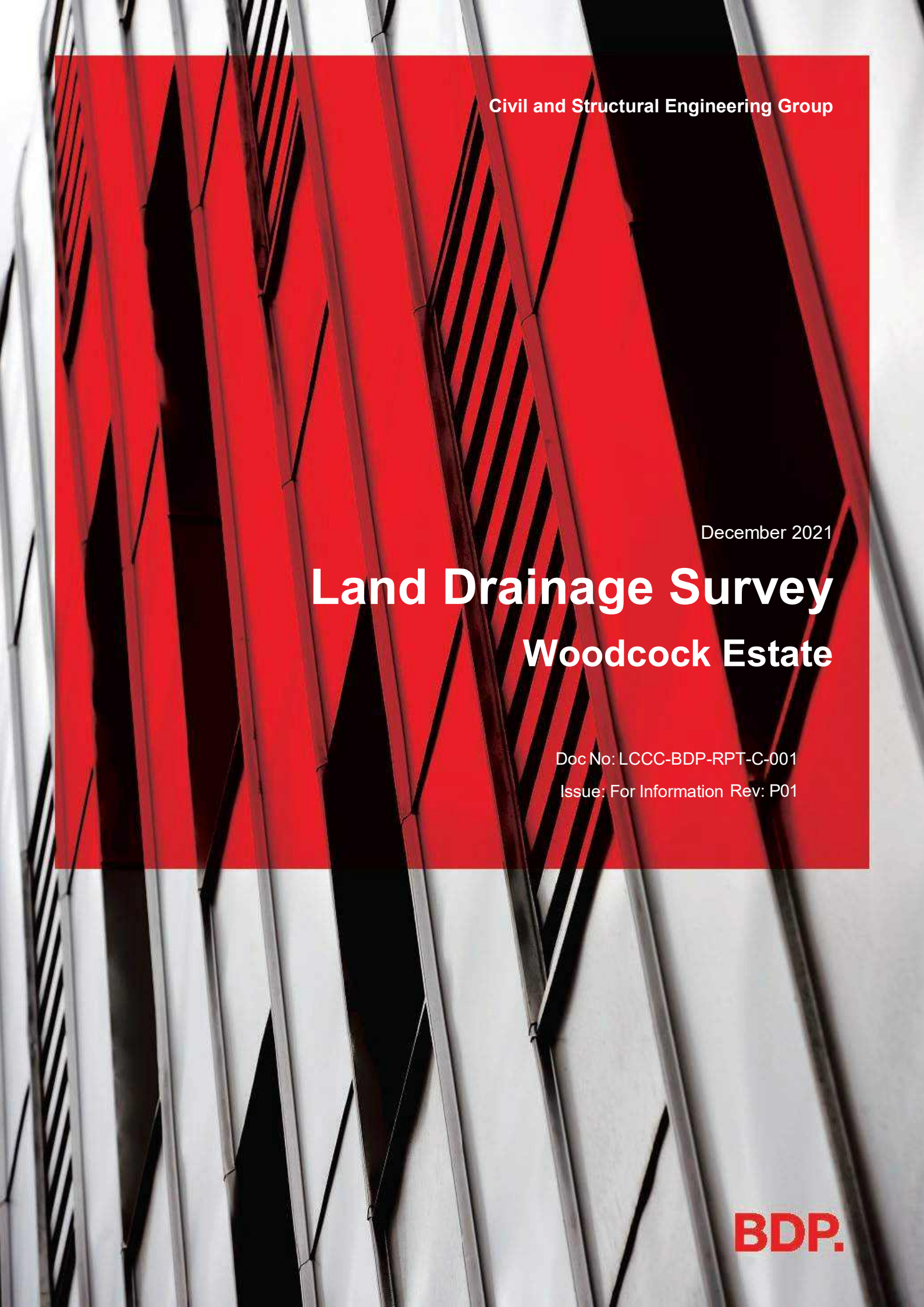
Appendix G

Drainage Ditch Survey



Civil and Structural Engineering Group

December 2021

Land Drainage Survey

Woodcock Estate

Doc No: LCCC-BDP-RPT-C-001

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BDP.

