level (RAL ref: 7004) with banding becoming lighter as they are located higher up the flare. Each band will be approx 2m high.

- 1.8 Due to relatively high temperatures occurring at the higher portions of the flare, a high temperature paint system recommended by the manufacturer will be required.

**(d) Vessels and Equipment 6m or higher**



- 1.9 Vessels and equipment 6m tall or higher, will be finished as per the ground flare but there are no requirements for a high temperature paint system.

**(e) Compressor Building and Switchgear Room**

- 1.10 A combination of brickwork and profiled metal cladding is proposed for the compressor building and switchgear room. The elevations are organised in a 2/3 1/3 split, with brickwork forming the lower two thirds. This design references a historic farm barn vernacular, an example of which is located along New Ings Lane to the south of the proposed site. In addition to responding to the scale of these buildings, this approach also responds to the local character.

- 1.11 The proposed brickwork is a Lynemouth multistock, which has a similar appearance to the existing farm building and other buildings within the area. The Lynemouth multistock has subtle orange to deep red colouration, complemented by blue/grey to bronze kiln burn marks to the stretcher and header surfaces. Each brick has an individual creased surface texture to give a natural handmade appearance.

- 1.12 The profiled metal cladding which forms the remaining 1/3 of the elevation and the roof will be in a matt finish, coloured mid grey (RAL ref:7004) to suit the surrounding equipment.

**(f) Admin/Control Building Boiler House**

- 1.13 These buildings will be finished in the same materials as the compressor building. Owing to the smaller scale of these buildings, the elevations will be organised differently. Instead of using a 2/3 1/3 split, the brickwork will be full height and the profiled metal cladding only applied to the roof.

**Existing Pipeline Network**

- 1.14 It is important to understand that for a significant proportion of the pipeline route, the proposed pipeline between the wellsite and the proposed gas processing facility follows an existing NGN pipeline which is located at the same depth. Consequently, there is unlikely to be any additional hydrological impact on the area that has not already been introduced by the existing pipeline.

**Surface Water Hydrology**

- 1.15 **Figure 1 (Appendix 1)** shows the location of the SSSI and SACs in relation to the main surface watercourses in the area. In addition, the catchment boundaries obtained from the Flood Estimation Handbook (FEH) CD Rom are marked to provide, together with background Ordnance Survey contours, an indication of the areas likely to be affected by runoff generated on or flowing over the pipeline route. These show that in the areas upstream of the SSSIs and SAC, the pipeline is located along a watershed, and possibly outside the catchments with SSSIs and SACs. The pipeline route will cover a small strip of land, and be reinstated after construction. It is therefore expected to have negligible impact on the surface water environment. Standard controls during construction will prevent adverse surface water effects on the ecological integrity of the designated sites.

**Hydrogeology**

- 1.16 Figure 1 also shows the route of the pipeline along the main aquifer zones. Most of the pipeline lies on the Corallian Limestone Aquifer. The aquifer is highly permeable, and coupled with the location of the pipeline route along high ground and shallow excavation depths, the likelihood of encountering groundwater is small. According to



the Environment Agency, the groundwater levels are likely to be high at the boundary to Amptill Clay and Kimmeridge Clay. The boundary between the clay formations and the Corallian Limestone lies immediately north of the A170 road, more than 1km from the nearest designated site. URS understands that much of the EA's monitoring is in the lower-lying valley along the A170 road, where many of the settlements and associated abstractions are located. The locations of springs have therefore been used to provide an indication of groundwater levels in the vicinity of the pipeline route. To the north of the start of the pipeline at Ebberston Well site, the Ordnance Survey background map included in Figure 1 indicates that the springs around Troutsdale Beck lie over 60m below the site. Similarly, the spring at the start of Allerston Beck lies approximately 60m below the pipeline route in that vicinity. Given the large elevation differences, URS consider that it is highly unlikely that groundwater will be encountered along its route near the SSSIs and SACs.

