

**PERCOLATION TESTING–**

**PROPOSED NEW HOUSE ON LAND AT MEIKLE KIRKHILL FARM, MAUD,  
ABERDEENSHIRE, AB42 5PG**

**INTRODUCTION:**

Prior to submission of planning application to Aberdeenshire Council ground survey was carried out so as to demonstrate the suitability of ground for foulwater soakaway site investigations were carried out.

These investigations were carried out to establish the nature of the ground below the site as well as determining the position of all watercourses and natural springs for the suitability of the ground for a wastewater disposal system.

On further investigation it was found that the area of ground where soakaway is shown on the site plan which is in control of the applicant was suitable for a number of wastewater disposal systems, therefore investigations were then advanced to ascertain the suitability of the ground for the disposal of effluent from an individual sewerage treatment unit serving the proposed dwelling house.

**EXCAVATIONS:**

2 Test pits were excavated by machine in the area where it is proposed to position the proposed sub surface soakaway (a minimum of 15 metres from a water course), these revealed ground strata of 350mm dark brown sandy silt loam topsoil over 700mm of stoney / sand type material. The test hole was then excavated and testing undertaken.

Test pit 1 was taken down to a level of approx 2000mm below the existing ground level, with no water table visible.

Test pit 2 was excavated to a level of approx 1000mm below the existing ground level where a percolation test was then carried out to BS6297: 1983 as amended by AMD6510 1990.

**RESULTS:**

2 Percolation tests were carried out on the same test pit and provided an average equivalent Vp of 10.6 s.

**CONCLUSION:**

Due to the advances in foulwater drainage disposal there are now numerous methods for the disposal of effluent from septic tank systems and sewerage treatment plants which include the standard soakaway system with secondary treatment, discharge to water course, reed beds, mound or puraflo systems.

In this case due to the good draining ground of the test and size of the proposed development we advise that a purified and filtered discharge from a Graf OnetoClear treatment unit would be recommended (or similar & approved unit) as it would give virtually clean water entering into the standard sub surface soakaway with secondary treatment, all installed to meet SEPA guidelines. SEPA consent is required to be applied for and this should be done by clients prior to works commencing on site.

For and on behalf of

**JAMES G. IRONSIDE LIMITED**

Architectural & Building Consultant

Jim Ironside

2<sup>nd</sup> March 2024

# **Certificate for Equivalent Percolation Testing of Topsoil.**

We hereby certify that the following tests have been carried out in accordance with procedures specified in British Standards BS6297:1983, as amended by AMD6510 1990, the results of which are tabulated below, and the proposed drainage system detailed on the plans has been designed taking into account the recommendations in the aforementioned Standards.

Equivalent topsoil testing can be carried out where standard percolation testing of the sub soils, (British Standards BS6297:1983, as amended by AMD6510 1990), indicates that the ground conditions are suitable for a standard sub-surface soakaway.

Applicant's Name    Name    R & L LAMB    (name of applicant applying for permissions)

Address    MEIKLE KIRKHILL FARM, MAUD, ABERDEENSHIRE, AB42 5PG

Site Address    MEIKLE KIRKHILL FARM, MAUD, ABERDEENSHIRE, AB42 5PG

Date of Test    02 / 03 / 2024

Finish Time    12.03 AM

Weather Conditions    Dry


## **1. Trial Pit Test**

Depth of Drain Invert	1.000.....M
Depth of Excavation	2.000M approx
Water Table Present	No

## **1. Percolation Test**

Time Taken (Mean of Three)	1830S
Percolation Value Vp (figure used in visual soakaway design 4.0 calcs)	12.2S
Floor Area of Soakaway (as per visual soakaway design 4.0)	11.01M <sup>2</sup>

The results of the above tests carried out on aforementioned date comply with the permeability requirements for a soakaway prescribed in BS 6297:183 as amended by AMD6510 1990.

Signed    ...  ..... Date    2<sup>nd</sup> March 2024

On behalf of    R & L LAMB

Name/Company    **James G. Ironside Limited Architectural & Building Consultant**

Address    **Dunvegan, Victoria Terrace, Turriff, AB53 4DZ**

Indemnity insurance policy no: **PI21H11597**

>





# JGI

## JAMES G IRONSIDE LIMITED ARCHITECTURAL & BUILDING CONSULTANT

### POROSITY TEST REPORT

MEIKLE KIRKHILL FARM, MAUD, ABERDEENSHIRE, AB42 5PG

	TYPE OF GROUND	Weather	TEST RESULTS			PERSONS AT TEST.									
<b>DAY 1</b> DATE 29/02/24	350mm dark brown sandy silt loam topsoil over 700mm stoney / sandtype material to excavation level	Dry / overcast	300 x 300MM HOLE FILLED TO A DEPTH OF 300MM.  NO MEASUREMENT TAKEN		PERCOLATION VALUE Time in seconds from 75% to 25% Divided by 150mm = Vp										
<b>DAY 2</b> DATE 02/03/24	350mm dark brown sandy silt loam topsoil over 700mm stoney / sandtype material to excavation level	Dry	<table border="1"> <thead> <tr> <th>TIME</th> <th>WATER LEVEL</th> </tr> </thead> <tbody> <tr> <td>09.22 am</td> <td>300MM</td> </tr> <tr> <td>09.40 am</td> <td>75% FULL</td> </tr> <tr> <td>10.11am</td> <td>25% FULL</td> </tr> <tr> <td>10.25am</td> <td>EMPTY</td> </tr> </tbody> </table>	TIME	WATER LEVEL	09.22 am	300MM	09.40 am	75% FULL	10.11am	25% FULL	10.25am	EMPTY	31x60/150  <b>12.4</b>	<b>NAME</b> JAMES IRONSIDE  <b>SIGNED</b> 
TIME	WATER LEVEL														
09.22 am	300MM														
09.40 am	75% FULL														
10.11am	25% FULL														
10.25am	EMPTY														
<b>DAY 3</b> DATE 02/03/24	350mm dark brown sandy silt loam topsoil over 700mm stoney / sandtype material to excavation level	Dry	<table border="1"> <thead> <tr> <th>TIME</th> <th>WATER LEVEL</th> </tr> </thead> <tbody> <tr> <td>11.02am</td> <td>300MM</td> </tr> <tr> <td>11.20 am</td> <td>75% FULL</td> </tr> <tr> <td>11.52am</td> <td>25% FULL</td> </tr> <tr> <td>12.03am</td> <td>EMPTY</td> </tr> </tbody> </table>	TIME	WATER LEVEL	11.02am	300MM	11.20 am	75% FULL	11.52am	25% FULL	12.03am	EMPTY	30x60/150  <b>12.0</b>	<b>NAME</b> JAMES IRONSIDE  <b>SIGNED</b> 
TIME	WATER LEVEL														
11.02am	300MM														
11.20 am	75% FULL														
11.52am	25% FULL														
12.03am	EMPTY														
				<b>Average VP</b> <b>12.2</b>											

Vp = percolation value to be used in Visual Soakaway Design 4.0 calculations