Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD01

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
7.92	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	31.43	31,428.57

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	13.83	13,828.57

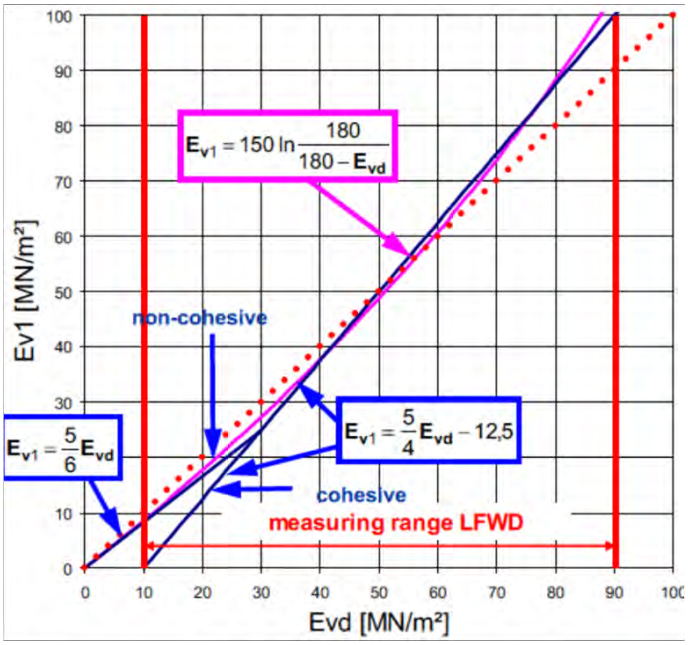
Criteria	Result
CBR (%)	0.9

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



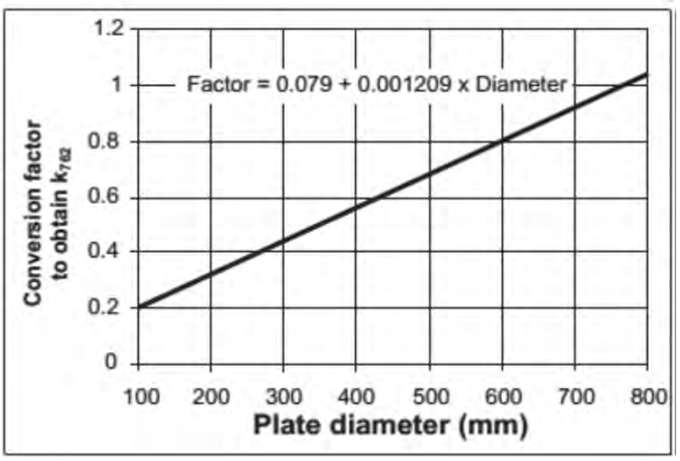




Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD02

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus Ev1 (MN/m^2)	Poissons's Ratio V	Plate Width B (m)
11.45	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	45.44	45,436.51

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	19.99	19,992.06

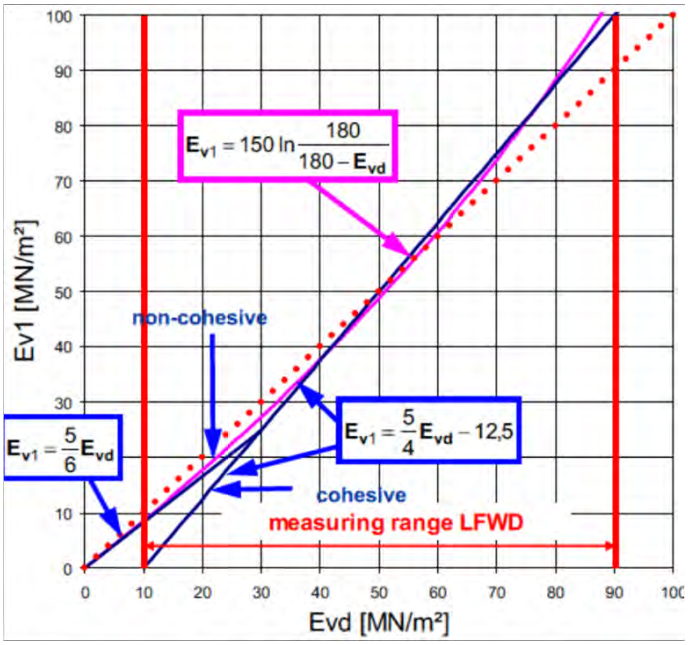
Criteria	Result
CBR (%)	1.7

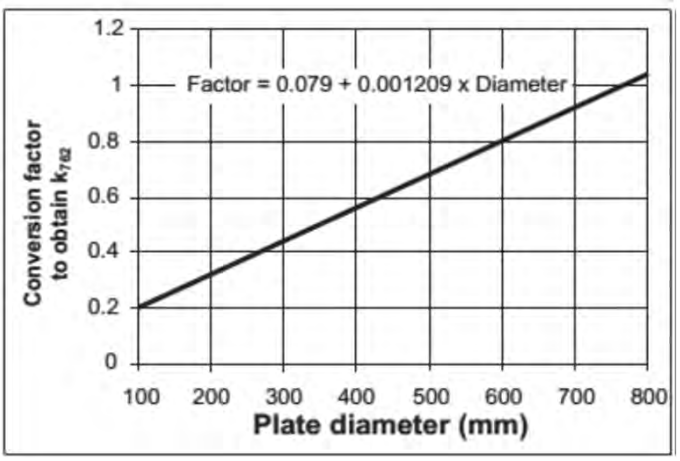
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





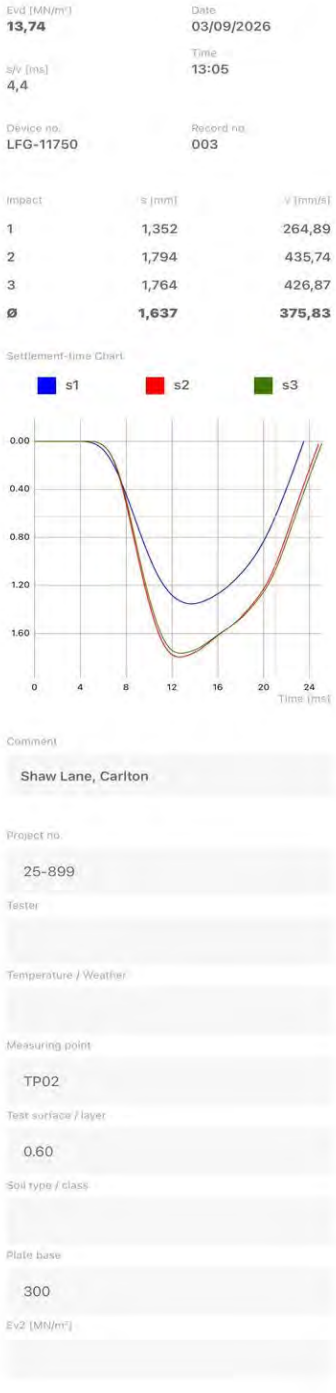


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD03

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
4.43	0.35	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	16.83	16,828.11

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	7.40	7,404.37

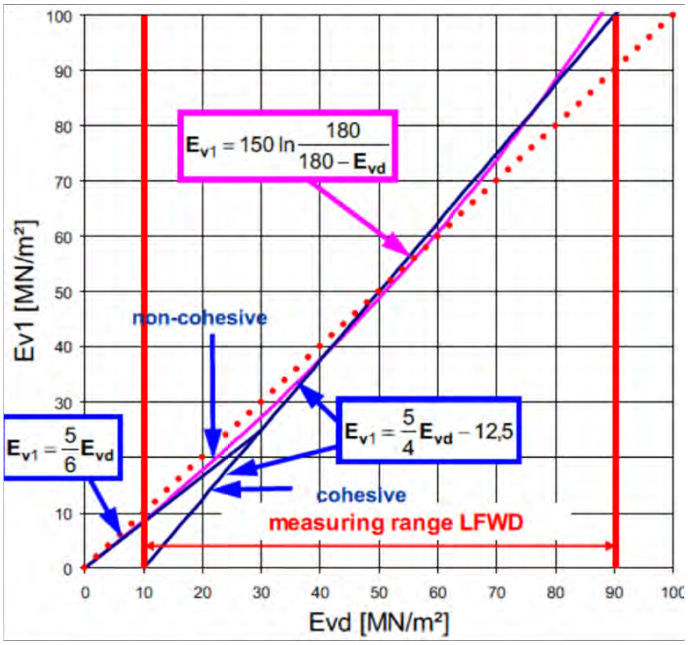
Criteria	Result
CBR (%)	0.3

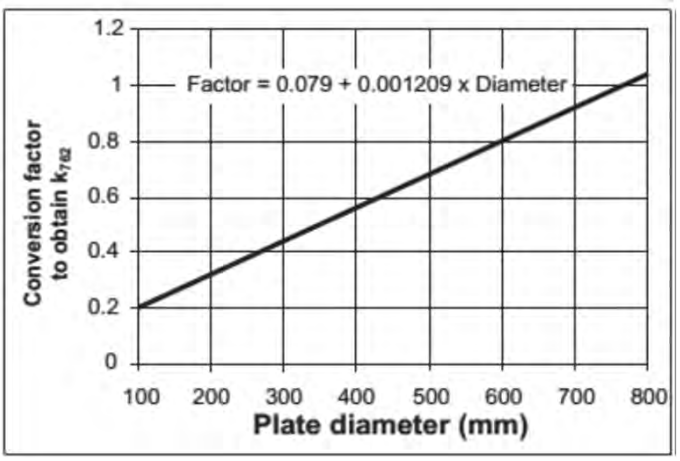
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





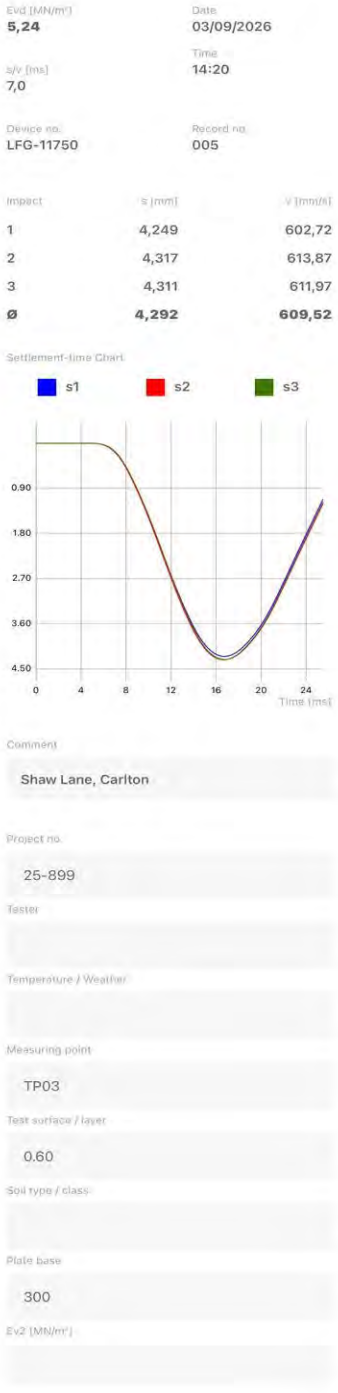


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD04

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
10.13	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	40.20	40,198.41

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	17.69	17,687.30

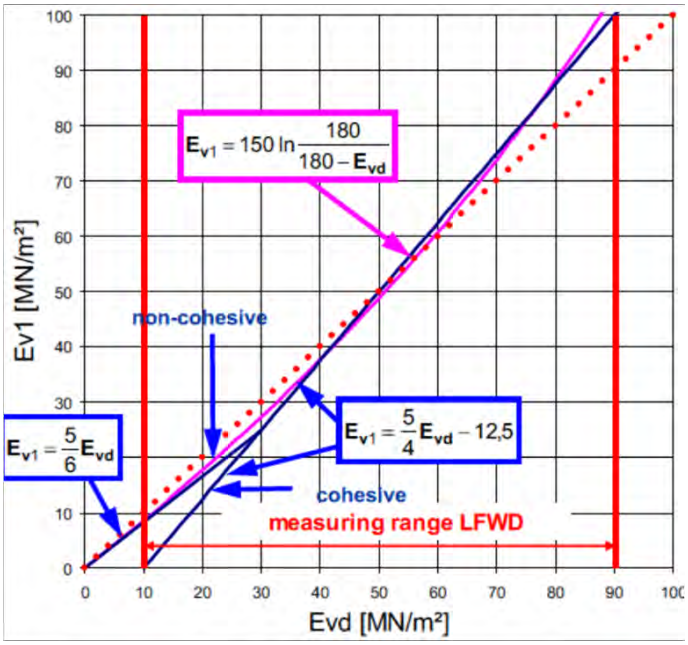
Criteria	Result
CBR (%)	1.4

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



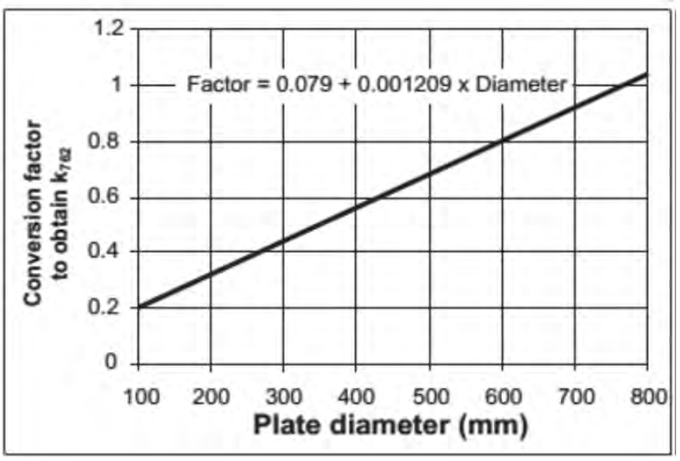




Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD05

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus Ev1 (MN/m^2)	Poissons's Ratio V	Plate Width B (m)
4.7	0.35	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	17.85	17,853.75

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	7.86	7,855.65

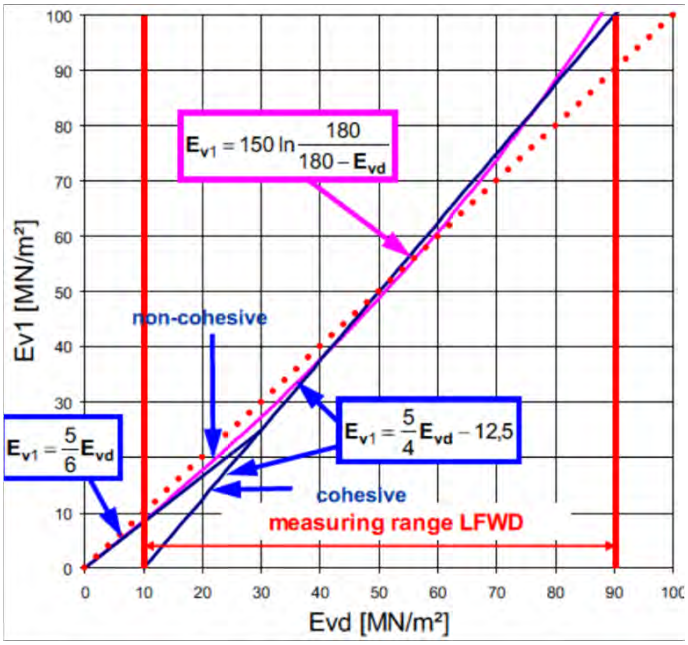
Criteria	Result
CBR (%)	0.3

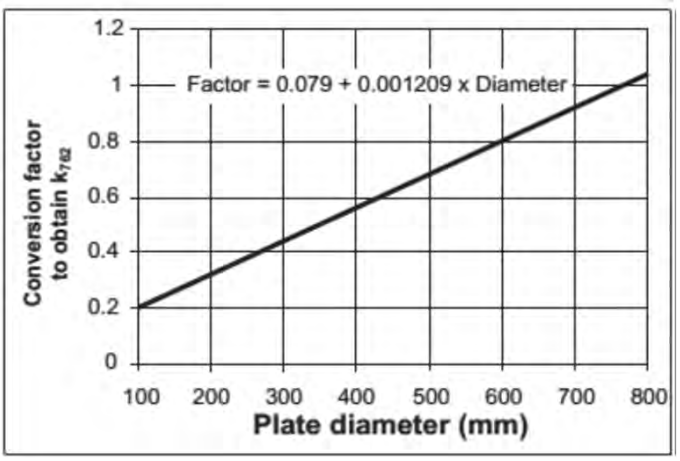
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





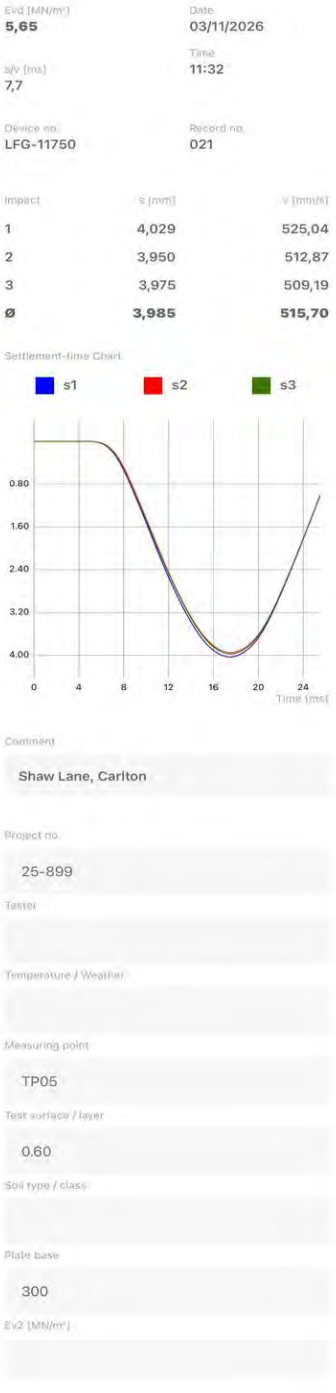


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD06

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
11.82	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	46.90	46,904.76

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	20.64	20,638.10

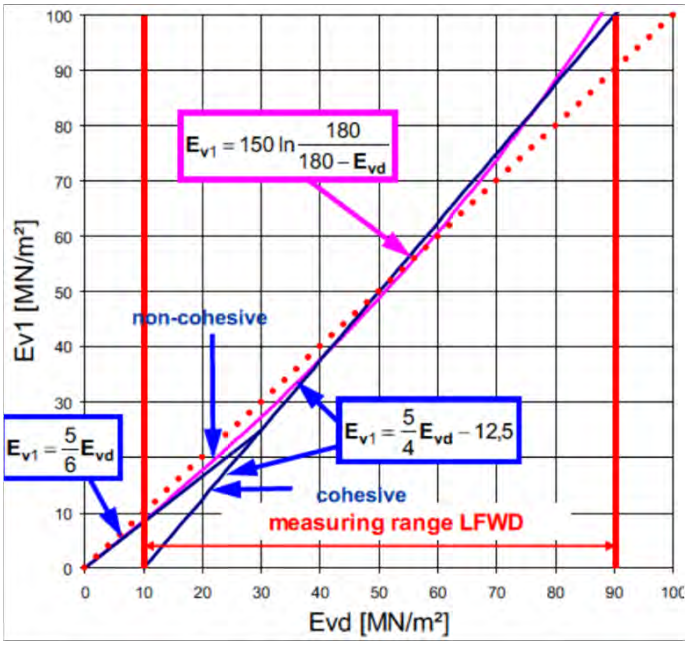
Criteria	Result
CBR (%)	1.8

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



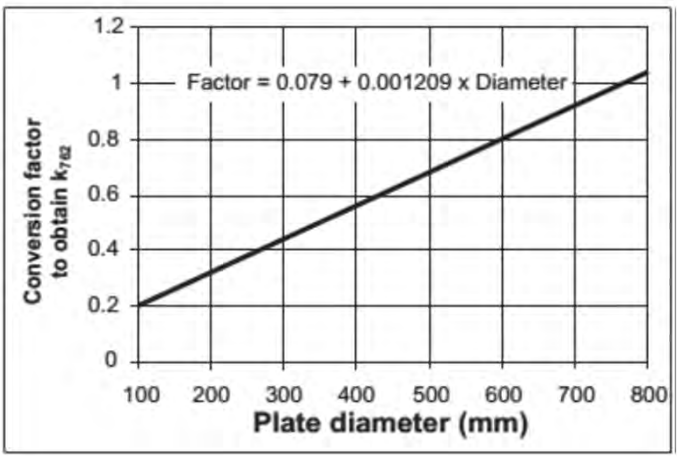
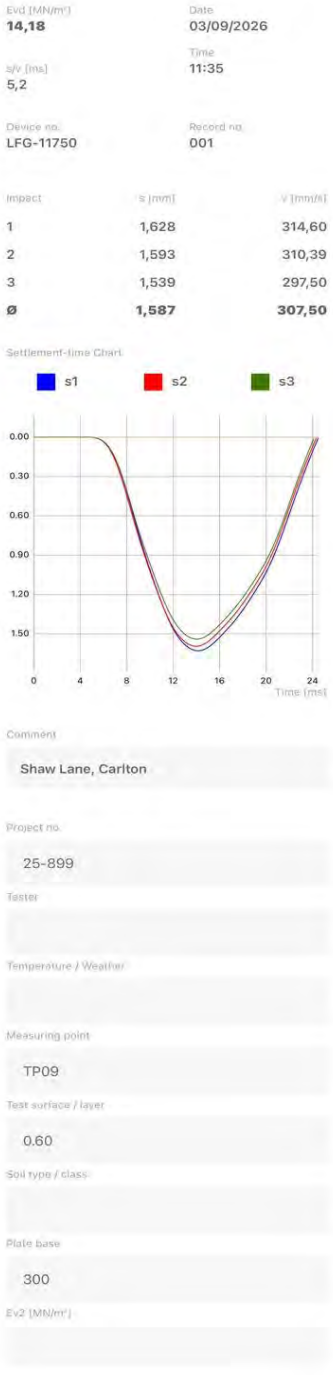


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100



Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD07

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
13.36	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	53.02	53,015.87

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	23.33	23,326.98

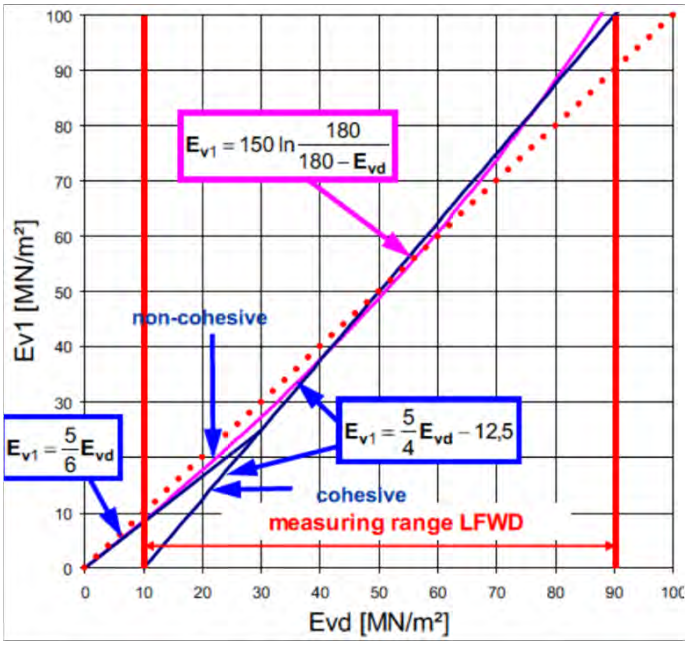
Criteria	Result
CBR (%)	2.3

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



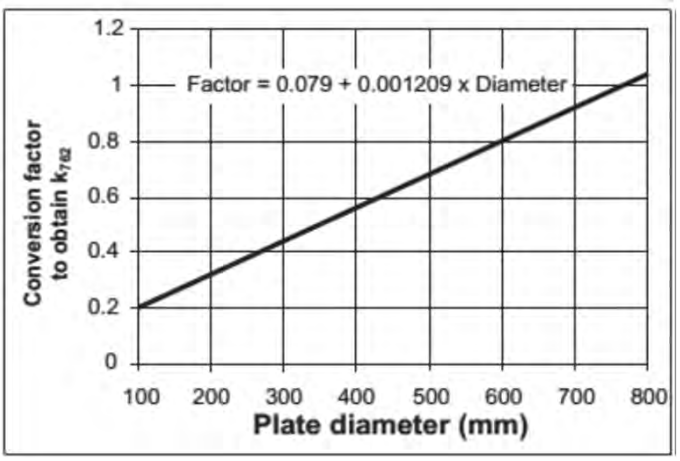




Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD08

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
11.59	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	45.99	45,992.06

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	20.24	20,236.51

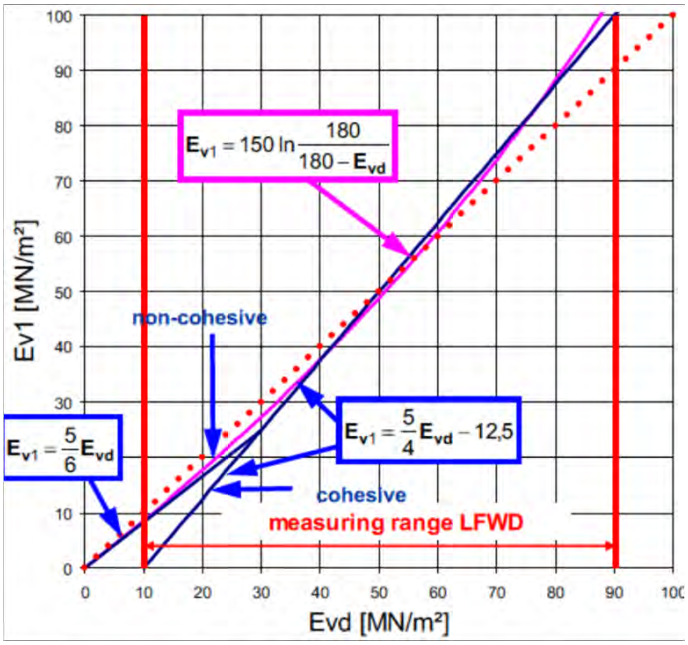
Criteria	Result
CBR (%)	1.8

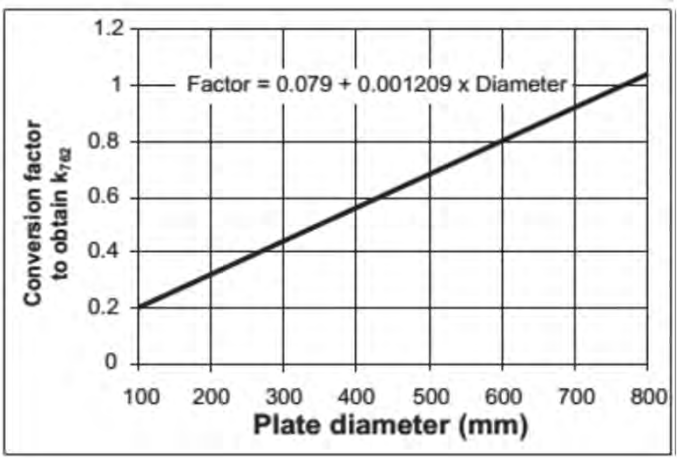
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





