

# **Agricultural Land Classification**

of

Land at Ashtree Farm Gorefield Lincolnshire PE13 4PL

For

Pathfinder Clean Energy

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# DRAWING 1 ALC Grade and survey points

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#### 1. INTRODUCTION

An Agricultural Land Classification (ALC) has been carried out on 132 ha of land at Gorefield (Drawing 1). The site is centred on OS Grid Ref. 538416, 312822.

The survey was conducted on the 21st and 22<sup>nd</sup> June 2022 and classified the land into one or more of the below grades (see Drawing 1). On the survey date, the site was in agricultural use.

#### 1.1 Methodology

Agricultural land is classified into the following grades according to the 1988 guidelines1.

| Grade | Description  |
|-------|--|
| 1     | Excellent quality agricultural land with no or very minor limitations to agricultural use.   |
| 2     | Very good quality agricultural land with minor limitations which affect crop yield, cultivation or harvesting.   |
| 3a    | Good quality agricultural land capable of producing moderate to high yields of a narrow  |
| 3b    | range of arable crops or moderate yields of a wider range of crops.  Moderate quality agricultural land capable of producing moderate yields of a narrow range of crops or lower yields of a wider range of crops. |
| 4     | <b>Poor quality agricultural land</b> with severe limitations which significantly restrict the range of crops and/or level of yields.  |
| 5     | Very poor quality agricultural land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.   |

The classification includes an initial desktop investigation to examine previously mapped soil types and to note the drift and solid geology followed by the field survey consisting of auger borings at one every 100 m in general and a pit excavated in each of the main soil types to confirm the structures and stone content if needed. Laboratory analysis of soil textures is undertaken if needed in order to confirm textures such the heavy/medium clay and medium/fine sand categories or stone content. All site survey profile data is listed in Appendix A.

All of the potential limitations are assessed and then the most limiting factor dictating the ALC grade was determined for this site and is detailed in Table 2.

### 1.2 Previous ALC gradings

Grading on the MAFF (1983) 1: 250 000 provisional map indicated the site is mapped as Grade 2 land. No former detailed surveys have been undertaken for the site.

## 2. CLIMATIC LIMITATIONS

### 2.1 Overall climate

The climatological data for the site centre is detailed in Table 1.

| Cli                       | Table 1<br>matological informati | on <sup>3</sup> |
|---------------------------|----------------------------------|-----------------|
| Factor                    | Units                            | Value           |
| Altitude AOD              | m                                | 0               |
| Accumulated temperature   | day°C (Jan-June)                 | 1446.2          |
| Average Annual Rainfall   | mm                               | 559.6           |
| Field Capacity Days       | days                             | 97.0            |
| Moisture Deficit Wheat    | mm                               | 122.4           |
| Moisture Deficit Potatoes | mm                               | 118.8           |
| Overall climate ALC Grade | Gra                              | de 1            |

Climate will not result in the most significant limiting factor for the site.

## 2.2. Local climate

Local climate will not result in a significant limiting factor for this site.

### 3 SITE LIMITATIONS

### 3.1 Gradient

The gradient will not result in a significant limiting factor for this site.

## 3.2 Microrelief

The microrelief will not result in a significant limiting factor for this site.

# 3.3 Flooding

A low risk of flooding from surface waters and rivers has been identified for the site (https://flood-warning-information.service.gov.uk/long-term-flood-risk).

#### 4 SOIL LIMITATIONS

#### 4.1 Texture and structure

Over the majority of the site, clayey soils predominate. The textures noted across the site were mainly heavy silty clay loam over silty clay or clay subsoils. Subsoil structure was moderate coarse angular blocky and moderate coarse prismatic.

Wallasea and Newchurch soils are less permeable but respond to underdrainage; drained soils are occasionally waterlogged (Wetness Class II) (<a href="www.landis.org.uk">www.landis.org.uk</a>). Numerous ditches and reed channels were noted on site. Profiles are stone free or very slightly stony and typically non or only very slightly calcareous throughout. The critical variation noted across the site was whether the topsoil heavy or medium silty clay loam.

The site has previously been mapped as having soils of the following Associations:

The Normoor Association soils over the majority of the site are mapped as: Deep stoneless clayey soils in places with humose surface horizon, often very acid. Flat land crossed by low ridges with deep calcareous silty soils. Groundwater controlled by ditches and pumps. Slight risk of wind erosion (www.landis.org.uk).

The Wallasea 2 Association soils over the north-west of the site are mapped as: *Deep stoneless clayey soils*. Calcareous in places. Some deep calcareous silty soils. Flat land often with low ridges giving a complex soil pattern. Groundwater controlled by ditches and pumps (www.landis.org.uk).

#### Superficial Geology 1:50 000 scale superficial deposits description:

Tidal Flat Deposits, 1 - Clay and Silt.

### Bedrock Geology 1:50 000 scale bedrock geology description:

West Walton Formation and Ampthill Clay Formation (undifferentiated) - Mudstone.

Table 1a - PSD Results

|    |      | Perce | ntages |        | Textural Class |
|----|------|-------|--------|--------|----------------|
| No | Sand | Silt  | Clay   | Total  | Textural Class |
|    |      |       |        |        |                |
| 83 | 5.28 | 68.25 | 26.47  | 100.00 | MZCL           |
|    |      |       |        |        |                |
| 36 | 4.62 | 61.46 | 33.92  | 100.00 | HZCL           |

Method: BS1377 Pipette Method

# 4.2 Depth

Soil depth will not result in a significant limiting factor for this site.

# 4.3 Stoniness

Stoniness is not a direct significant limiting factor for soils noted on site.

# 4.4 Chemical

Chemical contamination will not result in a significant limiting factor for this site.

#### 5. INTERACTIVE LIMITATIONS

#### 5.1 Wetness

Mottling and gleying was noted within the soils from around 25 cm depth in the clayey soils.

The combination of a Wetness Class of II for the soils (see Appendix A) with Field Capacity Days of 97.0 and a topsoil texture of non-calcareous heavy silty clay loam or silty clay results in an ALC Grade of 3a. A small area of land to the west with light loamy soils resulted in an ALC Grading of 2.

### 5.2. Droughtiness

The Available Water Capacity which subsequently when considered with respect to the Moisture Deficit for wheat and potatoes resulted in a slight droughtiness limitation for soils on the site.

### 5.3 Erosion

Erosion will not result in a significant limiting factor for this site.

#### 6. AGRICULTURAL LAND CLASSIFICATION

## 6.1 Most limiting factors

#### Grade 3a land - Wetness Limitation

The combination of a Wetness Class of II for the soils (see Appendix A) with Field Capacity Days of 97.0 and a topsoil texture of non-calcareous heavy silty clay loam or silty clay results in an ALC Grade of 3a.

#### Grade 2 land - Wetness and Droughtiness Limitation

The combination of a Wetness Class of II for the soils (see Appendix A) with Field Capacity Days of 97.0 and a topsoil texture of non-calcareous medium loamy soils results in an ALC Grade 2 for a small area of land to the west.

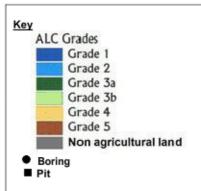
### 6.2 Current grading

This survey has resulted in an Agricultural Land Classification of the following grades (Drawing 1):

|                       | Гаble 2. | ALC   | gradings and limitations |
|-----------------------|----------|-------|--------------------------|
| Grade                 | ha       | %     | Limitation               |
| 1                     |          |       |                          |
| 2                     | 15       | 11.36 | Wetness and droughtiness |
| 3a                    | 117      | 86.66 | Wetness                  |
| 3b                    |          |       |                          |
| 4                     |          |       |                          |
| 5                     |          |       |                          |
| Non-agricultural land |          |       |                          |
| Total                 | 132      | 100%  |                          |

# **DRAWING 1**

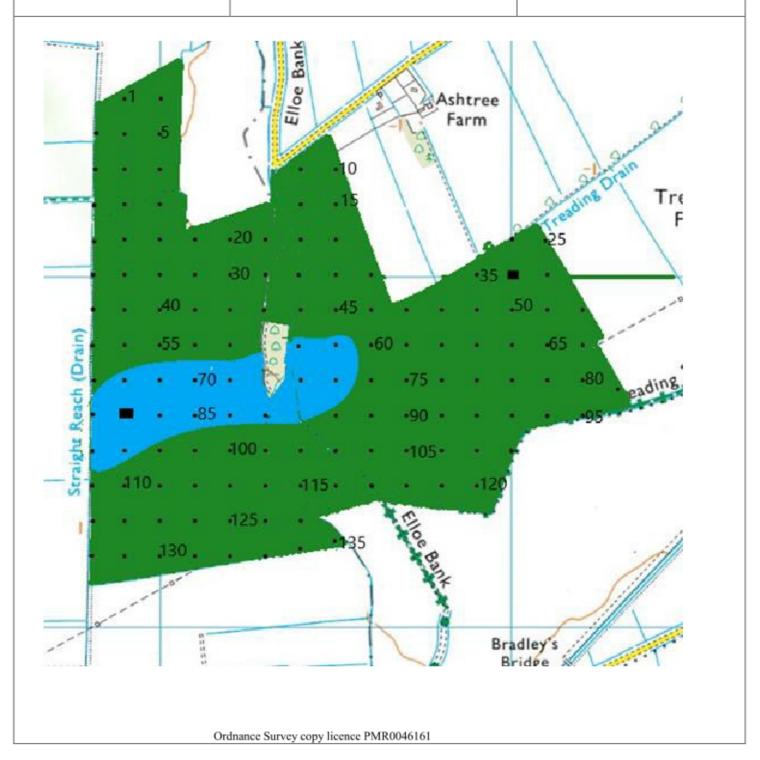
**ALC Grade** 





Drawing Title: ALC Grade Drawing No.: 1

Scale: 1:10000 Date:14/07/2022



# APPENDIX A

## Soil profile data

#### Notes

1 All abbreviations relating to soil parameters are standard and derived from the guidance documents:

Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land. MAFF. 1988.
Soil Survey Field Handbook. Technical Monograph No.5. Soil Survey of England and Wales. 1976.

- 2 The pit data is detailed in this table and information on structure and stone content copied to the appropriate boring profiles.
- 3 Any blanks or zeros in the cells indicate the data is not needed or appropriate for that cell.
- 4 If 'NA' is inserted in a cell the information is not appropriate on this occasion.
- Boring or pit locations are directly (within 2 m accuracy) on the grid reference corresponding to the points on the map unless otherwise stated.
- 6 A point directly marked on a track, boundary or other feature will be moved 2-3 m off the point or omitted if surrounding points and soil types allow.
- Borings that are potentially within 15 m of a gas pipeline are limited to 0.4 m depth and
  the strata description in the data table below this depth will be extrapolated from nearby
  borings and upper strata characteristics.
- 8. The Observation Density is 1 per ha on a 100 m grid using a semi Free Survey method if appropriate\*. The letter 'B' in the second column of the data table refers to an observation point at which a boring may have been undertaken. In some situations it is not possible to visit the location due to for example crop status or animals in a field. In some cases the location is visited and observation of the soils at the surface is sufficient. In all cases the soil, geology, topography, flood risk and aerial crop patterns are assessed from published sources and the soils will be subject to a full 120 cm depth boring either side of a non-visited or non-bored point. If all data sources are agreeable, a soil pattern can be established.
  - \* British Society of Soil Science. Working With Soil The Professional Competency Scheme. Agricultural Land Classification: England and Wales. How2 sheet 4.2.4. 2018.
- For moisture balance calculations, strongly, moderately and well developed structure will
  equate to good, moderate or poor structure terms respectively in Table 14 of the
  guidelines.
- Pit information in addition to that listed in the table below will be detailed in Section 4.1 and 4.3 if needed.

| Obs | Geld ref. if off<br>intersection | Baring or<br>Pit | Grad. (deg) | Base<br>Depth<br>(cm) | Text.      | Calc | Matrix<br>colour | Motts,/ black<br>ferro, conc.<br>sc/ density | EC Microso | Ped face<br>colour | Stns<br>% | Stns<br>type | Porosity | Struct<br>() F-time<br>consist ence) | Degree of<br>development | SPL<br>depth<br>[cm] | Gleying<br>depth (cm) | SWC | Grade | TAv | EAv | StAv | StEAv | MBM   | Grade (Drought,<br>IRHEAT) | MBP    | Grade (Draught,<br>POTATORIS) |
|-----|----------------------------------|------------------|-------------|-----------------------|------------|------|------------------|--|------------|--------------------|-----------|--------------|----------|--------------------------------------|--------------------------|----------------------|-----------------------|-----|-------|-----|-----|------|-------|-------|----------------------------|--------|-------------------------------|
|     |                                  |                  |             | 25                    | HZCL       | N    | 10YR32           |  |            |                    | 5         | HR           |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
| 1   |                                  | В                | 57          | 120                   | zc         |      | 10YR42           | 15/25  | 10YR56     |                    | 5         | HR           | p        | CPR                                  | MD                       | 25                   | 25                    |     | 3a    | 15  | 8   | 1    | 0.5   | 12.01 | 2                          | -9.17  | 2                             |
|     |                                  |                  | ar          | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          | 2.5                  | 4.9                   |     | 38    | 0   | 0   | 0    | 0     | 12.01 |                            | -3.17  | £                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 25<br>120             | HZCL<br>ZC | N    | 10YR32<br>10YR42 | 20/25  | 10YR56     |                    | 5         | HR.          | р        | CPR                                  | MD                       |                      |                       |     |       | 19  | 8   | 1    | 0.5   |       |                            |        |                               |
| 2   |                                  | В                | ≤7          | 120                   | 10         |      | 2011142          | 20/23  | 2011030    |                    | ,         | nn           | ,        | CFR                                  | MU                       | 25                   | 25                    |     | 3a    | 0   | 0   | 0    | 0.5   | 12.01 | 2                          | -9.17  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 25                    | HZCL       | N    | 10YR32           |  |            |                    | - 5       | HR           |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
| 3   |                                  | В                | <b>≤7</b>   | 120                   | ZC         |      | 10YR42           | 20/25  | 10YR56     |                    | 5         | HR           | р        | CPR                                  | MD                       | 25                   | 25                    |     | За .  | 15  | 8   | 1    | 0.5   | 12.01 | 2                          | -9.17  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       | 0   | 0   | 0    | 0     |       |                            |        |                               |
|     |                                  |                  |             | 28                    | HZCL       | N    | 10YR43           |  |            |                    | 5         | HR           |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
|     |                                  |                  |             | 120                   | ZC         | 13   | 10YR42           | 20/28  | 10YR56     |                    | 5         | HR           | p        | CPR                                  | MD                       |                      |                       |     |       | 15  | 8   | 1    | 0.5   |       |                            |        |                               |
| 4   |                                  | В                | <b>57</b>   | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          | 28                   | 28                    | •   | 3a    | 0   | 0   | 0    | 0     | 13.15 | 2                          | -8.03  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 28                    | HZCL.      | N    | 10YR43           | an ina                                       |            |                    | 5         | HR.          | -        |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
| 5   |                                  | В                | ≤7          | 120                   | ZC         |      | 10YR42           | 20/28  | 10YR56     |                    | 5         | HR.          | Р        | CPR                                  | MD                       | 28                   | 28                    |     | 3a    | 15  | 8   | 0    | 0.5   | 13.15 | 2                          | -8.03  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 28                    | HZCL       | N    | 10YR43           |  |            |                    | 5         | HR           |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
| 6   |                                  | В                | ≤7          | 120                   | ZC         |      | 10YR42           | 20/28  | 10YR56     |                    | 5         | HR           | P        | CPR                                  | MD                       | 28                   | 28                    |     | 3a    | 15  | 8   | 1    | 0.5   | 13.15 | 2                          | -8.03  | 2                             |
|     |                                  | -                |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       | 0   | 0   | 0    | 0     |       |                            |        |                               |
|     |                                  |                  |             | 120                   | 117901     |      | 4000.43          |  |            |                    |           | wo           |          |                                      |                          |                      |                       |     |       | 40  |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 28<br>120             | HZCL<br>ZC | N    | 10YR43<br>10YR42 | 20/28  | 10YR56     |                    | 5         | HR<br>HR     | Р        | CPR                                  | MD                       |                      |                       |     |       | 19  | 8   | 1    | 0.5   |       |                            |        |                               |
| 7   |                                  | В                | ≤7          | 120                   | - 10       |      | 2011142          | 20/20  | 2011030    |                    | _         |              | Ė        | Crit                                 | me                       | 28                   | 28                    |     | 3a    | 0   | 0   | 0    | 0     | 13.15 | 2                          | -8.03  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 25                    | HZCL.      | N    | 10YR32           |  |            |                    | - 5       | HR           |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
| 8   |                                  | В                | ≤7          | 120                   | С          |      | 10YR42           | 20/25  | 10YR56     |                    | 5         | HR           | p        | CPR                                  | MD                       | 25                   | 25                    |     | 3a    | 16  | 8   | 1    | 0.5   | 14.38 | 2                          | -4.89  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       | 0   | 0   | 0    | 0     |       |                            |        |                               |
|     |                                  |                  |             | 120<br>28             | С          | N    | 10YR31           |  |            |                    | 5         | HR           |          |                                      |                          |                      |                       |     |       | 17  |     | 1    |       |       |                            |        |                               |
|     |                                  |                  |             | 60                    | c          | 14   | 10YR42           | 20/28  | 10YR56     |                    | 0         | HR           | p        | CAB                                  | MD                       |                      |                       |     |       | 16  | 8   | 1    | 0.5   |       |                            |        |                               |
| 9   |                                  | В                | <b>57</b>   | 120                   | ZC         |      | 10YR41           | 25/60  | 10YR56     |                    | 0         | HR.          | P        | CPR                                  | WK                       | 30                   | 30                    |     | 3a    | 12  | 7   | 1    | 0.5   | 8.19  | 2                          | -10.21 | За                            |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 30                    | С          | N    | 10YR31           |  |            |                    | 0         | HR           |          |                                      |                          |                      |                       |     |       | 17  |     | 1    |       |       |                            |        |                               |
| 10  |                                  | В                | ≤7          | 60                    | C          |      | 10YR42           | 25/30  | 10YR56     |                    | 0         | HR           | P        | CAB                                  | MD                       | 30                   | 30                    |     | За .  | 16  | 8   | 1    | 0.5   | 10.63 | 2                          | -7.77  | 2                             |
|     |                                  |                  |             | 120                   | ZC         |      | 10YR41           | 25/60  | 10YR56     |                    | 0         | HR           | Р        | CPR                                  | WK                       |                      |                       |     |       | 12  | 7   | 1    | 0.5   |       |                            |        |                               |
|     |                                  |                  |             | 120<br>25             | HZCL       | N    | 10YR31           |  |            |                    | 5         | HR           |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
|     |                                  |                  |             | 120                   | C          | - 12 | 10YR42           | 25/25  | 10YR56     |                    | 5         | HR           | Р        | CPR                                  | MD                       |                      |                       |     |       | 16  | 8   | 1    | 0.5   |       |                            |        |                               |
| 11  |                                  | В                | £7          | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          | 25                   | 25                    |     | 3a    | 0   | 0   | 0    | 0     | 14.38 | 2                          | -4.89  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 25                    | HZCL       | N    | 10YR31           |  |            |                    | 5         | HR           | _        |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
| 12  |                                  | В                | ≤7          | 120                   | С          |      | 10YR42           | 25/25  | 10YR56     |                    | 5         | HR.          | Р        | CPR                                  | MD                       | 25                   | 25                    |     | 3a    | 16  | 8   | 0    | 0.5   | 14.38 | 2                          | -4.89  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 28                    | HZCL.      | N    | 10YR31           |  |            |                    | 5         | HR           |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
| 13  |                                  | В                | s7          | 120                   | С          |      | 10YR42           | 25/28  | 10YR56     |                    | 5         | HR.          | P        | CPR                                  | MD                       | 28                   | 28                    |     | 3a    | 16  | 8   | 1    | 0.5   | 15.24 | 2                          | -4.04  | 2                             |
| 1.5 |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          | -                    | 20                    |     | -     | 0   | 0   | 0    | 0     | 12.24 |                            |        | -                             |
|     |                                  |                  |             | 120                   |            |      | 100000           |  |            |                    |           | un           |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 25<br>60              | C          | N    | 10YR31<br>10YR42 | 25/25  | 10YR56     |                    | 0         | HR<br>HR     | Р        | CAB                                  | MD                       |                      |                       |     |       | 17  | 8   | 1    | 0.5   |       |                            |        |                               |
| 14  |                                  | В                | £7          | 120                   | zc         |      | 10YR41           | 25/60  | 10YR56     |                    | 0         | HR           | P        | CPR                                  | WK                       | 25                   | 25                    | ٠   | 3a    | 12  | 7   | 1    | 0.5   | 10.13 | 2                          | -B.27  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 25                    | C          | N    | 10YR31           |  |            |                    | 0         | HR           |          |                                      |                          |                      |                       |     |       | 17  |     | 1    |       |       |                            |        |                               |
| 15  |                                  | В                | ≤7          | 55                    | С          |      | 10YR42           | 25/25  | 10YR56     |                    | 0         | HR.          | P        | CAB                                  | MD                       | 25                   | 25                    |     | 3a    | 16  | 8   | 1    | 0.5   | 9.63  | 2                          | -10.27 | 3a                            |
|     |                                  |                  |             | 120                   | ZC         |      | 10YR41           | 25/55  | 10YR56     |                    | 0         | HR           | Р        | CPR                                  | WK                       |                      |                       |     |       | 12  | 7   | 1    | 0.5   |       |                            |        |                               |
|     |                                  |                  |             | 25                    | HZCL       | N    | 10YR31           |  |            |                    | 5         | HR.          |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
|     |                                  | _                |             | 120                   | C          |      | 10YR42           | 25/25  | 10YR56     |                    | 5         | HR           | Р        | CPR                                  | MD                       |                      |                       | _   |       | 16  | 8   | 1    | 0.5   |       |                            |        |                               |
| 16  |                                  | В                | ≤7          | 120                   |            |      |                  |  |            |                    | Ė         |              |          |                                      |                          | 25                   | 25                    | ٠   | 3a    | 0   | 0   | 0    | 0     | 14.38 | 2                          | -4.89  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 25                    | HZCL       | N    | 10YR32           |  |            |                    | 5         | HR.          |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
| 17  |                                  | В                | ≤7          | 120                   | C          |      | 10YR42           | 20/25  | 10YR56     |                    | 0         | HR.          | Р        | CPR                                  | MD                       | 25                   | 25                    |     | 3a    | 16  | 8   | 0    | 0.5   | 18.88 | 2                          | -1.52  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       | 0   | U   |      |       |       |                            |        |                               |
|     |                                  |                  |             | 25                    | HZC1.      | N    | 10YR31           |  |            |                    | 5         | HR           |          |                                      |                          |                      |                       |     |       | 19  |     | 1    |       |       |                            |        |                               |
| 18  |                                  |                  | ≤7          | 120                   | С          |      | 10YR42           | 25/25  | 10YR56     |                    | 5         | HR.          | Р        | CPR                                  | MD                       | 25                   | 25                    |     | 3a    | 16  | 8   | 1    | 0.5   | 14.38 | 2                          | , a po | ,                             |
| 10  |                                  |                  | 2/          | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          | -                    | 25                    | _   | 34    | 0   | 0   | 0    | 0     | 14.58 | -                          | -4.89  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 28                    | ZC C       | N    | 10YR42           | no inc                                       | Lours      |                    | 5         | HR.          |          |                                      | F.4-                     |                      |                       |     |       | 17  |     | 1    | 0.0   |       |                            |        |                               |
| 19  |                                  | В                | ≤7          | 120                   | С          |      | 10YR53           | 20/28  | 10YR56     |                    | 5         | HR.          | Р        | CPR                                  | MD                       | 28                   | 28                    |     | 3a    | 16  | 8   | 0    | 0.5   | 9.92  | 2                          | -9.36  | 2                             |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |
|     |                                  |                  |             | 28                    | ZC         | N    | 10YR42           |  |            |                    | 5         | HR           |          |                                      |                          |                      |                       |     |       | 17  |     | 1    |       |       |                            |        |                               |
| 20  |                                  | В                | s7          | 120                   | ZC         |      | 10YR53           | 25/28  | 10YR56     |                    | 5         | HR.          | Р        | CPR                                  | MD                       | 28                   | 28                    |     | 3a    | 15  | 8   | 1    | 0.5   | 7.83  | 2                          | .12.25 | 3-                            |
| 20  |                                  |                  | 87          | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          | 28                   | 26                    | -   | 34    | 0   | 0   | 0    | 0     | 7.63  | £                          | -13.35 | 38                            |
|     |                                  |                  |             | 120                   |            |      |                  |  |            |                    |           |              |          |                                      |                          |                      |                       |     |       |     |     |      |       |       |                            |        |                               |

