

Turbine No. / Unit	RR(D) (Ranked Risk considering Distance to Sensitive Receptors)	Geo-Hazard / Comment (Important to consider when carrying out detailed design and preconstruction planning)
Borrow Pit	Very Low to Moderate Risk	Localised stability and drainage network.
Substation	Very Low to Low Risk	Localised stability and drainage network.

#### 4.6 Subsoil Stability Risk Assessment Results

Review of subsoil stability assessment result data and maps as presented in **Appendix I** indicate that the factor of safety is generally acceptable and very low to low stability risk across the site (areas assessed / trial pit locations\*) with the exception of minor isolated areas of steeper inclines and deeper till deposits (inferred\*).

Summary of risk at the site under varying conditions and scenarios is presented in the following tables.

**Table 15: Factor of Safety (Adjusted) at Trial Pit Locations**

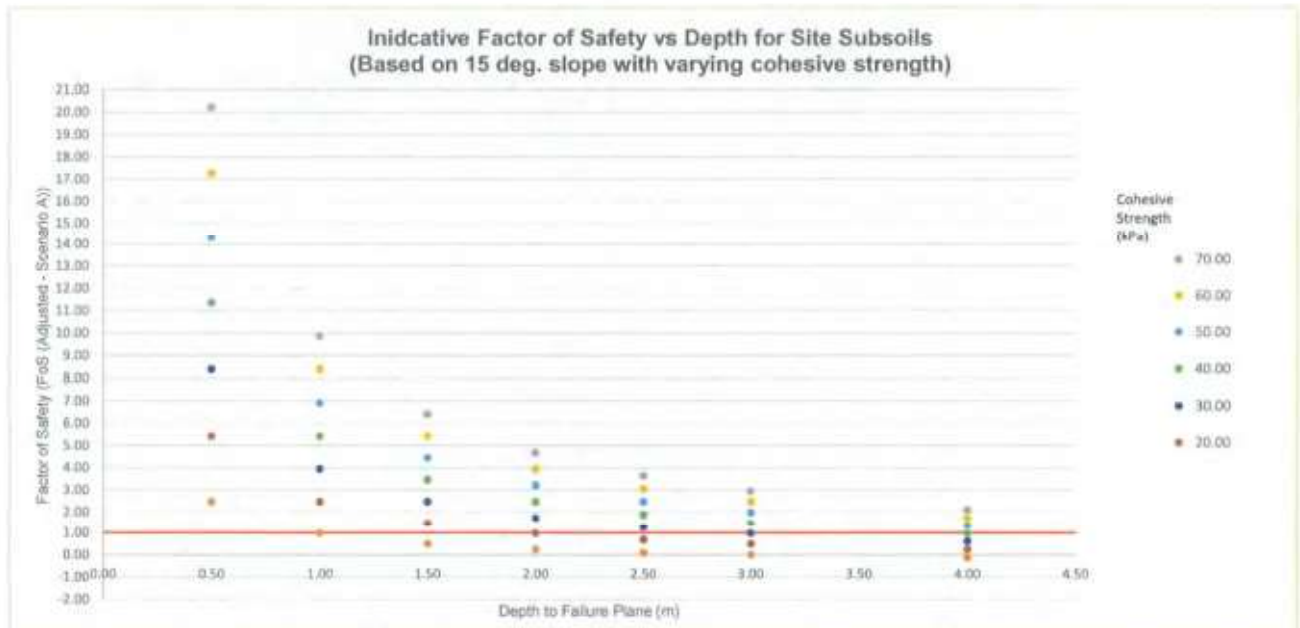
	Acceptable	Marginally Stable	Unstable
FoS (Adj.) Scenario A	16	0	0
FoS (Adj.) Scenario B	14	2	0

**Table 16: Risk Ranking (Distance) at Trial Pit Locations**

	Very Low	Low	Moderate	High
RR (Dist.) Scenario A	14	1	1	0
RR (Dist.) Scenario B	13	1	2	0

Based on the inferred conservative values applied to the above stability risk assessment, the factor of safety is highly dependent on cohesive strength, which in turn is highly dependent on hydrogeological characteristics including pore water pressure. **Figure 2** presents potential varying Factors of Safety for subsoils at the Site depending on varying cohesive strength and depths to failure plane.





**Figure 2: Correlation Between Factor of Safety, Cohesive Strength and Depth of Subsoils**

Observations made during site walkovers include deep deposits of till in the northwestern area of the site immediately north of T1. Iron pan was also observed in trial pits in those areas. The area is also extensively modified in terms of constructed drainage for agricultural and forestry purposes.

Areas with potentially deep till deposits, steep incline (c. >15 degrees), potential for iron pan, and enhanced opportunity for recharge to groundwater are considered to have elevated Moderate to High risk in terms of subsoil soil stability.

Areas of elevated stability risk, even at a localised scale, are considered geo-hazards requiring mitigation. Geo-hazards are presented in **Appendix H**.

#### 4.7 Subsoil Stability Risk Assessment Interpretation

The following table presents the interpretation of stability risk assessment data in the context of stability, or factor of safety (FoS) (Adjusted, Scenario B) at each significant development infrastructure unit.

**Table 17: Subsoil Stability Risk Assessment – Risk Ranking (Distance) (Scenario B) at Main Infrastructure Units**

Turbine No. / Unit	RR <sub>D</sub> (Ranked Risk considering Distance to Sensitive Receptors)	Geo-Hazard / Comment
T1	Low	Localised stability and drainage network.
T2	Low to Moderate	Localised stability and proximity to sensitive receptor (river). Minor, localised stability issues have the potential to have significant adverse impacts on receptors.
T3	Low	Localised stability and drainage network.
T4	Low	Localised stability and drainage network.
T5	Low	Localised stability and drainage network.

Turbine No. / Unit	RR <sub>D</sub> (Ranked Risk considering Distance to Sensitive Receptors)	Geo-Hazard / Comment
Met Mast	Low	Localised stability and drainage network.
Borrow Pit	Low	Localised stability and drainage network.
Substation	Low	Localised stability and drainage network.

## 5. Conclusions

### Peat Stability

Peat depth across the site is generally very shallow to shallow with the exception of isolated pockets of moderately deep peat delineated by shallow subsoils and/or bedrock at or near the surface, particularly in the NW of the site. There was no very deep peat observed at the site. There is a relatively extensive area of deep peat north of the proposed location for T1 and the associated access track. The footprint of the Project avoids this area.

The Factor of Safety (Adjusted) (Scenario B i.e., 1m surcharge) at peat probe locations is generally Acceptable throughout the Site with occasional Marginal locations and some Unacceptable localities associated with relatively steeper slopes coupled with relative peat depths.

Marginally Stable Locations, presented in yellow in **Plate 7** above, are concentrated around Site Access tracks and do not overlap with any hardstand areas with the exception of proposed location of T3. Unstable/Unacceptable locations, denoted in red in **Plate 7**, are seen adjacent to the Site Access Tracks to the proposed substation location and T1 as well as the proposed hardstand location of T3.

The Risk Ranking (Distance) Scenario B i.e., 1m surcharge) at peat probe locations is generally Very Low to Low with the exception of Moderate to High-risk point locations, outlined in **Plates 1 - 5** above, mainly associated with close proximity to sensitive receptors (e.g., mapped EPA rivers and artificial draining with direct linkage to rivers). The location of these 'Moderate Risk' to 'High Risk' vary throughout the Site. All proposed turbine hardstand areas are located outside of these elevated risk areas, with the exception of three No. points at T3, Site drainage maps highlight the connection of forestry drains to the Sullane\_010.

In summary, through the process of mitigation by design, the Development avoids areas where significant peat or slope stability risk is highest. There remains a residual risk of displacement at a localised scale, which is inherent with all construction / excavation activities particularly when dealing with peat. This is of particular importance to consider when working in close proximity to sensitive receptors, for example; working near, over in surface water features, or when designing drainage networks and the positioning of outfalls.

### Subsoil Stability

Subsoils underlying the site are characterized generally as clayey sandy GRAVEL or TILL.

The Factor of Safety (Adjusted) (Scenario B i.e., 1m surcharge) at trial pit locations is generally Acceptable with no exception of marginally stable / unstable point locations.

The Risk Ranking (Distance) Scenario B i.e., 1m surcharge) at trial pit locations is generally Very Low to Low with no exceptions of Moderate or High-risk point locations.

### Rock Strength

Bedrock is slightly unweathered.

Bedrock strength at the Site is reported as Weak.

Reuse There is a risk that if used for track surfacing, the trafficked material will gradually degrade, potentially leading to chronic siltation of drainage features or dust depending on meteorological conditions. Therefore, bedrock material arising at the Site will be reused as fill material, Site Access Roads and Turbine Hardstands will be surfaced with a harder rock imported to the Site.

## Geo-Hazards

A register of Geo-Hazards is mapped and presented in **Appendix H**.

## 6. Caveats & Recommendations

The risk of landslides occurring on the proposed site under worst case scenario conditions (Conservative values and Scenario B (+1m)) has been determined to be generally **very low to low** however, the following points should be noted;

- The low risk classification is largely driven by shallow peat depths at sampling points associated with proposed infrastructure locations, and by the undulating nature of the substrate topology, however the potential for deeper areas of peat associated with the Project footprint suggests that soil stability at a highly localized scale may give rise to some difficulty e.g. collapse of side walls in excavations, and subsidence over time under newly installed floating hardstands (on peat), etc. Such potential issues give rise to the need for vigilance during and after the construction phase of the Project and it is recommended that all works are supervised and monitored by a competent person (Geotechnical Engineer) through out the construction phase, and that the site is monitored at a reasonable frequency during the operational phase of the proposed development. The frequency of monitoring during the operational phase will be conducted at a high frequency (e.g. weekly) during the initial months, and will reduce (e.g. monthly) gradually over the following year minimum, or until site conditions are observed to be stable.
- The main infrastructure components such as the turbine hardstand areas avoid very sensitive areas of the site. However, a portion of the proposed access track associated with the proposed watercourse crossings are within 50m of a sensitive receptor (Sullane\_010). Peat depths at these locations are shallow however some moderately steep (>8 degrees) to steep (>14 degrees) inclines result in some localised unstable peat data (0.5m peat depth inferred). Unstable peat data in the context of proximity to the downstream receptor (RR(D)) results in a High Risk classification.
- Through EIA, constraint identification and design process, the Project footprint avoids areas of significant unacceptable risk, however this will include all aspects of the Project including; vehicle movements, personell movements, temporary storage, etc. In other words, the Project(including construction activities) will be limited to the Project footprint, and will avoid areas of elevated risk. . Managment of excavation arisings or any bulk material or equipment will consider proximity to these areas or geo-constraints, and developer's or sub-contractors method statement and risk assessments will incorporate this into operational and health and safety mitigation measures.

