

## LIQUEFACTION ANALYSIS REPORT

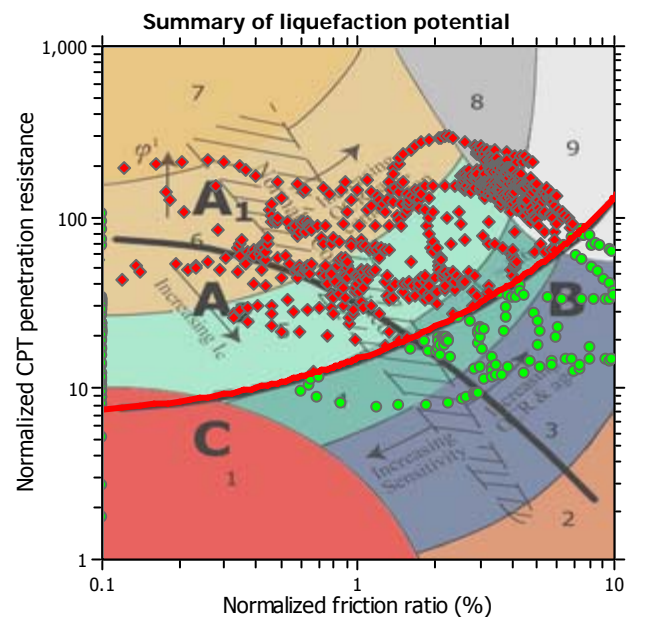