| Obs<br>oint | Grid ref. if off<br>inhamection | Boring or<br>Pit | Grad. (degl | Base<br>Depth<br>(cm) | Text.    | Calc | Matrix<br>colour | Motts,/ black<br>ferre, conc.<br>%/ depth |          | Ped face<br>colour | Stins<br>% | Stns<br>type | Porosity | Struct<br>FF-ten<br>sonald ence | Degree of<br>development | SPL<br>depth<br>(cm) | Gleying<br>depth (cm) | SWC | Grade<br>(wetness) | TAv      | EAv | SETAV | StEAv | MBW   | Dash (Deagl).<br>INSENT) | MBP    | Orate Dinaght<br>POTATORES |
|-------------|---------------------------------|------------------|-------------|-----------------------|----------|------|------------------|---|----------|--------------------|------------|--------------|----------|---------------------------------|--------------------------|----------------------|-----------------------|-----|--------------------|----------|-----|-------|-------|-------|--------------------------|--------|----------------------------|
|             |                                 |                  |             | 28                    | ZC       | N    | 10YR42           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 17       |     | 1     |       |       |                          |        |                            |
| 21          |                                 | В                | s7          | 120                   | ZC       |      | 10YR53           | 20/28                                     | 10YR56   |                    | 0          | HR           | P        | CPR                             | MD                       | 28                   | 28                    | п   | 3a                 | 15       | 8   | 1     | 0.5   | 14.23 | 2                        | -8.17  | 2                          |
|             |                                 |                  |             | 120<br>120            |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    | 0        | 0   | 0     | 0     |       |                          |        |                            |
|             |                                 |                  |             | 28                    | С        | N    | 10YR31           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 17       |     | 1     |       |       |                          |        |                            |
| 22          |                                 | В                | 57          | 55                    | С        |      | 10YR31           | 20/28                                     | 10YR56   |                    | 0          | HR           | p        | CAB                             | MD                       | 28                   | 28                    | п   | 3a                 | 13       | 7   | 1     | 0.5   | 9.33  | 2                        | -13.57 | 3a                         |
|             |                                 |                  | -           | 120                   | ZC       |      | 10YR42           | 25/55                                     | 10YR56   |                    | 0          | HR           | P        | CPR                             | MD                       |                      | 20                    |     | 50                 | 15       | 8   | 1     | 0.5   | 2.22  |                          | -22.27 | 20                         |
|             |                                 |                  |             | 120                   | С        | N    | 10YR31           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 17       |     | 1     |       |       |                          |        |                            |
| _           |                                 |                  |             | 60                    | c        | 14   | 101R31           | 25/30                                     | 10YR56   |                    | 0          | HR           | Р        | CAB                             | MD                       |                      |                       |     |                    | 13       | 7   | 1     | 0.5   |       |                          |        |                            |
| 23          |                                 | В                | <b>57</b>   | 120                   | ZC       |      | 10YR41           | 25/60                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | MD                       | 30                   | 30                    | II  | 3a                 | 15       | 8   | 1     | 0.5   | 9.63  | 2                        | -13.77 | 3a                         |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    |          |     |       |       |       |                          |        |                            |
|             |                                 |                  |             | 35<br>120             | ZC<br>ZC | N    | 10YR31<br>10YR41 | 25/35                                     | 10YR56   |                    | 0          | HR           | P        | CPR                             | MD                       |                      |                       |     |                    | 17       | 8   | 1     | 0.5   |       |                          |        |                            |
| 24          |                                 | В                | ≤7          | 120                   |          |      | 2011142          | 13/33                                     | 20111.50 |                    |            |              | Ė        | O II                            | mo                       | 35                   | 35                    | Ш   | 3a                 | 0        | 0   | 0     | 0.3   | 15.63 | 2                        | -6.77  | 2                          |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    |          |     |       |       |       |                          |        |                            |
|             |                                 |                  |             | 30                    | ZC       | N    | 10YR31           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 17       |     | 1     |       |       |                          |        |                            |
| 25          |                                 | В                | ≤7          | 120                   | ZC       |      | 10YR41           | 20/30                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | MD                       | 30                   | 30                    | П   | 3a                 | 15       | 8   | 0     | 0.5   | 14.63 | 2                        | -7.77  | 2                          |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    | -        | -   | -     |       |       |                          |        |                            |
|             |                                 |                  |             | 30                    | HZCL     | N    | 10YR31           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 19       |     | 1     |       |       |                          |        |                            |
| 26          |                                 | В                | <b>5</b> 7  | 120                   | MZCL     |      | 10YR43           | 15/30                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | MD                       | 30                   | 30                    | п   | 3a                 | 17       | 10  | 1     | 0.5   | 38.63 | 1                        | 6.23   | 2                          |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    | 0        | 0   | 0     | 0     |       |                          |        |                            |
|             |                                 |                  |             | 30                    | HZCL     | N    | 10YR31           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 19       |     | 1     |       |       |                          |        |                            |
| 27          |                                 | В                | s7          | 120                   | MZCL     |      | 10YR43           | 20/30                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | MD                       | 30                   | 30                    | п   | 3a                 | 17       | 10  | 1     | 0.5   | 38.63 | 1                        | 6.23   | 2                          |
|             |                                 | _                | ["          | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    | 0        | 0   | 0     | 0     | 30.00 |                          |        |                            |
|             |                                 |                  |             | 120<br>30             | HZCL     | N    | 10YR31           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 19       |     | 1     |       |       |                          |        |                            |
|             |                                 |                  |             | 120                   | MZCL     | 14   | 10YR43           | 20/30                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | MD                       |                      |                       |     |                    | 17       | 10  | 1     | 0.5   |       |                          |        |                            |
| 28          |                                 | В                | ≤7          | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          | 30                   | 30                    | II  | 3a                 | 0        | 0   | 0     | 0     | 38.63 | 1                        | 6.23   | 2                          |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    |          |     |       |       |       |                          |        |                            |
|             |                                 |                  |             | 25<br>120             | ZC<br>ZC | N    | 10YR42<br>10YR53 | 20/25                                     | 10YR56   |                    | 0          | HR<br>HR     | P        | CPR                             | MD                       |                      |                       |     |                    | 17       | 8   | 1     | 0.5   |       |                          |        |                            |
| 9           |                                 | В                | ≤7          | 120                   | 20       |      | 1011133          | 20/25                                     | 1011136  |                    |            | m            | -        | CFR.                            | MD                       | 25                   | 25                    | Ш   | 3a -               | 0        | 0   | 0     | 0.5   | 13.63 | 2                        | -8.77  | 2                          |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    |          |     |       |       |       |                          |        |                            |
|             |                                 |                  |             | 25                    | ZC       | N    | 10YR42           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 17       |     | 1     |       |       |                          |        |                            |
| 10          |                                 | В                | ≤7          | 120                   | 2C       |      | 10YR53           | 25/25                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | MD                       | 25                   | 25                    | п   | 3a                 | 15       | 8   | 1     | 0.5   | 13.63 | 2                        | -8.77  | 2                          |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    | 0        | 0   | 0     | 0     |       |                          |        |                            |
|             |                                 |                  |             | 28                    | ZC       | N    | 10YR42           |   |          |                    | 5          | HR           |          |                                 |                          |                      |                       |     |                    | 17       |     | 1     |       |       |                          |        |                            |
| 31          |                                 | В                | <b>57</b>   | 120                   | С        |      | 10YR53           | 25/28                                     | 10YR56   |                    | 5          | HR           | P        | CPR                             | MD                       | 28                   | 28                    | п   | 3a                 | 16       | 8   | 1     | 0.5   | 9.92  | 2                        | -9.36  | 2                          |
| -           |                                 | _                |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          | -                    | -                     |     |                    | 0        | 0   | 0     | 0     |       |                          |        |                            |
|             |                                 |                  |             | 120                   | ZC       | N    | 10YR42           |   |          |                    | 5          | HR           |          |                                 |                          |                      |                       |     |                    | 17       |     | 1     |       |       |                          |        |                            |
|             |                                 |                  | -2          | 120                   | C        |      | 10YR53           | 25/28                                     | 10YR56   |                    | 5          | HR           | Р        | CPR                             | MD                       |                      | 25                    |     | 2.                 | 16       | 8   | 1     | 0.5   |       |                          |        |                            |
| 32          |                                 | В                | £7          | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          | 25                   | 25                    | II  | 3a                 | 0        | 0   | 0     | 0     | 5.06  | 2                        | -9.64  | 2                          |
|             |                                 |                  |             | 120                   | 14704    |      | 1000001          |   |          |                    |            | 140          |          |                                 |                          |                      |                       |     |                    | ***      |     |       |       |       |                          |        |                            |
|             |                                 |                  |             | 28<br>120             | HZCL     | N    | 10YR31<br>10YR41 | 20/28                                     | 10YR56   |                    | 5          | HR           | P        | CPR                             | MD                       |                      |                       |     |                    | 19       | 10  | 1     | 0.5   |       |                          |        |                            |
| 33          |                                 | В                | ≤7          | 120                   |          |      | 20111112         | 1420                                      | 20       |                    | -          |              |          |                                 |                          | 28                   | 28                    | Ш   | 3a                 | 0        | 0   | 0     | 0     | 30.63 | 1                        | -0.05  | 2                          |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    |          |     |       |       |       |                          |        |                            |
|             |                                 |                  |             | 25<br>120             | HZCL     | N    | 10YR31<br>10YR41 | 20/20                                     | 10VR56   |                    | 5          | HR<br>HR     | P        | CPR                             | MD                       |                      |                       |     |                    | 19       | 10  | 1     | 0.5   |       |                          |        |                            |
| 4           |                                 | В                | <b>5</b> 7  | 120                   | HZUL     |      | 201N41           | 20/28                                     | 401H36   |                    | 3          | mK           | -        | UFR.                            | WD                       | 28                   | 28                    | II  | 3a                 | 17       | 10  | 0     | 0.5   | 30.06 | 1                        | -0.62  | 2                          |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    |          |     |       |       |       |                          |        |                            |
|             |                                 |                  |             | 35                    | HZCL     | N    | 10YR31           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 19       |     | 1     |       |       |                          |        |                            |
| 15          |                                 | В                | ≤7          | 120                   | ZC       |      | 10YR41           | 25/35                                     | 10YR56   |                    | 0          | HR           | p        | CPR                             | MD                       | 35                   | 35                    | п   | 3a                 | 15       | 8   | 1     | 0.5   | 22.63 | 2                        | 0.23   | 2                          |
|             |                                 |                  |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    | 0        | 0   | 0     | 0     |       |                          |        |                            |
|             |                                 |                  |             | 35                    | HZCL     | N    | 10YR31           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 19       |     | 1     |       |       |                          |        |                            |
| 6           |                                 | P                | s7          | 120                   | zc       |      | 10YR41           | 25/35                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | MD                       | 35                   | 35                    | п   | 3a                 | 15       | 8   | 1     | 0.5   | 22.63 | 2                        | 0.23   | 2                          |
| -           |                                 | ľ                |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          | _                    |                       |     | -                  | 0        | 0   | 0     | 0     |       |                          |        |                            |
|             |                                 |                  |             | 120                   | HZCL     | N    | 10YR31           |   |          |                    | 5          | HR           |          |                                 |                          |                      |                       |     |                    | 19       |     | 1     |       |       |                          |        |                            |
| 7           |                                 | В                | s7          | 120                   | ZC       | 14   | 10YR41           | 20/30                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | MD                       | 30                   | 30                    | п   | 3a                 | 15       | 8   | 1     | 0.5   | 17.93 | 2                        | -4.47  | 2                          |
|             |                                 | _                |             | 120                   |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     | _                  | 0        | 0   | 0     | 0     |       |                          |        |                            |
|             |                                 |                  |             | 28                    | C        | N    | 10YR42           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 17       |     | 1     |       |       |                          |        |                            |
| 8           |                                 | В                | <b>57</b>   | 50                    | C        |      | 10YR41           | 20/28                                     | 10YR56   |                    | 0          | HR           | P        | CAB                             | MD                       | 28                   | 28                    | п   | 3a                 | 16       | 8   | 1     | 0.5   | 9.43  | 2                        | -11.97 | 3a                         |
|             |                                 |                  |             | 120                   | ZC       |      | 10YR41           | 25/50                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | WK                       |                      |                       |     |                    | 12       | 7   | 1     | 0.5   |       |                          |        |                            |
|             |                                 |                  |             | 28                    | c        | N    | 10YR42           |   |          |                    | 0          | HR           |          |                                 |                          |                      |                       |     |                    | 17       |     | 1     |       |       |                          |        |                            |
| 9           |                                 | В                | £7          | 50                    | C        | Ė    | 10YR41           | 20/28                                     | 10YR56   |                    | 0          | HR           | Р        | CAB                             | MD                       | 28                   | 28                    | п   | 3a                 | 16       | 8   | 1     | 0.5   | 9.43  | 2                        | -51.07 | 3                          |
| 3           |                                 | ы                | 87          | 120                   | ZC       |      | 10YR41           | 25/50                                     | 10YR56   |                    | 0          | HR           | Р        | CPR                             | WK                       | 26                   | 46                    | "   | 30                 | 12       | 7   | 1     | 0.5   | 9.43  | ž                        | -11.97 | 30                         |
|             |                                 |                  |             | 120                   |          |      | 1000 10          |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    |          |     |       |       |       |                          |        |                            |
|             |                                 |                  |             | 25<br>50              | c        | N    | 10YR42<br>10YR41 | 25/25                                     | 10YR56   |                    | 5          | HR           | p        | CAB                             | MD                       |                      |                       |     |                    | 17<br>16 | 8   | 1     | 0.5   |       |                          |        |                            |
| ю           |                                 | В                | <b>57</b>   | 120                   | ZC       |      | 10YR41           | 25/50                                     | 10YR56   |                    | 0          | HR           | P        | CPR                             | WK                       | 25                   | 25                    | П   | 3a                 | 12       | 7   | 1     | 0.5   | 5.26  | 2                        | -15.14 | 3a                         |
|             |                                 |                  |             |                       |          |      |                  |   |          |                    |            |              |          |                                 |                          |                      |                       |     |                    |          |     |       |       |       |                          |        |                            |

