

## Intensive Lightweight Subsoil

Date Tested: 26 June 2025

Report ID: TOHA/25/1865/3/SS

Parameter	Unit	BS8601:2013	Result	Compliance
<b>Texture:</b>				
Clay (<0.002mm)	% w/w	<10	1	Yes
Silt (0.002 - 0.63mm)	% w/w		3	
Sand (0.05 - 2.0mm)	% w/w	90-100%	96	Yes
<b>Textual Class:</b>	<b>Sand</b>			
Stones (2 - 10mm) (Excluding LECA)	% w/w DW	0 - 10%	0	Yes
Stones (>10mm)	% w/w DW	0%	0	Yes
<b>Sand Fraction (USGA Sieve Sizes):</b>				
Very Fine Sand (0.05 - 0.15mm)	% w/w	0 - 5%	14	Yes
Fine Sand (0.15 - 0.25mm)	% w/w	5 - 15%	23	Yes
Medium Sand (0.25 - 0.50mm)	% w/w	45 - 70%	40	Yes
Coarse Sand (0.50 - 1.0mm)	% w/w	25 - 45%	17	Yes
Very Coarse Sand (1.0 - 2.0mm)	% w/w	0 - 5%	2	Yes
<b>Organic Matter (LOI)</b>	% w/w	<2.0	<0.5	Yes
<b>Ph</b>		5.0 - 8.5	8.0	Yes
<b>Exchangeable Sodium Percentage</b>	%	<15%	2.8	Yes
<b>Phytotoxic Contaminants:</b>				
Total Zinc	mg/kg	< 200	24	Yes
Total Copper	mg/kg	< 135	5	Yes
Total Nickel	mg/kg	< 75	9	Yes
<b>Calcium Carbonate</b>	% m/m	< 1	<1.0	Yes
<b>Additional Analysis:</b>				
Electrical Conductivity (1:2.5 water extract)	µS/cm	< 600	187	Yes
Electrical Conductivity (1:2 CaSO <sub>4</sub> extract)	µS/cm	< 3300	2160	Yes
Bulk Density as received	mg/m <sup>3</sup>	n/a	1.68	--
Bulk Density at Field Capacity	mg/m <sup>3</sup>	<1.6	1.87	Yes
Saturated Hydraulic Conductivity	mm/hr	> 200	249	Yes
<b>Visible Contaminants:</b>				
Plastics (>2.0mm)	% w/w	< 0.5	0	Yes
Sharps (>2.0mm)	% w/w	< 0.25	0	Yes

Parameter	Unit	Guidelines	Value	Result	Compliance
<b>Heavy Metals and Hydrocarbons</b>					
Total Antimony (Sb)	mg/kg	S4UL	<500	2	Yes
Total Arsenic (As)	mg/kg	S4UL	<37	12	Yes
Total Barium (Ba)	mg/kg	S4UL	<1300	8.5	Yes
Total Beryllium (Be)	mg/kg	S4UL	<1.7	0.29	Yes
Total Cadmium (Cd)	mg/kg	S4UL	<11	<0.2	Yes
Total Chromium III (Cr)	mg/kg	S4UL	<910	10	Yes
Hexavalent Chromium (Cr Vi)	mg/kg	S4UL	<6	<1.8	Yes
Total Cyanide (Cn)	mg/kg	Dutch Action Value (DAV)	<20	<1.0	Yes
Total Lead (Pb)	mg/kg	SP1010 (Defra Category 4)	<200	3	Yes
Total Mercury (Hg)	mg/kg	S4UL	<1.2	<0.3	Yes
Total (mono) Phenols	mg/kg	S4UL <sup>Λ</sup>	<550	<1.0	Yes
Total Selenium (Se)	mg/kg	S4UL	<250	<1.0	Yes
Total Vanadium (V)	mg/kg	S4UL	<410	25	Yes
Water Soluble Boron (B)	mg/kg	S4UL	<290	0.2	Yes
Water Soluble Sulphate (SO <sub>4</sub> )	g/l	BRE Special Digest 1:2005 (BRE)	<1.2	77	Yes

