APPENDIX 8-4

HES Monitoring Wells Logs/Borehole Logs

HYDRO-ENVIRONMENTAL SERVICES

Borehole Log

Well No.: BH2A

Project No: P1587-0 | **Date started:** 02/10/2026 | **Easting:** 635918

Site: Killoshulan, Co. Kilkenny | **Date finished:** 02/10/2026 | **Northing:** 665403

Client: Killoshulan Renewable Energy Ltd | **Elevation:** 189mOD

SUBSURFACE PROFILE

Depth	Symbol	Description	Depth/Elev.	Water Level	Comments	Well Completion Details
0		**Ground Surface**	189.0			
		Sandy, gravelly CLAY	0.0			
			184.0			
		Pale grey, strong weathered LIMESTONE	5.0			
			179.8			
10		Pale grey, competent LIMESTONE	9.2			
			175.6			
		Soft, very wet CLAY	13.4			
			171.6			
			17.4			

Remarks:

Drilling Contractor:

Drilling type: DHH | **Scale as shown**

Logged by: DB | **Sheet:** 1 of 1

HYDRO-ENVIRONMENTAL SERVICES

Borehole Log

Well No.: BH2B

Project No: P1587-0 | **Date started:** 02/10/2026 | **Easting:** 635845

Site: Killoshulan, Co. Kilkenny | **Date finished:** 02/10/2026 | **Northing:** 665402

Client: Killoshulan Renewable Energy Ltd | **Elevation:** 196mOD

SUBSURFACE PROFILE

Depth	Symbol	Description	Depth/Elev.	Water Level	Comments	Well Completion Details
0		**Ground Surface**	196.0			
		Sandy, gravelly CLAY	0.0			
			187.5			
		Pale grey, strong weathered LIMESTONE	8.5			
10			185.5			
		Pale grey competent LIMESTONE	10.5			
			178.0			
			18.0			

Remarks:

Drilling Contractor:

Drilling type: DHH

Scale as shown

Logged by: DB

Sheet: 1 of 1

HYDRO-ENVIRONMENTAL SERVICES

Borehole Log

Well No.: T01-PBH1

Project No: P1587-0 | **Date started:** 02/10/2026 | **Easting:** 635685

Site: Killoshulan, Co. Kilkenny | **Date finished:** 02/10/2026 | **Northing:** 664899

Client: Killoshulan Renewable Energy Ltd | **Elevation:** 208mOD

SUBSURFACE PROFILE

Depth	Symbol	Description	Depth/Elev.	Water Level	Comments	Well Completion Details
0		**Ground Surface**	208.0			
		Gravelly CLAY	0.0			
			203.5			
		Pale grey weathered LIMESTONE	4.5			
			200.4			
		Soft, very wet CLAY	7.6			
10			198.0			
			10.0			

Remarks:

Drilling Contractor:

Drilling type: DHH | **Scale as shown**

Logged by: DB | **Sheet:** 1 of 1

HYDRO-ENVIRONMENTAL SERVICES

Borehole Log

Well No.: T02-PBH1

Project No: P1587-0

Date started: 02/10/2026

Easting: 635876

Site: Killoshulan, Co. Kilkenny

Date finished: 02/10/2026

Northing: 665424

Client: Killoshulan Renewable Energy Ltd

Elevation: 193mOD

SUBSURFACE PROFILE

Depth	Symbol	Description	Depth/Elev.	Water Level	Comments	Well Completion Details
0		**Ground Surface**	193.0			
		Gravelly, silty CLAY	0.0			
			191.7			
		Very gravelly CLAY (Boulder Clay)	1.3			
10						
20			173.0			
			20.0			

Remarks:

Drilling Contractor:

Drilling type: DHH

Scale as shown

Logged by: DB

Sheet: 1 of 1

HYDRO-ENVIRONMENTAL SERVICES

Borehole Log

Well No.: T02-PBH2

Project No: P1587-0

Date started: 02/10/2026

Easting: 635894

Site: Killoshulan, Co. Kilkenny

Date finished: 02/10/2026

Northing: 665404

Client: Killoshulan Renewable Energy Ltd

Elevation: 193mOD

SUBSURFACE PROFILE

Depth	Symbol	Description	Depth/Elev.	Water Level	Comments	Well Completion Details
0		**Ground Surface**	193.0			
		Gravelly, silty CLAY	0.0 192.0			
		Very gravelly CLAY (Boulder Clay)	1.0			
10						
20			173.0 20.0			

Remarks:

Drilling Contractor:

Drilling type: DHH

Scale as shown

Logged by: DB

Sheet: 1 of 1

Petersen Drilling Services Ltd. on behalf of MKO — Rotary Drilling Log

Depth of Stratum Top (m)	Driller's Stratum Description
0.00	Firm brown TOPSOIL
0.30	Firm brown silty gravelly CLAY
1.20	Medium strong grey weathered LIMESTONE
2.20	Strong grey LIMESTONE rare fractures

