Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

	Lab No	2073175	2073176	2073177	2073178	2073179	2073180
	.Sample ID	TP43	TP39	TP01	TP10	TP11	TP12
	Depth	0.10	1.50	2.00	0.60	0.60	0.60
	Other ID						
	Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampling Date	06/10/2022	05/10/2022	03/09/2022	03/09/2022	03/09/2022	03/09/2022
	Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Preparation							
Stones >10mm	DETSC 1003*	1	% m/m	< 1.0	22	< 1.0	< 1.0	39	24
Moisture Content	DETSC 1004	0.1	%	17	14	21	15	7.1	8.7
Metals							
Arsenic	DETSC 2301#	0.2	mg/kg	17	17	31	18	5.4	8.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.6	0.6	0.5	0.6	0.4	0.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	0.4	< 0.1	0.2	0.1	0.1
Chromium	DETSC 2301#	0.15	mg/kg	17	22	21	18	16	15
Chromium III	DETSC 2301*	0.15	mg/kg	17	22	21	18	16	15
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	37	72	28	35	20	36
Lead	DETSC 2301#	0.3	mg/kg	60	270	31	51	19	20
Mercury	DETSC 2325#	0.05	mg/kg	0.12	0.11	0.11	< 0.05	0.10	< 0.05
Nickel	DETSC 2301#	1	mg/kg	17	30	23	19	31	30
Selenium	DETSC 2301#	0.5	mg/kg	0.6	< 0.5	< 0.5	< 0.5	0.6	0.7
Vanadium	DETSC 2301#	0.8	mg/kg	30	41	46	33	20	20
Zinc	DETSC 2301#	1	mg/kg	85	250	49	87	92	83
Inorganics							
pH	DETSC 2008#		pH	6.5	7.7	7.3	6.8	7.4	6.9
Calorific Value	DETSC 5008	1	MJ/kg		3.2	< 1.0		< 1.0	
Total Organic Carbon	DETSC 2084#	0.5	%	6.2	9.5	2.3	6.9	1.1	4.2
Petroleum Hydrocarbons							
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C21-C35)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
PAHs							
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	0.04	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.06	0.17	< 0.03	0.03	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.10	0.31	< 0.03	0.05	< 0.03	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.08	0.29	< 0.03	0.04	< 0.03	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.03	0.13	< 0.03	< 0.03	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.06	0.20	< 0.03	0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.04	0.19	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.08	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	0.13	< 0.03	< 0.03	< 0.03	< 0.03

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

			Lab No	2073175	2073176	2073177	2073178	2073179	2073180
			.Sample ID	TP43	TP39	TP01	TP10	TP11	TP12
			Depth	0.10	1.50	2.00	0.60	0.60	0.60
			Other ID						
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date	06/10/2022	05/10/2022	03/09/2022	03/09/2022	03/09/2022	03/09/2022
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	0.06	< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	0.05	< 0.03	< 0.03	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.33	1.6	< 0.10	< 0.10	< 0.10	< 0.10

Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

				Lab No	2073181	2073182	2073183	2073184	2073185	2073186
				.Sample ID	TP33	TP02	TP04	TP22	TP26	TP29
				Depth	1.80	0.50	0.40	0.50	0.70	0.50
				Other ID						
				Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Sampling Date	05/10/2022	03/09/2022	03/09/2022	04/10/2022	04/10/2022	05/10/2022
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Preparation										
Stones >10mm	DETSC 1003*	1	% m/m	19	< 1.0	17	< 1.0	38	< 1.0
Moisture Content	DETSC 1004	0.1	%	11	17	9.1	8.5	9.5	14
Metals										
Arsenic	DETSC 2301#	0.2	mg/kg	6.1	9.8	5.4	12	11	11
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.5	0.6	0.3	0.2	0.3	0.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	< 0.1	0.1	< 0.1	0.1	0.1
Chromium	DETSC 2301#	0.15	mg/kg	16	16	14	15	16	16
Chromium III	DETSC 2301*	0.15	mg/kg	16	16	14	15	16	16
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	30	32	25	29	25	31
Lead	DETSC 2301#	0.3	mg/kg	21	28	20	15	19	44
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.06
Nickel	DETSC 2301#	1	mg/kg	31	20	25	28	27	18
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	0.8	< 0.5	< 0.5	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	22	24	18	20	19	30
Zinc	DETSC 2301#	1	mg/kg	99	73	75	75	85	81
Inorganics										
pH	DETSC 2008#		pH	6.6	5.3	6.6	6.2	7.2	6.9
Calorific Value	DETSC 5008	1	MJ/kg	< 1.0	1.0		< 1.0		
Total Organic Carbon	DETSC 2084#	0.5	%	1.0	4.5	1.2	1.7	1.3	3.1
Petroleum Hydrocarbons										
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C21-C35)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
PAHs										
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.08	< 0.03	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.20	0.04	0.06	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.18	0.03	0.05	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.08	< 0.03	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	0.13	< 0.03	0.04	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.12	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.09	< 0.03	< 0.03	< 0.03

