



**Material:** GP10 Topsoil  
**Source:** Chertsey  
**Date:** 11/5/2017  
**Tested Against:** BS3882:2015 Multipurpose Grade  
**Tested By:** i2 Analytical 17-46771

<u>Parameter</u>	<u>Unit</u>	<u>BS3882:2015</u> <u>Multipurpose Range</u>	<u>Result</u>	<u>Compliance</u>
<i>Texture:</i>				
Clay (<0.002mm)	% w/w	5 - 30%	10	No
Silt (0.002 - 0.63mm)	% w/w	0 - 65%	13	Yes
Sand (0.05 - 2.0mm)	% w/w	20 - 90%	77	Yes
<i>Textual Class:</i>	<b>Loamy Sand</b>			
Stones (2 - 20mm)	% w/w DW	0 - 30%	20.00	Yes
Stones (20-50mm)	% w/w DW	0 - 10%	0	Yes
Stones (>50mm)	% w/w DW	0%	0	Yes
<i>Sand Fraction (USGA Sieve Sizes):</i>				
Very Fine Sand (0.05 - 0.15mm)	% w/w	n/a	16.2	n/a
Fine Sand (0.15 - 0.25mm)	% w/w	n/a	21.8	n/a
Medium Sand (0.25 - 0.50mm)	% w/w	n/a	20	n/a
Coarse Sand (0.50 - 1.0mm)	% w/w	n/a	8	n/a
Very Coarse Sand (1.0 - 2.0mm)	% w/w	n/a	8	n/a
Organic Matter (LOI)	% w/w	3.0 - 20.0	5.30	Yes
Ph		5.5 - 8.5	7.20	Yes
Exchangeable Sodium Percentage	%	< 15%	1.6	Yes
<i>Phytotoxic Contaminants:</i>				
Total Zinc	mg/kg	< 300	94	Yes
Total Copper	mg/kg	< 200	20.00	Yes
Total Nickel	mg/kg	< 110	9.50	Yes
<i>Available Nutrients:</i>				
Nitrogen	mg/l	>0.15	0.28	Yes
Phosphorus	mg/l	16 - 140	79	Yes
Potassium	mg/l	121 - 1500	1120	Yes
Magnesium	mg/l	51 - 600	210	Yes
Carbon:Nitrogen Ratio	:1	< 20:1	11:00	Yes
Calcium Carbonate	% m/m	<5	9	Yes
Available Sodium	mg/l	N/A	78	Yes
Available Calcium	mg/l	N/A	3200	Yes
Organic Carbon	% w/w	N/A	4.2	Yes
Total Carbon	% w/w	N/A	2.4	Yes
Neutralising Value as CaO equiv	% w/w	N/A	-	Yes
<i>Additional Analysis:</i>				
Electrical Conductivity (1:2.5 water extract)	µS/cm	1500	-	Yes



Electrical Conductivity (1:2 CaSO <sub>4</sub> extract)	µS/cm	3300	2600	Yes
<u>Parameter</u>	<u>Unit</u>	<u>BS3882:2015 Multipurpose Range</u>	<u>Result</u>	<u>Compliance</u>

			<i>Visible Contaminants:</i>	
Plastics (>2.0mm)	% w/w	< 0.5	0.0	Yes
Sharps (>2.0mm)	% w/w	< 0.25	0.0	Yes
Total Visible Contaminants	%	<0.25	0.0	Yes