Document Control

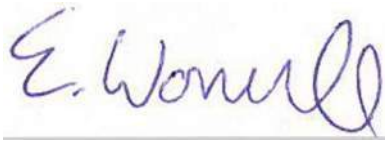
Revision	Description	Issued by	Date	Reviewed
P01	First Issue	EW	17/12/2021	DN

Review Record

Author:

Ethan Worrall

Signature

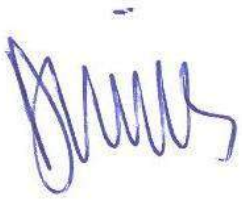


Date 17/12/2021

Approved:

David Nicholls

Signature



Date 17/12/2021

Contents

1.0 Introduction

A drainage survey was carried out across the Woodcock Estate on the 15/12/21 to determine flow routes of water within the drainage ditches across site. Further aims were to determine whether there were any drainage pipes present within the site boundary which may need to be diverted as part of the works. A thorough investigation was carried out by Ethan Worrall (BDP) & Charlie Palmer (Eric Wright).

Abbreviations used

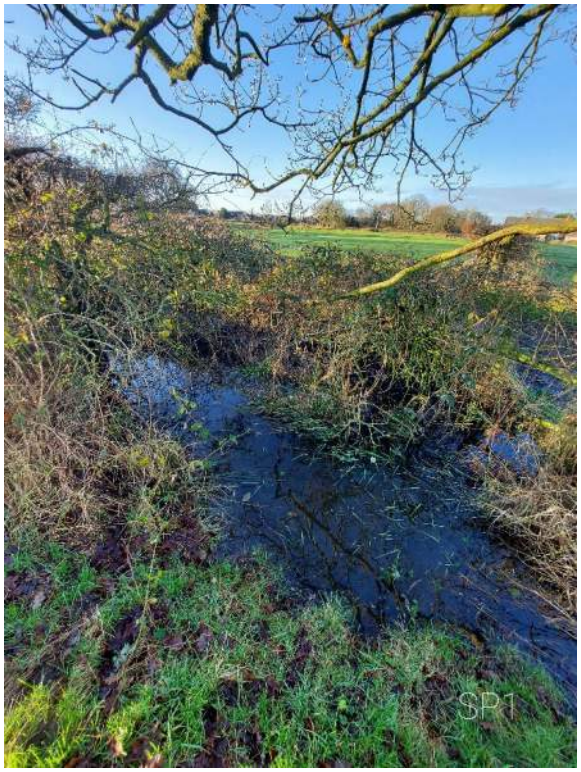
Total depth of ditch = D

Water level from bottom of ditch =WL

Width of ditch = DW

2.0 Survey Point Images and Data

SURVEY POINT 1



Ponded water present – No flow.

WL = 0.25m

SURVEY POINT 2

No water present. Collapsed culvert under gate.

SURVEY POINT 3

The area of field to the rear of White Farm house is saturated. It appears to drain towards the ditch adjacent to the hedgerow and filter away. No flow present.

SURVEY POINT 4

As per Survey point 3

SURVEY POINT 5

As per Survey point 3

SURVEY POINT 6

Small amount of flow present (assumed from SP13).

D – 0.8m

WL – 0.050m

DW- 1m

SURVEY POINT 7

Flow present into SP 07. Ponded water visible however no visible outflow could be observed. The logical assumption would be that the flow continued towards SP08 however the area of land between the two survey points was dry. It is possible an underground pipe is present which outflows off site towards Farrington Road and possibly the River Lostock.