Acenaphthylene	mg/kg	S4UL <sup>Λ</sup>	<420	<0.05	Yes
Acenaphthene	mg/kg	S4UL <sup>Λ</sup>	<510	<0.05	Yes
Anthracene	mg/kg	S4UL <sup>Λ</sup>	<5400	<0.05	Yes
Benzo (a) Anthracene	mg/kg	S4UL <sup>Λ</sup>	<11	<0.05	Yes
Benzo (a) Pyrene	mg/kg	S4UL <sup>Λ</sup>	<2.7	<0.05	Yes
Benzo (b) Fluoranthene	mg/kg	S4UL <sup>Λ</sup>	<3.3	<0.05	Yes
Benzo (g,h,i) Perylene	mg/kg	S4UL <sup>Λ</sup>	<340	<0.05	Yes
Benzo (k) Fluoranthene	mg/kg	S4UL <sup>Λ</sup>	<93	<0.05	Yes
Chrysene	mg/kg	S4UL <sup>Λ</sup>	<22	<0.05	Yes
Dibenzo (a,h) Anthracene	mg/kg	S4UL <sup>Λ</sup>	<0.28	<0.05	Yes
Fluoranthene	mg/kg	S4UL <sup>Λ</sup>	<560	<0.05	Yes
Fluorene	mg/kg	S4UL <sup>Λ</sup>	<400	<0.05	Yes
Indeno (1,2,3-cd) Pyrene	mg/kg	S4UL <sup>Λ</sup>	<36	<0.05	Yes
Naphthalene	mg/kg	S4UL <sup>Λ</sup>	<5.6	<0.05	Yes
Phenanthrene	mg/kg	S4UL <sup>Λ</sup>	<220	<0.05	Yes
Pyrene	mg/kg	S4UL <sup>Λ</sup>	<1200	<0.05	Yes

Aliphatic TPH (C5 - C6)	mg/kg	S4UL <sup>Λ</sup>	<78	<0.010	Yes
Aliphatic TPH (C6 - C8)	mg/kg	S4UL <sup>Λ</sup>	<230	<0.010	Yes
Aliphatic TPH (C8 - C10)	mg/kg	S4UL <sup>Λ</sup>	<65	<0.010	Yes
Aliphatic TPH (C10 - C12)	mg/kg	S4UL <sup>Λ</sup>	<330	<1.0	Yes
Aliphatic TPH (C12 - C16)	mg/kg	S4UL <sup>Λ</sup>	<2400	<2.0	Yes
Aliphatic TPH (C16 - C21)	mg/kg	S4UL <sup>Λ</sup>	<92000	<8.0	Yes
Aliphatic TPH (C21 - C35)	mg/kg	S4UL <sup>Λ</sup>	<92000	<8.0	Yes
Aliphatic TPH (C5 - C35)	mg/kg	S4UL <sup>Λ</sup>	<92000	<10	Yes
Aromatic TPH (C5 - C7)	mg/kg	S4UL <sup>Λ</sup>	<140	<0.010	Yes
Aromatic TPH (C7 - C8)	mg/kg	S4UL <sup>Λ</sup>	<290	<0.010	Yes
Aromatic TPH (C8 - C10)	mg/kg	S4UL <sup>Λ</sup>	<83	<0.020	Yes
Aromatic TPH (C10 - C12)	mg/kg	S4UL <sup>Λ</sup>	<180	<1.0	Yes
Aromatic TPH (C12 - C16)	mg/kg	S4UL <sup>Λ</sup>	<330	<2.0	Yes
Aromatic TPH (C16 - C21)	mg/kg	S4UL <sup>Λ</sup>	<540	<10	Yes
Aromatic TPH (C21 - C35)	mg/kg	S4UL <sup>Λ</sup>	<1500	<10	Yes
Aromatic TPH (C5 - C35)	mg/kg	S4UL <sup>Λ</sup>	<1500	<10	Yes

Benzene	mg/kg	S4UL <sup>Λ</sup>	<0.17	<0.005	Yes
Toluene	mg/kg	S4UL <sup>Λ</sup>	<290	<0.005	Yes
Ethylbenzene	mg/kg	S4UL <sup>Λ</sup>	<110	<0.005	Yes
O-xylene	mg/kg	S4UL <sup>Λ</sup>	<140	<0.005	Yes
M-xylene	mg/kg	S4UL <sup>Λ</sup>	<140	<0.008	Yes
P-xylene	mg/kg	S4UL <sup>Λ</sup>	<130	<0.008	Yes
MTBE	mg/kg	Sail Guideline Values	<470	<0.005	Yes
Asbestos	mg/kg	Control of Asbestos Regulations 2006	Absent	Absent	Yes