<u>Parameter</u>	<u>Unit</u>	<u>Guidelines</u>	<u>Value</u>	<u>Result</u>	<u>Compliance</u>
<i>Heavy Metals and Metalloids</i>					
Total Arsenic (As)	mg/kg	Land Quality Management S4ULs 2015	<37	26	Yes
Total Barium (Ba)	mg/kg	Land Quality Management S4ULs 2015	<1300	56	Yes
Total Beryllium (Be)	mg/kg	Land Quality Management S4ULs 2015	<1.7	0.39	Yes
Total Cadmium (Cd)	mg/kg	Land Quality Management S4ULs 2015	<11	0.3	Yes
Total Chromium (Cr)	mg/kg	Land Quality Management S4ULs 2015	<910	20	Yes
Hexavalent Chromium (Cr Vi)	mg/kg	Land Quality Management S4ULs 2015	<6	<4.0	Yes
Total Lead (Pb)	mg/kg	DEFRA SP1010 Category 4 2014	<200	100	Yes
Total Mercury (Hg)	mg/kg	Land Quality Management S4ULs 2015	<1.2	0.5	Yes
Total Selenium (Se)	mg/kg	Land Quality Management S4ULs 2015	<250	<1.0	Yes
Total Vanadium (V)	mg/kg	Land Quality Management S4ULs 2015	<410	28	Yes
Water Soluble Boron (B)	mg/kg	Land Quality Management S4ULs 2015	<290	2.1	Yes
<i>General Inorganics</i>					
Total Cyanide (Cn)	mg/kg	Dutch Action Value (DAV)	<20	<1	Yes
Water Soluble Sulphate (SO <sub>4</sub> )	g/l	BRE Special Digest 1:2005 (BRE)	<1.2	0.225	Yes
Easily Liberated Sulphide	mg/kg	Bury Hill (BH)	<25	1.6	Yes
Elemental Sulphur	mg/kg	Bury Hill (BH)	<500	<5	Yes
<i>Total Phenols</i>					
Total (mono) Phenols	mg/kg	Land Quality Management S4ULs 2015	<550	<1.0	Yes
<i>Speciated PAHs</i>					
Acenaphthylene	mg/kg	Land Quality Management S4ULs 2015	<420	<0.05	Yes
Acenaphthene	mg/kg	Land Quality Management S4ULs 2015	<510	<0.05	Yes
Anthracene	mg/kg	Land Quality Management S4ULs 2015	<5400	<0.05	Yes
Benzo (a) Anthracene	mg/kg	Land Quality Management S4ULs 2015	<11	0.70	Yes
Benzo (a) Pyrene	mg/kg	Land Quality Management S4ULs 2015	<2.7	0.69	Yes
Benzo (b) Fluoranthene	mg/kg	Land Quality Management S4ULs 2015	<3.3	0.80	Yes
Benzo (g,h,i) Perylene	mg/kg	Land Quality Management S4ULs 2015	<340	0.49	Yes
Benzo (k) Fluoranthene	mg/kg	Land Quality Management S4ULs 2015	<93	0.42	Yes
Chrysene	mg/kg	Land Quality Management S4ULs 2015	<22	0.58	Yes
Dibenzo (a,h) Anthracene	mg/kg	Land Quality Management S4ULs 2015	<0.28	<0.05	Yes
Fluoranthene	mg/kg	Land Quality Management S4ULs 2015	<560	1.3	Yes
Fluorene	mg/kg	Land Quality Management S4ULs 2015	<400	<0.05	Yes