## 7. References

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## Appendix A

**Inchamore Wind Farm**  
 Inchamore, Co. Cork / Co. Kerry  
 App 8.1 - App A1 (01) SI - Peat Depth  
 Overview

- Legend**
- Development Layout**
- WF
  - Red Line 23
  - 230313 Site Layout
  - Turbine Locations
  - Site Entrances
  - Proposed Met Mast
  - Watercourse Crossings
  - Proposed Borrow Pits
  - Borrow Pit
  - Proposed Temporary Construction Compound
  - Proposed On-Site Substation
- UGC**
- Inchamore Grid Connection Route
  - HDD Crossings
- Delivery**
- Redline-250 Haul Road - 256-Polyline
  - Turbine Delivery Route
  - Redline-250 Haul Road - 256-Polyline
  - Turbine Delivery Route

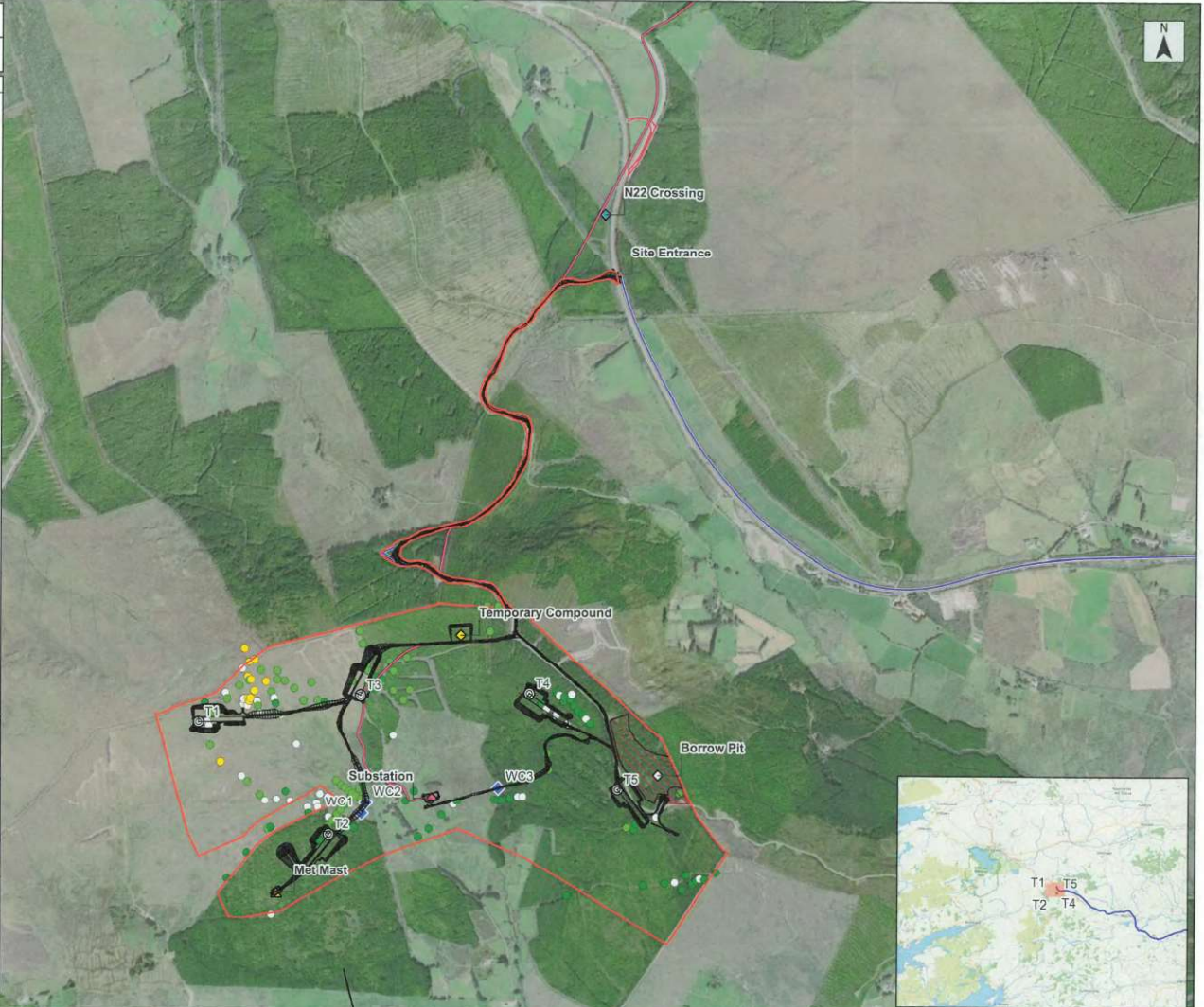
- Geology**
- 3188-A2-IWF Peat Depth Probe Data
- 0.0 - 0.1m
  - 0.1 - 0.5m
  - 0.5 - 2.0m
  - 2.0 - 3.5m
- Geological Linework (100k GSI)
- Base Maps**
- Bing Aerial
  - OpenStreetMap

Project ID: 604162 Inchamore Wind Farm  
 Projection: ITM  
 Drawn by: Sven K.  
 Reviewed by: Sven K.  
 Version: 21/09/2022

**References/Sources:**  
 Environmental Protection Agency (EPA)  
 Geological Services Ireland (GSI)  
 Bing Aerial / GeoPine / Open Street Map / Google Roads  
 GSDM Elevation Contours  
 Phase 1 (250m Grid Peat Depth - Greensource)

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for individual design purposes.

Scale: 0 0.27 0.54 km

**Inchamore Wind Farm**  
 Inchamore, Co. Cork / Co. Kerry  
 App 8.1 - App A2 (01) SI - Peat Depth -  
 Title 1

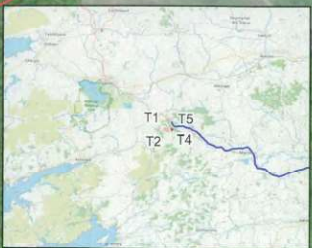
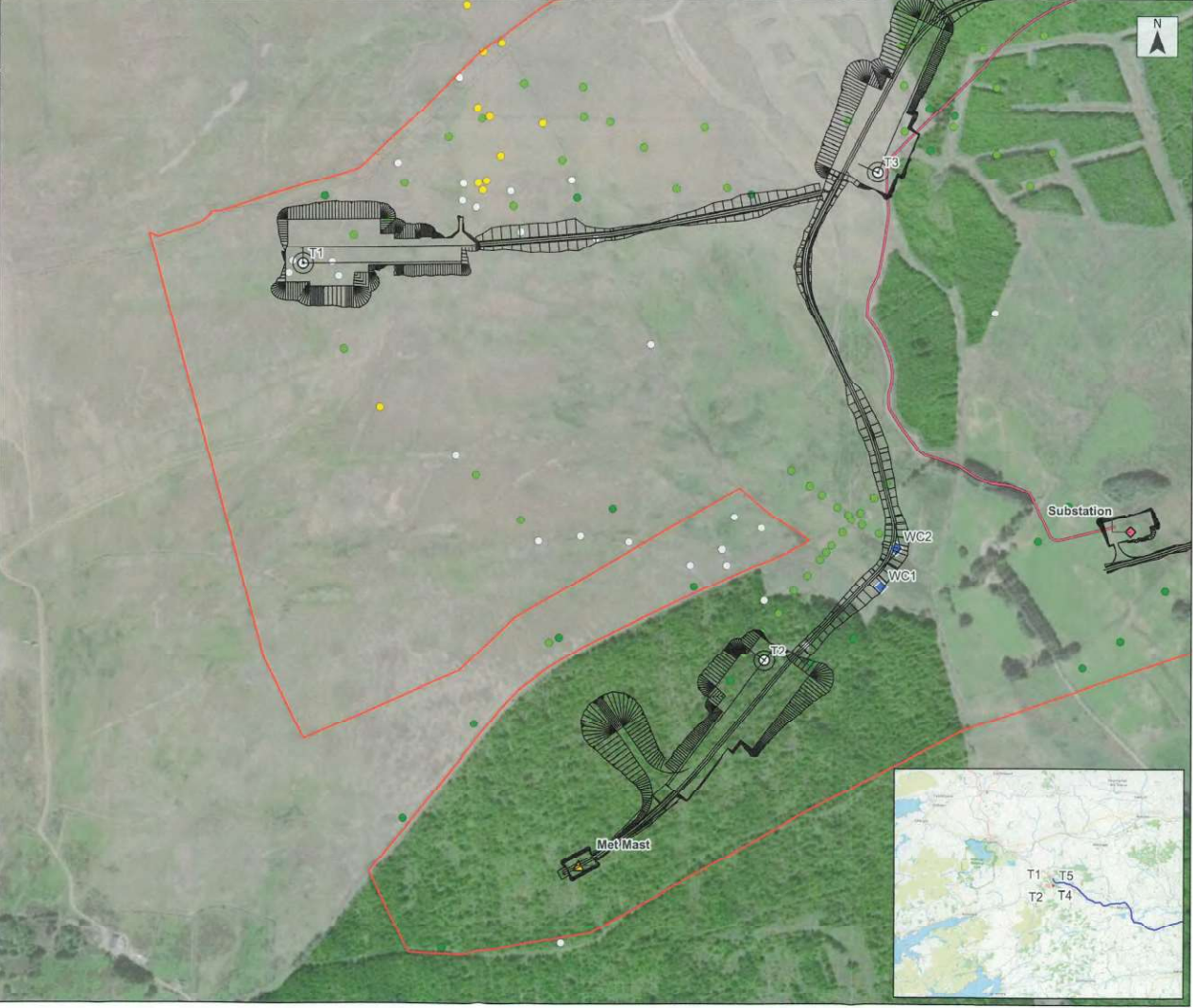
- Legend**
- Development Layout
- WF
  - Red Line 23
  - 230313 Site Layout
  - Turbine Locations
  - Proposed Met Mast
  - Watercourse Crossings
  - Proposed On-Site Substation
  - Inchamore Grid Connection Route
- UGC
- Geology
- 3188-A2-IWF Peat Depth Probe Data
- 0.0 - 0.1m
  - 0.1 - 0.5m
  - 0.5 - 2.0m
  - 2.0 - 3.5m
- Base Maps
- ing Aerial
  - OpenStreetMap

Project ID: 604162 Inchamore Wind Farm  
 Projection: ITM  
 Drawn by: Sven K.  
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 Version: 21/09/2022

References/Sources:  
 Environmental Protection Agency (EPA)  
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 GSI Elevation Contours  
 Phase 1 (250m Grid Peat Depth - Greensource)

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be used for other design purposes.

Scale: 0 0.076 0.152 km



**Inchamore Wind Farm**  
 Inchamore, Co. Cork / Co. Kerry  
 App 8.1 - App A2 (01) SI - Peat Depth -  
 Tile 2

- Legend**
- Development Layout
- WF
  - Red Line 23
  - 230313 Site Layout
  - Turbine Locations
  - Watercourse Crossings
  - Proposed Borrow Pits
  - Borrow Pit
  - Proposed On-Site Substation
- UGC
- Inchamore Grid Connection Route
- Geology
- 3188-A2-IWF Peat Depth Probe Data
- 0.0 - 0.1m
  - 0.1 - 0.5m
  - 0.5 - 2.0m
- Base Maps
- ing Aerial

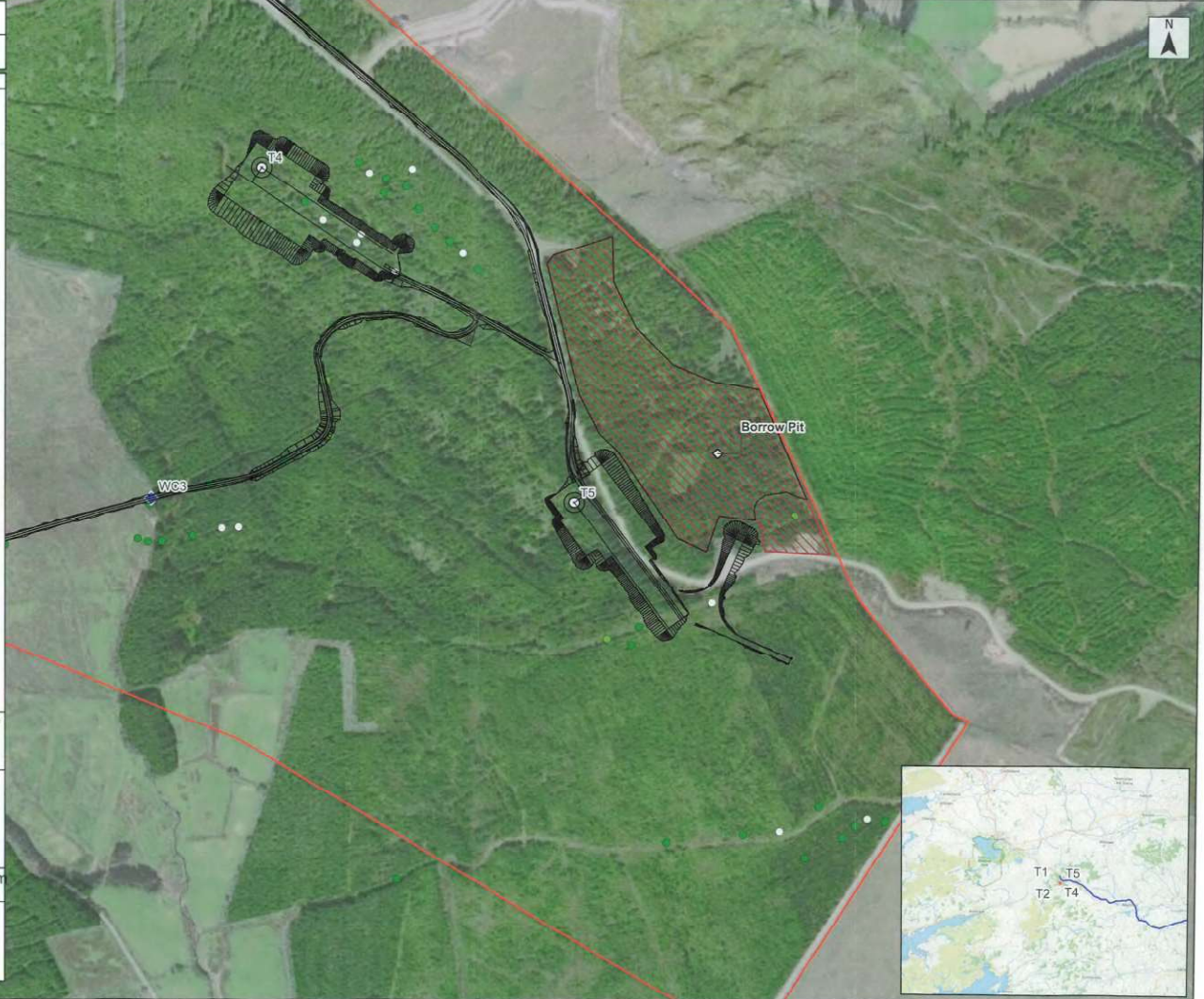
OpenStreetMap

Project ID: 604162 Inchamore Wind Farm  
 Projection: ITM  
 Drawn by: Sven K.  
 Reviewed by: Sven K.  
 Version: 21/09/2022

**References/Sources:**  
 Environmental Protection Agency (EPA)  
 Geological Services Ireland (GSI)  
 Bing Aerial / Google / Open Street Map / Google Roads  
 GDEM Elevation Contours  
 Phase 1 (250m Grid Peat Depth - Greensource)

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purpose of environmental assessment. This drawing should not be relied upon for detailed design purposes.

