



A great place to live, work & play

### Scarborough Borough Council

### Condition Survey of Inclinometers and Piezometers – 10/4/2013



#### Location

Scarborough – Scalby Ness

At northern end of houses on Scholes Park Road, close to access point between house and garage.

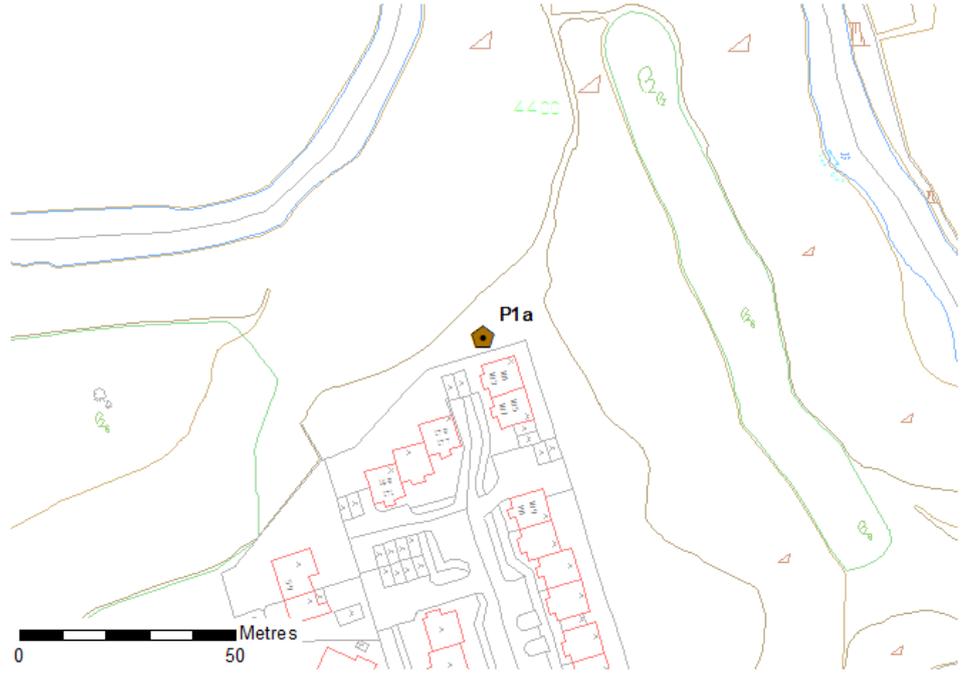
#### Borehole

P1

Piezometer – twin (Automated)

#### Map

GPS Reference:  
TA 03416 90956



#### Location Photo

(looking south-west)



<b>Condition Photos</b>					
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Cover ok, 4 locking screws present.</li> <li>• Concrete surround starting to crack.</li> <li>• Vegetation ok – short grass.</li> <li>• Large diameter drainage hole at bottom of pit is full of sediment.</li> <li>• Moisture present in equipment bag.</li> </ul>				
<b>Recorded Depth to Instrument</b>	Not available	<b>Recorded Depth to Water</b>	Not available		
<b>Known Depth to Instrument</b>	a) 9.65m b) 17.50m	<b>Last Recorded Water Depth</b>	Not available	<b>Record Date</b>	Not available
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Double piezometer with automated equipment present.</li> </ul>				



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#### Location

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At northern end of houses on Scholes Park Road, close to access point between house and garage.

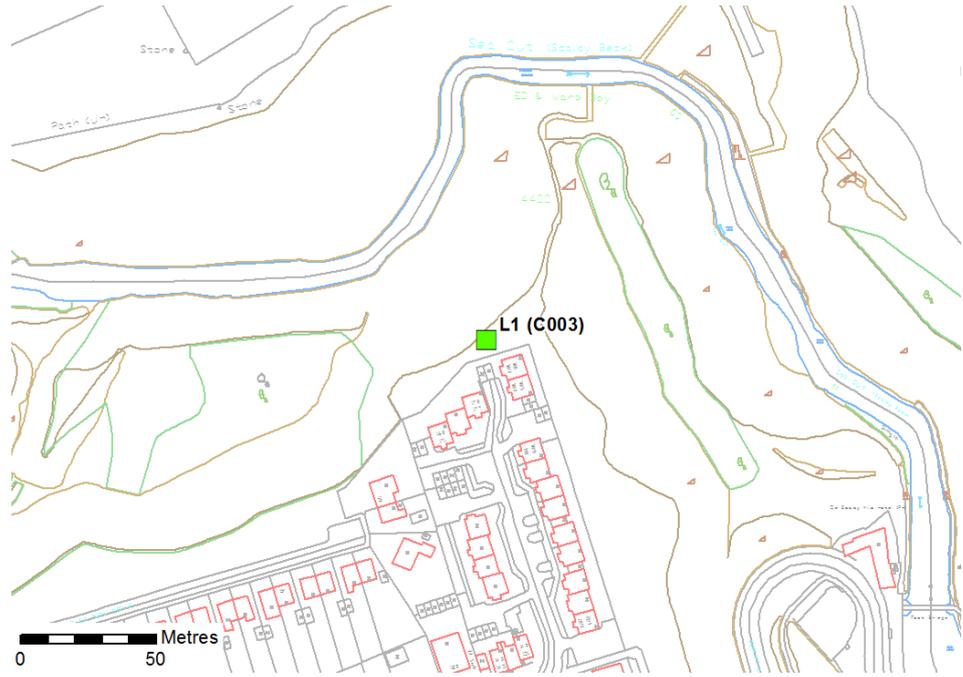
#### Borehole

L1

#### Inclinometer

#### Map

GPS Reference:  
TA 03410 90957



#### Location Photo

(looking south-west)



<b>Condition Photos</b>			
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Cover ok but has no locking screws, so cover is completely loose.</li> <li>• Concrete surround ok.</li> <li>• Vegetation had overgrown the top of borehole concealing it.</li> </ul>		
<b>Known Depth</b>	31.20m	<b>Recorded Depth</b>	31.62m
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Water recorded at 6.39m.</li> <li>• Located and surveyed by SBC on 7/5/2013 using a metal detector.</li> <li>• Located close to Borehole P1.</li> </ul>		