| Obs      | Gid ref. if all<br>intersection | Boring or<br>Pit | Grad. (deg) | Base<br>Depth<br>(cm)        | Text.       | Cak | Matrix<br>colour | Motts,/ black<br>ferro. conc.<br>%/ depth | Mott<br>colour or<br>FC ifferro.<br>conc. | Ped face<br>colour | Stns<br>% | Stns<br>type | Parosity | Struct<br>Profess<br>consist ence | Degree of<br>development                | SPL<br>depth<br>(cm) | Gleying<br>depth (cm) | SWC | Grade | TAv | EAv | StTAv | StEAv | MBM   | Gradi (Drougt),<br>WHEAT] | мвр    | Grade (Dringht |
|----------|---------------------------------|------------------|-------------|------------------------------|-------------|-----|------------------|---|---|--------------------|-----------|--------------|----------|-----------------------------------|---|----------------------|-----------------------|-----|-------|-----|-----|-------|-------|-------|---------------------------|--------|----------------|
|          |                                 |                  |             | 25                           | zc          | N   | 10YR42           |   |   |                    | 5         | HR           |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
|          |                                 |                  |             | 120                          | zc          |     | 10YR53           | 25/25                                     | 10YR56                                    |                    | 5         | HR           | p        | CPR                               | MD                                      |                      |                       |     |       | 17  | 10  | 1     | 0.5   |       |                           |        |                |
| 11       |                                 | В                | ≤7          | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   | 25                   | 25                    | II  | 3a    | 17  | 10  | 1     | 0.5   | 30.06 | 1                         | -0.62  | 2              |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 25                           | ZC          | N   | 10YR42           |   |   |                    | 5         | HR           |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
|          |                                 |                  |             | 120                          | ZC          |     | 10YR53           | 20/25                                     | 10YR56                                    |                    | 0         | HR           | P        | CPR                               | MD                                      | 20                   | 10                    |     |       | 17  | 10  | 1     | 0.5   | 35.38 | 1                         | 2.96   | 2              |
| 2        |                                 | В                | 57          | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   | 25                   | 25                    | "   | 3a    | 17  | 10  | 1     | 0.5   | 23.38 |                           | 2.90   |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 25                           | ZC          | N   | 10YR42           |   |   |                    | 5         | HR.          |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
| 3        |                                 | В                | s7 -        | 120                          | ZC          |     | 10YR53           | 20/25                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR                               | MD                                      | 25                   | 25                    | п   | 3a    | 17  | 10  | 1     | 0.5   | 35.38 | 1                         | 2.96   |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       | 17  | 10  | 1     | 0.5   |       |                           |        |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 35                           | HZCL        | N   | 10YR31           | 20100                                     |   |                    | 0         | HR.          |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
| 14       |                                 | В                | s7          | 70                           | ZC          |     | 10YR41           | 20/35                                     | 10YR56                                    |                    | 0         | HR           | P        | CAB                               | MD                                      | 35                   | 35                    | Ш   | 3a    | 15  | 8   | 1     | 0.5   | 22.63 | 2                         | 0.23   |                |
|          |                                 |                  |             | 120                          | ZC          |     | 10YR42           | 25/70                                     | 10YR56                                    |                    | 0         | HR           | р        | CPR                               | MD                                      |                      |                       |     |       | 15  | 8   | 1     | 0.5   |       |                           |        |                |
|          |                                 |                  |             | 35                           | HZCL        | N   | 10YR31           |   |   |                    | 0         | HR           |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
|          |                                 |                  |             | 65                           | ZC          | -   | 10YR41           | 20/35                                     | 10YR56                                    |                    | 0         | HR           | Р        | CAB                               | MD                                      |                      |                       |     |       | 15  | 8   | 1     | 0.5   |       |                           |        |                |
| 15       |                                 | В                | <b>57</b>   | 120                          | ZC          |     | 10YR42           | 20/65                                     | 10YR56                                    |                    | 0         | HR           | P        | CPR                               | MD                                      | 35                   | 35                    | Ш   | 3a    | 15  | 8   | 1     | 0.5   | 22.63 | 2                         | 0.23   |                |
|          |                                 |                  |             | 120                          |             |     | 2011112          | 24,41                                     | 2011120                                   |                    | -         |              |          | 27.71                             |   |                      |                       |     |       |     | -   | -     |       |       |                           |        |                |
|          |                                 |                  |             | 30                           | HZCL        | N   | 10YR31           |   |   |                    | 0         | HR           |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
|          |                                 |                  | أيرا        | 120                          | zc          |     | 10YR41           | 20/35                                     | 10YR56                                    |                    | 0         | HR           | p        | CPR                               | MD                                      | 20                   | 20                    | ,   |       | 15  | 8   | 1     | 0.5   | 30.00 |                           | 6.77   |                |
| 16       |                                 | В                | £7          | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   | 30                   | 30                    | Ш   | 3a    | 0   | 0   | 0     | 0     | 20.63 | 2                         | -1.77  |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 35                           | HZCL        | N   | 10YR31           |   |   |                    | 0         | HR           |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
| 17       |                                 | В                | ≤7          | 65                           | ZC          |     | 10YR41           | 20/35                                     | 10YR56                                    |                    | 0         | HR           | Р        | CAB                               | MD                                      | 35                   | 35                    | п   | 3a    | 15  | 8   | 1     | 0.5   | 22.63 | 2                         | 0.23   |                |
| **       |                                 |                  | -           | 120                          | zc          |     | 10YR42           | 20/65                                     | 10YR56                                    |                    | 0         | HR           | p        | CPR                               | MD                                      | 33                   | 33                    | "   |       | 15  | 8   | 1     | 0.5   |       |                           |        |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 28                           | HZCL        | N   | 10YR43           |   | 15.                                       |                    | 5         | HR           | _        |                                   |   |                      |                       |     |       | 19  | _   | 1     |       |       |                           |        |                |
| 48       |                                 | В                | s7 ·        | 120                          | ZC          |     | 10YR42           | 20/28                                     | 10YR56                                    |                    | 5         | HR           | Р        | CPR                               | MD                                      | 28                   | 28                    | п   | 3a    | 15  | 8   | 1     | 0.5   | 13.15 | 2                         | -8.03  |                |
| -        |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       | 0   | 0   | 0     | 0     |       |                           |        |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 30                           | HZCL        | N   | 10YR31           | 15/20                                     |   |                    | 0         | HR           |          | 500                               |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
| 19       |                                 | В                | ≤7          | 120                          | ZC          |     | 10YR41           | 15/30                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR                               | MD                                      | 30                   | 30                    | II  | 3a    | 15  | 8   | 1     | 0.5   | 20.63 | 2                         | -1.77  |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       | 0   | 0   | 0     | 0     |       |                           |        |                |
|          |                                 |                  |             | 120                          | HZCL        |     | 10YR31           |   |   |                    | 0         | шо           |          |                                   |   |                      |                       |     |       | 10  |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 30<br>120                    | ZC          | N   | 10YR41           | 20/30                                     | 10YR56                                    |                    | 0         | HR<br>HR     | Р        | CPR                               | MD                                      |                      |                       |     |       | 19  | 8   | 1     | 0.5   |       |                           |        |                |
| 50       |                                 | В                | ≤7          | 120                          | 20          |     | ID1941           | 20/30                                     | 101036                                    |                    |           | nn.          | -        | CFR                               | MU                                      | 30                   | 30                    | Ш   | 3a    | 13  | 0   | 0     | 0.5   | 20.63 | 2                         | -1.77  |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       | U     |       |                           |        |                |
|          |                                 |                  |             | 28                           | HZCL        | N   | 10YR43           |   |   |                    | 5         | HR           |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
|          |                                 |                  |             | 120                          | zc          |     | 10YR42           | 20/28                                     | 10YR56                                    |                    | 5         | HR           | Р        | CPR                               | MD                                      |                      |                       |     |       | 15  | 8   | 1     | 0.5   |       |                           |        |                |
| 51       |                                 | В                | £7          | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   | 28                   | 28                    | II  | 3a    | 0   | 0   | 0     | 0     | 13.15 | 2                         | -8.03  | -              |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             |                              |             |     |                  |   |   |                    |           | GA           | S PIP    | E                                 |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 25                           | C           | N   | 10YR42           |   |   |                    | 5         | HR           |          |                                   |   |                      |                       |     |       | 17  |     | 1     |       |       |                           |        |                |
|          |                                 |                  | -           | 50                           | С           |     | 10YR41           | 25/25                                     | 10YR56                                    |                    | 0         | HR           | P        | CAB                               | MD                                      | 36                   | 26                    |     |       | 16  | 8   | 1     | 0.5   |       | _                         |        |                |
| 53       |                                 | В                | £7          | 120                          | zc          |     | 10YR41           | 25/50                                     | 10YR56                                    |                    | 0         | HR           | P        | CPR                               | WK                                      | 25                   | 25                    | Ш   | 3a    | 12  | 7   | 1     | 0.5   | 7.13  | 2                         | -14.27 | 3              |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 25                           | C           | N   | 10YR42           |   |   |                    | 5         | HR.          |          |                                   |   |                      |                       |     |       | 17  |     | 1     |       |       |                           |        |                |
| 4        |                                 | В                | 57          | 50                           | C           |     | 10YR41           | 25/25                                     | 10YR56                                    |                    | 5         | HR           | Р        | CAB                               | MD                                      | 25                   | 25                    | п   | 3a    | 16  | 8   | 1     | 0.5   | 2.96  | 31                        | -17.24 |                |
|          |                                 |                  | -           | 120                          | ZC          |     | 10YR41           | 25/50                                     | 10YR56                                    |                    | 5         | HR           | p        | CPR                               | WK                                      |                      |                       | "   |       | 12  | 7   | 1     | 0.5   |       |                           |        |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     |       |       |       |                           |        |                |
|          |                                 |                  |             | 25                           | HZCL        | N   | 10YR43           |   |   |                    | 5         | HR           |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
| 5        |                                 | В                | <b>57</b>   | 120                          | ZC          |     | 10YR42           | 20/28                                     | 10YR56                                    |                    | 5         | HR           | Р        | CPR                               | MD                                      | 25                   | 25                    | п   | 3a    | 15  | 8   | 1     | 0.5   | 12.01 | 2                         | -9.17  |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       | 0   | 0   | 0     | 0     |       |                           |        |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    | -         |              |          |                                   |   |                      |                       |     |       |     |     | _     |       |       |                           |        |                |
|          |                                 |                  |             | 25                           | ZC          | N   | 10YR42           | 96.500                                    | 10.00                                     |                    | 5         | HR           |          | par-                              |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
|          |                                 | В                | <b>57</b>   | 120                          | ZC          |     | 10YR53           | 25/25                                     | 10YR56                                    |                    | 5         | HR           | Р        | CPR                               | MD                                      | 25                   | 25                    | П   | 3a    | 17  | 10  | 1     | 0.5   | 30.06 | 1                         | -0.62  |                |
| 6        |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       | 17  | 10  | 1     | 0.5   |       |                           |        |                |
| 6        |                                 |                  |             | 25                           | ZC          | N   | 10YR42           |   |   |                    | 5         | HR           |          |                                   |   |                      |                       |     |       | 19  |     | 1     |       |       |                           |        |                |
| 6        |                                 |                  |             | 120                          | ZC          | ni. | 10YR53           | 20/25                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR                               | MD                                      |                      |                       |     |       | 17  | 10  | 1     | 0.5   |       |                           |        |                |
|          |                                 | В                | <b>≤7</b>   | 120                          | 2.0         |     | 2311199          | 24/69                                     | 2011100                                   |                    | ~         | and.         |          | ar fi                             |   | 25                   | 25                    | II  | 3a    | 17  | 10  | 1     | 0.5   | 35.38 | 1                         | 2.98   |                |
|          |                                 |                  |             | 120                          |             |     |                  |   |   |                    |           |              |          |                                   |   |                      |                       |     |       |     |     | -     |       |       |                           |        |                |
|          |                                 |                  |             | 25                           | MZCL        | N   | 10YR32           |   |   |                    | 0         | HR           |          |                                   |   |                      |                       |     |       | 17  |     | 1     |       |       |                           |        |                |
|          |                                 |                  |             | 50                           | ZL          |     | 10YR52           | 5/25                                      | 10YR56                                    |                    | 0         | HR           | Р        | M/F                               | MD                                      |                      |                       |     |       | 22  | 14  | 1     | 0.5   |       |                           |        |                |
| 7        |                                 |                  | <b>≤7</b>   | 120                          | SCL         |     | 10YR42           | 15/50                                     | 101856                                    |                    | 0         | HR           | P        | CPR                               | MD                                      | 25                   | 25                    | II  | 2     | 15  | 10  | 1     | 0.5   | 45.13 | 1                         | 8.73   |                |
| 7        |                                 | 8                |             | 120                          |             |     |                  | -4.0                                      |   |                    | 1         |              |          |                                   | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                      |                       |     |       | _   |     | -     |       |       |                           |        |                |
| 7        |                                 | 8                |             |                              | MZCL        | N   | 10YR32           |   |   |                    | 0         | HR           |          |                                   |   |                      |                       |     |       | 17  |     | 1     |       |       |                           |        |                |
| 7        |                                 | 8                |             |                              |             |     | 10YR52           | 5/25                                      | 10YR56                                    |                    | 5         | HR           | р        | M/F                               | MD                                      |                      |                       |     | _     | 22  | 14  | 1     | 0.5   |       |                           |        |                |
| 57       |                                 |                  |             | 25<br>50                     | ZL          |     |                  | 100 100 100                               |   |                    |           |              |          | CPR                               |   | 25                   | 25                    | Ш   | 2     | 15  |     |       |       | 42.51 | 1                         | 6.11   |                |
| 57       |                                 | 8                | 57          | 25                           | ZL<br>SCL   |     | 10YR42           | 10/50                                     | 10YR56                                    |                    | 0         | HR.          | P        | 5.27                              | MD                                      |                      |                       |     |       | 43  | 10  | 1     | 0.5   |       |                           |        |                |
| 57       |                                 |                  | s           | 25<br>50                     |             |     |                  | 10/50                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR                               | MD                                      |                      |                       |     |       | 13  | 10  | 1     | 0.5   |       |                           |        |                |
| 57       |                                 |                  | s           | 25<br>50<br>120              |             | N   |                  | 10/50                                     | 10YR56                                    |                    | 0         | HR           | Р        | CFR                               | MD                                      |                      |                       |     |       | 19  | 10  | 1     | 0.5   |       |                           |        |                |
| 67<br>68 |                                 | 8                |             | 25<br>50<br>120<br>120       | SCL         | N   | 10YR42           | 10/50                                     | 10YR56                                    |                    |           |              | P        | CPR                               | MD                                      |                      |                       | ,   |       |     | 10  |       | 0.5   |       |                           |        |                |
| 7        |                                 |                  |             | 25<br>50<br>120<br>120<br>25 | SCL<br>HZCL | N   | 10YR42           |   |   |                    | 0         | HR           |          |                                   |   | 25                   | 25                    | ıı  | 3a    | 19  |     | 1     |       | 32.63 | 1                         | -3.77  |                |

