

LIQUEFACTION ANALYSIS REPORT

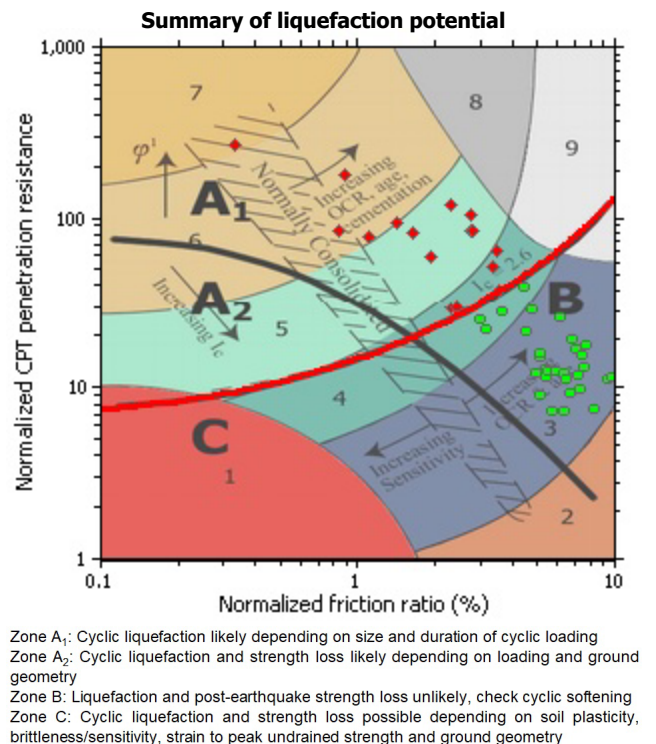
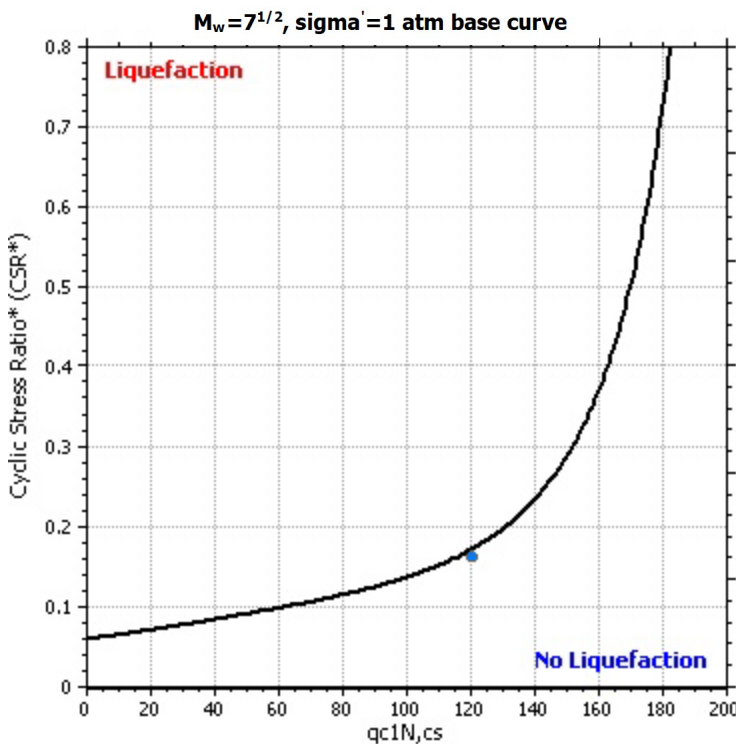
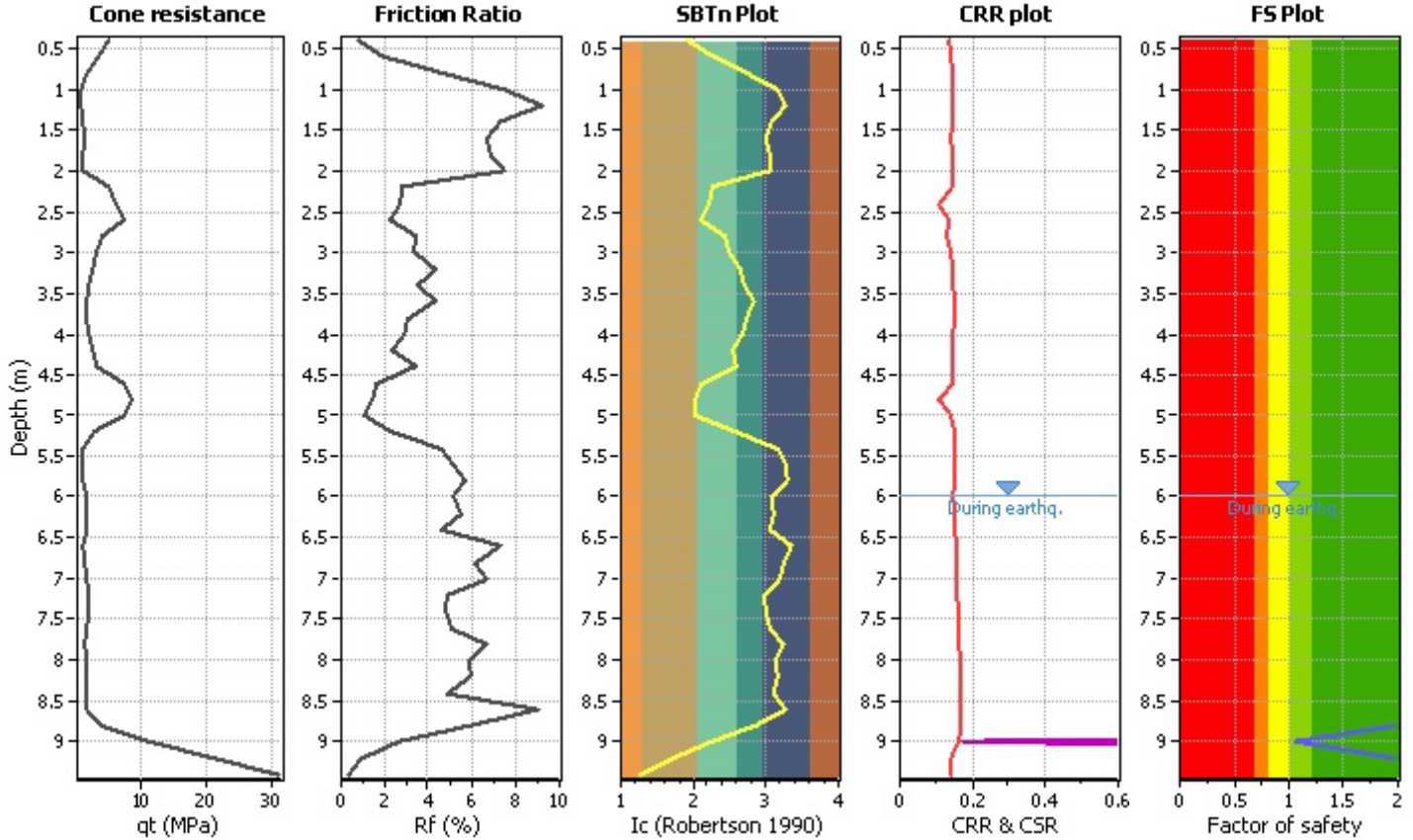
Project title :

Location :

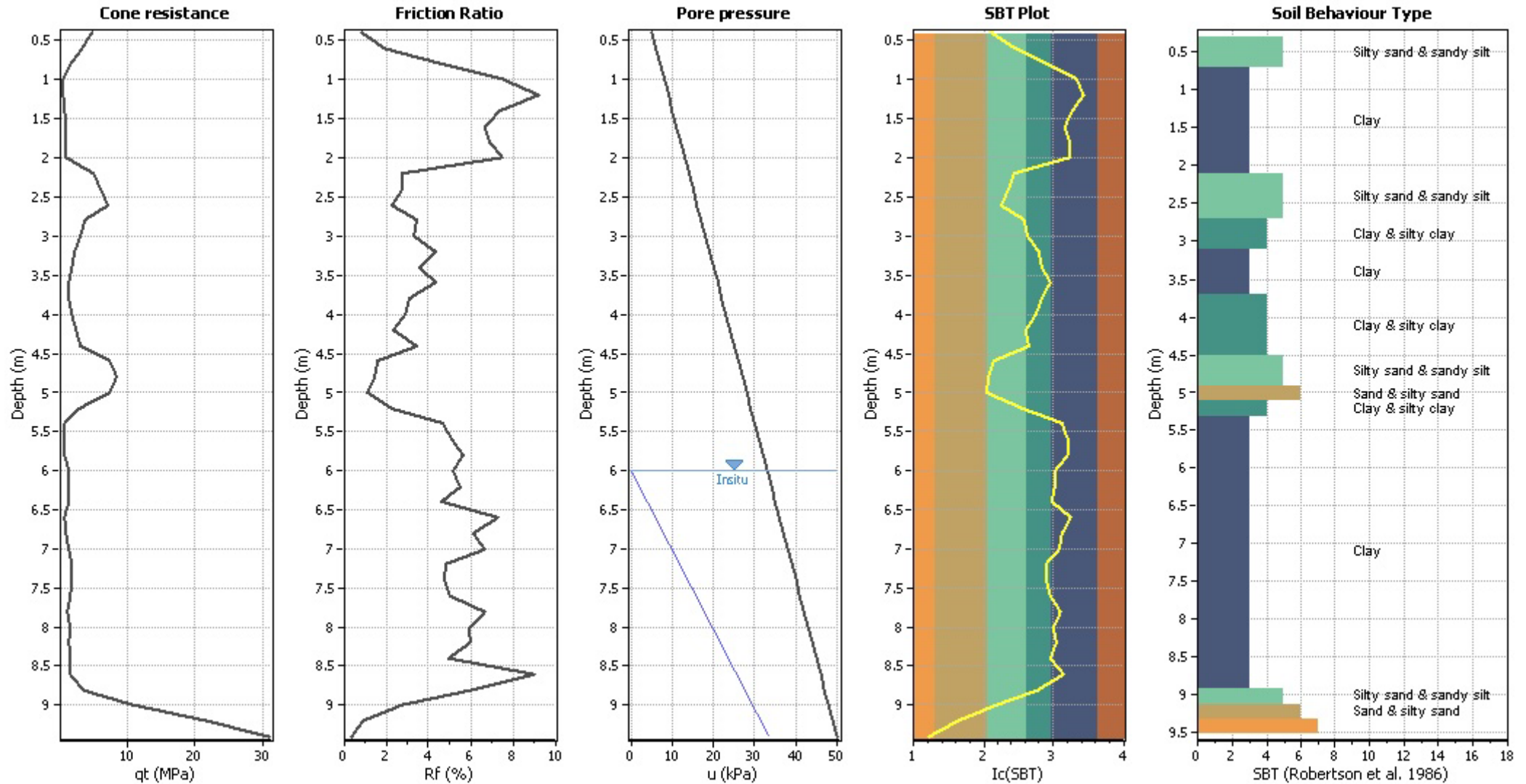
CPT file : P150

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	6.00 m	Use fill:	No	Clay like behavior	
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	6.00 m	Fill height:	N/A	applied:	Sands only
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude M_w :	6.60	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.26	Unit weight calculation:	Based on SBT	K_G applied:	Yes	MSF method:	Method



CPT basic interpretation plo



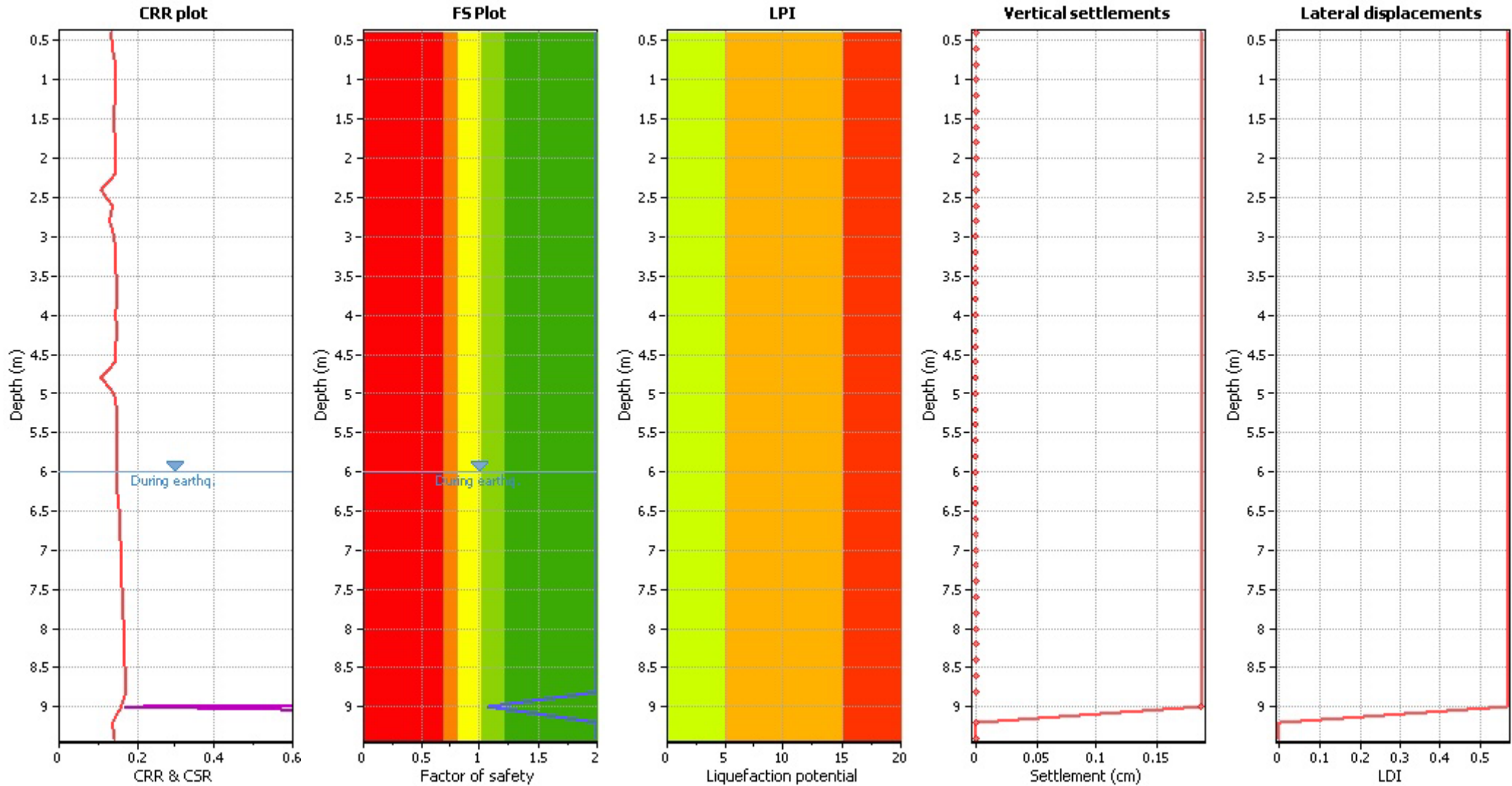
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	6.00 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_g applied:	Yes
Earthquake magnitude M_w :	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	6.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Liquefaction analysis overall plot



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (earthq.):	6.00 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_G applied:	Yes
Earthquake magnitude M_w :	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	6.00 m	Fill height:	N/A	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

:: Field input data ::						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
1	0.40	5.88	0.00	5.00	10.98	17.88
2	0.60	3.04	124.13	6.00	21.42	18.31
3	0.80	1.57	78.40	7.00	44.15	18.24
4	1.00	0.49	39.20	8.00	69.75	17.58
5	1.20	0.29	58.80	9.00	78.20	17.61
6	1.40	1.27	91.47	10.00	65.00	17.85
7	1.60	1.27	58.80	11.00	58.73	18.03
8	1.80	0.88	78.40	12.00	62.31	17.88
9	2.00	0.88	71.87	13.00	62.71	18.07
10	2.20	1.47	91.47	14.00	21.40	19.29
11	2.40	12.74	254.80	15.00	19.09	19.58
12	2.60	4.31	156.80	16.00	16.08	19.61
13	2.80	4.51	78.40	17.00	27.26	19.13
14	3.00	2.74	163.33	18.00	29.59	18.81
15	3.20	2.45	78.40	19.00	38.10	18.70
16	3.40	2.16	78.40	20.00	40.26	18.08
17	3.60	1.08	45.73	21.00	48.60	17.95
18	3.80	1.27	71.87	22.00	42.58	17.68
19	4.00	2.55	32.67	23.00	39.22	17.89
20	4.20	2.06	65.33	24.00	32.93	18.03
21	4.40	2.94	78.40	25.00	34.66	18.86
22	4.60	4.70	189.47	26.00	16.13	19.26
23	4.80	14.70	91.47	27.00	13.95	19.34
24	5.00	6.47	84.93	28.00	13.56	18.81
25	5.20	1.08	65.33	29.00	33.20	18.21
26	5.40	1.18	45.73	30.00	71.03	17.38
27	5.60	0.69	26.13	31.00	78.84	17.27
28	5.80	0.69	58.80	32.00	80.93	17.44
29	6.00	1.27	65.33	33.00	64.26	18.12
30	6.20	2.45	104.53	34.00	65.34	18.23
31	6.40	0.78	78.40	35.00	62.42	18.03
32	6.60	1.27	26.13	36.00	86.19	17.90
33	6.80	0.88	111.07	37.00	75.52	18.01
34	7.00	1.47	84.93	38.00	71.23	18.45
35	7.20	2.16	104.53	39.00	57.18	18.53
36	7.40	2.45	104.53	40.00	58.15	18.47
37	7.60	1.27	71.87	41.00	62.79	18.34
38	7.80	1.47	84.93	42.00	75.98	18.31
39	8.00	1.37	117.60	43.00	67.38	18.49
40	8.20	2.25	98.00	44.00	70.42	18.38
41	8.40	1.08	65.33	45.00	65.72	18.23
42	8.60	1.57	78.40	46.00	78.83	18.95
43	8.80	2.35	307.07	47.00	50.42	19.68
44	9.00	7.06	267.87	48.00	21.48	20.44
45	9.20	22.93	307.07	49.00	5.94	20.21
46	9.40	34.69	0.00	50.00	0.22	19.63