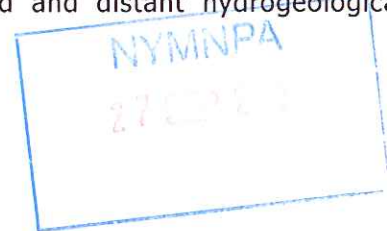
- 1.17 Substantive dewatering requirements are therefore anticipated to be limited to shallow excavations over a short length of the pipeline route to the south of the geological boundary, near to the A170 road. This is at much lower level than the SSSI and SAC and is more than 1km from these designated areas, so will not affect flow of water into or out of the designated areas. Effects on groundwater will be very localised (low magnitude), of short duration and changes in the groundwater gradient would be negligible at the designated sites due to the distance between the pipeline route and the designated sites. Therefore no effects on the ecological integrity of the SSSI and SAC designations are expected as a result of localised and distant hydrogeological changes.

### **Ecology**

- 1.18 A Project Species Survey report has been prepared by Moorland Energy's ecologist and this has been submitted to the local planning authorities as a separate document. Moorland Energy welcome NE's recommendation that a suitable ecological condition is applied which details and references the strategies to be employed.

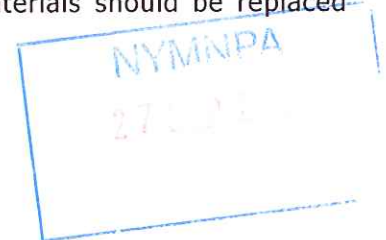
### **Air Quality**

- 1.19 Moorland Energy is happy to comply with the recommendation that an appropriate air quality condition is applied to any permission to ensure that suitable and monitored management regimes are undertaken during the duration of the construction phase.



## Agriculture and Soils

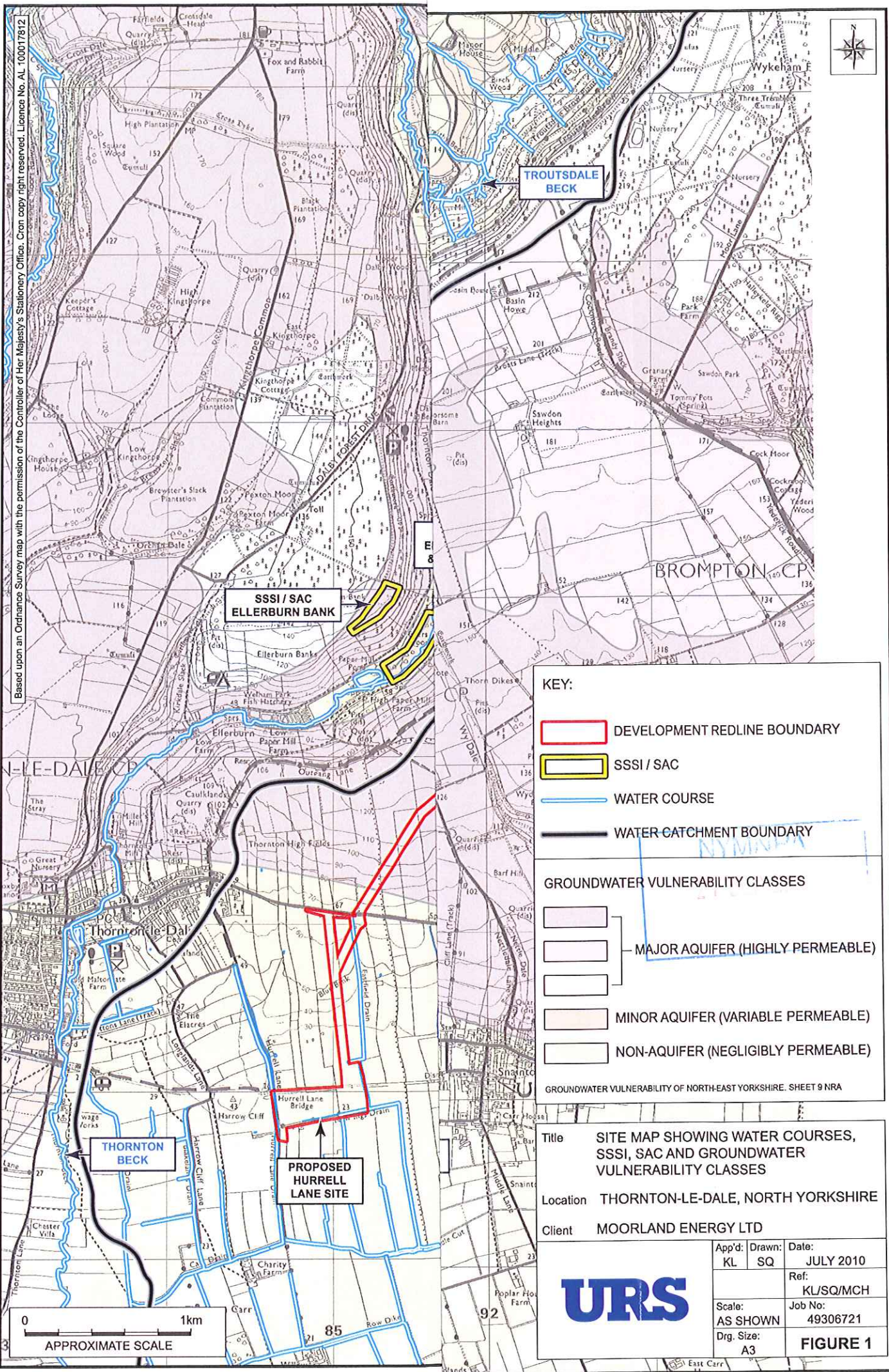
- 1.20 Moorland Energy confirms that the land occupied temporarily by the construction area compound to the west of the operational site (2.3 ha) and the pipe-lay down area to the east (2.2 ha) will be restored as an ecological area. A soils survey has determined that calcareous grassland can be created on these areas of land. A plan accompanying the Project Species Survey shows the proposed ecological mitigation measures.
- 1.21 In respect of the areas, the Operational Processing Facility at Hurrell Lane measures 2.269 ha.
- 1.22 In response to the request from NE, an additional soil survey and Agricultural Land Classification assessment of the land to the east and north of the proposed Hurrell Lane facility has been undertaken by Moorland Energy's land use consultants. **Appendix 2** contains a letter setting out the findings and two accompanying maps (Sheets 5a and 6a). Land to the east of the Hurrell Lane facility is split 50% between subgrade 3a (best and most versatile land) and 50% subgrade 3b. Land to the north of Hurrell Lane, although predominantly subgrade 3a, contains significant areas of subgrade 3b and Grade 4 land.
- 1.23 NE has requested clarification about the replacement of the soils into the trench once the pipe has been laid. The removal and stacking of top soil and sub soil is described at para 6.7 of the ES. Backfilling will follow shortly after the pipe has been placed in the trench. Fine grade material will be filled and compacted carefully around the pipe to a minimum of 150mm above the pipe. Where the excavation is in rock, a bed of earth, sand or other suitable material to a minimum depth of 150mm should be laid below the pipe. The trench will be backfilled in layers and each layer will be compacted. Wherever reasonably practicable, excavated materials should be replaced such that the original soil sequence is preserved.