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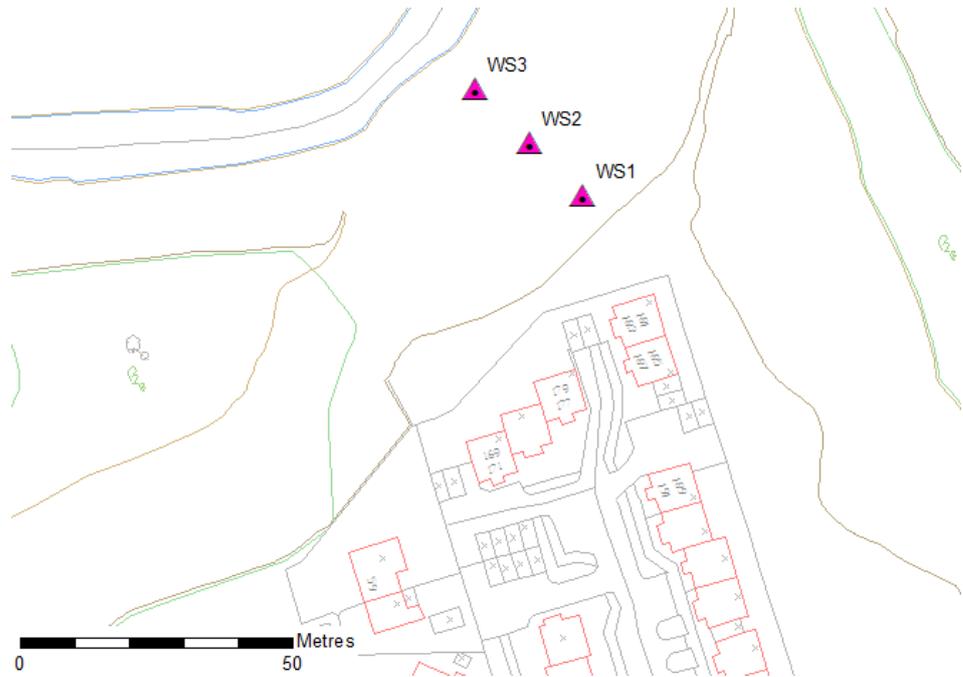
**Location**

Scarborough – Scalby Ness

At northern end of houses, down the side of the steep slope to Scalby Beck.

**Borehole**

W1, W2, & W3

**Piezometers****Map****GPS Reference:****Location Photo**

(looking north – down cliff)

**Condition Photos**

<b>Condition</b>	<ul style="list-style-type: none"> <li>Deemed unsafe to access</li> </ul>				
<b>Recorded Depth to Instrument</b>	Not available		<b>Recorded Depth to Water</b>	Not available	
<b>Known Depth to Instrument</b>	W1: 4.33m W2: 6.06m W3: 3.38m	<b>Last Recorded Water Depth</b>	Not available	<b>Record Date</b>	Not available
<b>Comments</b>	<ul style="list-style-type: none"> <li>Surveyed by SBC on 7/5/2013. Boreholes are damaged beyond repair and unsafe to access due to recent and on going cliff movements.</li> <li>Boreholes W1, W2, and W3 to be removed from SBC monitoring programme.</li> </ul>				



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#### Location

Scarborough – Scalby Ness

Eastern side of house on Scholes Park Road, outside the fence line at the back corner of garage.

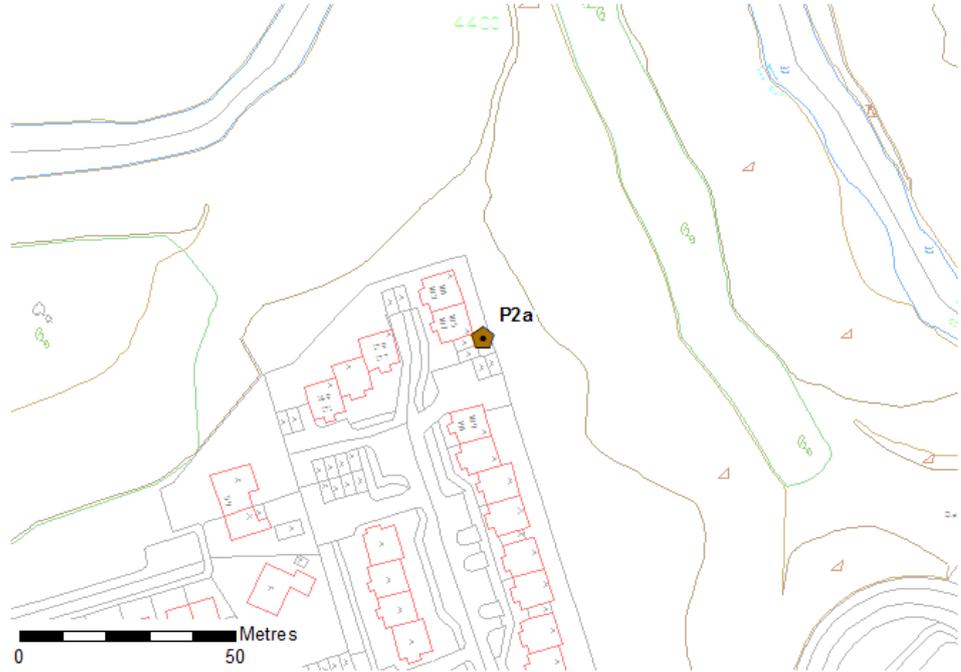
#### Borehole

P2

Piezometer – twin (Automated)

#### Map

GPS Reference:  
TA 03430 90936



#### Location Photo

(looking north-west)



<b>Condition Photos</b>					
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Cover ok but only 2 locking screws, and both handles are broken.</li> <li>• Concrete surround is damaged.</li> <li>• Vegetation ok – short grass.</li> <li>• Moisture present in equipment bag.</li> </ul>				
<b>Recorded Depth to Instrument</b>	Not available		<b>Recorded Depth to Water</b>	Not available	
<b>Known Depth to Instrument</b>	a) 9.10m b) 35.25m	<b>Last Recorded Water Depth</b>	Not available	<b>Record Date</b>	Not available
<b>Comments</b>					



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#### Location

Scarborough – Scalby Ness

Eastern side of house on Scholes Park Road, outside the fence line at gap between house and garage.