D – 1m

DW – 0.8m

WL – 0.1

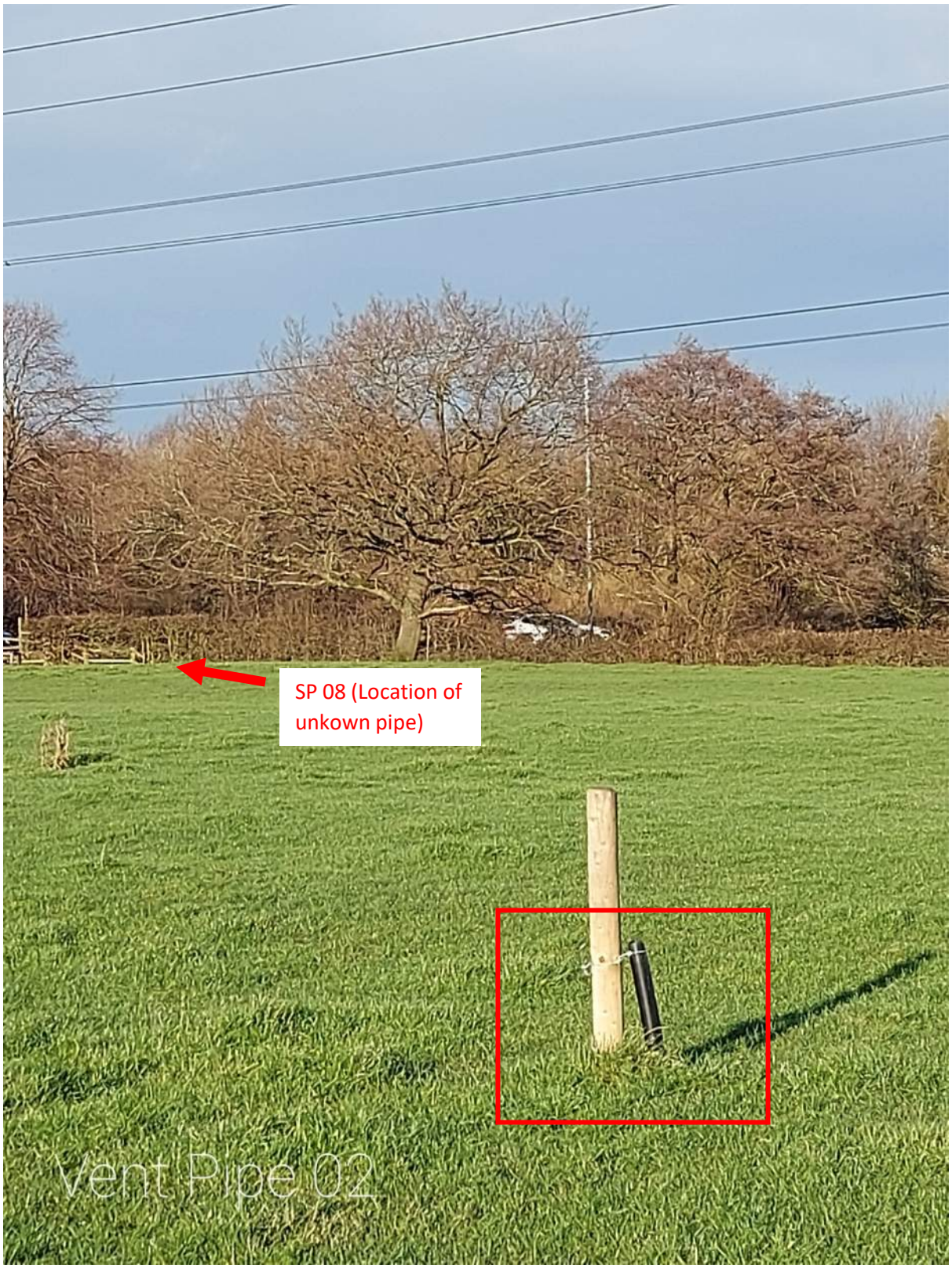
SURVEY POINT 8

Unknown pipe found out falling into SP 08 ditch. The pipe carried constant flow with the head of the pipe unfound. Assumed to be land drainage. Exposed vertical open pipe found in the field upstream of discovered pipe (See vent pipe 02 image and General arrangement for location).

Continuous flow visible of unknown pipe.

Outfall location off site. Minimal flow within ditch was present however was indicated to be flowing off site.

Vent Pipe 02



Open vertical pipe present within field.