| Obs | Gid nd. if all<br>intersection | Baring or<br>Pit | Grad. (deg) | Base<br>Depth (on) | Text. | Calc | Matrix<br>colour | Motts,/ black<br>ferro. conc.<br>N/ depth | Matt<br>colour or<br>FC ifferro.<br>conc. | Ped face<br>colour | Stns<br>% | Stns<br>type | Porosity | Struct<br>(Fellon<br>consist ence<br>) | Degree of<br>development | SPL<br>depth<br>(cm) | Gleying<br>depth (cm) | SWC | Grade<br>(vertress) | TAv | EAv | SETAV | SKEAV | MBW   | Grade (Drought,<br>WHEAT) | MBP   | Gradi (Draght,<br>POTATOPIS |
|-----|--------------------------------|------------------|-------------|--------------------|-------|------|------------------|---|---|--------------------|-----------|--------------|----------|--|--------------------------|----------------------|-----------------------|-----|---------------------|-----|-----|-------|-------|-------|---------------------------|-------|-----------------------------|
|     |                                |                  |             | 28                 | HZCL  | N    | 10VR31           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
|     |                                |                  |             | 55                 | zc    |      | 10YR31           | 20/28                                     | 10YR56                                    |                    | 0         | HR           | р        | CAB                                    | MD                       |                      |                       |     |                     | 15  | 8   | 1     | 0.5   |       |                           |       |                             |
| 61  |                                | В                | ≤7          | 120                | ZC    |      | 10YR42           | 25/55                                     | 10YR56                                    |                    | 0         | HR           | p        | CPR.                                   | MD                       | 28                   | 28                    | п   | 3a                  | 15  | 8   | 1     | 0.5   | 19.83 | 2                         | -2.57 | 2                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 25                 | HZCL  | N    | 10YR32           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
|     |                                |                  | -           | 55                 | ZC    |      | 10YR31           | 25/25                                     | 10YR56                                    |                    | 0         | HR           | p        | CAB                                    | MD                       |                      | 25                    |     |                     | 15  | 8   | 1     | 0.5   | 40.00 |                           |       |                             |
| 62  |                                | В                | 57          | 120                | ZC    |      | 10YR42           | 25/55                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR.                                   | MD                       | 25                   | 25                    | "   | 3a                  | 15  | 8   | 1     | 0.5   | 18.63 | 2                         | -3.77 | 2                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 25                 | HZCL  | N    | 10YR32           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
| 63  |                                | В                | 57          | 55                 | ZC    |      | 10YR31           | 25/25                                     | 10YR56                                    |                    | 0         | HR           | р        | CAB                                    | MD                       | 25                   | 25                    |     | За                  | 15  | 8   | 1     | 0.5   | 18.63 | 2                         | -3.77 | 2                           |
| 63  |                                |                  | Sr.         | 120                | ZC    |      | 10YR42           | 25/55                                     | 10YR56                                    |                    | 0         | HR           | Ρ        | CPR.                                   | MD                       | 23                   | 2.5                   |     | 30                  | 15  | 8   | 1     | 0.5   | 10.03 | -                         | -3.77 | ž                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 25                 | HZCL  | N    | 10YR32           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
| 64  |                                | В                | ≤7          | 120                | ZC    |      | 104831           | 15/25                                     | 10YR56                                    |                    | 0         | HR           | P        | CPR                                    | MD                       | 25                   | 25                    | п   | 3a                  | 15  | 8   | 1     | 0.5   | 18.63 | 2                         | -3.77 | 2                           |
|     |                                |                  | -           | 120                |       |      |                  |   |   |                    |           |              |          |  |                          | -                    |                       |     |                     | 0   | 0   | 0     | 0     | 20102 | -                         |       | -                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             |                    |       |      |                  |   |   |                    |           | GAS          | PIPE     |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 28                 | HZCL  | N    | 10YR31           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
| 65  |                                |                  | _           | 55                 | zc    |      | 10YR31           | 20/28                                     | 10YR56                                    |                    | 0         | HR           | р        | CAB                                    | MD                       | 30                   | 26                    |     | 25                  | 15  | 8   | 1     | 0.5   | 10.03 |                           | .0.53 |                             |
| 66  |                                | В                | <b>57</b>   | 120                | ZC    |      | 10YR42           | 25/55                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR                                    | MD                       | 28                   | 28                    | "   | 3a                  | 15  | 8   | 1     | 0.5   | 19.83 | 2                         | -2.57 | 2                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 25                 | HZCL  | N    | 10YR31           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
| 67  |                                | В                | 57          | 50                 | ZC    |      | 109831           | 25/25                                     | 10YR56                                    |                    | 0         | HR           | Р        | CAB                                    | MD                       | 25                   | 25                    |     | 3a                  | 15  | 8   | 1     | 0.5   | 19.63 | -                         | .0.22 |                             |
| 67  |                                |                  | 5/          | 120                | ZC    |      | 10YR42           | 20/50                                     | 10YR56                                    |                    | 0         | HR           | Ρ        | CPR                                    | MD                       | 23                   | 49                    | "   | 50                  | 15  | 8   | 1     | 0.5   | 18.63 | 2                         | -3.77 | 2                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 45                 | MZCL  | N    | 10YR31           |   |   |                    | 5         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
| 68  |                                | в                | £7          | 55                 | ZL    |      | 10YR53           | 15/45                                     | 10YR56                                    |                    | - 5       | HR           | Р        | M/F                                    | MD                       | 45                   | 45                    |     | 2                   | 22  | 14  | 1     | 0.5   | 41.22 | 1                         | 9.13  | 2                           |
| bo  |                                |                  | ar          | 120                | MZCL  |      | 10YR53           | 15/55                                     | 10YR56                                    |                    | 0         | HR           | Р        | CAB                                    | MD                       | 45                   | 45                    |     |                     | 17  | 10  | 1     | 0.5   | 41.22 | •                         | 2.43  | -                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 25                 | MZCL  | N    | 10YR32           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 17  |     | 1     |       |       |                           |       |                             |
| 69  |                                | В                | s7          | 50                 | ZL    |      | 10YR52           | 10/25                                     | 10YR56                                    |                    | 0         | HR           | Р        | M/F                                    | MD                       | 25                   | 25                    |     | 2                   | 22  | 14  | 1     | 0.5   | 45.13 | 1                         | 5.73  | 2                           |
| 0.5 |                                |                  |             | 120                | SCL   |      | 10YR42           | 15/50                                     | 10YR56                                    |                    | 0         | HR           | p        | CPR                                    | MD                       |                      |                       |     | -                   | 15  | 10  | 1     | 0.5   |       |                           |       | -                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 25                 | MZCL  | N    | 10VR32           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 17  |     | 1     |       |       |                           |       |                             |
| 70  |                                | В                | <b>57</b>   | 50                 | ZL    |      | 10YR52           | 5/25                                      | 10YR56                                    |                    | 0         | HR           | Р        | M/F                                    | MD                       | 25                   | 25                    | п   | 2                   | 22  | 14  | 1     | 0.5   | 45.13 | 1                         | 8.73  | 2                           |
|     |                                |                  |             | 120                | SCL   |      | 10YR42           | 15/50                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR                                    | MD                       |                      |                       |     |                     | 15  | 10  | 1     | 0.5   |       |                           |       |                             |
|     |                                |                  |             | 120                |       |      | 100000           |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 28<br>45           | MZCL  | N    | 10VR31           |   |   |                    | 0         | HR           | р        | M/F                                    |                          |                      |                       |     |                     | 19  | 14  | 1     | 0.5   |       |                           |       |                             |
| 71  |                                | В                | ≤7          | 120                | MZCL  |      | 10YR41           | 10/45                                     | 10YR56                                    |                    | 0         | HR           | p        | CPR                                    | MD                       | 40                   | 40                    | п   | 2                   | 17  | 10  | 1     | 0.5   | 46.73 | 1                         | 14.33 | 1                           |
|     |                                |                  |             | 120                | MULL  |      | 1011042          | 20/43                                     | 2011/20                                   |                    |           | 1100         | ,        | CFIL                                   | 1810                     |                      |                       |     |                     |     | 10  | -     | 0.3   |       |                           |       |                             |
|     |                                |                  |             | 28                 | MZCL  | N    | 10VR31           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
|     |                                |                  |             | 40                 | ZL    |      | 10YR31           |   |   |                    | 0         | HR           | р        | M/F                                    |                          |                      |                       |     |                     | 22  | 14  | 1     | 0.5   |       |                           |       |                             |
| 72  |                                | В                | 57          | 120                | MZCL  |      | 10YR41           | 10/40                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR.                                   | MD                       | 40                   | 40                    |     | 2                   | 17  | 10  | 1     | 0.5   | 55.23 | 1                         | 11.83 | 1                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 30                 | HZCL  | N    | 10YR31           |   |   |                    | 10        | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
|     |                                |                  |             | 120                | С     |      | 10YR42           | 10/28                                     | 10YR56                                    |                    | 5         | HR           | р        | CPR                                    | MD                       |                      |                       |     |                     | 16  | 8   | 1     | 0.5   |       |                           |       |                             |
| 73  |                                | В                | <b>57</b>   | 120                |       |      |                  |   |   |                    |           |              |          |  |                          | 30                   | 30                    |     | За                  | 0   | 0   | 0     | 0     | 13.11 | 2                         | -6.17 | 2                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 28                 | HZCL  | N    | 10YR31           |   |   |                    | 10        | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
| 74  |                                |                  | £7          | 120                | С     |      | 10YR42           | 25/28                                     | 10YR56                                    |                    | 5         | HR           | Р        | CPR                                    | MD                       | 28                   | 20                    |     | 9.                  | 16  | 8   | 1     | 0.5   | 10.72 |                           |       |                             |
| 74  |                                |                  | 47          | 120                |       |      |                  |   |   |                    |           |              |          |  |                          | 26                   | 28                    |     | 3a                  | 0   | 0   | 0     | 0     | 12.72 | 2                         | -6.56 | 2                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 25                 | HZCL  | N    | 10YR32           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
| 75  |                                |                  | £7          | 120                | ZC    |      | 109831           | 25/25                                     | 10YR56                                    |                    | 0         | HR           | p        | CPR.                                   | MD                       | 25                   | 25                    |     | 3a                  | 15  | В   | 1     | 0.5   | 18.63 | 2                         | -3.77 | 2                           |
| .3  |                                |                  | 40          | 120                |       |      |                  |   |   |                    |           |              |          |  |                          | 2.5                  | .,                    |     |                     | 0   | 0   | 0     | 0     | 10.03 |                           | -3.11 | -                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 25                 | HZCL  | N    | 10YR32           |   |   |                    | 5         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
| 76  |                                | В                | 57          | 120                | ZC    |      | 109831           | 20/25                                     | 10YR56                                    |                    | 0         | HR           | ρ        | CPR                                    | MD                       | 25                   | 25                    |     | 3a                  | 15  | 8   | 1     | 0.5   | 16.38 | 2                         | -6.02 | 2                           |
|     |                                | Ĺ                |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     | , i                 | 0   | 0   | 0     | 0     |       |                           |       |                             |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             |                    |       |      |                  |   |   |                    |           | GAS          | PIPE     |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 30                 | HZCL  | N    | 104832           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
|     |                                |                  |             | 60                 | ZC    | -    | 10YR41           | 15/30                                     | 10YR56                                    |                    | 0         | HR           | Р        | CAB                                    | MD                       |                      |                       |     |                     | 15  | 8   | 1     | 0.5   |       |                           |       |                             |
| 78  |                                | В                | ≤7          | 120                | 20    |      | 10WR42           | 25/60                                     | 107R56                                    |                    | 0         | HR           | P        | CPR                                    | MD                       | 30                   | 30                    | п   | 3a                  | 15  | 8   | 1     | 0.5   | 20.63 | 2                         | -1.77 | 2                           |
|     |                                |                  |             | 120                | 20    |      | DUTTHAL          | 25/00                                     | 201830                                    |                    | 0         | H            | ,        | UPR.                                   | 1440                     |                      |                       |     |                     | 13  | 0   | 4     | 0.3   |       |                           |       |                             |
|     |                                |                  |             | 25                 | HZCL  | Y    | 104832           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
|     |                                |                  |             | 120                | ZC    |      | 10W31            | 25/25                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR                                    | MD                       |                      |                       |     |                     | 15  | 8   | 1     | 0.5   |       |                           |       |                             |
| 79  |                                | В                | ≤7          | 120                | 2.0   |      | 2011/31          | 20/43                                     | 2011/30                                   |                    |           | rest         |          | G-R                                    |                          | 25                   | 25                    | п   | 3a                  | 12  | 0   | 0     | 0.5   | 18.63 | 2                         | -3.77 | 2                           |
|     |                                |                  |             | 120                |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       |       |       |                           |       |                             |
|     |                                |                  |             | 25                 | HZCL  | Y    | 10YR42           |   |   |                    | 0         | HR           |          |  |                          |                      |                       |     |                     | 19  |     | 1     |       |       |                           |       |                             |
|     |                                |                  |             | 120                | ZC    | ŕ    | 10YR31           | 15/25                                     | 10YR56                                    |                    | 0         | HR           | Р        | CPR                                    | MD                       |                      |                       |     |                     | 15  | 8   | 1     | 0.5   |       |                           |       |                             |
|     |                                | В                | ≤7          | 120                | 20    |      | 2011/21          | 23/43                                     | 2011/20                                   |                    | - 0       | rest         |          | Crn.                                   | .20                      | 25                   | 25                    | 11  | 3a                  | 12  | 0   | 0     |       | 18.63 | 2                         | -3.77 | 2                           |
| 80  |                                |                  |             |                    |       |      |                  |   |   |                    |           |              |          |  |                          |                      |                       |     |                     |     |     |       | 0     |       |                           |       |                             |