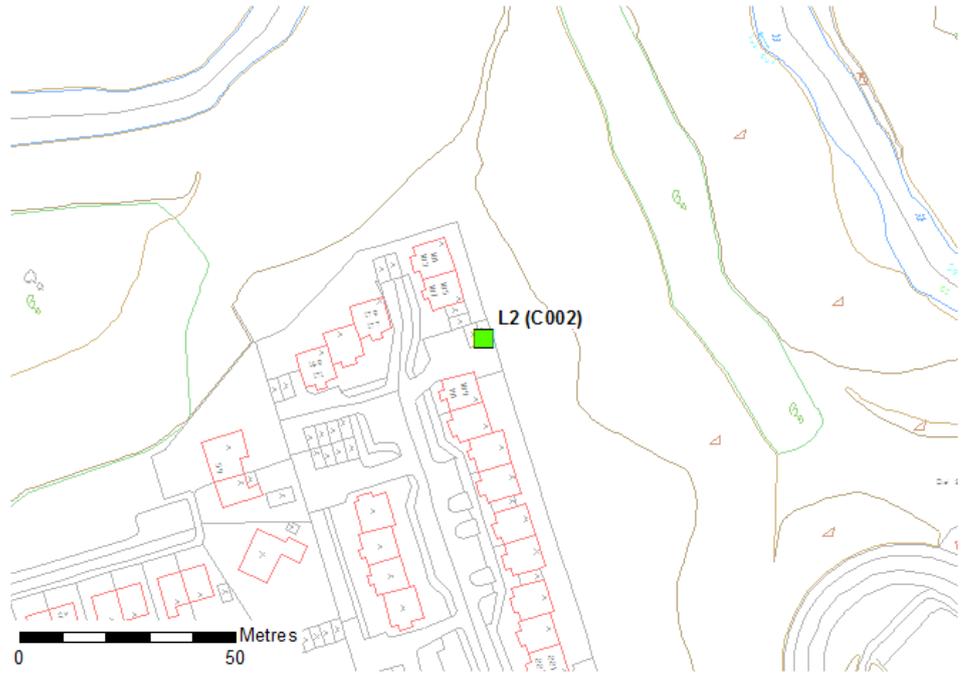
#### Borehole

L2

#### Inclinometer

#### Map

GPS Reference:  
TA 03432 90928



#### Location Photo

(looking west)



<b>Condition Photos</b>				
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Cover ok but has no locking screws, so cover is completely loose.</li> <li>• Concrete surround ok.</li> <li>• Vegetation ok – short grass.</li> </ul>			
<b>Known Depth</b>	35.03m	<b>Recorded Depth</b>	34.85m	
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Water recorded at 0.95m.</li> <li>• Dummy inclinometer went to 34.85m.</li> </ul>			



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#### Location

Scarborough – Scalby Ness

In the middle of the large grassy area outside the fence line, at the end of the 'yellow' houses on Scholes Park Road.

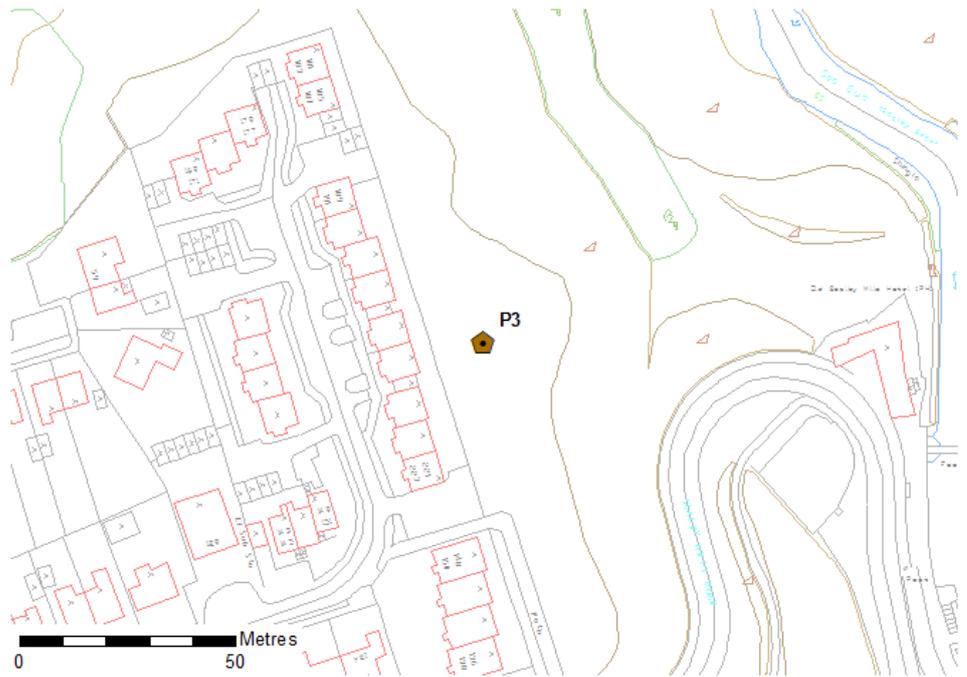
#### Borehole

P3

Piezometer (Automated)

#### Map

GPS Reference:  
TA 03461 90882



#### Location Photo

(looking north-west)



<b>Condition Photos</b>					
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Cover ok, only 2 locking screws (other two holes do not have a screw thread). 1 handle broken.</li> <li>• Concrete surround is damaged.</li> <li>• Vegetation ok – short grass.</li> <li>• Moisture in equipment bag.</li> </ul>				
<b>Recorded Depth to Instrument</b>	Not available	<b>Recorded Depth to Water</b>	Not available		
<b>Known Depth to Instrument</b>	20.20m	<b>Last Recorded Water Depth</b>	Not available	<b>Record Date</b>	Not available
<b>Comments</b>	<ul style="list-style-type: none"> <li>•</li> </ul>				



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#### Location

Scarborough – Scalby Ness

Grass verge on north side of Scalby Mills Road on the sharp bend before Old Scalby Mills pub. On the hedge line, 3 lampposts (and 1 flagpole) up from the far end of the pub.