:: Field input data :: (continued)

Point ID	Depth (m)	q_c (MPa)	f_s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
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Abbreviations

Depth:	Depth from free surface, at which CPT was performed (m)
q_c :	Measured cone resistance (MPa)
f_s :	Sleeve friction resistance (kPa)
u :	Pore pressure (kPa)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (kN/m ³)

:: Liquefaction Potential Index calculation data ::											
Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
0.40	2.00	0.00	9.80	0.20	0.00	0.60	2.00	0.00	9.70	0.20	0.00
0.80	2.00	0.00	9.60	0.20	0.00	1.00	2.00	0.00	9.50	0.20	0.00
1.20	2.00	0.00	9.40	0.20	0.00	1.40	2.00	0.00	9.30	0.20	0.00
1.60	2.00	0.00	9.20	0.20	0.00	1.80	2.00	0.00	9.10	0.20	0.00
2.00	2.00	0.00	9.00	0.20	0.00	2.20	2.00	0.00	8.90	0.20	0.00
2.40	2.00	0.00	8.80	0.20	0.00	2.60	2.00	0.00	8.70	0.20	0.00
2.80	2.00	0.00	8.60	0.20	0.00	3.00	2.00	0.00	8.50	0.20	0.00
3.20	2.00	0.00	8.40	0.20	0.00	3.40	2.00	0.00	8.30	0.20	0.00
3.60	2.00	0.00	8.20	0.20	0.00	3.80	2.00	0.00	8.10	0.20	0.00
4.00	2.00	0.00	8.00	0.20	0.00	4.20	2.00	0.00	7.90	0.20	0.00
4.40	2.00	0.00	7.80	0.20	0.00	4.60	2.00	0.00	7.70	0.20	0.00
4.80	2.00	0.00	7.60	0.20	0.00	5.00	2.00	0.00	7.50	0.20	0.00
5.20	2.00	0.00	7.40	0.20	0.00	5.40	2.00	0.00	7.30	0.20	0.00
5.60	2.00	0.00	7.20	0.20	0.00	5.80	2.00	0.00	7.10	0.20	0.00
6.00	2.00	0.00	7.00	0.20	0.00	6.20	2.00	0.00	6.90	0.20	0.00
6.40	2.00	0.00	6.80	0.20	0.00	6.60	2.00	0.00	6.70	0.20	0.00
6.80	2.00	0.00	6.60	0.20	0.00	7.00	2.00	0.00	6.50	0.20	0.00
7.20	2.00	0.00	6.40	0.20	0.00	7.40	2.00	0.00	6.30	0.20	0.00
7.60	2.00	0.00	6.20	0.20	0.00	7.80	2.00	0.00	6.10	0.20	0.00
8.00	2.00	0.00	6.00	0.20	0.00	8.20	2.00	0.00	5.90	0.20	0.00
8.40	2.00	0.00	5.80	0.20	0.00	8.60	2.00	0.00	5.70	0.20	0.00
8.80	2.00	0.00	5.60	0.20	0.00	9.00	1.06	0.00	5.50	0.20	0.00
9.20	2.00	0.00	5.40	0.20	0.00	9.40	2.00	0.00	5.30	0.20	0.00

Overall liquefaction potential: 0.00

LPI = 0.00 - Liquefaction risk very low
 LPI between 0.00 and 5.00 - Liquefaction risk low
 LPI between 5.00 and 15.00 - Liquefaction risk high
 LPI > 15.00 - Liquefaction risk very high

Abbreviations

FS: Calculated factor of safety for test point
 F_L: 1 - FS
 w_z: Function value of the extend of soil liquefaction according to depth
 d_z: Layer thickness (m)
 LPI: Liquefaction potential index value for test point

LIQUEFACTION ANALYSIS REPORT

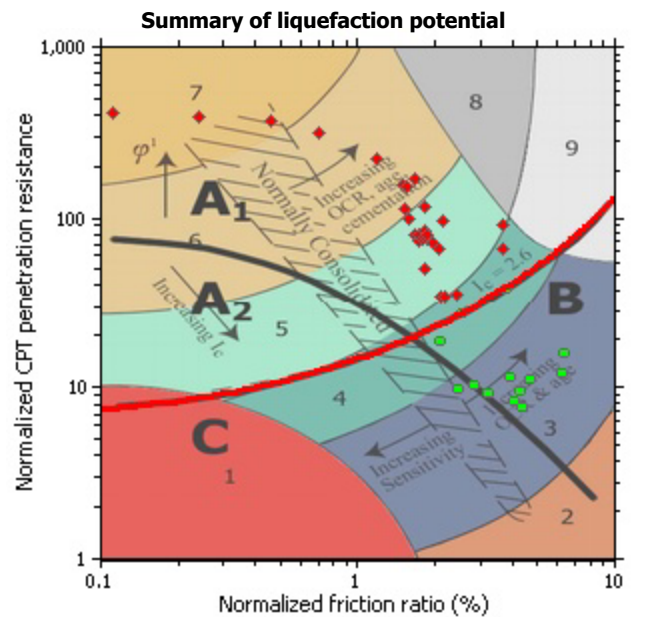
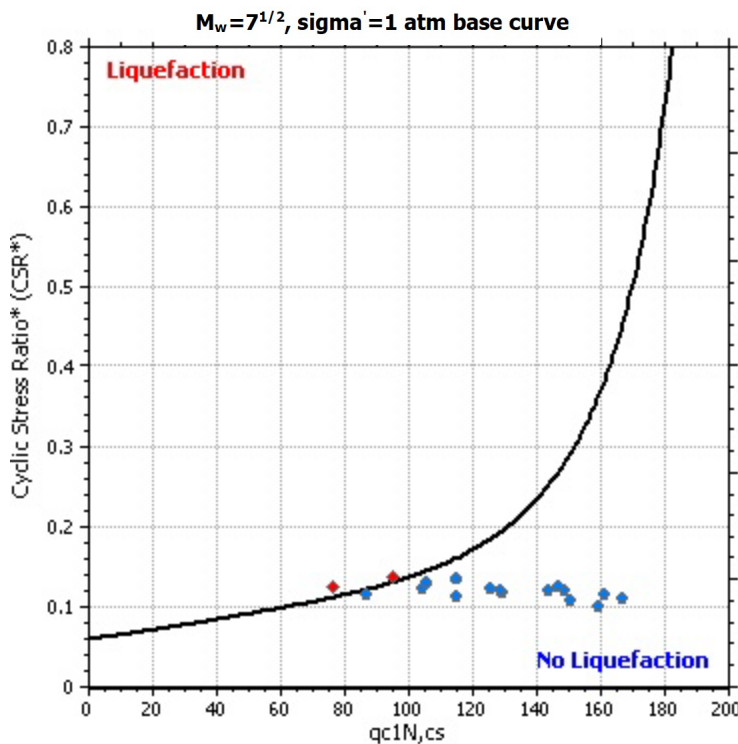
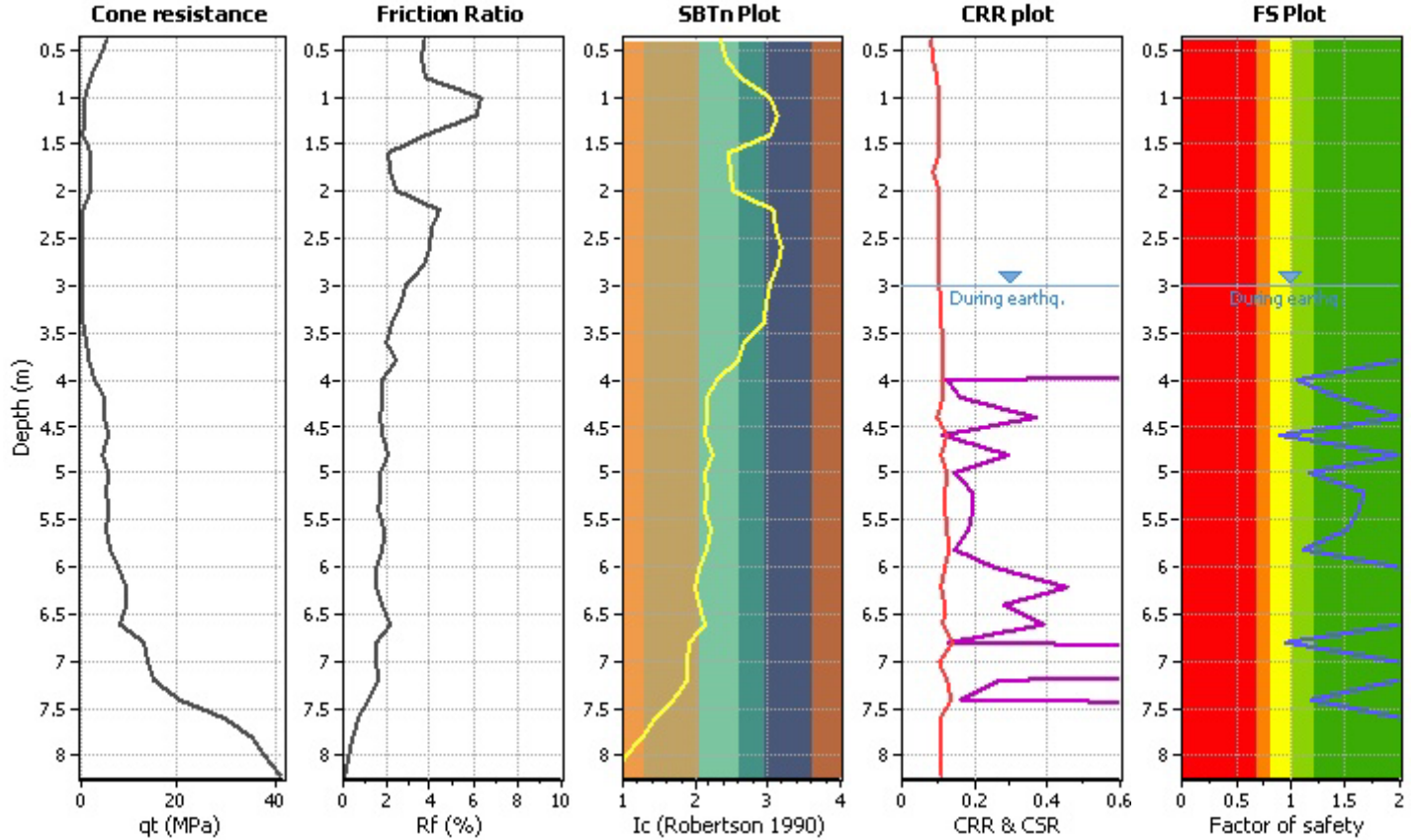
Project title :

Location :

CPT file : P94

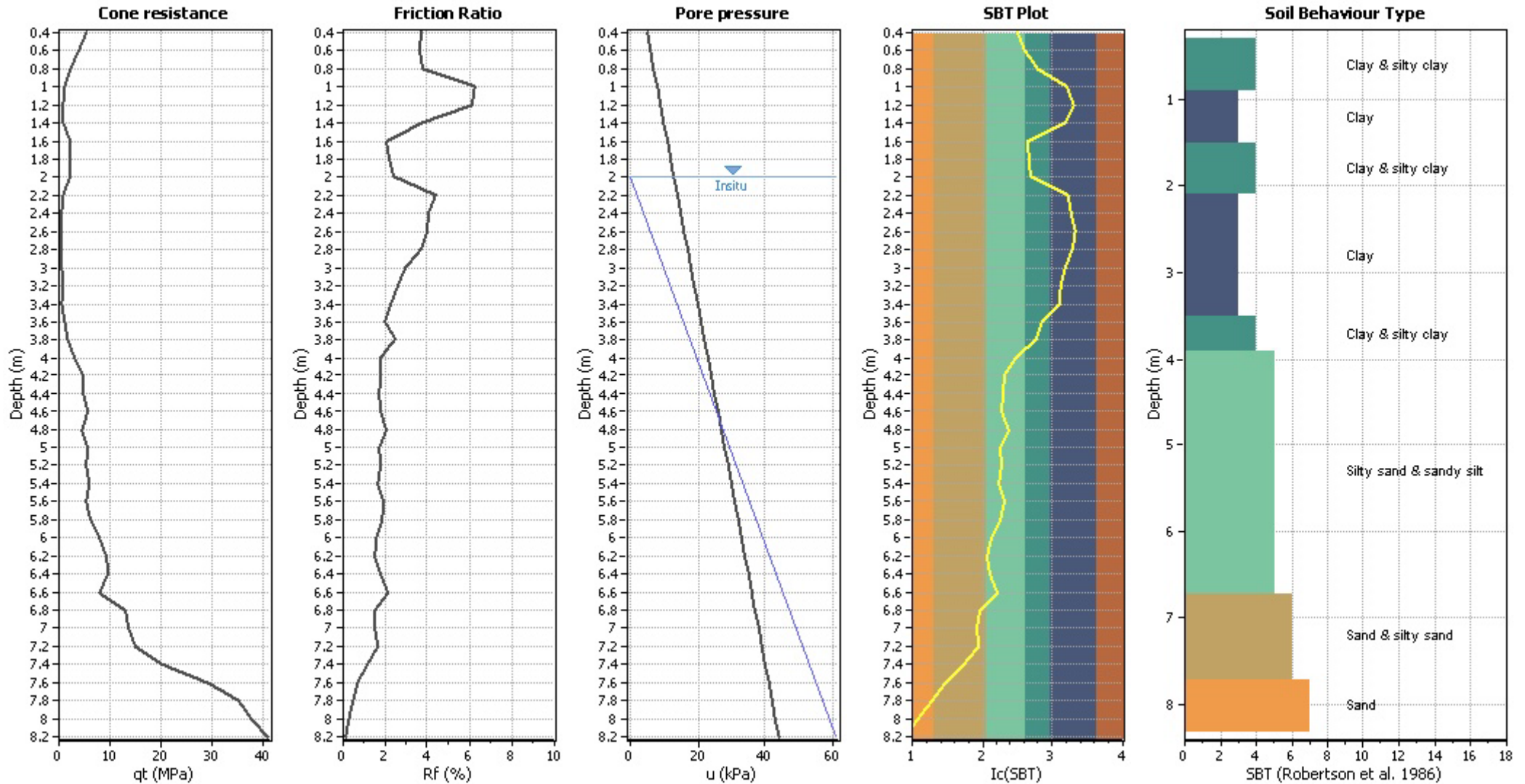
Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.00 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w :	6.60	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.18	Unit weight calculation:	Based on SBT	K_g applied:	Yes		



Zone A₁: Cyclic liquefaction likely depending on size and duration of cyclic loading
 Zone A₂: 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

CPT basic interpretation plo



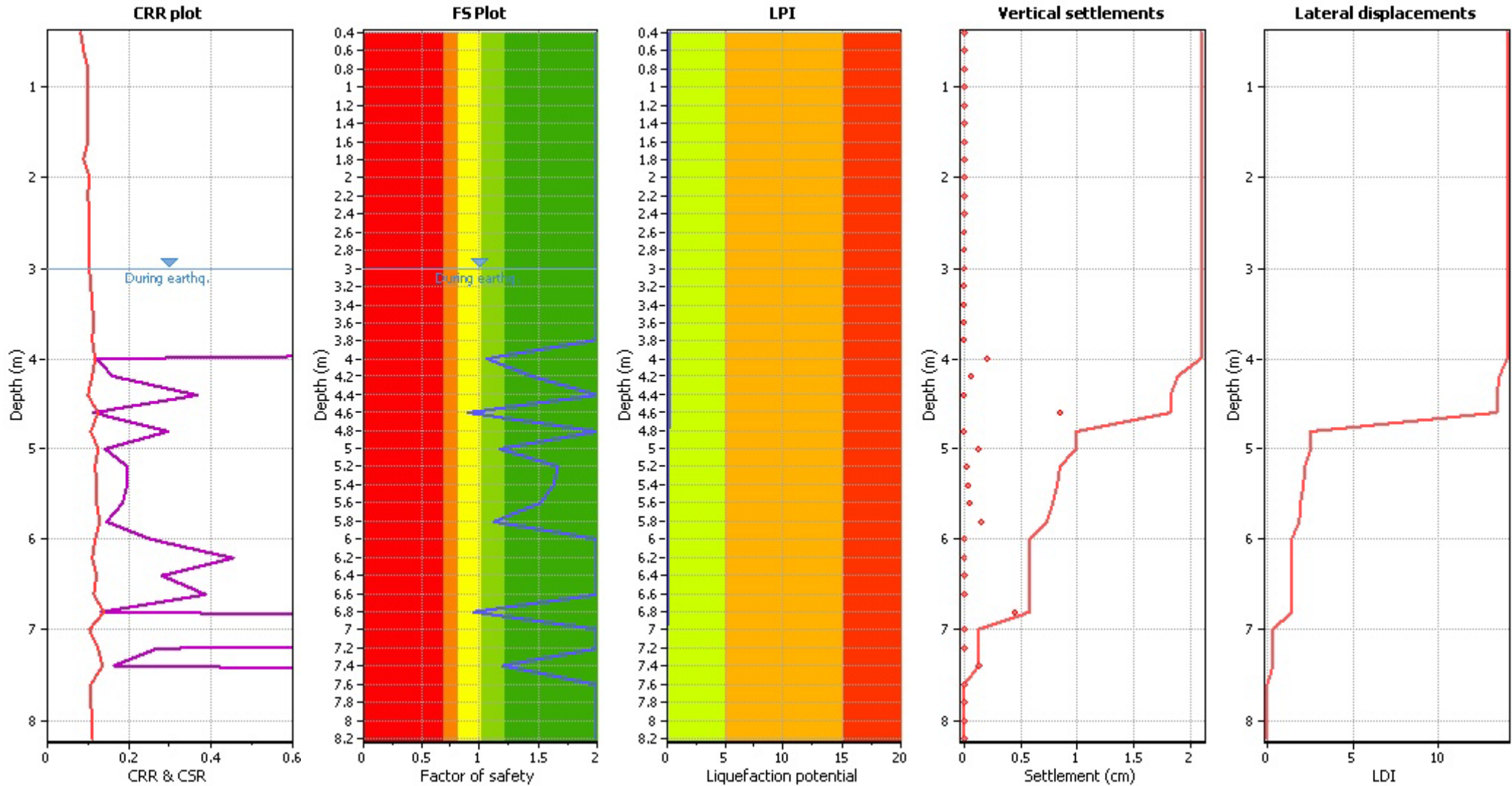
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	3.00 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_G applied:	Yes
Earthquake magnitude M_w :	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.18	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	2.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Liquefaction analysis overall plot



