

**Corrib Onshore Pipeline - An Bord Pleanála Oral Hearing – 2010  
(Ref: PL.16.GA0004)**

**SUMMARY OF GROUND INVESTIGATION DATA  
FOR SRUWADDACON BAY**

**“ISSUED AS APPENDIX E OF ADDENDUM REPORT  
AND  
DATA ACQUIRED TO 31<sup>ST</sup> AUGUST 2010”**

**TURLOUGH JOHNSTON**

**3 September 2010**

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- **Existing Ground Investigation Data**
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# Existing Ground Investigation Data

- **Aghoos & Glengad Land boreholes (Two completed in 2009)**
- **Upper & Lower Bay Crossing (CP & RC)**
  - Fourteen (14) completed in 2008 (IDL, 2008)
- **Land based boreholes (CP & RC)**
  - Nine (9) completed in 2007 (GES, 2007)
- **Osiris Geophysical Survey**
  - Magnetometer Survey (full bay) completed in 2007 (Osiris, 2007)
- **Existing information contained in Appendix M1, EIS, 2010**

# 2010 Ground Investigation Works

- **Equipment being used**
  - 2 no. jack-up barges, JUP1 and JUP3;
  - each barge has Go-Track 1100 rotary rig;
  - each barge has Dando 2000 CP rig;
  - one barge (JUP3) has CPT over water rig; and,
  - Meercat with CPT over water rig.
  
- **Cable Percussion Boreholes (CP)**
  - Eleven (11) completed up to 23/08/2010

# 2010 Ground Investigation Works

- **Rotary Core Drill Holes (CD)**
  - Thirteen (13) completed up to 23/08/2010
- **Cone Penetration Tests (CPT)**
  - Thirty (30) completed up to 23/08/2010
- **Ground Investigation Coverage**
  - Typical spacing of 120m
  - Coverage will satisfy spacing requirements in IS EN 1997-2: 1997 (Eurocode 7)

# Data Acquired 23 - 31 August 2010

(Post Addendum site investigation)

- **Cable Percussion Boreholes (CP)**

- Six (6) completed
- namely, CP: 30, 33, 53, 57, 59 and 65

- **Rotary Core Drill Holes (CD)**

- Six (6) completed
- namely, CD: 30, 33, 53, 57, 59 and 65

- **Cone Penetration Tests (CPT)**

- Thirteen (13) completed
- namely, CPT: 6, 7, 16A, 18B, 18C, 31A, 32A, 33, 34A, 36, 38, 44 and 46

# Total Data Acquired to 31 August 2010

- **Cable Percussion Boreholes (CP)**
  - Seventeen (17)
- **Rotary Core Drill Holes (CD)**
  - Nineteen (19)
- **Cone Penetration Tests (CPT)**
  - Forty three (43)

# Ground Profile Below Seabed Level

<b>Strata</b>	<b>Depth to Top of Strata (m bsl) (Note 1)</b>	<b>Maximum Thickness of Strata (m) (Note 2)</b>
Fine to medium sand (estuarine deposit)	Seabed level	20.4
Organic silt and very localised peat	12 to 14	2
Sand and gravel (possible glacial soil)	2 to 20.4	0.1 to 10.2
Bedrock	5.2 to 24.8	-

Notes

(1)Depth given as metres below seabed level (m bsl)

(2)Maximum recorded strata thickness is based on the current ground investigation data.



# Ground Profile Below Seabed Level

## Estuarine Deposits:

- Very loose to dense
- Predominantly SAND & occasionally slightly gravelly
- Up to 20.4m thick

## Organic Silt and Peat:

- Slightly organic SILT, up to 1.5m thick
- Compressed highly decomposed amorphous PEAT with some woody fragments, to 0.5m thick

