

CORK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Midleton Distillery		
Other names used for site	Jameson Distillery Midleton		
IGH THEME	IGH1 Karst, IGH16 Hydrogeology		
TOWNLAND(S)	Townparks, Park North, School-land		
NEAREST TOWN/VILLAGE	Midleton		
SIX INCH MAP NUMBER	76		
ITM CO-ORDINATES	588750E 573750N (centre of site)		
1:50,000 O.S. SHEET NUMBER	81	GSi BEDROCK 1:100,000 SHEET NO.	25
GIS CODE	CK065		

Outline Site Description

This site is an extensive Distillery Complex, comprising an old, eighteenth century distillery, a new, modern distillery, numerous large warehouses, and a visitor centre.

Geological System/Age and Primary Rock Type

The bedrock comprises Lower Carboniferous (Mississippian) 359-323 Ma) fossil-rich 'Waulsortian' limestone, deposited as reefs in open marine conditions. The cavities within the bedrock are much younger, and may be Pliocene in age (5.3-2.5 million years ago), but definitively from within the Cenozoic.

Main Geological or Geomorphological Interest

The Old Midleton Distillery was founded in 1825 when the Murphy brothers converted an old woollen mill into Midleton Distillery, to produce Jameson whiskey. In 1966 there were only three surviving distilleries in Ireland, so John Jameson and Sons joined forces with two rivals, Powers and the Cork Distillery Company, to create the Irish Distillers company. In 1988 the spirit corporation Pernod Ricard took over this Irish Distillers Group. Today, the distillery site at Midleton essentially consists of two different whiskey distilleries; one producing grain whiskey in column stills; the other producing the typical Irish single pot still whiskey in pot stills.

Millions of litres of water are used in the whiskey making process each day. The Dungourney River has always been Midleton's primary water source, and used to be its power supply historically also. The giant water wheel of the Old Midleton Distillery, which is within a channelised portion of the river, can still be seen on the site. Water plays an important role in every whiskey production step, particularly during mashing, which is the mixing of milled malt with water to extract starch. The mashing at Midleton takes place in different mash tuns, depending on whether the mash is used for single pot still or for grain whiskey, and depending on the label for which the single pot still whiskey is intended.

There are many karstic caverns reflecting underground dissolution of the bedrock throughout the area of the site, and a number of swallow holes exist on the site as well. The surface water from much of the distillery site actually discharges into one of these, at Fox's Hollow at the northeast of the site. A huge bedrock fracture, oriented northeast to southwest, passes through the site, and many of the cavities are associated with this structure. Extra water demand over the last few decades has been satisfied by the drilling of wide diameter water supply wells; thus the holistic use of both groundwater and surface water resources forms an important element of the industrial history of the site.

Site Importance – County Geological Site

For historical, technical and cultural importance the site is worthy of recognition as a County Geological Site.

Management/promotion issues

Access is not possible without the exceptional assistance of Pernod-Ricard staff responsible for the site. Promotion, other than information within literature and web resources, is not viable.



Cave beneath the main distillery site.



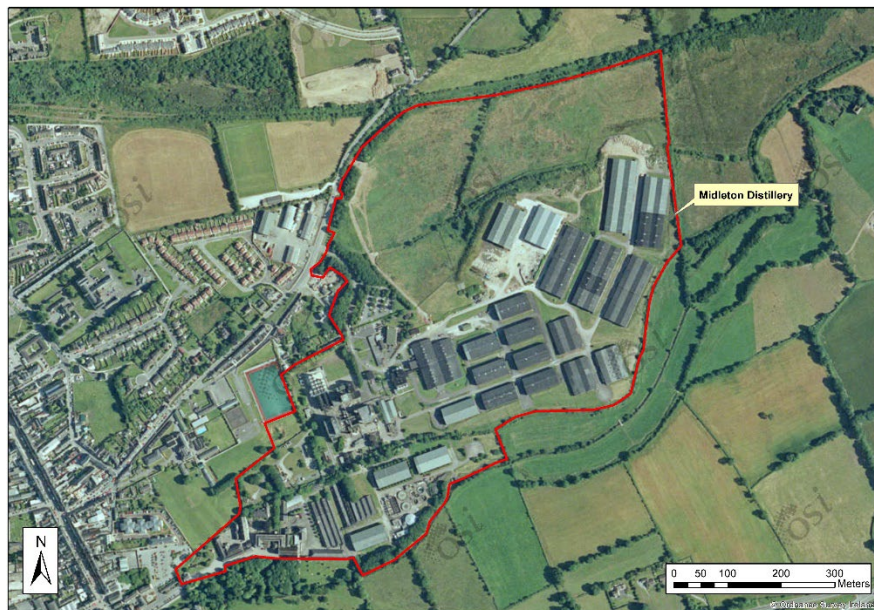
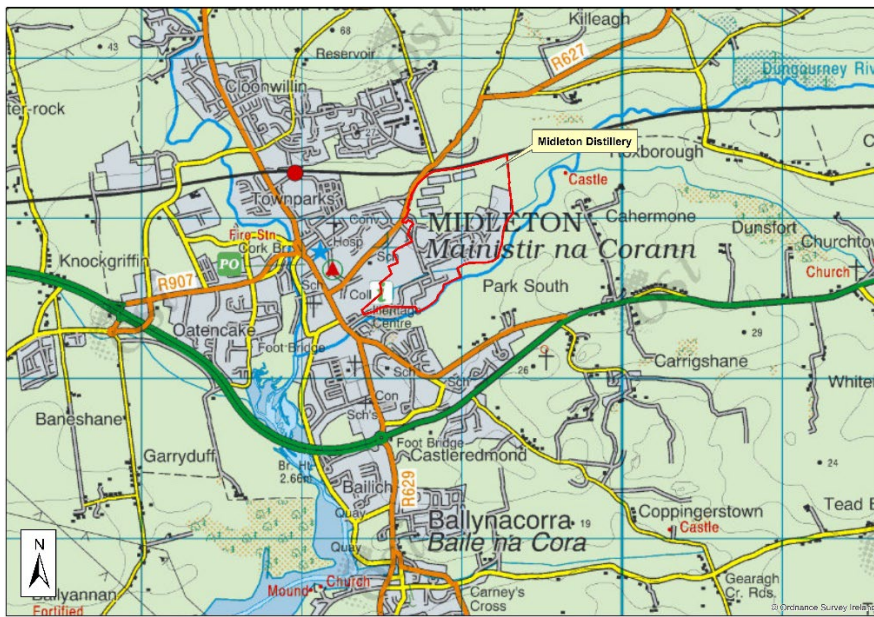
The Fox's Hollow swallow hole, where surface water from the site is discharged under licence.