Sample / Hole / Test Details

No	Type	Insitu test	From (m)	To (m)	Liner Dia (mm)
	RO		0.00	60.00	

Drilling Details

Core run time (hhmm)	Total core Recovery (m)	Flush Return %	Flush Colour
0000		100	grey

Standard Penetration Test

Self Weight Pen (mm)	75 mm	150 mm	Seating Pen (mm)	75 mm	150 mm	225 mm	300 mm	Main Pen (mm)	N value	Casing Depth (m)	Water/ flush level (m)
										0.00	0.00

Shift details

Start time (hhmm)	Hole (m)	Water (m)	Casing (m)
1030			
Finish time (hhmm)	**Hole (m)**	**Water (m)**	**Casing (m)**
1705	60.00	0.00	2.50

Drilling Equipment Details

Casing (C) Open Hole (RO) Coring (RC)	Dia. (mm)	From (m)	To (m)	Barrel	Liner Type	Core Dia (mm)	Bit Type	Casing Type	Bit serial No	Flush	Polymer
C	140.00	0.00	2.50					Sim. Casing			
RO	154.00	0.00	2.50				DTH Button Bit		115	Air	No
RO	120.00	2.50	60.00				DTH Button Bit			Air	No

Ground Water Record

Time of strike	Depth Struck (m)	Casing (m)	Inflow	5 min	10 min	15 min	20 min	Depth Sealed (m)
1505	51.00	2.50	**Medium**	0.00	0.00	0.00	0.00	N/S

Backfill (m)

Type	From (m)	To (m)

Time from	Duration (hhmm)	Remarks or details of any additional testing information, Dayworks
1030		CAT Scanned: Yes
1030		Permit Completed: Yes
		DREM (16.00m - 17.00m): minor fracture, change in flush to brown
		DREM (51.50m - 54.00m): Fractured Rock Zone

SPT I.D. Number	PD1	**Calibration Date**	01/02/2021
SPT Rod Type	2 3/8 Regular	**SPT Energy Ratio**	0.00
Drilling Crew Details			**CSCS No**
Support Operative	V Pavilis		
Lead Driller	Stephan Petersen		
Site category	Green		
Project Engineer	D Broderick		
Lead Driller's signature			

Project Title

Killoshulan WF

Weather	Variable	**Project No**	`4/26
Date	20/01/2026	**Day**	Tuesday
Rig type	**Knebel HY79**	**Borehole Number**	
Inclination		**Orientation**	MW1
Sheet	1 of 2	**Completed**	Y

AGS

Produced by KeyLogbook

Petersen Drilling Services Ltd. on behalf of MKO — Rotary Drilling Log

Depth of Stratum Top (m)	Driller's Stratum Description	Sample / Hole / Test Details: No	Type	Insitu test	From (m)	To (m)	Liner Dia (mm)	Drilling Details: Core run time (hhmm)	Total core Recovery (m)	Flush Return %	Flush Colour	Standard Penetration Test: Self Weight Pen (mm)	75 mm	150 mm	Seating Pen (mm)	75 mm	150 mm	225 mm	300 mm	Main Pen (mm)	N value	Casing Depth (m)	Water/ flush level (m)

Shift details

Start time (hhmm)	Hole (m)	Water (m)	Casing (m)
0815	60.00	0.00	2.50
Finish time (hhmm)	Hole (m)	Water (m)	Casing (m)
1020			

Drilling Equipment Details

Casing (C) Open Hole (RO) Coring (RC)	Dia. (mm)	From (m)	To (m)	Barrel	Liner Type	Core Dia (mm)	Bit Type	Casing Type	Bit serial No	Flush	Polymer

Ground Water Record

Time of strike	Depth Struck (m)	Casing (m)	Inflow	5 min	10 min	15 min	20 min	Depth Sealed (m)

Backfill (m)

Type	From (m)	To (m)

Time from	Duration (hhmm)	Remarks or details of any additional testing information, Dayworks
0940	0100	Dayworks: Airlift development of well

SPT I.D. Number	PD1	Calibration Date	01/02/2021
SPT Rod Type	2 3/8 Regular	SPT Energy Ratio	0.00
Drilling Crew Details			CSCS No
Support Operative	V Pavilis		
Lead Driller	Stephan Petersen		
Site category	Green		
Project Engineer	D Broderick		
Lead Driller's signature			

Project Title

Killoshulan WF

Weather	Rain	Project No	`4/26
Date	21/01/2026	Day	Wednesday
Rig type	Knebel HY79	Borehole Number	
Inclination		Orientation	MW1
Sheet	2 of 2	Completed	Y