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Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

			Lab No	2073181	2073182	2073183	2073184	2073185	2073186
			.Sample ID	TP33	TP02	TP04	TP22	TP26	TP29
			Depth	1.80	0.50	0.40	0.50	0.70	0.50
			Other ID						
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date	05/10/2022	03/09/2022	03/09/2022	04/10/2022	04/10/2022	05/10/2022
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.05	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.05	< 0.03	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10	< 0.10	1.0	< 0.10	0.15	< 0.10

Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

				Lab No	2073187	2073188	2073189	2073190	2073191	2073192
				.Sample ID	TP32	TP34	TP36	TP42	TP44	TP46
				Depth	0.80	0.50	0.70	2.00	0.50	1.80
				Other ID						
				Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Sampling Date	05/10/2022	05/10/2022	05/10/2022	05/10/2022	06/10/2022	06/10/2022
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Preparation										
Stones >10mm	DETSC 1003*	1	% m/m	11	15	< 1.0	18	< 1.0	< 1.0
Moisture Content	DETSC 1004	0.1	%	11	11	9.8	9.9	11	11
Metals										
Arsenic	DETSC 2301#	0.2	mg/kg	10	7.7	6.4	6.6	7.9	6.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.3	0.3	0.2	0.2	0.3	0.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.1	0.1	0.2	< 0.1	< 0.1	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	16	15	15	16	15	15
Chromium III	DETSC 2301*	0.15	mg/kg	16	15	15	16	15	15
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	31	28	27	31	28	29
Lead	DETSC 2301#	0.3	mg/kg	34	24	28	17	20	16
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	DETSC 2301#	1	mg/kg	27	27	31	32	28	31
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	0.7	< 0.5	0.7	0.6
Vanadium	DETSC 2301#	0.8	mg/kg	26	20	19	20	21	18
Zinc	DETSC 2301#	1	mg/kg	83	88	120	91	87	84
Inorganics										
pH	DETSC 2008#		pH	7.0	6.8	6.3	6.9	6.6	6.8
Calorific Value	DETSC 5008	1	MJ/kg						
Total Organic Carbon	DETSC 2084#	0.5	%	3.9	3.6	2.0	2.6	3.6	1.8
Petroleum Hydrocarbons										
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C21-C35)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
PAHs										
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.04	0.04	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.07	0.07	< 0.03	< 0.03	< 0.03	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.05	0.06	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.04	0.04	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03

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Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

			Lab No	2073187	2073188	2073189	2073190	2073191	2073192
			.Sample ID	TP32	TP34	TP36	TP42	TP44	TP46
			Depth	0.80	0.50	0.70	2.00	0.50	1.80
			Other ID						
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date	05/10/2022	05/10/2022	05/10/2022	05/10/2022	06/10/2022	06/10/2022
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.20	0.21	< 0.10	< 0.10	< 0.10	< 0.10

Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

				Lab No	2073193	2073194	2073195	2073196	2073197	2073198
				.Sample ID	TP07	TP19	TP20	TP24	TP25	TP27
				Depth	0.50	0.60	0.60	0.50	0.60	0.50
				Other ID						
				Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Sampling Date	03/09/2022	04/09/2022	04/10/2022	05/10/2022	04/10/2022	04/10/2022
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Preparation										
Stones >10mm	DETSC 1003*	1	% m/m	42	21	11	10	< 1.0	14
Moisture Content	DETSC 1004	0.1	%	7.1	7.9	7.1	14	14	9.1
Metals										
Arsenic	DETSC 2301#	0.2	mg/kg	6.0	6.2	10	12	15	6.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.3	0.3	0.3	0.5	0.5	0.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.1	0.1	< 0.1	0.1	0.2	0.2
Chromium	DETSC 2301#	0.15	mg/kg	15	16	15	16	17	15
Chromium III	DETSC 2301*	0.15	mg/kg	15	16	15	16	17	15
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	26	28	29	31	37	28
Lead	DETSC 2301#	0.3	mg/kg	19	19	15	40	44	21
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05	0.05	0.06	0.09	< 0.05
Nickel	DETSC 2301#	1	mg/kg	27	29	30	19	19	29
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6	0.9	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	19	19	19	28	28	21
Zinc	DETSC 2301#	1	mg/kg	85	89	72	78	79	90
Inorganics										
pH	DETSC 2008#		pH	6.8	7.1	7.6	6.6	6.2	7.0
Calorific Value	DETSC 5008	1	MJ/kg	< 1.0			< 1.0		
Total Organic Carbon	DETSC 2084#	0.5	%	2.4	1.2	0.8	3.6	5.8	2.4
Petroleum Hydrocarbons										
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C21-C35)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	42	< 10
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10	< 10	< 10	48	< 10
PAHs										
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.08	< 0.03	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.18	< 0.03	0.05	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.16	< 0.03	0.04	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.06	< 0.03	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	0.12	< 0.03	0.04	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.10	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.04	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.07	< 0.03	< 0.03	< 0.03

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

			Lab No	2073193	2073194	2073195	2073196	2073197	2073198
			.Sample ID	TP07	TP19	TP20	TP24	TP25	TP27
			Depth	0.50	0.60	0.60	0.50	0.60	0.50
			Other ID						
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date	03/09/2022	04/09/2022	04/10/2022	05/10/2022	04/10/2022	04/10/2022
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.03	< 0.03	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10	< 0.10	0.85	< 0.10	0.13	< 0.10

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

	Lab No	2073199	2073200	2073201
	.Sample ID	TP37	TP38	TP40
	Depth	0.50	0.60	1.50
	Other ID			
	Sample Type	SOIL	SOIL	SOIL
	Sampling Date	05/10/2022	05/10/2022	05/10/2022
	Sampling Time	n/s	n/s	n/s

Test	Method	LOD	Units			
Preparation						
Stones >10mm	DETSC 1003*	1	% m/m	22	26	15
Moisture Content	DETSC 1004	0.1	%	8.1	7.3	10
Metals						
Arsenic	DETSC 2301#	0.2	mg/kg	6.4	6.4	4.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.2	0.3	< 0.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	< 0.1	0.1
Chromium	DETSC 2301#	0.15	mg/kg	14	15	16
Chromium III	DETSC 2301*	0.15	mg/kg	14	15	16
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	28	34	26
Lead	DETSC 2301#	0.3	mg/kg	21	21	24
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Nickel	DETSC 2301#	1	mg/kg	26	30	28
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	18	20	18
Zinc	DETSC 2301#	1	mg/kg	91	82	82
Inorganics						
pH	DETSC 2008#		pH	7.7	7.0	8.4
Calorific Value	DETSC 5008	1	MJ/kg			
Total Organic Carbon	DETSC 2084#	0.5	%	1.3	1.1	1.4
Petroleum Hydrocarbons						
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10	< 10
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10	< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg	< 10	< 10	< 10
EPH (C21-C35)	DETSC 3311	10	mg/kg	< 10	< 10	< 10
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10	< 10
PAHs						
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

	Lab No	2073199	2073200	2073201
	.Sample ID	TP37	TP38	TP40
	Depth	0.50	0.60	1.50
	Other ID			
	Sample Type	SOIL	SOIL	SOIL
	Sampling Date	05/10/2022	05/10/2022	05/10/2022
	Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**	
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10	< 0.10	< 0.10

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Asbestos Analysis
Soil Samples