| oint                  | Grid nef. If of<br>intersection | Boring or<br>Pit | Grad. (deg)                | Base<br>Depth (cm)   | Text.  | Calc             | Matrix<br>colour   | Morts,/ black<br>ferro, conc.<br>9// depth  | Mott<br>colour or<br>FC if ferra.<br>conc.   | Ped face<br>colour | Stns<br>%   | Stns<br>type                             | Porosity        | Struct<br>(Fellow<br>covalet ence                                   | Degree of<br>developmen                  | SPL<br>depth<br>(cm)       | Gleying<br>depth (cm)      | SWC | Grade<br>(webness)  | TAv  | EAv                           | StTAv   | StEAw  | NBW                              | Orato (Drough)<br>WHEAT) | 984                              | Chade (Divaught |
|-----------------------|---------------------------------|------------------|----------------------------|--|--|------------------|--|---|--|--------------------|---|--|-----------------|---|--|----------------------------|----------------------------|-----|---------------------|--|-------------------------------|---|--|----------------------------------|--------------------------|----------------------------------|-----------------|
|                       |                                 |                  |                            | 25   | HZCL   | N                | 10YR42   |   |  |                    | 0   | HR.                                      |                 |   |  |                            |                            |     |                     | 19   |                               | 1   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 120  | zc   |                  | 10YR31   | 15/25   | 10YR56   |                    | 0   | HR                                       | P               | CPR   | MD                                       |                            |                            |     |                     | 15   | 8                             | 1   | 0.5  |                                  |                          |                                  |                 |
| 81                    |                                 | В                | ≤7                         | 120  |  |                  |  |   |  |                    | -   |  |                 |   |  | 25                         | 25                         | •   | 3a                  | 0  | 0                             | 0   | 0  | 18.63                            | 2                        | -3.77                            | 2               |
|                       |                                 |                  |                            | 120  |  |                  |  |   |  |                    |   |  |                 |   |  |                            |                            |     |                     |  |                               |   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 25   | MZCL   | N                | 10YR32   |   |  |                    | 0   | HR.                                      |                 |   |  |                            |                            |     |                     | 17   |                               | 1   |  |                                  |                          |                                  |                 |
| -                     |                                 | В                | ≤7                         | 50   | ZL   |                  | 10YR52   | 10/25   | 10YR56   |                    | 0   | HR.                                      | P               | M/F   | MD                                       | 25                         | 25                         |     | 2                   | 22   | 14                            | 1   | 0.5  |                                  |                          |                                  |                 |
| 2                     |                                 | В                | 27                         | 120  | SCL  |                  | 10YR42   | 15/50   | 10YR56   |                    | 0   | HR.                                      | P               | CPR   | MD                                       | 25                         | 25                         | •   | -                   | 15   | 10                            | 1   | 0.5  | 45.13                            | 1                        | 8.73                             |                 |
|                       |                                 |                  |                            | 120  |  |                  |  |   |  |                    |   |  |                 |   |  |                            |                            |     |                     |  |                               |   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 25   | MZCL   | N                | 10YR32   |   |  |                    | 0   | HR.                                      |                 |   |  |                            |                            |     |                     | 17   |                               | 1   |  |                                  |                          |                                  |                 |
| 3                     |                                 | P                | <b>57</b>                  | 50   | ZL   |                  | 10YR52   | 10/25   | 10YR56   |                    | 0   | HR.                                      | P               | M/F   | MD                                       | 25                         | 25                         |     | 2                   | 22   | 14                            | 1   | 0.5  | 45.13                            | 1                        | 8.73                             |                 |
|                       |                                 |                  |                            | 120  | SCL  |                  | 10YR42   | 15/50   | 10YR56   |                    | 0   | HR.                                      | P               | CPR   | MD                                       |                            |                            |     |                     | 15   | 10                            | 1   | 0.5  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 120  |  |                  |  |   |  |                    |   |  |                 |   |  |                            |                            |     |                     |  |                               |   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 25   | MZCL   | N                | 10YR32   |   |  |                    | 5   | HR                                       | -               |   |  |                            |                            |     |                     | 17   |                               | 1   |  |                                  |                          |                                  |                 |
| 4                     |                                 | В                | ≤7                         | 55   | ZL   |                  | 10VR52   | 5/25  | 10YR56   |                    | 0   | HR                                       | P               | M/F   | MD                                       | 25                         | 25                         |     | 2                   | 22   | 14                            | 1   | 0.5  | 45.13                            | 1                        | 10.23                            |                 |
|                       |                                 |                  |                            | 120  | SCL  |                  | 10YR42   | 15/55   | 10YR56   |                    | 0   | HR                                       | P               | CPR   | MD                                       |                            |                            |     |                     | 15   | 10                            | 1   | 0.5  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 25   | MZCL   | N                | 10VR32   |   |  |                    | 0   | HR                                       |                 |   |  |                            |                            |     |                     | 17   |                               | 1   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 50   | ZL   | n                | 10YR52   | 5/25  | 10YR56   |                    | 0   | HR                                       | P               | M/F   | MD                                       |                            |                            |     |                     | 22   | 14                            | 1   | 0.5  |                                  |                          |                                  |                 |
| 5                     |                                 | В                | ≤7                         | 120  | SCL  |                  | 10YR42   | 15/50   | 10YR56   |                    | 0   | HR                                       | P               | CPR.  | MD                                       | 25                         | 25                         | •   | 2                   | 15   | 10                            | 1   | 0.5  | 45.13                            | 1                        | 8.73                             |                 |
|                       |                                 |                  |                            | 120  |  |                  | 2011112  | 23,50   | 2011120  |                    | -   |  |                 |   |  |                            |                            |     |                     |  |                               | -   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 45   | MZCL   | N                | 10YR31   |   |  |                    | 0   | HR                                       |                 |   |  |                            |                            |     |                     | 19   |                               | 1   |  |                                  |                          |                                  |                 |
|                       |                                 |                  | _                          | 55   | ZL   |                  | 10YR53   | 15/45   | 10YR56   |                    | 0   | HR                                       | p               | M/F   | MD                                       |                            |                            | , I |                     | 22   | 14                            | 1   | 0.5  | 45.45                            |                          | 4                                |                 |
| 6                     |                                 | В                | <b>57</b>                  | 120  | MZCL   |                  | 10YR53   | 15/55   | 10YR56   |                    | 0   | HR.                                      | P               | CAB   | MD                                       | 45                         | 45                         | •   | 2                   | 17   | 10                            | 1   | 0.5  | 46.13                            | 1                        | 14.23                            |                 |
|                       |                                 |                  |                            | 120  |  |                  |  |   |  |                    |   |  |                 |   |  |                            |                            |     |                     |  |                               |   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 35   | HZCL   | N                | 10YR31   |   |  |                    | 5   | HR                                       |                 |   |  |                            |                            |     |                     | 19   |                               | 1   |  |                                  |                          |                                  |                 |
| 7                     |                                 | В                | s7                         | 120  | С  |                  | 10YR42   | 10/35   | 10YR56   |                    | 5   | HR                                       | P               | CPR   | MD                                       | 35                         | 35                         | ы   | 3a                  | 16   | 8                             | 1   | 0.5  | 17.23                            | 2                        | -2.04                            |                 |
|                       |                                 | _                |                            | 120  |  |                  |  |   |  |                    |   |  |                 |   |  |                            |                            |     |                     | 0  | 0                             | 0   | 0  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 120  |  |                  | 45.  |   |  |                    |   |  |                 |   |  |                            |                            |     |                     |  |                               |   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 30   | HZCL   | N                | 10YR32   | 45.000  |  |                    | 0   | HR                                       | -               |   |  |                            |                            |     |                     | 19   |                               | 1   |  |                                  |                          |                                  |                 |
| 8                     |                                 | В                | ≤7                         | 60   | ZC   |                  | 10VR41   | 15/30   | 10YR56   |                    | 0   | HR                                       | P               | CAB   | MD                                       | 30                         | 30                         | 1   | 3a                  | 15   | 8                             | 1   | 0.5  | 20.63                            | 2                        | -1.77                            |                 |
|                       |                                 |                  |                            | 120  | 2C   |                  | 10YR42   | 25/60   | 10YR56   |                    | u   | HR                                       | P               | CPR   | MD                                       |                            |                            |     |                     | 15   |                               | 1   | 0.5  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 30   | HZCL   | N                | 10YR31   |   |  |                    | 0   | HR                                       |                 |   |  |                            |                            |     |                     | 19   |                               | 1   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 120  | C  |                  | 10YR42   | 20/28   | 10YR56   |                    | 0   | HR                                       | P               | CPR   | MD                                       |                            |                            |     |                     | 16   | 8                             | 1   | 0.5  |                                  |                          |                                  |                 |
| 9                     |                                 | В                | ≤7                         | 120  | -  |                  | 20111-12   | Lujan   | 2011120  |                    | -   |  |                 |   | ····                                     | 30                         | 30                         | •   | 3a                  | 0  | 0                             | 0   | 0  | 22.63                            | 2                        | 2.23                             |                 |
|                       |                                 |                  |                            | 120  |  |                  |  |   |  |                    |   |  |                 |   |  |                            |                            |     |                     | -  | Ť                             |   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 28<br>55   | HZCL<br>ZC   | N                | 10VR31   | 20/28   | 10YR56   |                    | 0   | HR<br>HR                                 | P               | CAB   | MD                                       |                            |                            |     |                     | 19<br>15   | 8                             | 1   | 0.5  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            |  |  |                  |  |   |  |                    |   |  | P               | CPR.  | 0.450                                    | 28                         | 28                         | •   | 3a                  |  | 8                             |   | 0.5  | 19.83                            | 2                        | -2.57                            |                 |
| 4                     |                                 | В                | £7                         | 120  | 2C   |                  | 10YR42   | 25/55   | 10YR56   |                    | 0   | HR.                                      | P               | CPR   | MD                                       |                            |                            |     |                     | 15   | - 6                           | 1   |  |                                  |                          |                                  |                 |
| 4                     |                                 | В                |                            | 120<br>120   |  |                  | 10YR42   | 25/55   | 10YR56   |                    | u   | HR                                       | r               | CPR   | MD                                       |                            |                            |     |                     | 15   |                               | 1   |  |                                  |                          |                                  |                 |
| 4                     |                                 | Б                |                            |  |  | N                | 10YR42   | 25/55   | 10YR56   |                    | 0   | HR                                       | r               | OH  | MD                                       |                            |                            |     |                     | 15   |                               | 1   |  |                                  |                          |                                  |                 |
|                       |                                 |                  |                            | 120  | ZC   | N                |  | 15/30   | 10YR56   |                    |   |  | P               | CAB   | MD                                       | 30                         | 30                         |     | Sa                  |  | 8                             |   | 0.5  | 19.61                            | 2                        | -1.77                            |                 |
|                       |                                 | В                | s7                         | 120<br>30<br>60<br>120   | ZC<br>HZCL   | N                | 10YR41   |   |  |                    | 0   | HR                                       |                 |   |  | 30                         | 30                         |     | 3a                  | 19   |                               | 1   |  | 19.63                            | 2                        | -1.77                            |                 |
|                       |                                 |                  |                            | 120<br>30<br>60<br>120<br>120  | 2C<br>H2CL<br>2C<br>2C   |                  | 10YR41<br>10YR41<br>10YR42   | 15/30   | 10YR56   |                    | 0   | HR<br>HR                                 | P               | CAB   | MD                                       | 30                         | 30                         |     | 3a                  | 19<br>15<br>15   | 8                             | 1 1 1   | 0.5  | 19.63                            | 2                        | -1.77                            |                 |
|                       |                                 |                  |                            | 120<br>30<br>60<br>120<br>120<br>28  | 2C<br>H2CL<br>2C<br>2C   | N<br>N           | 10YR41<br>10YR41<br>10YR42   | 15/30<br>25/60  | 10YR56<br>10YR56   |                    | 0 0 0   | HR<br>HR<br>HR                           | P<br>P          | CAB<br>CPR  | MD<br>MD                                 | 30                         | 30                         |     | 3a                  | 19<br>15<br>15   | 8 8                           | 1 1 1   | 0.5  | 19.63                            | 2                        | -1.77                            |                 |
| 2                     |                                 | В                |                            | 120<br>30<br>60<br>120<br>120<br>28<br>60  | 2C<br>H2CL<br>2C<br>2C<br>2C<br>H2CL<br>2C   |                  | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41   | 15/30<br>25/60<br>20/28   | 10YR56<br>10YR56<br>10YR56   |                    | 0 0 0   | HR<br>HR<br>HR                           | P<br>P          | CAB<br>CPR  | MD<br>MD                                 | 30                         | 30                         |     | 3a<br>3a            | 19<br>15<br>15<br>19   | 8 8                           | 1 1 1 1 1   | 0.5  | 19.63                            | 2                        | -1.77                            |                 |
| 2                     |                                 | В                | £7                         | 120<br>30<br>60<br>120<br>120<br>28<br>60  | 2C<br>H2CL<br>2C<br>2C   |                  | 10YR41<br>10YR41<br>10YR42   | 15/30<br>25/60  | 10YR56<br>10YR56   |                    | 0 0 0   | HR<br>HR<br>HR                           | P<br>P          | CAB<br>CPR  | MD<br>MD                                 |                            |                            |     |                     | 19<br>15<br>15   | 8 8                           | 1 1 1   | 0.5  |                                  | 2                        |                                  |                 |
| 2                     |                                 | В                | £7                         | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120   | 2C<br>H2CL<br>2C<br>2C<br>2C<br>H2CL<br>2C<br>2C   | N                | 10YR41<br>10YR42<br>10YR42<br>10YR41<br>10YR41<br>10YR42   | 15/30<br>25/60<br>20/28   | 10YR56<br>10YR56<br>10YR56   |                    | 0 0 0 0 0 0 0   | HR<br>HR<br>HR<br>HR                     | P<br>P          | CAB<br>CPR  | MD<br>MD                                 |                            |                            |     |                     | 19<br>15<br>15<br>19<br>15<br>15   | 8 8                           | 1 1 1 1 1 1   | 0.5  |                                  | 2                        |                                  |                 |
| 2                     |                                 | В                | £7                         | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>120   | 2C H2CL 2C 2C 2C A2C A2C A2C A2C A2C A2C A2C A2  |                  | 10/R41<br>10/R42<br>10/R42<br>10/R41<br>10/R41<br>10/R42   | 15/30<br>25/60<br>20/28<br>25/60  | 10YR56<br>10YR56<br>10YR56<br>10YR56   |                    | 0 0 0 0 0 0 0   | HR HR HR HR HR                           | P<br>P          | CAB<br>CPR<br>CAB<br>CPR  | MD<br>MD<br>MD                           | 28                         | 28                         |     | 3a                  | 19<br>15<br>15<br>19<br>15<br>15   | 8 8 8                         | 1 1 1 1 1 1 1   | 0.5<br>0.5<br>0.5<br>0.5   | 19.83                            | 2                        | -2.57                            |                 |
| 2                     |                                 | В                | £7                         | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120   | 2C<br>H2CL<br>2C<br>2C<br>2C<br>H2CL<br>2C<br>2C   | N                | 10YR41<br>10YR42<br>10YR42<br>10YR41<br>10YR41<br>10YR42   | 15/30<br>25/60<br>20/28   | 10YR56<br>10YR56<br>10YR56   |                    | 0 0 0 0 0 0 0   | HR<br>HR<br>HR<br>HR                     | P<br>P          | CAB<br>CPR  | MD<br>MD                                 |                            |                            |     |                     | 19<br>15<br>15<br>19<br>15<br>15   | 8 8                           | 1 1 1 1 1 1   | 0.5  |                                  | 2 2                      |                                  |                 |
| 2                     |                                 | В                | £7                         | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>28<br>60  | 2C H2OL 2C 2C H2OL 2C 2C   | N                | 10YR41<br>10YR42<br>10YR42<br>10YR41<br>10YR42<br>10YR42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28   | 10YR56<br>10YR56<br>10YR56<br>10YR56   |                    | 0<br>0<br>0<br>0<br>0<br>0                                    | HR HR HR HR HR HR                        | P<br>P<br>P     | CAB CPR CAB CPR   | MD<br>MD<br>MD<br>MD                     | 28                         | 28                         |     | 3a                  | 19<br>15<br>15<br>19<br>15<br>15<br>15                                     | 8<br>8<br>8<br>8              | 1 1 1 1 1 1 1 1   | 0.5<br>0.5<br>0.5<br>0.5   | 19.83                            | 2                        | -2.57                            |                 |
| 2                     |                                 | В                | £7                         | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>28<br>60<br>120<br>28<br>60   | 2C H2OL 2C 2C H2OL 2C 2C   | N                | 10YR41<br>10YR42<br>10YR42<br>10YR41<br>10YR42<br>10YR42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28   | 10YR56<br>10YR56<br>10YR56<br>10YR56   |                    | 0<br>0<br>0<br>0<br>0<br>0                                    | HR HR HR HR HR HR                        | P<br>P<br>P     | CAB CPR CAB CPR   | MD<br>MD<br>MD<br>MD                     | 28                         | 28                         |     | 3a                  | 19<br>15<br>15<br>19<br>15<br>15<br>15                                     | 8<br>8<br>8<br>8              | 1 1 1 1 1 1 1 1   | 0.5<br>0.5<br>0.5<br>0.5   | 19.83                            | 2                        | -2.57                            |                 |
| 2                     |                                 | В                | s7<br>s7                   | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>228<br>60<br>120<br>28<br>60<br>120  | 2C<br>H2CL<br>2C<br>2C<br>H2CL<br>2C<br>2C<br>H2CL<br>2C   | N                | 10YR41<br>10YR42<br>10YR41<br>10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28   | 10YR56<br>10YR56<br>10YR56<br>10YR56   |                    | 0<br>0<br>0<br>0<br>0<br>0                                    | HR HR HR HR HR HR                        | P<br>P<br>P     | CAB CPR CAB CPR CAB CPR CAB   | MD<br>MD<br>MD<br>MD<br>MD               | 28                         | 28                         |     | 3a<br>3a            | 19<br>15<br>15<br>19<br>15<br>15<br>15<br>15                               | 8<br>8<br>8<br>8              | 1<br>1<br>1<br>1<br>1<br>1<br>1   | 0.5<br>0.5<br>0.5<br>0.5<br>0.5                                    | 19.83                            | 2                        | -2.57                            |                 |
| 2                     |                                 | В                | £7                         | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>28<br>60<br>120<br>28<br>60<br>120<br>28<br>60<br>120  | 2C H2CL 2C 2C H2CL 2C 2C H2CL 2C 2C H2CL 4CL 4CL 4CL 4CL   | N                | 10YR41<br>10YR42<br>10YR42<br>10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR42<br>10YR42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60  | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56   |                    | 0 0 0 0 0 0 0 0 0 0   | HR HR HR HR HR HR                        | P<br>P<br>P     | CAB CPR CAB CPR CAB CPR   | MD<br>MD<br>MD<br>MD                     | 28                         | 28                         |     | 3a                  | 19<br>15<br>15<br>19<br>15<br>15<br>15<br>15                               | 8 8 8                         | 1<br>1<br>1<br>1<br>1<br>1<br>1   | 0.5<br>0.5<br>0.5<br>0.5<br>0.5                                    | 19.83                            | 2                        | -2.57                            |                 |
| 2                     |                                 | В                | s7<br>s7                   | 120<br>30<br>60<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12  | 2C H2GL 2C 2C 2C H2GL 2C 2C H2GL 2C 2C 2C H2GL 2C 2C 2C  | N<br>N           | 10YR41<br>10YR41<br>10YR41<br>10YR41<br>10YR41<br>10YR41<br>10YR41<br>10YR41<br>10YR42<br>10YR42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25                                     | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56                               |                    | 0<br>0<br>0<br>0<br>0<br>0                                    | HR HR HR HR HR HR HR HR HR               | P P P P P       | CAB CPR CAB CPR CAB CPR CAB   | MD<br>MD<br>MD<br>MD<br>MD               | 28                         | 28                         |     | 3a<br>3a            | 19<br>15<br>15<br>19<br>15<br>15<br>15<br>15<br>15<br>15<br>15             | 8<br>8<br>8<br>8              | 1   | 0.5<br>0.5<br>0.5<br>0.5<br>0.5                                    | 19.83                            | 2                        | -2.57                            |                 |
| 3                     |                                 | В                | s7<br>s7                   | 120<br>30<br>60<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12  | 2C H2CL 2C ZC H2CL ZC ZC H2CL ZC ZC H2CL ZC ZC M2CL M2CL M2CL M2CL   | N                | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR42<br>10YR41<br>10YR41<br>10YR42<br>10YR42<br>10YR42<br>10YR42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60                            | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56                     |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0                               | HR            | P P P P P       | CAB CPR CAB CPR CAB CPR CAB CPR                                     | MD<br>MD<br>MD<br>MD<br>MD               | 28                         | 28                         |     | 3a<br>3a            | 19<br>15<br>15<br>19<br>15<br>15<br>15<br>15<br>15<br>15<br>15             | 8<br>8<br>8<br>8<br>8         | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5                             | 19.83                            | 2                        | -2.57                            |                 |
| 3                     |                                 | B B              | s7<br>s7                   | 120<br>30<br>60<br>120<br>28<br>60<br>120<br>120<br>120<br>28<br>60<br>120<br>120<br>28<br>50<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12                           | 2C H2CL 2C 2C M2CL 2C  | N<br>N           | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR42<br>10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR42<br>10YR42<br>10YR42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60                            | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56                     |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0                               | HR            | P P P P P       | CAB CPR CAB CPR CAB CPR CAB CPR CAB CPR                             | MD MD MD MD MD MD MD MD                  | 28                         | 28                         |     | 3a<br>3a            | 19<br>15<br>15<br>15<br>19<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>17 | 8<br>8<br>8<br>8<br>8         | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1                                    | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5                             | 19.83                            | 2                        | -2.57                            |                 |
| 3                     |                                 | B B              | 57<br>57<br>57             | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12   | 2C H2CL 2C ZC H2CL ZC ZC H2CL ZC ZC H2CL ZC ZC M2CL M2CL M2CL M2CL   | N<br>N           | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR42<br>10YR41<br>10YR41<br>10YR42<br>10YR42<br>10YR42<br>10YR42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60                            | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56                     |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0                               | HR            | P P P P P       | CAB CPR CAB CPR CAB CPR CAB CPR                                     | MD<br>MD<br>MD<br>MD<br>MD               | 28                         | 28<br>28<br>25             |     | 3a<br>3a            | 19<br>15<br>15<br>19<br>15<br>15<br>15<br>15<br>15<br>15<br>15             | 8<br>8<br>8<br>8<br>8         | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5                             | 19.83                            | 2 2                      | -2.57<br>-2.57                   |                 |
| 3                     |                                 | B B              | 57<br>57<br>57             | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12 | 2C H2CL 2C ZC H2CL 2C ZC H2CL 2C ZC H2CL ZC ZC H2CL ZC ZC H2CL ZC ZC SCL   | N<br>N<br>N      | 10YR41<br>10YR42<br>10YR41<br>10YR41<br>10YR41<br>10YR41<br>10YR41<br>10YR42<br>10YR42<br>10YR42<br>10YR42<br>10YR42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60                            | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56                     |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | HR            | P P P P P       | CAB CPR CAB CPR CAB CPR CAB CPR CAB CPR                             | MD MD MD MD MD MD MD MD                  | 28                         | 28<br>28<br>25             |     | 3a<br>3a            | 19 15 15 19 15 15 19 15 15 17 22   | 8<br>8<br>8<br>8<br>8         | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1                               | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5                             | 19.83                            | 2 2                      | -2.57<br>-2.57                   |                 |
| 33                    |                                 | B B B            | 57<br>57<br>57             | 120<br>30<br>60<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12  | ZC HZCL ZC ZC HZCL ZC ZC HZCL ZC ZC HZCL ZC ZC HZCL ACL ACL ACL ACL ACL ACL ACL ACL ACL A  | N<br>N           | 10/R41<br>10/R42<br>10/R42<br>10/R41<br>10/R42<br>10/R42<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R32<br>10/R32<br>10/R32   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>5/30<br>15/50           | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56 |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | HR      | P P P P P       | CAB CPR             | MD MD MD MD MD MD MD MD                  | 28<br>28<br>25             | 28<br>28<br>25             |     | 3a<br>3a<br>3a      | 19 15 15 19 15 15 19 15 15 17 22 15  | 8 8 8 8 8 8 14 10             | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1                     | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5                      | 19.83<br>19.83<br>18.63          | 2 2                      | -2.57<br>-2.57<br>-3.77          |                 |
| 33                    |                                 | B B B            | 57<br>57<br>57             | 120<br>30<br>60<br>120<br>28<br>60<br>120<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12   | 2C H2CL 2C ZC H2CL ZC ZC H2CL ZC ZC H2CL ZC ZC H2CL ZC ZC M2CL ZL SCL M2CL ZL  | N<br>N<br>N      | 10/R41<br>10/R42<br>10/R42<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R42<br>10/R42<br>10/R42<br>10/R42<br>10/R42<br>10/R42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50                   | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56           |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | HR      | P P P P P P     | CAB OPR CAB CPR CAB CPR CAB CPR CAB CPR CAB CPR CAB CPR             | MD MD MD MD MD MD MD MD                  | 28                         | 28<br>28<br>25             |     | 3a<br>3a            | 19 15 15 19 15 15 15 19 15 15 17 22 15 19 22                               | 8 8 8 8 8 8 14 10             | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5                      | 19.83                            | 2 2                      | -2.57<br>-2.57                   |                 |
| 3                     |                                 | B B B            | 57<br>57<br>57             | 120<br>30<br>60<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12  | ZC HZCL ZC ZC HZCL ZC ZC HZCL ZC ZC HZCL ZC ZC HZCL ACL ACL ACL ACL ACL ACL ACL ACL ACL A  | N<br>N<br>N      | 10/R41<br>10/R42<br>10/R42<br>10/R41<br>10/R42<br>10/R42<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R32<br>10/R32<br>10/R32   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>5/30<br>15/50           | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56 |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | HR      | P P P P P P P   | CAB CPR             | MD MD MD MD MD MD MD MD                  | 28<br>28<br>25             | 28<br>28<br>25             |     | 3a<br>3a<br>3a      | 19 15 15 19 15 15 19 15 15 17 22 15  | 8 8 8 8 8 8 14 10             | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1                     | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5                      | 19.83<br>19.83<br>18.63          | 2 2 2                    | -2.57<br>-2.57<br>-3.77          |                 |
| 3                     |                                 | B B B            | 57<br>57<br>57             | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12   | 2C H2CL 2C ZC H2CL ZC ZC H2CL ZC ZC H2CL ZC ZC H2CL ZC ZC M2CL ZL SCL M2CL ZL  | N<br>N<br>N      | 10/R41<br>10/R42<br>10/R42<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R42<br>10/R42<br>10/R42<br>10/R42<br>10/R42<br>10/R42   | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50                   | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56           |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | HR      | P P P P P P P   | CAB OPR CAB CPR CAB CPR CAB CPR CAB CPR CAB CPR CAB CPR             | MD MD MD MD MD MD MD MD                  | 28<br>28<br>25             | 28<br>28<br>25             |     | 3a<br>3a<br>3a      | 19 15 15 19 15 15 15 19 15 15 17 22 15 19 22                               | 8 8 8 8 8 8 14 10             | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5                      | 19.83<br>19.83<br>18.63          | 2 2 2                    | -2.57<br>-2.57<br>-3.77          |                 |
| 33 44 55 77           |                                 | B B B            | 57<br>57<br>57<br>57       | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12   | ZC HZCL ZC ZC MZCL ZC MZCL ZL SCL MZCL ZL MZCL  | N<br>N<br>N      | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR42<br>10YR42<br>10YR42<br>10YR42<br>10YR42<br>10YR42<br>10YR42<br>10YR42                               | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50                   | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56           |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | HR      | P P P P P P P   | CAB OPR CAB CPR CAB CPR CAB CPR CAB CPR CAB CPR CAB CPR             | MD MD MD MD MD MD MD MD                  | 28<br>28<br>25<br>30       | 28<br>28<br>25<br>30       |     | 3a<br>3a<br>3a<br>2 | 19 15 15 19 15 15 19 15 15 15 17 22 17                                     | 8 8 8 8 8 8 14 10             | 1   | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5                      | 19.83<br>19.83<br>18.63<br>42.63 | 2 2 2                    | -2.57<br>-2.57<br>-3.77<br>6.25  |                 |
| 33 44 55 77           |                                 | B B B            | 57<br>57<br>57<br>57       | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12   | 2C H2CL 2C ZC H2CL 2C ZC H2CL 2C ZC H2CL ZC H2CL AZCL AZCL AZCL AZCL AZCL AZCL AZCL AZ   | N<br>N<br>N      | 10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R41<br>10/R41<br>10/R41<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R33<br>10/R33<br>10/R33<br>10/R33                               | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50                   | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56           |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | HR H | P P P P P P     | CAB CPR             | MD MD MD MD MD MD MD MD MD               | 28<br>28<br>25             | 28<br>28<br>25             |     | 3a<br>3a<br>3a      | 19 15 15 19 15 15 15 19 15 15 17 19 17 17                                  | 8 8 8 8 8 14 10 14 10         | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5        | 19.83<br>19.83<br>18.63          | 2 2 2                    | -2.57<br>-2.57<br>-3.77          |                 |
| 1 2 3 3 4 4 5 5       |                                 | B B B            | 57<br>57<br>57<br>57       | 120<br>30<br>60<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12  | 2C H2CL 2C 2C H2CL 4CL 4CL 4CL 4CL 4CL 4CL 4CL 4CL 4CL 4   | N<br>N<br>N      | 10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R32<br>10/R33<br>10/R33<br>10/R32<br>10/R32                     | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50<br>15/35<br>20/75 | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56 |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | HR H | P P P P P P P   | CAB CPR             | MD M | 28<br>28<br>25<br>30       | 28<br>28<br>25<br>30       |     | 3a<br>3a<br>3a<br>2 | 19 15 15 19 15 15 19 15 15 15 17 22 15 19 22 17 16                         | 8 8 8 8 8 8 14 10 14 10 8     | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5 | 19.83<br>19.83<br>18.63<br>42.63 | 2 2 2                    | -2.57<br>-2.57<br>-3.77<br>6.25  |                 |
| 33 44 55 77           |                                 | B B B            | 57<br>57<br>57<br>57       | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12   | 2C H2CL 2C 2C H2CL 4CL 4CL 4CL 4CL 4CL 4CL 4CL 4CL 4CL 4   | N<br>N<br>N      | 10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R32<br>10/R33<br>10/R33<br>10/R32<br>10/R32                     | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50<br>15/35<br>20/75 | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56 |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | HR H | P P P P P P P   | CAB CPR             | MD M | 28<br>28<br>25<br>30       | 28<br>28<br>25<br>30       |     | 3a<br>3a<br>3a<br>2 | 19 15 15 19 15 15 19 15 15 15 17 22 15 19 22 17 16                         | 8 8 8 8 8 8 14 10 14 10 8     | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5 | 19.83<br>19.83<br>18.63<br>42.63 | 2 2 2                    | -2.57<br>-2.57<br>-3.77<br>6.25  |                 |
| 2 3 3 4 4 5 5 6 6 7 7 |                                 | B B B B          | 57<br>57<br>57<br>57<br>57 | 120<br>30<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12   | 2C H2CL 2C C M2CL 2L M2CL 4C C C  | N<br>N<br>N      | 10/R41<br>10/R41<br>10/R41<br>10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R33<br>10/R33<br>10/R42<br>10/R31<br>10/R42<br>10/R42           | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50<br>15/35<br>20/75 | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56 |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HR H | P P P P P P P P | CAB CPR CAB | MD M | 28<br>28<br>25<br>30<br>35 | 28<br>28<br>25<br>30<br>35 |     | 3a 3a 3a 2 2 2 3a   | 19 15 15 19 15 15 15 15 15 17 22 17 16 16 17 16                            | 8 8 8 8 8 8 14 10 10 8 8 8    | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5 | 19.83<br>19.83<br>18.63<br>42.63 | 2 2 2                    | -2.57<br>-2.57<br>-3.77<br>-6.23 |                 |
| 2 3 3 4 4 5 5 6 6 7 7 |                                 | B B B B          | 57<br>57<br>57<br>57       | 120 30 60 120 28 60 120 28 60 120 120 120 120 120 120 120 120 120 12   | 2C H2CL 2C ZC H2CL 2C ZC H2CL 2C ZC H2CL ZC ZC H2CL H2CL C C C | N<br>N<br>N      | 10/R41<br>10/R41<br>10/R41<br>10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R32<br>10/R32<br>10/R42<br>10/R42                               | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50<br>15/35<br>20/75 | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56 |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | HR H | P P P P P P P   | CAB CPR     | MD M | 28<br>28<br>25<br>30       | 28<br>28<br>25<br>30       |     | 3a<br>3a<br>3a<br>2 | 19 15 15 19 15 15 15 19 15 15 15 17 22 15 17 22 17 16 16 16                | 8 8 8 8 8 8 14 10 14 10 8 8 8 | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5 | 19.83<br>19.83<br>18.63<br>42.63 | 2 2 1 1 2                | -2.57<br>-2.57<br>-3.77<br>6.25  |                 |
| 2 3 3 4 4 5 5 6 6     |                                 | B B B B          | 57<br>57<br>57<br>57<br>57 | 120 30 60 120 120 28 60 120 120 120 120 120 120 120 120 120 12   | 2C H2CL 2C 2C 2C H2CL C C H2CL C C C H2CL C C C  | N<br>N<br>N<br>N | 10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R42<br>10/R42<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R33<br>10/R32<br>10/R32<br>10/R34<br>10/R32<br>10/R34<br>10/R32 | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50<br>15/35<br>20/75 | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56 |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HR H | P P P P P P P P | CAB CPR CAB | MD M | 28<br>28<br>25<br>30<br>35 | 28<br>28<br>25<br>30<br>35 |     | 3a 3a 3a 2 2 2 3a   | 19 15 15 19 15 15 15 19 15 15 15 17 22 15 19 22 17 16 16 16                | 8 8 8 8 8 8 14 10 10 8 8 8    | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5 | 19.83<br>19.83<br>18.63<br>42.63 | 2 2 1 1 2                | -2.57<br>-2.57<br>-3.77<br>-6.23 |                 |
| 2 3 3 4 4 5 5 6 6 7 7 |                                 | B B B B          | 57<br>57<br>57<br>57<br>57 | 120<br>30<br>60<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12   | 2C H2CL 2C 2C H2CL 2C 2C H2CL 2C 2C H2CL 2C 2C H2CL 2L M2CL 2L M2CL 4C C C C C H2CL C C C H2CL C C C C   | N<br>N<br>N      | 10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R42<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R32<br>10/R42<br>10/R42<br>10/R42<br>10/R42<br>10/R42 | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50<br>15/35<br>20/75 | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56 |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HR H | P P P P P P P P | CAB OPR             | MD M | 28<br>28<br>25<br>30<br>35 | 28<br>28<br>25<br>30<br>35 |     | 3a 3a 3a 2 2 2 3a   | 19 15 15 19 15 15 15 15 17 22 15 17 22 17 17 16 16 16 17                   | 8 8 8 8 8 8 14 10 8 8 8 8     | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5 | 19.83<br>19.83<br>18.63<br>42.63 | 2 2 1 1 2                | -2.57<br>-2.57<br>-3.77<br>-6.23 |                 |
| 2 3 4 5               |                                 | B B B B          | 57<br>57<br>57<br>57<br>57 | 120 30 60 120 120 28 60 120 120 120 120 120 120 120 120 120 12   | 2C H2CL 2C 2C 2C H2CL C C H2CL C C C H2CL C C C  | N<br>N<br>N<br>N | 10/R41<br>10/R41<br>10/R42<br>10/R41<br>10/R42<br>10/R42<br>10/R42<br>10/R42<br>10/R32<br>10/R32<br>10/R32<br>10/R33<br>10/R32<br>10/R32<br>10/R34<br>10/R32<br>10/R34<br>10/R32 | 15/30<br>25/60<br>20/28<br>25/60<br>20/28<br>25/60<br>20/25<br>25/60<br>15/50<br>15/35<br>20/75 | 10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56<br>10YR56 |                    | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HR H | P P P P P P P P | CAB CPR CAB | MD M | 28<br>28<br>25<br>30<br>35 | 28<br>28<br>25<br>30<br>35 |     | 3a 3a 3a 2 2 2 3a   | 19 15 15 19 15 15 15 19 15 15 15 17 22 15 19 22 17 16 16 16                | 8 8 8 8 8 8 14 10 10 8 8 8    | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5 | 19.83<br>19.83<br>18.63<br>42.63 | 2 2 1 1 2                | -2.57<br>-2.57<br>-3.77<br>-6.23 |                 |