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (earthq.):	3.00 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_f applied:	Yes
Earthquake magnitude M_w :	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.18	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	2.00 m	Fill height:	N/A	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

:: Field input data ::						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
1	0.40	5.80	244.00	5.00	24.10	19.71
2	0.60	4.40	102.00	6.00	27.63	19.21
3	0.80	1.50	81.00	7.00	35.84	18.39
4	1.00	0.80	68.00	8.00	60.97	17.70
5	1.20	0.60	33.00	9.00	67.45	17.25
6	1.40	0.80	34.00	10.00	59.64	16.63
7	1.60	0.70	13.00	11.00	29.34	17.58
8	1.80	4.70	81.00	12.00	29.92	17.64
9	2.00	0.80	40.00	13.00	30.80	17.81
10	2.20	0.90	33.00	14.00	63.24	16.80
11	2.40	0.40	20.00	15.00	66.05	16.47
12	2.60	0.50	20.00	16.00	71.52	16.17
13	2.80	0.60	20.00	17.00	68.57	16.20
14	3.00	0.50	20.00	18.00	60.99	16.10
15	3.20	0.70	13.00	19.00	56.53	16.14
16	3.40	0.80	20.00	20.00	55.63	15.88
17	3.60	0.40	10.00	21.00	39.56	16.67
18	3.80	2.30	40.00	22.00	35.70	17.47
19	4.00	2.30	74.00	23.00	22.72	18.00
20	4.20	4.50	47.00	24.00	18.17	18.74
21	4.40	7.70	142.00	25.00	17.84	18.64
22	4.60	2.20	54.00	26.00	17.19	18.96
23	4.80	6.90	108.00	27.00	20.88	18.74
24	5.00	4.20	108.00	28.00	16.98	18.91
25	5.20	5.90	74.00	29.00	17.91	18.87
26	5.40	6.10	102.00	30.00	16.78	18.93
27	5.60	5.60	115.00	31.00	19.34	18.98
28	5.80	4.40	95.00	32.00	17.83	19.09
29	6.00	8.10	122.00	33.00	14.21	19.28
30	6.20	10.70	142.00	34.00	12.69	19.50
31	6.40	8.70	149.00	35.00	14.13	19.77
32	6.60	9.00	224.00	36.00	17.22	19.69
33	6.80	6.30	136.00	37.00	10.62	20.05
34	7.00	23.40	231.00	38.00	10.15	20.11
35	7.20	11.30	244.00	39.00	10.35	20.38
36	7.40	10.60	272.00	40.00	6.40	20.44
37	7.60	38.70	204.00	41.00	2.13	20.40
38	7.80	37.70	136.00	42.00	0.02	20.18
39	8.00	28.50	136.00	43.00	0.00	19.56
40	8.20	46.90	0.00	44.00	0.00	18.80

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (m)
q _c :	Measured cone resistance (MPa)
f _s :	Sleeve friction resistance (kPa)
u:	Pore pressure (kPa)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (kN/m ³)

:: Liquefaction Potential Index calculation data ::											
Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
0.40	2.00	0.00	9.80	0.20	0.00	0.60	2.00	0.00	9.70	0.20	0.00
0.80	2.00	0.00	9.60	0.20	0.00	1.00	2.00	0.00	9.50	0.20	0.00
1.20	2.00	0.00	9.40	0.20	0.00	1.40	2.00	0.00	9.30	0.20	0.00
1.60	2.00	0.00	9.20	0.20	0.00	1.80	2.00	0.00	9.10	0.20	0.00
2.00	2.00	0.00	9.00	0.20	0.00	2.20	2.00	0.00	8.90	0.20	0.00
2.40	2.00	0.00	8.80	0.20	0.00	2.60	2.00	0.00	8.70	0.20	0.00
2.80	2.00	0.00	8.60	0.20	0.00	3.00	2.00	0.00	8.50	0.20	0.00
3.20	2.00	0.00	8.40	0.20	0.00	3.40	2.00	0.00	8.30	0.20	0.00
3.60	2.00	0.00	8.20	0.20	0.00	3.80	2.00	0.00	8.10	0.20	0.00
4.00	1.06	0.00	8.00	0.20	0.00	4.20	1.45	0.00	7.90	0.20	0.00
4.40	2.00	0.00	7.80	0.20	0.00	4.60	0.90	0.10	7.70	0.20	0.15
4.80	2.00	0.00	7.60	0.20	0.00	5.00	1.16	0.00	7.50	0.20	0.00
5.20	1.67	0.00	7.40	0.20	0.00	5.40	1.62	0.00	7.30	0.20	0.00
5.60	1.52	0.00	7.20	0.20	0.00	5.80	1.12	0.00	7.10	0.20	0.00
6.00	2.00	0.00	7.00	0.20	0.00	6.20	2.00	0.00	6.90	0.20	0.00
6.40	2.00	0.00	6.80	0.20	0.00	6.60	2.00	0.00	6.70	0.20	0.00
6.80	0.95	0.05	6.60	0.20	0.07	7.00	2.00	0.00	6.50	0.20	0.00
7.20	2.00	0.00	6.40	0.20	0.00	7.40	1.19	0.00	6.30	0.20	0.00
7.60	2.00	0.00	6.20	0.20	0.00	7.80	2.00	0.00	6.10	0.20	0.00
8.00	2.00	0.00	6.00	0.20	0.00	8.20	2.00	0.00	5.90	0.20	0.00

Overall liquefaction potential: 0.22

LPI = 0.00 - Liquefaction risk very low
 LPI between 0.00 and 5.00 - Liquefaction risk low
 LPI between 5.00 and 15.00 - Liquefaction risk high
 LPI > 15.00 - Liquefaction risk very high

Abbreviations

FS: Calculated factor of safety for test point
 F_L: 1 - FS
 w_z: Function value of the extend of soil liquefaction according to depth
 d_z: Layer thickness (m)
 LPI: Liquefaction potential index value for test point

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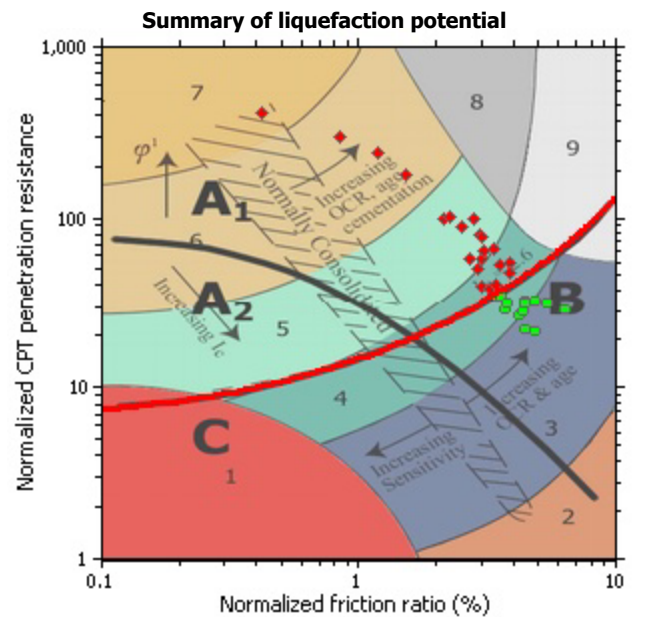
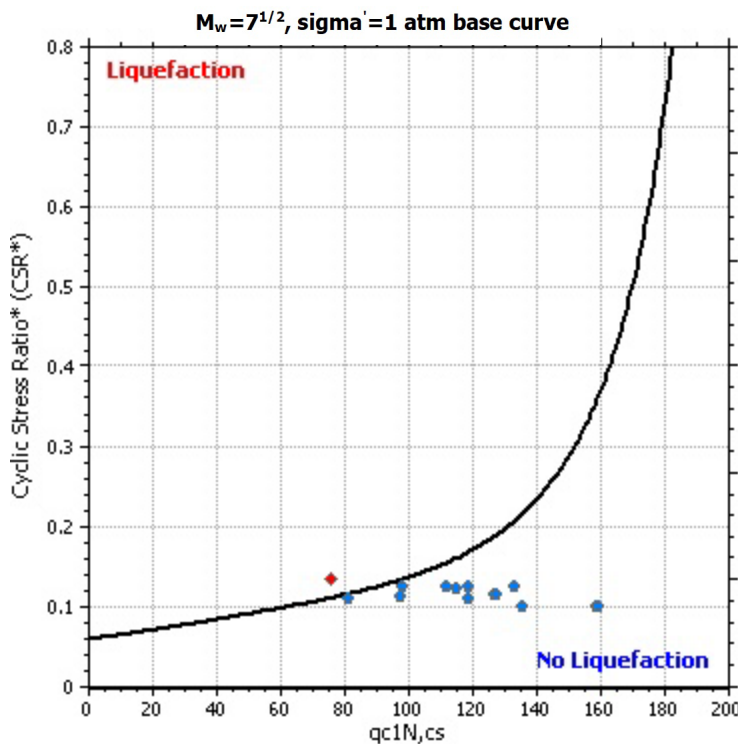
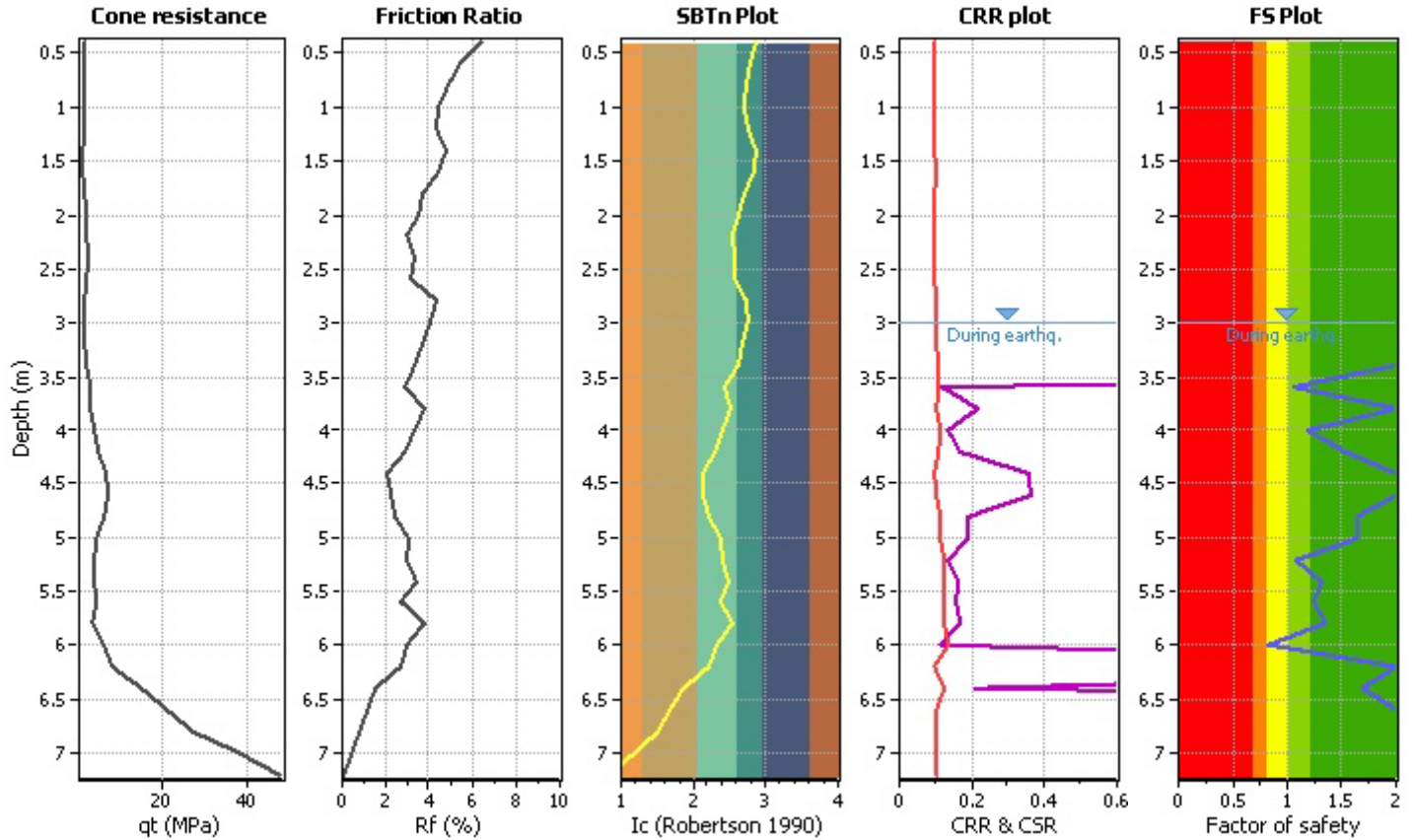
Project title :

Location :

CPT file : P95

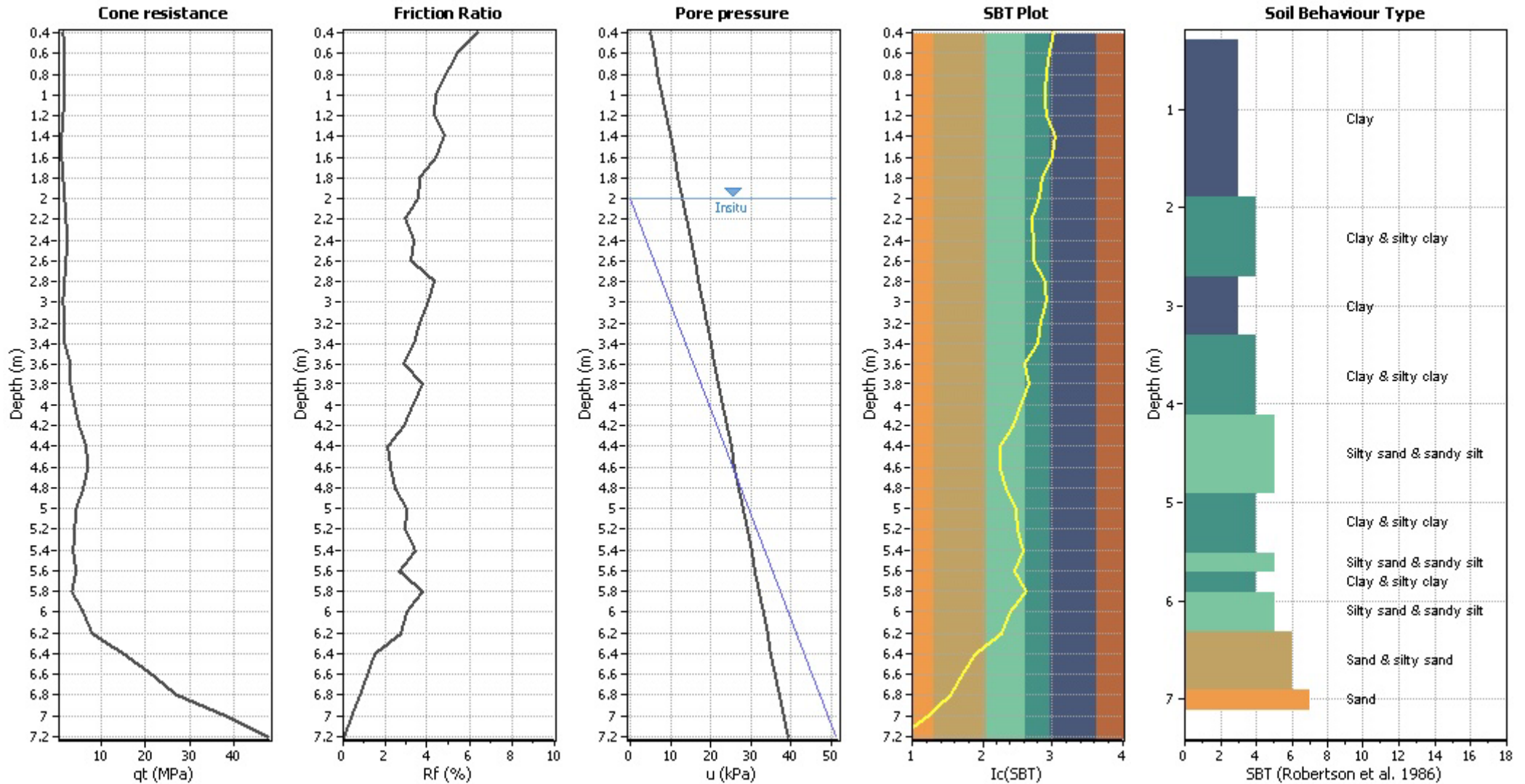
Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.00 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w :	6.60	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.18	Unit weight calculation:	Based on SBT	K_g applied:	Yes		