# Ground Profile Below Seabed Level

## **Sand and Gravel - Possible Glacial Soil:**

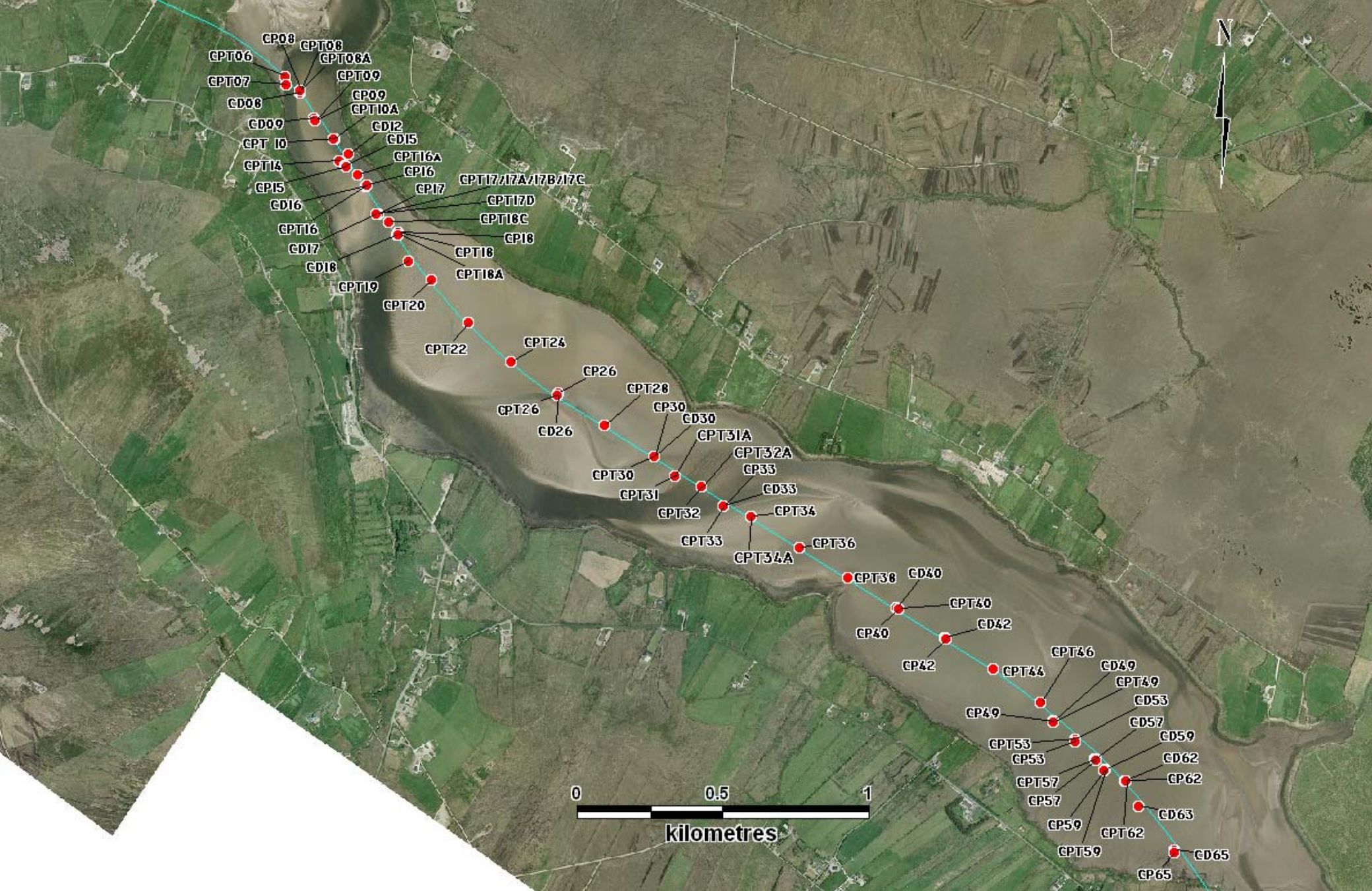
- Medium dense to very dense
- Mixture of sandy GRAVEL/silty gravelly SAND/sandy gravelly SILT
- Varies in thickness, 0.1m to 10.2m

## **Bedrock:**

- Strong to extremely strong
- Very highly abrasive rock
- Minor weathered zone typically 2m thick in outer part of Bay
- PSAMMITE and MICA/SEMI-PELITIC SCHIST

# Conclusion

**The 2010 ground investigation works have confirmed the geotechnical profile and data submitted in the EIS on 31<sup>st</sup> May 2010.**



Sruwaddacon Bay Ground Investigation 2010 - Investigated Locations up to 31<sup>st</sup> August