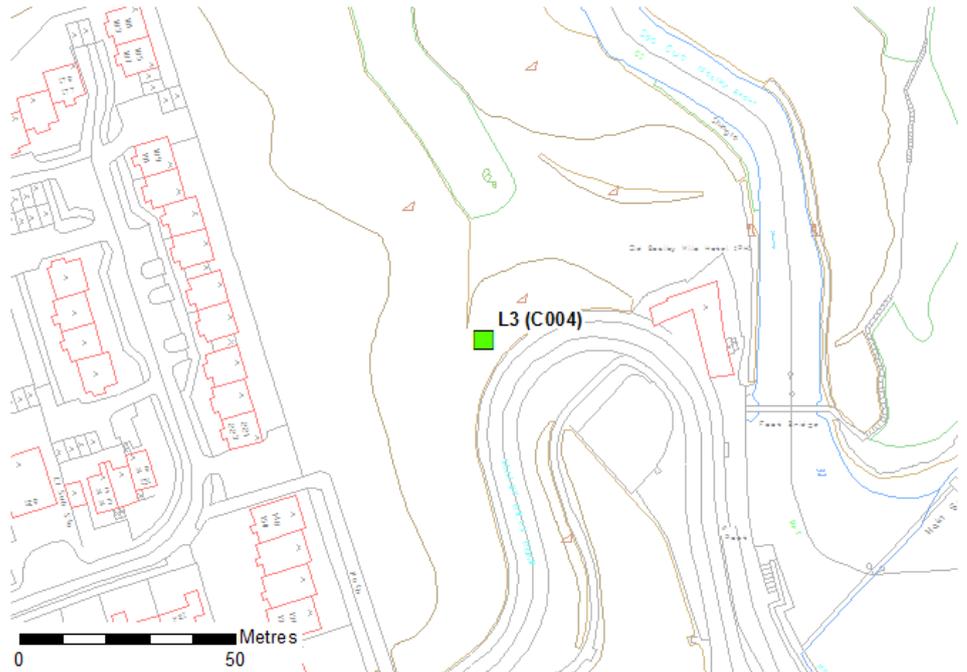
#### Borehole

L3

#### Inclinometer

#### Map

GPS Reference:  
TA 03503 90873



#### Location Photo

(looking east)



<b>Condition Photos</b>			
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Cover missing, possibly because the inner tube is higher than the surrounding frame.</li> <li>• Concrete surround ok.</li> <li>• Vegetation very overgrown, borehole is right in the bottom of the hedge line, difficult to locate.</li> </ul>		
<b>Known Depth</b>	17.78m	<b>Recorded Depth</b>	17.56m
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Water recorded at 4.54m.</li> <li>• Dummy inclinometer went to 17.52m.</li> </ul>		



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**Condition Survey of Inclinometers and Piezometers – 10/4/2013**



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**Location**

Scarborough – Scalby Ness

On lower bench of ground between informal footpath and Scalby Beck.