Zone A₁: Cyclic liquefaction likely depending on size and duration of cyclic loading
 Zone A₂: 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

CPT basic interpretation plo



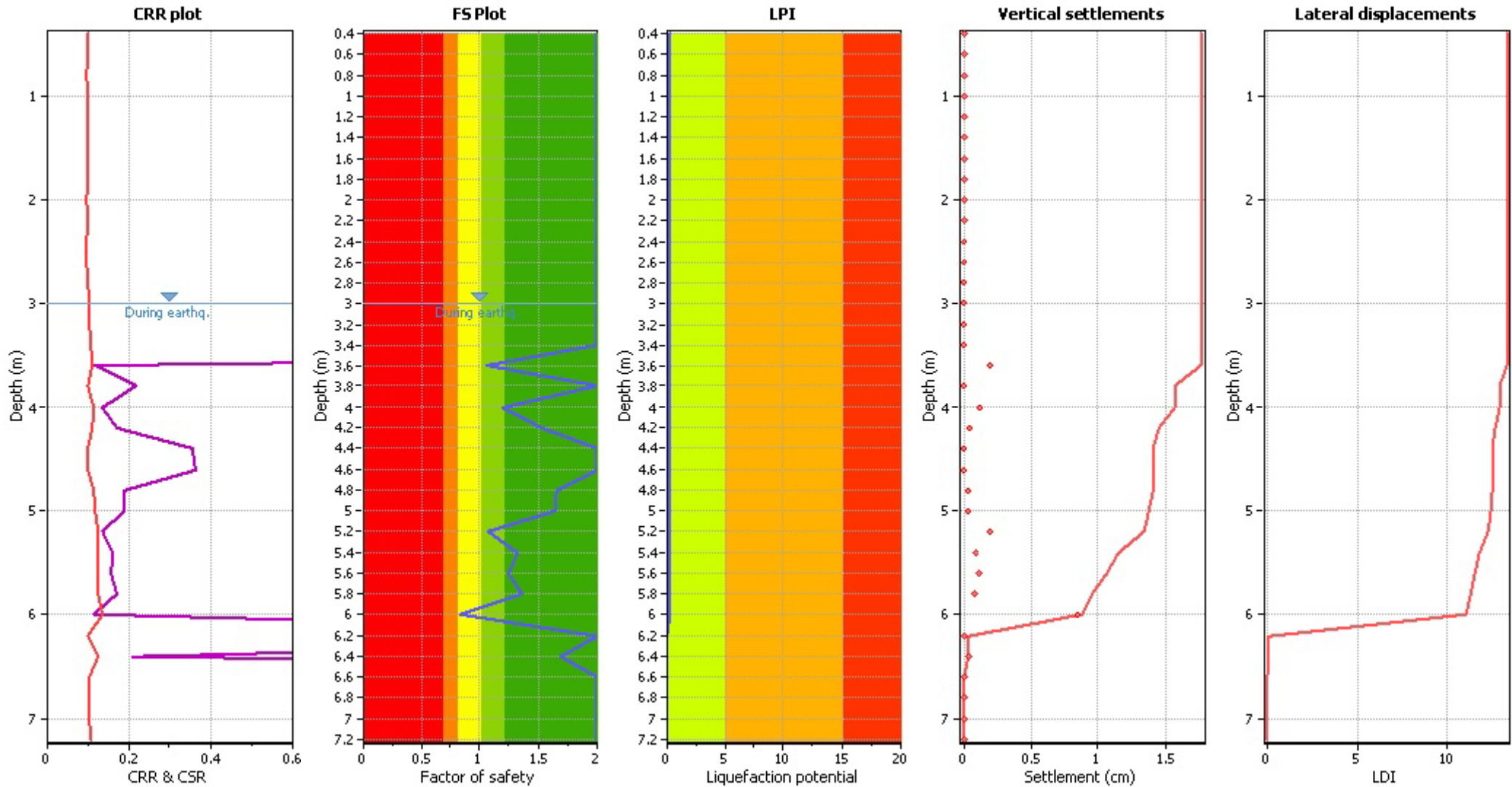
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	3.00 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_g applied:	Yes
Earthquake magnitude M_w :	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.18	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	2.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Liquefaction analysis overall plot



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (earthq.):	3.00 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_f applied:	Yes
Earthquake magnitude M_w :	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.18	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	2.00 m	Fill height:	N/A	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

:: Field input data ::						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
1	0.40	1.80	115.00	5.00	49.20	18.58
2	0.60	1.50	95.00	6.00	44.99	18.51
3	0.80	2.20	88.00	7.00	42.64	18.44
4	1.00	2.00	95.00	8.00	41.03	18.33
5	1.20	1.50	68.00	9.00	43.17	18.11
6	1.40	1.50	54.00	10.00	50.31	17.81
7	1.60	0.80	61.00	11.00	47.81	17.78
8	1.80	1.70	61.00	12.00	39.95	17.97
9	2.00	2.70	68.00	13.00	36.88	18.19
10	2.20	1.70	88.00	14.00	31.93	18.21
11	2.40	2.70	54.00	15.00	33.22	18.39
12	2.60	2.90	102.00	16.00	33.30	18.27
13	2.80	1.40	68.00	17.00	41.72	18.29
14	3.00	1.30	74.00	18.00	43.60	17.98
15	3.20	2.10	54.00	19.00	38.83	18.12
16	3.40	2.30	81.00	20.00	36.19	18.15
17	3.60	1.80	74.00	21.00	27.98	18.56
18	3.80	5.10	108.00	22.00	30.92	18.99
19	4.00	2.90	190.00	23.00	26.34	19.20
20	4.20	4.50	115.00	24.00	22.76	19.37
21	4.40	8.00	140.00	25.00	16.95	19.45
22	4.60	8.10	180.00	26.00	17.27	19.59
23	4.80	5.50	163.00	27.00	19.81	19.49
24	5.00	5.20	122.00	28.00	25.60	19.26
25	5.20	3.20	136.00	29.00	26.62	19.09
26	5.40	4.30	115.00	30.00	29.88	19.16
27	5.60	4.30	156.00	31.00	25.56	19.04
28	5.80	4.60	81.00	32.00	32.90	19.15
29	6.00	2.00	176.00	33.00	23.44	19.68
30	6.20	11.80	292.00	34.00	19.71	20.02
31	6.40	10.70	204.00	35.00	9.50	20.31
32	6.60	23.40	204.00	36.00	5.91	20.51
33	6.80	29.80	340.00	37.00	3.12	20.49
34	7.00	27.80	136.00	38.00	0.00	20.21
35	7.20	57.10	0.00	39.00	0.00	18.85

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (m)
q _c :	Measured cone resistance (MPa)
f _s :	Sleeve friction resistance (kPa)
u:	Pore pressure (kPa)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (kN/m ³)

:: Liquefaction Potential Index calculation data ::											
Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
0.40	2.00	0.00	9.80	0.20	0.00	0.60	2.00	0.00	9.70	0.20	0.00
0.80	2.00	0.00	9.60	0.20	0.00	1.00	2.00	0.00	9.50	0.20	0.00
1.20	2.00	0.00	9.40	0.20	0.00	1.40	2.00	0.00	9.30	0.20	0.00
1.60	2.00	0.00	9.20	0.20	0.00	1.80	2.00	0.00	9.10	0.20	0.00
2.00	2.00	0.00	9.00	0.20	0.00	2.20	2.00	0.00	8.90	0.20	0.00
2.40	2.00	0.00	8.80	0.20	0.00	2.60	2.00	0.00	8.70	0.20	0.00
2.80	2.00	0.00	8.60	0.20	0.00	3.00	2.00	0.00	8.50	0.20	0.00
3.20	2.00	0.00	8.40	0.20	0.00	3.40	2.00	0.00	8.30	0.20	0.00
3.60	1.06	0.00	8.20	0.20	0.00	3.80	2.00	0.00	8.10	0.20	0.00
4.00	1.19	0.00	8.00	0.20	0.00	4.20	1.53	0.00	7.90	0.20	0.00
4.40	2.00	0.00	7.80	0.20	0.00	4.60	2.00	0.00	7.70	0.20	0.00
4.80	1.65	0.00	7.60	0.20	0.00	5.00	1.64	0.00	7.50	0.20	0.00
5.20	1.07	0.00	7.40	0.20	0.00	5.40	1.31	0.00	7.30	0.20	0.00
5.60	1.24	0.00	7.20	0.20	0.00	5.80	1.36	0.00	7.10	0.20	0.00
6.00	0.83	0.17	7.00	0.20	0.24	6.20	2.00	0.00	6.90	0.20	0.00
6.40	1.69	0.00	6.80	0.20	0.00	6.60	2.00	0.00	6.70	0.20	0.00
6.80	2.00	0.00	6.60	0.20	0.00	7.00	2.00	0.00	6.50	0.20	0.00
7.20	2.00	0.00	6.40	0.20	0.00						

Overall liquefaction potential: 0.24

LPI = 0.00 - Liquefaction risk very low
 LPI between 0.00 and 5.00 - Liquefaction risk low
 LPI between 5.00 and 15.00 - Liquefaction risk high
 LPI > 15.00 - Liquefaction risk very high

Abbreviations

FS: Calculated factor of safety for test point
 F_L: 1 - FS
 w_z: Function value of the extend of soil liquefaction according to depth
 d_z: Layer thickness (m)
 LPI: Liquefaction potential index value for test point

V_s BASED LIQUEFACTION ANALYSIS REPORT

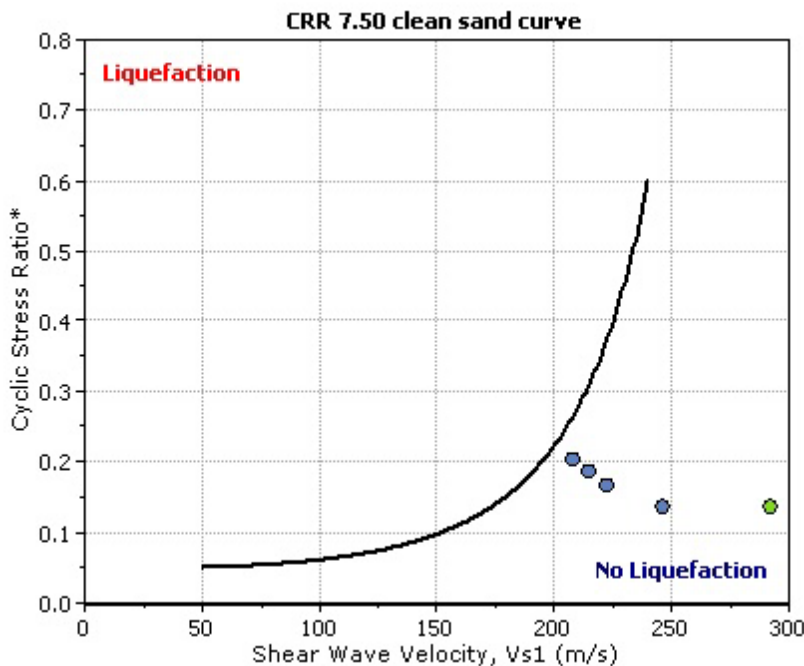
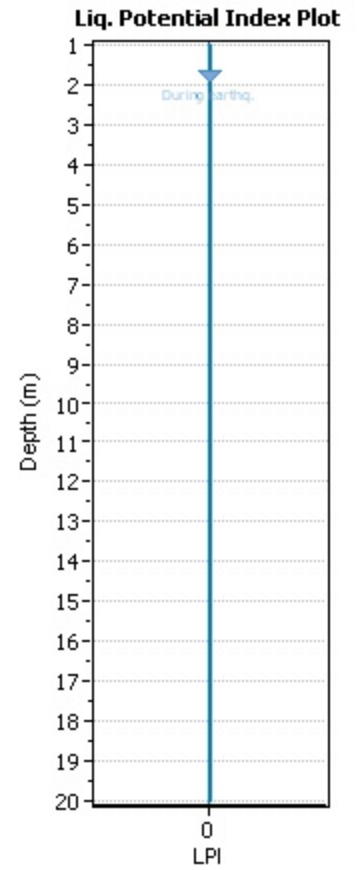
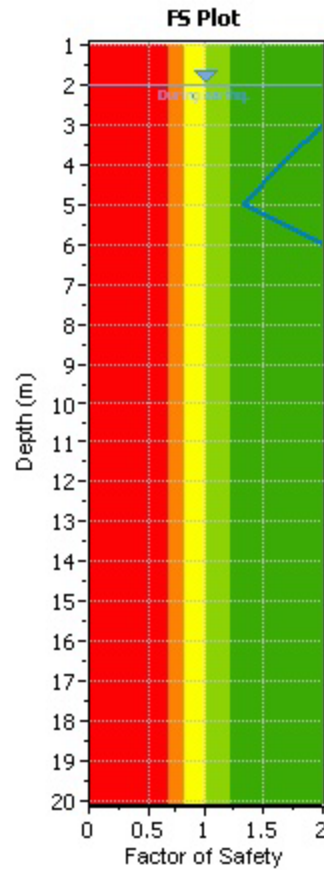
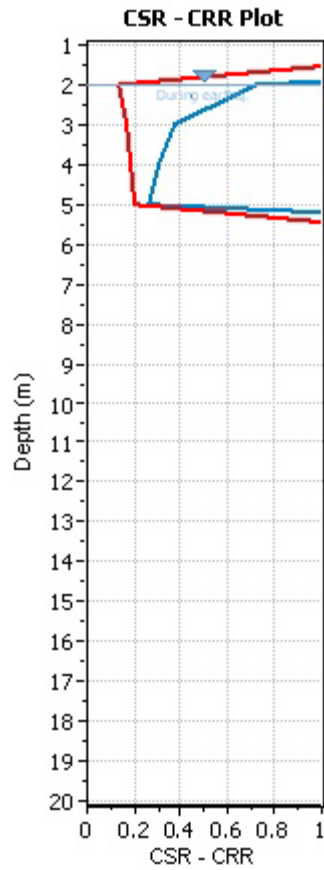
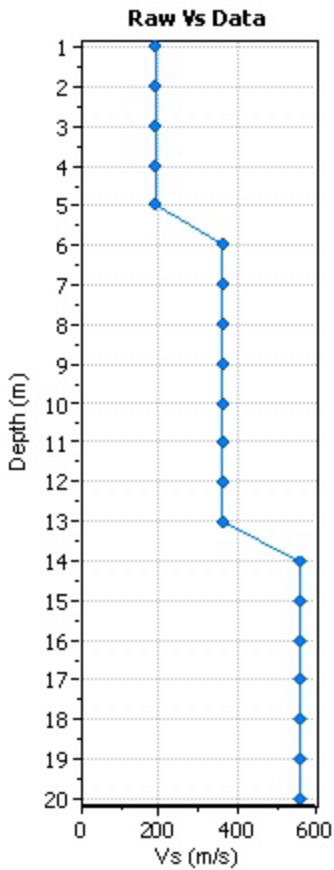
Project title :

V_s Name: L4

Location :

:: Input parameters and analysis properties ::

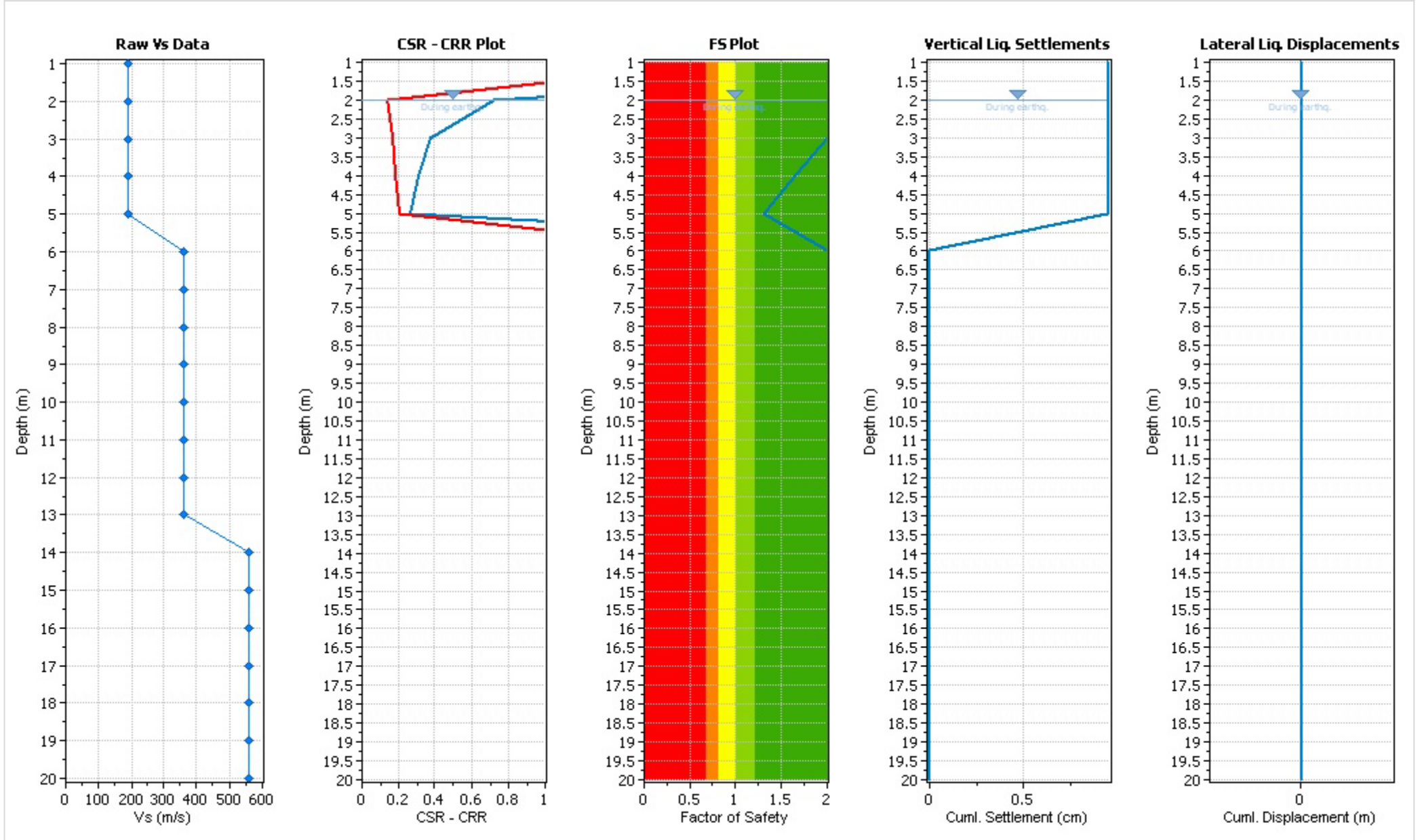
Analysis method: Kayen et al. 2013
 G.W.T. (in-situ): 3.00 m
 G.W.T. (earthq.): 2.00 m
 Earthquake magnitude M_w: 6.60
 Peak ground acceleration: 0.18 g
 Eq. external load: 0.00 kPa