<i>Indeno (1,2,3-cd) Pyrene</i>	mg/kg	Land Quality Management S4ULs 2015	<36	0.38	Yes
<i>Naphthalene</i>	mg/kg	Land Quality Management S4ULs 2015	<5.6	<0.05	Yes
<i>Pyrene</i>	mg/kg	Land Quality Management S4ULs 2015	<1200	1.1	Yes
<i>Total PAH</i>					
<i>Total PAHs (sum SUEPA16)</i>	mg/kg	Bury Hill (BH)	<30	7.00	Yes
<b><u>Parameter</u></b>	<b><u>Unit</u></b>	<b><u>Guidelines</u></b>	<b><u>Value</u></b>	<b><u>Result</u></b>	<b><u>Compliance</u></b>
<i>Petroleum Hydrocarbons</i>					
<i>Aliphatic TPH (C5 – C6)</i>	mg/kg	Land Quality Management S4ULs 2015	<76	<0.001	Yes
<i>Aliphatic TPH (C6 – C8)</i>	mg/kg	Land Quality Management S4ULs 2015	<230	<0.001	Yes
<i>Aliphatic TPH (C8 – C10)</i>	mg/kg	Land Quality Management S4ULs 2015	<65	<0.001	Yes
<i>Aliphatic TPH (C10 – C12)</i>	mg/kg	Land Quality Management S4ULs 2015	<330	<1.0	Yes
<i>Aliphatic TPH (C12 – C16)</i>	mg/kg	Land Quality Management S4ULs 2015	<2400	<2.0	Yes
<i>Aliphatic TPH (C16 – C21)</i>	mg/kg	Land Quality Management S4ULs 2015	<46000	<8.0	Yes
<i>Aliphatic TPH (C21 – C35)</i>	mg/kg	Land Quality Management S4ULs 2015	<46000	<8.0	Yes
<i>Aliphatic TPH (C35 – C44)</i>	mg/kg	Land Quality Management S4ULs 2015	<92000	<8.4	Yes
<i>Total Aliphatic TPH (C5 – C35)</i>	mg/kg	Land Quality Management (2009)	<1100	<10	Yes
<i>Aromatic TPH (C5 – C7)</i>	mg/kg	Land Quality Management S4ULs 2015	<140	<0.001	Yes
<i>Aromatic TPH (C7 – C8)</i>	mg/kg	Land Quality Management S4ULs 2015	<290	<0.001	Yes
<i>Aromatic TPH (C8 – C10)</i>	mg/kg	Land Quality Management S4ULs 2015	<83	<0.001	Yes
<i>Aromatic TPH (C10 – C12)</i>	mg/kg	Land Quality Management S4ULs 2015	<180	1.3	Yes
<i>Aromatic TPH (C12 – C16)</i>	mg/kg	Land Quality Management S4ULs 2015	<230	3.0	Yes
<i>Aromatic TPH (C16 – C21)</i>	mg/kg	Land Quality Management S4ULs 2015	<540	<10	Yes
<i>Aromatic TPH (C21 – C35)</i>	mg/kg	Land Quality Management S4ULs 2015	<1500	16	Yes
<i>Aromatic TPH (C35 – C44)</i>	mg/kg	Land Quality Management S4ULs 2015	<1500	<8.4	Yes
<i>Aromatic TPH (C5 – C35)</i>	mg/kg	Land Quality Management (2009)	<1100	28	Yes
<i>Total TPH (C5 – C44)</i>	mg/kg	Bury Hill (BH)	<2200	<38	Yes
<i>Monoaromatics</i>					
<i>Benzene</i>	mg/kg	Land Quality Management S4ULs 2015	<0.17	<1.0	Yes
<i>Toluene</i>	mg/kg	Land Quality Management S4ULs 2015	<290	<1.0	Yes
<i>Ethylbenzene</i>	mg/kg	Land Quality Management S4ULs 2015	<110	<1.0	Yes
<i>O-xylene</i>	mg/kg	Land Quality Management S4ULs 2015	<140	<1.0	Yes
<i>M &amp; P-xylene</i>	mg/kg	Land Quality Management S4ULs 2015	<130	<1.0	Yes
<i>MTBE</i>	mg/kg	Land Quality Management S4ULs 2015	<470	<1.0	Yes
<i>Asbestos Screen</i>					
<i>Asbestos</i>	mg/kg	Control of Asbestos Regulations 2012	Absent	ABSENT	Yes
<i>Sample Details</i>					
<i>Stone Content</i>	%	Dry Weight % > 10mm by Gravimetric	N/A	<0.1	Yes
<i>Moisture Content</i>	%	Determined Gravimetrically	N/A	17	Yes
<i>Total Mass of Sample</i>	kg	Weight of Sample in KG	N/A	2.0	Yes
<i>Sample Description</i>	Brown sandy loam with gravel and vegetation.				Yes

Tested By i2 Analytical on 11/5/2017 – Original Copy Available on Request