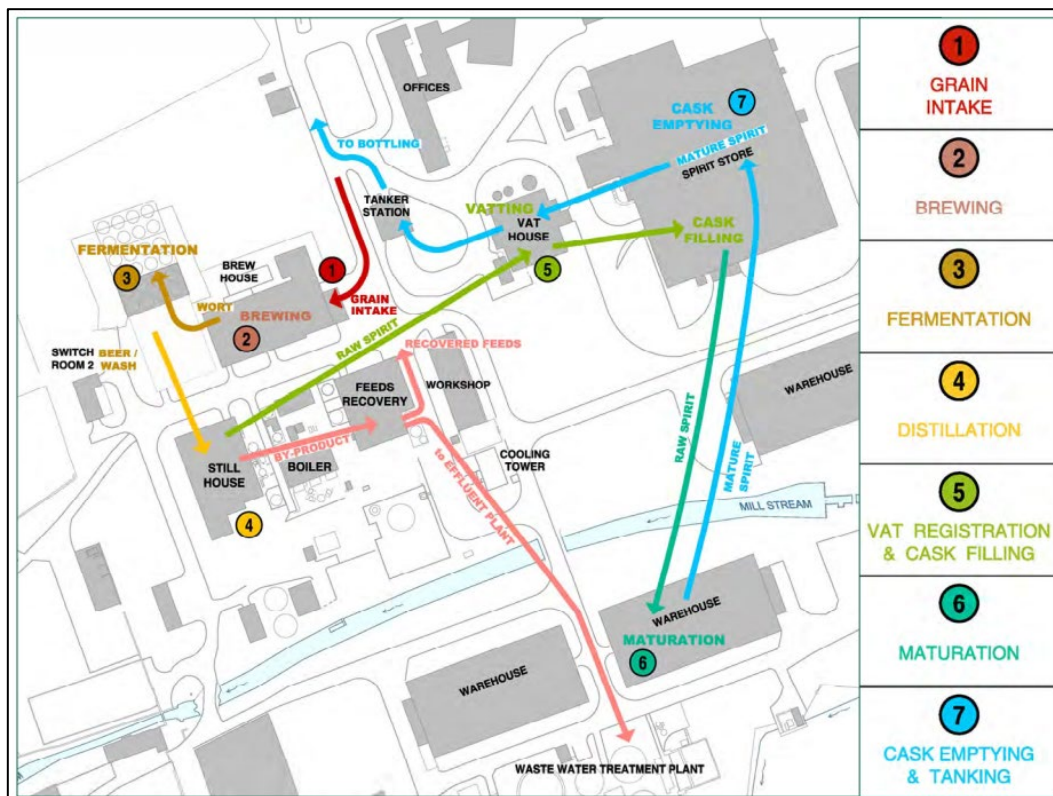
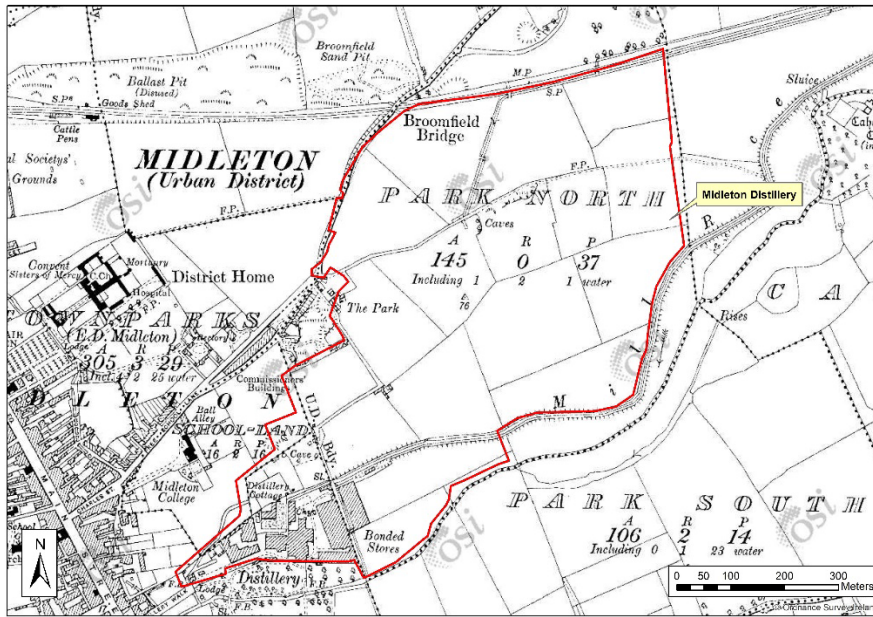


Some of the cooling towers which use local groundwater and surface water.



Water supply borehole from the eastern end of the site.





Production Flow/Stage of Production at Middleton Distillery, highlighting the use of water throughout the process.