- 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

:: Overall Liquefaction Assessment Analysis Plots ::



:: Liquefaction potential according to Iwasaki ::					
Depth (m)	FS	F	wz	Thickness (m)	I_L
1.00	2.000	0.00	9.50	1.00	0.00
2.00	2.000	0.00	9.00	1.00	0.00
3.00	2.000	0.00	8.50	1.00	0.00
4.00	1.652	0.00	8.00	1.00	0.00
5.00	1.316	0.00	7.50	1.00	0.00
6.00	2.000	0.00	7.00	1.00	0.00
7.00	2.000	0.00	6.50	1.00	0.00
8.00	2.000	0.00	6.00	1.00	0.00
9.00	2.000	0.00	5.50	1.00	0.00
10.00	2.000	0.00	5.00	1.00	0.00
11.00	2.000	0.00	4.50	1.00	0.00
12.00	2.000	0.00	4.00	1.00	0.00
13.00	2.000	0.00	3.50	1.00	0.00
14.00	2.000	0.00	3.00	1.00	0.00
15.00	2.000	0.00	2.50	1.00	0.00
16.00	2.000	0.00	2.00	1.00	0.00
17.00	2.000	0.00	1.50	1.00	0.00
18.00	2.000	0.00	1.00	1.00	0.00
19.00	2.000	0.00	0.50	1.00	0.00
20.00	2.000	0.00	0.00	1.00	0.00

Overall potential I_L : 0.00

- I_L = 0.00 - No liquefaction
- I_L between 0.00 and 5 - Liquefaction not probable
- I_L between 5 and 15 - Liquefaction probable
- I_L > 15 - Liquefaction certain

V_s BASED LIQUEFACTION ANALYSIS REPORT

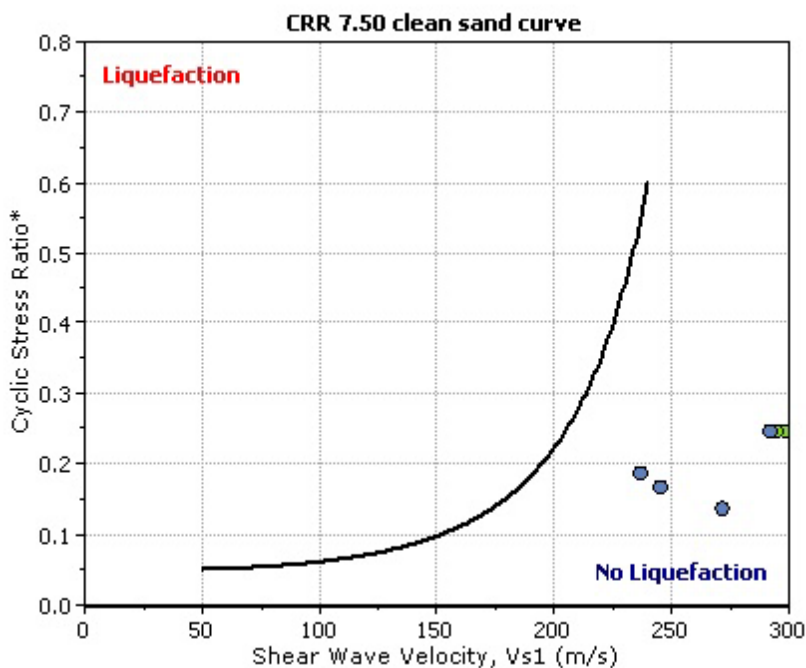
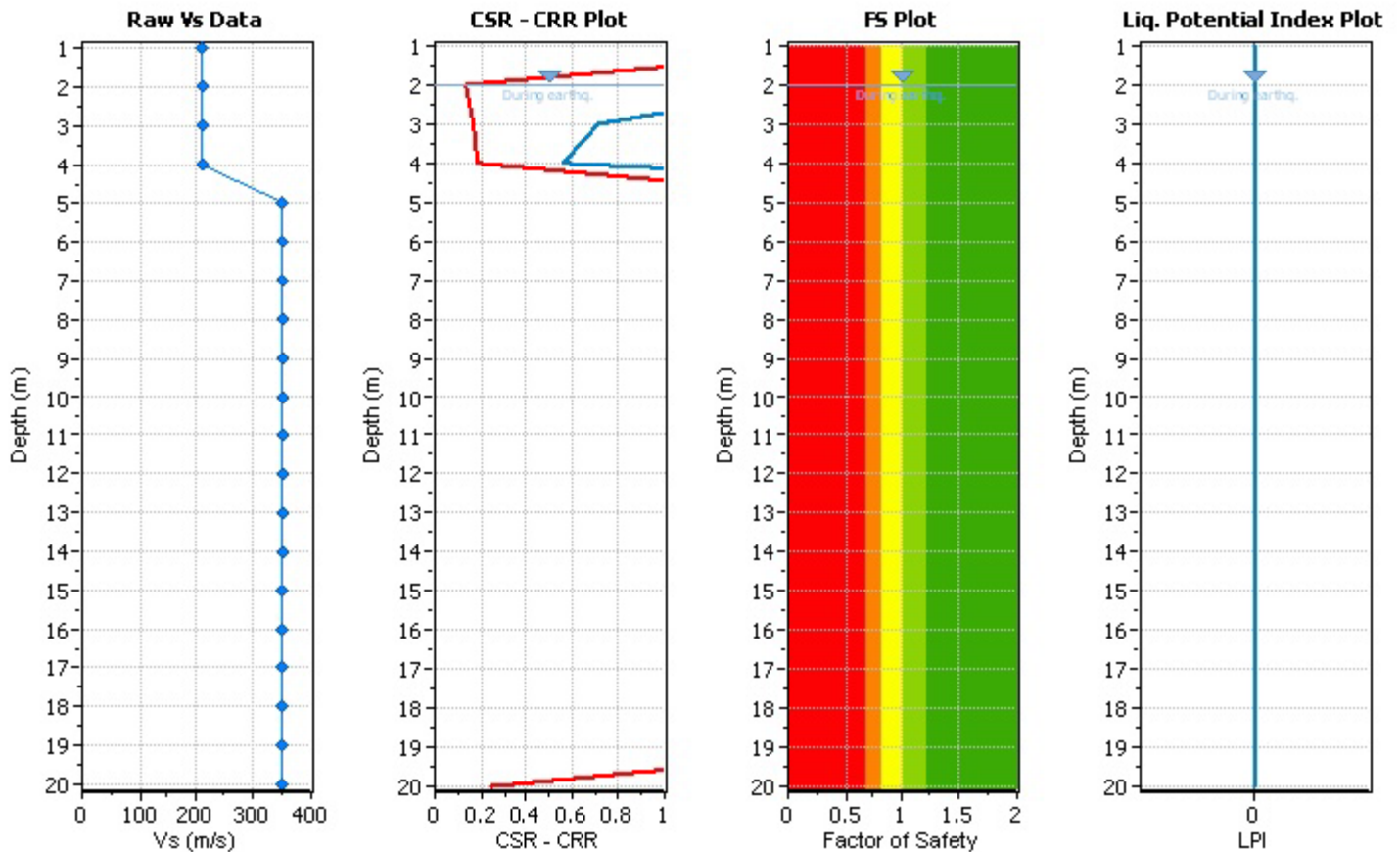
Project title :

V_s Name: L13

Location :

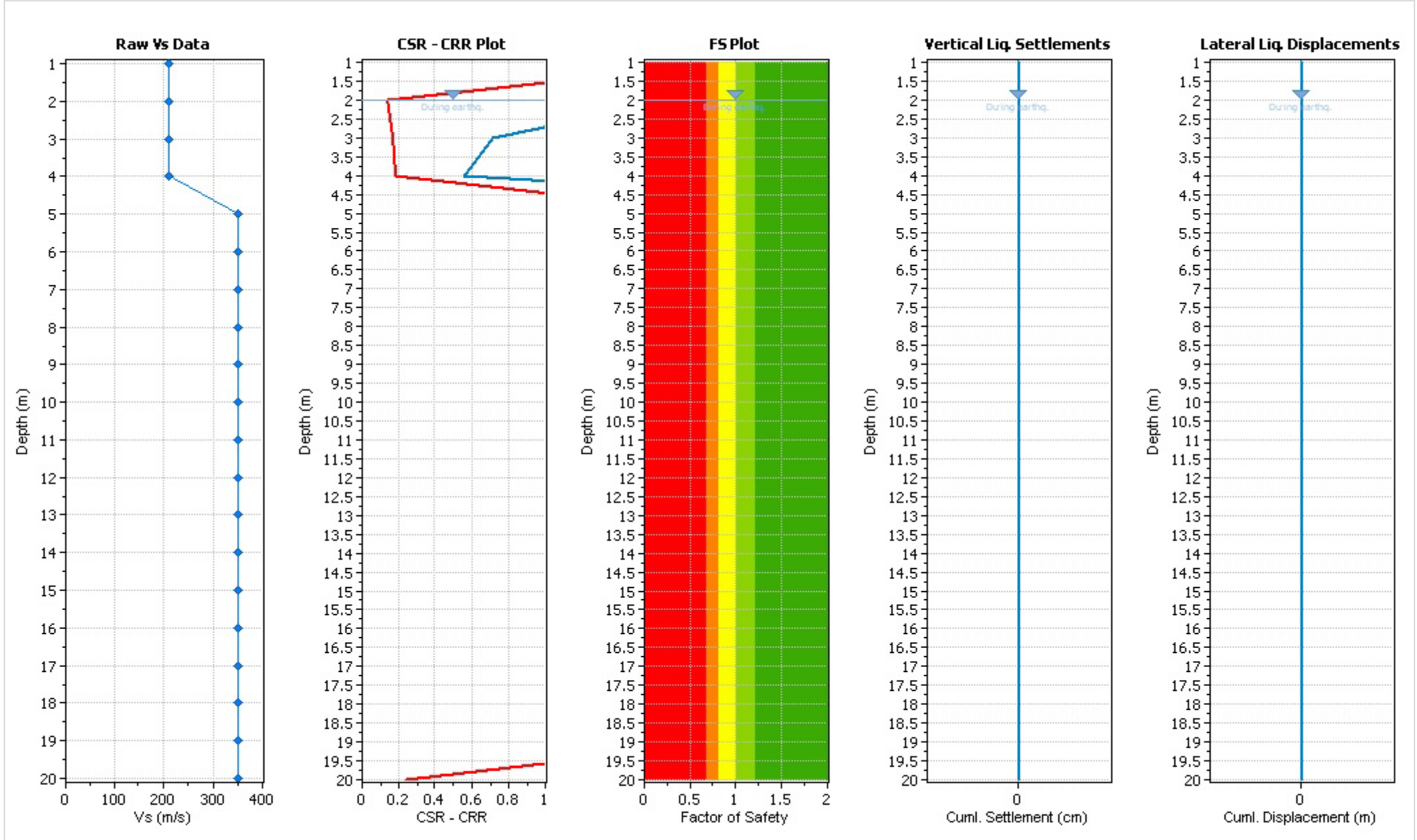
:: Input parameters and analysis properties ::

Analysis method: Kayen et al. 2013
 G.W.T. (in-situ): 3.00 m
 G.W.T. (earthq.): 2.00 m
 Earthquake magnitude M_w: 6.60
 Peak ground acceleration: 0.18 g
 Eq. external load: 0.00 kPa



- 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

:: Overall Liquefaction Assessment Analysis Plots ::



:: Liquefaction potential according to Iwasaki ::					
Depth (m)	FS	F	wz	Thickness (m)	I_L
1.00	2.000	0.00	9.50	1.00	0.00
2.00	2.000	0.00	9.00	1.00	0.00
3.00	2.000	0.00	8.50	1.00	0.00
4.00	2.000	0.00	8.00	1.00	0.00
5.00	2.000	0.00	7.50	1.00	0.00
6.00	2.000	0.00	7.00	1.00	0.00
7.00	2.000	0.00	6.50	1.00	0.00
8.00	2.000	0.00	6.00	1.00	0.00
9.00	2.000	0.00	5.50	1.00	0.00
10.00	2.000	0.00	5.00	1.00	0.00
11.00	2.000	0.00	4.50	1.00	0.00
12.00	2.000	0.00	4.00	1.00	0.00
13.00	2.000	0.00	3.50	1.00	0.00
14.00	2.000	0.00	3.00	1.00	0.00
15.00	2.000	0.00	2.50	1.00	0.00
16.00	2.000	0.00	2.00	1.00	0.00
17.00	2.000	0.00	1.50	1.00	0.00
18.00	2.000	0.00	1.00	1.00	0.00
19.00	2.000	0.00	0.50	1.00	0.00
20.00	2.000	0.00	0.00	1.00	0.00

Overall potential I_L : 0.00

I_L = 0.00 - No liquefaction

I_L between 0.00 and 5 - Liquefaction not probable

I_L between 5 and 15 - Liquefaction probable

I_L > 15 - Liquefaction certain

V_s BASED LIQUEFACTION ANALYSIS REPORT

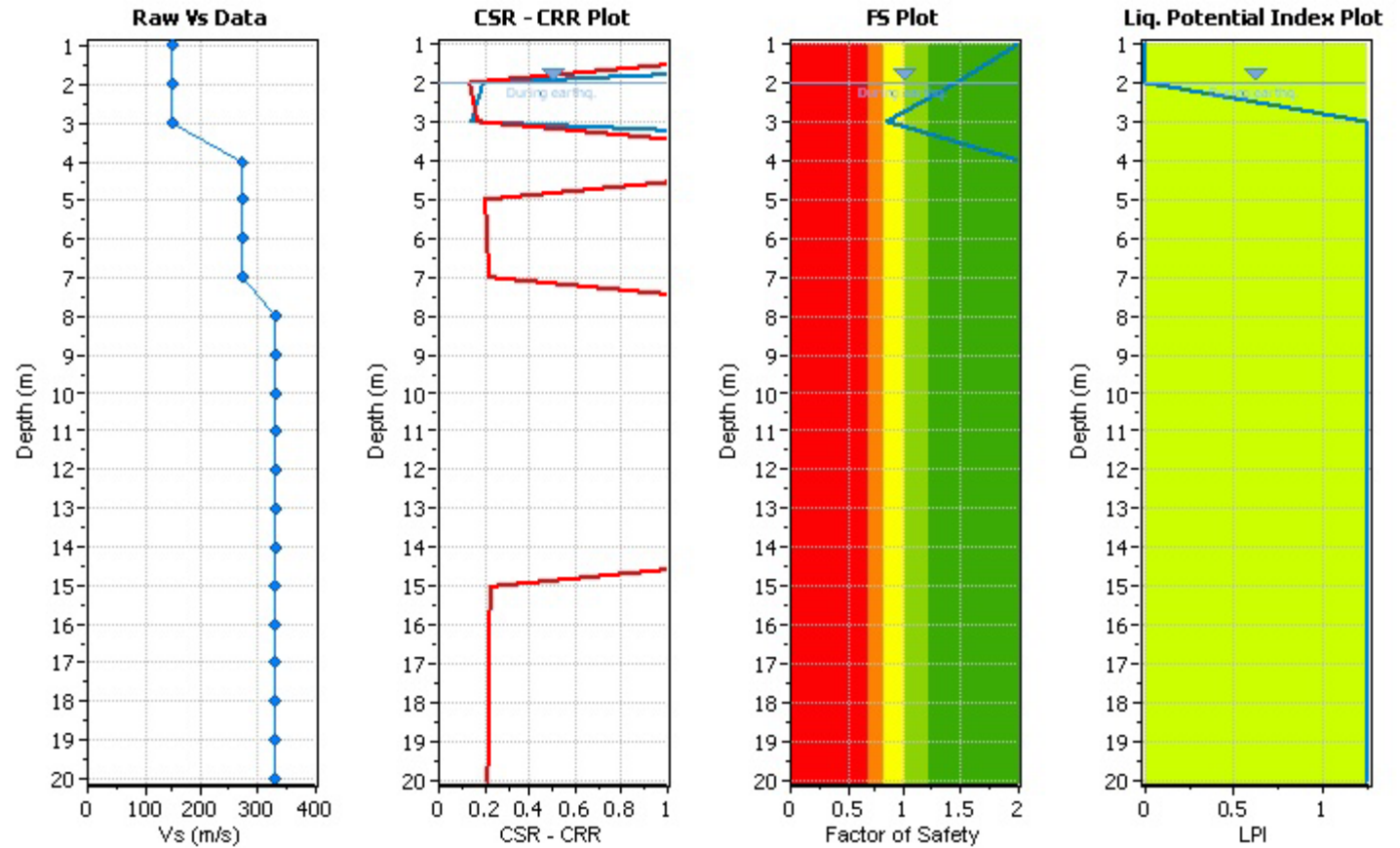
Project title :