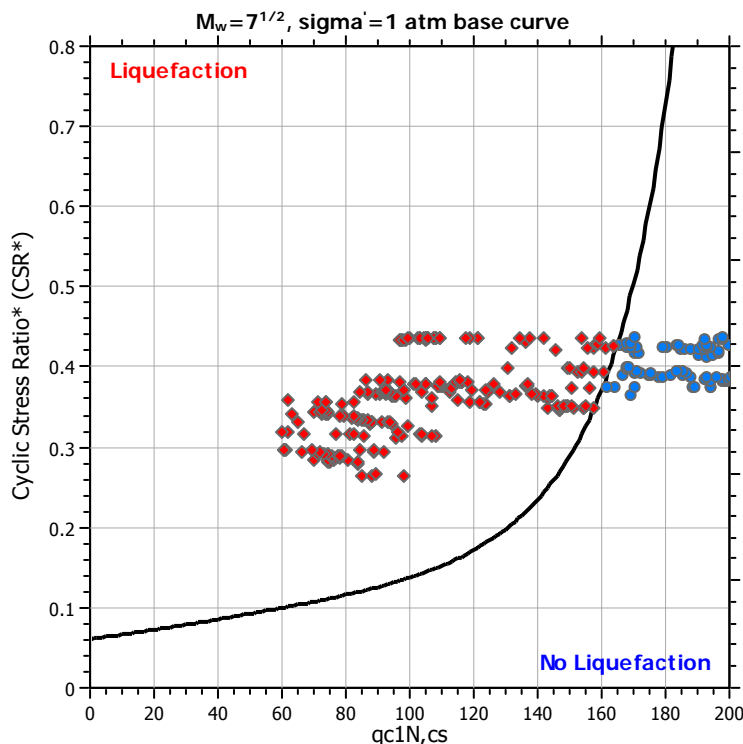
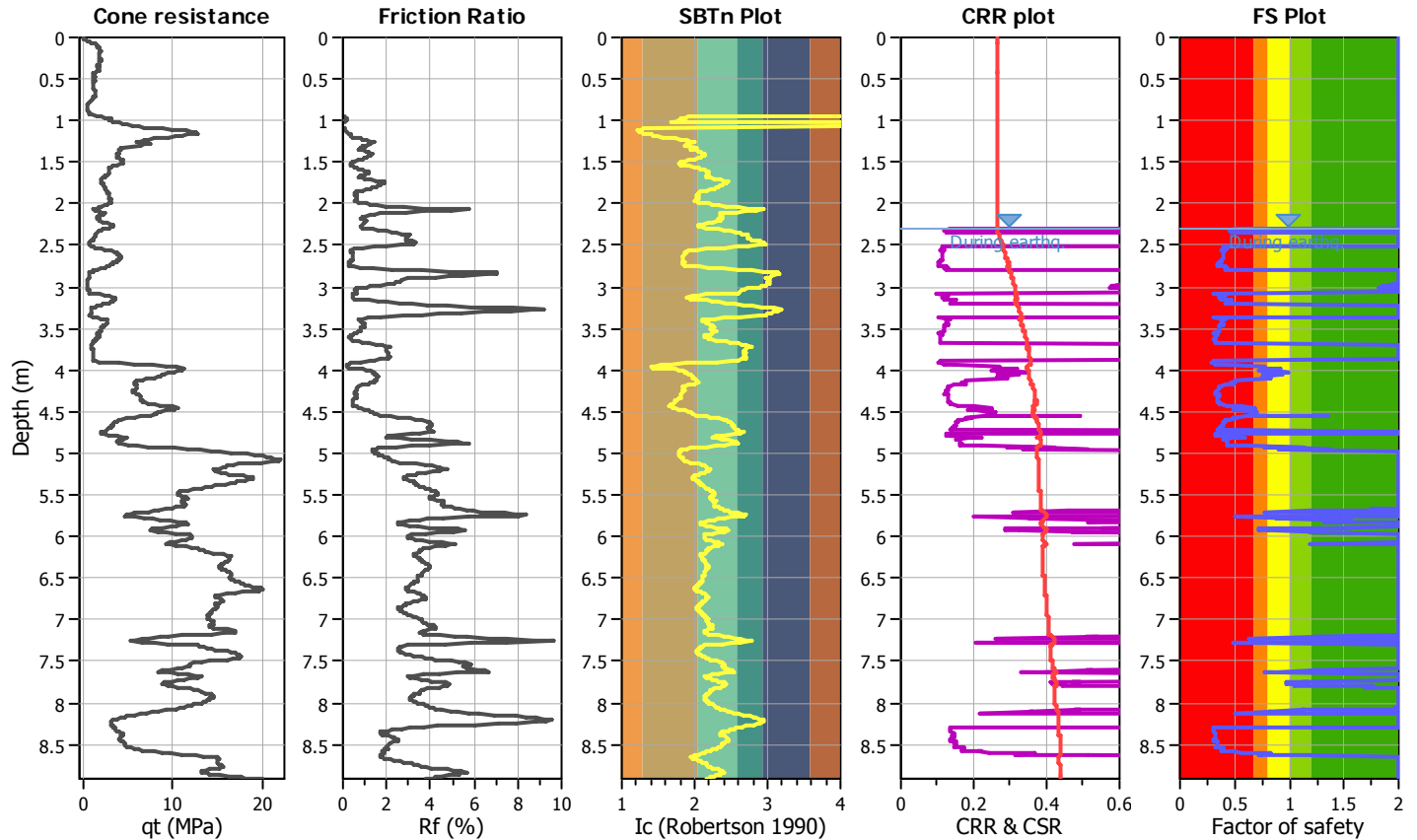
Project title : 24 - 26 Hutt Road