SURVEY POINT 09

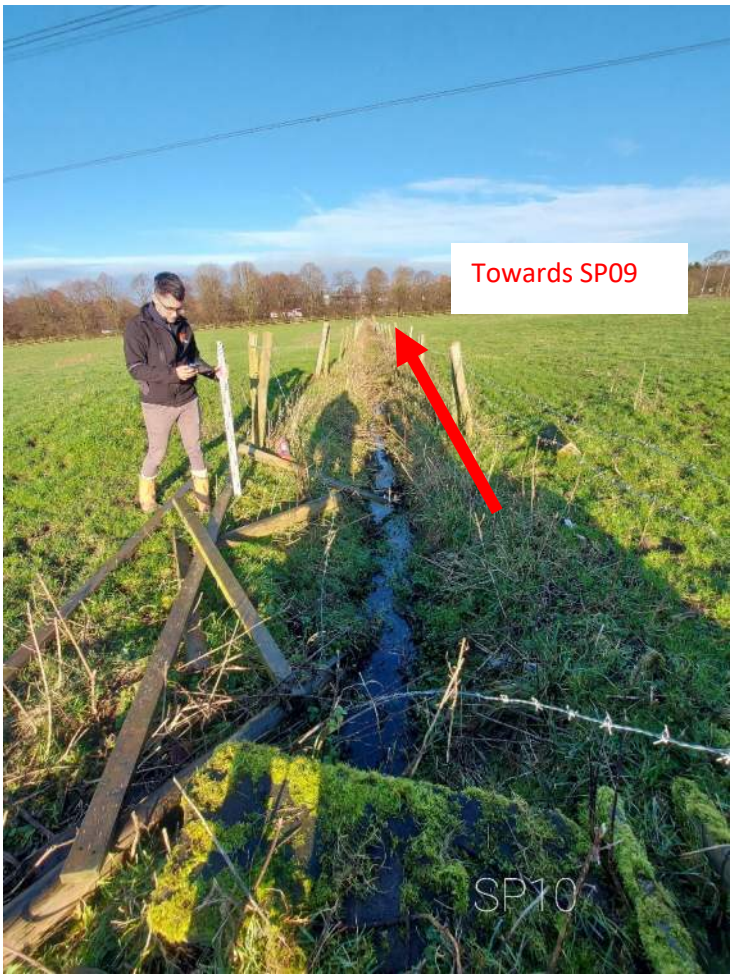
Assumed direction of piped outfall towards the River Lostock

D – 1m

WL – 0.15,

DW – 1.5m

SURVEY POINT 10



Flow present through SP10.