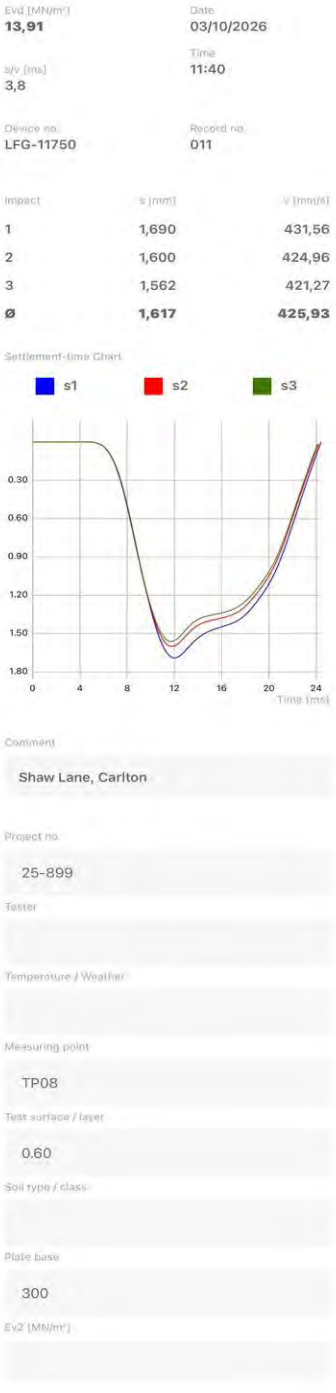


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD09

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus Ev1 (MN/m^2)	Poissons's Ratio V	Plate Width B (m)
11.82	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	46.90	46,904.76

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	20.64	20,638.10

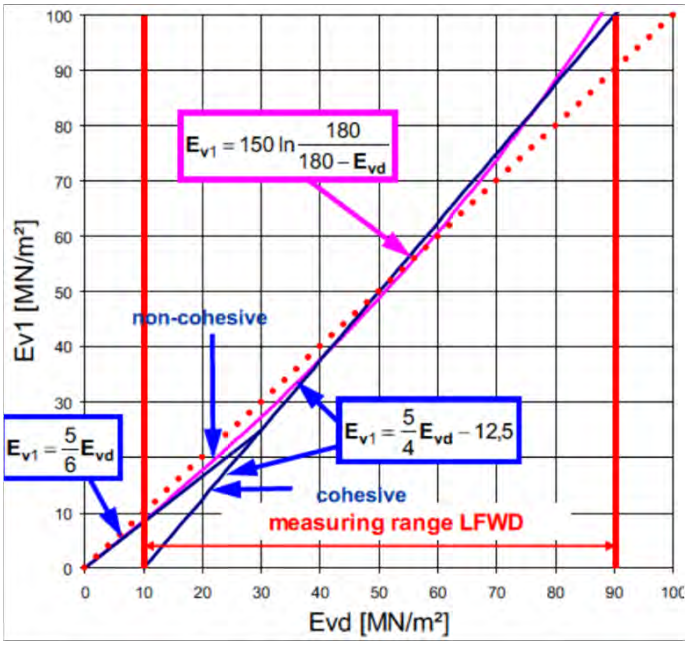
Criteria	Result
CBR (%)	1.8

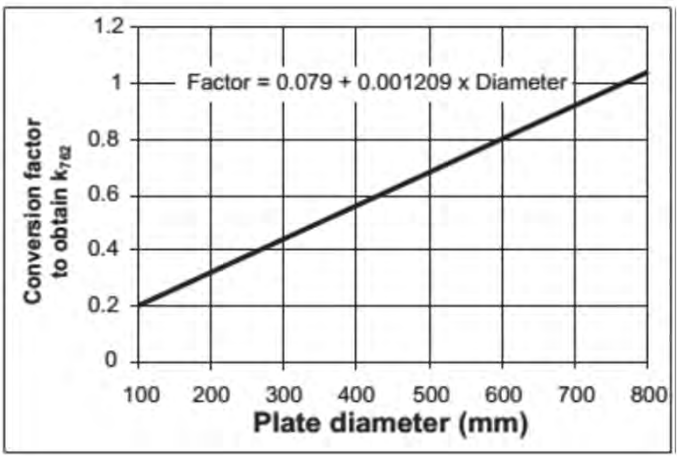
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





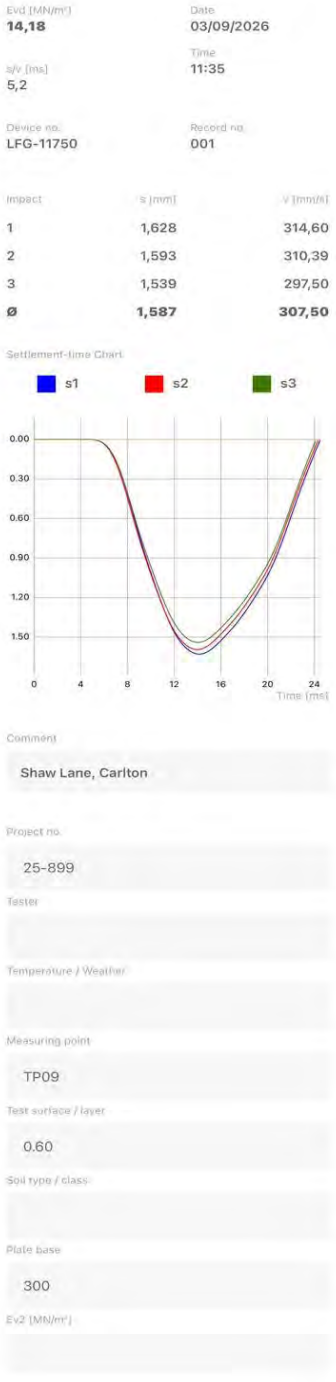


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD11

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
7.95	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	31.55	31,547.62

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	13.88	13,880.95

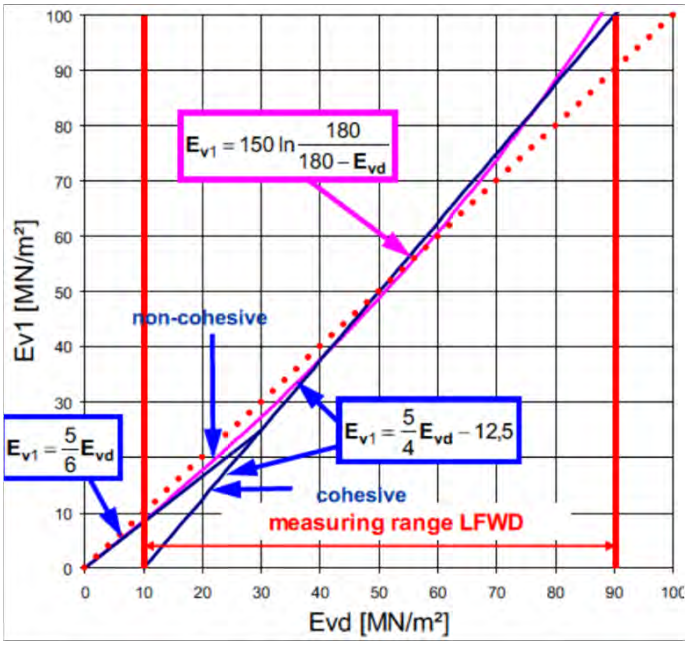
Criteria	Result
CBR (%)	0.9

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



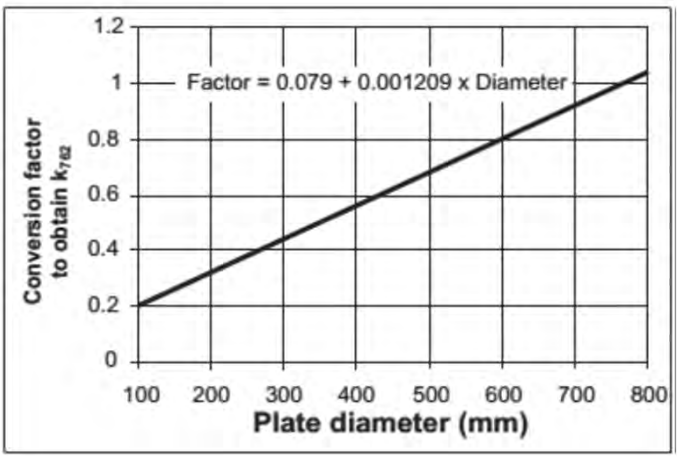


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Evd [MN/m²]
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Date
03/09/2026

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Time
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Record no.
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Impact	s [mm]	v [mm/s]
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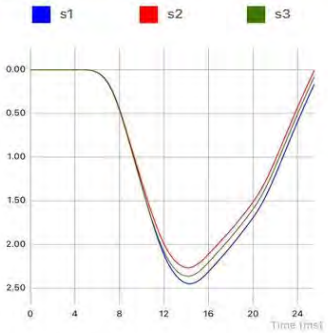
2	2,263	425,28
3	2,362	445,26
ø	2,358	441,56

Settlement-time Chart



Comment
Shaw Lane, Carlton

Project no.
25-899

Tester

Temperature / Weather

Measuring point
TP11

Test surface / layer
0.60

Soil type / class

Plate base
300

Ev2 [MN/m²]

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD12

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
14.97	0.35	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	56.87	56,866.10

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	25.02	25,021.08

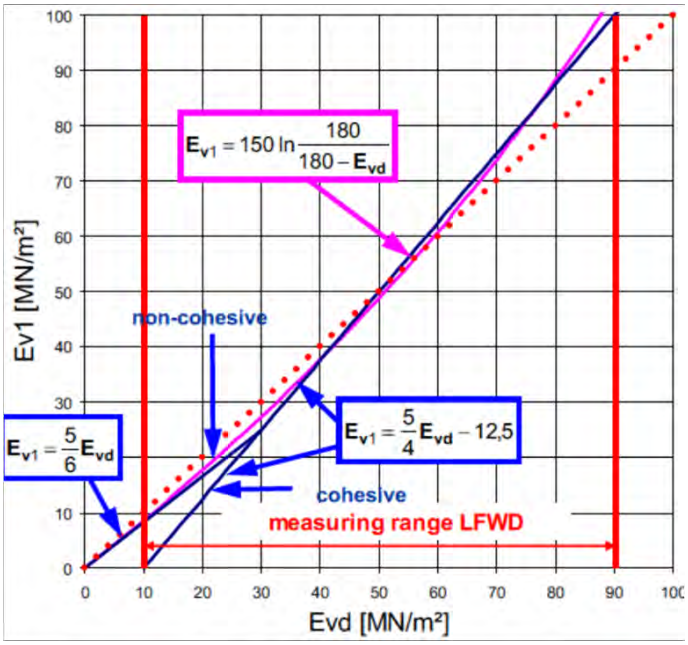
Criteria	Result
CBR (%)	2.6

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



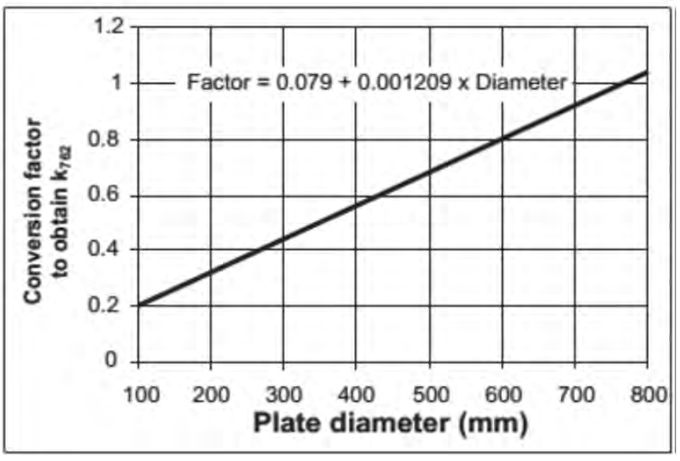




Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD13

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
22.16	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	87.94	87,936.51

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	38.69	38,692.06

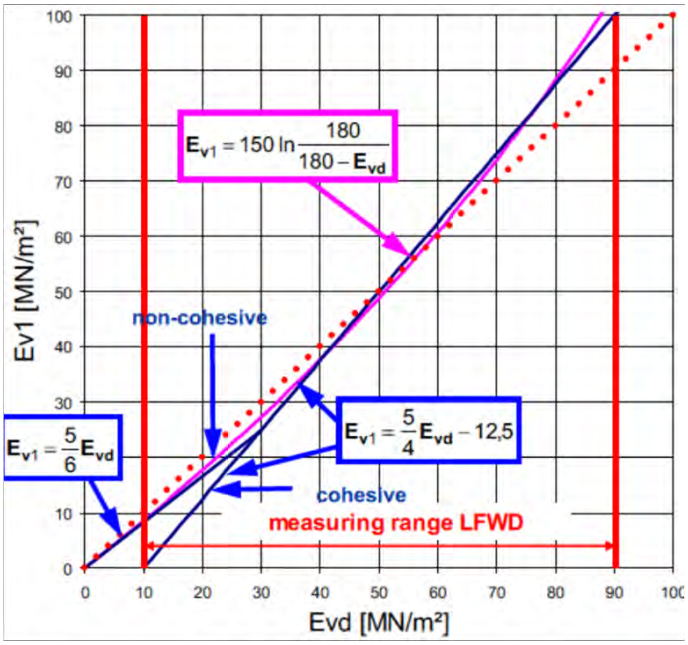
Criteria	Result
CBR (%)	5.4

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



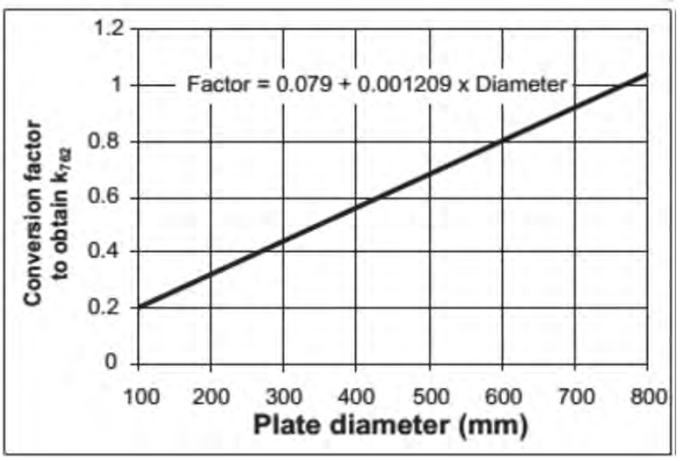




Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD14

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
18.97	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	75.28	75,277.78

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	33.12	33,122.22

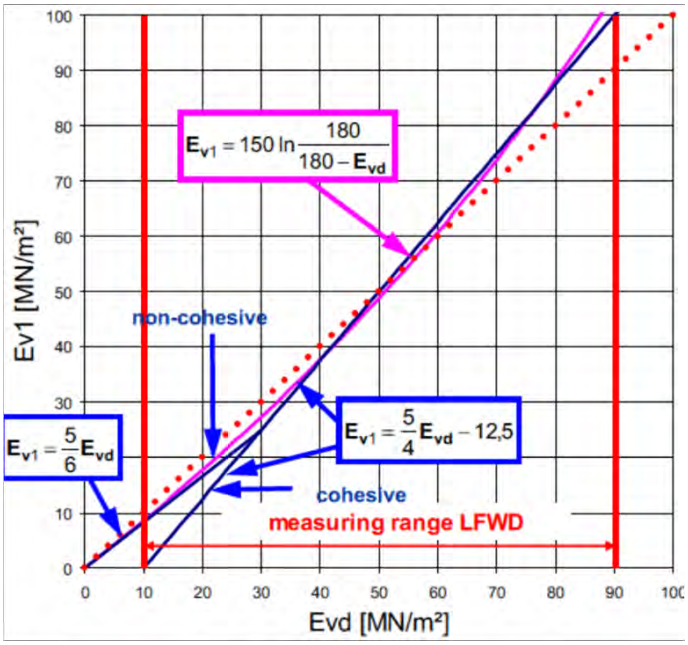
Criteria	Result
CBR (%)	4.2

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



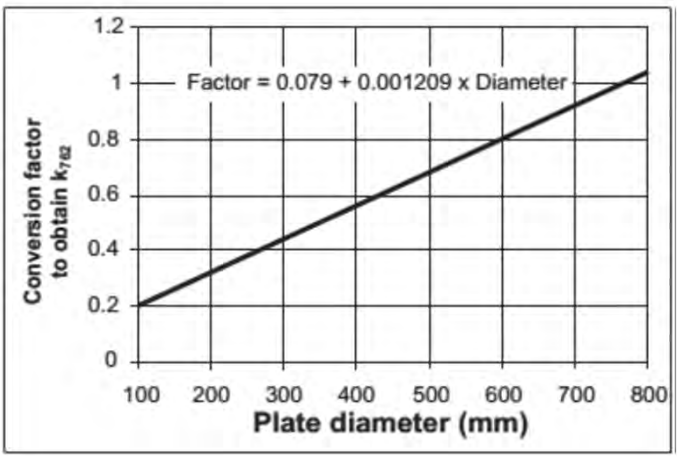




Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD15

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
10.84	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	43.02	43,015.87

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	18.93	18,926.98

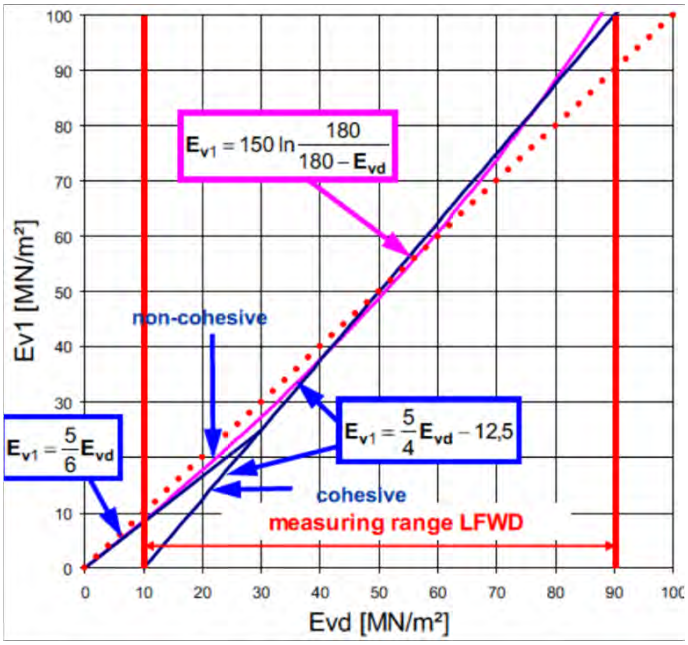
Criteria	Result
CBR (%)	1.6

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



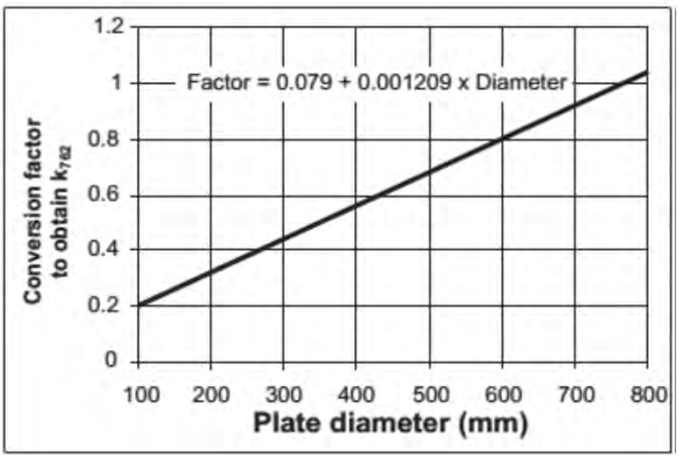




Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD16

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
15.96	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	63.33	63,333.33

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	27.87	27,866.67

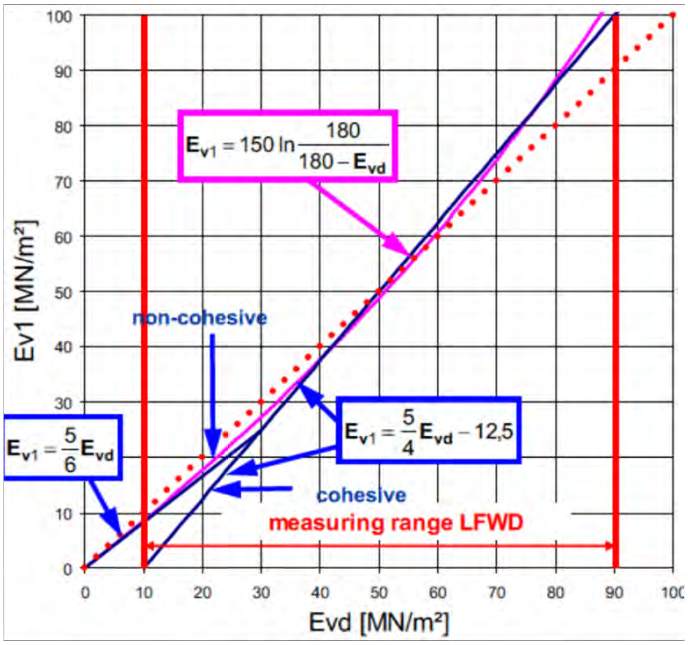
Criteria	Result
CBR (%)	3.1

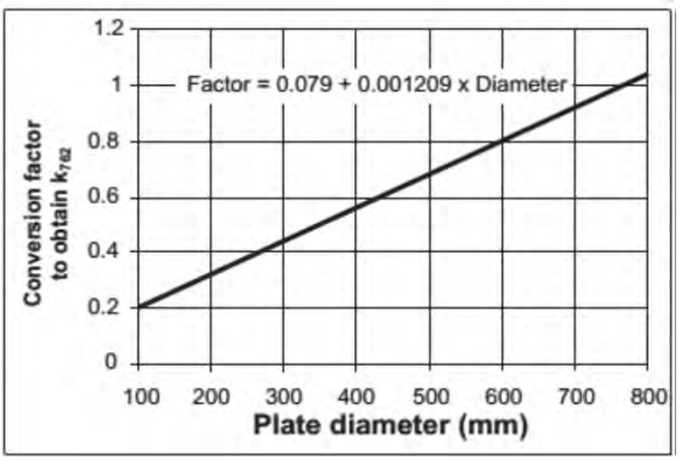
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





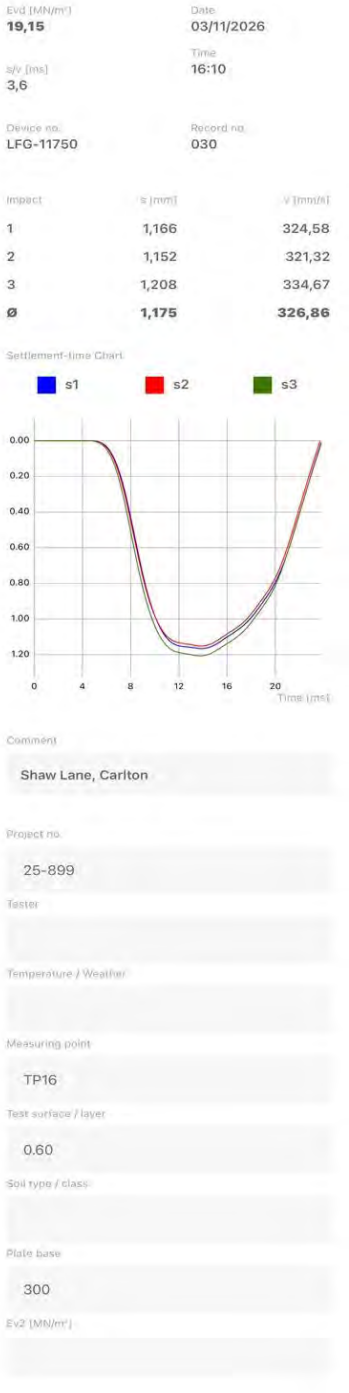


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD17

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
12	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	47.62	47,619.05

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	20.95	20,952.38

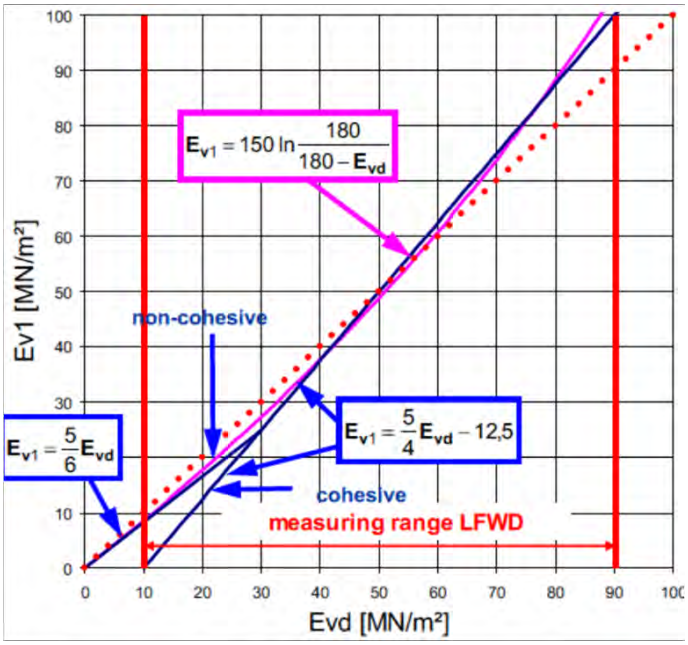
Criteria	Result
CBR (%)	1.9

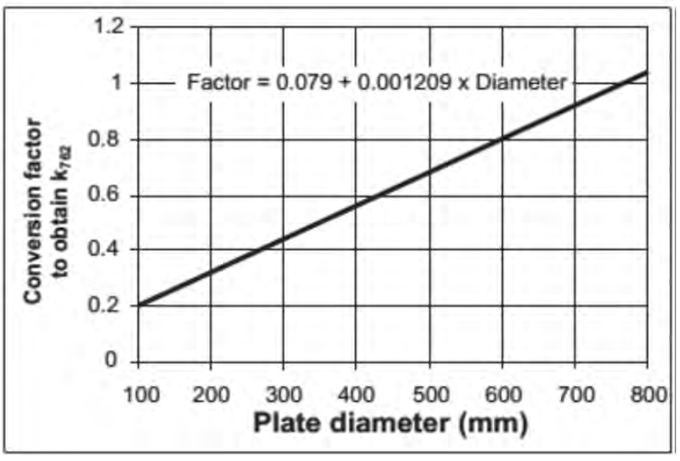
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