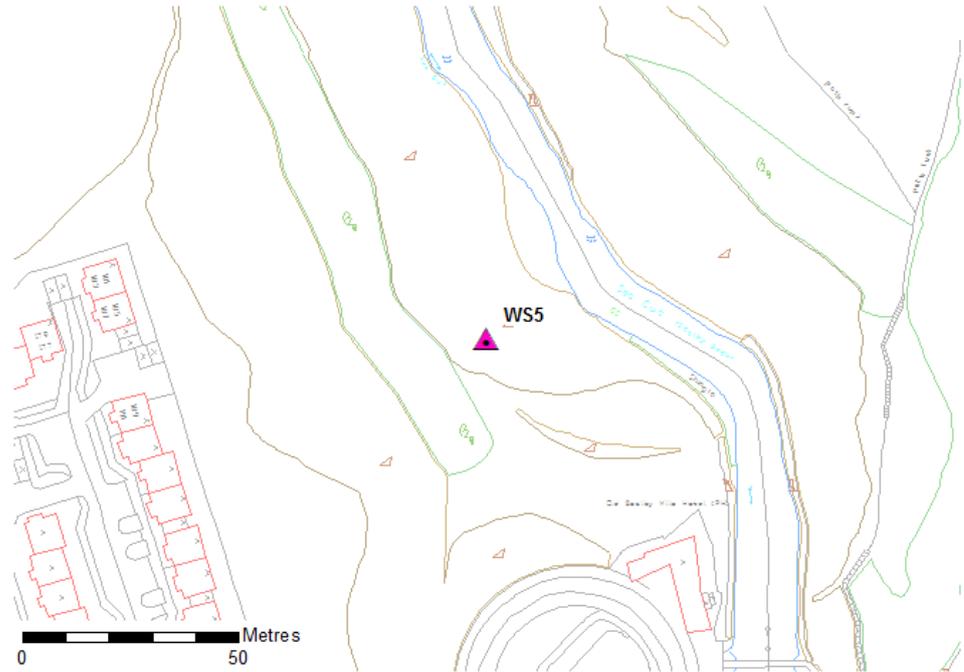
**Borehole**

WS05

**Piezometer**

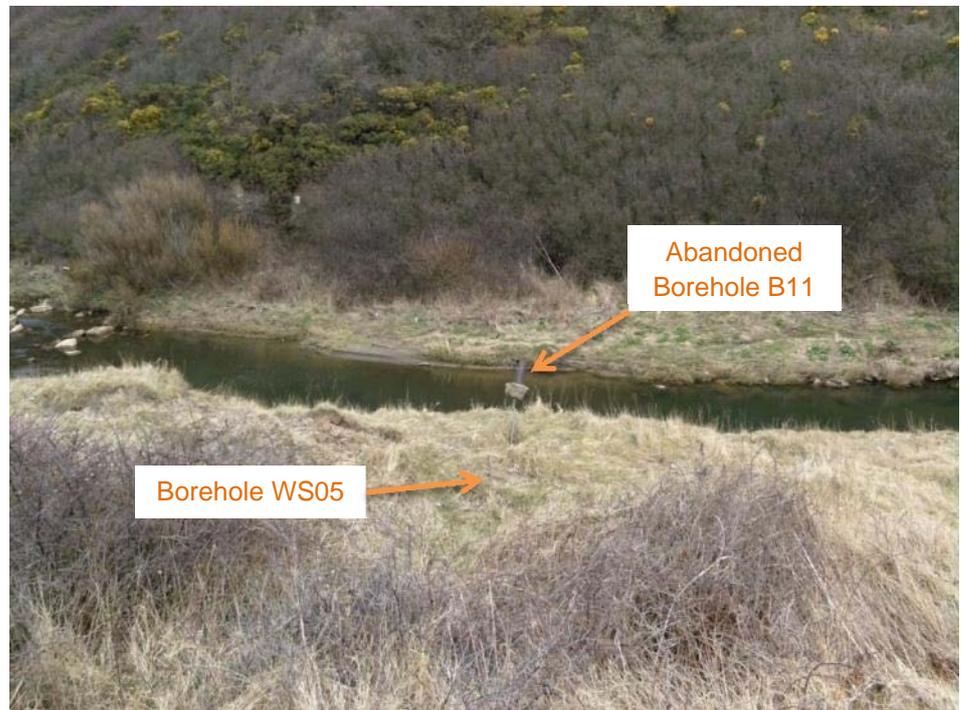
**Map**

**GPS Reference:**  
TA 03509 90933



**Location Photo**

(looking east)



**Condition Photos**



<b>Condition</b>	<ul style="list-style-type: none"> <li>• Plain inner tube above ground level with no cover, outer tube or cap.</li> <li>• Previous Borehole B11 is adjacent which has been abandoned due to ground movement.</li> </ul>				
<b>Recorded Depth to Instrument</b>	4.63m		<b>Recorded Depth to Water</b>	1.12m	
<b>Known Depth to Instrument</b>	4.80m	<b>Last Recorded Water Depth</b>	Not available	<b>Record Date</b>	Not available
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Measurements to top of tube, which is 0.65m above ground level.</li> </ul>				



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**Location**

Scarborough – Scalby Ness

First set of boreholes on the informal footpath from Scalby Mills Road. To the left of footpath at start of large gorse/blackthorn thicket on right of footpath. Shorter (right-hand) borehole of two adjacent raised boreholes.

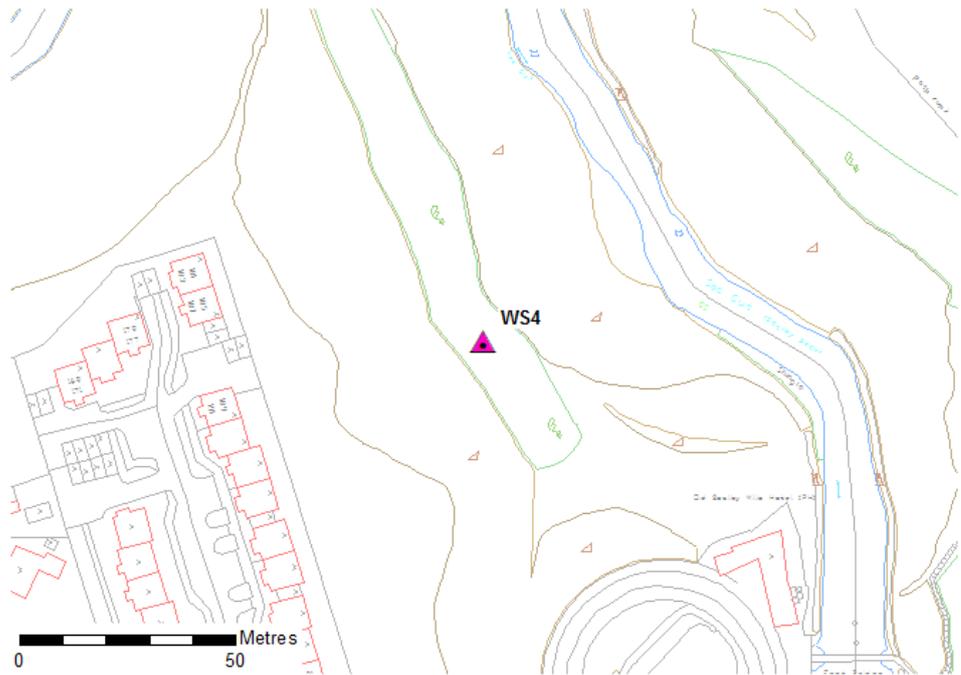
**Borehole**

WS04

**Piezometer**

**Map**

GPS Reference:  
TA 03488 90931



**Location Photo**

(looking south-west)



<b>Condition Photos</b>					
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Cover and outer tube ok, no lock or internal cap.</li> <li>• Long grass, may be problematic in summer.</li> </ul>				
<b>Recorded Depth to Instrument</b>	4.24m	<b>Recorded Depth to Water</b>	3.66m		
<b>Known Depth to Instrument</b>	6.41m	<b>Last Recorded Water Depth</b>	Not available	<b>Record Date</b>	Not available
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Next to another raised borehole, assumed to be abandoned Borehole B10 – this borehole is taller and to the left of Borehole WS04.</li> </ul>				



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**Location**

Scarborough – Scalby Ness

To the left (west) of the footpath, roughly in line with Borehole WS04 (on footpath). Behind the blackthorn thicket.