D – 1.2m

WL – 0.2m

DW – 2m

SURVEY POINT 11

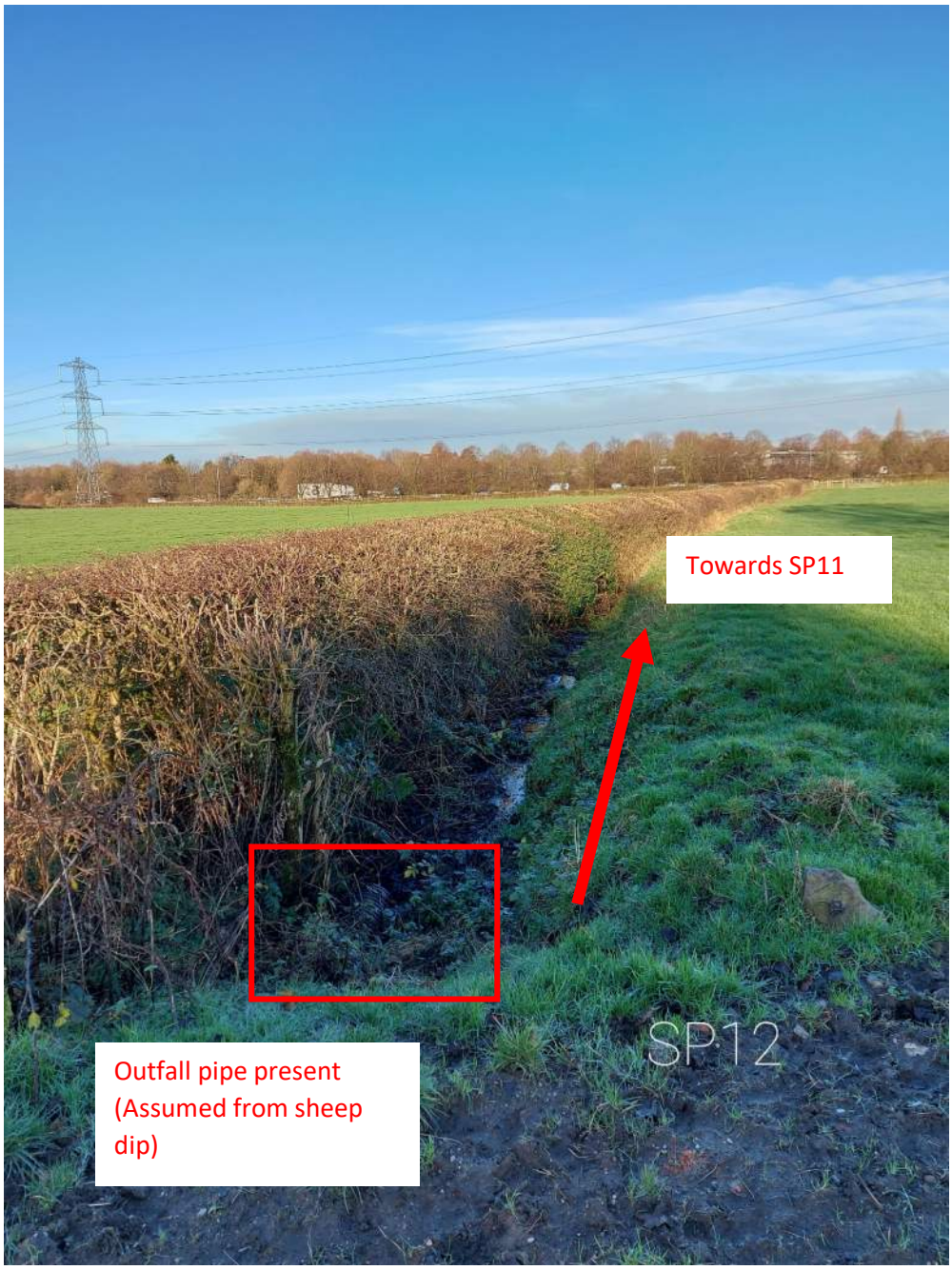
Flow present through SP11

D – 1.5m

WL – 0.1m

DW – 3m

SURVEY POINT 12



D – 1.5m

WL – 0.2m

DW – 4m


Towards SP11
SP12
Assumed pipe connection from SP16

The sheep dip contained ponded water. No flow visible. The team was unable to retrieve a depth from this location.

SURVEY POINT 13

Flow present through SP13

D – 1.1m

WL – 0.1m

DW – 2.2m

SURVEY POINT 14

A trickle of what appeared to be grey water was present at the head of this ditch. No visible inflow pipe was detected.