Scale: 0 0.076 0.152 km





## Appendix B

SI Appendix B - Peat & Subsoil Survey Database  
Incham WF, Co. Cork

Peat & Slope Stability Risk Assessment



Prepared by: SR 01/20/2023  
K File Ref: 031619-00-00

Sample / Test Category	Sample / Point ID No.	Association	ITM Rating	ITM No.	Thickness (Depth of peel)	Classification of Thickness (Depth of peel)	Slope Extracted from DDEMs	Notes	Parameter Values		Scenario A	Scenario B	Scenario A	Scenario B	Scenario A	Scenario B	Scenario A	Scenario B	Scenario A	Scenario B	Scenario A	Scenario B	Scenario A	Scenario B
									Slope Angle	Soil Strength (kPa)	Bulk Unit Weight (kN/m <sup>3</sup> )	Depth to Failure plane (m)	Burroughs Equivalent Plasticity Index (L <sub>p</sub> )	FOS <sub>RAW</sub> Factor of Safety for Raw Stability	FOS <sub>ADJ</sub> Factor of Safety for Adjusted Stability	FOS <sub>ADJ</sub> Adjusted Factor of Safety for Raw Stability	FOS <sub>ADJ</sub> Adjusted Factor of Safety for Adjusted Stability	RR <sub>SP</sub> Ranking Risk to Adjacent Consequences on Sensitive Receptors	RR <sub>SP</sub> Ranking Risk to Adjacent Consequences on Sensitive Receptors	RR <sub>CS</sub> Ranking Risk to Adjacent Consequences on Sensitive Receptors	RR <sub>CS</sub> Ranking Risk to Adjacent Consequences on Sensitive Receptors	RR <sub>CS</sub> Ranking Risk to Adjacent Consequences on Sensitive Receptors	RR <sub>CS</sub> Ranking Risk to Adjacent Consequences on Sensitive Receptors	RR <sub>CS</sub> Ranking Risk to Adjacent Consequences on Sensitive Receptors
Depth Probe	02001	01	1234567	1234567	0.1	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567

SI Appendix B - Peat & Subsoil Survey Database  
Inchmaree WF, Co. Cork

Peat & Slope Stability Risk Assessment



Prepared by: SK 07/2023  
RSK File Ref.: 00871-05.xls

Sample / Test Category	Point ID No.	Association	RTM Rating	RTM Noting	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Slope (Pitched) from OSDB	Notes	Parameter Values		Scenario A		Scenario B		Scenario A		Scenario B		Scenario A		Scenario B		Risk Category	Risk Category
									Slope Angle	Undrained Shear Strength (kPa)	Bulk Unit Weight of Peat (kN/m <sup>3</sup> )	Depth to failure plane (m)	Surcharge Equivalent (kPa)	FoS <sub>RAW</sub>	FoS <sub>ADJ</sub>	FoS <sub>RAW</sub>	FoS <sub>ADJ</sub>	RR <sub>AP</sub>	RR <sub>AP</sub>	RR <sub>0</sub>	RR <sub>0</sub>			
Depth Probe	SP076	50776	1.0	1.0	0.15	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low

Scenario	RR <sub>AP</sub>	RR <sub>0</sub>	Risk Category
Scenario A	1.0	1.0	Low
Scenario B	1.0	1.0	Low



## Appendix C



**Inchamore Wind Farm**  
 Inchamore, Co. Cork / Co. Kerry  
 App 8.1 - App C- 3188-A2 (01) IWF SI  
 TP BH Locations

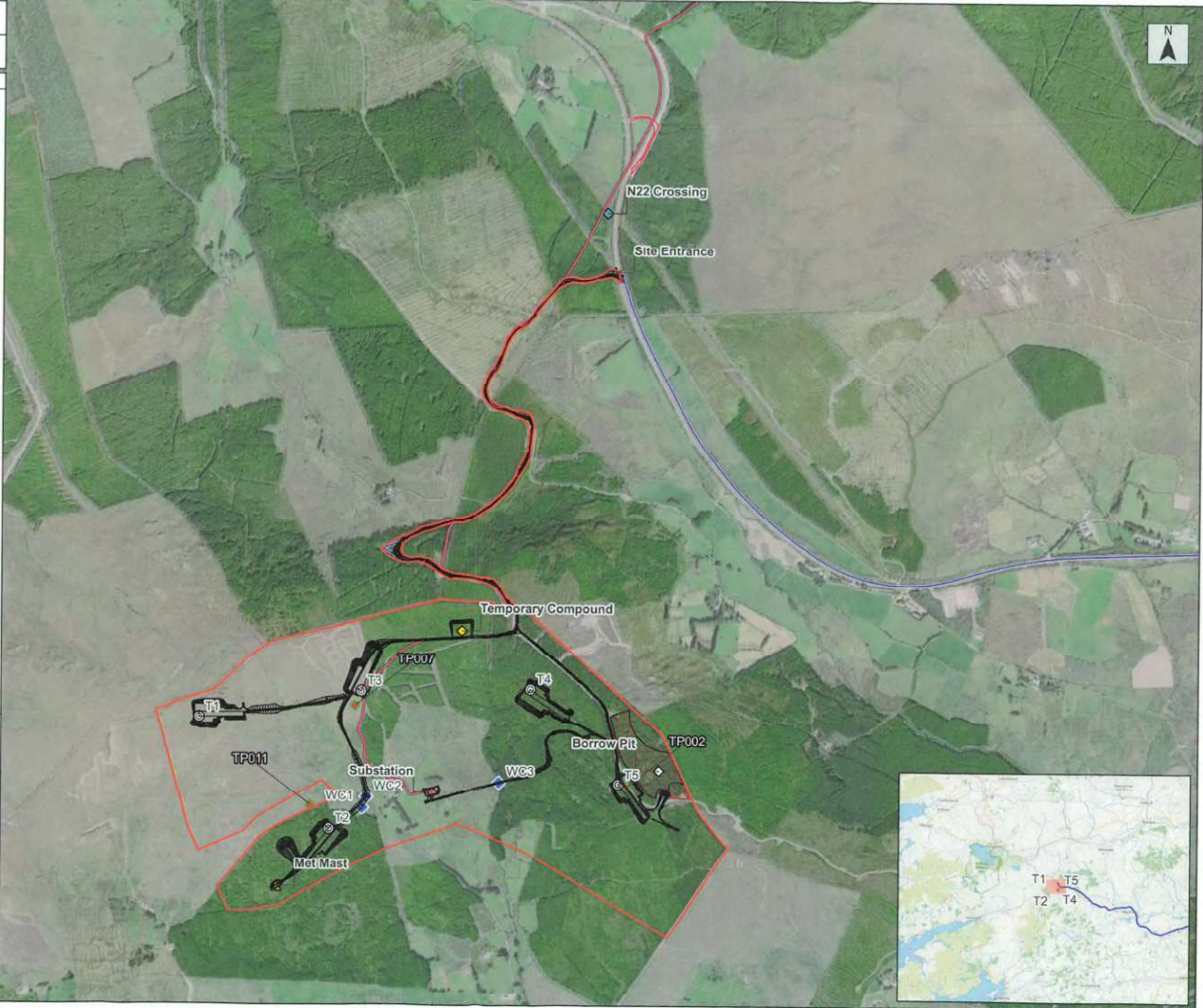
**Legend**

- Development Layout**
- WF
  - Red Line 23
  - 230313 Site Layout
  - Turbine Locations
  - Site Entrances
  - Proposed Mat Mast
  - Watercourse Crossings
  - Proposed Borrow Pits
  - Borrow Pit
  - Proposed Temporary Construction Compound
  - Proposed On Site Substation
- UGC**
- Inchamore Grid Connection Route
  - HDD Crossings
- Delivery**
- Redline-250 Haul Road - 256-Polyline
  - Turbine Delivery Route
  - Redline-250 Haul Road - 256-Polyline
  - Turbine Delivery Route
- Geology**
- 3188-A2-IWF SI Trial Pit Data
  - Yes, Iron Pan Present
- Base Maps**
- Bing Aerial
  - OpenStreetMap

Project ID: 604162 Inchamore Wind Farm  
 Projection: ITM  
 Drawn by: Sven K.  
 Reviewed by: Sven K.  
 Version: 21/09/2022

**References/Sources:**  
 Environmental Protection Agency (EPA)  
 Geological Services Ireland (GSI)  
 Bing Aerial / GaiaView / Open Street Map / Google Roads  
 GDEM Elevation Contours  
 Phase 1 (250m Grid Peak Depth - Greensource)  
 Note: Data points presented are generalised using open source data within a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design purposes.

Scale: 0 0.27 0.54 km





## Appendix D



**Inchamore WF, Co. Cork**

**SI Trial Pit Logs**

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (meOCM) & [Thickness]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	
	Sample number & interval (mbGL) (Sample 10 kg minimum)	Non-Natural Ground Percentage (see * below)	PID (ppm)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	TP001
N/A		N/A	N/A			0.5	PEAT/PEATY SOIL, Medium Brown	N	
						0.5	Sandy Gravelly CLAY w/ Cobbles, Medium Brown	N	
						1.0	Boulders / Weathered Bedrock	N	
						1.5	EOH – Weathered Bedrock / Boulders		
						2.0			
						2.5			
						3.0			
						3.5			
						4.0			

\* **Non-natural material %s with total % in ( )**  
**NON-DEGRADABLE % (ND):** 1 = Brick, 2 = Concrete, 3 = Glass, 4 = Ceramic tiles, 5 = ACMs (asbestos containing materials such as roof tiles, piping), 6 = Blue Bangor slate.  
**DEGRADABLE % (D):** 7 = Plastic, 8 = Metal, 9 = Wood / Organic / Leaves / Twigs / Peat, 10 = Ash & Clinker, 11 = Charcoal, 12 = Tarmacadam, 13 = Leather, 14 = Coal Tar

\*\* 1-From hand held GPS, 2-Estimated from google maps or 3-Surveyed with theodolite.

<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Silt, Sand, Gravel, Cobble, Boulder deposit	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Silt - Sand Gravel - Cobbles - Boulder	<b>C</b> COLOUR - Brown (LB, MB, DB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	<b>D</b> STIFFNESS VST = V, Soft ST = Soft F = Firm S = Stiff VS = V, Stiff	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm Stone	<b>F</b> NN or N
--	---	---	---	---	---------------------

**RSK**

Write additional help notes on macropores, mottling etc as space allows

**F Interpretation**  
 NN = Non-natural ground fill / made up ground / disturbed natural  
 N = Natural ground

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling				Depth in metres below ground level, also (mOCOM) & [Thickness]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	
	Sample number & interval (mbGL) (Sample 10 kg minimum)  Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (assumed on site)	Non-Natural Ground Percentage (see * below)	PID (ppm) <small>Logged sample (SS), Trial Pit (TPW), Soil (SC), In-situ (RUC), Trial Pit Clump (TPC)</small>	Odour strength & description (none, weak, moderate, strong)			Groundwater occurrence (See legend for symbols used for dry, damp and wet)	TP002
N/A	N/A	N/A	N/A				JOD (Collie), Inchamore WF, Cork	
							Minerex work item: A2 Page No.: 1 of 1 Date & time drilled / formed: 02/06/2021 Logged by (drawn by) / checked by: SK Drilling / Trial pitting co. & equipment: Excavator Doc. Ref.: (File Ref: 3185-A2-024_603679 App D) Insh Transverse Mercator (ITM)**: 513978, 578679	
							<b>Geological description</b> Natural / Made	

\* **Non-natural material %s with total % in ( )**  
**NON-DEGRADABLE % (ND):** 1 = Brick, 2 = Concrete, 3 = Glass, 4 = Ceramic tiles, 5 = ACMs (asbestos containing materials such as roof tiles, piping), 6 = Blue Bangor slate.  
**DEGRADABLE % (D):** 7 = Plastic, 8 = Metal, 9 = Wood / Organic / Leaves / Twigs / Peat, 10 = Ash & Clinker, 11 = Charcoal, 12 = Tarmacadam, 13 = Leather, 14 = Coal Tar

\*\* 1-From hand held GPS, 2-Estimated from google maps or 3-Surveyed with theodolite.