V_s Name: L15

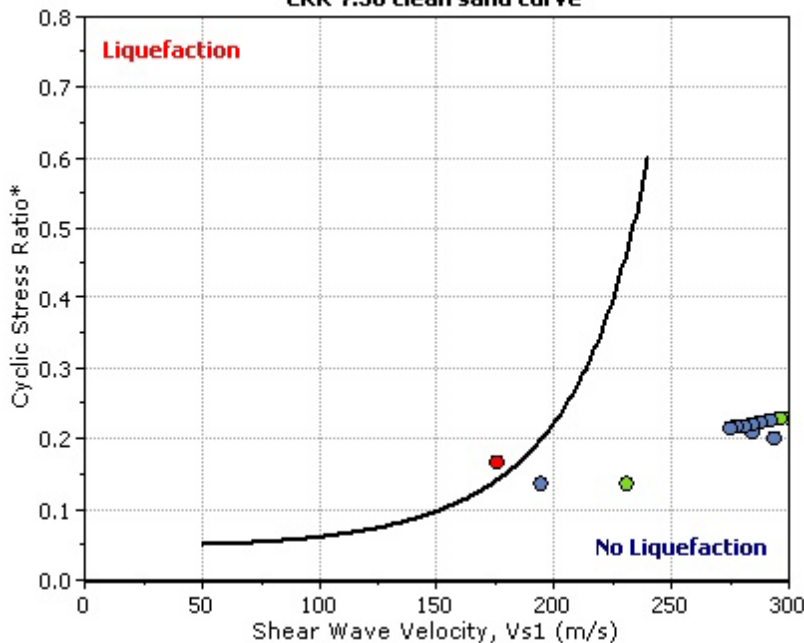
Location :

:: Input parameters and analysis properties ::

Analysis method: Kayen et al. 2013
 G.W.T. (in-situ): 3.00 m
 G.W.T. (earthq.): 2.00 m
 Earthquake magnitude M_w: 6.60
 Peak ground acceleration: 0.18 g
 Eq. external load: 0.00 kPa



CRR 7.50 clean sand curve



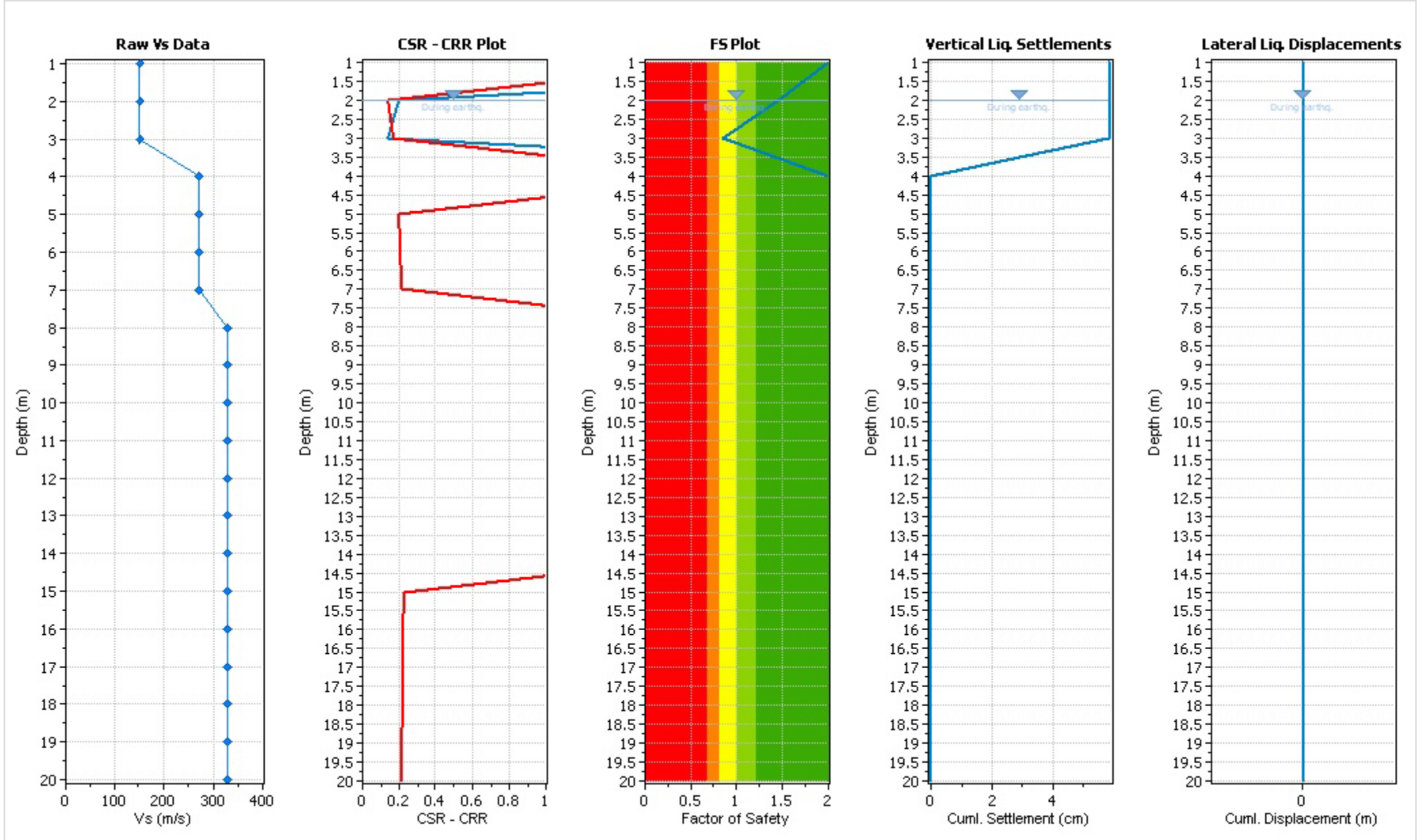
F.S. color scheme

- 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

:: Overall Liquefaction Assessment Analysis Plots ::



:: Liquefaction potential according to Iwasaki ::					
Depth (m)	FS	F	wz	Thickness (m)	I_L
1.00	2.000	0.00	9.50	1.00	0.00
2.00	1.462	0.00	9.00	1.00	0.00
3.00	0.854	0.15	8.50	1.00	1.24
4.00	2.000	0.00	8.00	1.00	0.00
5.00	2.000	0.00	7.50	1.00	0.00
6.00	2.000	0.00	7.00	1.00	0.00
7.00	2.000	0.00	6.50	1.00	0.00
8.00	2.000	0.00	6.00	1.00	0.00
9.00	2.000	0.00	5.50	1.00	0.00
10.00	2.000	0.00	5.00	1.00	0.00
11.00	2.000	0.00	4.50	1.00	0.00
12.00	2.000	0.00	4.00	1.00	0.00
13.00	2.000	0.00	3.50	1.00	0.00
14.00	2.000	0.00	3.00	1.00	0.00
15.00	2.000	0.00	2.50	1.00	0.00
16.00	2.000	0.00	2.00	1.00	0.00
17.00	2.000	0.00	1.50	1.00	0.00
18.00	2.000	0.00	1.00	1.00	0.00
19.00	2.000	0.00	0.50	1.00	0.00
20.00	2.000	0.00	0.00	1.00	0.00

Overall potential I_L : 1.24

- I_L = 0.00 - No liquefaction
- I_L between 0.00 and 5 - Liquefaction not probable
- I_L between 5 and 15 - Liquefaction probable
- I_L > 15 - Liquefaction certain

V_s BASED LIQUEFACTION ANALYSIS REPORT

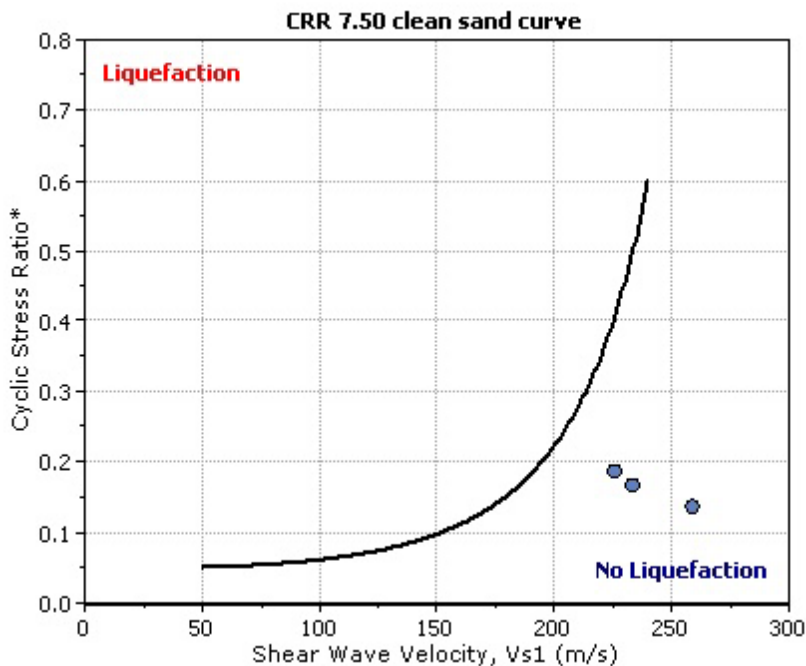
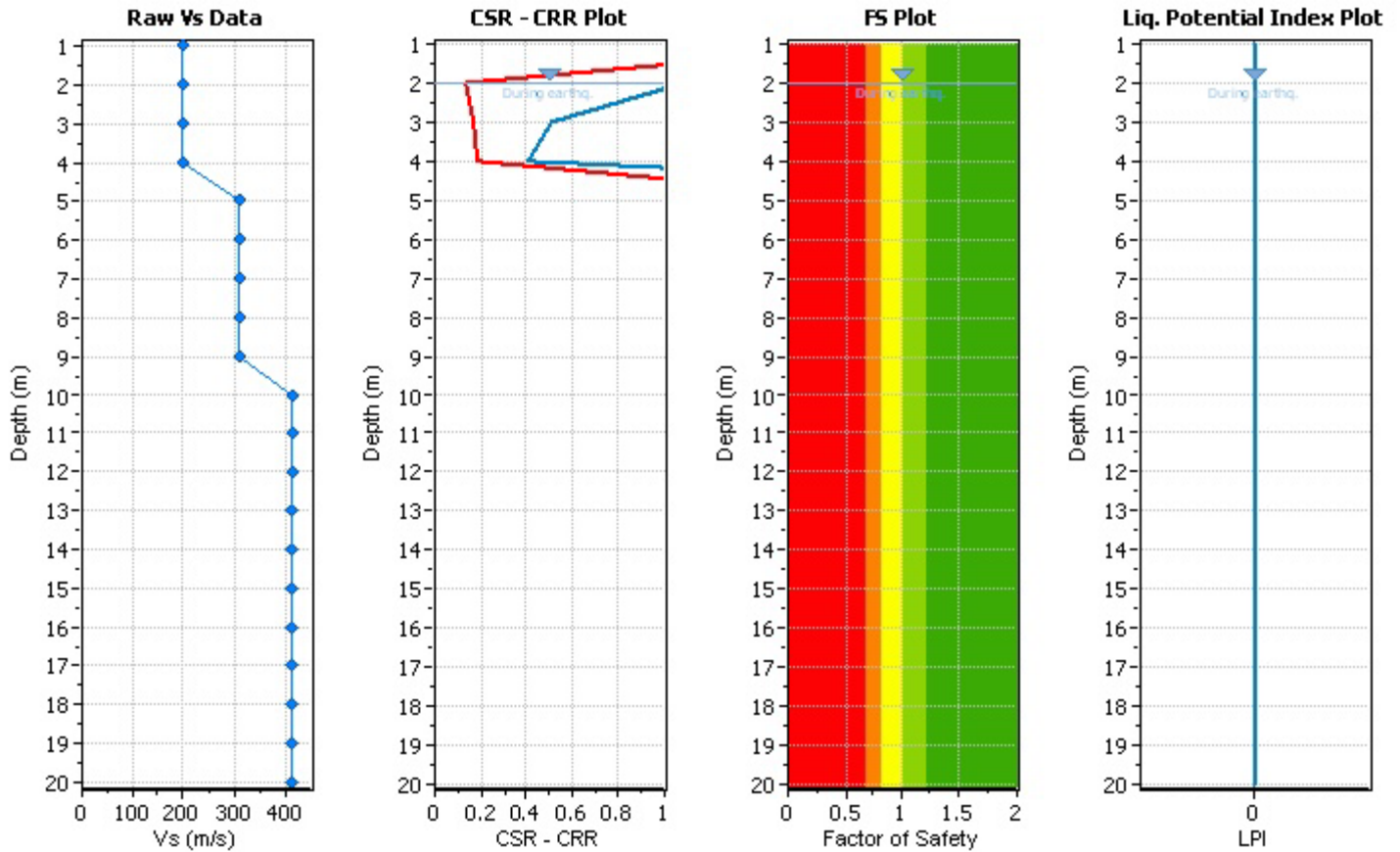
Project title :

V_s Name: L17

Location :

:: Input parameters and analysis properties ::

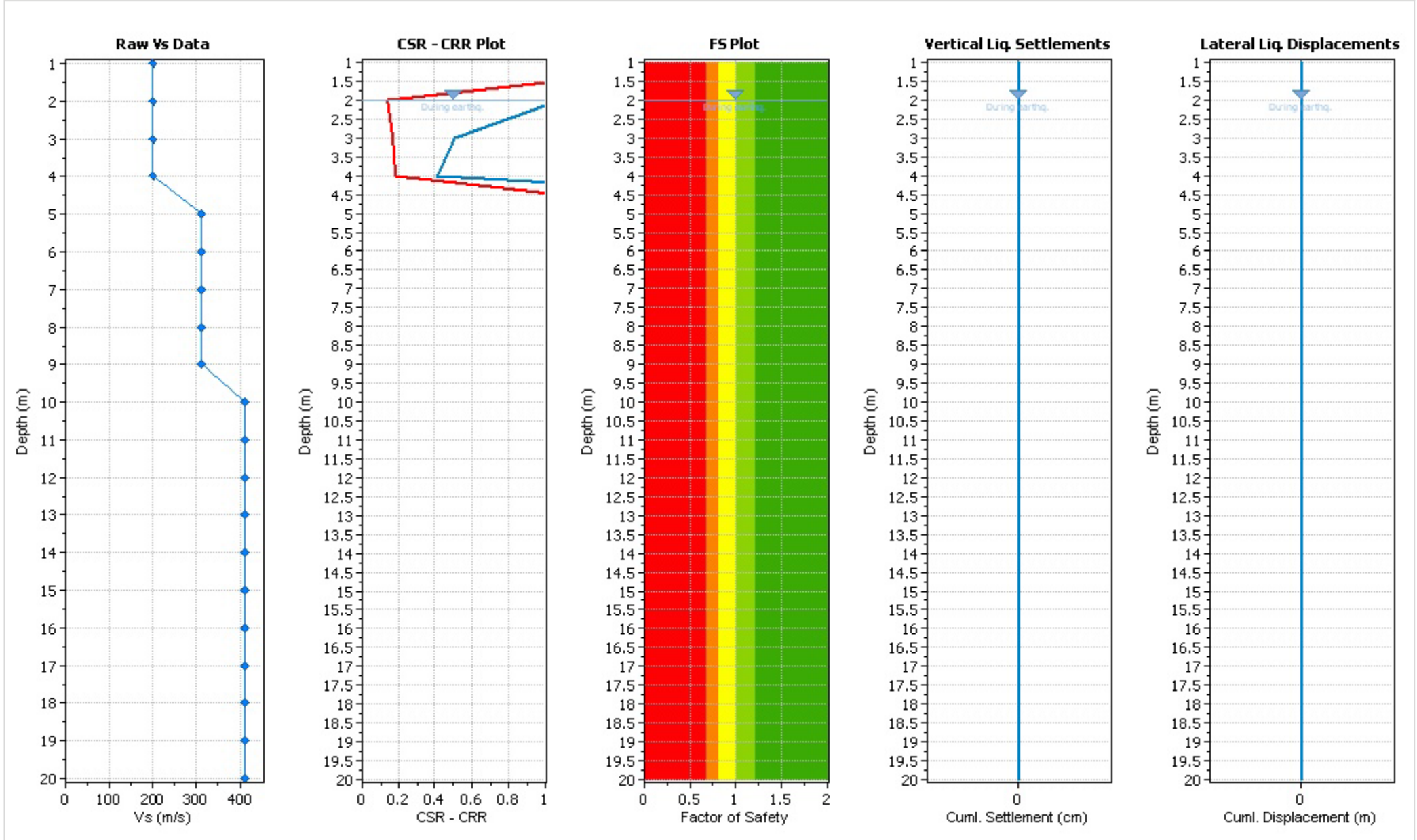
Analysis method: Kayen et al. 2013
 G.W.T. (in-situ): 3.00 m
 G.W.T. (earthq.): 2.00 m
 Earthquake magnitude M_w: 6.60
 Peak ground acceleration: 0.18 g
 Eq. external load: 0.00 kPa



- 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

:: Overall Liquefaction Assessment Analysis Plots ::