Location : Thorndon, Wellington

CPT file : CPT\_02

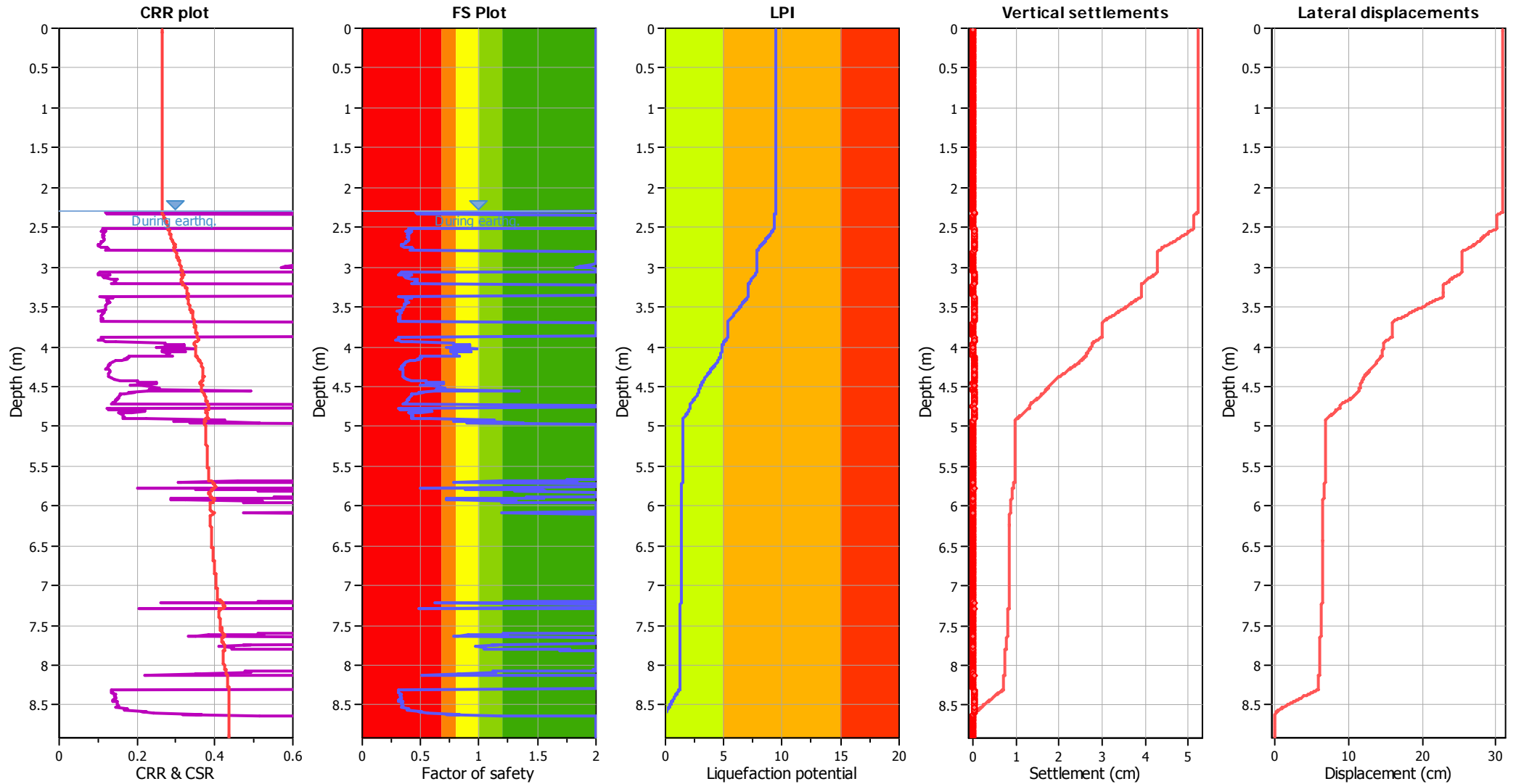
### Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.30 m	Use fill:	No	Clay like behavior applied:	Sand & Clay
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.30 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	5	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude $M_w$ :	7.50	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.45	Unit weight calculation:	Based on SBT	$K_\sigma$ applied:	Yes		



Zone A<sub>1</sub>: Cyclic liquefaction likely depending on size and duration of cyclic loading  
Zone A<sub>2</sub>: Cyclic liquefaction and strength loss likely depending on loading and ground geometry  
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening  
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method: B&I (2014)  
Fines correction method: B&I (2014)  
Points to test: Based on Ic value  
Earthquake magnitude  $M_w$ : 7.50  
Peak ground acceleration: 0.45  
Depth to water table (insitu): 2.30 m

Depth to GWT (earthq.): 2.30 m  
Average results interval: 5  
Ic cut-off value: 2.60  
Unit weight calculation: Based on SBT  
Use fill: No  
Fill height: N/A

Fill weight: N/A  
Transition detect. applied: No  
 $K_\sigma$  applied: Yes  
Clay like behavior applied: Sand & Clay  
Limit depth applied: No  
Limit depth: N/A

F.S. color scheme

Almost certain it will liquefy  
Very likely to liquefy  
Liquefaction and no liq. are equally likely  
Unlike to liquefy  
Almost certain it will not liquefy

LPI color scheme

Very high risk  
High risk  
Low risk