D – 1m

WL – 0.1m

DW – 2.1m

SURVEY POINT 15

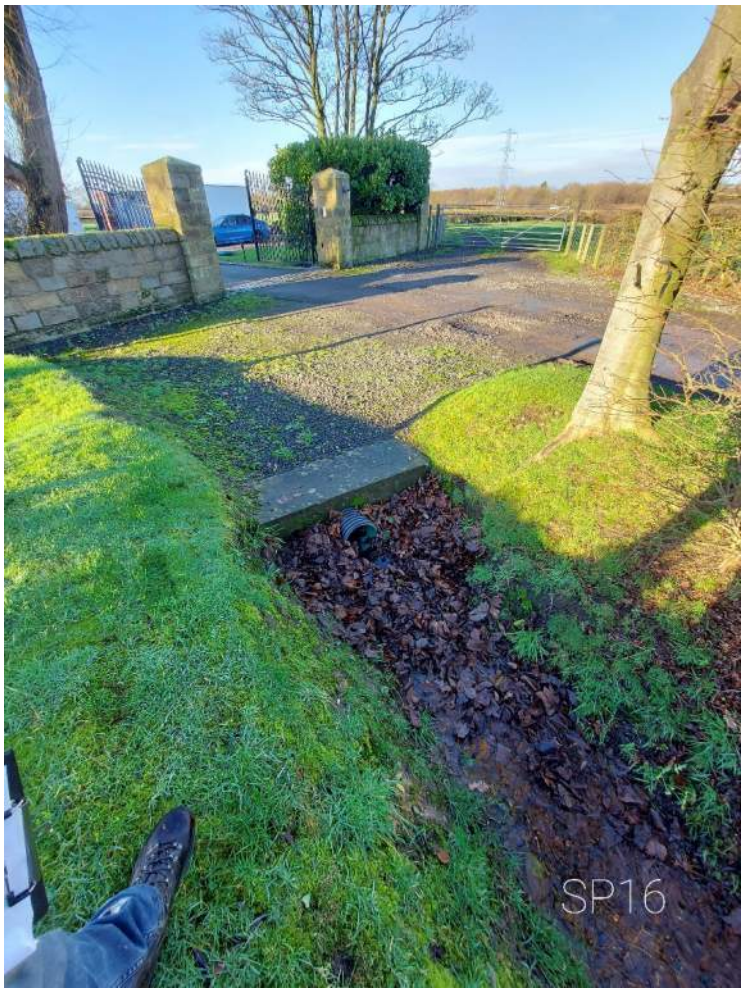
Flow present through SP15

D – 1.4m

WL – 0.1m

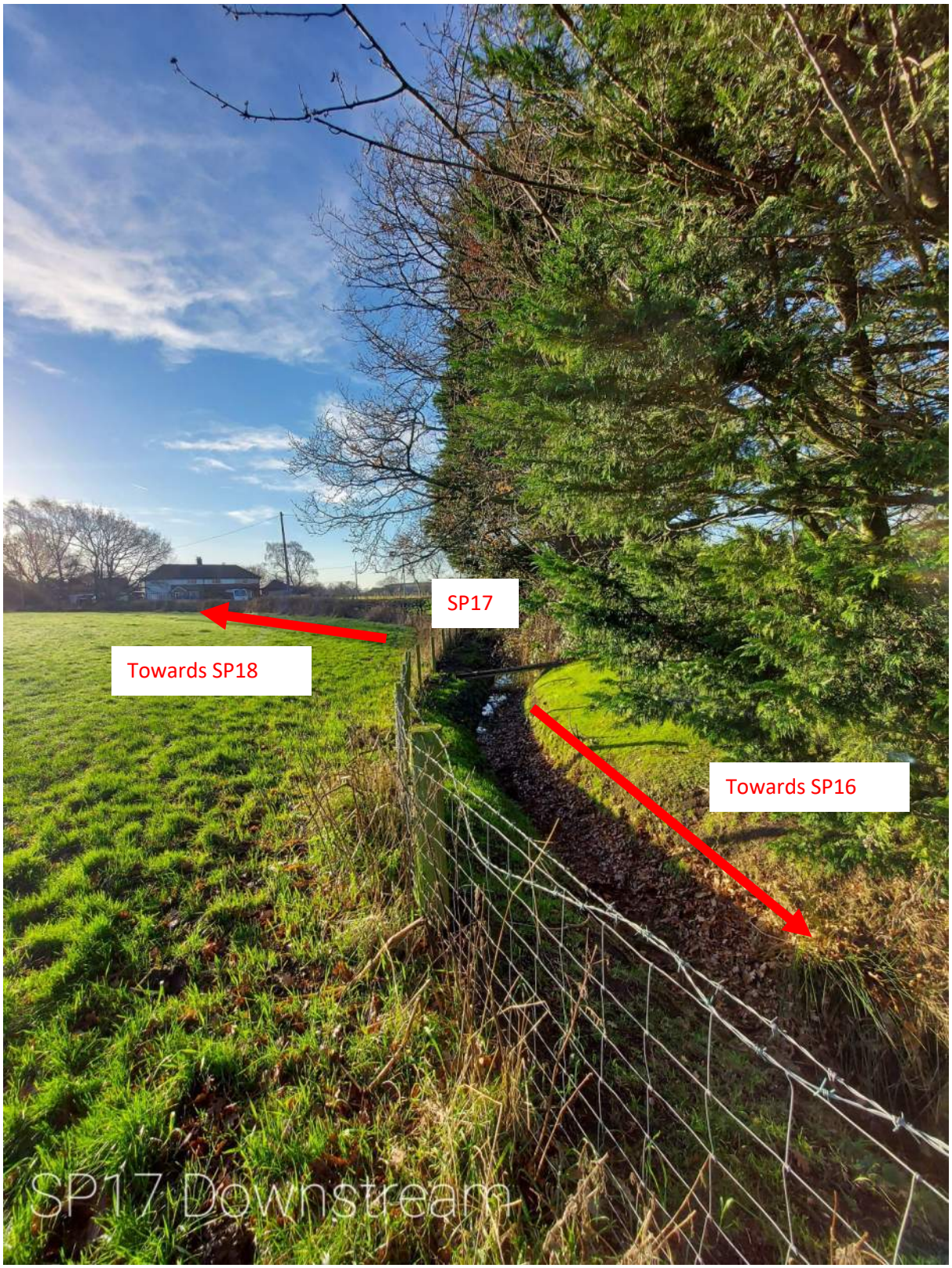
DW – 3m

SURVEY POINT 16



Ponded water present in this location. It is assumed connection flow from SP16 to SP 16 (Internal to property grounds – see below)

SURVEY POINT 17



D – 1.5m

WL – 0.1m

DW – 5m Ponded water - No flow present

SURVEY POINT 18

Flow of ground water trickling into head of ditch at this location. No visible inflow from off site.