:: Liquefaction potential according to Iwasaki ::					
Depth (m)	FS	F	wz	Thickness (m)	I_L
1.00	2.000	0.00	9.50	1.00	0.00
2.00	2.000	0.00	9.00	1.00	0.00
3.00	2.000	0.00	8.50	1.00	0.00
4.00	2.000	0.00	8.00	1.00	0.00
5.00	2.000	0.00	7.50	1.00	0.00
6.00	2.000	0.00	7.00	1.00	0.00
7.00	2.000	0.00	6.50	1.00	0.00
8.00	2.000	0.00	6.00	1.00	0.00
9.00	2.000	0.00	5.50	1.00	0.00
10.00	2.000	0.00	5.00	1.00	0.00
11.00	2.000	0.00	4.50	1.00	0.00
12.00	2.000	0.00	4.00	1.00	0.00
13.00	2.000	0.00	3.50	1.00	0.00
14.00	2.000	0.00	3.00	1.00	0.00
15.00	2.000	0.00	2.50	1.00	0.00
16.00	2.000	0.00	2.00	1.00	0.00
17.00	2.000	0.00	1.50	1.00	0.00
18.00	2.000	0.00	1.00	1.00	0.00
19.00	2.000	0.00	0.50	1.00	0.00
20.00	2.000	0.00	0.00	1.00	0.00

Overall potential I_L : 0.00

- I_L = 0.00 - No liquefaction
- I_L between 0.00 and 5 - Liquefaction not probable
- I_L between 5 and 15 - Liquefaction probable
- I_L > 15 - Liquefaction certain

V_s BASED LIQUEFACTION ANALYSIS REPORT

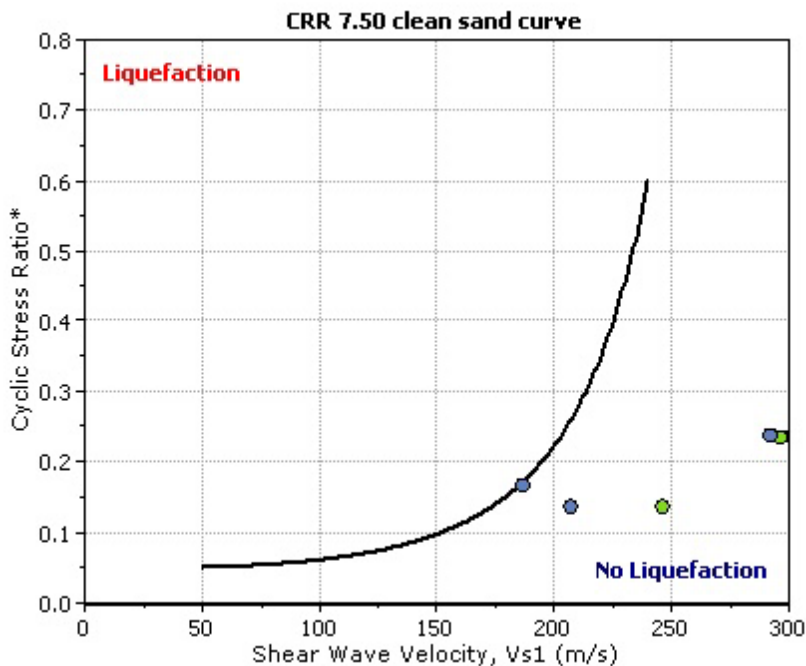
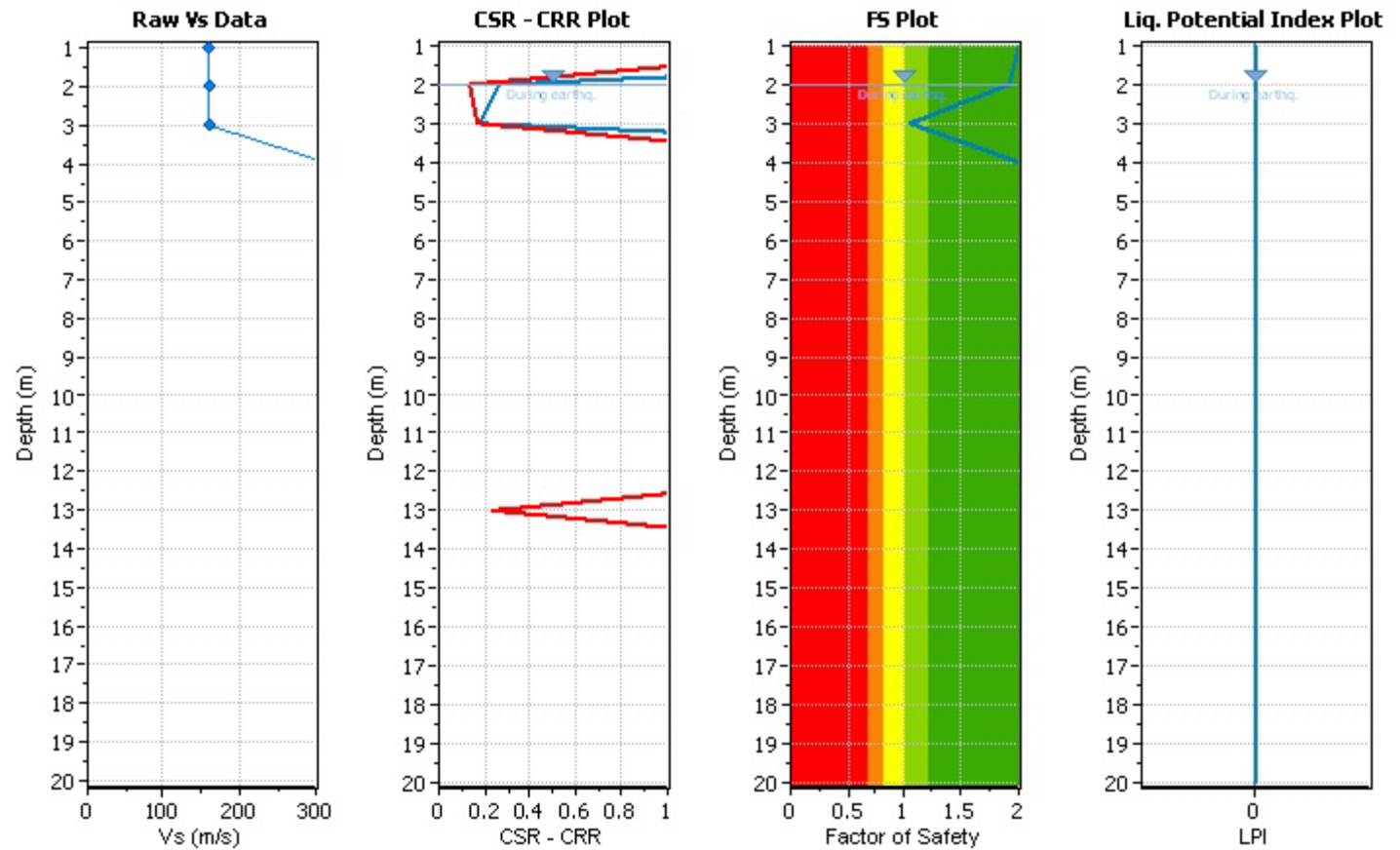
Project title :

V_s Name: L18

Location :

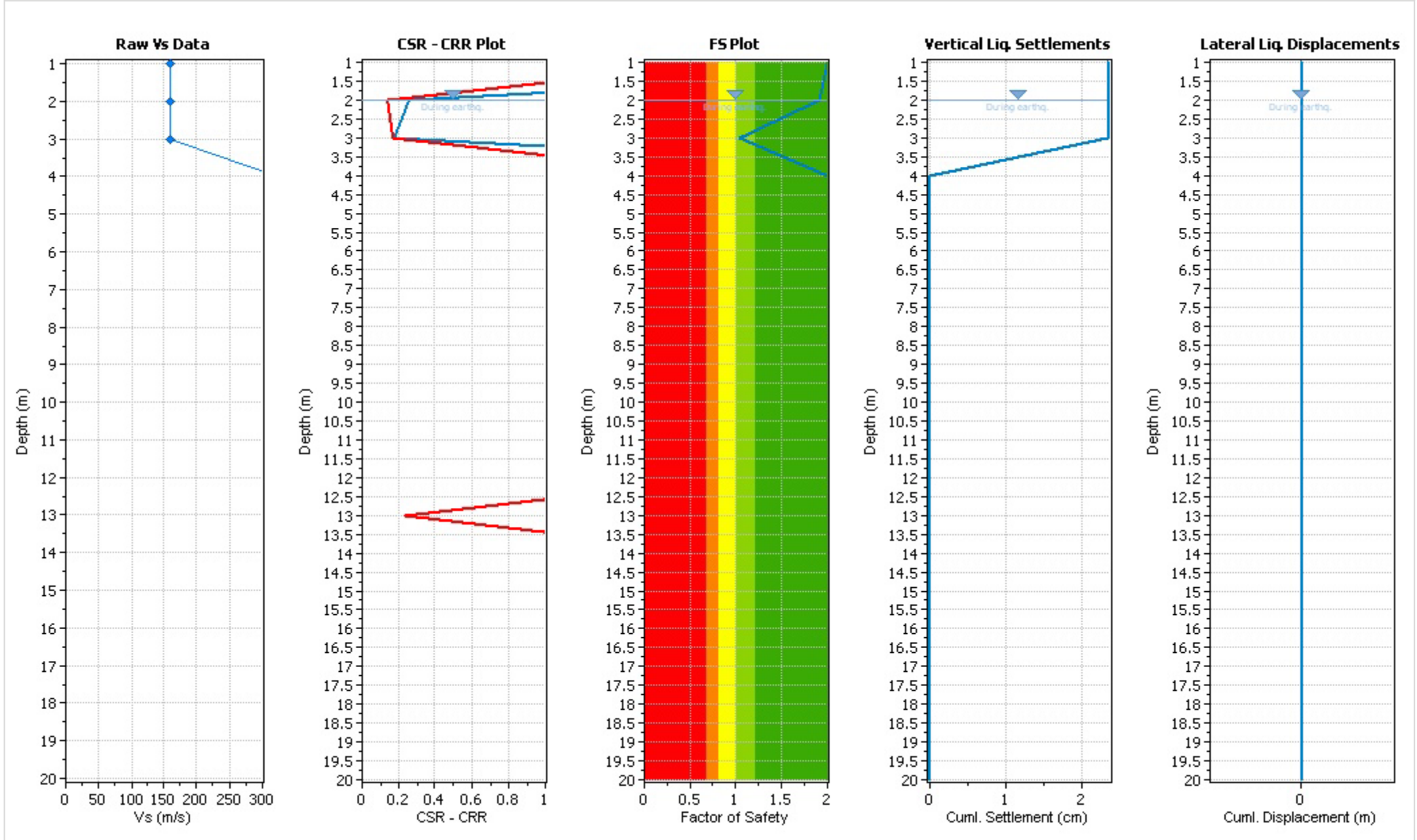
:: Input parameters and analysis properties ::

Analysis method: Kayen et al. 2013
 G.W.T. (in-situ): 3.00 m
 G.W.T. (earthq.): 2.00 m
 Earthquake magnitude M_w: 6.60
 Peak ground acceleration: 0.18 g
 Eq. external load: 0.00 kPa



- 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

:: Overall Liquefaction Assessment Analysis Plots ::



:: Liquefaction potential according to Iwasaki ::					
Depth (m)	FS	F	wz	Thickness (m)	I_L
1.00	2.000	0.00	9.50	1.00	0.00
2.00	1.916	0.00	9.00	1.00	0.00
3.00	1.046	0.00	8.50	1.00	0.00
4.00	2.000	0.00	8.00	1.00	0.00
5.00	2.000	0.00	7.50	1.00	0.00
6.00	2.000	0.00	7.00	1.00	0.00
7.00	2.000	0.00	6.50	1.00	0.00
8.00	2.000	0.00	6.00	1.00	0.00
9.00	2.000	0.00	5.50	1.00	0.00
10.00	2.000	0.00	5.00	1.00	0.00
11.00	2.000	0.00	4.50	1.00	0.00
12.00	2.000	0.00	4.00	1.00	0.00
13.00	2.000	0.00	3.50	1.00	0.00
14.00	2.000	0.00	3.00	1.00	0.00
15.00	2.000	0.00	2.50	1.00	0.00
16.00	2.000	0.00	2.00	1.00	0.00
17.00	2.000	0.00	1.50	1.00	0.00
18.00	2.000	0.00	1.00	1.00	0.00
19.00	2.000	0.00	0.50	1.00	0.00
20.00	2.000	0.00	0.00	1.00	0.00

Overall potential I_L : 0.00

- I_L = 0.00 - No liquefaction
- I_L between 0.00 and 5 - Liquefaction not probable
- I_L between 5 and 15 - Liquefaction probable
- I_L > 15 - Liquefaction certain

V_s BASED LIQUEFACTION ANALYSIS REPORT

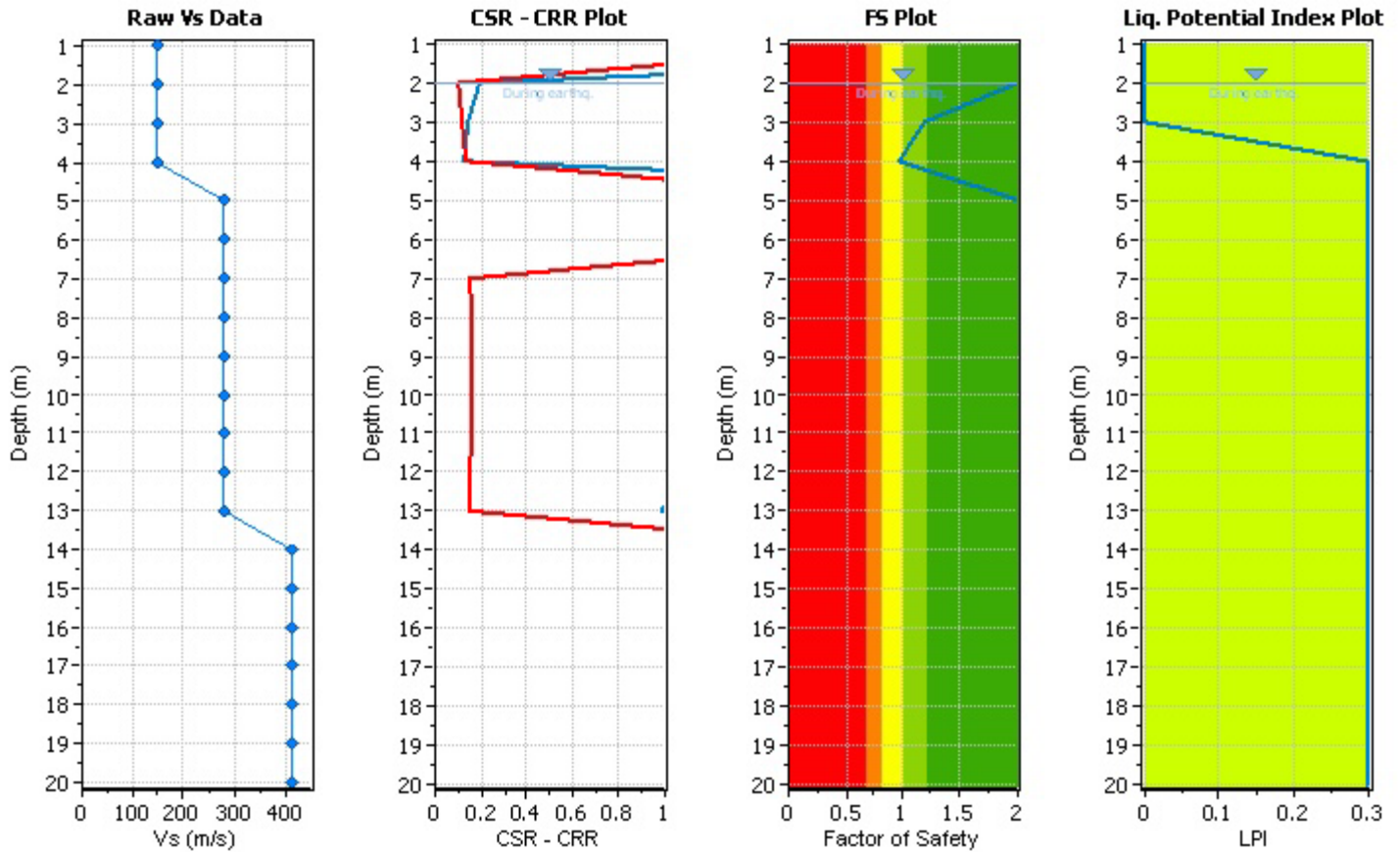
Project title :

V_s Name: L19

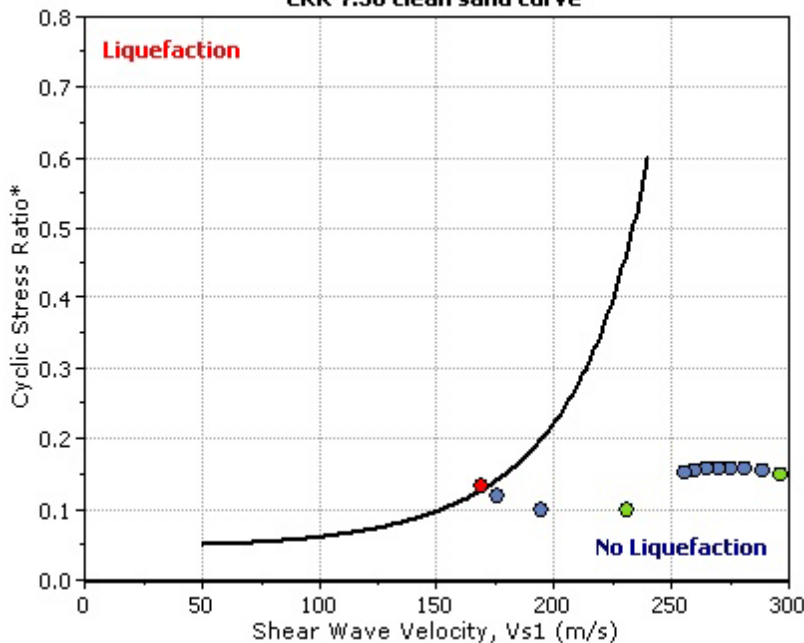
Location :

