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### **Septic Tank Report Documentation**

**Customer/Client** 

Ian Kitching,

Middle Fell Croft,

Lamplugh,

Workington,

Cumbria. CA14 4SQ

Dear Ian,

Please find below the findings from the survey carried out at Middle Fell Croft.

# **SEPTIC TANK DESIGN & CONSTRUCTION**

Two septic tanks were located within the grounds of Middle Fell Croft:

# Septic Tank 1 - Brick Built

The Septic tank located in the front lawn is of block/brick design with render and the internal condition is good. The condition of the inspection chamber frames and covers is good.

The design consists of a single chamber pit with an inspection chamber immediately before the inlet to the septic tank.

Evidence that surface water drains were discharging into this septic tank was found, confirmed by dye testing and CCTV camera investigation. There is a single surface water gully located at ground level to the left of the porch that must be diverted away from this system.

The inlet pipe size to tank is 110mm.

The discharge pipe from tank is 110mm.

The dimensions of the Holding tank are; depth 1.8m x length 2.5m x width 1.0m.

The calculations amount to the sizing of the tank to be approximately 4.5m3/4500 litres.

There was no sampling point downstream from the tank, therefore we were unable to make a CCTV survey of the outfall from this septic tank. There was no evidence found of discharge to the nearby stream/ditch, therefore it is reasonable to assume that this septic tank discharges to a drainage field or soakaway.

### **TANK INTERNAL PICTURES**







Image from left to right: ST1 internal; ST1 inlet; ST1 outlet.

### <u>Septic Tank 2 – Fibreglass Construction</u>

The second septic tank is located on the lawn to the rear of the property. This septic tank is of fibreglass construction and although there are signs of cracks at the top of the riser, the general condition of the body of the tank is good.

This tank is of an 'onion' shaped design.

There is no evidence of surface water draining to this tank.

The inlet pipe size to this tank is 110mm.

There was no discernible outlet to this septic tank. Before emptying, it was observed that the water line was well above the expected level for the outlet, indicating that the tank is not discharging the effluent. It is our opinion that this septic tank was not installed with a discharge to a drainage field/soakaway and is therefore in effect a cesspit.

The tank is approximately 2m deep from the base of the riser. Following consultation with the engineer that emptied the tank it can be estimated that the volume of the tank is approximately 5.5m<sup>3</sup>/5500 litres.

### TANK INTERAL PICTURES





#### SEPTIC TANK AND DRAINAGE FIELD SIZING - FINDINGS

The minimum septic tank size for a 3-bedroom house is 2900 Litres, with 180 Litres added for every extra person. If the septic tank size is too small then it is likely to reduce the lifespan of the drainage field, as the retention time in the tank will be too short and insufficient settlement will take place.

**Septic Tank 1** is of sufficient size to serve Middle Fell Croft. The size of the drainage field cannot be estimated, however the septic tank appeared to be draining efficiently and there were no signs to indicate a failed drainage field.

**Septic Tank 2/Cesspit** is of sufficient size to serve the property attached to Middle Fell Croft, which is currently one-bedroom. There is no evidence that this tank has a discharge outlet so it should be classed as a cesspit

### CONCLUSION

Using the supporting evidence found during the survey, the brick built septic tank serving Middle Fell Croft is of sufficient capacity and discharges to ground. There is currently a single surface water gully connected to this septic tank which must be diverted to allow the system to meet the general binding rules.

No evidence of a discharge to the nearby stream was found. The drainage field/soakaway shows no signs of failing to discharge sufficiently and there is no evidence of the ground failing to accept the effluent.

The fibreglass septic tank, which is effectively a cesspit is of sufficient size and is in an acceptable condition. Cesspits are not subject to the same general binding rules as a septic tank that discharges to ground, however, it is a requirement to ensure that the tank is maintained and regularly emptied to ensure that it does not leak or overflow.

Pending percolation tests, it should be feasible to install a drainage field from the fibreglass cesspit to convert it to a working septic tank, if required.

If you require any further information, please do not hesitate to contact us.



## **EDL Customer satisfaction statement**

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We invest in training our engineers and we are very proud to be 1 of only 3 (National Association of Drainage Contractors) NADC registered companies within our region, this gives you the confidence that you will be provided a quality service at a fair price. We ensure that all work is completed on time and to a high-standard. We have several accreditations including WRC, NADC, CSCS, and EUSR SKILLS and we are Safe Contractor Approved. We are confident that the services we provide, and the work completed by our qualified engineers is to the highest standard in our industry.

Your feedback to us is highly valuable to us so we can keep improving our service quality. If you have time, please give feedback by emailing us at <a href="mailto:info@environmentaldrainage.co.uk">info@environmentaldrainage.co.uk</a>

Kind Regards

**EDL Drainage Division Team** 