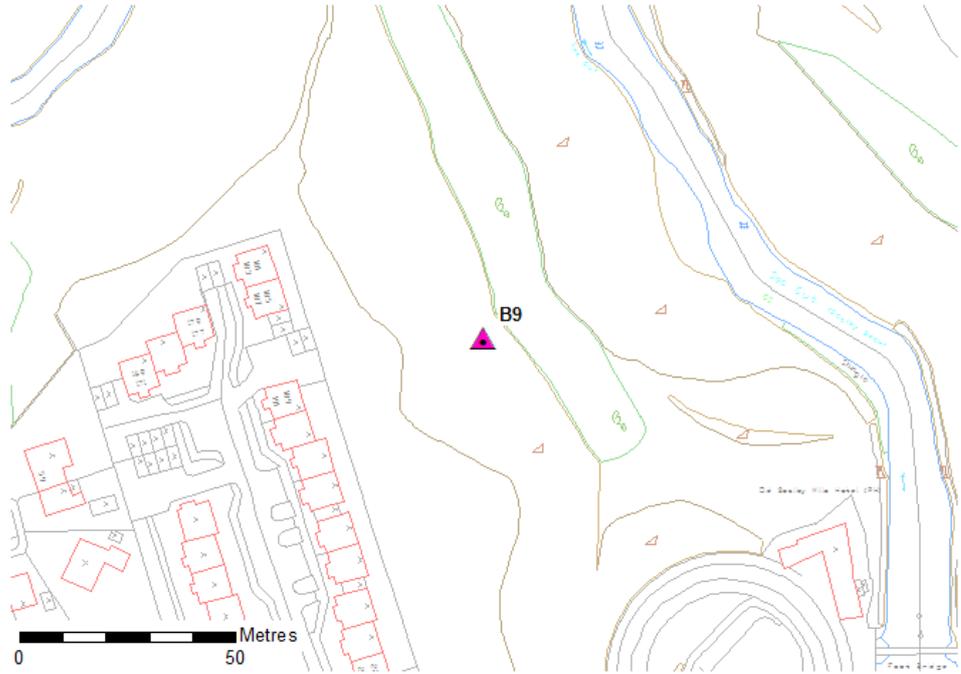
**Borehole**

BH9

**Piezometer**

**Map**

**GPS Reference:**  
TA 03473 90930



**Location Photo**

(looking west)



Photo taken from Borehole BH9 (which is off the bottom of the photo), no distinctive landmarks visible as location guidance.

<b>Condition Photos</b>					
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Raised tube and cover ok, very stiff to open, locked with a screw (needs alun key to open).</li> <li>• Single piezometer.</li> <li>• Vegetation is very overgrown, borehole is not visible from path and is very difficult to find and access.</li> </ul>				
<b>Recorded Depth to Instrument</b>	8.26m	<b>Recorded Depth to Water</b>	2.23m		
<b>Known Depth to Instrument</b>	8.55m	<b>Last Recorded Water Depth</b>	2.44m	<b>Record Date</b>	2009 (Mouchel)
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Path through vegetation (blackthorn thicket) to the borehole needs to be cut.</li> <li>• Measurements to top of outer tube.</li> </ul>				



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**Location**

Scarborough – Scalby Ness

North along path from Borehole WS04. On left of path.

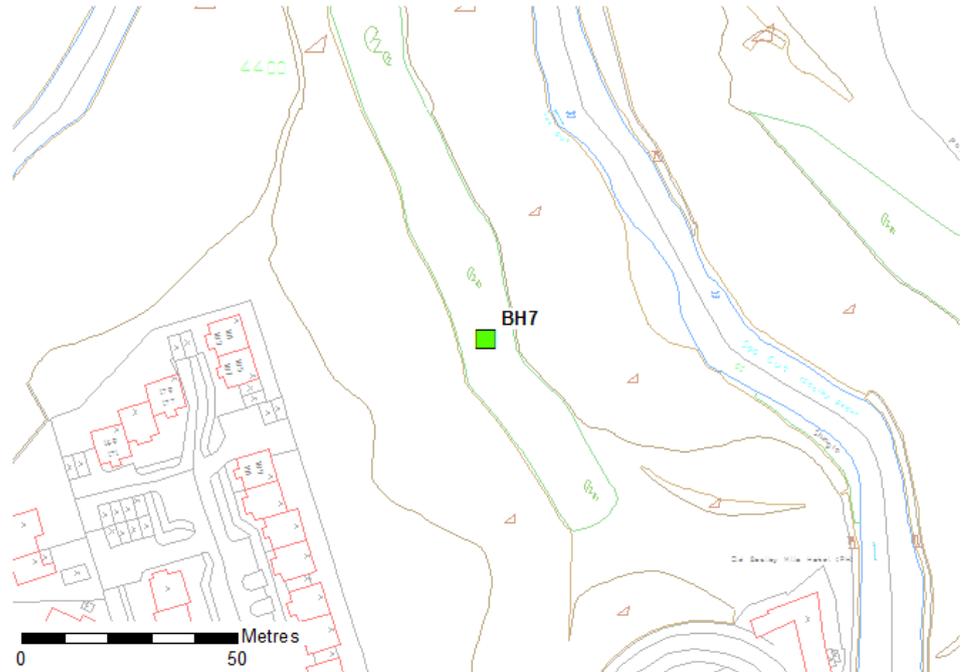
**Borehole**

BH07

**Inclinometer**

**Map**

**GPS Reference:**  
TA 03480 90946



**Location Photo**

(looking south)



<p><b>Condition Photos</b></p>	 <p>Left hand borehole – BH07</p>		 <p>Right hand borehole – Sn1 (abandoned)</p>	
<p><b>Condition</b></p>	<ul style="list-style-type: none"> <li>• Cover and outer tube ok, no lock.</li> <li>• Cap present on inner tube in left hand borehole (assumed to be BH07), no cap on right hand borehole.</li> <li>• Vegetation overgrown could be problematic to locate in summer.</li> </ul>			
<p><b>Known Depth</b></p>	<p>21.00m</p>	<p><b>Recorded Depth</b></p>	<p>11.3m</p>	
<p><b>Comments</b></p>	<ul style="list-style-type: none"> <li>• Water recorded at 4.5m.</li> <li>• Dummy inclinometer went to 11.25m.</li> <li>• Right hand borehole (assumed to be abandoned Borehole Sn1) has depth of 11.28m, with water recorded at 11.28m.</li> </ul>			



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### Condition Survey of Inclonometers and Piezometers – 10/4/2013



#### Location

Scarborough – Scalby Ness

In middle of footpath.