:: Input parameters and analysis properties ::

Analysis method: Kayen et al. 2013
 G.W.T. (in-situ): 3.00 m
 G.W.T. (earthq.): 2.00 m
 Earthquake magnitude M_w: 6.60
 Peak ground acceleration: 0.18 g
 Eq. external load: 0.00 kPa



CRR 7.50 clean sand curve



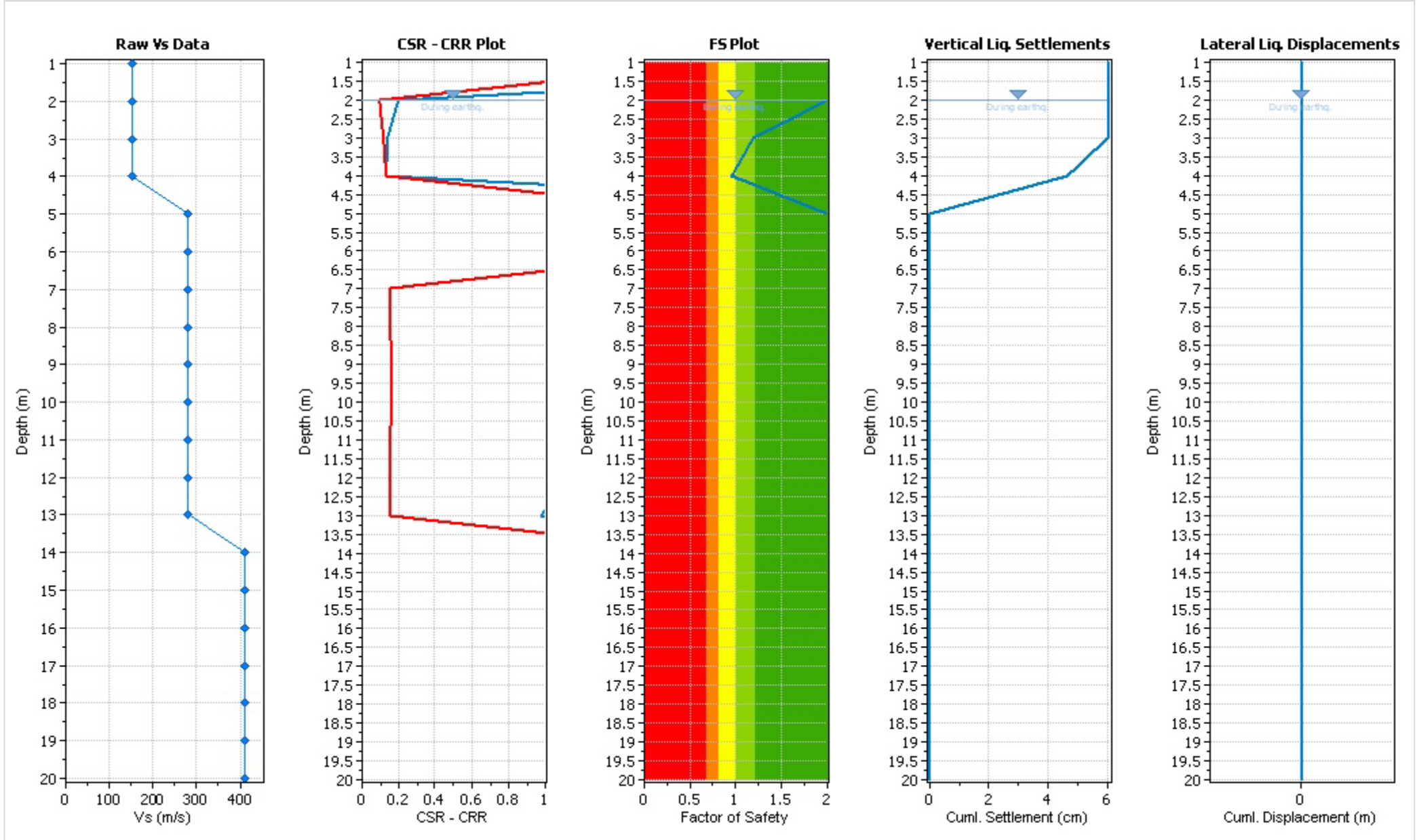
F.S. color scheme

- 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

:: Overall Liquefaction Assessment Analysis Plots ::



:: Liquefaction potential according to Iwasaki ::					
Depth (m)	FS	F	wz	Thickness (m)	I_L
1.00	2.000	0.00	9.50	1.00	0.00
2.00	2.000	0.00	9.00	1.00	0.00
3.00	1.190	0.00	8.50	1.00	0.00
4.00	0.963	0.04	8.00	1.00	0.30
5.00	2.000	0.00	7.50	1.00	0.00
6.00	2.000	0.00	7.00	1.00	0.00
7.00	2.000	0.00	6.50	1.00	0.00
8.00	2.000	0.00	6.00	1.00	0.00
9.00	2.000	0.00	5.50	1.00	0.00
10.00	2.000	0.00	5.00	1.00	0.00
11.00	2.000	0.00	4.50	1.00	0.00
12.00	2.000	0.00	4.00	1.00	0.00
13.00	2.000	0.00	3.50	1.00	0.00
14.00	2.000	0.00	3.00	1.00	0.00
15.00	2.000	0.00	2.50	1.00	0.00
16.00	2.000	0.00	2.00	1.00	0.00
17.00	2.000	0.00	1.50	1.00	0.00
18.00	2.000	0.00	1.00	1.00	0.00
19.00	2.000	0.00	0.50	1.00	0.00
20.00	2.000	0.00	0.00	1.00	0.00

Overall potential I_L : 0.30

I_L = 0.00 - No liquefaction

I_L between 0.00 and 5 - Liquefaction not probable

I_L between 5 and 15 - Liquefaction probable

I_L > 15 - Liquefaction certain

V_s BASED LIQUEFACTION ANALYSIS REPORT

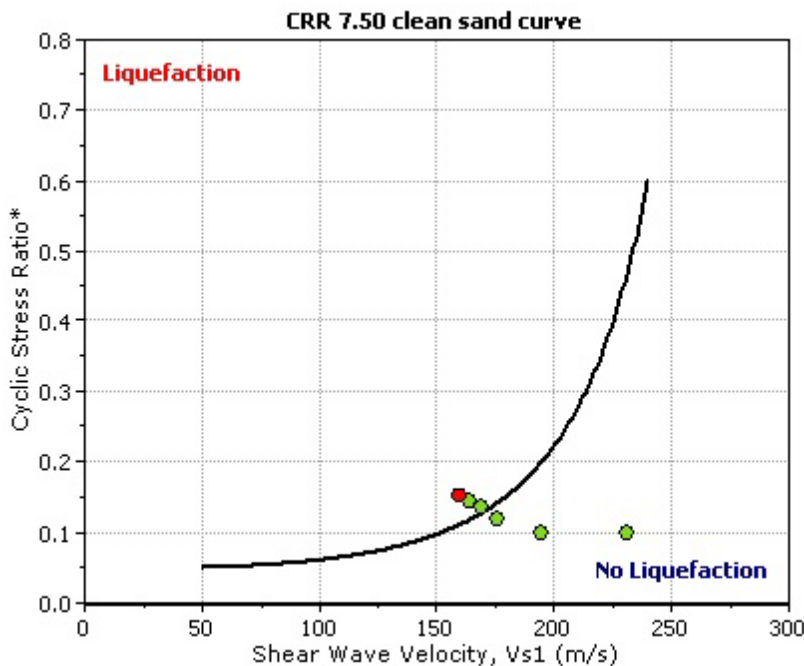
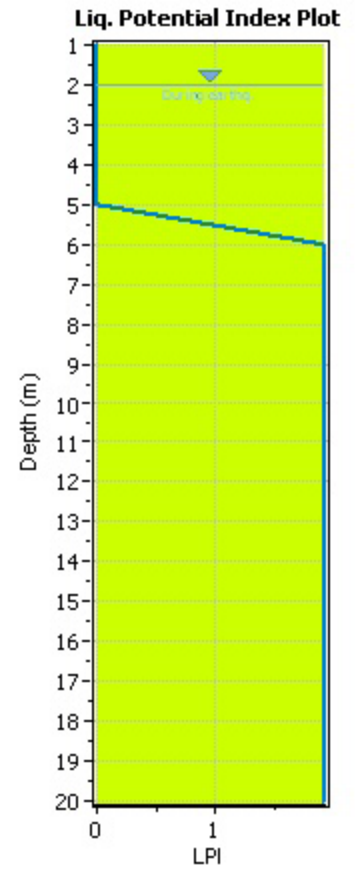
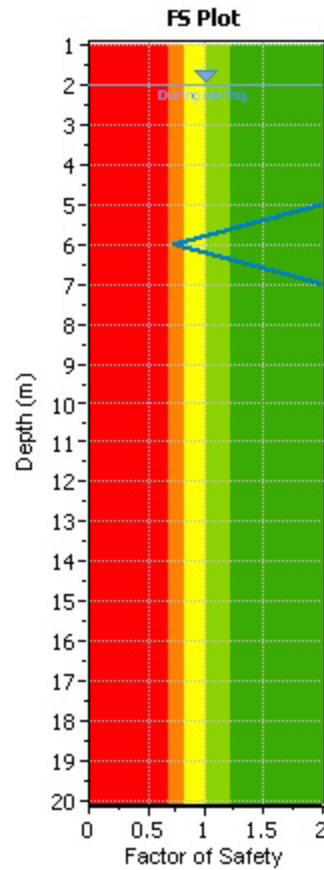
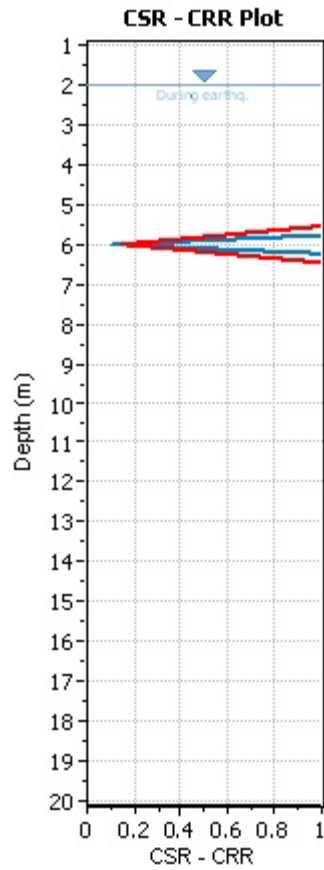
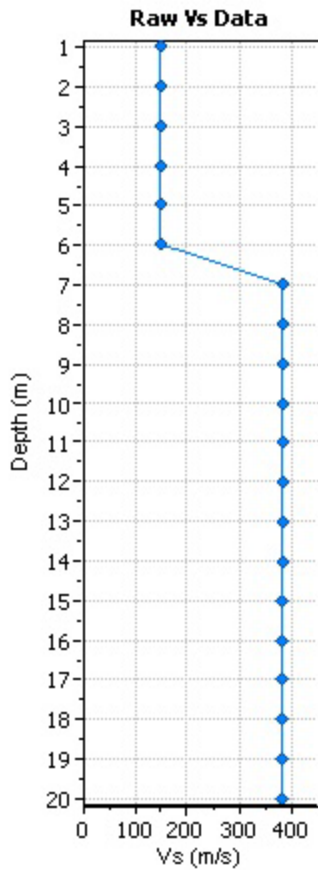
Project title :

V_s Name: L20

Location :

:: Input parameters and analysis properties ::

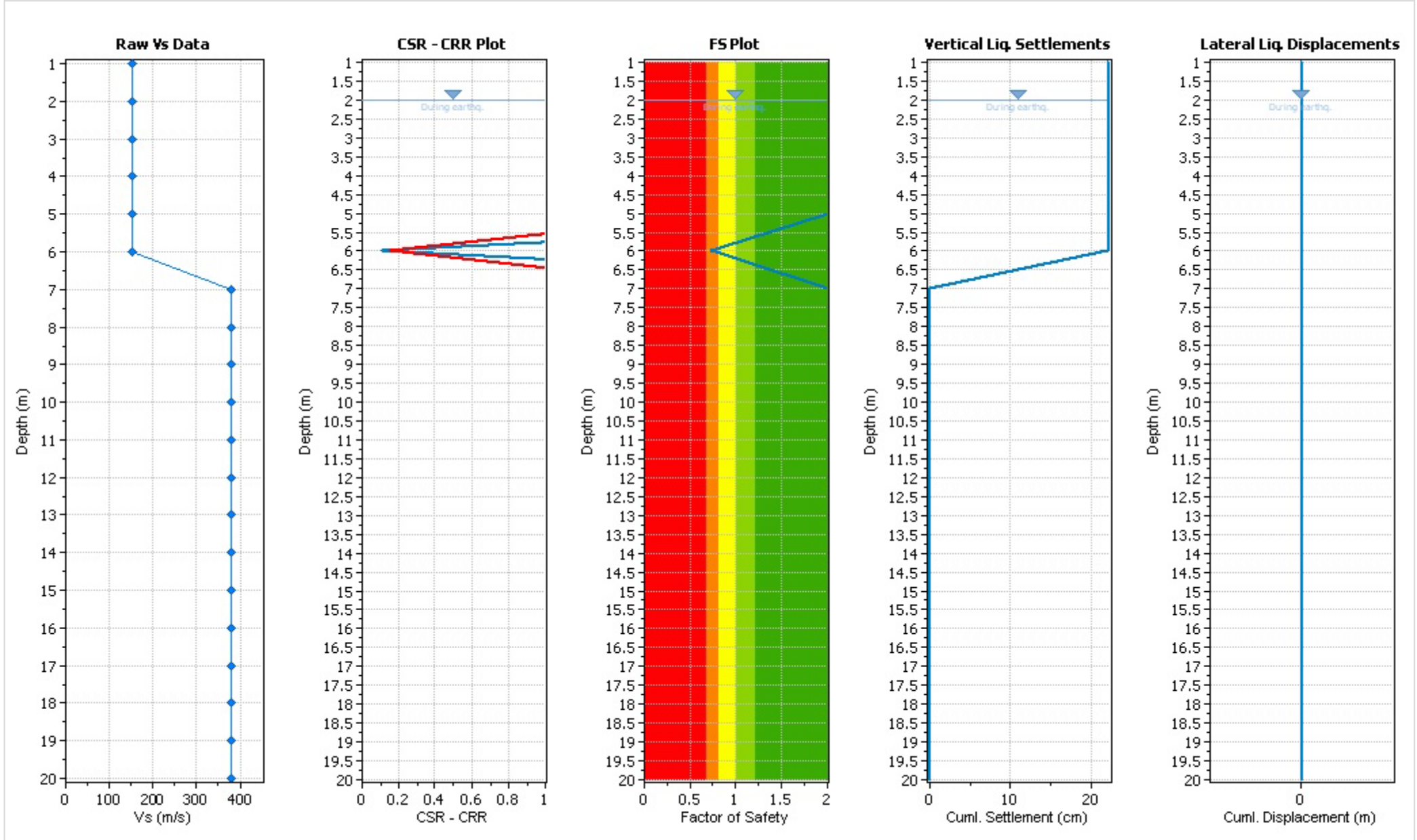
Analysis method: Kayen et al. 2013
 G.W.T. (in-situ): 3.00 m
 G.W.T. (earthq.): 2.00 m
 Earthquake magnitude M_w: 6.60
 Peak ground acceleration: 0.18 g
 Eq. external load: 0.00 kPa



- F.S. color scheme**
- Red: Almost certain it will liquefy
 - Orange: Very likely to liquefy
 - Yellow: Liquefaction and no liq. are equally likely
 - Green: Unlike to liquefy
 - Dark Green: Almost certain it will not liquefy

- LPI color scheme**
- Red: Very high risk
 - Orange: High risk
 - Yellow: Low risk

:: Overall Liquefaction Assessment Analysis Plots ::



:: Liquefaction potential according to Iwasaki ::					
Depth (m)	FS	F	wz	Thickness (m)	I_L
1.00	2.000	0.00	9.50	1.00	0.00
2.00	2.000	0.00	9.00	1.00	0.00
3.00	2.000	0.00	8.50	1.00	0.00
4.00	2.000	0.00	8.00	1.00	0.00
5.00	2.000	0.00	7.50	1.00	0.00
6.00	0.730	0.27	7.00	1.00	1.89
7.00	2.000	0.00	6.50	1.00	0.00
8.00	2.000	0.00	6.00	1.00	0.00
9.00	2.000	0.00	5.50	1.00	0.00
10.00	2.000	0.00	5.00	1.00	0.00
11.00	2.000	0.00	4.50	1.00	0.00
12.00	2.000	0.00	4.00	1.00	0.00
13.00	2.000	0.00	3.50	1.00	0.00
14.00	2.000	0.00	3.00	1.00	0.00
15.00	2.000	0.00	2.50	1.00	0.00
16.00	2.000	0.00	2.00	1.00	0.00
17.00	2.000	0.00	1.50	1.00	0.00
18.00	2.000	0.00	1.00	1.00	0.00
19.00	2.000	0.00	0.50	1.00	0.00
20.00	2.000	0.00	0.00	1.00	0.00

Overall potential I_L : 1.89

- I_L = 0.00 - No liquefaction
- I_L between 0.00 and 5 - Liquefaction not probable
- I_L between 5 and 15 - Liquefaction probable
- I_L > 15 - Liquefaction certain