| point | Grid neft. If self-<br>independention | Boring or<br>Pit | Grad. (deg) | Bone<br>Depth<br>(om)   | Text.  | Calc | Matrix<br>colour   | Motts,/ black<br>ferro. conc.<br>%/ depth | Mott<br>calaur or<br>FC ifferra.<br>conc. | Ped face<br>colour | Stris<br>%      | Stns<br>type                     | Porosity    | Struct<br>@ Petron<br>consist ence<br>) | Degree of<br>development | SPL<br>depth<br>(cm) | Gleying<br>depth (cm) | SWC | Grade<br>(webness) | TAv  | EAv   | Stav                  | StEAv                    | MDW   | Grade (Drought<br>WHEAT) | MIGP  | Grade (Drought |
|-------|---------------------------------------|------------------|-------------|---|--|------|--|---|---|--------------------|-----------------|----------------------------------|-------------|---|--------------------------|----------------------|-----------------------|-----|--------------------|--|-------|-----------------------|--------------------------|-------|--------------------------|-------|----------------|
|       |                                       |                  |             | 20  | HCL  | N    | 10YR32   |   |   |                    | 5               | HR                               |             |   |                          |                      |                       |     |                    | 18   |       | 1                     |                          |       |                          |       |                |
| .01   |                                       |                  | 57          | 55  | HZCL   |      | 10YR53   | 20/28                                     | 10YR56                                    |                    | 5               | HR                               | Р           | CAB                                     | MD                       | 20                   | 20                    |     | 3a                 | 17   | 10    | 1                     | 0.5                      | 14.86 | 2                        | -6.32 | 2              |
| 101   |                                       | В                | 5/          | 120   | ZC   |      | 10YR42   | 20/55                                     | 10YR56                                    |                    | 5               | HR                               | Р           | CPR                                     | MD                       | 20                   | 20                    | "   | 30                 | 15   | 8     | 1                     | 0.5                      | 14.86 | 2                        | -6.32 | -              |
|       |                                       |                  |             | 120   |  |      |  |   |   |                    |                 |                                  |             |   |                          |                      |                       |     |                    |  |       |                       |                          |       |                          |       |                |
|       |                                       |                  |             | 20  | HCL  | N    | 10YR32   | na ina                                    |   |                    | 5               | HR                               |             |   |                          |                      |                       |     |                    | 18   |       | 1                     |                          |       |                          |       |                |
| 102   |                                       | В                | ≤7          | 60  | HZCL.  |      | 10YR53   | 20/28                                     | 10VR56                                    |                    | 5               | HR                               | P           | CAB                                     | MD                       | 20                   | 20                    | Ш   | 3a                 | 17   | 10    | 1                     | 0.5                      | 15.81 | 2                        | -5.37 | 2              |
|       |                                       |                  |             | 120   | zc   |      | 10YR42   | 25/50                                     | 10YR56                                    |                    | 5               | HR                               | ,           | CFR                                     | MID                      |                      |                       |     |                    | 15   | 0     | 1                     | 0.5                      |       |                          |       |                |
|       |                                       |                  |             |   |  |      |  |   |   |                    |                 |                                  | AS PIF      | PE                                      |                          |                      |                       |     |                    |  |       |                       |                          |       |                          |       |                |
|       |                                       |                  |             | 28  | HZCL   | N    | 10YR31   | no ino                                    | 100000                                    |                    | 0               | HR                               |             |   |                          |                      |                       |     |                    | 19   |       | 1                     |                          |       |                          |       |                |
| 104   |                                       | В                | ≤7          | 60  | 20   |      | 10YR41   | 20/28                                     | 10VR56                                    |                    | 0               | HR                               | P           | CAB                                     | MD                       | 28                   | 28                    | Ш   | 3a                 | 15   | 8     | 1                     | 0.5                      | 19.83 | 2                        | -2.57 | - 2            |
|       |                                       |                  |             | 120   | ZC   |      | 10YR42   | 25/60                                     | 10YR56                                    |                    |                 | HR                               | ,           | CPR                                     | MID                      |                      |                       |     |                    | 15   | 8     |                       | 0.5                      |       |                          |       |                |
|       |                                       |                  |             | 30  | HZCL   | N    | 10YR31   |   |   |                    | 0               | HR                               |             |   |                          |                      |                       |     |                    | 19   |       | 1                     |                          |       |                          |       |                |
|       |                                       |                  |             | 60  | zc   |      | 10YR41   | 15/30                                     | 10YR56                                    |                    | 0               | HR                               | Р           | CAB                                     | MD                       |                      |                       |     |                    | 15   | 8     | 1                     | 0.5                      |       |                          |       |                |
| 105   |                                       | 8                | 57          | 120   | 2C   |      | 10YR42   | 25/60                                     | 10YR56                                    |                    | 0               | HR                               | ρ           | CPR                                     | MD                       | 30                   | 30                    | "   | За -               | 15   | 8     | 1                     | 0.5                      | 20.63 | 2                        | -1.77 | 2              |
|       |                                       |                  |             | 120   |  |      |  |   |   |                    |                 |                                  |             |   |                          |                      |                       |     |                    |  |       |                       |                          |       |                          |       |                |
|       |                                       |                  |             | 30  | HZCL.  | N    | 10YR31   |   |   |                    | 0               | HR                               |             |   |                          |                      |                       |     |                    | 19   |       | 1                     |                          |       |                          |       |                |
| 106   |                                       | В                | £7          | 60  | ZC   |      | 10YR41   | 15/30                                     | 10YR56                                    |                    | 0               | HR                               | ρ           | CAB                                     | MD                       | 30                   | 30                    | п   | 3a                 | 15   | 8     | 1                     | 0.5                      | 20.63 | 2                        | -1.77 | 2              |
|       |                                       |                  |             | 120   | ZC   |      | 10YR42   | 25/60                                     | 10YR56                                    |                    | 0               | HR                               | Р           | CPR                                     | MD                       |                      |                       |     |                    | 15   | 8     | 1                     | 0.5                      |       |                          |       |                |
|       |                                       |                  |             | 120   | шин  | 84   | 10VP24   |   |   |                    | -0              | LIP                              |             |   |                          |                      |                       |     |                    | 10   |       | 4                     |                          |       |                          |       |                |
|       |                                       |                  |             | 28<br>60  | HZCL<br>ZC                                   | N    | 10YR31<br>10YR41   | 20/28                                     | 10YR56                                    |                    | 0               | HR                               | Р           | CAB                                     | MD                       |                      |                       |     |                    | 19   | 8     | 1                     | 0.5                      |       |                          |       |                |
| 107   |                                       | В                | <b>\$7</b>  | 120   | 20   |      | 107R42   | 25/60                                     | 101R56                                    |                    | 0               | HR                               | p           | CPR                                     | MD                       | 28                   | 28                    | Ш   | 3a                 | 15   | 8     | 1                     | 0.5                      | 19.83 | 2                        | -2.57 | - 2            |
|       |                                       |                  |             | 120   | -  |      |  |   |   |                    |                 |                                  | Ė           |   |                          |                      |                       |     |                    |  |       | -                     |                          |       |                          |       |                |
|       |                                       |                  |             | 25  | HZCL   | N    | 10YR32   |   |   |                    | 5               | HR                               |             |   |                          |                      |                       |     |                    | 19   |       | 1                     |                          |       |                          |       |                |
| 108   |                                       | В                | 57          | 120   | ZC   |      | 10YR42   | 15/25                                     | 10YR56                                    |                    | 5               | HR                               | Р           | CPR                                     | MD                       | 25                   | 25                    | п   | 3a                 | 15   | 8     | 1                     | 0.5                      | 12.01 | 2                        | -9.17 |                |
| .00   |                                       |                  | 21          | 120   |  |      |  |   |   |                    |                 |                                  |             |   |                          | 23                   | 23                    | .,  | 20                 | 0  | 0     | 0                     | 0                        | 22.01 |                          | 3.47  | ľ              |
|       |                                       |                  |             | 120   |  |      |  |   |   |                    |                 |                                  |             |   |                          |                      |                       |     |                    |  |       |                       |                          |       |                          |       |                |
|       |                                       |                  |             | 25  | HZCL   | NN   | 10YR32   | 40.00                                     |   |                    | 5               | HR                               | _           |   |                          |                      |                       |     |                    | 19   |       | 1                     |                          |       |                          |       |                |
| 109   |                                       | В                | <b>57</b>   | 120   | zc   |      | 10YR42   | 15/25                                     | 10YR56                                    |                    | 0               | HR                               | Р           | CPR                                     | MD                       | 25                   | 25                    | п   | За                 | 15   | 8     | 1                     | 0.5                      | 16.38 | 2                        | -6.02 | 1              |
|       |                                       |                  |             | 120   |  |      |  |   |   |                    |                 |                                  |             |   |                          |                      |                       |     |                    | 0  | 0     | 0                     | 0                        |       |                          |       |                |
|       |                                       |                  |             | 20  | HZCL   | N    | 10YR42   |   |   |                    | 0               | HR                               |             |   |                          |                      |                       |     |                    | 17   |       | 1                     |                          |       |                          |       |                |
|       |                                       |                  |             | 45  | C  |      | 10YR41   |   |   |                    | 5               | HR                               | р           | CAB                                     | MD                       |                      |                       |     |                    | 16   | 8     | 1                     | 0.5                      |       |                          |       |                |
| 110   |                                       | В                | 57          | 120   | С  |      | 10YR42   | 25/45                                     | 10YR56                                    |                    | 0               | HR                               | Р           | CPR                                     | MD                       | 45                   | 45                    | "   | 3a                 | 16   | 8     | 1                     | 0.5                      | 13.76 | 2                        | 6.64  | - 2            |
|       |                                       |                  |             | 120   |  |      |  |   |   |                    |                 |                                  |             |   |                          |                      |                       |     |                    |  |       |                       |                          |       |                          |       |                |
|       |                                       |                  |             | 20  | HZCL   | N    | 10YR42   |   |   |                    | 0               | HR                               |             |   |                          |                      |                       |     |                    | 17   |       | 1                     |                          |       |                          |       |                |
| 111   |                                       | В                | s7          | 45  | C  |      | 10YR41   |   |   |                    | 0               | HR                               | Р           | CAB                                     | MD                       | 45                   | 45                    | ш   | 3a                 | 16   | 8     | 1                     | 0.5                      | 15.63 | 2                        | -4.77 | 2              |
|       |                                       |                  |             | 120   | С  |      | 10YR42   | 25/45                                     | 10YR56                                    |                    | 0               | HR                               | Р           | CPR                                     | MD                       |                      |                       |     |                    | 16   | 8     | 1                     | 0.5                      |       |                          |       |                |
|       |                                       |                  |             | 120   |  |      |  |   |   |                    |                 |                                  |             |   |                          |                      |                       |     |                    |  |       |                       |                          |       |                          |       |                |
|       |                                       |                  |             | 25  | HZCL.  | N    | 10YR42   |   |   |                    | 0               | HR                               |             | CAR                                     |                          |                      |                       |     |                    | 17   |       | 1                     | 0.5                      |       |                          |       |                |
| 112   |                                       | В                | <b>57</b>   | 120   | c  |      | 10YR41<br>10YR42   | 20/45                                     | 10YR56                                    |                    | 5               | HR                               | P           | CAB<br>CPR                              | MD                       | 45                   | 45                    | Ш   | 3a                 | 16<br>16   | 8     | 1                     | 0.5                      | 24.13 | 2                        | -5.77 | 1              |
|       |                                       |                  |             | 120   |  |      | 2011142  | 20)45                                     | 1011130                                   |                    |                 | ris                              | ,           | CFR                                     | INID                     |                      |                       |     |                    | 10   |       | •                     | 0.3                      |       |                          |       |                |
|       |                                       |                  |             | 25  | HZCL   | N    | 10YR42   |   |   |                    | 0               | HR                               |             |   |                          |                      |                       |     |                    | 17   |       | 1                     |                          |       |                          |       |                |
|       |                                       |                  |             | 45  | С  |      | 10YR41   |   |   |                    | 5               | HR                               | Р           | CAB                                     | MD                       |                      |                       |     |                    | 16   | 8     | 1                     | 0.5                      |       |                          |       |                |
| 113   |                                       | В                | 67          | 120   | С  |      | 10YR42   | 25/45                                     | 10YR56                                    |                    | 0               | HR                               | Р           | CPR                                     | MD                       | 45                   | 45                    | "   | 3a                 | 16   | 8     | 1                     | 0.5                      | 14.63 | 2                        | -5.77 | 7              |
|       |                                       |                  |             | 120   |  |      |  |   |   |                    |                 |                                  |             |   |                          |                      |                       |     |                    |  |       |                       |                          |       |                          |       |                |
|       |                                       |                  |             |   |  |      |  |   |   |                    |                 |                                  | AS PIF      |   |                          |                      |                       |     |                    |  |       |                       |                          |       |                          |       |                |
|       |                                       |                  |             | 28  | HZCL   | N    | 10YR31   |   |   |                    | 0               | HR                               |             |   |                          |                      |                       |     |                    | 19   |       | 1                     |                          |       |                          |       |                |
|       |                                       |                  |             | 4000  |  | 14   | 107R41   | 20/28                                     | 10YR56                                    |                    | 0               | HR                               | р           | CAB                                     | MD                       |                      |                       |     |                    | 15   | 8     | 1                     | 0.5                      |       |                          |       |                |
|       |                                       | _                |             | 60  | zc   |      | 10YR42   | 25/60                                     | 10YR56                                    |                    | 0               | HR                               | р           | CPR                                     | MD                       | 28                   | 28                    | Ш   | 3a                 | 15   | 8     | 1                     | 0.5                      | 19.83 | 2                        | -2.57 | - 1            |
| 16    |                                       | В                | ≤7          | 60<br>120   | ZC ZC  |      | 2011942  |   |   |                    |                 |                                  |             |   |                          |                      |                       |     |                    |  |       |                       |                          |       |                          |       |                |
| .16   |                                       | В                | £7          |   |  |      |  |   |   |                    |                 |                                  |             |   |                          |                      |                       |     |                    | 19   |       |                       |                          |       |                          |       |                |
| .16   |                                       | В                | ≤7          | 120<br>120<br>28  | ZC<br>HZCL                                   | N    | 10YR31   |   |   |                    | 0               | HR                               |             |   |                          |                      |                       |     |                    |  |       | 1                     |                          |       |                          |       |                |
|       |                                       |                  | s7<br>s7    | 120<br>120<br>28<br>60  | HZCL<br>ZC                                   | N    | 10YR31<br>10YR41   | 20/28                                     | 104956                                    |                    | 0               | HR                               | p           | CAB                                     | MD                       | 28                   | 28                    | п   | 3a                 | 15   | 8     | 1                     | 0.5                      | 19.83 | 2                        | -2.57 |                |
|       |                                       |                  |             | 120<br>120<br>28<br>60<br>120   | ZC<br>HZCL                                   | N    | 10YR31   | 20/28<br>25/60                            | 10YR56<br>10YR56                          |                    |                 |                                  | P<br>P      | CAB                                     | MD                       | 28                   | 28                    | II  | 3a                 |  | 8     |                       | 0.5                      | 19.83 | 2                        | -2.57 |                |
|       |                                       |                  |             | 120<br>120<br>28<br>60<br>120<br>120  | HZCL<br>ZC<br>ZC                             |      | 10YR31<br>10YR41<br>10YR42   |   |   |                    | 0               | HR<br>HR                         |             |   |                          | 28                   | 28                    | II  | 3a                 | 15<br>15   |       | 1                     |                          | 19.83 | 2                        | -2.57 | 1              |
| .17   |                                       | В                | 57          | 120<br>120<br>28<br>60<br>120<br>120<br>28  | ZC HZCL ZC ZC HZCL                           | N    | 10YR31<br>10YR41<br>10YR42<br>10YR31   | 25/60                                     | 10YR56                                    |                    | 0               | HR<br>HR                         | Р           | CPR                                     | MD                       |                      |                       |     |                    | 15<br>15<br>19                                     | 8     | 1 1 1                 | 0.5                      |       |                          |       |                |
| .17   |                                       | В                |             | 120<br>120<br>28<br>60<br>120<br>120  | ZC HZCL ZC ZC HZCL ZC                        |      | 10YR31<br>10YR41<br>10YR42   | 25/60                                     |   |                    | 0 0 0           | HR<br>HR                         |             |   |                          | 28                   | 28                    | 11  | 3a<br>3a           | 15<br>15   |       | 1                     | 0.5                      | 19.83 | 2                        | -2.57 |                |
| .17   |                                       | В                | 57          | 120<br>120<br>28<br>60<br>120<br>120<br>28<br>60  | ZC HZCL ZC ZC HZCL                           |      | 10YR31<br>10YR41<br>10YR42<br>10YR31<br>10YR41   | 25/60                                     | 10YR56                                    |                    | 0               | HR<br>HR<br>HR                   | P           | CPR<br>CAB                              | MD                       |                      |                       |     |                    | 15<br>15<br>19<br>15                               | 8     | 1 1 1                 | 0.5                      |       |                          |       |                |
| .17   |                                       | В                | 57          | 120<br>120<br>28<br>60<br>120<br>120<br>28<br>60<br>120   | ZC HZCL ZC ZC HZCL ZC                        |      | 10YR31<br>10YR41<br>10YR42<br>10YR31<br>10YR41   | 25/60                                     | 10YR56                                    |                    | 0 0 0           | HR<br>HR<br>HR                   | P           | CPR<br>CAB                              | MD                       |                      |                       |     |                    | 15<br>15<br>19<br>15                               | 8     | 1 1 1                 | 0.5                      |       |                          |       |                |
| 117   |                                       | 8                | s7<br>s7    | 120<br>120<br>28<br>60<br>120<br>120<br>28<br>60<br>120<br>120  | ZC HZCL ZC ZC HZCL ZC ZC                     | N    | 10YR31<br>10YR41<br>10YR42<br>10YR31<br>10YR41<br>10YR42                               | 25/60                                     | 10YR56                                    |                    | 0 0 0           | HR<br>HR<br>HR<br>HR             | P           | CPR<br>CAB                              | MD                       | 28                   | 28                    | II  | За                 | 15<br>15<br>19<br>15<br>15                         | 8     | 1 1 1 1               | 0.5                      | 19.83 | 2                        | -2.57 | ;              |
| 117   |                                       | 8                | 57          | 120<br>120<br>28<br>60<br>120<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>120                   | HZCL<br>ZC<br>ZC<br>HZCL<br>ZC<br>ZC         | N    | 10YR31<br>10YR41<br>10YR42<br>10YR31<br>10YR41<br>10YR42                               | 25/60<br>20/28<br>25/60                   | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0         | HR<br>HR<br>HR<br>HR<br>HR       | P<br>P<br>P | CAB<br>CPR                              | MD<br>MD                 |                      |                       |     |                    | 15<br>15<br>19<br>15<br>15                         | 8 8   | 1<br>1<br>1<br>1      | 0.5<br>0.5               |       |                          |       | ;              |
| 117   |                                       | 8                | s7<br>s7    | 120<br>120<br>28<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>28                           | HZCL ZC ZC HZCL ZC ZC HZCL ZC                | N    | 10YR31<br>10YR41<br>10YR42<br>10YR31<br>10YR41<br>10YR42                               | 25/60<br>20/28<br>25/60<br>20/28          | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0     | HR HR HR HR HR                   | P<br>P<br>P | CAB<br>CPR                              | MD<br>MD                 | 28                   | 28                    | II  | За                 | 15<br>15<br>19<br>15<br>15<br>15                   | 8 8   | 1<br>1<br>1<br>1<br>1 | 0.5<br>0.5<br>0.5        | 19.83 | 2                        | -2.57 | 1              |
| 117   |                                       | 8                | s7<br>s7    | 120<br>120<br>28<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>28        | HZCL ZC ZC HZCL ZC ZC C HZCL ZC ZC HZCL HZCL | N    | 10YR31<br>10YR42<br>10YR42<br>10YR31<br>10YR41<br>10YR42<br>10YR31<br>10YR41<br>10YR42 | 25/60<br>20/28<br>25/60<br>20/28<br>25/60 | 10YR56<br>10YR56<br>10YR56<br>10YR56      |                    | 0 0 0 0 0 0 0 5 | HR<br>HR<br>HR<br>HR<br>HR<br>HR | P<br>P<br>P | CPR CAB CPR CAB CPR                     | MD<br>MD                 | 28                   | 28                    | II  | За                 | 15<br>15<br>19<br>15<br>15<br>15<br>15<br>15       | 8 8 8 | 1 1 1 1 1 1 1 1       | 0.5<br>0.5<br>0.5<br>0.5 | 19.83 | 2                        | -2.57 | ;              |
| 117   |                                       | B<br>B           | s7<br>s7    | 120<br>120<br>28<br>60<br>120<br>120<br>28<br>60<br>120<br>120<br>120<br>28<br>60<br>120<br>120<br>28 | HZCL ZC ZC HZCL ZC ZC HZCL ZC ZC HZCL ZC     | N    | 10YR31<br>10YR42<br>10YR42<br>10YR31<br>10YR41<br>10YR42<br>10YR31<br>10YR41<br>10YR42 | 25/60<br>20/28<br>25/60<br>20/28          | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0 0   | HR<br>HR<br>HR<br>HR<br>HR<br>HR | P<br>P<br>P | CAB<br>CPR                              | MD<br>MD                 | 28                   | 28                    | II  | За                 | 15<br>15<br>19<br>15<br>15<br>15<br>19<br>15<br>15 | 8 8   | 1 1 1 1 1 1 1 1       | 0.5<br>0.5<br>0.5        | 19.83 | 2                        | -2.57 | ;              |