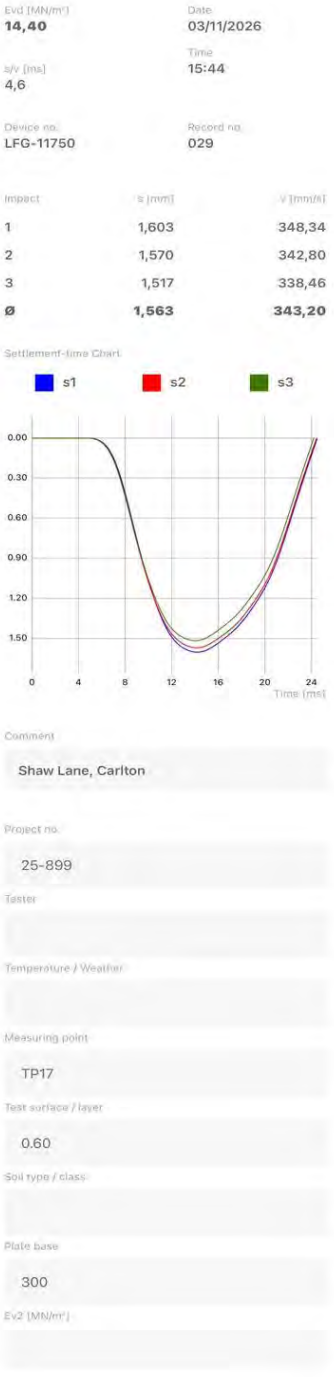


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD18

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
8.05	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	31.94	31,944.44

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	14.06	14,055.56

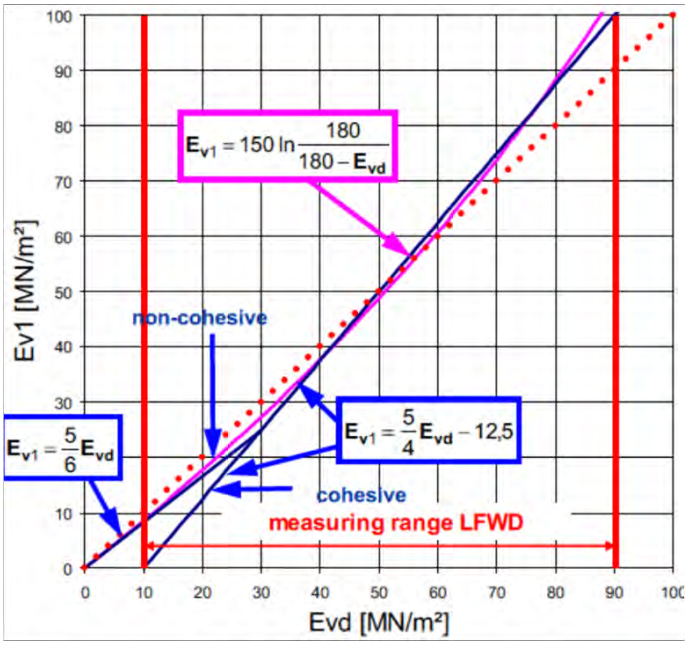
Criteria	Result
CBR (%)	0.9

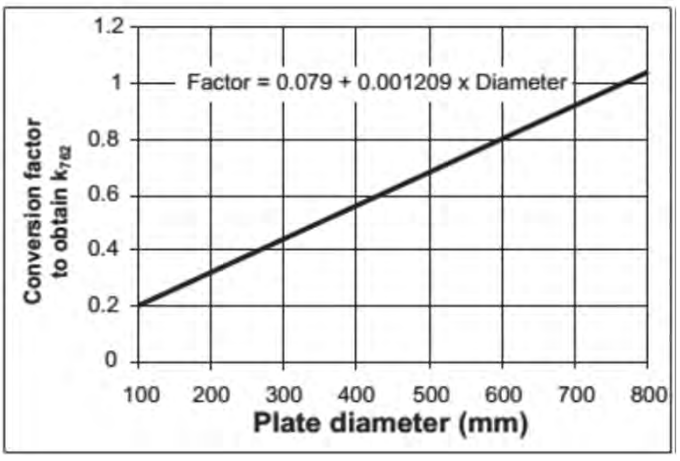
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$

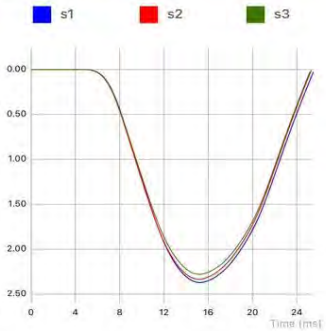




Evd [MN/m²] 9,66
Date 03/10/2026
s/v [ms] 6,0
Time 16:11
Device no. LFG-11750
Record no. 018

Impact	s [mm]	v [mm/s]
1	2,370	394,63
2	2,334	392,10
3	2,279	381,03
ø	2,328	389,25

Settlement-time Chart



Comment: Shaw Lane, Carlton
Project no.: 25-899
Tester:
Temperature / Weather:
Measuring point: TP18
Test surface / layer: 0.60
Soil type / class:
Plate base: 300
Ev2 [MN/m²]:

Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD20

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
4.68	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	18.57	18,571.43

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	8.17	8,171.43

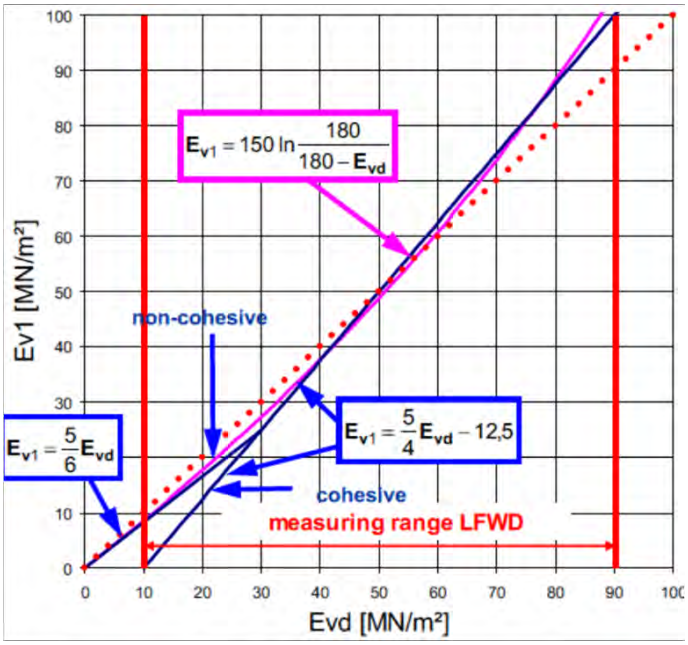
Criteria	Result
CBR (%)	0.4

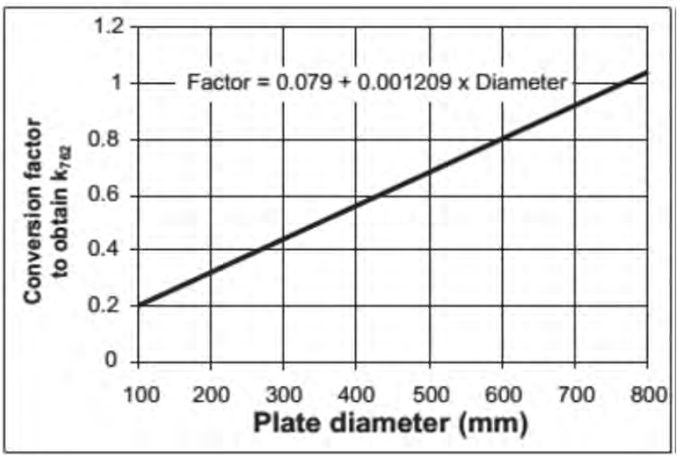
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





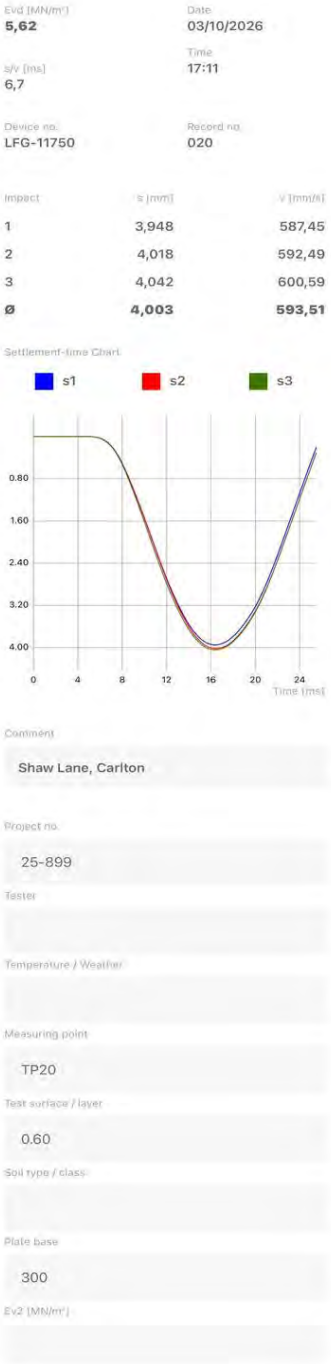


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD21

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
4.47	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	17.74	17,738.10

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	7.80	7,804.76

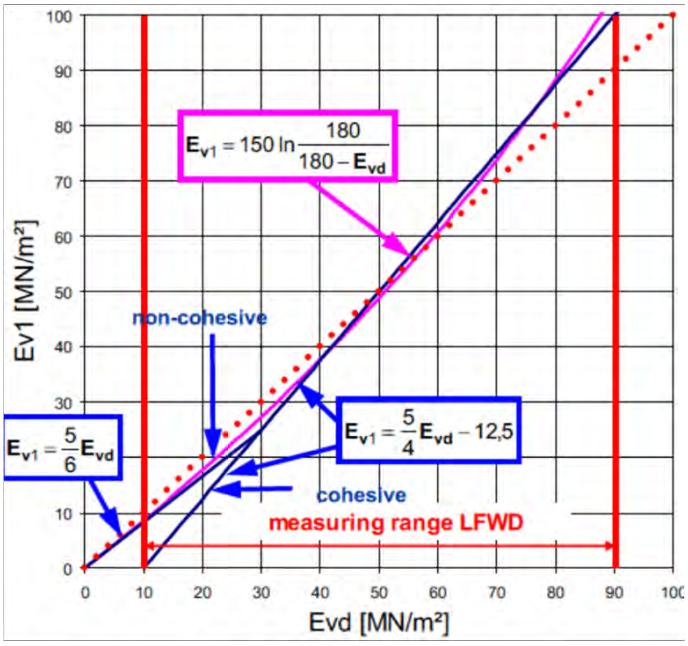
Criteria	Result
CBR (%)	0.3

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



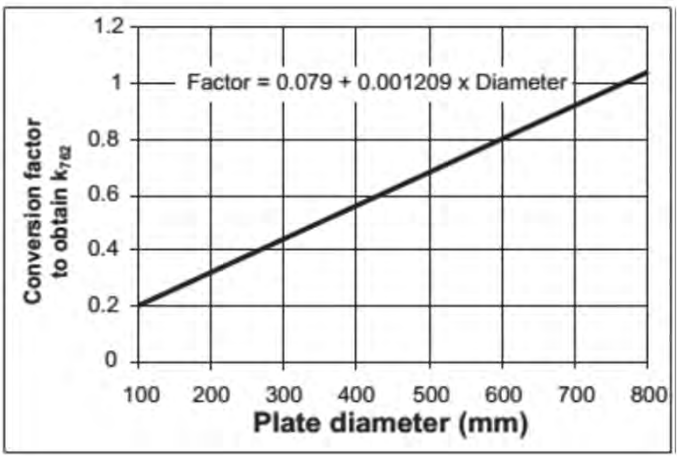
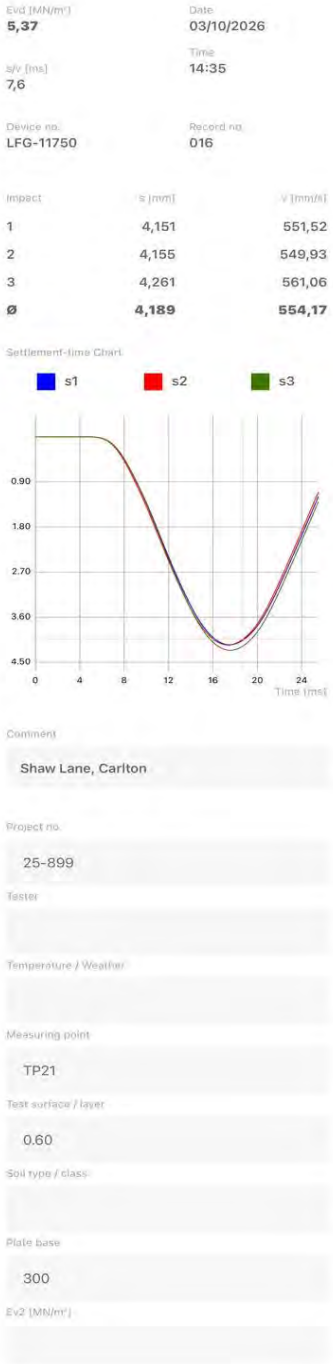


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100



Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD23

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
4.57	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	18.13	18,134.92

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	7.98	7,979.37

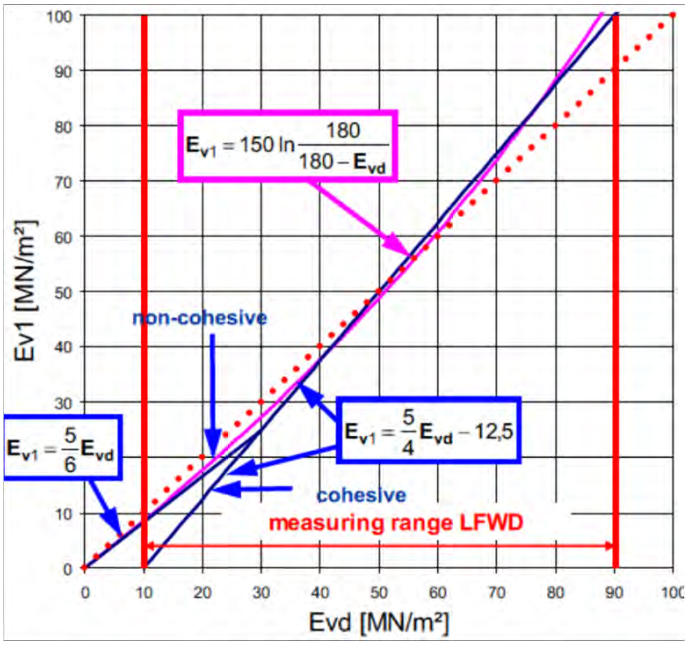
Criteria	Result
CBR (%)	0.4

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



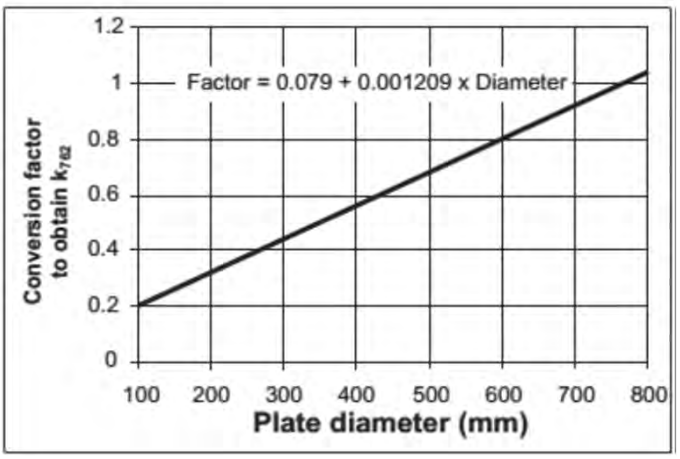
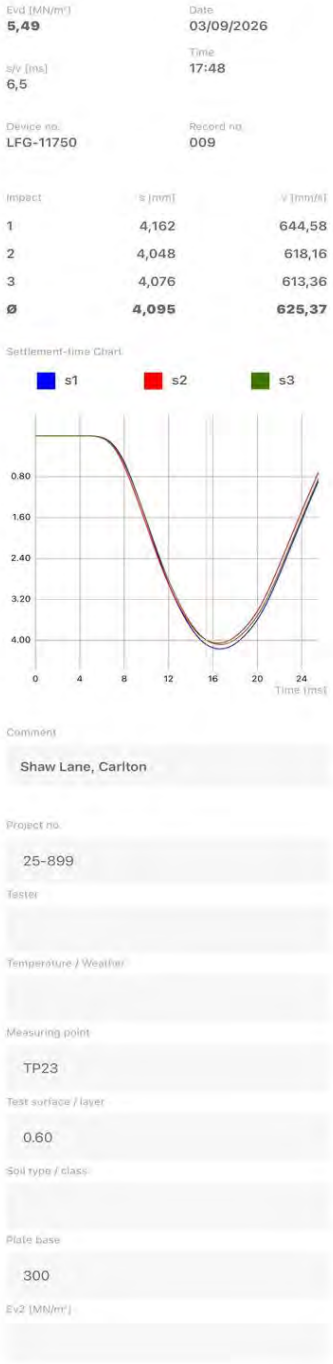


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100



Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD24

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
4.56	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	18.10	18,095.24

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	7.96	7,961.90

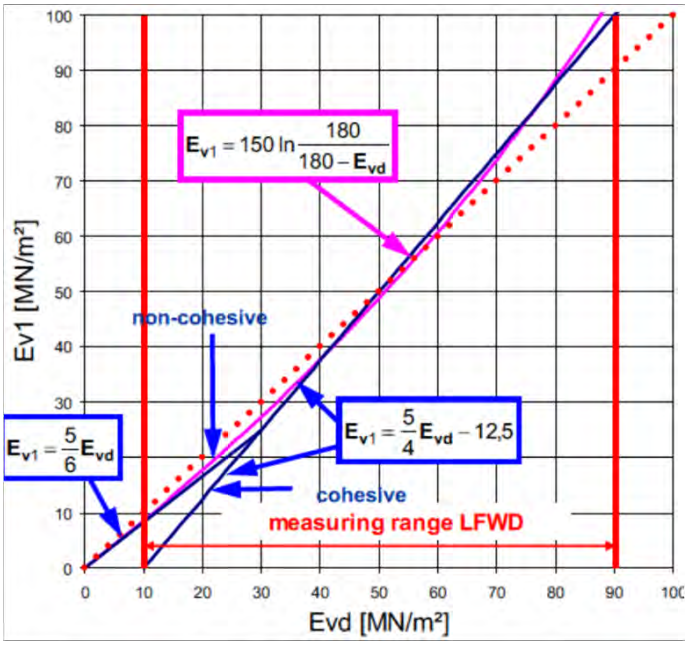
Criteria	Result
CBR (%)	0.4

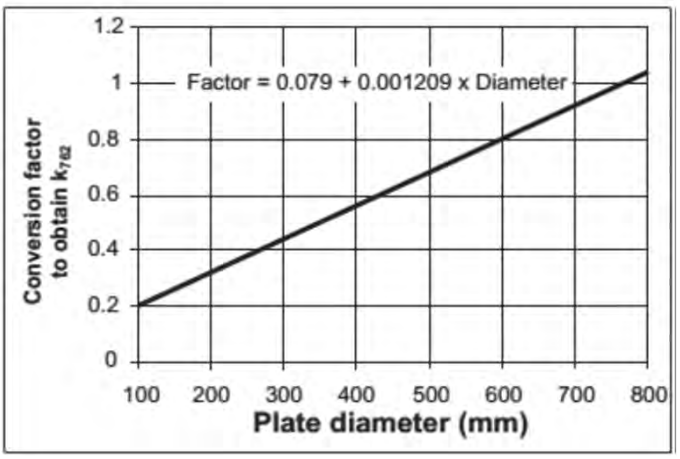
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





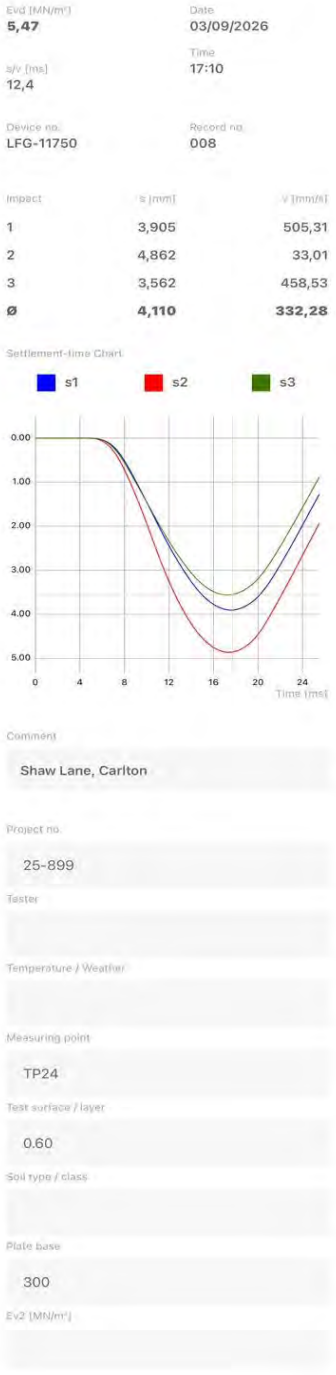


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD25

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
5.25	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	20.83	20,833.33

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	9.17	9,166.67

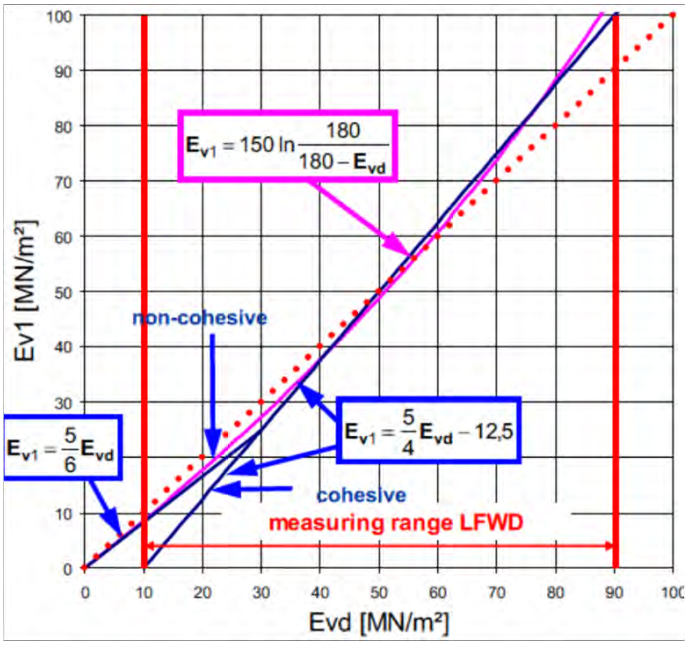
Criteria	Result
CBR (%)	0.4

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



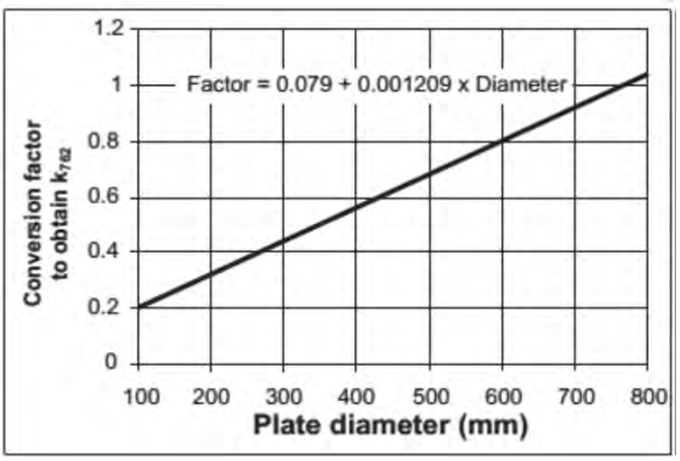
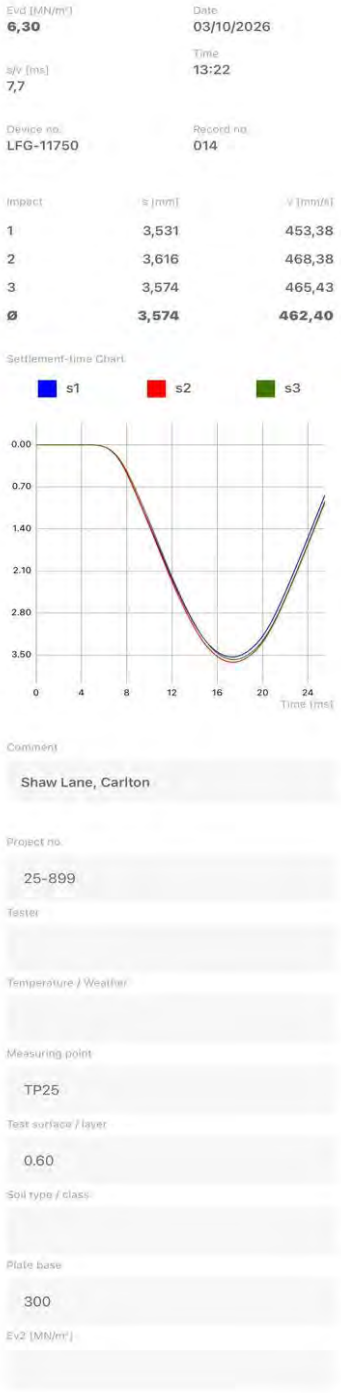


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100



Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD26

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus Ev1 (MN/m^2)	Poissons's Ratio V	Plate Width B (m)
7.32	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	29.05	29,047.62

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	12.78	12,780.95

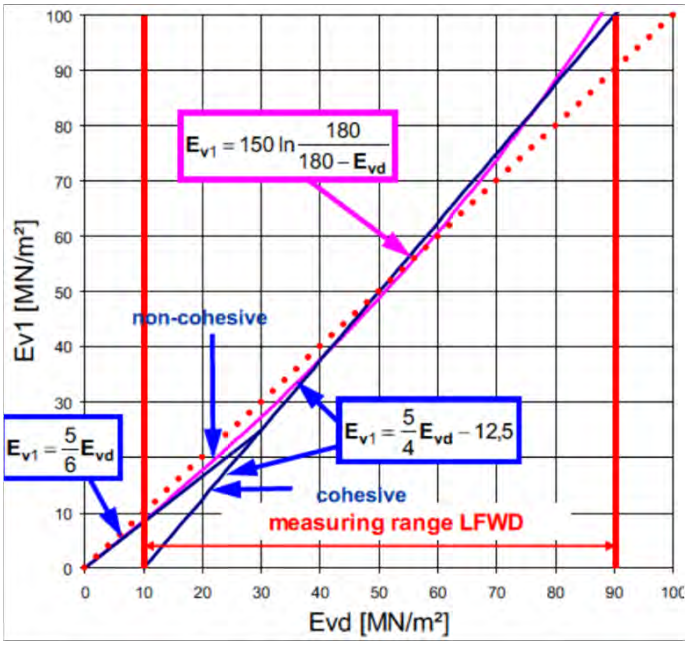
Criteria	Result
CBR (%)	0.8

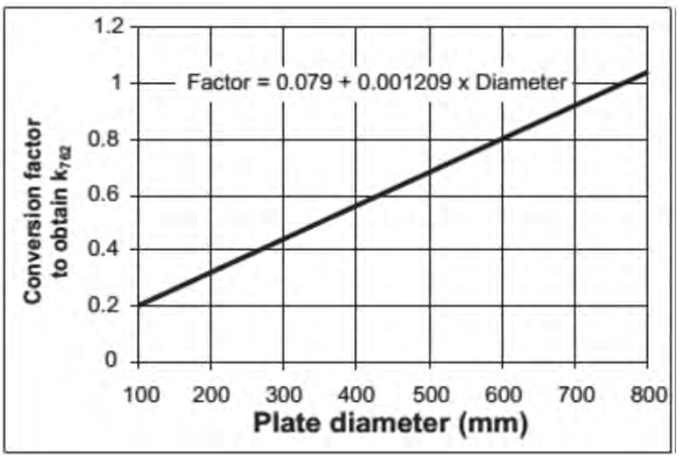
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