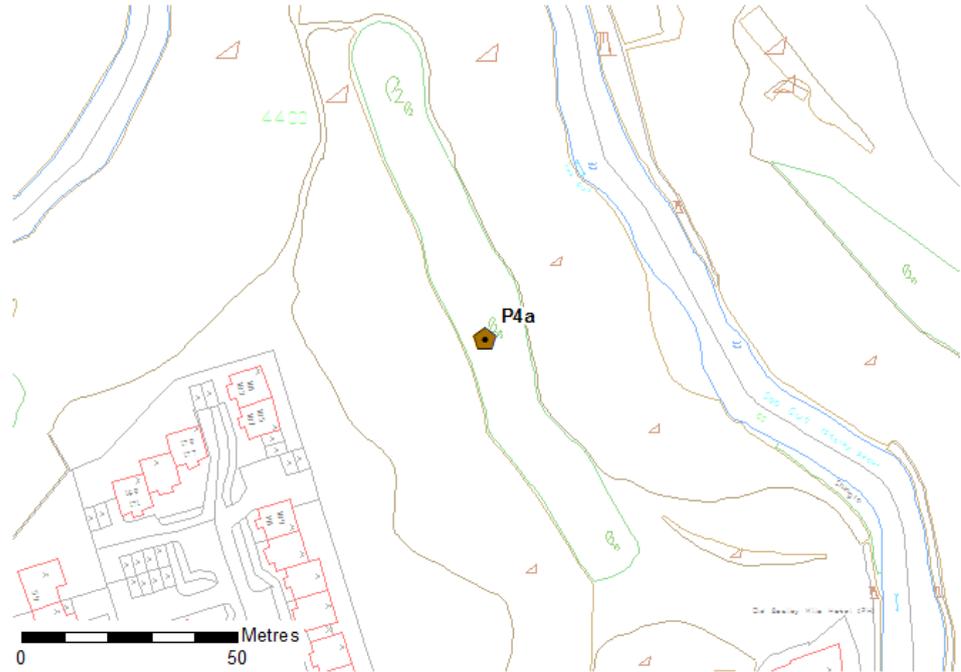
#### Borehole

P4

Piezometer – twin (Automated)

#### Map

GPS Reference:  
TA 03475 90958



#### Location Photo

(looking south-east)



<b>Condition Photos</b>					
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Cover ok, has 2 locking screws, 1 handle broken.</li> <li>• Vegetation ok, as in middle of footpath.</li> <li>• Moisture present in equipment bag.</li> </ul>				
<b>Recorded Depth to Instrument</b>	Not available	<b>Recorded Depth to Water</b>	Not available		
<b>Known Depth to Instrument</b>	a) 8.30m b) 10.65m	<b>Last Recorded Water Depth</b>	Not available	<b>Record Date</b>	Not available
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Double piezometer with automated equipment.</li> </ul>				



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#### Location

Scarborough – Scalby Ness

Left hand side of path beyond borehole P4.

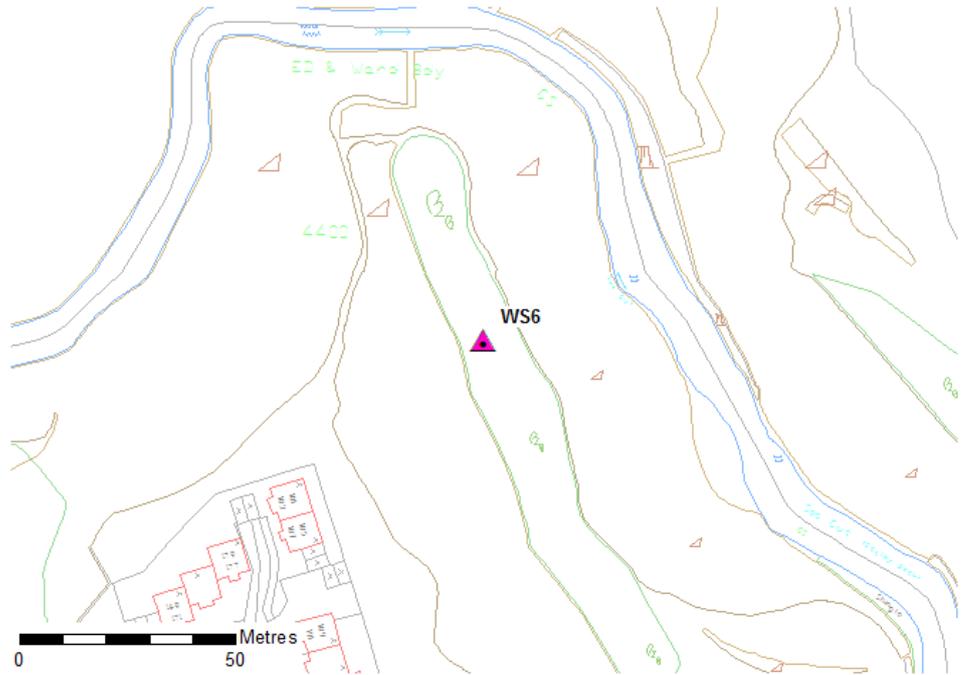
#### Borehole

WS06

Piezometer

#### Map

GPS Reference:  
TA 03465 90984



#### Location Photo

(looking south-east)



<b>Condition Photos</b>						
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Cover present but broken off.</li> <li>• Outer tube ok.</li> <li>• Vegetation ok, but may become overgrown in summer.</li> </ul>					
<b>Recorded Depth to Instrument</b>	6.55m		<b>Recorded Depth to Water</b>	3.05m		
<b>Known Depth to Instrument</b>	6.48m	<b>Last Recorded Water Depth</b>	Not available	<b>Record Date</b>	Not available	
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Measurements to top of outer tube.</li> <li>• Adjacent to Borehole Sn02. Borehole WS06 is on the right and Borehole Sn02 is on the left when viewing from the footpath (looking west).</li> </ul>					



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**Location**

Scarborough – Scalby Ness

Left hand side of path beyond borehole P4.