<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Sil, Sand, Gravel, Cobble, Boulder deposit 	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Sil - Sand Gravel - Cobble - Boulder	<b>C</b> COLOUR - Brown (LB, MB, DB) - Grey (LG, MG, DG) - Mustard - Sedge (San) - Olive - Mottled - Orange	<b>D</b> STIFFNESS VST - V. Soft ST = Soft F = Firm S = Stiff VS = V. Stiff	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % > 10mm stone	<b>F</b> NN or N

Write additional help notes on macropores, mottling etc as space allows



Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (mOCM) & [thickness]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP004
	Sample number & interval (mbGL) (Sample 10 kg minimum) <i>Red line = Single channel sample (free field)</i> <i>Blue line = Composite sample (generated in office or lab)</i> <i>Green line = Grab sample (accepted on site)</i>	Non-Natural Ground Percentage	PID (ppm) <small>Slipped samples (BS), Trial Pit Wall (TPW), Soil Core (BC), BC-Arrest (BKA), Trial Pit Clings (TPC)</small>	Odour strength & description <small>(none, weak, moderate, strong)</small>	Groundwater occurrence <small>(See legend for symbols used for dry, damp and wet)</small>			Client, Project, Location	JOD (Collie), Inchamore WF, Cork
N/A	N/A	N/A	N/A				PEAT/PEATY SOIL, Dark Brown	N	
					0.5		Sandy CLAY, Medium Brown	N	
					1.0		Sandy CLAY, Grey	N	
					1.5				
					2.0				
					2.5		EOH – Big Boulders		
					3.0				
					3.5				
					4.0				

\* Unreliable data. Indication only.  
 \*\* From hand held GPS

<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Sil, Sand, Gravel, Cobble, Boulder deposit	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Sil - Sand Gravel - Cobble - Boulder	<b>C</b> COLOUR (LR, MB, DR) - Brown - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	<b>D</b> STIFFNESS VST = V. Stiff ST = Soft F = Firm S = Soft VS = V. Stiff	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm stone	<b>F</b> MN or N
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**RSK**

Write additional help notes on macropores, mothing etc as space allows

**F Interpretation**  
 NN = Non-natural ground (R / made up ground / disturbed natural)  
 N = Natural ground

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (m/ODM) & [Thickness]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER							
	Sample number & interval (mbGL) (Sample 10 kg minimum) <i>Red line = Single channel sample (from field)</i> <i>Blue line = Composite sample (generated in office or lab)</i> <i>Green line = Grab sample (collected on site)</i>	Non-Natural Ground Percentage	PID (ppm) (Bagged sample (BG), Total PAHs (TPW), Soil Core (SC), BH Average (BHA), Total PAHs (TPC))	Odour strength & description (None, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	Page No.	Date & time drilled / formed	Logged by (drawn by) (checked by)	Drilling / Trial pitting co. & equipment			
N/A		N/A	N/A					TP005	JOD (Coille), Inchamore WF, Cork						
								A2	Excavator						
								1 of 1							
								02/06/2021							
								SK							
									(File Ref: 3198-A2-024_609079 App D)						
									Irish Transverse Mercator (ITM)** 613761, 579123						
								Geological description							
								PEAT/PEATY SOIL. Dark Brown							
								Sandy Gravelly CLAY w/ boulders. Medium Brown							
								EOH - Boulders							
								<table border="1"> <tr> <td><b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Sil, Sand, Gravel, Cobble, Boulder deposit</td> <td><b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Sil - Sand Gravel - Cobble - Boulder</td> <td><b>C</b> COLOUR (LB, MB, DB) - Brown (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange</td> <td><b>D</b> STIFFNESS VS - V: Soft ST = Soft F = Firm S = Stiff VS = V: SHIP</td> <td><b>E</b> LAYER ID, RECOVERY &amp; STONE % recovery % &gt;10mm stone</td> <td><b>F</b> NN or N</td> </tr> </table>		<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Sil, Sand, Gravel, Cobble, Boulder deposit	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Sil - Sand Gravel - Cobble - Boulder	<b>C</b> COLOUR (LB, MB, DB) - Brown (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	<b>D</b> STIFFNESS VS - V: Soft ST = Soft F = Firm S = Stiff VS = V: SHIP	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm stone	<b>F</b> NN or N
<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Sil, Sand, Gravel, Cobble, Boulder deposit	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Sil - Sand Gravel - Cobble - Boulder	<b>C</b> COLOUR (LB, MB, DB) - Brown (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	<b>D</b> STIFFNESS VS - V: Soft ST = Soft F = Firm S = Stiff VS = V: SHIP	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm stone	<b>F</b> NN or N										
								<p>* Unreliable data. Indication only.</p> <p>** From hand held GPS</p> <p>Write additional help notes on macropores, mottling etc as space allows</p> <p>NN = Non-natural ground OR / mark up ground / disturbed natural, N = Natural ground</p> <p><b>F Interpretation</b></p>							



Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Geology (graphical log)	INVESTIGATION POINT LOG NUMBER											
	Sample number & interval (mbGL) (Sample 10 kg minimum) <i>Red line = Single channel sample (from field)</i> <i>Blue line = Composite sample (generated in office or lab)</i> <i>Green line = Grab sample (occurred on site)</i>	Non-Natural Ground Percentage	PID (ppm) <small>Regenerable (RS): Trial Pit Water (TPW), Soil Gas (SCG), Soil Air (SIA), Trial Pit Climate (TPC)</small>	Odour strength & description <small>(None, weak, moderate, strong)</small>	Groundwater occurrence <small>(See legend for symbols used for dry, damp and wet)</small>		Client, Project, Location	TP006	JOD (Collite), Inchmore WF, Cork									
N/A	N/A	N/A	N/A				PEAT/PEATY SOIL, Dark Brown Clayey, Sandy GRAVEL / TILL w/ Cobbles EOH End of turning point, ground level below baseline. Cut side +2m. Peat 0.2mbGL, Brown till 0.3, grey as logged to existing GL.	N	N									
* Unreliable data. Indication only. ** From hand held GPS						<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Silt, Sand, Gravel, Cobble, Boulder deposit 			<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Silt - Sand Gravel - Cobble - Boulder		<b>C</b> COLOUR - Brown (L, M, DR) - Grey (L, G, M, G, DG) - Mottled - Barge (tan) - Olive - Mottled - Orange		<b>D</b> STIFFNESS VST = V. Soft ST = Soft F = Firm S = Stiff VS = V. Stiff		<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm stone		<b>F</b> NN or N NN = Non-natural ground (28) / rock up ground (disturbed natural) N = Natural ground	

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	
	Sample number & interval (mbGL) (Sample 10 kg minimum)	Non-Natural Ground Percentage	PID (ppm)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)		Client, Project, Location	TP007
N/A	Red line = Single channel sample (from filter) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (sampled on site)	N/A	N/A	(Bagged sample (BS), Trial Pit Wall (TPW), Soil Core (SC), BH Average (BHA), Trial Pit Clumps (TPC))	(none, weak, moderate, strong)	(See legend for symbols used for dry, damp and wet)	JOD (Collie), Inchamore WF, Cork A2 1 of 1 03/06/2021 SK Excavator (File Ref. 3188-A2-024, 603679 App D) 0512850, 0578987	Irish Transverse Mercator (ITM)
	Drilling / Trial pitting co. & equipment Doc. Ref. Geographical description					Depth in metres below ground level, also (mCODM) & [Thickness]	Geology (graphical log)	Natural / Made
					0.5	PEAT/PEATY SOIL. Dark Brown	N	
						Sandy Gravelly CLAY. Medium Brown	N	
					1.0	Sandy Gravelly CLAY with cobbles. Blue grey	N	
						Iron stain		
					1.5	Iron stain		
					2.0	Iron stain		
					2.5			
					3.0			
					3.5	EOH – Weathered Bedrock / Boulders		
					4.0			


\* Unreliable data. Indication only.  
 \*\* From hand held GPS

<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Sil, Sand, Gravel, Cobble, Boulder deposit	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Sil - Sand, Gravel - Cobble - Boulder	<b>C</b> COLOUR - Brown (LB, MB, DB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	<b>D</b> STIFFNESS VST - V. Soft ST - Soft F = Firm S = Stiff VS = V. Stiff	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm stone	<b>F</b> NN or N
<b>RSK</b> Write additional/help notes on macropores, mottling etc as space allows		<b>F Interpretation</b> NN = Non-natural ground (SB / made up ground / disturbed natural) N = Natural ground			

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (macroM) & [Thickness]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	
	Sample number & interval (mbGL) (Sample 10 kg minimum) <small>Red line = Single (hand) sample (from field)</small> <small>Blue line = Composite sample (generated in office or lab)</small> <small>Green line = Grab sample (coloured on site)</small>	Non-Natural Ground Percentage	PID (ppm) <small>Flipped sampler (S); Total Pit Wall (TPW); Soil Core (SC); Wet Average (WA); Total Pit Clumps (TFC)</small>	Odour strength & description <small>(none, weak, moderate, strong)</small>	Groundwater occurrence <small>(See legend for symbols used for dry, damp and wet)</small>			TP008	
								Geological description	
N/A	N/A	N/A	N/A			0.0 - 0.1	PEAT/PEATY SOIL, Dark Brown	N	
				*****		0.1 - 3.0	Sandy Gravelly CLAY w/ cobbles,	N	
						3.0 - 4.0	EOH – Weathered Bedrock / Boulders	N	

\* Unreliable data. Indication only.

\*\* From hand held GPS.

<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Silt, Sand, Gravel, Cobble, Boulder deposit	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Silt - Sand Gravel - Cobble - Boulder	<b>C</b> COLOUR - Brown (L, B, MB, DB) - Grey (L, G, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	<b>D</b> STIFFNESS VST - V: Soft ST = Soft F = Firm S = Stiff VS = V. Stiff	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm stones	<b>F</b> NN or N
					<b>F Interpretation</b>
<small>Write additional help notes on macropores, rootling etc as space allows</small>					<small>NN = Natural ground (N) made to ground / disturbed natural, N = Natural ground</small>

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (macroDM) & [Thickness]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER					
	Sample number & interval (mbGL) (Sample 10 kg minimum)	Non-Natural Ground Percentage	PID (ppm)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			TP009	Client, Project, Location	Natural / Made			
N/A	N/A	N/A	N/A					PEAT/PEATY SOIL. Dark Brown	N				
						0.5		Sandy Gravelly CLAY w/ cobbles. Medium Brown	N				
						1.0		Sandy Gravelly CLAY w/ cobbles and boulders. Medium Brown	N				
						1.5							
						2.0		Bigger Boulders					
						2.5		EOH					
						3.0							
						3.5							
						4.0							
<p>* Unreliable data. Indication only.</p> <p>** From hand held GPS</p>		<p><b>A</b> DOMINANT GEOLOGICAL COMPONENT</p> <p>Clay, Silt, Sand, Gravel, Cobble, Boulder deposit</p>		<p><b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT</p> <p>Clay - Silt - Sand Gravel - Cobble - Boulder</p>		<p><b>C</b> COLOUR</p> <p>- Brown (L.E, M.E, D.E)</p> <p>- Grey (L.G, M.G, D.G)</p> <p>- Mustard</p> <p>- Beige (tan)</p> <p>- Olive</p> <p>- Mottled</p> <p>- Orange</p>		<p><b>D</b> STIFFNESS</p> <p>vST - V. Soft</p> <p>ST - Soft</p> <p>F - Firm</p> <p>S - Stiff</p> <p>VS - V. Stiff</p>		<p><b>E</b> LAYER ID, RECOVERY &amp; STONE</p> <p>% recovery</p> <p>% &gt;10mm stone</p>		<p><b>F</b> NN or N</p> <p><b>F Interpretation</b></p> <p>NN = Non-natural ground (N / made up ground / disturbed natural)</p> <p>N = Natural ground</p>	