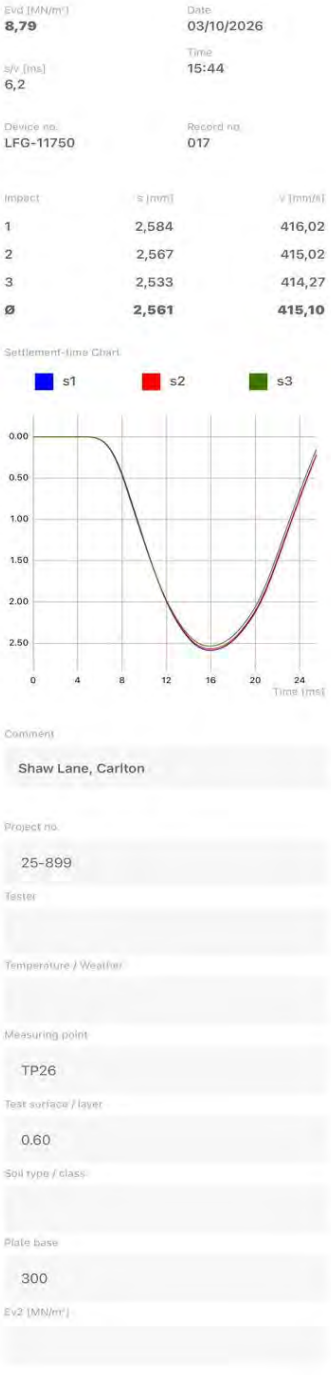


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD27

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus Ev1 (MN/m^2)	Poissons's Ratio V	Plate Width B (m)
6.11	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	24.25	24,246.03

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	10.67	10,668.25

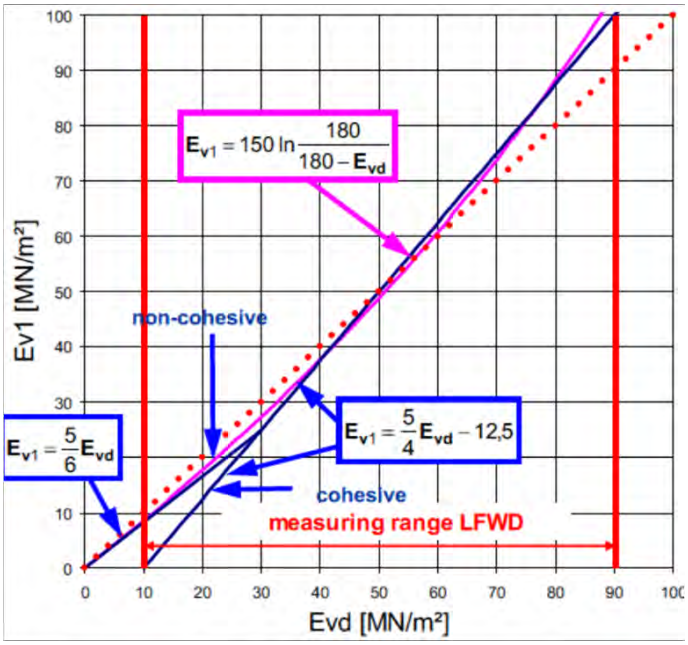
Criteria	Result
CBR (%)	0.6

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



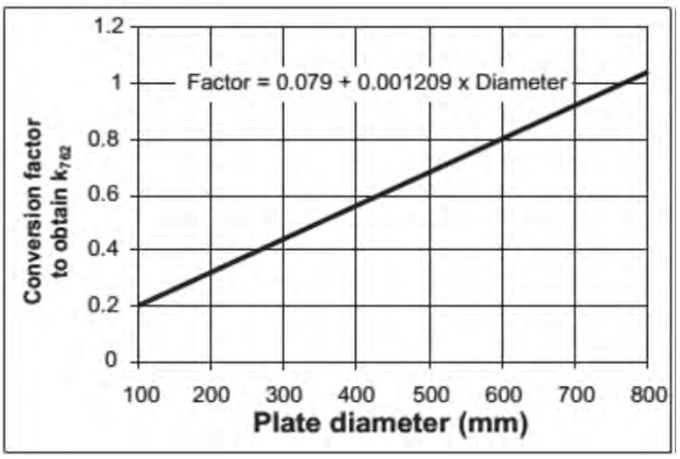




Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD29

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus Ev1 (MN/m^2)	Poissons's Ratio V	Plate Width B (m)
7.52	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	29.84	29,841.27

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	13.13	13,130.16

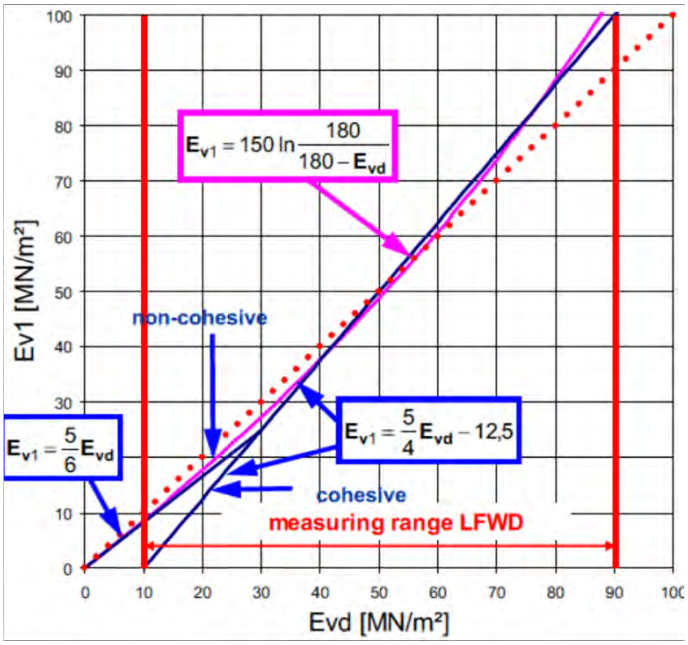
Criteria	Result
CBR (%)	0.8

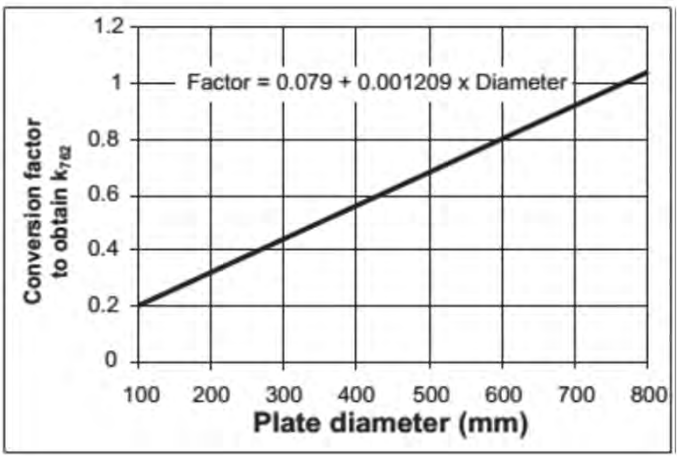
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





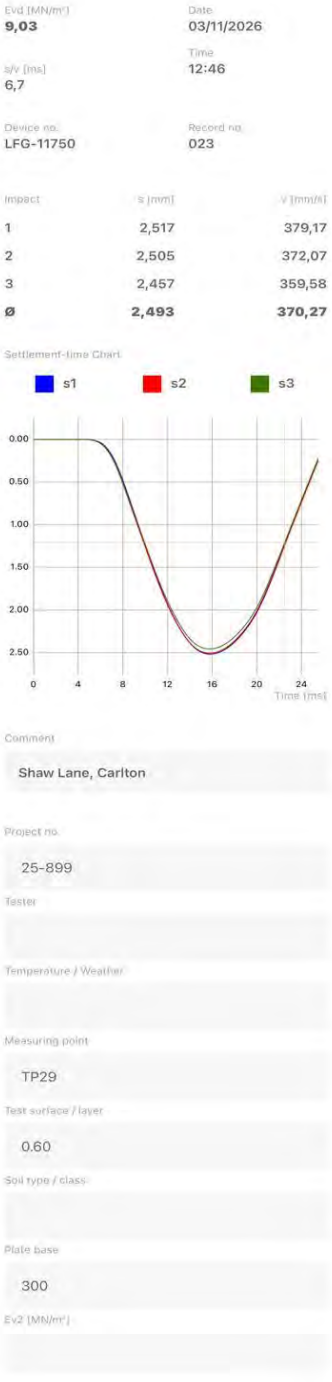


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD30

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
7.24	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	28.73	28,730.16

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	12.64	12,641.27

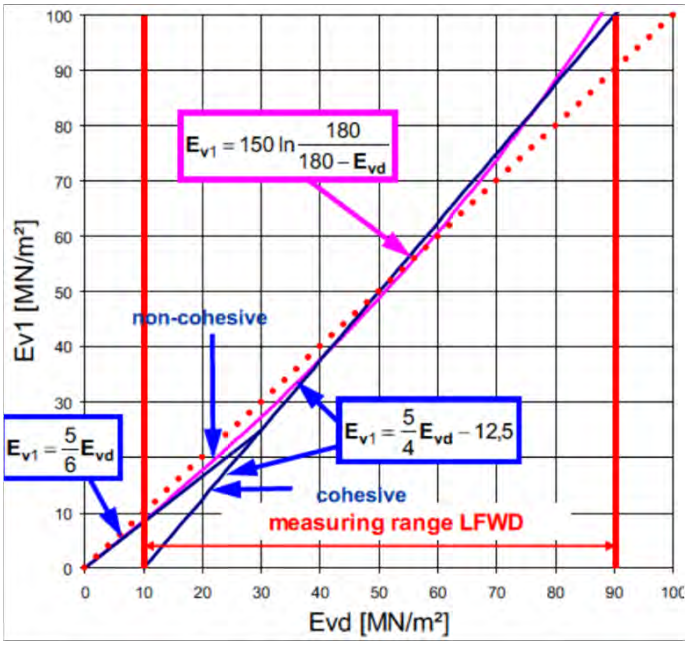
Criteria	Result
CBR (%)	0.8

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



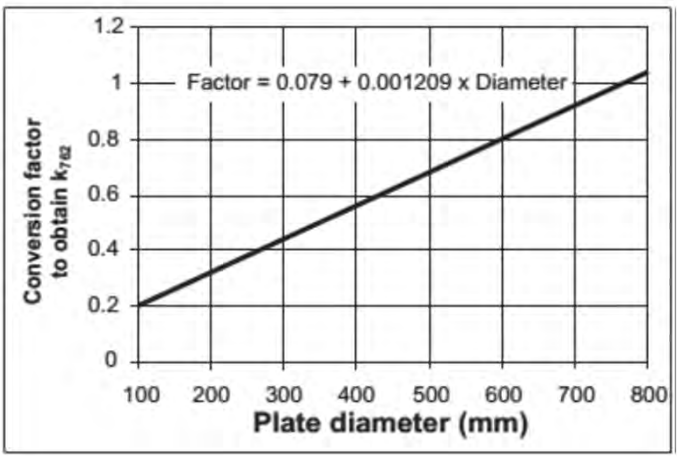


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

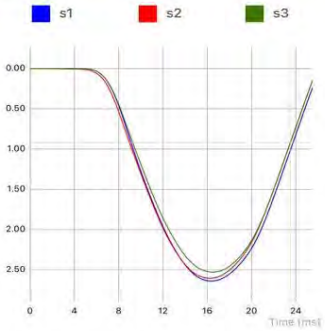
Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Evd [MN/m²]: 8,69
Date: 03/11/2026
s/v [ms]: 6,5
Time: 13:06
Device no.: LFG-11750
Record no.: 024

Impact	s [mm]	v [mm/s]
1	2,638	420,63
2	2,604	396,39
3	2,528	381,28
ø	2,590	399,43

Settlement-time Chart



Comment: Shaw Lane, Carlton
Project no.: 25-899
Tester:
Temperature / Weather:
Measuring point: TP30
Test surface / layer: 0.60
Soil type / class:
Plate base: 300
Ev2 [MN/m²]:

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD31

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
7.51	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	29.80	29,801.59

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	13.11	13,112.70

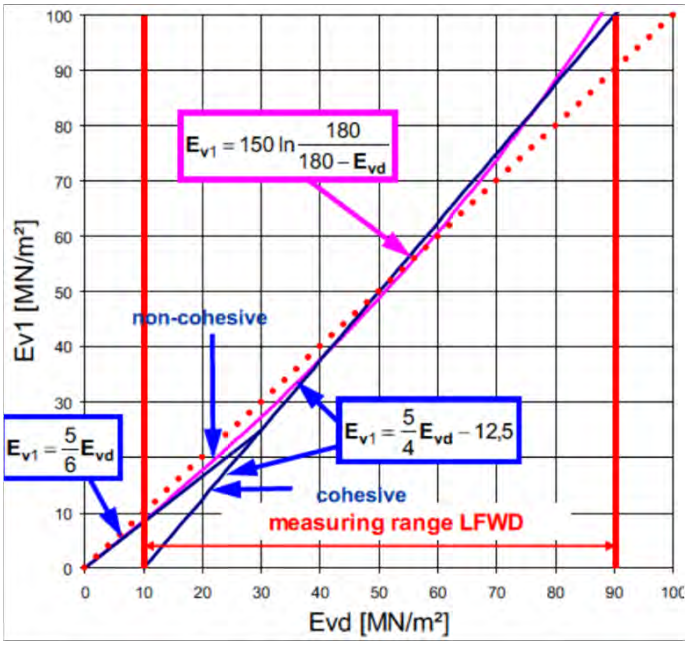
Criteria	Result
CBR (%)	0.8

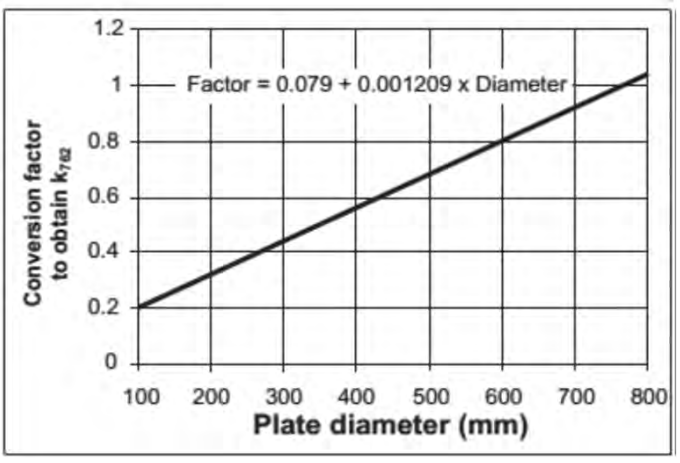
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





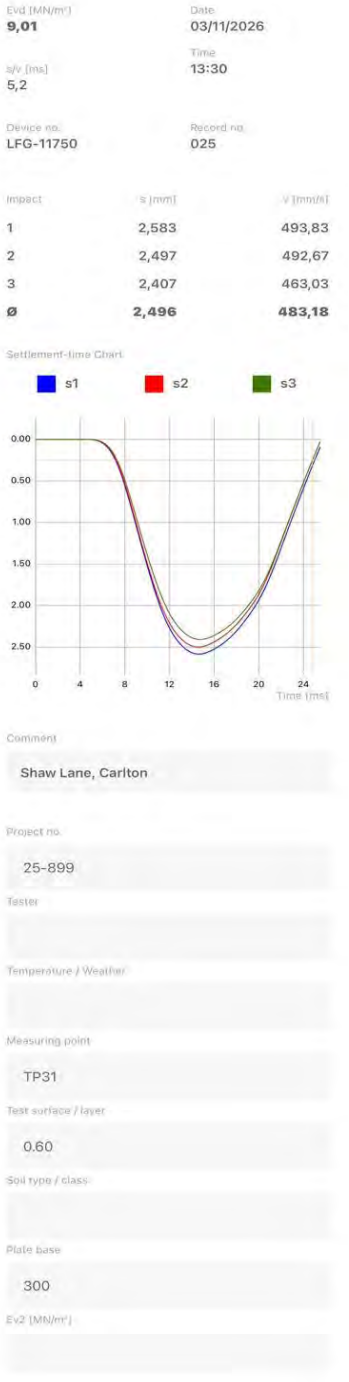


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD34

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
10.42	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	41.35	41,349.21

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	18.19	18,193.65

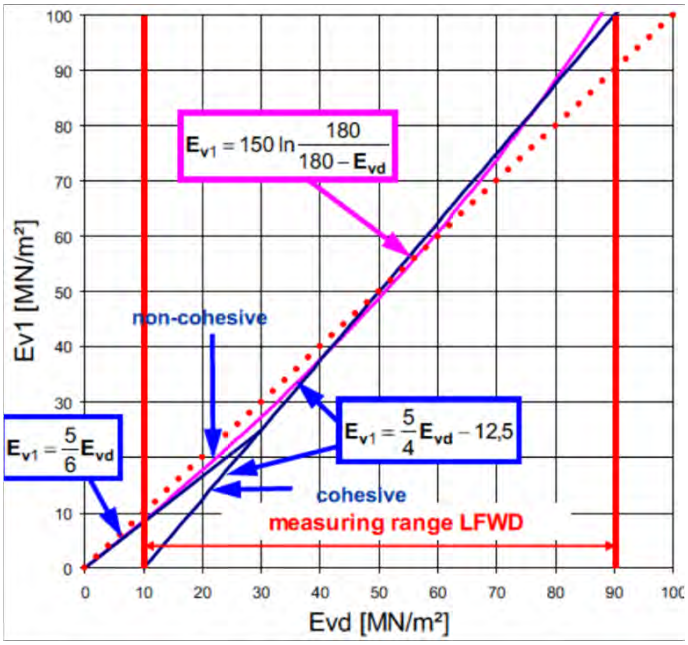
Criteria	Result
CBR (%)	1.5

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



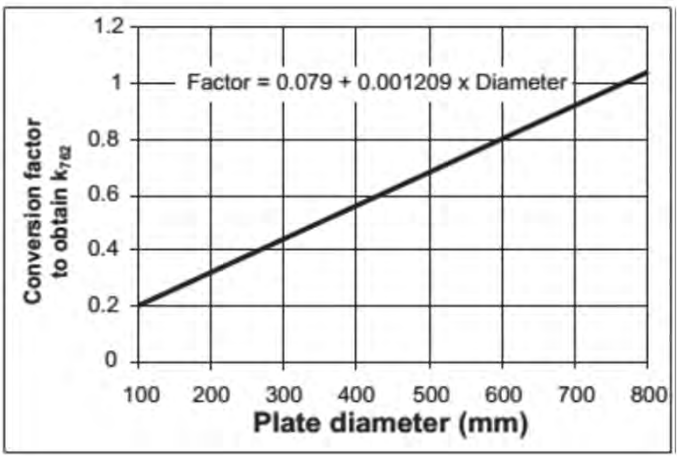


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

Evd [MN/m²]
12,51

Date
03/11/2026

s/v [ms]
5,8

Time
13:50

Device no.
LFG-11750

Record no.
026

Impact	s [mm]	v [mm/s]
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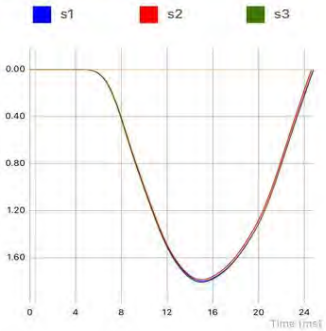
2	1,787	307,16
3	1,810	311,06
ø	1,799	308,56

Settlement-time Chart



Comment
Shaw Lane, Carlton

Project no.
25-899

Tester

Temperature / Weather

Measuring point
TP34

Test surface / layer
0.60

Soil type / class

Plate base
300

Ev2 [MN/m²]

Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD35

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
8.08	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	32.06	32,063.49

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	14.11	14,107.94

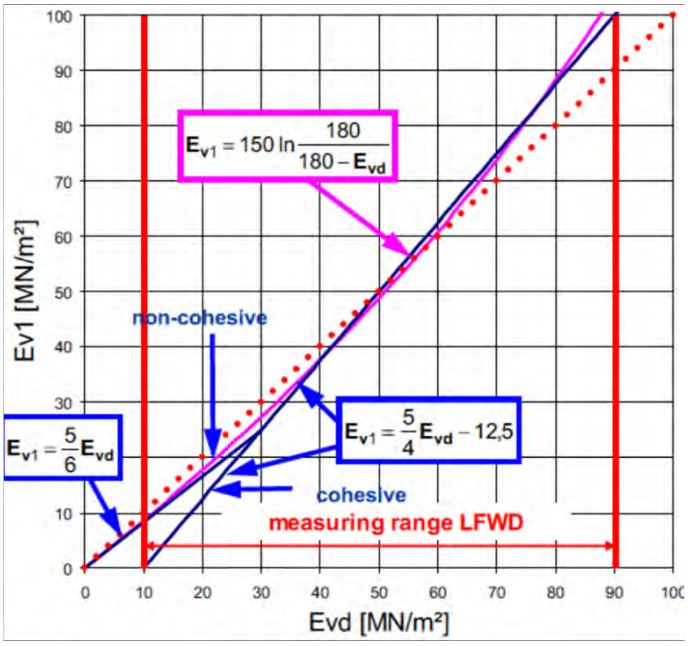
Criteria	Result
CBR (%)	0.9

Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$



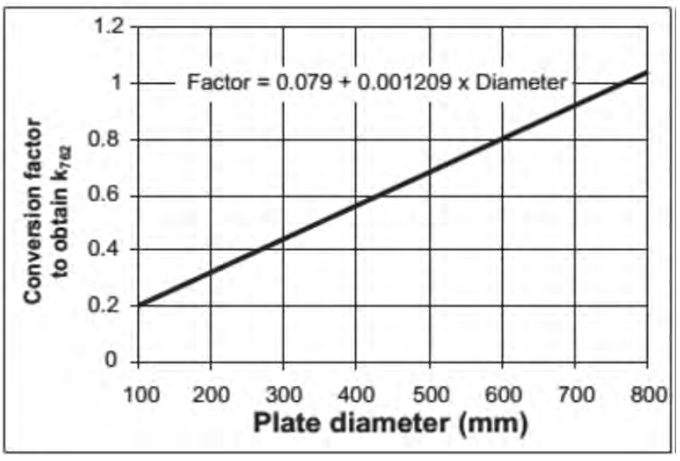
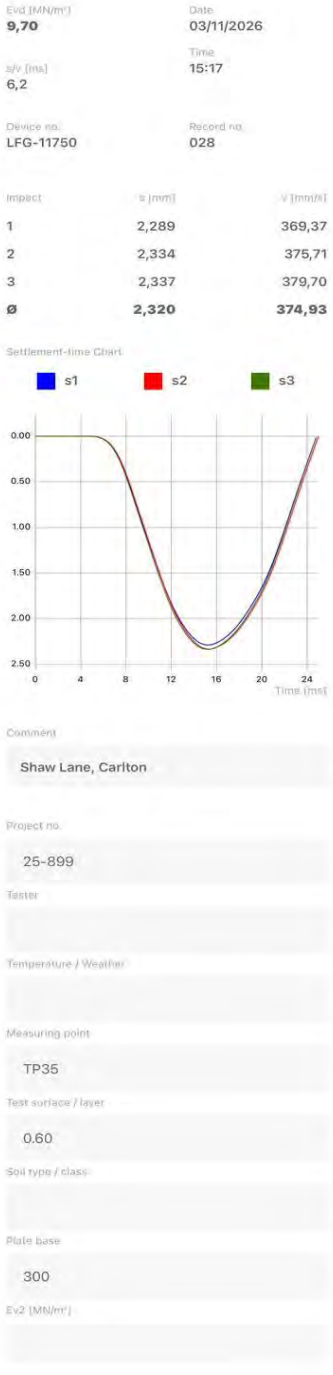


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100



Conversion of Dynamic Modulus (Evd) obtained using Light Weight Deflectometer (LWD) to California Bearing Ratio (CBR) - LWD36

Enter values for Ev1, V, and B to determine CBR(%)