# APPENDIX 1

NYMINPA  
27/1/2011

Based upon an Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office. Licence No. AL 100017812



**KEY:**

- DEVELOPMENT REDLINE BOUNDARY
- SSSI / SAC
- WATER COURSE
- WATER-CATCHMENT BOUNDARY

**GROUNDWATER VULNERABILITY CLASSES**

- MAJOR AQUIFER (HIGHLY PERMEABLE)
- MINOR AQUIFER (VARIABLE PERMEABLE)
- NON-AQUIFER (NEGLEGIBLY PERMEABLE)

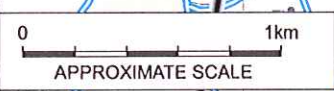
GROUNDWATER VULNERABILITY OF NORTH-EAST YORKSHIRE. SHEET 9 NRA

**Title** SITE MAP SHOWING WATER COURSES, SSSI, SAC AND GROUNDWATER VULNERABILITY CLASSES

**Location** THORNTON-LE-DALE, NORTH YORKSHIRE

**Client** MOORLAND ENERGY LTD

App'd: KL	Drawn: SQ	Date: JULY 2010
		Ref: KL/SQ/MCH
Scale: AS SHOWN		Job No: 49306721
Drg. Size: A3		<b>FIGURE 1</b>



# APPENDIX 2

NYMIPA  
270221



# LAND USE CONSULTANCY SERVICES

Land Use Consultants:  
Specialists in Soil and Land Evaluation

16 Springdale Road  
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York  
YO43 3JT

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Mobile: 07768 643520  
E-mail: SKingLUCS@aol.com  
VAT Reg. No: 433 6474 48

Pete Sulley  
Senior Planner  
Barton Willmore  
Elizabeth House  
1 High Street  
Chesterton  
Cambridge  
CB4 1WB

27<sup>th</sup> August 2010

Dear Pete

**Re: 17809/A2.40 Ryedale Gas Pipeline Project**



Thank you for your recent request for an additional soil survey and Agricultural Land Classification assessment of land to the east and north of the proposed Hurrell Lane facility in connection with the above project.