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (macroDM) & [Turbidity]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	
	Sample number & interval (mbGL) (Sample 10 kg minimum) <i>Red line = Single channel sample (from field)</i> <i>Blue line = Composite sample (generated in office or lab)</i> <i>Green line = Quota sample (occurred on site)</i>	Non-Natural Ground Percentage	PID (ppm) <small>Regulated sample (BS), Total PAH (TPWH), Soil Core (SC), BH Average (BHA), Total PAH Clumps (TPC)</small>	Odour strength & description <small>(none, weak, moderate, strong)</small>	Groundwater occurrence <small>(See legend for symbols used for dry, damp and wet)</small>			Client, Project, Location	TP010
N/A		N/A	N/A				<p><b>TOPSOIL</b></p> <p>Sandy Gravelly CLAY, Brown</p> <p>PEAT/PEATY SOIL, Dark Brown</p> <p>Sandy Gravelly CLAY, Brown</p> <p>Sandy Gravelly CLAY, Blue Grey</p> <p>Big Boulder</p> <p>EOH</p>	N	N
<p>* Unreliable data. Indication only.</p> <p>** From hand held GPS</p>								<p><b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Silt, Sand, Gravel, Cobble, Boulder deposit</p> <p><b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Sil - Sand Gravel - Cobble - Boulder</p> <p><b>C</b> COLOUR - Brown (LB, MB, DR) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange</p> <p><b>D</b> STIFFNESS VST - V, Soft ST - Soft F = Firm S = Stiff VS = V. Stiff</p> <p><b>E</b> LAYER ID, RECOVERY &amp; STONE % recovery % &gt;10mm stone</p> <p><b>F</b> NN or N</p> <p><b>F Interpretation</b> NN = In-situ ground / made up ground / disturbed natural N = Natural ground</p>	

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (m/ODM) & [Thickness]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	
	Sample number & interval (mbGL) (Sample 10 kg minimum) <small>Red line = Single shrunken sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Core sample (recovered in site)</small>	Non-Natural Ground Percentage	PID (ppm) <small>Suggested sample (SS), Trial Pit Water (TPW), Soil Core (SC), BH Average (BA), Trial Pit Chloride (TPC)</small>	Odour strength & description <small>(none, weak, moderate, strong)</small>	Groundwater occurrence <small>(See legend for symbols used for dry, damp and wet)</small>			TP011	Client, Project, Location
N/A	N/A	N/A	N/A				PEAT/PEATY SOIL, Dark Brown	N	JOD (Coille), Inchamore WF, Cork
					0.5		Very clayey very sandy GRAVEL.	N	Minerax work item A2
					1.0				Page No. 1 of 1
					1.5				Date & time drilled / formed 03/06/2021
					2.0				Logged by (drawn by) (checked by) SK
					2.5				Drilling / Trial pitting co. & equipment Excavator
					3.0				Doc. Ref. (File Ref. 3188-A2-024, 003679 App D)
					3.5				Irish Transverse Mercator (ITM) 612781, 578602
					4.0		EOH – Weathered Bedrock		<b>Geological description</b>
									Natural / Made

\* Unreliable data. Indication only.  
 \*\* From hand held GPS

<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Silt, Sand, Gravel, Cobble, Boulder deposit	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Silt - Sand Gravel - Cobble - Boulder	<b>C</b> COLOUR - Brown (LB, MB, DB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	<b>D</b> STIFFNESS VST = V. Soft ST = Soft F = Firm S = STIFF VS = V. STIFF	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm stone	<b>F</b> NN or N  <b>F Interpretation</b> NN = Non-natural ground (N) made up ground / disturbed natural, N = Natural ground
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Write additional help notes on macropores, mottling etc as space allows

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (macOM) & [Thick/Thin]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	
	Sample number & interval (mbGL) (Sample 10 kg minimum)  Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (occurred on site)	Non-Natural Ground Percentage	PID (ppm) Single sample (SS): Total P/Vol (TPV), Soluble (SC), Average (SAV), Total Phosphate (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			TP012	Client, Project, Location
N/A	N/A	N/A	N/A			0.5	PEAT/PEATY SOIL. Dark Brown		JOD (Collis), Inchamore WF, Cork
							Weathered Bedrock		Minerex work item A2
							EOH – Weathered Bedrock		Page No. 1 of 1
						1.0			Date & time drilled / formed: 03/06/2021
						1.5			Logged by (drawn by) (checked by): SK
						2.0			Drilling / Trial pitting co. & equipment: Excavator
						2.5			Doc. Ref. (File Ref. 3185-A2-024; 603679 App D)
						3.0			Irish Transverse Mercator (ITM) 512867, 576632
						3.5			Geological description
						4.0			Natural / Made

\* Unreliable data. Indication only.  
 \*\* From hand held GPS

<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Silt, Sand, Gravel, Cobble, Boulder deposit	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Silt - Sand Gravel - Cobble - Boulder	<b>C</b> COLOUR - Brown (LS, MB, DB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	<b>D</b> STIFFNESS WST - V. Soft ST - Soft F = Firm S = Stiff VS = V. Stiff	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm stone	<b>F</b> NN or N
		<b>F Interpretation</b> NN = Inverted ground (B / made up ground / disturbed natural) N = Natural ground			

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level also (msODM) & thickness	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER			
	Sample number & interval (mbGL) (Sample 10 kg minimum) <small>Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)</small>	Non-Natural Ground Percentage	PID (ppm) <small>Bagged sample (BS); Trial Pit Void (TPW); Soil Core (SC); BH Average (B-A); Trial Pit Clump (TPC)</small>	Odour strength & description <small>(none, weak, moderate, strong)</small>	Groundwater occurrence <small>(See legend for symbols used for dry, damp and wet)</small>			TP013		Client, Project, Location	
								JOD (Collts), Inchamore WF, Cork		Minorex work item	
N/A		N/A	N/A			PEAT/PEATY SOIL, Dark Brown	N	Page No.			
						Sandy Gravelly CLAY	N	Date & time drilled / formed:			
						Sandy Gravelly CLAY w/ cobbles and boulder, Blue grey.		Logged by (drawn by) (checked by):			
						EOH - Boulders		Drilling / Trial pitting co. & equipment			
								Excavator			
								Doc. Ref.			
								(File Ref. 3189-A2-024 603679 App D)			
								Irish Transverse Mercator (ITM)			
								0512589, 0578911			
								Geological description			
								Natural / Made			



\* Unreliable data. Indication only.  
 \*\* From hand held GPS

A	B	C	D	E	F
<b>DOMINANT GEOLOGICAL COMPONENT</b> Clay, Sil, Sand, Gravel, Cobble, Boulder deposit	<b>NON-DOMINANT GEOLOGICAL COMPONENT</b> Clay - Sil - Sand, Gravel - Cobble - Boulder	<b>COLOUR</b> - Brown (LB, MB, DB) - Grey (LG, MG, DG) - Mustard - Baige (tan) - Olive - Mottled - Orange	<b>STIFFNESS</b> ST - V. Soft S = Soft S = Stiff VS = V. Stiff	<b>LAYER ID, RECOVERY &amp; STONE</b> % recovery % >10mm stone	<b>MN or N</b>
					<b>F Interpretation</b> NN = Non-natural ground (B / made up ground / disturbed natural) N = Natural ground
Write additional help notes on macro-pores, mottling etc as space allows					




Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (m/ODM) & [Thickness]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER																			
	Sample number & interval (mbGL) (Sample 10 kg minimum) <i>Red line = Single charcoal sample (from field)</i> <i>Blue line = Composite sample (generated in office or lab)</i> <i>Green line = Gyps sample (acquired on site)</i>	Non-Natural Ground Percentage	PID (ppm) <small>Superfund (SFC), Total PAHs (TPAH), Soil Lead (SLC), Bulk Arsenic (BMA), Total PAHs Chlorine (TPC)</small>	Odour strength & description <small>(none, weak, moderate, strong)</small>	Groundwater occurrence <small>(See legend for symbols used for dry, damp and wet)</small>			Client, Project, Location	TP014	Geological description																	
N/A	N/A	N/A	N/A	*****	*****	0.5		PEAT/PEATY SOIL. Dark Brown		N																	
				*****	*****	1.0		TP abandoned, deep peat encountered, probe point <5m from TP = 2.0mbGL. See peat probing data for area.																			
				*****	*****	1.5																					
				*****	*****	2.0																					
				*****	*****	2.5																					
				*****	*****	3.0																					
				*****	*****	3.5																					
				*****	*****	4.0																					
				*****	*****																						
				*****	*****																						
<p>* Unreliable data. Indication only.</p> <p>** From hand held GPS</p>								<table border="1"> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> </tr> <tr> <td>DOMINANT GEOLOGICAL COMPONENT Clay, Sil. Sand, Gravel Cobble, Boulder deposit</td> <td>NON-DOMINANT GEOLOGICAL COMPONENT Clay - Sil. Sand Gravel - Cobble - Boulder</td> <td>COLOUR - Brown (LB, MB, CB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange</td> <td>STIFFNESS VST - V. Soft ST = Soft F = Firm S = Stiff VS = V. Stiff</td> <td>LAYER ID, RECOVERY &amp; STONE % recovery % &gt;10mm stone</td> <td>NN or N</td> </tr> <tr> <td colspan="5"> </td> <td>F Interpretation NN = Hand-dred ground (N / made up ground / disturbed natural) N = Natural ground</td> </tr> </table>		A	B	C	D	E	F	DOMINANT GEOLOGICAL COMPONENT Clay, Sil. Sand, Gravel Cobble, Boulder deposit	NON-DOMINANT GEOLOGICAL COMPONENT Clay - Sil. Sand Gravel - Cobble - Boulder	COLOUR - Brown (LB, MB, CB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	STIFFNESS VST - V. Soft ST = Soft F = Firm S = Stiff VS = V. Stiff	LAYER ID, RECOVERY & STONE % recovery % >10mm stone	NN or N						F Interpretation NN = Hand-dred ground (N / made up ground / disturbed natural) N = Natural ground
A	B	C	D	E	F																						
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					F Interpretation NN = Hand-dred ground (N / made up ground / disturbed natural) N = Natural ground																						



Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (msODM) & [Thickness]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	
	Sample number & interval (mbGL) (Sample 10 kg minimum)	Non-Natural Ground Percentage	PID (ppm)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	TP016
N/A		N/A	N/A		*****	0.5	  EOH. Bedrock.	PEAT/PEATY SOIL, Dark Brown	N
					*****			Sandy Gravelly Cobble CLAY, Brown	N
					*****	1.0			
						1.5			
						2.0			
						2.5			
						3.0			
						3.5			
						4.0			

\* Unreliable data, indication only.

\*\* From hand held GPS

<b>A</b> DOMINANT GEOLOGICAL COMPONENT Clay, Silt, Sand, Gravel, Cobble, Boulder deposit	<b>B</b> NON-DOMINANT GEOLOGICAL COMPONENT Clay - Silt - Sand Gravel - Cobble - Boulder	<b>C</b> COLOUR - Brown (LB, MB, CB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange	<b>D</b> STIFFNESS VST - V. Soft ST = Soft F = Firm S = Stiff VS = V. Soft	<b>E</b> LAYER ID, RECOVERY & STONE % recovery % >10mm stone	<b>F</b> NN or N
					<b>F Interpretation</b> NN = Non-natural ground (fill made up ground / disturbed natural) N = Natural ground

Write additional help notes on macropores, mottling etc as space allows

## GENERAL LEGEND, ABBREVIATIONS AND INSTALLATION DETAILS

### BEDROCK

- Metamorphic bedrock
- Igneous bedrock
- Mudstone / Shale bedrock
- Siltstone / Sandstone bedrock
- Limestone bedrock

### COLOUR

- Brown (Light, medium, dark)
- Grey (Light, medium, dark)
- Mustard
- Beige (tan)
- Olive
- Mottled
- Orange

### GRAIN SIZE (Soil)

- Clay (% of) C(20)
- Silt (% of) St(20)
- Sand (% of) Sd(20)
- Gravel (% of) G(20)
- Sand (Fine to Medium) Sd<sub>F-M</sub>
- Gravel (Fine to Coarse Subangular to angular) G<sub>F-C SA-A</sub>

### OVERBURDEN

(Description uses BS 5930 and GSI guidelines)