Dynamic Modulus	Poissons's Ratio	Plate Width
Ev1 (MN/m^2)	V	B (m)
5.67	0.4	0.3

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{300}	22.50	22,500.00

Criteria	Result ($MN/m^2/m$)	Result ($kN/m^2/m$)
K_{762}	9.90	9,900.00

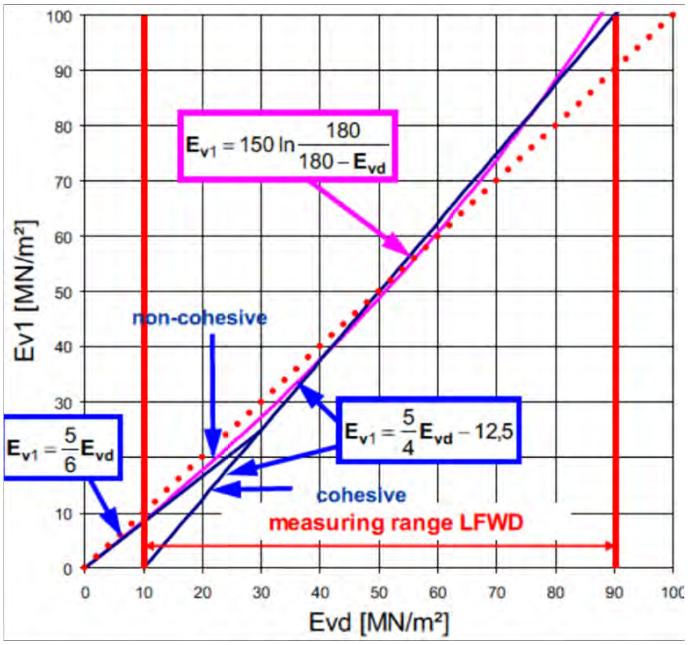
Criteria	Result
CBR (%)	0.5

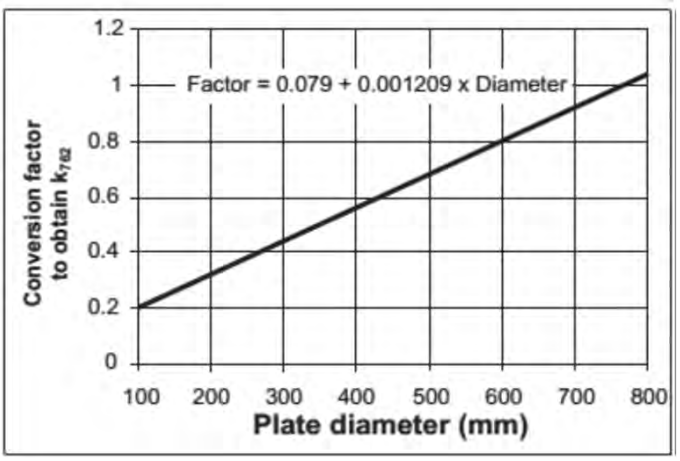
Theoretical Formula

$$K_{300} = \frac{Ev1}{B \cdot (1 - v^2)}$$

$$K_{762} = K_{300} \cdot 0.44$$

$$CBR(\%) = 6.1x10^{-8} \cdot (K_{762})^{1.733}$$





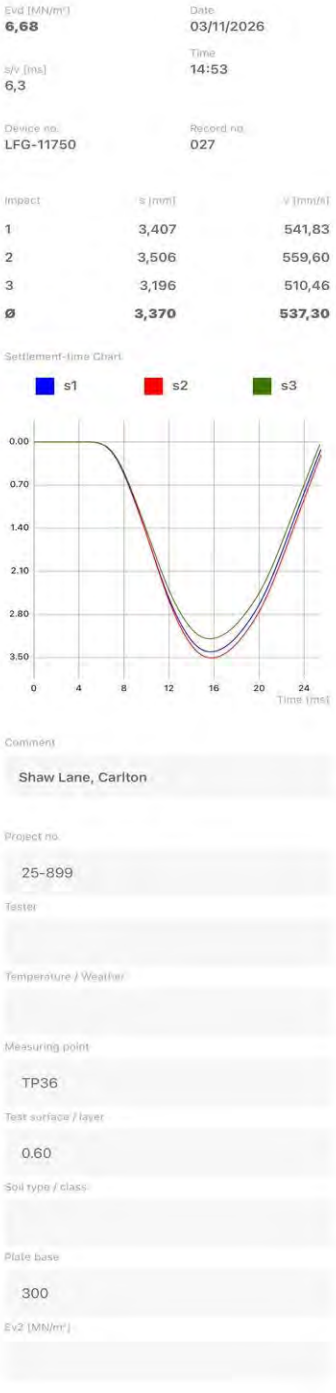


Table 1: Soil characterisation scheme for cohesionless soils

Cohesionless soils	Very loose	Loose	Medium dense	Dense	Very dense
Evd (MPa)	0-12	12-24	24-34	34-50	50-90
Ev1 (MPa)	0-10	10-20	20-30	30-50	50-100

Table 2: Soil characterisation scheme for cohesive soils

Cohesive soils	Very soft	Soft	Firm	Stiff	Very stiff	Hard
Evd (MPa)	0-22	22-30	30-36	36-43	43-50	50-90
Ev1 (MPa)	0-15	15-25	25-33	33-41	41-50	50-100

APPENDIX II

ANALYTICAL TEST REPORT

Report Number	26-03051, issue number 2
Contract name:	Shaw Lane Carlton
Client reference:	25-899
Clients name:	ARC Environmental Ltd
Clients address:	ARC Environmental Ltd Solum House, Unit 1 Elliott Court St Johns Road DH7 8PN
Samples received:	16/03/2026
Analysis started:	17/03/2026
Analysis completed:	21/04/2026
Report issued:	21/04/2026 2. Replaces Analytical Report number 26-03051; issue no.1

Key

U UKAS accredited test
M MCERTS & UKAS accredited test
(B) Analysis performed at Southampton Site
I/S Insufficient sample to carry out test
U/S Sample not suitable for testing
NAD No Asbestos Detected
Full key available on Information page

Approved by:

Georgia Hunter
Senior Reporting Administrator

Re-Issue Summary

Client: ARC Environmental Ltd
Address: Solum House, Unit 1 Elliott Court, St Johns Road, Meadowfield, DH7 8PN

Date: 21-Apr-26

Report No.: 26-03051

Issue: 2

This report replaces 26-03051, issue: 1, issued: 26 March 2026

Reason for Change
1. Client Request- Additional analysis

A - Additional Work added
D - Work Deleted
E - Result Edited*
R - Work Repeated*

*If a result changed, please refer to the previous report for the old result. The new result will be shown in this report.

Re-issued by: Sam Rogerson
Receipt and Reporting Manager



Approved by: Rachael Burton
Technical Support Manager



SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
% Moisture reported as MCERTS drying at 30ºC

Lab ref	Sample ID	Depth (m)	Sample description	Material removed	% Removed	% Moisture
95401	TP03	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	21.4
95402	TP06	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	1.5
95403	TP12	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	27.5
95404	TP14	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	13.8
95405	TP18	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	17.8
95406	TP34	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	14.8
95407	TP01	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	17.6
95408	TP02	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	13.6
95409	TP03	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	23.2
95410	TP04	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	19.8
95411	TP05	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	22.4
95412	TP06	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	22.2
95413	TP07	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	11.8
95414	TP08	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	9.2
95415	TP09	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	13.2
95416	TP11	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	15.9
95417	TP12	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	11.6
95418	TP13	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	11.4
95419	TP14	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	19.1
95420	TP16	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	11.7
95421	TP17	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	20.8
95422	TP18	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	21.9
95423	TP20	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	17.2
95424	TP21	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	19.1
95425	TP23	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	22.3
95426	TP24	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	10.8
95427	TP25	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	23.5
95428	TP26	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	22.6
95429	TP35	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	22.5
95430	WS03	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	19.9
95431	TP04	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	10.3
95432	TP16	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	18.6
95433	TP23	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	11.1
95434	TP26	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	13.8
95435	TP30	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	15.6
95436	TP34	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	11.3
95437	TP01	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	17.2
95438	WS02	-	Brown Non-Soil.	-	-	9.3
95439	TP06	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	16.7
95440	TP07	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	23.4
95441	TP09	-	Brown Non-Soil.	-	-	17.3
95442	TP11	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	29.7
95443	TP12	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	16.8
95444	TP13	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	< 0.1
95445	TP17	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	4.3
95446	TP18	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	12.8
95447	TP24	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	20.3
95448	TP27	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	19.5
95449	TP29	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	17.0
95450	TP35	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	7.5
95451	TP36	-	Brown Sandy Clay with Gravel and Vegetation.	-	-	14.8

SOILS

Lab Number					95401	95402	95403	95404	95405
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP03	TP06	TP12	TP14	TP18
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	n/t	n/t	n/t	n/t	n/t
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	n/t	n/t	n/t	n/t	n/t
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	n/t	n/t	n/t	n/t	n/t
Sulphur %	CE264	N	0.0026	%	n/t	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrite as N	CE261	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	21.4	1.5	27.5	13.8	17.8
Soil Organic Matter	CE192	N	0.1	%	n/t	n/t	n/t	n/t	n/t
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthene	CE087	M	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluorene	CE087	U	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Phenanthrene	CE087	M	0.014	mg/kg	n/t	n/t	n/t	n/t	n/t
Anthracene	CE087	U	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluoranthene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Pyrene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	n/t	n/t	n/t	n/t
Chrysene	CE087	M	0.028	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95401	95402	95403	95404	95405
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP03	TP06	TP12	TP14	TP18
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	n/t	n/t	n/t	n/t
BTEX									
Benzene	CE267	U	0.001	mg/kg	< 0.001	< 0.001	< 0.001	f < 0.001	< 0.001
Toluene	CE267	U	0.001	mg/kg	< 0.001	< 0.001	< 0.001	f < 0.001	< 0.001
Ethylbenzene	CE267	U	0.001	mg/kg	< 0.001	< 0.001	< 0.001	f < 0.001	< 0.001
MTBE	CE267	N	0.002	mg/kg	< 0.002	< 0.002	< 0.002	f < 0.002	< 0.002
Total BTEX	CE267	N	0.007	mg/kg	< 0.007	< 0.007	< 0.007	f < 0.007	< 0.007
m,p-Xylene	CE267	U	0.002	mg/kg	< 0.002	< 0.002	< 0.002	f < 0.002	< 0.002
oXylenes	CE267	U	0.002	mg/kg	< 0.002	< 0.002	< 0.002	f < 0.002	< 0.002
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	< 0.10	< 0.10	< 0.10	f < 0.10	< 0.10
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	7.4	< 6.0	7.6	f < 6.0	< 6.0
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	101	159	135	f 405	36.1
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	171	155	277	f 236	93.0
pH	CE004	M	0.1	pH units	8.8	7.5	7.1	f 7.6	8.1
Redox Potential	CE082	N	-1000	mV	371	244	244	f 203	227

SOILS

Lab Number					95406	95407	95408	95409	95410
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP34	TP01	TP02	TP03	TP04
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	n/t	NAD	NAD	NAD	NAD
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	n/t	n/t	n/t	n/t	n/t
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	n/t	n/t	n/t	n/t	n/t
Sulphur %	CE264	N	0.0026	%	n/t	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrite as N	CE261	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	14.8	17.6	13.6	23.2	19.8
Soil Organic Matter	CE192	N	0.1	%	n/t	2.88	1.24	1.21	1.33
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	n/t	f 0.019	f 0.309	f 0.179	f 0.437
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	f < 0.015	f 0.187	f 0.172	f 0.384
Acenaphthene	CE087	M	0.013	mg/kg	n/t	f 0.014	f 0.212	f 0.228	f 8.44
Fluorene	CE087	U	0.013	mg/kg	n/t	f 0.014	f 0.283	f 0.237	f 8.38
Phenanthrene	CE087	M	0.014	mg/kg	n/t	f 0.187	f 2.88	f 4.18	f 98.1
Anthracene	CE087	U	0.017	mg/kg	n/t	f 0.071	f 0.932	f 1.57	f 18.1
Fluoranthene	CE087	M	0.017	mg/kg	n/t	f 0.632	f 6.08	f 19.1	f 130
Pyrene	CE087	M	0.016	mg/kg	n/t	f 0.573	f 5.30	f 18.4	f 101
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	f 0.371	f 2.96	f 9.53	f 45.0
Chrysene	CE087	M	0.028	mg/kg	n/t	f 0.304	f 2.31	f 7.76	f 40.4
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	f 0.430	f 3.33	f 11.3	f 43.0
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	f 0.174	f 1.25	f 4.83	f 18.1
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	f 0.360	f 3.13	f 10.9	f 38.6
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	f 0.325	f 2.56	f 9.49	f 29.6
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	f 0.055	f 0.402	f 1.46	f 4.63
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	f 0.213	f 1.70	f 6.66	f 19.9

SOILS

Lab Number					95406	95407	95408	95409	95410
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP34	TP01	TP02	TP03	TP04
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	f 3.74	f 33.8	f 106	f 604
BTEX									
Benzene	CE267	U	0.001	mg/kg	< 0.001	n/t	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	< 0.001	n/t	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	< 0.001	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	< 0.002	n/t	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	< 0.007	n/t	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	< 0.002	n/t	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	< 0.002	n/t	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	< 0.10	n/t	n/t	n/t	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	< 6.0	n/t	n/t	n/t	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	25.6	n/t	n/t	n/t	n/t
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	152	n/t	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	8.0	n/t	n/t	n/t	n/t
Redox Potential	CE082	N	-1000	mV	222	n/t	n/t	n/t	n/t

SOILS

Lab Number					95411	95412	95413	95414	95415
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP05	TP06	TP07	TP08	TP09
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	NAD	NAD	NAD	NAD	NAD
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	n/t	n/t	n/t	n/t	n/t
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	n/t	n/t	n/t	n/t	n/t
Sulphur %	CE264	N	0.0026	%	n/t	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrite as N	CE261	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	22.4	22.2	11.8	9.2	13.2
Soil Organic Matter	CE192	N	0.1	%	1.40	1.34	0.48	2.09	3.05
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	f 0.034	f < 0.016	f 0.063	f 0.084	f 0.033
Acenaphthylene	CE087	M	0.015	mg/kg	f < 0.015	f < 0.015	f 0.077	f 0.065	f 0.031
Acenaphthene	CE087	M	0.013	mg/kg	f < 0.013	f < 0.013	f 0.732	f 0.068	f 0.086
Fluorene	CE087	U	0.013	mg/kg	f 0.013	f < 0.013	f 0.594	f 0.077	f 0.079
Phenanthrene	CE087	M	0.014	mg/kg	f 0.162	f 0.043	f 8.79	f 1.04	f 1.14
Anthracene	CE087	U	0.017	mg/kg	f 0.053	f < 0.017	f 2.17	f 0.361	f 0.343
Fluoranthene	CE087	M	0.017	mg/kg	f 0.458	f 0.123	f 14.5	f 3.47	f 3.00
Pyrene	CE087	M	0.016	mg/kg	f 0.418	f 0.110	f 12.2	f 3.32	f 2.75
Benzo(a)anthracene	CE087	U	0.012	mg/kg	f 0.282	f 0.091	f 6.07	f 1.84	f 1.37
Chrysene	CE087	M	0.028	mg/kg	f 0.197	f 0.058	f 4.44	f 1.44	f 1.06
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	f 0.366	f 0.086	f 6.19	f 2.24	f 1.57
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	f 0.134	f 0.043	f 2.71	f 0.956	f 0.738
Benzo(a)pyrene	CE087	U	0.019	mg/kg	f 0.305	f 0.078	f 5.65	f 2.02	f 1.36
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	f 0.282	f 0.075	f 4.86	f 1.84	f 1.22
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	f 0.049	f < 0.017	f 0.804	f 0.289	f 0.198
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	f 0.193	f 0.050	f 3.15	f 1.23	f 0.838

SOILS

Lab Number					95411	95412	95413	95414	95415
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP05	TP06	TP07	TP08	TP09
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	f 2.95	f 0.757	f 72.9	f 20.3	f 15.8
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	n/t	n/t	n/t	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	n/t	n/t	n/t	n/t	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	n/t	n/t	n/t	n/t	n/t
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	n/t	n/t	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	n/t	n/t	n/t	n/t	n/t
Redox Potential	CE082	N	-1000	mV	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95416	95417	95418	95419	95420
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP11	TP12	TP13	TP14	TP16
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	NAD	NAD	NAD	NAD	NAD
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	n/t	n/t	n/t	n/t	n/t
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	n/t	n/t	n/t	n/t	n/t
Sulphur %	CE264	N	0.0026	%	n/t	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrite as N	CE261	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	15.9	11.6	11.4	19.1	11.7
Soil Organic Matter	CE192	N	0.1	%	3.50	1.38	0.79	1.36	0.62
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	f 0.032	f 0.239	f 0.209	f < 0.016	f 0.051
Acenaphthylene	CE087	M	0.015	mg/kg	f 0.030	f 0.217	f 0.319	f < 0.015	f 0.023
Acenaphthene	CE087	M	0.013	mg/kg	f 0.033	f 0.185	f 0.102	f 0.018	f 0.024
Fluorene	CE087	U	0.013	mg/kg	f 0.023	f 0.246	f 0.109	f 0.016	f 0.020
Phenanthrene	CE087	M	0.014	mg/kg	f 0.440	f 3.25	f 2.01	f 0.088	f 0.222
Anthracene	CE087	U	0.017	mg/kg	f 0.178	f 1.23	f 0.781	f 0.032	f 0.080
Fluoranthene	CE087	M	0.017	mg/kg	f 2.11	f 10.6	f 10.2	f 0.302	f 0.795
Pyrene	CE087	M	0.016	mg/kg	f 2.11	f 9.48	f 10.3	f 0.317	f 0.822
Benzo(a)anthracene	CE087	U	0.012	mg/kg	f 1.22	f 5.40	f 5.58	f 0.197	f 0.487
Chrysene	CE087	M	0.028	mg/kg	f 0.963	f 4.06	f 4.29	f 0.159	f 0.399
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	f 1.57	f 5.78	f 6.86	f 0.297	f 0.703
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	f 0.687	f 2.55	f 2.67	f 0.093	f 0.257
Benzo(a)pyrene	CE087	U	0.019	mg/kg	f 1.41	f 5.64	f 6.52	f 0.244	f 0.627
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	f 1.31	f 4.47	f 5.75	f 0.215	f 0.549
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	f 0.207	f 0.737	f 0.824	f 0.036	f 0.090
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	f 0.868	f 3.02	f 3.83	f 0.144	f 0.360

SOILS

Lab Number					95416	95417	95418	95419	95420
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP11	TP12	TP13	TP14	TP16
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	f 13.2	f 57.1	f 60.3	f 2.16	f 5.51
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	n/t	n/t	n/t	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	n/t	n/t	n/t	n/t	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	n/t	n/t	n/t	n/t	n/t
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	n/t	n/t	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	n/t	n/t	n/t	n/t	n/t
Redox Potential	CE082	N	-1000	mV	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95421	95422	95423	95424	95425
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP17	TP18	TP20	TP21	TP23
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	NAD	NAD	NAD	NAD	NAD
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	n/t	n/t	n/t	n/t	n/t
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	n/t	n/t	n/t	n/t	n/t
Sulphur %	CE264	N	0.0026	%	n/t	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrite as N	CE261	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	20.8	21.9	17.2	19.1	22.3
Soil Organic Matter	CE192	N	0.1	%	6.40	1.74	1.34	0.97	0.81
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	f < 0.016	f 0.018	f 0.055	f < 0.016	f < 0.016
Acenaphthylene	CE087	M	0.015	mg/kg	f < 0.015	f < 0.015	f 0.024	f < 0.015	f < 0.015
Acenaphthene	CE087	M	0.013	mg/kg	f < 0.013	f < 0.013	f 0.040	f < 0.013	f < 0.013
Fluorene	CE087	U	0.013	mg/kg	f < 0.013	f < 0.013	f 0.035	f < 0.013	f < 0.013
Phenanthrene	CE087	M	0.014	mg/kg	f 0.056	f 0.023	f 0.573	f < 0.014	f 0.016
Anthracene	CE087	U	0.017	mg/kg	f < 0.017	f < 0.017	f 0.139	f < 0.017	f < 0.017
Fluoranthene	CE087	M	0.017	mg/kg	f 0.105	f 0.042	f 1.49	f < 0.017	f 0.028
Pyrene	CE087	M	0.016	mg/kg	f 0.081	f 0.036	f 1.35	f < 0.016	f 0.023
Benzo(a)anthracene	CE087	U	0.012	mg/kg	f 0.061	f 0.058	f 0.866	f 0.013	f 0.016
Chrysene	CE087	M	0.028	mg/kg	f 0.052	f < 0.028	f 0.749	f < 0.028	f < 0.028
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	f 0.060	f 0.032	f 1.03	f < 0.020	f 0.020
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	f 0.031	f < 0.025	f 0.435	f < 0.025	f < 0.025
Benzo(a)pyrene	CE087	U	0.019	mg/kg	f 0.050	f 0.026	f 0.902	f < 0.019	f < 0.019
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	f 0.052	f 0.026	f 0.832	f < 0.019	f < 0.019
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	f < 0.017	f < 0.017	f 0.125	f < 0.017	f < 0.017
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	f 0.035	f < 0.019	f 0.580	f < 0.019	f < 0.019

SOILS

Lab Number					95421	95422	95423	95424	95425
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP17	TP18	TP20	TP21	TP23
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	f 0.581	f < 0.280	f 9.23	f < 0.280	f < 0.280
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	n/t	n/t	n/t	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	n/t	n/t	n/t	n/t	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	n/t	n/t	n/t	n/t	n/t
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	n/t	n/t	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	n/t	n/t	n/t	n/t	n/t
Redox Potential	CE082	N	-1000	mV	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95426	95427	95428	95429	95430
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP24	TP25	TP26	TP35	WS03
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	NAD	NAD	NAD	NAD	NAD
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	n/t	n/t	n/t	n/t	n/t
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	n/t	n/t	n/t	n/t	n/t
Sulphur %	CE264	N	0.0026	%	n/t	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrite as N	CE261	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	10.8	23.5	22.6	22.5	19.9
Soil Organic Matter	CE192	N	0.1	%	1.34	0.66	1.76	1.31	0.97
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	f 0.074	f 0.021	f < 0.016	f 0.050	f 0.040
Acenaphthylene	CE087	M	0.015	mg/kg	f 0.045	f < 0.015	f < 0.015	f < 0.015	f 0.015
Acenaphthene	CE087	M	0.013	mg/kg	f 0.135	f < 0.013	f < 0.013	f < 0.013	f 0.015
Fluorene	CE087	U	0.013	mg/kg	f 0.103	f < 0.013	f < 0.013	f < 0.013	f 0.013
Phenanthrene	CE087	M	0.014	mg/kg	f 1.75	f 0.079	f 0.023	f 0.135	f 0.210
Anthracene	CE087	U	0.017	mg/kg	f 0.701	f 0.019	f < 0.017	f 0.031	f 0.071
Fluoranthene	CE087	M	0.017	mg/kg	f 5.57	f 0.171	f 0.036	f 0.235	f 0.744
Pyrene	CE087	M	0.016	mg/kg	f 4.67	f 0.150	f 0.030	f 0.199	f 0.725
Benzo(a)anthracene	CE087	U	0.012	mg/kg	f 2.95	f 0.112	f 0.023	f 0.121	f 0.487
Chrysene	CE087	M	0.028	mg/kg	f 2.50	f 0.091	f < 0.028	f 0.119	f 0.420
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	f 3.27	f 0.120	f 0.021	f 0.163	f 0.581
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	f 1.35	f 0.052	f < 0.025	f 0.062	f 0.196
Benzo(a)pyrene	CE087	U	0.019	mg/kg	f 2.91	f 0.094	f < 0.019	f 0.125	f 0.484
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	f 2.54	f 0.101	f < 0.019	f 0.121	f 0.395
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	f 0.381	f < 0.017	f < 0.017	f 0.019	f 0.056
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	f 1.69	f 0.067	f < 0.019	f 0.085	f 0.279

SOILS

Lab Number					95426	95427	95428	95429	95430
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP24	TP25	TP26	TP35	WS03
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	f 30.6	f 1.08	f < 0.280	f 1.47	f 4.73
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	n/t	n/t	n/t	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	n/t	n/t	n/t	n/t	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	n/t	n/t	n/t	n/t	n/t
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	n/t	n/t	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	n/t	n/t	n/t	n/t	n/t
Redox Potential	CE082	N	-1000	mV	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95431	95432	95433	95434	95435
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP04	TP16	TP23	TP26	TP30
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	n/t	n/t	n/t	n/t	n/t
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	< 1.00	24.5	7.26	2.96	5.68
Water Soluble Sulphate	CE061	M	10	mg/l	424	135	34.2	18.0	71.3
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	0.20	0.08	0.02	< 0.01	0.03
Sulphur %	CE264	N	0.0026	%	0.178	0.0371	0.0146	0.0180	0.0203
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	341	99.2	16.6	5.19	3.21
Nitrate as NO3	CE261	N	3.8	mg/l	< 3.80	< 3.80	< 3.80	< 3.80	< 3.80
Nitrite as N	CE261	N	1	mg/l	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Combustion									
Moisture Content	CE001	N	0.1	%	10.3	18.6	11.1	13.8	15.6
Soil Organic Matter	CE192	N	0.1	%	n/t	n/t	n/t	n/t	n/t
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthene	CE087	M	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluorene	CE087	U	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Phenanthrene	CE087	M	0.014	mg/kg	n/t	n/t	n/t	n/t	n/t
Anthracene	CE087	U	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluoranthene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Pyrene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	n/t	n/t	n/t	n/t
Chrysene	CE087	M	0.028	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95431	95432	95433	95434	95435
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP04	TP16	TP23	TP26	TP30
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	n/t	n/t	n/t	n/t
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	n/t	n/t	n/t	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	n/t	n/t	n/t	n/t	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	n/t	n/t	n/t	n/t	n/t
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	n/t	n/t	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	9.1	8.6	8.8	8.6	6.4
Redox Potential	CE082	N	-1000	mV	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95436	95437	95438	95439	95440
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP34	TP01	WS02	TP06	TP07
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	n/t	n/t	n/t	n/t	n/t
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	2.88	n/t	n/t	n/t	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	17.8	96.8	*^ 47.0	91.4	108
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	< 0.01	n/t	n/t	n/t	n/t
Sulphur %	CE264	N	0.0026	%	0.0138	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	2.51	n/t	n/t	n/t	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	< 3.80	n/t	n/t	n/t	n/t
Nitrite as N	CE261	N	1	mg/l	< 1.00	n/t	n/t	n/t	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	11.3	17.2	9.3	16.7	23.4
Soil Organic Matter	CE192	N	0.1	%	n/t	n/t	n/t	n/t	n/t
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthene	CE087	M	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluorene	CE087	U	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Phenanthrene	CE087	M	0.014	mg/kg	n/t	n/t	n/t	n/t	n/t
Anthracene	CE087	U	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluoranthene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Pyrene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	n/t	n/t	n/t	n/t
Chrysene	CE087	M	0.028	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95436	95437	95438	95439	95440
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP34	TP01	WS02	TP06	TP07
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	n/t	n/t	n/t	n/t
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	n/t	n/t	n/t	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	n/t	n/t	n/t	n/t	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	n/t	n/t	n/t	n/t	n/t
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	n/t	n/t	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	6.9	7.0	*^ 7.6	8.0	8.1
Redox Potential	CE082	N	-1000	mV	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95441	95442	95443	95444	95445
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP09	TP11	TP12	TP13	TP17
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	n/t	n/t	n/t	n/t	n/t
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	*^ 54.0	41.8	53.7	11.2	26.9
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	n/t	n/t	n/t	n/t	n/t
Sulphur %	CE264	N	0.0026	%	n/t	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrite as N	CE261	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	17.3	29.7	16.8	< 0.1	4.3
Soil Organic Matter	CE192	N	0.1	%	n/t	n/t	n/t	n/t	n/t
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthene	CE087	M	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluorene	CE087	U	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Phenanthrene	CE087	M	0.014	mg/kg	n/t	n/t	n/t	n/t	n/t
Anthracene	CE087	U	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluoranthene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Pyrene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	n/t	n/t	n/t	n/t
Chrysene	CE087	M	0.028	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95441	95442	95443	95444	95445
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP09	TP11	TP12	TP13	TP17
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	n/t	n/t	n/t	n/t
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	n/t	n/t	n/t	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	n/t	n/t	n/t	n/t	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	n/t	n/t	n/t	n/t	n/t
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	n/t	n/t	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	*^ 8.1	8.1	7.8	8.0	7.9
Redox Potential	CE082	N	-1000	mV	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95446	95447	95448	95449	95450
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP18	TP24	TP27	TP29	TP35
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	n/t	n/t	n/t	n/t	n/t
Metals									
Water Soluble Magnesium	CE061	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	48.1	21.7	48.7	21.1	92.8
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	n/t	n/t	n/t	n/t	n/t
Sulphur %	CE264	N	0.0026	%	n/t	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chloride	CE261	U	1.5	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	n/t	n/t	n/t	n/t	n/t
Nitrite as N	CE261	N	1	mg/l	n/t	n/t	n/t	n/t	n/t
Combustion									
Moisture Content	CE001	N	0.1	%	12.8	20.3	19.5	17.0	7.5
Soil Organic Matter	CE192	N	0.1	%	n/t	n/t	n/t	n/t	n/t
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	n/t	n/t	n/t	n/t
Acenaphthene	CE087	M	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluorene	CE087	U	0.013	mg/kg	n/t	n/t	n/t	n/t	n/t
Phenanthrene	CE087	M	0.014	mg/kg	n/t	n/t	n/t	n/t	n/t
Anthracene	CE087	U	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Fluoranthene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Pyrene	CE087	M	0.016	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	n/t	n/t	n/t	n/t
Chrysene	CE087	M	0.028	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	n/t	n/t	n/t	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95446	95447	95448	95449	95450
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP18	TP24	TP27	TP29	TP35
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	n/t	n/t	n/t	n/t
BTEX									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	n/t	n/t	n/t
Total Petroleum Hydrocarbons									
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t	n/t	n/t	n/t	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	n/t	n/t	n/t	n/t	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	n/t	n/t	n/t	n/t	n/t
Wet Chem									
Electrical Conductivity	CE007	U	10	µS/cm	n/t	n/t	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	8.1	7.8	7.0	7.1	8.2
Redox Potential	CE082	N	-1000	mV	n/t	n/t	n/t	n/t	n/t