| Obs | Ond not, if off<br>inharaction | Boring or<br>Pit | Grad. (degl | Base<br>Depth<br>(cm)   | Text.                          | Calc | Matrix<br>colour                               |                         | Mott<br>colour ar<br>FC ifferro.<br>conc. | Ped face<br>colour | Stns<br>%   | Stns<br>type         | Porosity | Struct<br>) Felian<br>consist mos | Degree of<br>development | SPL<br>depth<br>(cm) | Gleying<br>depth (cm) | SWC | Grade<br>(wetness) | TAv                             | EAv | SETAv                 | StEAw | MBM    | diam-(Drough,<br>INSEAT) | MBS            | Ovel Drought<br>POTATOES |
|-----|--------------------------------|------------------|-------------|---|--------------------------------|------|--|-------------------------|---|--------------------|-------------|----------------------|----------|-----------------------------------|--------------------------|----------------------|-----------------------|-----|--------------------|---------------------------------|-----|-----------------------|-------|--------|--------------------------|----------------|--------------------------|
|     |                                |                  |             | 28  | HZCL                           | N    | 10YR31   |                         |   |                    | 0           | HR                   |          |                                   |                          |                      |                       |     |                    | 19                              |     | 1                     |       |        |                          |                |                          |
| 121 |                                | В                | ≤7          | 60  | ZC ZC                          |      | 10YR41   | 20/28                   | 10YR56                                    |                    | 0           | HR                   | P        | CAB                               | MD                       | 28                   | 28                    | п   | 3a                 | 15                              | 8   | 1                     | 0.5   | 19.83  | 2                        | -2.57          | 2                        |
|     |                                |                  |             | 120   | 20                             |      | 10YR42   | 25/60                   | 10YR56                                    |                    | 0           | HR                   | P        | CPR                               | MD                       |                      |                       |     |                    | 15                              | 8   | 1                     | 0.5   |        |                          |                |                          |
|     |                                |                  |             | 30  | HZCL                           | N    | 10YR41   |                         |   |                    | 5           | HR                   |          |                                   |                          |                      |                       |     |                    | 19                              |     | 1                     |       |        |                          |                |                          |
| 122 |                                | В                | s7          | 55  | ZC                             |      | 10YR41   | 25/30                   | 10YR56                                    |                    | 0           | HR                   | Þ        | CAB                               | MD                       | 30                   | 30                    | п   | 3a                 | 15                              | 8   | 1                     | 0.5   | 17.93  | 2                        | -4.47          | 2                        |
|     |                                |                  |             | 120   | 2C                             |      | 10YR42   | 25/55                   | 10YR56                                    |                    | 0           | HR                   | P        | CPR                               | MD                       |                      |                       |     |                    | 15                              | 8   | 1                     | 0.5   |        |                          |                |                          |
|     |                                |                  |             | 120<br>30   | HZCL                           | N    | 10YR31   |                         |   |                    | 5           | HR                   |          |                                   |                          |                      |                       |     |                    | 19                              |     | 1                     |       |        |                          |                |                          |
|     |                                |                  | -7          | 55  | ZC                             |      | 10YR41   | 20/30                   | 10YR56                                    |                    | 0           | HR                   | P        | CAB                               | MD                       | 20                   | 30                    |     |                    | 15                              | 8   | 1                     | 0.5   |        |                          |                |                          |
| 123 |                                | В                | <b>57</b>   | 120   | ZC                             |      | 10YR42   | 20/55                   | 10YR56                                    |                    | 0           | HR                   | P        | CPR                               | MD                       | 30                   | 30                    | II  | 3a                 | 15                              | 8   | 1                     | 0.5   | 17.93  | 2                        | -4.47          | 2                        |
|     |                                |                  |             | 120   | 117001                         |      | 10001  |                         |   |                    |             |                      |          |                                   |                          |                      |                       |     |                    |                                 |     |                       |       |        |                          |                |                          |
|     |                                |                  |             | 30<br>55  | HZCL<br>ZC                     | N    | 10YR31<br>10YR41                               | 20/30                   | 10YR56                                    |                    | 0           | HR                   | P        | CAB                               | MD                       |                      |                       |     |                    | 19                              | 8   | 1                     | 0.5   |        |                          |                |                          |
| 124 |                                | В                | ≤7          | 120   | ZC                             |      | 10YR42   | 20/55                   | 10YR56                                    |                    | 0           | HR                   | P        | CPR                               | MD                       | 30                   | 30                    | Ш   | 3a                 | 15                              | 8   | 1                     | 0.5   | 20.63  | 2                        | -1.77          | 2                        |
|     |                                |                  |             | 120   |                                |      |  |                         |   |                    |             |                      |          |                                   |                          |                      |                       |     |                    |                                 |     |                       |       |        |                          |                |                          |
|     |                                |                  |             |   |                                |      |  |                         |   |                    |             | GA:                  | S PIPE   |                                   |                          |                      |                       |     |                    |                                 |     |                       |       |        |                          |                |                          |
|     |                                |                  |             | 25  | HZCL                           | N    | 10YR32   |                         |   |                    | 5           | HR                   |          |                                   |                          |                      |                       |     |                    | 19                              |     | 1                     |       |        |                          |                |                          |
| 126 |                                | В                | £7          | 120   | ZC                             |      | 10YR42   | 15/25                   | 10YR56                                    |                    | 5           | HR                   | P        | CPR                               | MD                       | 25                   | 25                    | п   | 3a                 | 15                              | 8   | 1                     | 0.5   | 12.01  | 2                        | -9.17          | 2                        |
|     |                                |                  | -           | 120   |                                |      |  |                         |   |                    |             |                      |          |                                   |                          |                      |                       |     |                    | 0                               | 0   | 0                     | 0     |        |                          |                |                          |
|     |                                |                  |             | 120   | HZCL                           | N    | 10YR41   |                         |   |                    | 5           | HR                   |          |                                   |                          |                      |                       |     |                    | 19                              |     | 1                     |       |        |                          |                |                          |
| 127 |                                | В                | ≤7          | 50  | ZC                             |      | 10YR41   | 20/30                   | 10YR56                                    |                    | 0           | HR                   | P        | CAB                               | MD                       | 30                   | 30                    | п   | 3a                 | 15                              | 8   | 1                     | 0.5   | 17.93  | 2                        | -4.47          | 2                        |
| 127 |                                |                  | 37          | 120   | ZC                             |      | 10YR42   | 20/55                   | 10YR56                                    |                    | 0           | HR                   | P        | CPR                               | MD                       | 30                   | 30                    | "   | 30                 | 15                              | 8   | 1                     | 0.5   | 17.93  | -                        | -4.47          | ž                        |
|     |                                |                  |             | 120   | HZCL                           | N    | 10YR31   |                         |   |                    | 0           | HR                   |          |                                   |                          |                      |                       |     |                    | 19                              |     | 1                     |       |        |                          |                |                          |
|     |                                |                  |             | 55  | ZC                             | 14   | 10YR41   | 20/30                   | 10YR56                                    |                    | 0           | HR                   | P        | CAB                               | MD                       |                      |                       |     |                    | 15                              | 8   | 1                     | 0.5   |        |                          |                |                          |
| 128 |                                | В                | <b>5</b> 7  | 120   | 2C                             |      | 10YR42   | 20/55                   | 10YR56                                    |                    | 0           | HR                   | P        | CPR                               | MD                       | 30                   | 30                    | "   | 30                 | 15                              | 8   | 1                     | 0.5   | 20.63  | 2                        | -1.77          | 2                        |
|     |                                |                  |             | 120   |                                |      |  |                         |   |                    |             |                      |          |                                   |                          |                      |                       |     |                    |                                 |     |                       |       |        |                          |                |                          |
|     |                                |                  |             | 30<br>55  | HZCL.                          | N    | 10YR41<br>10YR41                               | 20/30                   | 10YR56                                    |                    | 0           | HR                   | p        | CAB                               | MD                       |                      |                       |     |                    | 19<br>15                        | 8   | 1                     | 0.5   |        |                          |                |                          |
| 129 |                                | В                | ≤7          | 120   | ZC                             |      | 10YB42   | 20/55                   | 10YR56                                    |                    | 0           | HR                   | P        | CPR                               | MD                       | 30                   | 30                    | Ш   | 3a                 | 15                              | 8   | 1                     | 0.5   | 20.63  | 2                        | -1.77          | 2                        |
|     |                                |                  |             | 120   |                                |      |  |                         |   |                    |             |                      |          |                                   |                          |                      |                       |     |                    |                                 |     |                       |       |        |                          |                |                          |
|     |                                |                  |             | 30  | HZCL                           | N    | 10YR31   |                         |   |                    | 0           | HR                   | S PIPE   |                                   |                          |                      |                       |     |                    | 19                              |     | 1                     |       |        |                          |                |                          |
| 131 |                                | В                | ≤7          | 55<br>120   | 2C<br>2C                       |      | 10YR41<br>10YR42                               | 20/30                   | 10YR56                                    |                    | 0           | HR<br>HR             | P<br>P   | CAB                               | MD                       | 30                   | 30                    | н   | 3a                 | 15<br>15                        | 8   | 1                     | 0.5   | 20.63  | 2                        | -1.77          | 2                        |
|     |                                |                  |             | 120   |                                |      | 2011142  | 20,00                   | 2011100                                   |                    |             |                      | •        |                                   | mo                       |                      |                       |     |                    |                                 |     | -                     | 0.5   |        |                          |                |                          |
|     |                                |                  |             | 25  | HZCL                           | N    | 10YR43   |                         |   |                    | 5           | HR                   |          |                                   |                          |                      |                       |     |                    | 19                              |     | 1                     |       |        |                          |                |                          |
| 132 |                                | В                | ≤7          | 120   | ZC                             |      | 10YR42   | 20/28                   | 10YR56                                    |                    | 5           | HR                   | P        | CPR                               | MD                       | 25                   | 25                    | п   | 3a                 | 15                              | 8   | 1                     | 0.5   | -43.12 | 3b                       | -9.17          | 2                        |
|     |                                |                  |             | 120   |                                |      |  |                         |   |                    |             |                      |          |                                   |                          |                      |                       |     |                    | 0                               | 0   | 0                     |       |        |                          |                |                          |
|     |                                |                  |             |   |                                |      |  |                         |   |                    |             |                      |          |                                   |                          |                      |                       |     |                    |                                 |     |                       |       |        |                          |                |                          |
| 133 |                                |                  |             | 25  | HZCL                           | N    | 10YR43   |                         |   |                    | 5           | HR                   |          |                                   |                          |                      |                       |     |                    | 19                              |     | 1                     |       |        |                          |                |                          |
|     |                                | В                | 57          |   | HZCL<br>ZC                     | N    | 10YR43<br>10YR42                               | 20/28                   | 10YR56                                    |                    | 5           | HR<br>HR             | P        | CPR                               | MD                       | 25                   | 25                    |     | 30                 | 19<br>15                        | 8   | 1                     | 0.5   | 12.01  | 2                        | -9.17          | 2                        |
| 133 |                                | В                | s7 -        | 25<br>120<br>120  |                                | N    |  | 20/28                   | 10YR56                                    |                    |             |                      | Р        | CPR                               | MD                       | 25                   | 25                    | 11  | За                 |                                 | 8   |                       | 0.5   | 12.01  | 2                        | -9.17          | 2                        |
| 133 |                                | В                | s7          | 25<br>120<br>120<br>120   | ZC                             |      | 10YR42   | 20/28                   | 10YR56                                    |                    | 5           | HR                   | P        | CPR                               | MD                       | 25                   | 25                    | 11  | 3а                 | 15<br>0                         |     | 0                     |       | 12.01  | 2                        | -9.17          | 2                        |
|     |                                |                  |             | 25<br>120<br>120  |                                | N    |  | 20/28                   | 10YR56                                    |                    |             |                      | P        | CPR<br>CAB                        | MD                       |                      |                       |     |                    | 15                              |     | 1                     |       |        |                          |                |                          |
|     |                                | В                |             | 25<br>120<br>120<br>120<br>120<br>25<br>60                                  | ZC<br>HZCL                     |      | 10YR42   |                         |   |                    | 5           | HR                   |          |                                   |                          | 25                   | 25                    | "   | 3a<br>3a           | 15<br>0<br>19                   | 0   | 1 0                   | 0     | 12.01  | 2                        | -9.17<br>-3.77 | 2                        |
|     |                                |                  |             | 25<br>120<br>120<br>120<br>120<br>25<br>60<br>120                           | HZCL<br>ZC<br>ZC               | N    | 10YR42<br>10YR31<br>10YR41<br>10YR42           | 20/25                   | 10YR56                                    |                    | 0 0 0       | HR<br>HR<br>HR       | P        | CAB                               | MD                       |                      |                       |     |                    | 15<br>0<br>19<br>15             | 8   | 1 1 1                 | 0.5   |        |                          |                |                          |
| 134 |                                | В                | ≤7          | 25<br>120<br>120<br>120<br>120<br>25<br>60                                  | HZCL<br>ZC                     | N    | 10YR42<br>10YR31<br>10YR41                     | 20/25                   | 10YR56                                    |                    | 0 0         | HR<br>HR<br>HR       | P        | CAB                               | MD                       | 25                   | 25                    | II  | 3a                 | 15<br>0<br>19<br>15             | 8   | 1 1 1                 | 0.5   | 18.63  | 2                        | -3.77          | 2                        |
| 134 |                                |                  | ≤7          | 25<br>120<br>120<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60<br>120 | HZCL ZC ZC HZCL                | N    | 10YR42<br>10YR31<br>10YR41<br>10YR42           | 20/25<br>25/60          | 104R56<br>104R56                          |                    | 0 0 0       | HR<br>HR<br>HR       | P<br>P   | CAB<br>CPR                        | MD<br>MD                 |                      | 25                    |     |                    | 15<br>0<br>19<br>15<br>15       | 8 8 | 1 1 1 1               | 0.5   |        |                          | -3.77          |                          |
| 134 |                                | В                | ≤7          | 25<br>120<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60               | HZCL<br>2C<br>2C<br>HZCL<br>2C | N    | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41 | 20/25<br>25/60<br>25/25 | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0 | HR<br>HR<br>HR<br>HR | P<br>P   | CAB<br>CPR                        | MD<br>MD                 | 25                   | 25                    | II  | 3a                 | 15<br>0<br>19<br>15<br>15<br>15 | 8 8 | 1<br>0<br>1<br>1<br>1 | 0.5   | 18.63  | 2                        | -3.77          | ;                        |
| 134 |                                | В                | ≤7          | 25<br>120<br>120<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60<br>120 | HZCL<br>2C<br>2C<br>HZCL<br>2C | N    | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41 | 20/25<br>25/60<br>25/25 | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0 | HR<br>HR<br>HR<br>HR | P<br>P   | CAB<br>CPR                        | MD<br>MD                 | 25                   | 25                    | II  | 3a                 | 15<br>0<br>19<br>15<br>15<br>15 | 8 8 | 1<br>0<br>1<br>1<br>1 | 0.5   | 18.63  | 2                        | -3.77          | i                        |
| .34 |                                | В                | ≤7          | 25<br>120<br>120<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60<br>120 | HZCL<br>2C<br>2C<br>HZCL<br>2C | N    | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41 | 20/25<br>25/60<br>25/25 | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0 | HR<br>HR<br>HR<br>HR | P<br>P   | CAB<br>CPR                        | MD<br>MD                 | 25                   | 25                    | II  | 3a                 | 15<br>0<br>19<br>15<br>15<br>15 | 8 8 | 1<br>0<br>1<br>1<br>1 | 0.5   | 18.63  | 2                        | -3.77          | i                        |
| 134 |                                | В                | ≤7          | 25<br>120<br>120<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60<br>120 | HZCL<br>2C<br>2C<br>HZCL<br>2C | N    | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41 | 20/25<br>25/60<br>25/25 | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0 | HR<br>HR<br>HR<br>HR | P<br>P   | CAB<br>CPR                        | MD<br>MD                 | 25                   | 25                    | II  | 3a                 | 15<br>0<br>19<br>15<br>15<br>15 | 8 8 | 1<br>0<br>1<br>1<br>1 | 0.5   | 18.63  | 2                        | -3.77          | i                        |
| 134 |                                | В                | ≤7          | 25<br>120<br>120<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60<br>120 | HZCL<br>2C<br>2C<br>HZCL<br>2C | N    | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41 | 20/25<br>25/60<br>25/25 | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0 | HR<br>HR<br>HR<br>HR | P<br>P   | CAB<br>CPR                        | MD<br>MD                 | 25                   | 25                    | II  | 3a                 | 15<br>0<br>19<br>15<br>15<br>15 | 8 8 | 1<br>0<br>1<br>1<br>1 | 0.5   | 18.63  | 2                        | -3.77          | 2                        |
| 134 |                                | В                | ≤7          | 25<br>120<br>120<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60<br>120 | HZCL<br>2C<br>2C<br>HZCL<br>2C | N    | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41 | 20/25<br>25/60<br>25/25 | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0 | HR<br>HR<br>HR<br>HR | P<br>P   | CAB<br>CPR                        | MD<br>MD                 | 25                   | 25                    | II  | 3a                 | 15<br>0<br>19<br>15<br>15<br>15 | 8 8 | 1<br>0<br>1<br>1<br>1 | 0.5   | 18.63  | 2                        | -3.77          | 2                        |
| 134 |                                | В                | ≤7          | 25<br>120<br>120<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60<br>120 | HZCL<br>2C<br>2C<br>HZCL<br>2C | N    | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41 | 20/25<br>25/60<br>25/25 | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0 | HR<br>HR<br>HR<br>HR | P<br>P   | CAB<br>CPR                        | MD<br>MD                 | 25                   | 25                    | II  | 3a                 | 15<br>0<br>19<br>15<br>15<br>15 | 8 8 | 1<br>0<br>1<br>1<br>1 | 0.5   | 18.63  | 2                        | -3.77          |                          |
| 134 |                                | В                | ≤7          | 25<br>120<br>120<br>120<br>120<br>25<br>60<br>120<br>120<br>25<br>60<br>120 | HZCL<br>2C<br>2C<br>HZCL<br>2C | N    | 10YR41<br>10YR41<br>10YR42<br>10YR41<br>10YR41 | 20/25<br>25/60<br>25/25 | 10YR56<br>10YR56<br>10YR56                |                    | 0 0 0 0 0 0 | HR<br>HR<br>HR<br>HR | P<br>P   | CAB<br>CPR                        | MD<br>MD                 | 25                   | 25                    | II  | 3a                 | 15<br>0<br>19<br>15<br>15<br>15 | 8 8 | 1<br>0<br>1<br>1<br>1 | 0.5   | 18.63  | 2                        | -3.77          | i                        |