- BOULDER(S)** (>200mm)
- COBBLES** (60 to 200mm)
- GRAVEL** (Homogeneous larger sized particles from 2 to 60 mm)
- SAND** (General, if without grain size description) Particle sizes: 2 to 0.06mm. Three sub-categories distinguishable to the eye)
  - Coarse SAND (2-0.6mm)
  - Medium SAND (0.6-0.2mm)
  - Fine SAND (0.2-0.06mm)
- SILT** (0.06 - 0.002mm)
- CLAYS** (<0.002mm)
- CONCRETE**
- TARMACADAM**
- CRUSHED STONE or AGGREGATE**
- LANDFILL** (eg plastic, glass, wood, domestic waste, concrete etc.)
- FILL OR BACKFILLED GROUND** (unspecified)
- COLLAPSED FORMATION (with possible voids) or DRILL CHIPPINGS / MATERIAL RETURNED BY AIR FLUSH DRILLING**
- LOSS** (Blank - white)
- TOP SOIL**
- PEAT (General)** (with descriptions such as colour, plant remains evident, distinct H<sub>2</sub>S smell etc) (H (Von Post) value associated commonly)

### MONITORING POINT COMPLETIONS

- TS/C1/PH1** Terminal Site/Couple no./Phreatic no.
- PR/C2/P2** Peat Repository/Couple no./Piezometer no.
- H7** Von Post humification scale
- Push-on cap
- Screen
- Casing
- Porous tip
- Drive cone
- P1 PH1** Piezometer no. and Phreatic tube no.
- Bentonite pellets
- Cement-Bentonite grout
- Gravel pack, nominal 2-5mm in diameter
- Damp, wet and water strike respectively
- Static water table (with date measured and hour since installation)

### PLAN SKETCHES

- PWS1** Hand dug trial pits / Shallow pit excavations (JCB)
- TP1** Percussion Window Sampler (PWS) boreholes
- 100 BG** FID/PID in ppm Hydrocarbons with BG = background
- 99.791** Reduced levels - maOD Malin
- Oil pipeline
- Storage tanks (Overground and underground)

### MONITORING POINT DESIGN FOR PEAT SUBSOILS

**Push-on, female cap**  
The cap is loosely fitted to allow easy removal. The piezometer is labelled using indelible ink inside and outside the cap. A small hole is drilled in the side to enable air movement in and out of the piezometer.

**Casing up-stand**  
The upstand is the height of the casing above ground level in meters. The height depends on local groundwater and surface water circumstances. The piezometer number is scrapped onto the side of the casing near the cap as with time the writing on the cap wears off. Upstands vary from 0.3 to 1.0m in height. The convention is allow a higher upstand for those piezometers positioned at a higher level.

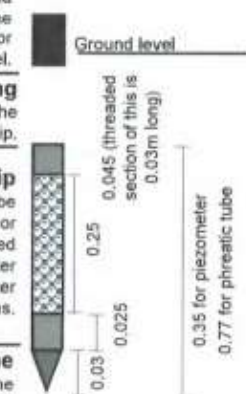
**Casing**  
The casing is black or dark grey coloured, flush-threaded, uPVC. The OD is 26.80mm and the ID is 18.40. The casing is flush-threaded to the piezometer tip.

**Tube or Piezometer tip**  
This section is installed opposite the required formation. There are two sections to the piezometer tip. The inner tube section is 18.40mm ID, white in colour and involves extruded microporous polyethylene. The outer comprises grey or black coloured uPVC with 10 x 0.013m diameter holes per 0.10m of piezometer tip. Therefore the surface area exposed to the formation (peat) is small. The piezometer tube tip is flush-threaded, either male or female, to the piezometer casing. Threaded part is 0.03m long. The phreatic tube tip is longer than the piezometer tube tip to allow for greater water level fluctuations.

**Drive cone**  
This is grey coloured, solid, uPVC, pushed or screwed into the tube or piezometer tip. No glue has been used. If the ground is soft, a push-in button cap may be used instead of a drive cone.

#### NOTES:-

The phreatic tubes are pushed by hand into the peat. The piezometers are pushed or driven into the peat and mineral soil after a narrow diameter hole has been formed using overburden drilling (Cobra or Percussion Window Sampler) / coring equipment (Gouge corer). The tubes and piezometers have three main functions: water table measurements, water sampling, permeability measurements.





## Appendix E



**Inchamore WF, Co. Cork**

**SI Trial Pit Photos**

Appendix E – IWF Trial Pit and Site Photos

TP001

(File Ref. (File Ref. 3188-A2-008; 603679 App E))



Appendix E – IWF Trial Pit and Site Photos

TP002

(File Ref. 3188-A2-008; 603679 App E)



File Ref. 3188-A2-008; 603679 App E



**Appendix E – IWF Trial Pit and Site Photos**

**TP003**

(File Ref. 3188-A2-008; 603679 App E)



File Ref. 3188-A2-008; 603679 App E

Appendix E – IWF Trial Pit and Site Photos

TP004

(File Ref. 3188-A2-008; 603679 App.E)



File Ref. 3188-A2-008; 603679 App E

**Appendix E – IWF Trial Pit and Site Photos**

**TP004**

(File Ref. 3188-A2-008; 603679 App E)



Appendix E – IWF Trial Pit and Site Photos

TP005

(File Ref. 3188-A2-008; 603679 App E)



**Appendix E – IWF Trial Pit and Site Photos**

**TP006**

(File Ref. 3188-A2-008; 603679 App E)



File Ref. 3188-A2-008; 603679 App E

Appendix E – IWF Trial Pit and Site Photos

TP007

(File Ref. 3188-A2-008; 603679 App E)



File Ref. 3188-A2-008; 603679 App E

**Appendix E – IWF Trial Pit and Site Photos**

**TP008**

(File Ref. 3188-A2-008; 603679 App E)



File Ref. 3188-A2-008; 603679 App E

Appendix E – IWF Trial Pit and Site Photos

TP008

(File Ref. 3188-A2-008; 603679 App E)





**Appendix E – IWF Trial Pit and Site Photos**

**TP009**

(File Ref. 3188-A2-008; 603679 App E)



Appendix E – IWF Trial Pit and Site Photos

TP010

(File Ref. 3188-A2-008; 603679 App E)



File Ref. 3188-A2-008; 603679 App E

**Appendix E – IWF Trial Pit and Site Photos**

**TP011**

(File Ref. 3188-A2-008; 603679 App E)



Appendix E – IWF Trial Pit and Site Photos

TP012

(File Ref. 3188-A2-008; 603679 App E)



**Appendix E – IWF Trial Pit and Site Photos**

**TP013**

(File Ref. 3188-A2-008; 603679 App E)





Appendix E – IWF Trial Pit and Site Photos

TP015

(File Ref. 3188-A2-008; 603679 App E)



File Ref. 3188-A2-008; 603679 App E

Appendix E – IWF Trial Pit and Site Photos

TP016

(File Ref. 3188-A2-008; 603679 App E)







## Appendix F

# KEY TO SYMBOLS ON EXPLORATORY HOLE RECORDS

All linear dimensions are in metres or millimetres

## DESCRIPTIONS

\*\* Drillers Description  
Friable Easily crumbled

## SAMPLES

U( ) Undisturbed 102mm diameter sample, ( ) denotes number of blows to drive sampler  
U( )F, U( )P F - not recovered, P-partially recovered  
U38 Undisturbed 38mm diameter sample  
P(F), (P) Piston sample - disturbed  
B Bulk sample - disturbed  
D Jar Sample - disturbed  
W Water Sample  
CBR California Bearing Ratio mould sample  
ES Chemical Sample for Contamination Analysis  
SPTLS Standard Penetration Test S lump sample from split sampler

## CORE RECOVERY AND ROCK QUALITY

TCR Total Core Recovery (% of Core Run)  
SCR Solid Core Recovery (length of core having at least one full diameter as % of core run)  
RQD Rock Quality Designation (length of solid core greater than 100mm as % of core run)  
Where there is insufficient space for the TCR, SCR and RQD, the results may be found in the remarks column  
IF Fracture Spacing in mm (Minimum/Average/Maximum) NI - non intact, NR - no recovery  
AZCL Assumed Zone of Core Loss  
NI Non intact

## GROUNDWATER

▽ Groundwater strike  
▼ Groundwater level after standing period  
Date/Water Date of shift (day/month)/Depth to water at end of previous shift shown above the date and depth to water at beginning of shift given below the date

## INSITU TESTING

S Standard Penetration Test - split barrel sampler  
C Standard Penetration Test - solid 60° cone  
SW Self Weight Penetration  
Ivp, HVp (R) In Situ Vane Test, Hand Vane Test (R) demonstrates remoulded strength  
K(F), (C), (R), (P) Permeability Test  
HP Hand Penetrometer Test

## MEASURED PROPERTIES

N Standard Penetration Test - blows required to drive 300mm after seating drive  
x/y Denotes x blows for y mm within the Standard Penetration Test  
x\*/y Denotes x blows for y mm within the seating drive  
 $c_u$  Undrained Shear Strength (kN/m<sup>2</sup>)  
CBR California Bearing Ratio

## ROTARY DRILLING SIZES

Index Letter	Nominal Diameter (mm)	
	Borehole	Core
N	75	54
H	99	76
P	120	92
S	146	113



Priority Geotechnical Ltd.  
Tel: 021 4631600  
Fax: 021 4638690  
www.prioritygeotechnical.ie

Drilled By:

GW

Logged By:

EK

Borehole No.

**BH011**

Sheet 1 of 2

<b>Project Name:</b> Gortyrähily and Inchamore Wind Farms	<b>Project No.:</b> P21139	<b>Co-ords:</b>	<b>Hole Type:</b> RC
<b>Location:</b> Gortyrähily, Co.Cork, Inchamore, Co.Cork	<b>Level:</b> m OD	<b>Scale:</b> 1:50	
<b>Client:</b> Minerex Environmental	<b>Dates:</b> 04/06/2021	04/06/2021	

Well	Water Strike (m)	Depth (m)	Type #/s (min, max, avg)	Coring (%)			Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description	
				TCR	SCR	RQD					
Well		44 (5, 8/44 for 85mm) (C)							Gravel	Driller describes clayey sandy angular GRAVEL.	1
		0 (47 for 65mm/0 for 0mm) (C) 2.80 - 3.50					2.80			Siltstone	Lithology: Red moderately weak SILTSTONE.
		3.50 - 4.40	20mm 140mm 40mm	100	0	0	14/m		Weathering: Core is showing minor signs of weathering. Sections 2.8m-3.5m and 5.7m-6.4m are highly fragmented.		3
		4.40 - 5.70	7mm 190mm 50mm	100	56	0	14/m		Fractures: One set identified. Set one has a dip of 60-70 degrees, an undulating rough fracture surface and close to medium spacing.		4
		5.70 - 6.70	20mm 120mm 60mm	100	65	8	14/m		Details: No obvious oxidation discolouration marks. Clay smearing present. Quartz veins present measuring between 2mm-20mm in thickness thickest between 3.5m-5.5m		5
		6.70 - 7.70	20mm 240mm 70mm	100	24	0	7/m				6
		7.70 - 8.70	15mm 380mm 150mm	100	84	27	11/m				7
										8	
										9	

<b>Groundwater:</b>				<b>Hole Information:</b>			<b>Equipment:</b> Soilmac PSM
Struck (m bgl)	Level (m bgl)	After (min)	Sealed	Comment	Hole Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
2.50				See shift data for detail.	10.50	76	131
<b>Remarks:</b> Borehole terminated at 10.5m bgl.				<b>Shift Data:</b>		<b>Method:</b> Compressed air mist.	
				Groundwater (m bgl)	Shift	Hole Depth (m bgl)	Remarks
				1.85	04/06/2021 08:00 04/06/2021 18:00	0.00 10.50	Start of shift. End of borehole.



Priority Geotechnical Ltd.  
 Tel: 021 4631600  
 Fax: 021 4638690  
 www.prioritygeotechnical.ie

Drilled By:

GW

Logged By:

EK

Borehole No.