AGS

Produced by KeyLogbook

Petersen Drilling Services Ltd. on behalf of MKO — Rotary Drilling Log

Depth of Stratum Top (m)	Driller's Stratum Description
0.00	Firm brown TOPSOIL
0.25	Firm brown silty gravelly CLAY
3.50	Medium strong weathered grey LIMESTONE
5.60	Strong grey LIMESTONE rare fractures

Sample / Hole / Test Details						Drilling Details				Standard Penetration Test											
No	Type	Insitu test	From (m)	To (m)	Liner Dia (mm)	Core run time (hhmm)	Total core Recovery (m)	Flush Return %	Flush Colour	Self Weight Pen (mm)	75 mm	150 mm	Seating Pen (mm)	75 mm	150 mm	225 mm	300 mm	Main Pen (mm)	N value	Casing Depth (m)	Water/ flush level (m)

Shift details

Start time (hhmm)	Hole (m)	Water (m)	Casing (m)
1125			
Finish time (hhmm)	Hole (m)	Water (m)	Casing (m)
1630	51.00	Dry	5.00

Drilling Equipment Details

Casing (C) Open Hole (RO) Coring (RC)	Dia. (mm)	From (m)	To (m)	Barrel	Liner Type	Core Dia (mm)	Bit Type	Casing Type	Bit serial No	Flush	Polymer
C	140.00	0.00	5.00					Sim. Casing			
RO	154.00	0.00	5.00				DTH Button Bit		115	Air	No

Ground Water Record

Time of strike	Depth Struck (m)	Casing (m)	Inflow	5 min	10 min	15 min	20 min	Depth Sealed (m)

Backfill (m)

Type	From (m)	To (m)

Time from	Duration (hhmm)	Remarks or details of any additional testing information, Dayworks
1125		CAT Scanned: Yes
1125		Permit Completed: Yes
		DREM (5.40m - 5.60m): karst limestone with some voids and clay infill
		General; 20% flush loss from 5.6m. Flush seams to enter into voided area

SPT I.D. Number	PD1	Calibration Date	01/02/2021
SPT Rod Type	2 3/8 Regular	SPT Energy Ratio	0.00
Drilling Crew Details			CSCS No
Support Operative	V Pavilis		
Lead Driller	Stephan Petersen		
Site category	Green		
Project Engineer	D Broderick		
Lead Driller's signature			

Project Title

Killoshulan WF

Weather	Variable	Project No	`4/26
Date	21/01/2026	Day	Wednesday
Rig type	Knebel HY79	Borehole Number	
Inclination		Orientation	MW2
Sheet	1 of 2	Completed	Y

AGS

Produced by KeyLogbook

Petersen Drilling Services Ltd. on behalf of MKO — Rotary Drilling Log

Depth of Stratum Top (m)	Driller's Stratum Description	Sample / Hole / Test Details: No	Type	Insitu test	From (m)	To (m)	Liner Dia (mm)	Drilling Details: Core run time (hhmm)	Total core Recovery (m)	Flush Return %	Flush Colour	Standard Penetration Test: Self Weight Pen (mm)	75 mm	150 mm	Seating Pen (mm)	75 mm	150 mm	225 mm	300 mm	Main Pen (mm)	N value	Casing Depth (m)	Water/ flush level (m)
			RO		0.00	66.00		0000		100	grey											0.00	0.00

Shift details

Start time (hhmm)	Hole (m)	Water (m)	Casing (m)
0945	51.00	Dry	5.00
Finish time (hhmm)	**Hole (m)**	**Water (m)**	**Casing (m)**
1525			

Drilling Equipment Details

Casing (C) Open Hole (RO) Coring (RC)	Dia. (mm)	From (m)	To (m)	Barrel	Liner Type	Core Dia (mm)	Bit Type	Casing Type	Bit serial No	Flush	Polymer
RO	120.00	5.00	66.00				DTH Button Bit			Air	No

Ground Water Record

Time of strike	Depth Struck (m)	Casing (m)	Inflow	5 min	10 min	15 min	20 min	Depth Sealed (m)

Backfill (m)

Type	From (m)	To (m)

Time from	Duration (hhmm)	Remarks or details of any additional testing information, Dayworks
		DREM (65.00m - 65.50m): minor fracture, change in flush to brown

SPT I.D. Number	PD1	**Calibration Date**	01/02/2021
SPT Rod Type	2 3/8 Regular	**SPT Energy Ratio**	0.00
Drilling Crew Details			**CSCS No**
Support Operative	V Pavilis		
Lead Driller	Stephan Petersen		
Site category	Green		
Project Engineer	D Broderick		
Lead Driller's signature			

Project Title

Killoshulan WF

Weather	Variable	**Project No**	`4/26
Date	22/01/2026	**Day**	Thursday
Rig type	**Knebel HY79**	**Borehole Number**	
Inclination		**Orientation**	MW2
Sheet	2 of 2	**Completed**	Y