D – 1.5m

WL – 0.1m

DW – 3m

SURVEY POINT 19

Outfall away from site


Flow from SP20
SP19 Downstrem - Outfall from site


Flow from SP20
Towards SP19 Outfall
Sp19a

SURVEY POINT 20

Unknown pipe was discovered in this location. Assumed land drain pipe to adjacent field.

D – 1.5m

Invert to incoming pipe from bottom of ditch – 1m

WL – 0.4m

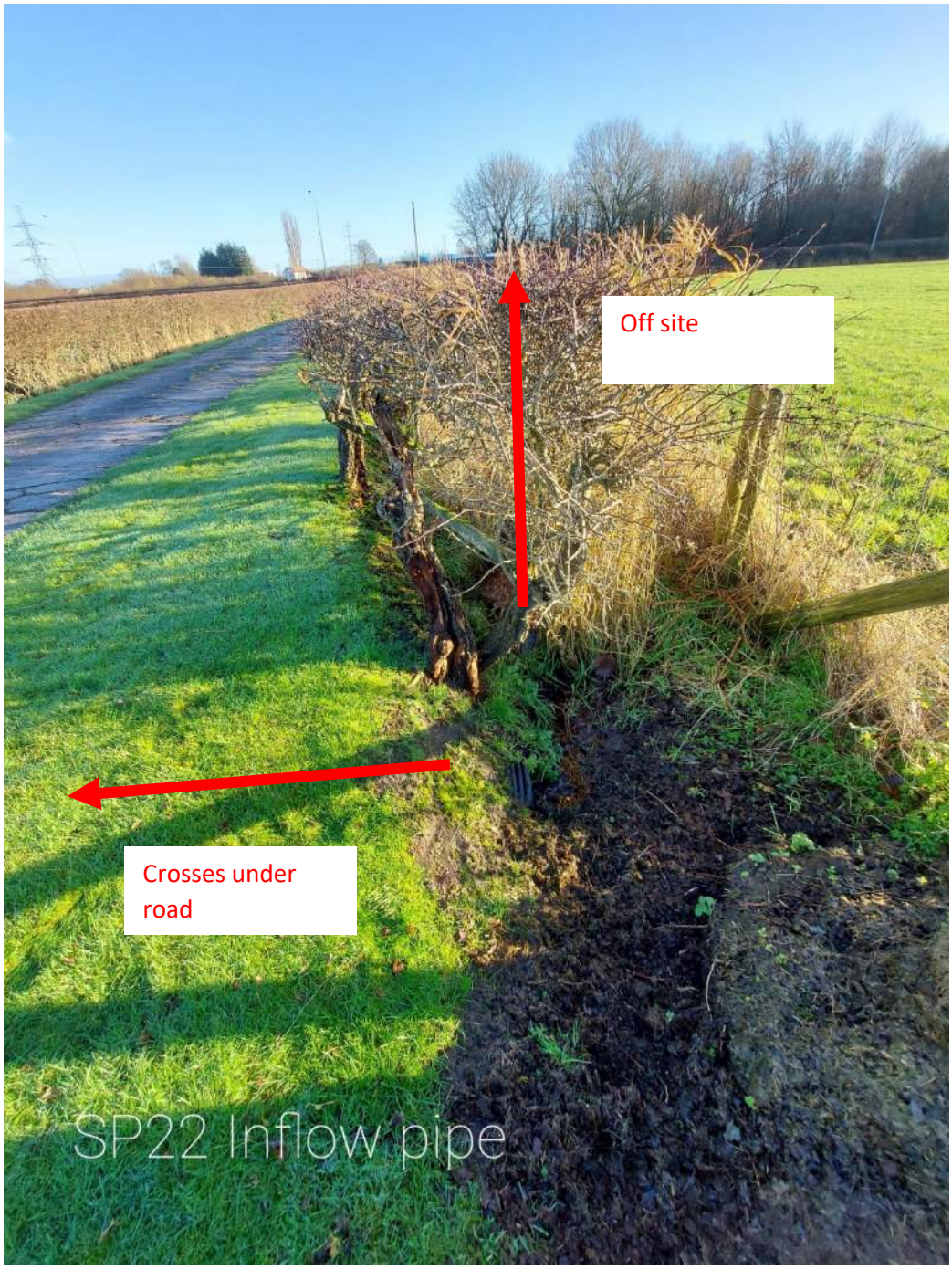
DW – 3.0m

SURVEY POINT 21

Ponded Water stops and becomes a dry ditch.