SOILS

Lab Number					95451
Client Reference					SOIL
Sample ID					TP36
Sampling Date					11/03/2026
Test	Method	Accred	LoD	Units	
Asbestos					
Asbestos Identification	SUBCON	SU	0	-	n/t
Metals					
Water Soluble Magnesium	CE061	N	1	mg/l	n/t
Water Soluble Sulphate	CE061	M	10	mg/l	17.5
Acid Soluble Sulphate (SO4)	CE062	M	0.01	%	n/t
Sulphur %	CE264	N	0.0026	%	n/t
Colourimetric					
Water Soluble Chloride	CE261	U	1.5	mg/l	n/t
Nitrate as NO3	CE261	N	3.8	mg/l	n/t
Nitrite as N	CE261	N	1	mg/l	n/t
Combustion					
Moisture Content	CE001	N	0.1	%	14.8
Soil Organic Matter	CE192	N	0.1	%	n/t
Polyaromatic hydrocarbons					
Naphthalene	CE087	M	0.016	mg/kg	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	n/t
Acenaphthene	CE087	M	0.013	mg/kg	n/t
Fluorene	CE087	U	0.013	mg/kg	n/t
Phenanthrene	CE087	M	0.014	mg/kg	n/t
Anthracene	CE087	U	0.017	mg/kg	n/t
Fluoranthene	CE087	M	0.017	mg/kg	n/t
Pyrene	CE087	M	0.016	mg/kg	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t
Chrysene	CE087	M	0.028	mg/kg	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t

SOILS

Lab Number					95451
Client Reference					SOIL
Sample ID					TP36
Sampling Date					11/03/2026
Test	Method	Accred	LoD	Units	
Total PAH(16)	CE087	N	0.28	mg/kg	n/t
BTEX					
Benzene	CE267	U	0.001	mg/kg	n/t
Toluene	CE267	U	0.001	mg/kg	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t
MTBE	CE267	N	0.002	mg/kg	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t
Total Petroleum Hydrocarbons					
>C5-C10 Total (HS_1D_Total)	CE267	N	0.1	mg/kg	n/t
>C10-C16 Soil (EH_1D_Total)	CE033	N	6	mg/kg	n/t
>C16-C40 Soil (EH_1D_Total)	CE033	N	12	mg/kg	n/t
Wet Chem					
Electrical Conductivity	CE007	U	10	µS/cm	n/t
pH	CE004	M	0.1	pH units	7.8
Redox Potential	CE082	N	-1000	mV	n/t

SOIL VOCS

Lab Number					95401	95402	95403	95404	95405
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP03	TP06	TP12	TP14	TP18
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
UKWIR									
VOC (total) inc TICS	CE174	N	1	µg/kg	< 1.0	< 1.0	< 1.0	f < 1.0	< 1.0
BTEX & MTBE (total)	CE267	N	1	mg/kg	< 1.0	< 1.0	< 1.0	f < 1.0	< 1.0

SOIL VOCS

Lab Number					95406
Client Reference					SOIL
Sample ID					TP34
Sampling Date					11/03/2026
Test	Method	Accred	LoD	Units	
UKWIR					
VOC (total) inc TICS	CE174	N	1	µg/kg	< 1.0
BTEX & MTBE (total)	CE267	N	1	mg/kg	< 1.0

SOIL SVOCS

Lab Number					95401	95402	95403	95404	95405
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					TP03	TP06	TP12	TP14	TP18
Sampling Date					11/03/2026	11/03/2026	11/03/2026	11/03/2026	11/03/2026
Test	Method	Accred	LoD	Units					
UKWIR									
SVOC (total) inc TICS	CE174	N	1	mg/kg	< 1.0	< 1.0	< 1.0	f < 1.0	< 1.0
Phenols (total)	CE174	N	1	mg/kg	< 1.0	< 1.0	< 1.0	f < 1.0	< 1.0
Cresols & chlorinated phenols (total)	CE174	N	1	mg/kg	< 1.0	< 1.0	< 1.0	f < 1.0	< 1.0

SOIL SVOCS

Lab Number					95406
Client Reference					SOIL
Sample ID					TP34
Sampling Date					11/03/2026
Test	Method	Accred	LoD	Units	
UKWIR					
SVOC (total) inc TICS	CE174	N	1	mg/kg	< 1.0
Phenols (total)	CE174	N	1	mg/kg	< 1.0
Cresols & chlorinated phenols (total)	CE174	N	1	mg/kg	< 1.0

METHOD DETAILS

METHOD	TESTNAME	METHOD SUMMARY	ANALYSIS BASIS
CE267	VPH in Soil	HS-GCFID	As submitted sample
SUBCON	Asbestos Soil	HSG248	Air Dried Sample
CE033	EPH in Soil	Acetone:Hexane Extraction and GCFID	As submitted sample
CE061	W. Sol Metals	ICPOES	Air dried sample
CE007	Electrical conductivity of Solids	Potentiometric	As submitted sample
CE082	Redox potential in Soil	Potentiometric	As submitted sample
CE062	Acid Soluble Sulphate in Soils	HCl Extract and ICPOES	Air dried sample
CE267	BTEX in Soils	Analysis by HSGCFID	As submitted sample
CE264	Metals by ICP in Soil	ICPOES	Air dried sample
CE261	Anions by Discrete Analyser in Soils	Gallery	Air dried sample
CE087	PAH in Soil	DCM Extraction and GCMS	As submitted sample
CE174	VOC in Soil	HS-GCMS	As submitted sample
CE174	SVOC in solids	DCM Extraction and GCMS	As submitted sample

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

a	Sampling date not provided
b	Sampling time not provided (waters only)
c	Sample not received in appropriate containers
d	Storage Temperature
e	Headspace present in sample container
f	Sample exceeded sampling to receipt
g	Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
95401	TP03	-	N	
95402	TP06	-	N	
95403	TP12	-	N	
95404	TP14	-	Y	Electrical conductivity of Solids (f), Redox potential in Soil (f), pH of Soil (f), BTEX in Soils (f), VPH in Soil (f), VOC in Soil (f), EPH in Soil (f), SVOC in solids (f)
95405	TP18	-	N	
95406	TP34	-	N	
95407	TP01	-	Y	PAH in Soil (f)
95408	TP02	-	Y	PAH in Soil (f)
95409	TP03	-	Y	PAH in Soil (f)
95410	TP04	-	Y	PAH in Soil (f)
95411	TP05	-	Y	PAH in Soil (f)
95412	TP06	-	Y	PAH in Soil (f)
95413	TP07	-	Y	PAH in Soil (f)
95414	TP08	-	Y	PAH in Soil (f)
95415	TP09	-	Y	PAH in Soil (f)
95416	TP11	-	Y	PAH in Soil (f)
95417	TP12	-	Y	PAH in Soil (f)
95418	TP13	-	Y	PAH in Soil (f)
95419	TP14	-	Y	PAH in Soil (f)
95420	TP16	-	Y	PAH in Soil (f)
95421	TP17	-	Y	PAH in Soil (f)
95422	TP18	-	Y	PAH in Soil (f)
95423	TP20	-	Y	PAH in Soil (f)
95424	TP21	-	Y	PAH in Soil (f)
95425	TP23	-	Y	PAH in Soil (f)
95426	TP24	-	Y	PAH in Soil (f)

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

a	Sampling date not provided
b	Sampling time not provided (waters only)
c	Sample not received in appropriate containers
d	Storage Temperature
e	Headspace present in sample container
f	Sample exceeded sampling to receipt
g	Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
95427	TP25	-	Y	PAH in Soil (f)
95428	TP26	-	Y	PAH in Soil (f)
95429	TP35	-	Y	PAH in Soil (f)
95430	WS03	-	Y	PAH in Soil (f)
95431	TP04	-	N	
95432	TP16	-	N	
95433	TP23	-	N	
95434	TP26	-	N	
95435	TP30	-	N	
95436	TP34	-	N	
95437	TP01	-	N	
95439	TP06	-	N	
95440	TP07	-	N	
95442	TP11	-	N	
95443	TP12	-	N	
95444	TP13	-	N	
95445	TP17	-	N	
95446	TP18	-	N	
95447	TP24	-	N	
95448	TP27	-	N	
95449	TP29	-	N	
95450	TP35	-	N	
95451	TP36	-	N	

REPORT INFORMATION

Report No.:26-03051, issue number 2

Key	
U	ISO17025 Accredited Result
M	ISO17025 and MCERTS Accredited Result
N	Do not currently hold accreditation
^	MCERTS accreditation not applicable for sample matrix
*	ISO17025 accreditation not applicable for sample matrix
S	Subcontracted
I/S	Insufficient Sample
U/S	Unsuitable sample
N/T	Not tested
<	Means "less than"
>	Means "greater than"

LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

This report shall not be reproduced except in full, without prior written approval.

Opinions and interpretations expressed herein are outside the UKAS accreditation scope.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

The results relate only to the sample received.

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Moisture Content Calculated on a Wet Weight basis (at 30°C)

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

Where sampling was undertaken by Chemtech Environmental Limited it is outside the UKAS accreditation scope.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

BTEX compounds are identified by retention time only and may include interference from co-eluting compounds.

For soils and solids, all results are reported on a dry basis (30ºC). Samples dried at no more than 30°C in a drying cabinet.

For soils and solids, analytical results are inclusive of stones and 'inert' material, where applicable.

'Client Reference', 'Sample ID', 'Sample Location', 'Sample Type', 'Depth', 'Sample Date' and 'Sample Time' information is provided by the customer

Sample Retention and Disposal

All soil samples will be retained for a period of 4 weeks from the point of receipt

All water samples will be retained for a period of 2 weeks from the point of Reporting

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
2D	GC-GC - Double coil gas chromatography
#1	EH_Total but with humics mathematically subtracted
#2	EH_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

Unless specifically identified (noted as "(B)" in analyte name) all internal analysis performed at Durham site

Vat Reg No. 772 5703 18 Registered in England number 4284013

Laboratory Report Front Sheet

G2M Testing

Unit 5/6 Innovation Court,
Meadowfield Industrial Estate,
County Durham,
DH7 8FA

0191 349 9210
info@g2mtesting.co.uk

10258

Site name	Job number
Shaw Lane, Carlton	25-899

Client details:

Reference: 25-899
Name: Arc Environmental
Address: Solum House
Unit 1 Elliot Cour
St John's Road
Meadowfield
Durham
DH7 8PN

Telephone:
Email:

FAO: Stephen Donald

Samples received: 26/03/2026

Date commenced: 27/03/2026

Date reported: 01/04/2026

Observations and interpretations are outside of the UKAS Accreditiation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced in full, without the prior written approval of the laboratory.

Samples will be held at the laboratory for a period of 4 weeks after the report date. After the above reporting date the samples will be disposed of. Should further testing be required then the office should be informed before the above date.

Signature:	Approved Signitories:
	☑ D.Anderson (Managing Director) ☐ J. Brischuk (Laboratory Manager) ☐

Summary of Rock Point Load Tests

G2M Testing
Unit 5/6 Innovation Court,
Meadowfield Industrial Estate,
County Durham,
DH7 8FA
0191 349 9210
info@g2mtesting.co.uk

Project name	Project number
Shaw Lane, Carlton	25-899

Hole	Sample			Specimen		Rock type and test condition	Test Type		Failure validity	Dimensions			Is	Is(50)	Remarks
	Depth m	Ref	Type	Depth m	Ref		Type	Dir.		W mm	D mm	D' mm	MPa	MPa	
RBH03	3.91		C	3.91	RBH03	Sandstone	A	P	Valid	100	30		0.26	0.29	
RBH03	4.61		C	4.61	RBH03	Sandstone	A	P	Valid	100	50		0.84	1.04	
RBH03	5.56		C	5.56	RBH03	Sandstone	A	P	Valid	100	45		0.84	1.01	
RBH02	6.05		C	6.05	RBH02	Sandstone	A	P	Valid	100	30		0.21	0.23	
RBH01	7.00		C	7.00	RBH01	Sandstone	A	P	Valid	100	35		0.46	0.52	
RBH01	7.73		C	7.73	RBH01	Sandstone	A	P	Valid	100	50		0.71	0.88	
RBH03	7.85		C	7.85	RBH03	Sandstone	A	P	Valid	100	65		0.61	0.80	
RBH03	8.48		C	8.48	RBH03	Sandstone	A	P	Valid	100	35		0.11	0.13	
RBH01	8.70		C	8.70	RBH01	Sandstone	A	P	Valid	100	75		0.59	0.80	
RBH02	8.70		C	8.70	RBH02	Sandstone	A	P	Valid	100	65		0.56	0.73	
RBH02	9.19		C	9.19	RBH02	Sandstone	A	P	Valid	100	60		1.08	1.38	
RBH01	9.56		C	9.56	RBH01	Sandstone	A	P	Valid	100	35		0.37	0.42	
RBH02	10.36		C	10.36	RBH02	Sandstone	A	P	Valid	100	90		0.64	0.91	
RBH03	10.77		C	10.77	RBH03	Sandstone	A	P	Valid	100	100		0.48	0.69	
RBH02	10.85		C	10.85	RBH02	Sandstone	A	P	Valid	100	70		0.51	0.68	
RBH01	11.40		C	11.40	RBH01	Sandstone	A	P	Valid	100	40		0.62	0.73	
RBH02	11.60		C	11.60	RBH02	Sandstone	A	P	Valid	100	65		0.86	1.13	
RBH03	11.60		C	11.60	RBH03	Sandstone	A	P	Valid	100	60		1.03	1.32	
RBH03	12.64		C	12.64	RBH03	Sandstone	A	P	Valid	100	70		0.59	0.79	
RBH01	12.70		C	12.70	RBH01	Sandstone	A	P	Valid	100	55		0.22	0.27	

Column	Key	Description
Test Type	A	Axial
	B	Block
	D	Diametral
	I	Irregular lump
Test Direction	L	Parallel to planes of weakness
	P	Perpendicular to planes of weakness
	U	Unknown
Dimensions	W	Width
	D	Platen seperation at start of test
	D'	Platen seperation at sample failure
	Is	Point Load Index
	Is(50)	Corrected Point Load Index to equivalent 50 mm diameter

Approved by	D Anderson
Approval date	01/04/2026
Date report generated	
Report Number	

Summary of Rock Point Load Tests

G2M Testing
Unit 5/6 Innovation Court,
Meadowfield Industrial Estate,
County Durham,
DH7 8EA
0191 349 9210
info@g2mtesting.co.uk

Project name	Project number
Shaw Lane, Carlton	25-899

Hole	Sample			Specimen		Rock type and test condition	Test Type		Failure validity	Dimensions			Is	Is(50)	Remarks
	Depth m	Ref	Type	Depth m	Ref		Type	Dir.		W mm	D mm	D' mm	MPa	MPa	
RBH02	13.03		C	13.03	RBH02	Sandstone	A	P	Valid	100	65		1.09	1.42	
RBH01	14.00		C	14.00	RBH01	Sandstone	A	P	Valid	100	70		0.67	0.90	
RBH03	14.10		C	14.10	RBH03	Sandstone	A	P	Valid	100	50		1.18	1.46	
RBH01	14.66		C	14.66	RBH01	Sandstone	A	P	Valid	100	50		0.84	1.03	
RBH03	14.85		C	14.85	RBH03	Sandstone	A	P	Valid	100	50		0.53	0.66	
RBH02	14.86		C	14.86	RBH02	Sandstone	A	P	Valid	100	70		1.00	1.33	

Column	Key	Description
Test Type	A	Axial
	B	Block
	D	Diametral
	I	Irregular lump
Test Direction	L	Parallel to planes of weakness
	P	Perpendicular to planes of weakness
	U	Unknown
Dimensions	W	Width
	D	Platen seperation at start of test
	D'	Platen seperation at sample failure
	Is	Point Load Index
	Is(50)	Corrected Point Load Index to equivalent 50 mm diameter

Approved by	D Anderson
Approval date	01/04/2026
Date report generated	
Report Number	

UNIAXIAL COMPRESSION TEST ON ROCK - SUMMARY OF RESULTS

Project No.	Project Name
25-899	Shaw Lane, Carlton

Hole No.	Sample				Rock Type	Specimen Dimensions2			Bulk Density2	Water Content 1	Uniaxial Compression3				Remarks
	Ref	Top	Base	Type		Dia. mm	Length mm	H/D	Mg/m3	%	Condition	Stress Rate MPa/s	Mode of failure	UCS MPa	
RBH01		6.46		C	Sandstone	100.0	160.0	1.6	2.51	5.8	as received	0.1273	AC	25.9	<2.5:1 L:D Ratio
RBH03		7.20		C	Sandstone	100.0	171.0	1.7	2.55	5.8	as received	0.1273	AC	12.8	<2.5:1 L:D Ratio
RBH02		8.40		C	Sandstone	100.0	277.0	2.8	25.55	5.3	as received	0.1273	AC	27.8	
RBH03		9.55		C	Mudstone	100.0	145.0	1.5	2.41	10.7	as received	0.1273	AC	0.6	
RBH01		10.50		C	Sandstone	100.0	339.0	3.4	2.63	4.4	as received	0.1273	AC	40.7	
RBH02		12.64		C	Sandstone	100.0	328.0	3.3	2.56	5.6	as received	0.1273	AC	30.2	
RBH01		13.50		C	Sandstone	100.0	323.0	3.2	2.56	5.6	as received	0.1273	AC	30.2	
RBH03		13.52		C	Sandstone	100.0	296.0	3.0	2.55	5.6	as received	0.1273	AC	34.9	
RBH02		13.76		C	Sandstone	100.0	251.0	2.5	2.60	4.6	as received	0.1273	AC	34.6	

Notes

1 ISRM p87 test 1, water content at 105 ± 3 oC, specimen as tested for UCS

2 ISRM p86 clause (vii), Caliper method used for determination of bulk volume and derivation of bulk density

3 ISRM p153 part 1, determination of Uniaxial Compressive Strength (UCS) of Rock Materials

above notes apply unless annotated otherwise in the remarks

Mode of failure :

S - Single shear MS - multiple shear

AC - Axial cleavage F - Fragmented

Test Specification	Date Printed	Approved By	Table
International Society for Rock Mechanics, The complete ISRM suggested methods for Rock Characterization Testing and Monitoring, 2007	04/01/2026 00:00	avid.Anderso	1
			Sheet 1

LABORATORY REPORT

Contract Number: PSL26/2411

Report Date: 15 April 2026

Client's Reference: 25-899

Client Name: ARC Environmental
Solum House
Unit 1 Elliott Court
St Johns Road, Meadowfield
Durham
DH7 8PN

For the attention of: Stephen Donald

Contract Title: Shaw Lane, Carlton

Date Received: 19/3/2026
Date Commenced: 19/3/2026
Date Completed: 15/4/2026

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins (Managing Director)	R Berriman (Associate Director)	S Royle (Laboratory Manager)
L Knight (Assistant Laboratory Manager)	S Eyre (Senior Technician)	T Watkins (Senior Technician)

5 – 7 Hexthorpe Road,
Hexthorpe,
Doncaster,
DN4 0AR
Tel: 01302 768098
Email: rberriman@prosoils.co.uk
awatkins@prosoils.co.uk

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
WS01			0.90	1.00	Brown mottled grey slightly sandy slightly gravelly CLAY.
WS02			1.00	1.10	Brown mottled grey slightly sandy slightly gravelly CLAY.
WS03			1.90	2.00	Brown mottled grey slightly sandy CLAY.
WS04			1.30	1.40	Brown mottled grey slightly sandy slightly gravelly CLAY.
WS05			1.50	1.60	Brown mottled grey slightly sandy CLAY.
WS06			1.00	1.10	Brown mottled grey slightly sandy CLAY.
WS07			0.70	0.80	Brown mottled grey slightly sandy slightly gravelly CLAY.
WS08			0.70	0.80	Brown mottled grey slightly sandy slightly gravelly CLAY.
WS09			0.75	0.90	Brown mottled grey slightly sandy slightly gravelly CLAY.
WS10			0.80	0.90	Brown sandy CLAY.
TP05			1.00	1.10	Brown slightly sandy CLAY.
TP08			1.40	1.50	Brown slightly sandy CLAY.
TP15			0.90	1.00	Brown slightly sandy CLAY.
TP18			0.90	1.00	Brown sandy CLAY.
TP20			1.40	1.50	Brown sandy CLAY.
TP23			0.90	1.00	Brown sandy gravelly CLAY.
TP24			1.50	1.60	Brown sandy slightly gravelly CLAY.
TP34			1.40	1.50	Brown sandy CLAY.

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Shaw Lane, Carlton	Contract No:
	PSL26/2411
	Client Ref:
	25-899

SUMMARY OF SOIL CLASSIFICATION TESTS

BS 1377 - Part 2 : 2022 in accordance with BS EN ISO 17892 (as below)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Water Content %	Linear Shrinkage	Particle Density Mg/m^3	Liquid Limit %	Plastic Limit %	Plasticity Index %	Passing 0.425mm %	Remarks
WS01			0.90	1.00	25.8			45	21	24	98	Medium Plasticity CIM
WS02			1.00	1.10	19.1			38	19	19	96	Medium Plasticity CIM
WS03			1.90	2.00	24.2			47	22	25	100	Medium Plasticity CIM
WS04			1.30	1.40	27.1			46	22	24	98	Medium Plasticity CIM
WS05			1.50	1.60	22.6			45	22	23	100	Medium Plasticity CIM
WS06			1.00	1.10	22.7			54	24	30	100	High Plasticity CIH
WS07			0.70	0.80	19.8			38	18	20	96	Medium Plasticity CIM
WS08			0.70	0.80	18.1			37	18	19	95	Medium Plasticity CIM
WS09			0.75	0.90	21.7			43	20	23	96	Medium Plasticity CIM
WS10			0.80	0.90	21.2			32	16	16	100	Low Plasticity CIL

Water Content - BS 1377 - Part 2 : 2022 : Clause 4 in accordance with BS EN ISO 17892 - 1 : 2014 + A1 : 2022
Linear Shrinkage - BS 1377 - Part 2 : 2022 : Clause 7
Particle Density (Gas Jar method) - BS 1377 - Part 2 : 2022 : Clause 9
Liquid, Plastic Limit & Plasticity Index - BS 1377 - Part 2 : 2022 : Clause 5 & 6 in accordance with BS EN ISO 17892 - 12 : 2018 + A2 : 2022

SYMBOLS : NP = Non Plastic

UKAS TESTING 4043

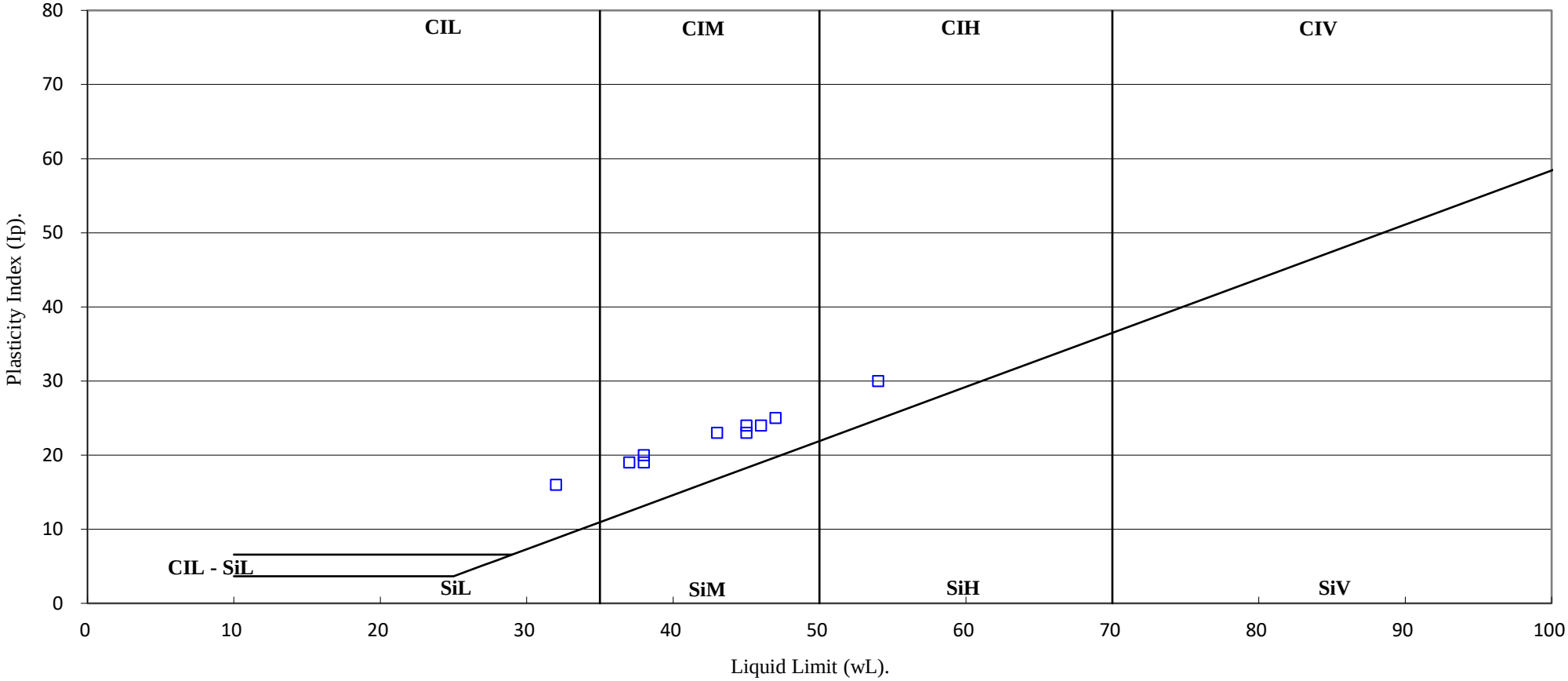
PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Shaw Lane, Carlton