Our Ref 22-20961
Client Ref 4454
Contract Title Pogmoor Land

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2073163	TP13 0.10	SOIL	NAD	none	Steven Lambert
2073164	TP15 0.10	SOIL	NAD	none	Steven Lambert
2073165	TP17 0.10	SOIL	NAD	none	Steven Lambert
2073166	TP03 0.10	SOIL	NAD	none	Steven Lambert
2073167	TP06 0.10	SOIL	NAD	none	Steven Lambert
2073168	TP19 0.10	SOIL	NAD	none	Steven Lambert
2073169	TP22 0.10	SOIL	NAD	none	Steven Lambert
2073170	TP26 0.10	SOIL	NAD	none	Steven Lambert
2073171	TP28 0.10	SOIL	NAD	none	Steven Lambert
2073172	TP30 0.10	SOIL	NAD	none	Steven Lambert
2073173	TP37 0.10	SOIL	NAD	none	Steven Lambert
2073174	TP40 0.10	SOIL	NAD	none	Steven Lambert
2073175	TP43 0.10	SOIL	NAD	none	Steven Lambert
2073176	TP39 1.50	SOIL	NAD	none	Steven Lambert
2073177	TP01 2.00	SOIL	NAD	none	Steven Lambert
2073178	TP10 0.60	SOIL	NAD	none	Steven Lambert
2073179	TP11 0.60	SOIL	NAD	none	Steven Lambert
2073180	TP12 0.60	SOIL	NAD	none	Steven Lambert
2073181	TP33 1.80	SOIL	NAD	none	Steven Lambert
2073182	TP02 0.50	SOIL	NAD	none	Steven Lambert
2073183	TP04 0.40	SOIL	NAD	none	Steven Lambert
2073184	TP22 0.50	SOIL	NAD	none	Steven Lambert
2073185	TP26 0.70	SOIL	NAD	none	Steven Lambert
2073186	TP29 0.50	SOIL	NAD	none	Steven Lambert
2073187	TP32 0.80	SOIL	NAD	none	Steven Lambert
2073188	TP34 0.50	SOIL	NAD	none	Steven Lambert
2073189	TP36 0.70	SOIL	NAD	none	Steven Lambert
2073190	TP42 2.00	SOIL	NAD	none	Steven Lambert
2073191	TP44 0.50	SOIL	NAD	none	Steven Lambert
2073192	TP46 1.80	SOIL	NAD	none	Steven Lambert
2073193	TP07 0.50	SOIL	NAD	none	Steven Lambert
2073194	TP19 0.60	SOIL	NAD	none	Steven Lambert
2073195	TP20 0.60	SOIL	NAD	none	Steven Lambert
2073196	TP24 0.50	SOIL	NAD	none	Steven Lambert
2073197	TP25 0.60	SOIL	NAD	none	Steven Lambert
2073198	TP27 0.50	SOIL	NAD	none	Steven Lambert
2073199	TP37 0.50	SOIL	NAD	none	Steven Lambert
2073200	TP38 0.60	SOIL	NAD	none	Steven Lambert
2073201	TP40 1.50	SOIL	NAD	none	Steven Lambert

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * - not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 22-20961
Client Ref 4454
Contract Pogmoor Land

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2073163	TP13 0.10 SOIL	04/09/22	GJ 250ml, GJ 60ml, PT 1L	Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days)	
2073164	TP15 0.10 SOIL	04/09/22	GJ 250ml, GJ 60ml, PT 1L	Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days)	
2073165	TP17 0.10 SOIL	04/09/22	GJ 250ml, GJ 60ml, PT 1L	Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days)	
2073166	TP03 0.10 SOIL	03/09/22	GJ 250ml x2, GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	
2073167	TP06 0.10 SOIL	03/09/22	GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	
2073168	TP19 0.10 SOIL	04/09/22	GJ 250ml, GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	
2073169	TP22 0.10 SOIL	04/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073170	TP26 0.10 SOIL	04/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073171	TP28 0.10 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073172	TP30 0.10 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073173	TP37 0.10 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073174	TP40 0.10 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073175	TP43 0.10 SOIL	06/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073176	TP39 1.50 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073177	TP01 2.00 SOIL	03/09/22	GJ 250ml, GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	
2073178	TP10 0.60 SOIL	03/09/22	GJ 250ml	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	
2073179	TP11 0.60 SOIL	03/09/22	GJ 250ml, GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	
2073180	TP12 0.60 SOIL	03/09/22	GJ 250ml, GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	
2073181	TP33 1.80 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073182	TP02 0.50 SOIL	03/09/22	GJ 250ml, GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	
2073183	TP04 0.40 SOIL	03/09/22	GJ 250ml, GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	