On 16<sup>th</sup> June 2010, Richard Clark of Natural England's Government Team (West) made the following comment in relation to the area to the east of the Hurrell Lane site in a letter to Mike Convery of North Yorkshire County Council Planning Service as part of a formal response on behalf of Natural England:

*"The land to the east of the facility (area defined for construction element of the development) has not been surveyed, so it is not known if this land is also classified as BMV. It is highly likely that this land is BMV and therefore the methodology for ensuring the integrity of the soils must be applied to this section of the development."*

As you are aware, my original instruction were that I should not survey the area to the east of the site - the temporary construction site - or that part of the proposed pipeline route north of the Hurrell Lane site to the A170 Pickering to Scarborough road because the necessary permission had not been forthcoming from Mr White (the landowner).

In the light of the comments from Natural England and the recent permissions obtained to survey the land in question, I undertook the necessary fieldwork on 29<sup>th</sup> July 2010 following the methodology detailed in my original report.

My findings are shown on the attached maps – Sheets 5(a) and 6(a) – and are given in tabular form below.

Stephen King BA (Hons), C.Sci, F.I.Soil Sci.

# LAND USE CONSULTANCY SERVICES

Land Use Consultants:  
Specialists in Soil and Land Evaluation

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Mobile: 07768 643520  
E-mail: SKingLUCS@aol.com  
VAT Reg. No: 433 6474 48

## RYEDALE GAS PROJECT LAND USE CLASSIFICATION SUMMARY BY AREA July 2010

Land Class	Subgrade 3a	Subgrade 3b	Grade 4	Non-Ag Land	
	(ha)	(ha)	(ha)	(ha)	
Sheet 5a	0.291	0.704	0	0	
Sheet 6b	6.165	1.205	1.333	0.305	

Land within Grade 1, Grade 2 and Subgrade 3a is classed as 'best and versatile' (BMV) and is given additional protection in national and local planning policy and guidance whilst land within Subgrade 3b and Grades 4 and 5 is afforded little protection.

As you will see from the maps, the land to the east of the Hurrell Lane facility is not all BMV as Natural England suggests, but is split almost 50% Subgrade 3a (BMV) and 50% Subgrade 3b.

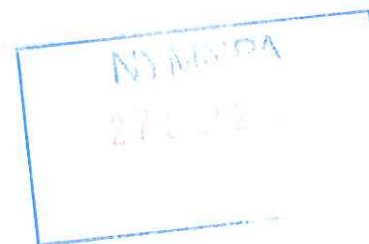
The land to the north of the Hurrell Lane site, although predominantly Subgrade 3a (BMV), contains significant areas of Subgrade 3b and Grade 4 land.

Natural England can be assured that the methodology for ensuring the integrity of the soils will be applied across the whole of the development and will follow an agreed Soil Handling Strategy.

Yours sincerely

Stephen King

Principal





# Sheet 6(a)



**AGRICULTURAL LAND CLASSIFICATION**

<span style="display:inline-block; width:15px; height:15px; background-color:darkgreen;"></span>	Subgrade 3a land
<span style="display:inline-block; width:15px; height:15px; background-color:lightgreen;"></span>	Subgrade 3b land
<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	Grade 4 land
<span style="display:inline-block; width:15px; height:15px; background-color:orange;"></span>	Non-agricultural land
<span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span>	Unsurveyed land

**CONSULTANTS**  
**LAND USE CONSULTANCY SERVICES**  
 16, Springdale Road, Market Weighton  
 York YO43 3JT

**CLIENT**  
 MOORLAND ENERGY LTD

**PROJECT**  
 RYEDALE GAS PROJECT

**TITLE**  
 AGRICULTURAL LAND CLASSIFICATION

<b>DRAWN</b>	R M	<b>DATE</b>	17.08.2010
<b>SCALE</b>	Approx. 7:300 at A4		
		<b>SHEET No.</b>	6 of 6

**DRAWING No.**  
 Fig.16.6(a)

Based on the Ordnance Survey's digital mapping with the permission of the Controller of HMSO