Contract No:
PSL26/2411
Client Ref:
25-899

PLASTICITY CHART

BS EN ISO 14688-2:2017 Clause 4.4

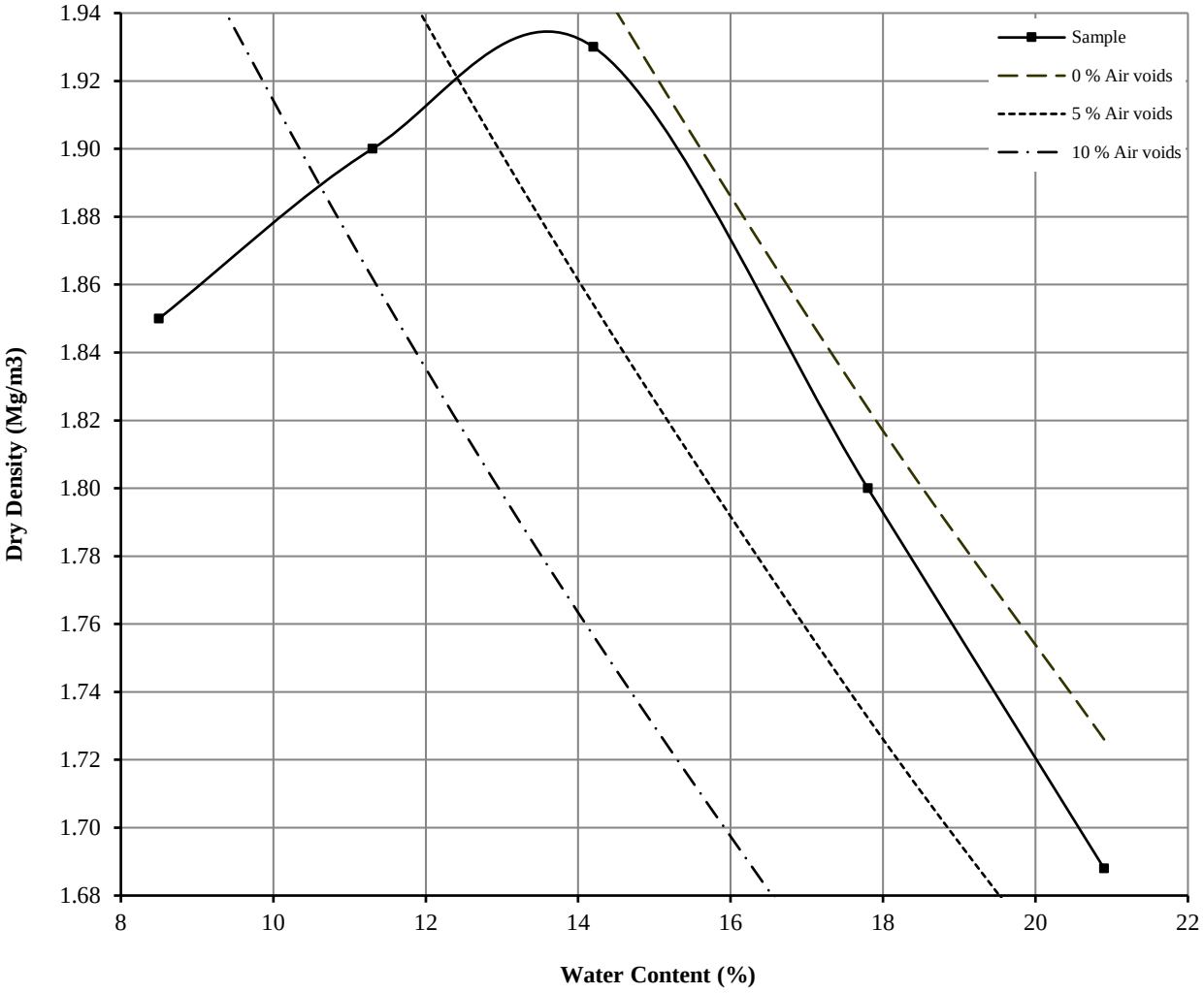


UKAS TESTING 4043 / PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY	**Shaw Lane, Carlton**	**Contract No:**
		PSL26/2411
		Client Ref:
		25-899

DRY DENSITY/WATER CONTENT RELATIONSHIP

BS 1377 - Part 2 : Clause 11 : 2022

Hole Number:	**TP05**	**Top Depth (m):**	**1.00**
Sample Number:		**Base Depth (m):**	**1.10**
Sample Type:			



Initial Water Content:		22.0	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.70	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.93	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Water Content (%):		14	Grading Zone:		1
Remarks See summary of soil descriptions					

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

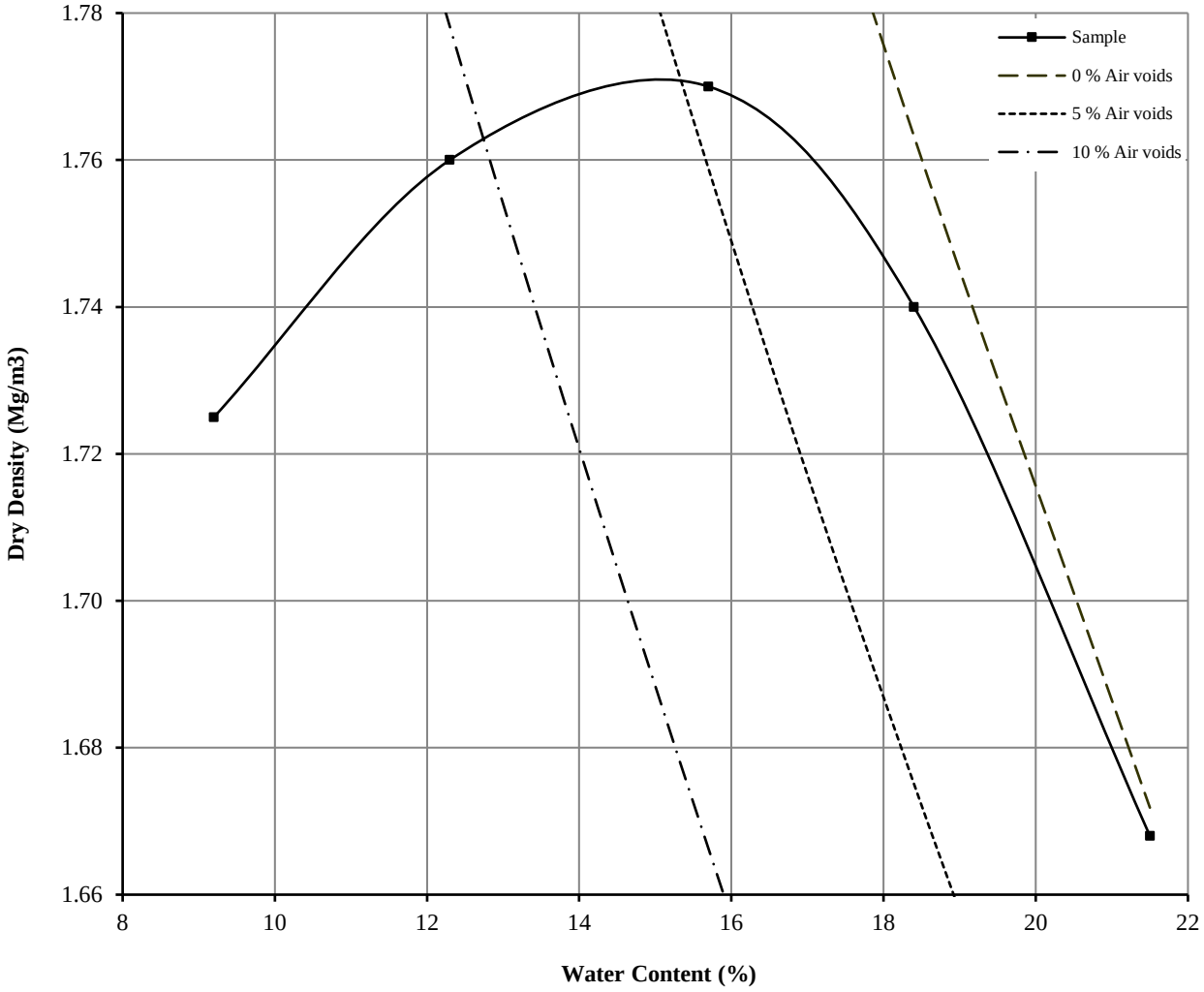
Shaw Lane, Carlton

Contract No.
PSL26/2411
Client Ref
25-899

DRY DENSITY/WATER CONTENT RELATIONSHIP

BS 1377 - Part 2 : Clause 11 : 2022

Hole Number:	**TP08**	**Top Depth (m):**	**1.40**
Sample Number:		**Base Depth (m):**	**1.50**
Sample Type:			



Initial Water Content:		32.9	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.61	Assumed	Material Retained on 37.5 mm Test Sieve (%):		2
Maximum Dry Density (Mg/m3):		1.77	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Water Content (%):		16	Grading Zone:		4
Remarks See summary of soil descriptions					

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

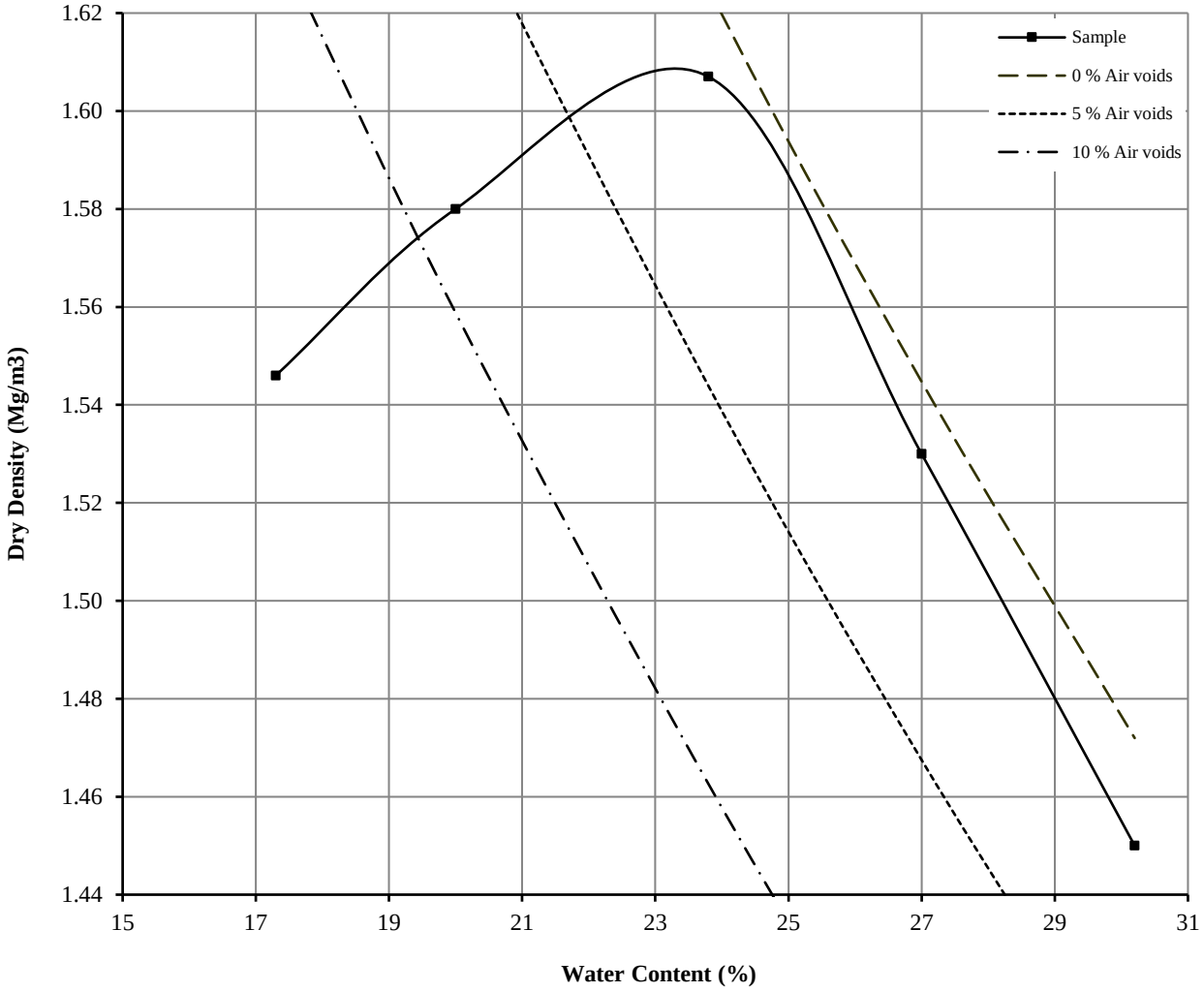
Shaw Lane, Carlton

Contract No.
PSL26/2411
Client Ref
25-899

DRY DENSITY/WATER CONTENT RELATIONSHIP

BS 1377 - Part 2 : Clause 11 : 2022

Hole Number:	**TP15**	**Top Depth (m):**	**0.90**
Sample Number:		**Base Depth (m):**	**1.00**
Sample Type:			



Initial Water Content:		30.9	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.61	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Water Content (%):		24	Grading Zone:		1
Remarks See summary of soil descriptions					

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

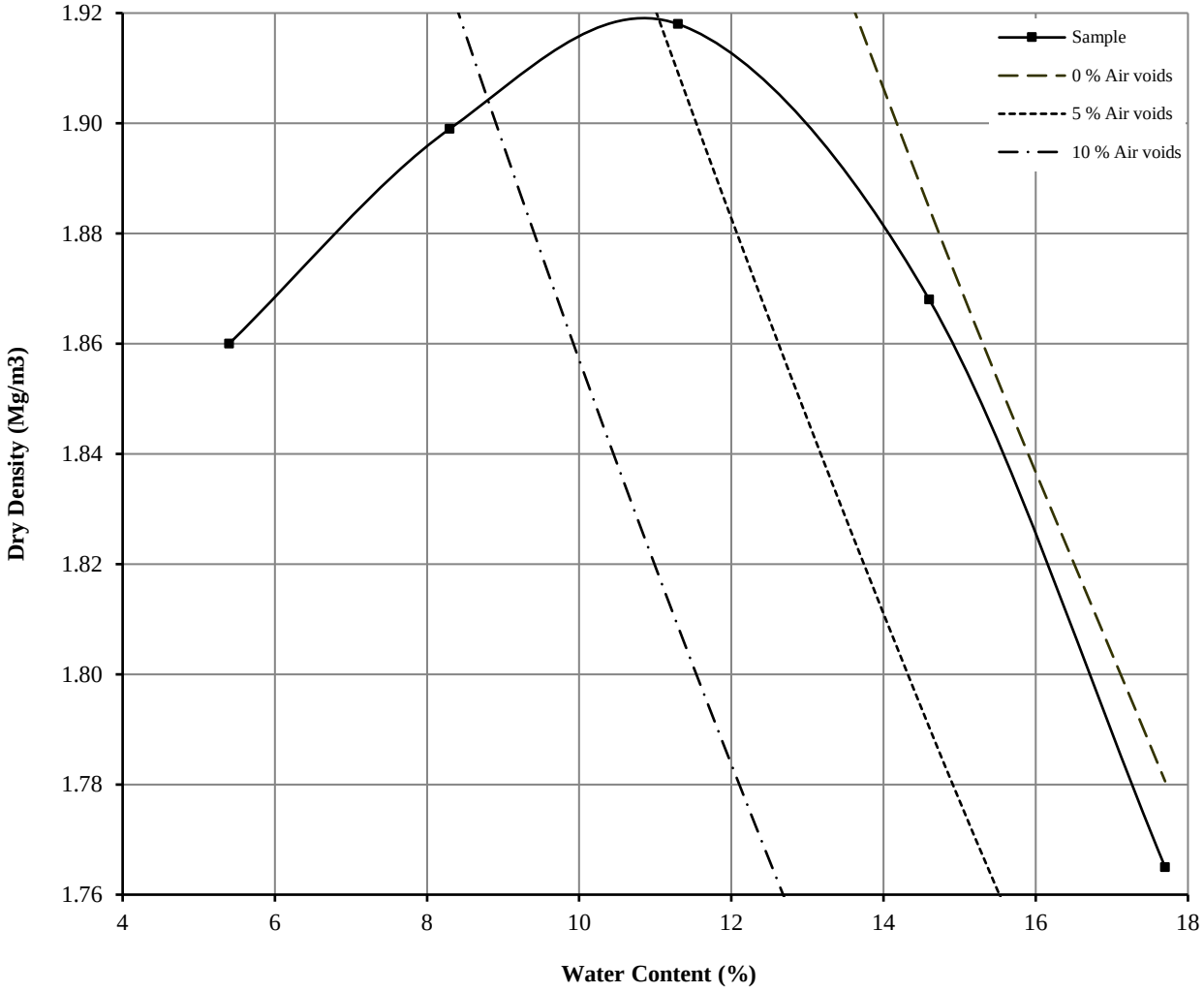
Shaw Lane, Carlton

Contract No.
PSL26/2411
Client Ref
25-899

DRY DENSITY/WATER CONTENT RELATIONSHIP

BS 1377 - Part 2 : Clause 11 : 2022

Hole Number:	**TP18**	**Top Depth (m):**	**0.90**
Sample Number:		**Base Depth (m):**	**1.00**
Sample Type:			

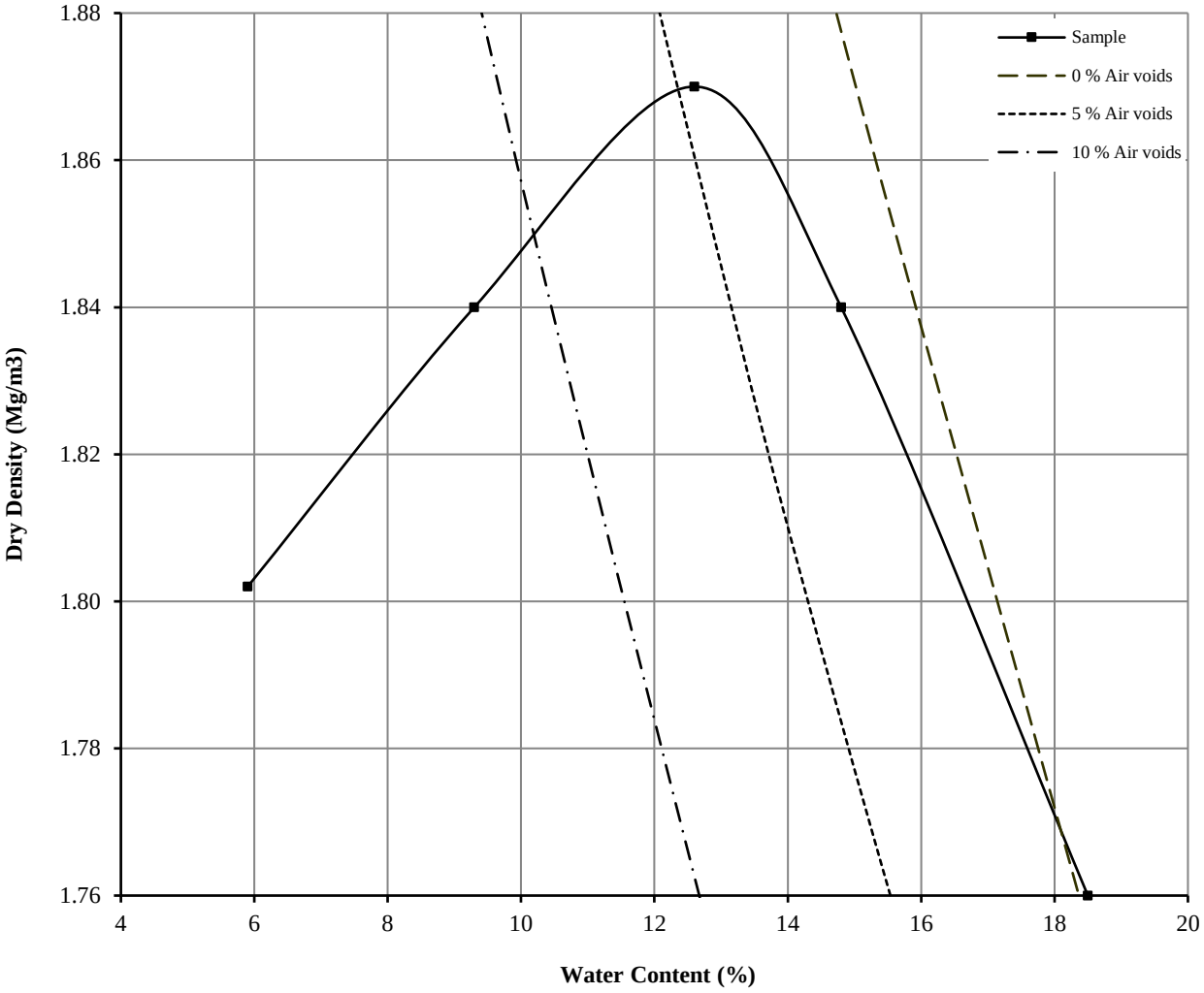


Initial Water Content:		23.1	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.6	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.92	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Water Content (%):		11	Grading Zone:		1
Remarks See summary of soil descriptions					

DRY DENSITY/WATER CONTENT RELATIONSHIP

BS 1377 - Part 2 : Clause 11 : 2022

Hole Number:	**TP20**	**Top Depth (m):**	**1.40**
Sample Number:		**Base Depth (m):**	**1.50**
Sample Type:			



Initial Water Content:		22.0	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.60	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.87	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Water Content (%):		13	Grading Zone:		1
Remarks See summary of soil descriptions					

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

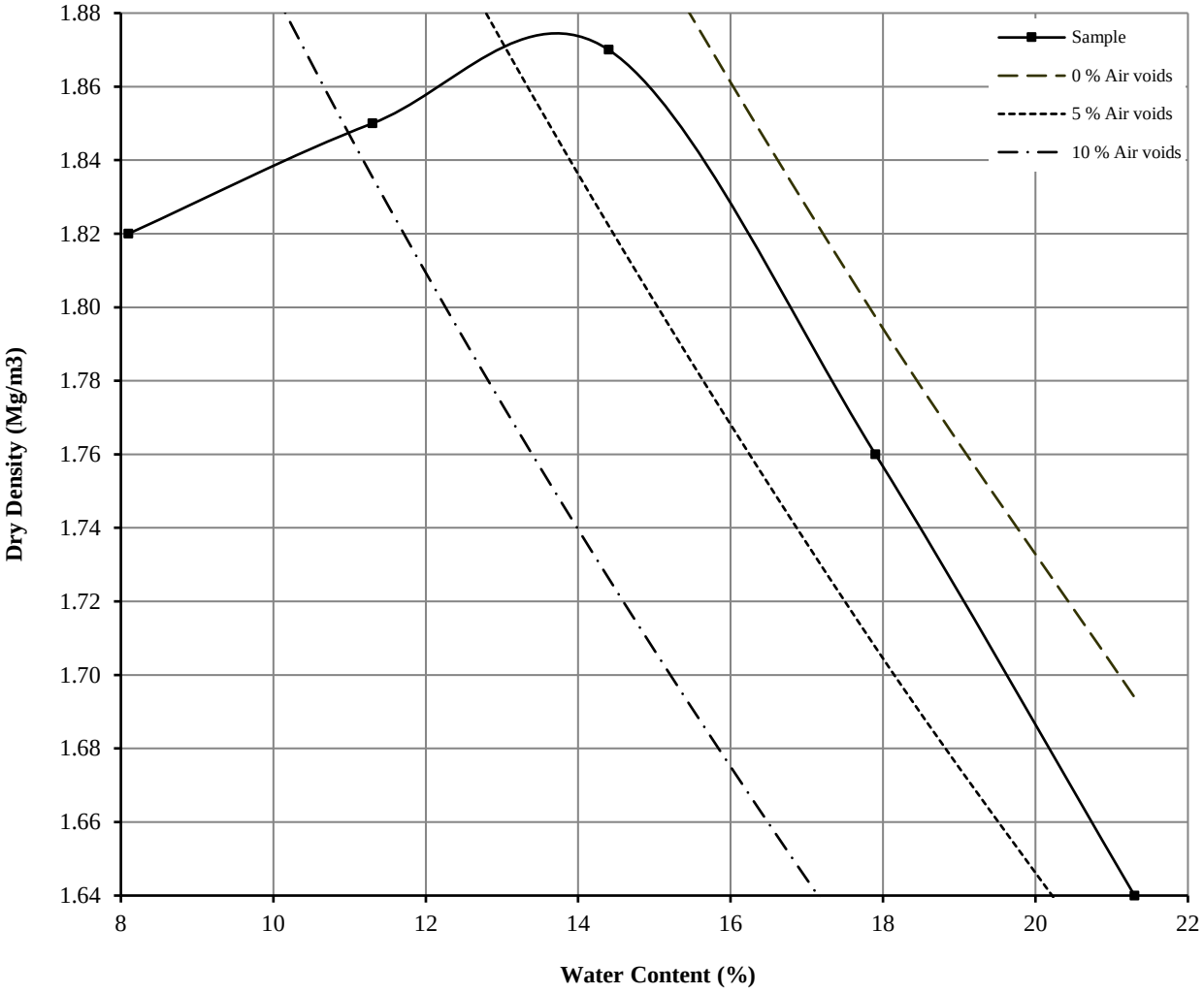
Shaw Lane, Carlton

Contract No.
PSL26/2411
Client Ref
25-899

DRY DENSITY/WATER CONTENT RELATIONSHIP

Non compliance with BS 1377 - Part 2 : Clause 11 : 2022

Hole Number:	**TP23**	**Top Depth (m):**	**0.90**
Sample Number:		**Base Depth (m):**	**1.00**
Sample Type:			