### GENERAL INFORMATION SOURCES

- Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land. MAFF. 1988.
- Soil Survey Field Handbook. Technical Monograph No.5. Soil Survey of England and Wales. 1976.
- 3. Climatological Data for Agricultural Land Classification, The Met. Office 1989
- Soil Map of England and Wales: 1:250 000. Soil Survey of England and Wales, Harpenden.
- Soils and Their Use in Midlands and Western England. Soil Survey of England and Wales,
- 6. Agricultural Land Classification Map 1:250 000. MAFF 1983.
- Risk of Flooding: https://flood-warning-information.service.gov.uk/long-term-flood-risk
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# **GLOSSARY**

#### ABBREVIATIONS AND TERMS USED IN SURVEY DATA

Soil pit and auger boring information collected during ALC survey is held on a computer database and is reproduced in this report. Terms used and abbreviations are set out below. These conform to definitions contained in the Soil Survey Field Handbook (Hodgson, 1997).

#### 1. Terms used on computer database, in order of occurrence.

GRID REF: National 100 km grid square and 8 figure grid reference.

LAND USE: At the time of survey

| WHT: | Wheat        | SBT: | Sugar Beet          | HTH: | Heathland               |
|------|--------------|------|---------------------|------|-------------------------|
| BAR: | Barley       | BRA: | Brassicas           | BOG: | Bog or Marsh            |
| OAT: | Oats         | FCD: | Fodder Crops        | DCW: | Deciduous Wood          |
| CER: | Cereals      | FRT: | Soft and Top Fruit  | CFW: | Coniferous Woodland     |
| MZE: | Maize        | HRT: | Horticultural Crops | PLO: | Ploughed                |
| OSR: | Oilseed Rape | LEY: | Ley Grass           | FLW: | Fallow (inc. Set aside) |
| POT: | Potatoes     | PGR: | Permanent Pasture   | SAS: | Set Aside (where known) |
| LIN: | Linseed      | RGR: | Rough Grazing       | OTH: | Other                   |
| BEN: | Field Beans  | SCR: | Scrub               |      |                         |

GRDNT: Gradient as estimated or measured by hand-held optical clinometer.

GLEY, SPL: Depth in centimetres to gleying or slowly permeable layer.

AP (WHEAT/POTS): Crop-adjusted available water capacity.

MB (WHEAT/POTS): Moisture Balance. (Crop adjusted AP - crop potential

MD)

DRT: Best grade according to soil droughtiness.

If any of the following factors are considered significant, 'Y' will be entered in the relevant column.

| MREL: | Microrelief limitation | FLOOD: | Flood risk  | EROSN: | Soil erosion risk |
|-------|------------------------|--------|-------------|--------|-------------------|
| EXP:  | Exposure limitation    | FROST: | Frost prone | DIST:  | Disturbed land    |

CHEM: Chemical limitation

LIMIT: The main limitation to land quality: The following abbreviations are used.

| OC: | Overall Climate | AE: | Aspect          | EX: | Exposure    |
|-----|-----------------|-----|-----------------|-----|-------------|
| FR: | Frost Risk      | GR: | Gradient        | MR: | Microrelief |
| FL: | Flood Risk      | TX: | Topsoil Texture | DP: | Soil Depth  |
| CH: | Chemical        | WE: | Wetness         | WK: | Workability |
| DR: | Drought         | ER: | Erosion Risk    | WD: | Soil        |

Wetness/Droughtiness

ST: Topsoil Stoniness

TEXTURE: Soil texture classes are denoted by the following abbreviations:-

| S:   | Sand            | LS:  | Loamy Sand       | SL:   | Sandy Loam         |
|------|-----------------|------|------------------|-------|--------------------|
| SZL: | Sandy Silt Loam | CL:  | Clay Loam        | ZCL   | Silty Clay Loam    |
| ZL:  | Silt Loam       | SCL: | Sandy Cl<br>Loam | ay C: | Clay               |
| SC:  | Sandy clay      | ZC:  | Silty clay       | OL:   | Organic Loam       |
| P:   | Peat            | SP:  | Sandy Peat       | LP:   | Loamy Peat         |
| PL:  | Peaty Loam      | PS:  | Peaty Sand       | MZ:   | Marine Light Silts |

For the sand, loamy sand, sandy loam and sandy silt loam classes, the predominant size of sand fraction will be indicated by the use of the following prefixes:-

F: Fine (more than 66% of the sand less than 0.2mm)

M: Medium (less than 66% fine sand and less than 33% coarse sand)

C: Coarse (more than 33% of the sand larger than 0.6mm)

The clay loam and silty clay loam classes will be sub-divided according to the clay content: M: Medium (< 27% clay) H: heavy (27 - 35% clay)

MOTTLE COL: Mottle colour using Munsell notation.

MOTTLE ABUN: Mottle abundance, expressed as a percentage of the matrix or surface described.

F: few <2% C: common 2 - 20% M: many 20 - 40% VM: very many 40%+

MOTTLE CONT: Mottle contrast

F: faint - indistinct mottles, evident only on close inspection

D: distinct - mottles are readily seen

P: Prominent - mottling is conspicuous and one of the outstanding features of the horizon.

PED. COL: Ped face colour using Munsell notation.

GLEY: If the soil horizon is gleyed a 'Y' will appear in this column. If slightly gleyed, an 'S' will appear.

STONE LITH: Stone Lithology - One of the following is used.

HR: All hard rocks and stones
CH: Chalk
SLST: Soft oolitic or dolimitic limestone
FSST: Soft, fine grained sandstone

ZR: Soft, argillaceous, or silty rocks
MSST: Soft, medium grained sandstone
GH: Gravel with non-porous (hard) stones
Gravel with porous (soft) stones

SI: Soft weathered igneous or metamorphic rock

Stone contents are given in % by volume for sizes >2cm, >6cm and total stone >2mm.

STRUCT: The degree of development, size and shape of soil peds are described using the following notation

Degree of development WA: Weakly developed WK: Weakly developed

Adherent

MD: Moderately ST: Strongly developed

developed

Ped size F: Fine M: Medium

C: Coarse VC: Very coarse

Ped Shape S: Single grain M: Massive

GR: Granular AB: Angular blocky

SAB: Sub-angular blocky PR: Prismatic

PL: Platy

CONSIST: Soil consistence is described using the following notation:

L: Loose VF: Very Friable FR: Friable FM: Firm VM: Very firm EM: Extremely firm EH: Extremely Hard

SUBS STR: Subsoil structural condition recorded for the purpose of calculating

profile droughtiness: G: Good M: Moderate P: Poor

POR: Soil porosity. If a soil horizon has poor porosity with less than 0.5% biopores >0.5mm, a 'Y' will appear in this column.

IMP: If the profile is impenetrable to rooting a 'Y' will appear in this column at the appropriate horizon.

**SPL:** Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.

CALC: If the soil horizon is calcareous with naturally occurring calcium carbonate exceeding 1% a 'Y' will appear this column.

2. Additional terms and abbreviations used mainly in soil pit descriptions.

STONE ASSESSMENT:

V: Visual S: Sieved D: Displacement

#### MOTTLE SIZE:

 EF:
 Extremely fine < lmm</th>
 M:
 Medium 5-15mm

 VF:
 Very fine 1-2mm>
 C:
 Coarse > 15mm

F: Fine 2-5mm

MOTTLE COLOUR: May be described by Munsell notation or as ochreous

(OM) or grey (GM).

ROOT CHANNELS: In topsoil the presence of 'rusty root channels' might

also be noted as RRC.

#### MANGANESE CONCRETIONS: Assessed by volume

N: None M: Many 20-40% F: Few <2% VM: Very Many >40%

C: Common 2-20%

#### POROSITY:

P: Poor -less than 0.5% biopores at least 0.5mm in diameter
G: Good -more than 0.5% biopores at least 0.5mm in diameter

#### ROOT ABUNDANCE:

| The number of roots per 100cm <sup>2</sup> : |          | Very Fine and Fine | Medium and Coarse |  |
|--|----------|--------------------|-------------------|--|
| F:   | Few      | 1-10               | 1 or 2            |  |
| C:   | Common   | 10.25              | 2 - 5             |  |
| M:   | Many     | 25-200             | >5                |  |
| A:   | Abundant | >200               |                   |  |

#### ROOT SIZE

 VF:
 Very fine
 <1mm</th>
 M:
 Medium
 2 - 5mm

 F:
 Fine
 1-2mm
 C:
 Coarse
 >5mm

#### HORIZON BOUNDARY DISTINCTNESS:

 Sharp:
 <0.5cm</td>
 Gradual:
 6 - 13cm

 Abrupt:
 0.5 - 2.5cm
 Diffuse:
 >13cm

Clear: 2.5 - 6cm

HORIZON BOUNDARY FORM: Smooth, wavy, irregular or broken.\*

<sup>\*</sup> See Soil Survey Field Handbook (Hodgson, 1997) for details.