



		<h2 style="text-align: center;">BOREHOLE LOG</h2> <h3 style="text-align: center;">Beauly - Denny 400kv OHL</h3>				<b>Borehole No</b> <b>BF78-A</b> Sheet 1 of 2 <b>Status</b> <b>Final</b> 18/05/2012					
<b>Client:</b> Scottish & Southern Energy plc <b>Consultant:</b> Balfour Beatty Utility Solutions		<b>Job No:</b> 4578									
<b>Date Started:</b> 10/03/2012 <b>Date Complete:</b> 10/03/2012 <b>Hole Type:</b> RC <b>Equipment:</b> Boart DB520	<b>Initial Boring Diameter:</b> 160mm <b>Initial Core Diameter:</b> 88mm <b>Rotary Casing Type:</b> <b>Core Barrel:</b> T2101 <b>Core Bit:</b> Diamond Impreg	<b>Coordinates:</b> E 230037.600 m National Grid N 823930.400 m National Grid <b>Ground Level:</b> 310.20 m OD <b>Flunge:</b> 90° <b>Scale:</b> 1:50									
Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing		TCR (SCR) RQD	FI	Installation	
						Test	Result				
<b>MADE GROUND:</b> Dark grey sub angular to angular cobbles and boulders of psammite.		0.40	309.80								
Dark brown locally grey fine to coarse SAND and sub angular to angular fine to coarse GRAVEL of psammite with occasional sub angular to angular cobbles of psammite.		1.10	309.10	D D	1.00 1.00						
Badly broken PSAMMITE (Driller's Description) (open holed).		2.50	307.70								
Very strong grey and locally dark grey fine to medium grained PSAMMITE, mostly fresh with some mineral infill and surface staining along joints and fractures. Occasional micaceous bands and thinly foliated mica schist bands throughout. 10-15mm crystalline quartz veins throughout. Joints are inclined between 74deg and 85deg, closely spaced, planar, smooth, tight with dark green and dark grey surface staining and occasional crystalline quartz infill.				2.50-3.50			100 (25) 20	NI			
				3.50-4.50			100 (0) 0	4	6		
				4.50-5.50				100 (20) 10	NI	10	
				5.50-6.50				100 (75) 65	6		
				6.50-7.50				100 (80) 45	7		
		7.50-8.50				100 (35) 20					
Continued next sheet											
<b>U</b> Undisturbed U100 / U86 Sample <b>P</b> Piston Sample <b>TW</b> Thin Wall Sample <b>D</b> Small Disturbed Sample <b>B</b> Bulk Disturbed Sample <b>LB</b> Large Bulk Disturbed Sample <b>W</b> Water Sample <b>G</b> Gas Sample <b>C</b> Core <b>J</b> Amber Jar Sample <b>V</b> Val Sample	<b>CR</b> Core Run <b>TCR</b> Total Core Recovery <b>SCR</b> Solid Core Recovery <b>RQD</b> Rock Quality Designation <b>FI</b> Fracture Index <b>NI</b> Non Intact <b>U*</b> Blows to drive U100 / U86 <b>UT</b> Thin wall undisturbed sample <b>NA</b> Not Applicable <b>NR</b> No Recovery <b>NP</b> No Penetration <b>OH</b> Open Hole Drilling	<b>S</b> Standard Penetration Test <b>C</b> Cone Penetration Test <b>32</b> N for full 300mm penetration <b>/175</b> For given penetration (mm) <b>/25#</b> Seating blows only (mm) <b>PP</b> Pocket Penetrometer Test <b>IPID</b> In-situ Photo-Ionisation Detector (ppm) <b>L</b> Packer Test (Lugeons) <b>IV</b> Insitu Vane Test, Peak <b>IVR</b> Insitu Vane Test, Residual <b>HV</b> Hand Vane Test, Peak <b>HVR</b> Hand Vane Test, Residual	<b>CP</b> Cable Percussion <b>RO</b> Rotary Open Hole <b>RC</b> Rotary Cored <b>SO</b> Sonic Open holed <b>CONP</b> Continuous Percussion <b>WLS</b> Windowless Sampler <b>Installation</b> Slotted Pipe Piezometer Tip Grout Concrete Sand Filter Bentonite Seal Gravel Filter								



## BOREHOLE LOG

### Beauly - Denny 400kv OHL

**Borehole No**  
BF78-A  
Sheet 2 of 2

**Status**  
Final  
18/05/2012

**Client:** Scottish & Southern Energy plc  
**Consultant:** Balfour Beatty Utility Solutions  
**Job No:** 4578

Date Started: 10/03/2012	Initial Boring Diameter: 160mm	Coordinates: E 230037,600 m National Grid
Date Complete: 10/03/2012	Initial Core Diameter: 86mm	N 823930,400 m National Grid
Hole Type: RC	Rotary Casing Type: Robit	Ground Level: 310.20 m OD
Equipment: Boart DB520	Core Barrel: T2101	Plunge: 90 °
	Core Bit: Diamond Impreg	Scale: 1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing		TCR (SCR) RQD	FI	Installation
						Test	Result			
<p>Very strong grey and locally dark grey fine to medium grained PSAMMITE, mostly fresh with some mineral infill and surface staining along joints and fractures. Occasional micaceous bands and thinly foliated mica schist bands throughout. 10-15mm crystalline quartz veins throughout. Joints are inclined between 74deg and 85deg, closely spaced, planar, smooth, tight with dark green and dark grey surface staining and occasional crystalline quartz infill.</p> <p>At 8.50m to 10.80m, fractured bands.</p>		8.50-9.50						100 (10) 0	NI	10
		9.50-10.50					100 (5) 0	NI		
		10.50-11.50				100 (35) 30	NI			
		11.50-12.50				90 (35) 30	1			
		12.50-13.50				90 (25) 25	6	NI 3		
		13.50-14.50				90 (35) 25	5			
		14.40		295.80						
End of Borehole at 14.40 m										

U Undisturbed U100 / U86 Sample P Piston Sample TW Thin Wall Sample D Small Disturbed Sample B Bulk Disturbed Sample LB Large Bulk Disturbed Sample W Water Sample G Gas Sample C Core J Amber Jar Sample V Vial Sample	TCR Total Core Recovery SCR Solid Core Recovery RQD Rock Quality Designation FI Fracture Index NI Non Intact U* Blows to drive U100 / U86 UT Thin wall undisturbed sample NA Not Applicable NR No Recovery NP No Penetration OH Open Hole Drilling	S Standard Penetration Test C Cone Penetration Test 32 N for full 300mm penetration /175 For given penetration (mm) /25# Seating blows only (mm) PP Pocket Penetrometer Test IPID In-situ Photo-ionisation Detector (ppm) L Packer Test (Lugeons) IV Insitu Vane Test, Peak IVR Insitu Vane Test, Residual HV Hand Vane Test, Peak HVR Hand Vane Test, Residual	CP Cable Percussion RO Rotary Open Hole RC Rotary Cored SO Sonic Open Holed CONP Continuous Percussion WLS Windowless Sampler Installation Slotted Pipe Piezometer Tip Grout Concrete Sand Filter Bentonite Seal Gravel Filter
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