

# Spink Quarry, Knockbaun, Abbeyleix, Co. Laois


## Spink Quarry

### Environmental Impact Assessment Report

#### Appendix 7.1

#### Production Well Drilling Logs & Notes

2021

	<b>Drilling ID:</b> PW1 Spink 2021	
	<b>Site:</b> Lagan (Breedon Group) Quarry @ Knockbawn, Spink, Co. Laois	
	<b>Site Location:</b> Townland = Knockbawn	
	<b>Hydro-G Project Ref:</b> 161352_Lagan Spink	
<b>Client:</b> Lagan (Breedon Group)		<b>National Grid Co-ordinates:</b> ITM Easting 653,413; ITM Northing 683,146
<b>Date Drilled:</b> 18/02/2021	<b>Drilled By:</b> P Briody & Sons Ltd. (Aidan Drilling)	
<b>Method:</b> DTH Hammer & Compressed Air flush with Atlas Compco Stand alone compressor.		
<b>Logged By:</b> Pamela Bartley		
<b>BH Location on Site:</b> Just opposite entrance gate, opposite eastern gate post, approx 15m into site from gate. Approx 30m from Regional Road edge. This PW1 is ~70m north of SP-03.		
<b>BH GL Elevation (m OD):</b> 234.38		
<b>BH BASE Elevation (m OD):</b> 172.9 m OD		
<b>Proposed Deepest Bench Elevation in Future (m OD):</b> 190m OD		
<b>Proposed Bench Depth at this location of the site:</b> No Excavation is planned here because it is adjacent to the site's entrance area and just west of the discharge zone. It is therefore an appropriate monitoring point for the future. After pumping test, after permissions, it can easily be converted to a piezometer if necessary. Adjacent area voids proposed base depths are 200 mOD (Western Area) and 190m OD (Eastern Area).		

**Important Note:** This is a BH Log created from Observations during drilling with a Rotary HAMMER Rig rather than Rotary CORE. This log is a description by a hydrogeologist with hydrology, hydrogeological and civil engineering expertise. This log was not created by a GEOLOGIST. SLR's Geologist evaluated Cored Rock returns from 4 Rotary Core Holes and described the Lithology from a Geological Perspective. For appropriate delineation of rock bands, the Rotary Core Record is accurate and should be referred to. The log here is for Hydro focus. The drilling method is hammer and air compressor driven rock spoil returns. Boundaries are imprecisely evaluated. The purpose of this 8" diameter Production Well Borehole is to create an opportunity to test Water Volumes, by pump testing, that might require management at the site in the future.

Depth (m bgl)	Depth (m OD)	Description	Colour	Water Strike (m bgl)	Drill Diameter	Installation Details	Notes
1	232	Gravel	Grey		8" (200mm)	8" diameter Steel (0.3m AGL, 5.7m bgl)	This PW1 BH is similar in elevation and general location of SP-03 Rotary Core drilled in 2020 as part of the Geological Assessment reported by Tom Moore for SLR (2020). SP-03 Core Log shown here: GL = 220m OD approx.
2	231	Sandstone	Some orange	2m bgl = 0.5m3/hr			
3	230	Mudstone	Black				
4	229	SANDSTONE / SILTSTONE	Pale Grey				
5	228						
6	227						
7	226						
8	225						
9	224						
10	223						
11	222						
12	221						
13	220						
14	219						
15	218						
16	217						
17	216						
18	215						
19	214						
20	213						
21	212						
22	211						
23	210						
24	209						
25	208	MUDSTONE	Darker grey	goes dry, DUSTY in the Mudstone			
26	207	SANDSTONE/SILTSTONE	Pale Grey				
27	206						
28	205	SANDSTONE	Sandy colour				
29	204						
30	203	SANDSTONE/SILTSTONE	Pale Grey				
31	202						
32	201						
33	200						
34	199						
35	198						
36	197						
37	196						
38	195						
39	194						
40	193						
41	192						
42	191						
43	190						
44	189	SANDSTONE	Sandy colour	At 43 to 45m bgl = ADD 75m3/d			
45	188						
46	187	Dark Shaley, Coaly, Muddy Stone, Chippy. MUDSTONE MOYAD COAL FORMATION	BLACK				
47	186						
48	185						
49	184						
50	183						
51	182						
52	181						
53	180						
54	179						
55	178						
56	177						
57	176						
58	175						
59	174						
60	173						
61	172						
62	171	END BH @ 61.5m bgl = 171m OD					

**LEGEND:**  
SEE SLR LEGEND 2020 for Spink Core Holes in Notes Section

**Notes:**

Note: the lithology for the Cored Hole SP-03 Log (SLR, 2020) does not match exactly in depth sequence with PW1 for two reasons: (1) There are dips in the geology at the site (sometimes deep) and PW1 is 100m from SP-03, so the dips will move things. And (2) the hammer drilling method is designed to get us a big diameter hole to depth and therefore hammering doesn't lend well to definitive delineations

**Drilling Time ESTIMATED TOTAL WATER YIELD IN THIS BH (PW1) = 100m3/d**

Water Level:	11.05 m bgl / 10.5m bgl @ 4pm 22/2/21 (day 4 after completion).	Datalogger installed 22/2/21 (pamela's oliver)
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