SURVEY POINT 22

Flow of incoming water crosses under access road at this location and flows towards SP15.

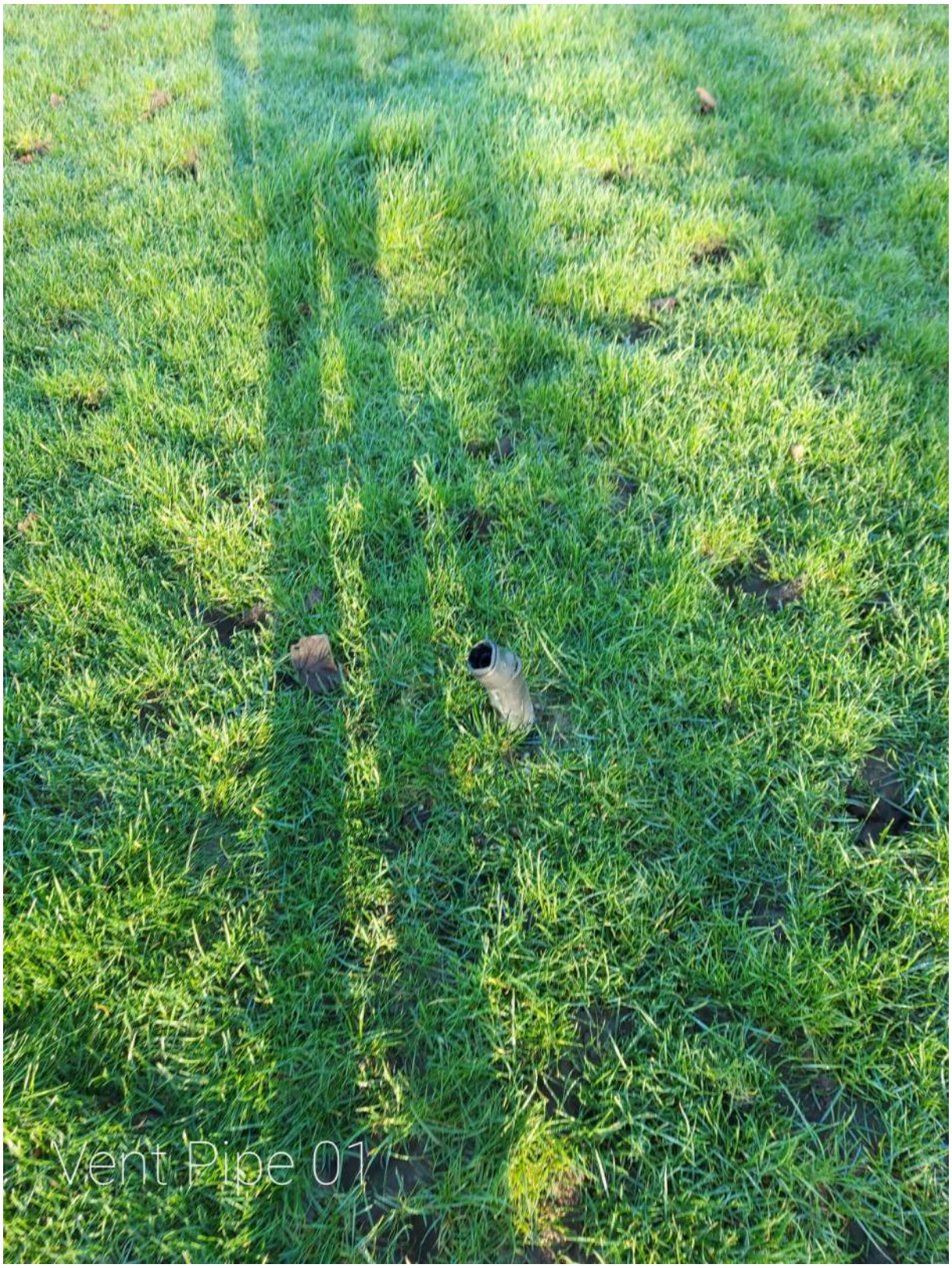


Inflow appears to originate off site.

SURVEY POINT 23

No flow on this side of access road.

VENT PIPE 01



See survey general arrangement for location.