**BH011**

Sheet 2 of 2

**Project Name:** Gortyrähily and Inchamore Wind Farms **Project No.:** P21139 **Co-ords:** **Hole Type:** RC

**Location:** Gortyrähily, Co.Cork. Inchamore, Co.Cork **Level:** m OD **Scale:** 1:50

**Client:** Minirex Environmental **Dates:** 04/06/2021 04/06/2021

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%)			Depth (m) / Fl (m)	Level (mOD)	Legend	Stratum Description
				TCR	SCR	RQD				
		8.70 - 9.70	10mm 180mm 150mm	100	76	24	8/m			Lithology: Red moderately weak SILTSTONE.  Weathering: Core is showing minor signs of weathering. Sections 2.8m-3.5m and 5.7m-6.4m are highly fragmented.  Fractures: One set identified. Set one has a dip of 60-70 degrees, an undulating rough fracture surface and close to medium spacing.  Details: No obvious oxidation discolouration marks. Clay smearing present. Quartz veins present measuring between 2mm-20mm in thickness thickest between 3.5m-5.5m End of Borehole at 10.500m
		9.70 - 10.50	50mm 290mm 160mm	100	81	54	3/m			
						10.50				

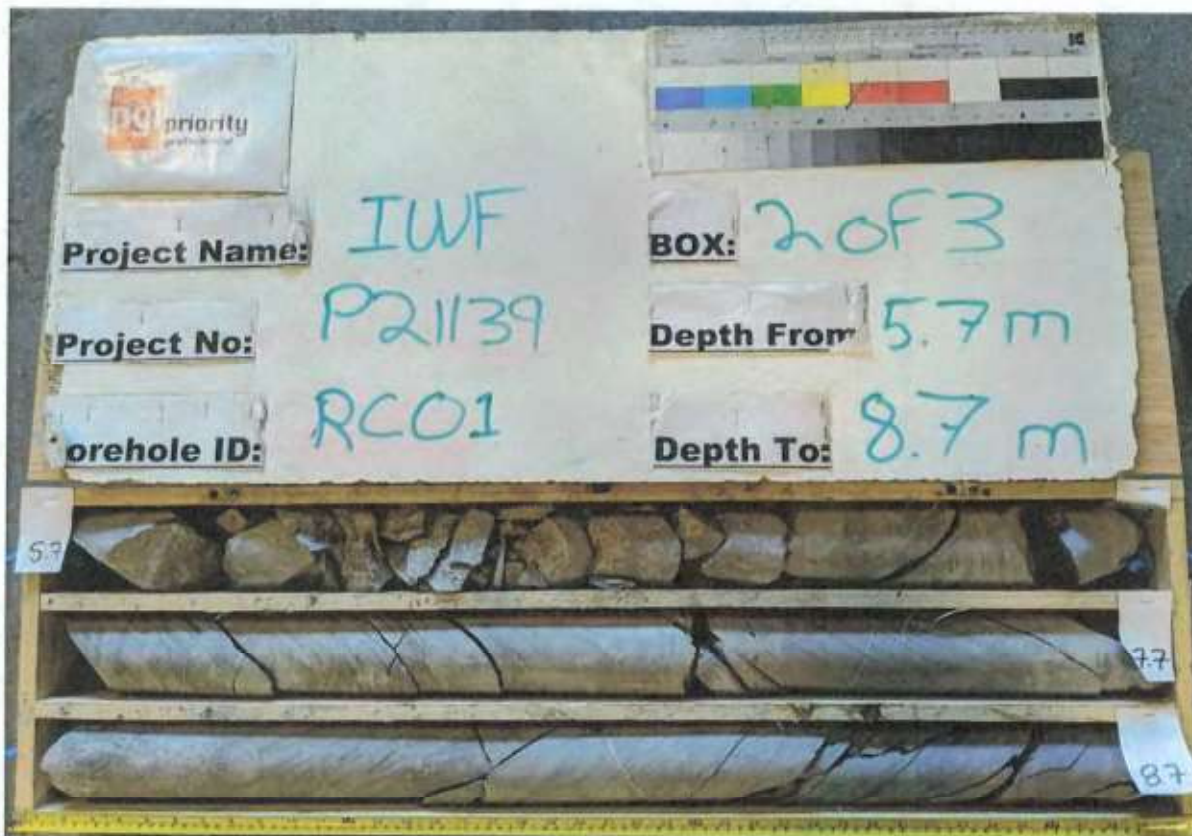
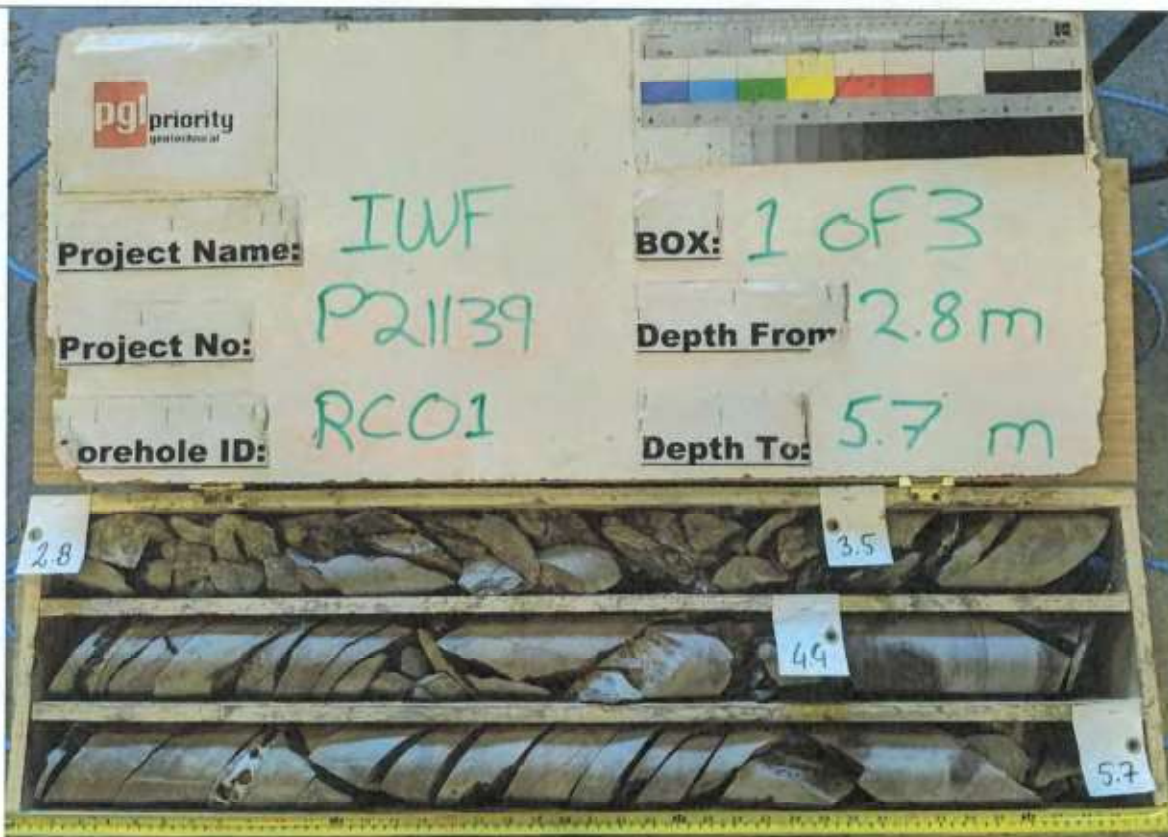
**Groundwater:** **Hole Information:** **Equipment:** Soilmec PSM

Struck (m bgl)	Level (m bgl)	After (min)	Sealed	Comment	Hole Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)	Method:
2.50				See shift data for detail.	10.50	76	131	Compressed air mist.

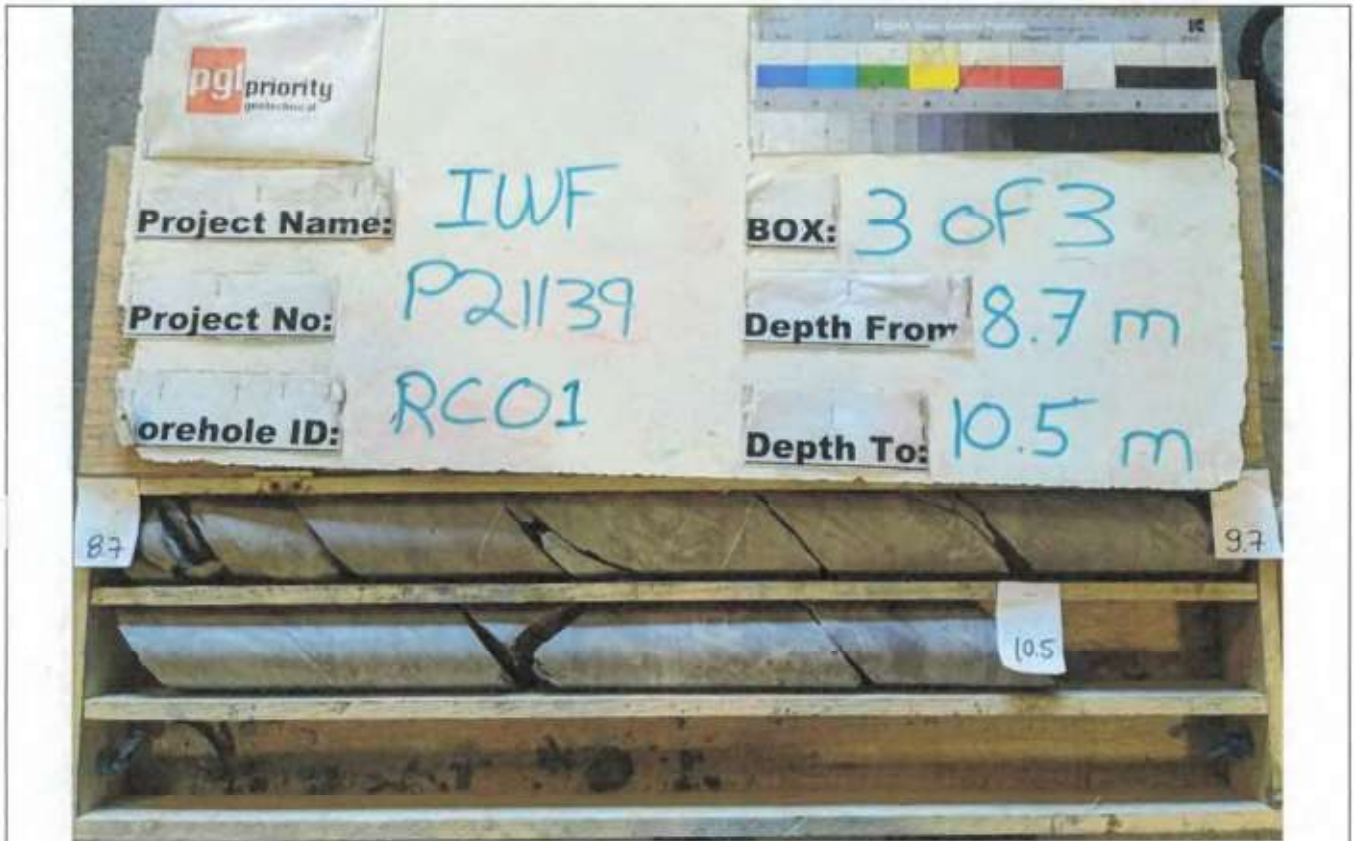
**Remarks:** Borehole terminated at 10.5m bgl.

**Shift Data:**

Groundwater (m bgl)	Shift	Hole Depth (m bgl)	Remarks
1.95	04/06/2021 08:00 04/06/2021 18:00	0.00 10.50	Start of shift. End of borehole.