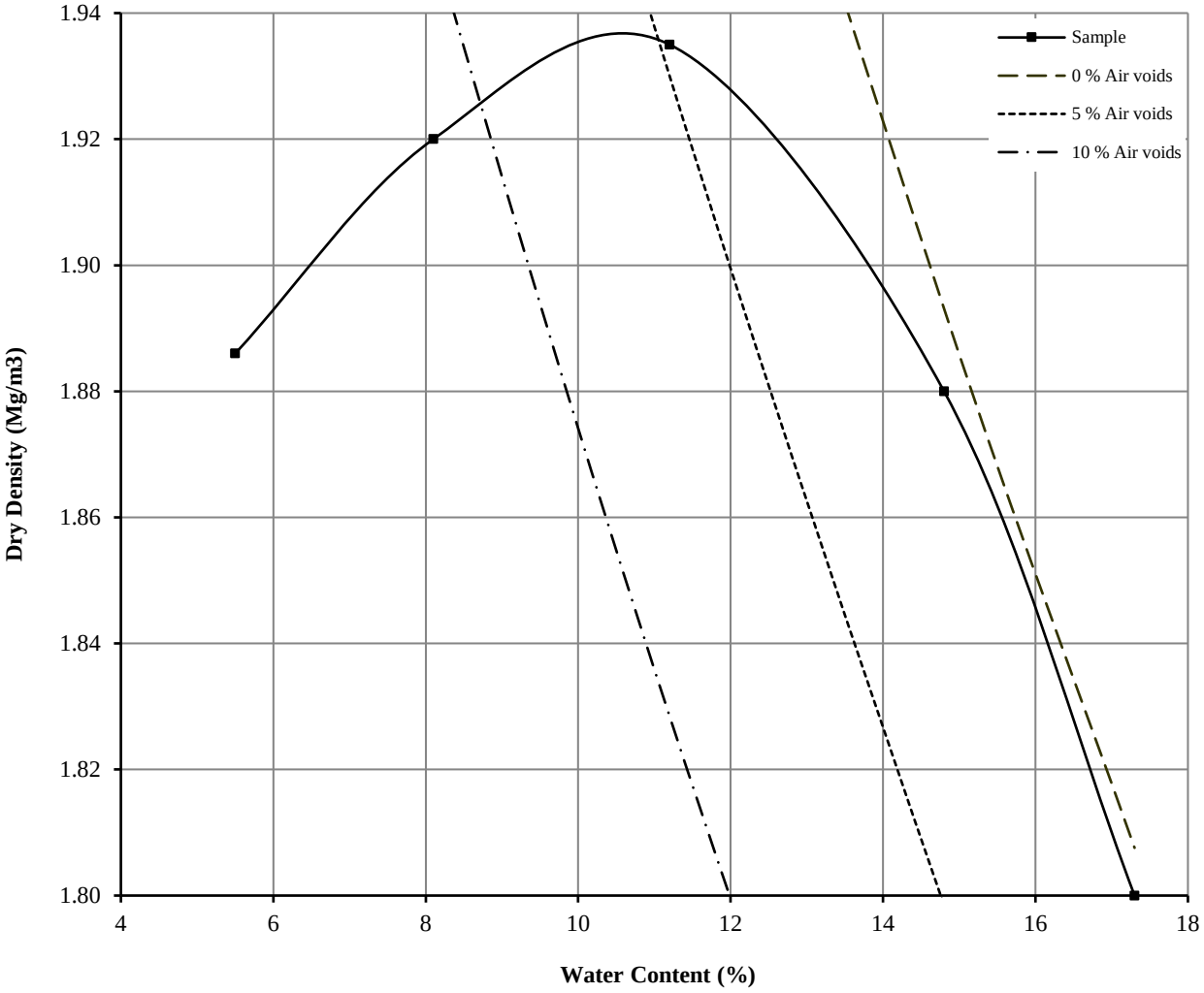


Initial Water Content:		21.3	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		40
Maximum Dry Density (Mg/m3):		1.87	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Water Content (%):		14	Grading Zone:		X
Remarks See summary of soil descriptions					

DRY DENSITY/WATER CONTENT RELATIONSHIP

BS 1377 - Part 2 : Clause 11 : 2022

Hole Number:	**TP24**	**Top Depth (m):**	**1.50**
Sample Number:		**Base Depth (m):**	**1.60**
Sample Type:			



Initial Water Content:		17.3	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.63	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.94	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Water Content (%):		11	Grading Zone:		1
Remarks See summary of soil descriptions					

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

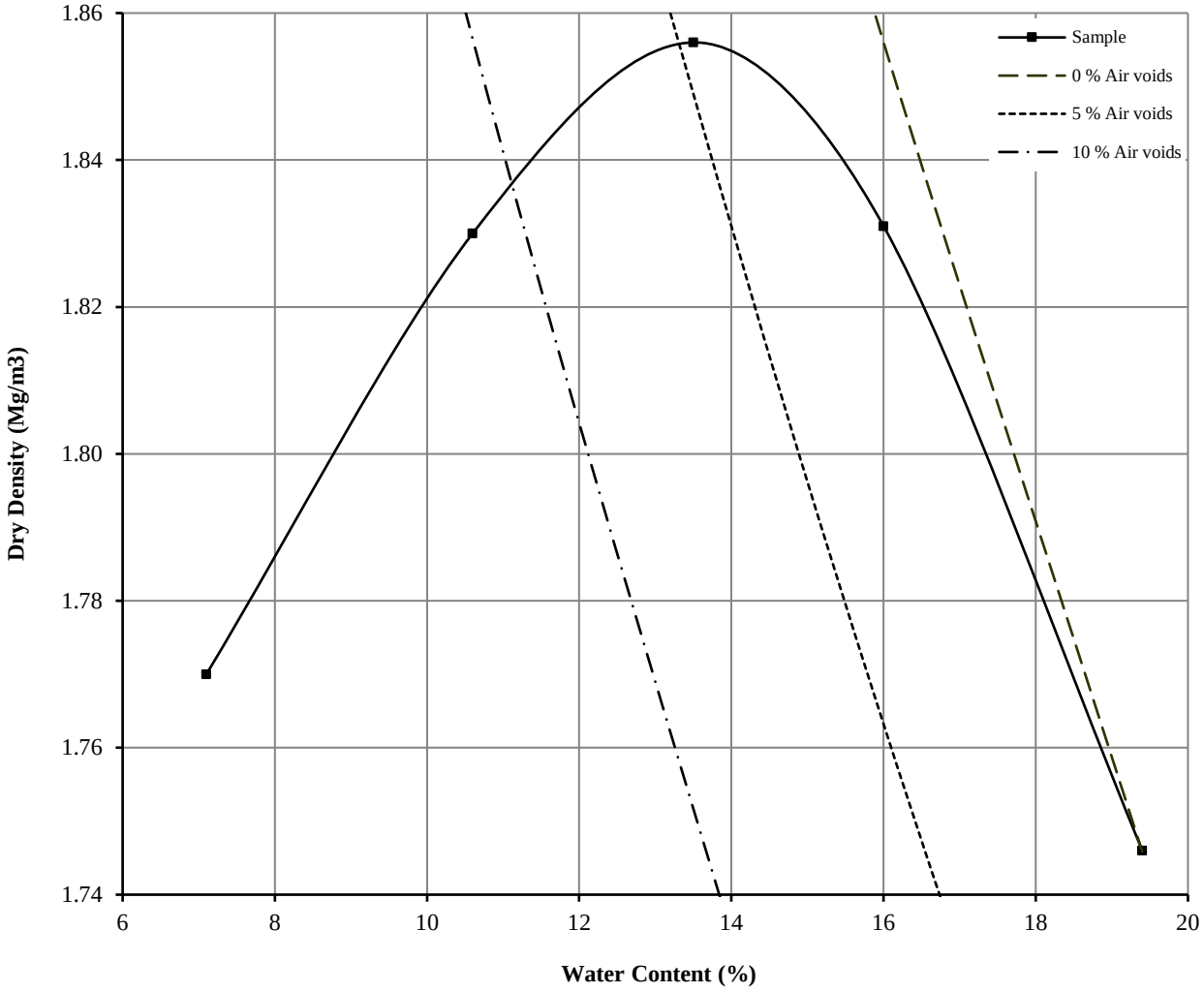
Shaw Lane, Carlton

Contract No.
PSL26/2411
Client Ref
25-899

DRY DENSITY/WATER CONTENT RELATIONSHIP

BS 1377 - Part 2 : Clause 11 : 2022

Hole Number:	**TP34**	**Top Depth (m):**	**1.40**
Sample Number:		**Base Depth (m):**	**1.50**
Sample Type:			



Initial Water Content:		19.4	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.64	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.86	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Water Content (%):		14	Grading Zone:		1
Remarks See summary of soil descriptions					

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

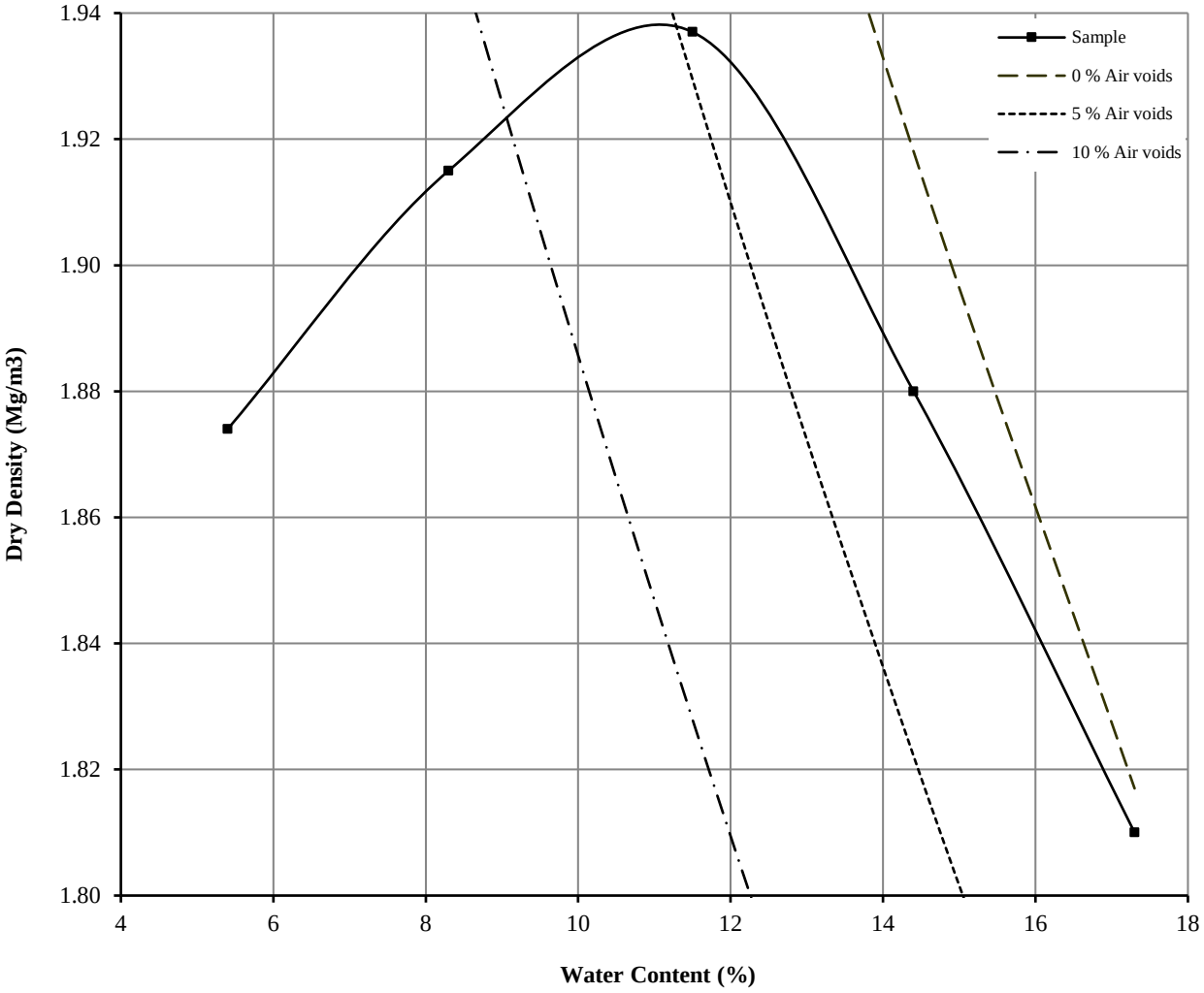
Shaw Lane, Carlton

Contract No.
PSL26/2411
Client Ref
25-899

DRY DENSITY/WATER CONTENT RELATIONSHIP

BS 1377 - Part 2 : Clause 11 : 2022

Hole Number:	**WS10**	**Top Depth (m):**	**0.80**
Sample Number:		**Base Depth (m):**	**0.90**
Sample Type:			



Initial Water Content:		17.1	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.94	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Water Content (%):		12	Grading Zone:		1
Remarks See summary of soil descriptions					

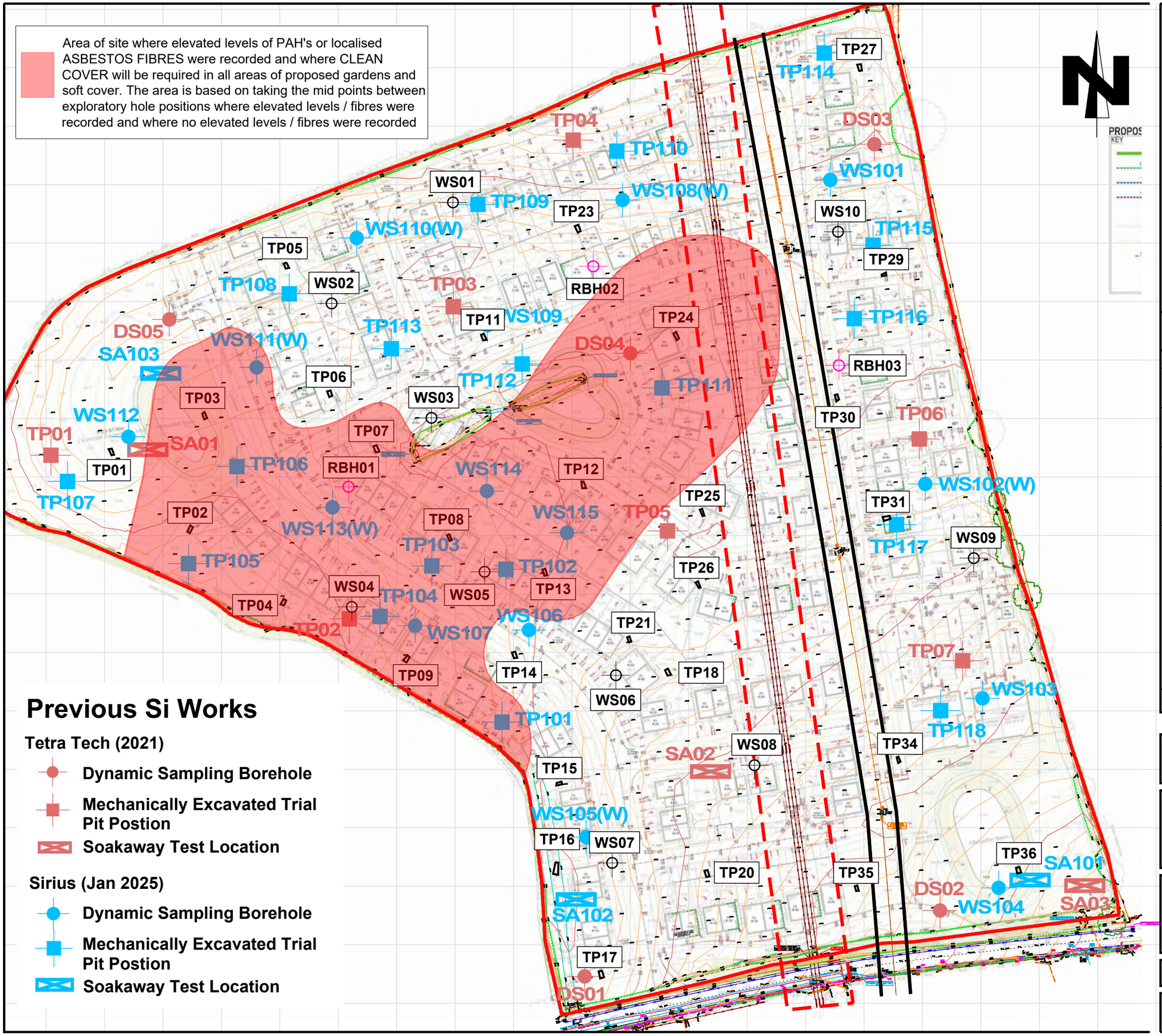
UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Shaw Lane, Carlton

Contract No.
PSL26/2411
Client Ref
25-899

APPENDIX III



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LEGEND

	APPROXIMATE SITE BOUNDARY
	WINDOWLESS SAMPLING BOREHOLE POSITION
	MECHANICALLY EXCAVATED TRIAL PIT POSITION
	ROTARY BOREHOLE LOCATION

rev.	date	amendments	drawn	chckd

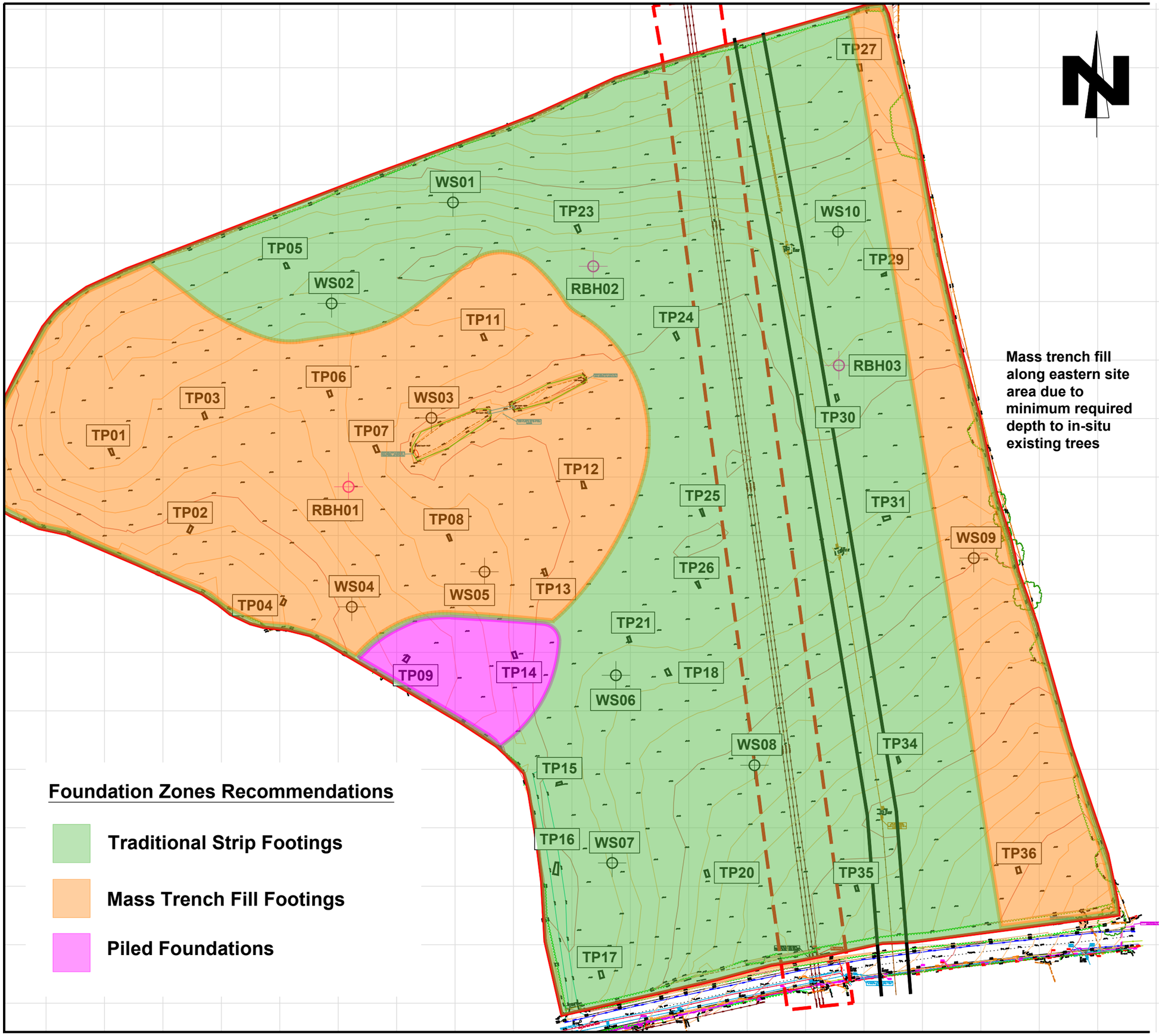
Client:
VISTRY WEST YORKSHIRE

Project Title:
Proposed Residential Development
Shaw Lane
Carlton

Drawing Title:
Clean Cover Plan

Scale at A3:	Date:	Drawn by:	Approved by:
NTS @ A3	24.06.26	P.D	S.D

Job Ref:	Drg no:	Rev:
25-899	–	–



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LEGEND

	APPROXIMATE SITE BOUNDARY
	WINDOWLESS SAMPLING BOREHOLE POSITION
	MECHANICALLY EXCAVATED TRIAL PIT POSITION
	ROTARY BOREHOLE LOCATION

rev.	date	amendments	drawn	chckd

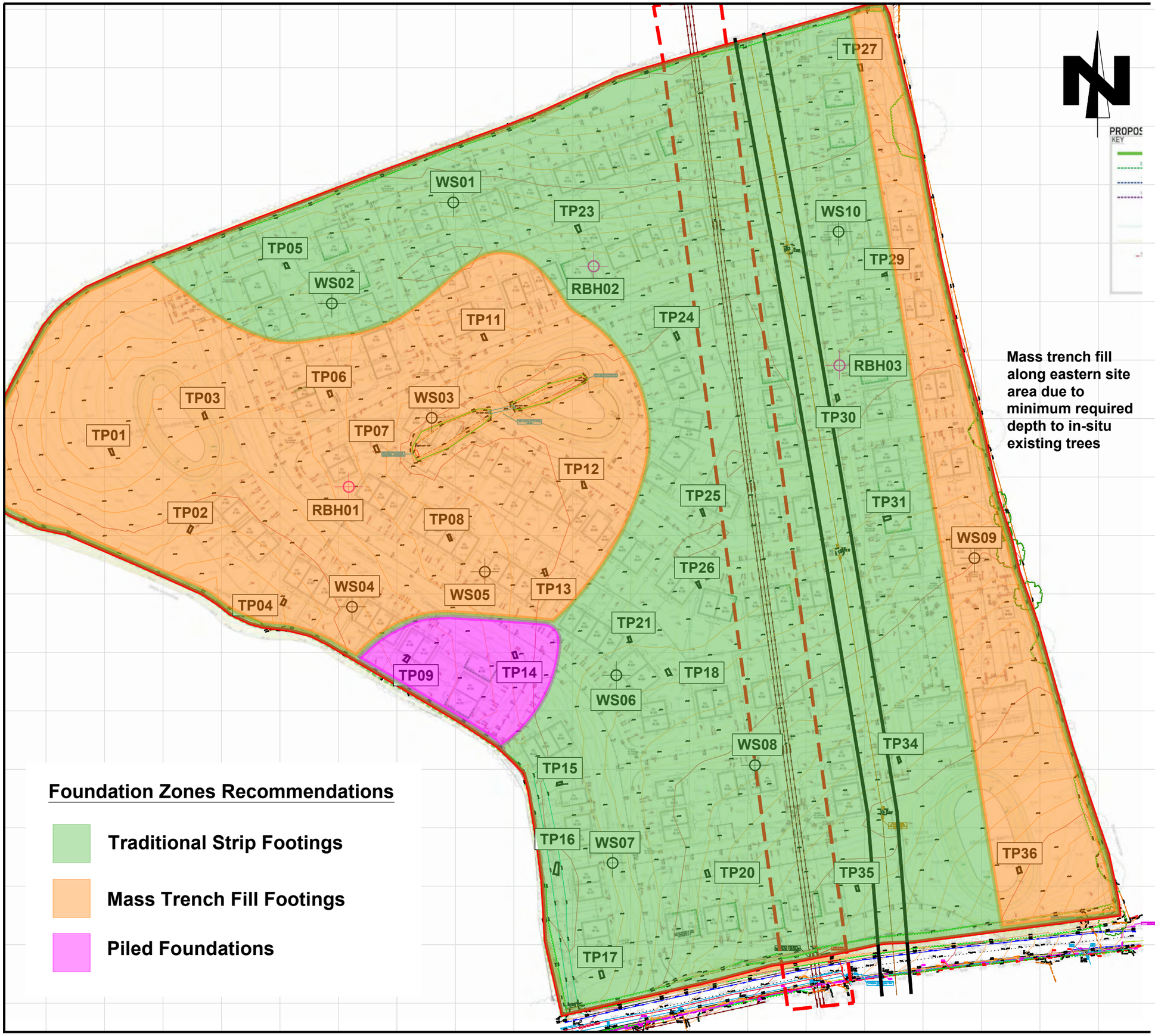
Client:
VISTRY WEST YORKSHIRE

Project Title:
Proposed Residential Development
Shaw Lane
Carlton

Drawing Title:
Foundation Zones Plan (Proposed Layout)

Scale at A3:	Date:	Drawn by:	Approved by:
NTS @ A3	24.06.26	P.D	S.D

Job Ref:	Drg no:	Rev:
25-899	–	–



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LEGEND

	APPROXIMATE SITE BOUNDARY
	WINDOWLESS SAMPLING BOREHOLE POSITION
	MECHANICALLY EXCAVATED TRIAL PIT POSITION
	ROTARY BOREHOLE LOCATION

rev.	date	amendments	drawn	chckd

Client:
VISTRY WEST YORKSHIRE

Project Title:
Proposed Residential Development
Shaw Lane
Carlton

Drawing Title:
Foundation Zones Plan (Proposed Layout)

Scale at A3:	Date:	Drawn by:	Approved by:
NTS @ A3	24.06.26	P.D	S.D

Job Ref:	Drg no:	Rev:
25-899	–	–

Water Pipe Screening and Assessment Sheet

Project Number: 25-899
Project Title: Shaw Lane, Carlton, Barnsley
Assessment: UKWIR (Guidance for the selection of water supply pipes to be used in Brownfield sites

Reference No.	Parameter Group	Screening Results		Pipe Material: PE	PVC	Barrier Pipe (PE-AL-PE)	Wrapped Steel	Wrapped Ductile Iron	Copper
1	Extended VOC suite with TIC	<0.001	mg/kg	0.5	0.125	PASS	PASS	PASS	PASS
1a	BTEX + MTBE	<0.02	mg/kg	0.1	0.03	PASS	PASS	PASS	PASS
2	SVOC's with TIC (including Aliphatic and Aromatic C5-C10)	<0.1	mg/kg	2	1.4	PASS	PASS	PASS	PASS
2e	Phenols	<0.1	mg/kg	2	0.4	PASS	PASS	PASS	PASS
2f	Cresols & Chlorinated Phenols	<0.01	mg/kg	2	0.04	PASS	PASS	PASS	PASS
3	Mineral Oil C10-C16	<6 - 7.6	mg/kg	10	PASS	PASS	PASS	PASS	PASS
4	Mineral Oil C16-C40	25.6 - 405	mg/kg	500	PASS	PASS	PASS	PASS	PASS
5	Corrosive - pH	7.1 - 9.1	~	PASS	PASS	PASS	<7	<5	<5 or >8
5	Corrosive - Conductivity	93 - 277	µs/cm	PASS	PASS	PASS	>400	>400	PASS
5	Corrosive - Redox	+203 to +371	mv	PASS	PASS	PASS	PASS	neutral (0)	positive value

Pipe Assesment

	PE	PVC	Barrier Pipe (PE-AL-PE)	Wrapped Steel	Wrapped Ductile Iron	Copper
Pipes that pass chemical thresholds	YES	YES	YES	NO	NO	NO