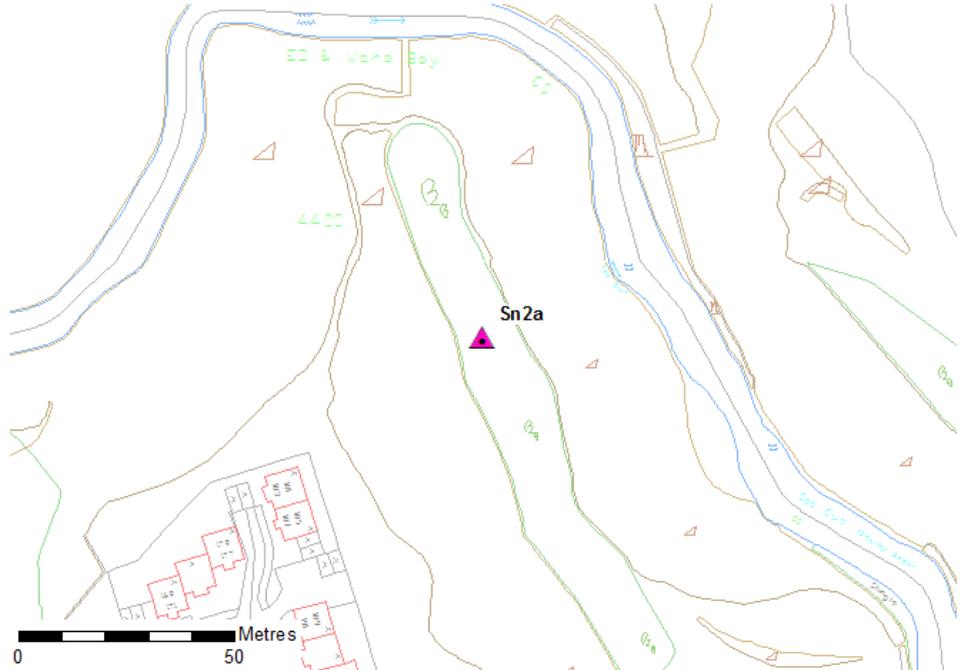
**Borehole**

Sn02

**Piezometer - twin**

**Map**

**GPS Reference:**  
TA 03466 90982



**Location Photo**

(looking south-east)



<b>Condition Photos</b>			Cover bolted shut (unable to access).			
<b>Condition</b>	<ul style="list-style-type: none"> <li>Cover ok and locked with bolts (which have rusted) – unable to access</li> </ul>					
<b>Recorded Depth to Instrument</b>	Not available		<b>Recorded Depth to Water</b>	Not available		
<b>Known Depth to Instrument</b>	a) 2.50m b) 8.00m	<b>Last Recorded Water Depth</b>	Not available	<b>Record Date</b>	Not available	
<b>Comments</b>	<ul style="list-style-type: none"> <li>Adjacent to Borehole WS06. Borehole WS06 is on the right and Borehole Sn02 is on the left when viewing from the footpath (looking west).</li> </ul>					



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#### Location

Scarborough – Scalby Ness

Up the bank to left (west) of footpath, between Borehole Sn2 and sharp rise in footpath at the end of the plateau. Behind blackthorn thicket.

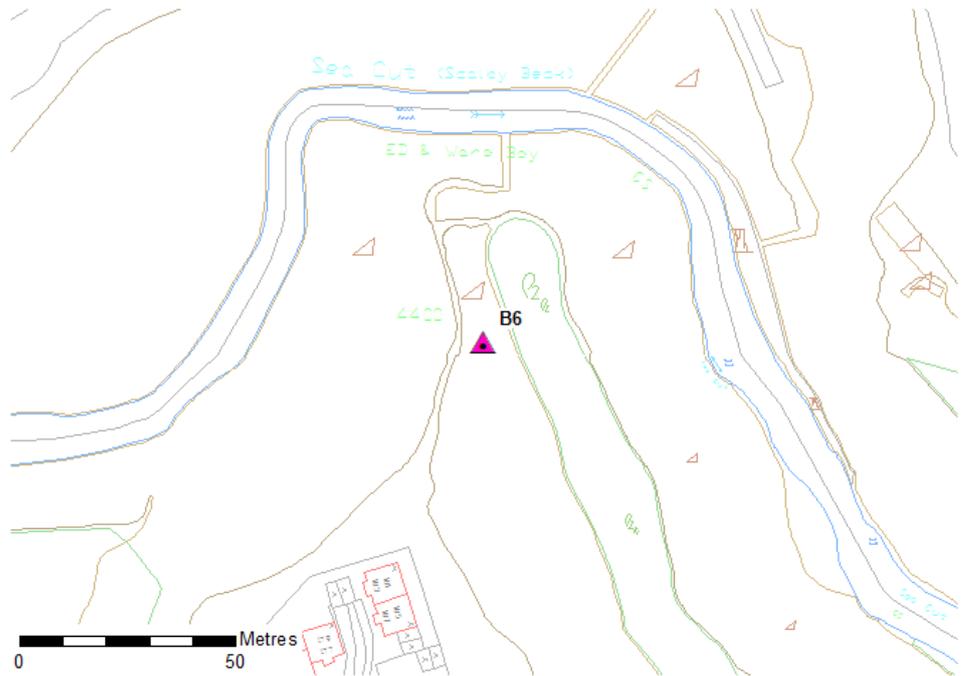
#### Borehole

BH6

#### Piezometer

#### Map

GPS Reference:  
TA 03443 91003



#### Location Photo

(looking north)



<b>Condition Photos</b>					
<b>Condition</b>	<ul style="list-style-type: none"> <li>• Raised tube and cover ok, locked with screw (needs alun key to open).</li> <li>• Single piezometer.</li> <li>• Vegetation is very overgrown, borehole is not visible from footpath and is extremely difficult to find.</li> </ul>				
<b>Recorded Depth to Instrument</b>	8.59m	<b>Recorded Depth to Water</b>	7.67m		
<b>Known Depth to Instrument</b>	8.55m	<b>Last Recorded Water Depth</b>	7.52m	<b>Record Date</b>	2009 (Mouchel)
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Path through vegetation (blackthorn thicket) to the borehole needs to be cut.</li> <li>• Measurements to top of outer tube.</li> </ul>				