<b>Number:</b>	RC01	<b>Project</b> <b>Project No</b> <b>Engineer</b>	Inchamore Wind Farm P21139 Minerex
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<b>Number:</b> RC01	<b>Project</b> Inchamore Wind Farm <b>Project No</b> P21139 <b>Engineer</b> Minerex	
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## KEY TO SYMBOLS - LABORATORY TEST RESULT

U	Undisturbed Sample	
P	Piston Sample	
TWS	Thin Wall Sample	
B	Bulk Sample - Disturbed	
D	Jar Sample - Disturbed	
W	Water Sample	
pH	Acidity/Alkalinity Index	
SO <sub>3</sub>	% - Total Sulphate Content (acid soluble)	
SO <sub>3</sub>	g/ltr - Water Soluble Sulphate (Water or 2:1 Aqueous Soil Extract)	
+	Calcareous Reaction	
Cl	Chloride Content	
PI	Plasticity Index	
<425	% of material in sample passing 425 micron sieve	
LL	Liquid Limit	
PL	Plastic Limit	
MC	Water Content	
NP	Non Plastic	
Y <sub>b</sub>	Bulk Density	
Y <sub>d</sub>	Dry Density	
P <sub>s</sub>	Particle Density	
U/D	Undrained/Drained Triaxial	
U/C	Unconsolidated/Consolidated Triaxial	
T/M	Single Stage/Multistage Triaxial	
100/38	Sample Diameter (mm)	
REM	Remoulded Triaxial Test Specimen	
TST	Triaxial Suction Test	
V	Vane Test	
DSB	Drained Shear Box	
RSB	Residual Shear Box	
RS	Ring Shear	
σ <sub>3</sub>	Cell Pressure	
σ <sub>1</sub> -σ <sub>3</sub>	Deviator Stress	
c	Cohesion	
c <sub>e</sub>	Effective Cohesion Intercept	
φ	Angle of Shearing Resistance - Degrees	
φ <sub>e</sub>	Effective Angle of Shearing Resistance	
ε <sub>f</sub>	Strain at Failure	
*	Failed under 1 <sup>st</sup> Load	
**	Failed under 2 <sup>nd</sup> Load	
#	Untestable	
##	Excessive Strain	
p <sub>o</sub>	Effective Overburden Pressure	
m <sub>v</sub>	Coefficient of Volume Decrease	
c <sub>v</sub>	Coefficient of Consolidation	
Opt	Optimum	
Nat	Natural	
Std	Standard Compaction - 2.5kg Rammer	(¶ CBR)
Hvy	Heavy Compaction - 4.5kg Rammer	(§ CBR)
Vib	Vibratory Compaction	
CBR	California Bearing Ratio	
Sat m.c.	Saturation Moisture Content	
MCV	Moisture Condition Value	



# PARTICLE SIZE DISTRIBUTION

BS 1377 : Part 2 : 1990 : Clause 9

Job Ref

P21139

Borehole / Pit No

TP03A2

Location

Gortyrhilly and Inchamore W.F

Sample No

Depth

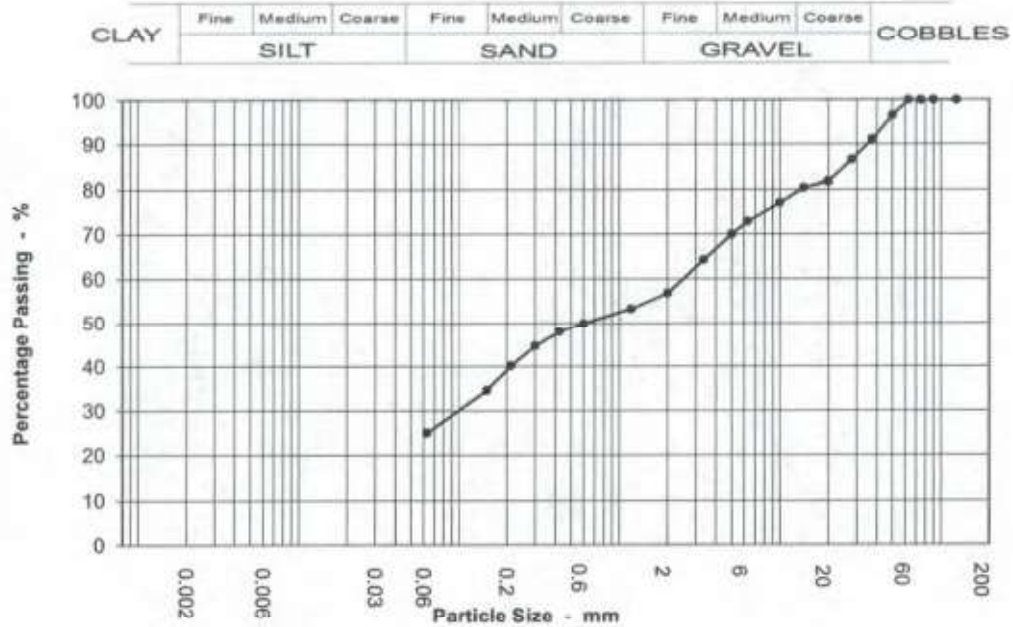
0.00 m

Soil Description

Very clayey very sandy GRAVEL

Sample type

B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	97		
37.5	91		
28	87		
20	82		
14	80		
10	77		
6.3	73		
5	70		
3.35	64		
2	57		
1.18	53		
0.6	50		
0.425	48		
0.3	45		
0.212	40		
0.15	35		
0.063	25		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	43.0
Sand	32.0
Silt & Clay	25.0

Grading Analysis	
D100	63.00
D60	2.49
D10	
Uniformity Coefficient	





# PARTICLE SIZE DISTRIBUTION

BS 1377 : Part 2 : 1990 : Clause 9

Job Ref

P21139

Borehole / Pit No

TP08A2

Location

Gortyrhilly and Inchamore W.F

Sample No

Depth

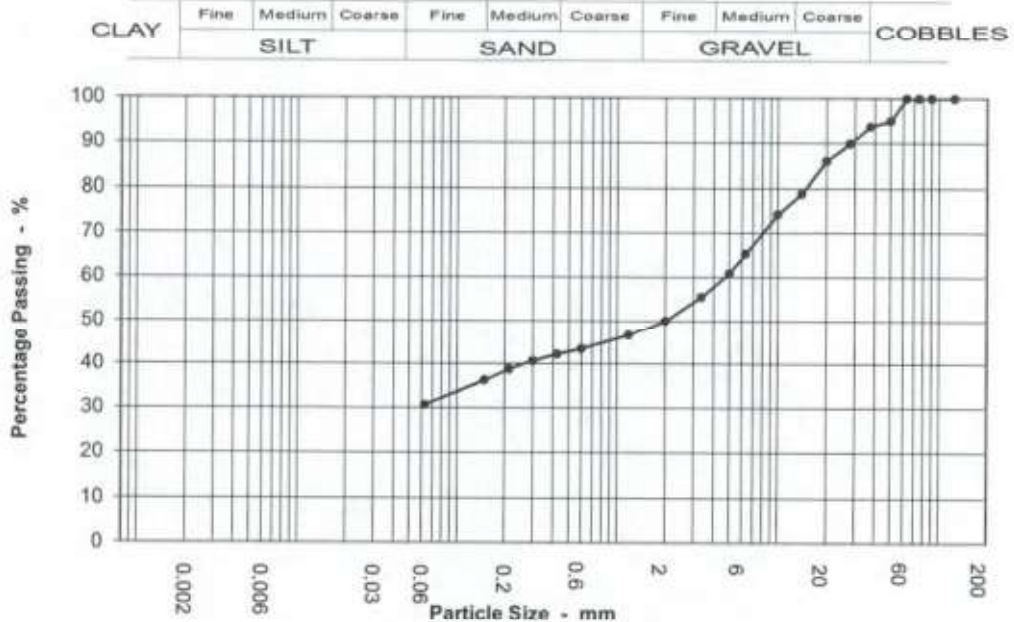
0.00 m

Soil Description

Slightly sandy gravelly CLAY

Sample type

B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	95		
37.5	94		
28	90		
20	86		
14	79		
10	74		
6.3	65		
5	61		
3.35	55		
2	50		
1.18	47		
0.6	43		
0.425	42		
0.3	41		
0.212	39		
0.15	36		
0.063	31		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	50.0
Sand	19.0
Silt & Clay	31.0

Grading Analysis	
D100	63.00
D60	4.68
D10	
Uniformity Coefficient	



# PARTICLE SIZE DISTRIBUTION

BS 1377 : Part 2 : 1990 : Clause 9

**Job Ref**

**P21139**

Borehole / Pit No

TP11A2

Location

**Gortyrhilly and Inchamore W.F**

Sample No

Depth

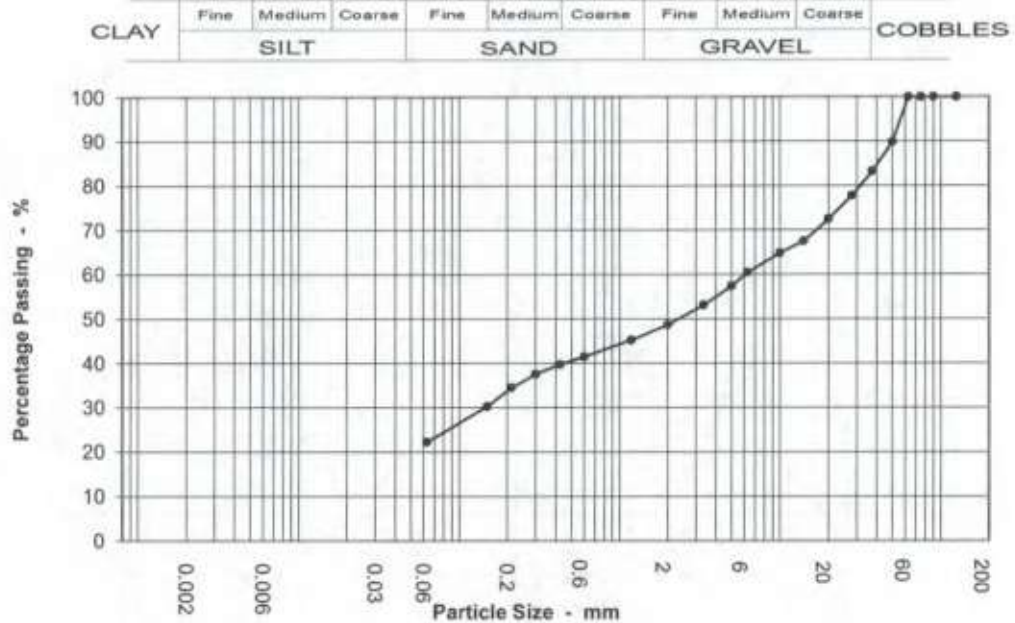
0.00 m

Soil Description

Very clayey very sandy GRAVEL

Sample type

B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	90		
37.5	83		
28	78		
20	72		
14	67		
10	65		
6.3	60		
5	57		
3.35	53		
2	49		
1.18	45		
0.6	41		
0.425	40		
0.3	38		
0.212	34		
0.15	30		
0.063	22		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	51.0
Sand	26.0
Silt & Clay	22.0

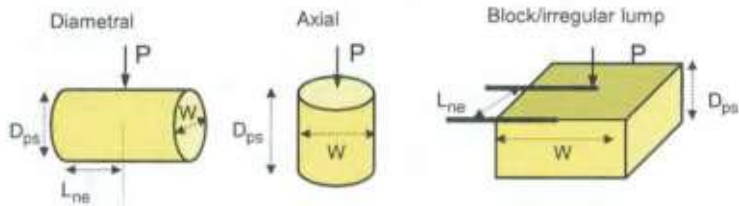
Grading Analysis	
D100	63.00
D60	6.08
D10	
Uniformity Coefficient	

## Point Load Strength Index Tests Summary of Results

Project No. **P21139** Project Name **Inchamore W.F**

Borehole No.	Sample			Specimen		Rock Type and Test condition	Test Type see ISRM			Failure Valid (Y/N)	Dimensions				Force P kN	Equivalent diameter, D <sub>e</sub> mm	Point Load Strength Index		Remarks (including water content if measured)
	Depth m	Ref.	Type	Ref.	Depth m		Type (D, A, I, B)	Direction (L, P or U)	L <sub>ne</sub> mm		W mm	D <sub>ps</sub> mm	D <sub>ps'</sub> mm	I <sub>p</sub> MPa			I <sub>p(50)</sub> MPa		
BH011	3.66	RC	C			PURE SILTSTONE	D	U	YES	32.0	76.0	76.0	69.0	1.0	72.4	0.2	0.2	Undulated Rough	
BH011	4.50	RC	C			PURE SILTSTONE	D	U	YES	74.0	76.0	76.0	43.0	50.0	57.2	15.3	16.3	Undulated Rough	
BH011	6.76	RC	C			PURE SILTSTONE	D	U	YES	35.0	76.0	76.0	69.0	5.0	72.4	0.9	1.1	Undulated Rough	
BH011	8.20	RC	C			PURE SILTSTONE	D	P	YES	25.0	76.0	76.0	68.0	1.5	71.9	0.3	0.3	Undulated Rough	
BH011	9.88	RC	C			PURE SILTSTONE	D	U	YES	120.0	76.0	76.0	62.0	7.7	68.6	1.6	1.9	Undulated Rough	

Test Type  
 D - Diametral, A - Axial, I - Irregular Lump, B - Block  
 Direction  
 L - parallel to planes of weakness  
 P - perpendicular to planes of weakness  
 U - unknown or random  
 Dimensions  
 D<sub>ps</sub> - Distance between platens ( platen separation )  
 D<sub>ps'</sub> - at failure ( see ISRM note 6)  
 L<sub>ne</sub> - Length from platens to nearest free end  
 W - Width of shortest dimension perpendicular to load, P



Test performed in accordance with ISRM Suggested Methods : 2007, unless noted otherwise Detailed legend for test and dimensions, based on ISRM, is shown above. Size factor, F = (De/50) <sup>0.45</sup> for all tests.	Date Printed 20/08/2021	Approved By  Cilla	Table sheet 1 sheet 1
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# Unconfined Compressive Strength, UCS

Job Name	Inchamore W.F
Job Number	P21139
Borehole:	BH011
Depth:	7.92 m
Rock Type	PURPLE SILTSTONE
Bulk Density	2.73 Mg/m <sup>3</sup>
Load at Failure, P	23.3 kN
Stress at Failure	5.17 MPa