Information in Support of the Analytical Results

Our Ref 22-20961
Client Ref 4454
Contract Pogmoor Land

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2073184	TP22 0.50 SOIL	04/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073185	TP26 0.70 SOIL	04/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073186	TP29 0.50 SOIL	05/10/22	GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073187	TP32 0.80 SOIL	05/10/22	GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073188	TP34 0.50 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073189	TP36 0.70 SOIL	05/10/22	GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073190	TP42 2.00 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073191	TP44 0.50 SOIL	06/10/22	GJ 250ml, GJ 60ml	pH + Conductivity (7 days)	
2073192	TP46 1.80 SOIL	06/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073193	TP07 0.50 SOIL	03/09/22	GJ 250ml, GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH (TPH (14 days)	
2073194	TP19 0.60 SOIL	04/09/22	GJ 250ml, GJ 60ml, PT 1L	BTEX (14 days), Mercury (28 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Auto) (28 days), PAH MS (14 days), pH + Conductivity (7 days), EPH (TPH (14 days)	
2073195	TP20 0.60 SOIL	04/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073196	TP24 0.50 SOIL	05/10/22	GJ 250ml	pH + Conductivity (7 days)	
2073197	TP25 0.60 SOIL	04/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073198	TP27 0.50 SOIL	04/10/22	GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073199	TP37 0.50 SOIL	05/10/22	GJ 250ml, PT 1L	pH + Conductivity (7 days)	
2073200	TP38 0.60 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	
2073201	TP40 1.50 SOIL	05/10/22	GJ 250ml, GJ 60ml, PT 1L	pH + Conductivity (7 days)	

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

Appendix L

Geotechnical Test Results

LABORATORY REPORT

4043

Contract Number: PSL22/6704

Report Date: 15 November 2022

Client's Reference: 4454

Client Name: Lithos Consulting
Parkhill
Walton Road
Wetherby
North Yorkshire
LS22 5DZ

For the attention of: George Morton/Emily Tweed

Contract Title: Pogmoor Land

Date Received: 18/10/2022
Date Commenced: 18/10/2022
Date Completed: 15/11/2022

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 (Director)

R Berriman (Quality Manager)

S Royle (Laboratory Manager)

L Knight (Assistant Laboratory Manager)

S Eyre (Senior Technician)

T Watkins (Senior Technician)

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH10	2	U	1.00		Stiff brown very gravelly sandy CLAY.
BH10	8	U	4.00		Brown very gravelly sandy CLAY.
BH02	2	U	1.00		Brown very gravelly sandy CLAY.
BH03	4	U	2.00		Brown very gravelly sandy CLAY.
BH03	8	U	4.00		Stiff dark grey mottled brown very gravelly very sandy CLAY.
BH04	2	U	1.00		Brown very gravelly sandy CLAY.
BH05	3	U	2.00		Stiff brown very gravelly sandy CLAY.
BH06	3	U	1.00		Brown very gravelly sandy CLAY.
BH06	9	U	5.00		Brown very gravelly sandy CLAY.
BH07	2	U	1.00		Firm brown gravelly sandy CLAY.
BH08	4	U	2.00		Brown very gravelly sandy CLAY.
BH08	10	U	6.50		Stiff brown very gravelly sandy CLAY.
BH09	3	U	1.00		Brown very gravelly sandy CLAY.
BH09	8	U	4.00		Stiff brown gravelly sandy CLAY.
TP04	3	D	0.50		Brown gravelly sandy CLAY.
TP06	3	D	0.70		Brown gravelly sandy CLAY.
TP25	3	D	2.20		Brown gravelly sandy CLAY.
TP32	3	D	0.90		Brown gravelly sandy CLAY.
TP35	2	D	0.70		Brown gravelly sandy CLAY.

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP17	2	D	0.90		Brown mottled grey slightly sandy CLAY.
TP18	1	D	0.50		Brown mottled grey slightly sandy CLAY.
TP29	3	D	0.90		Brown gravelly sandy CLAY.
TP30	2	D	0.50		Brown mottled grey sandy CLAY.
TP34	3	D	2.00		Brown mottled grey sandy CLAY.
TP41	2	D	2.00		Brown mottled grey sandy CLAY.
TP44	2	D	1.80		Brown mottled grey sandy CLAY.
TP01	4	D&B	1.90		Reddish brown very sandy clayey silty GRAVEL.
TP10	2	D&B	0.70		Reddish brown sandy clayey silty GRAVEL with many cobbles.
TP33	5	D&B	2.00		Reddish brown sandy clayey silty GRAVEL with many cobbles.
TP13	3	D&B	1.50		Brown sandy clayey GRAVEL with many cobbles.
TP16	3	D&B	2.50		Brown MUDSTONE.
TP18	3	D&B	3.00		Brown MUDSTONE.
TP44	3	D&B	2.20		Brown MUDSTONE.
TP26	3	D&B	1.00		Brown gravelly sandy CLAY.
TP42	4	D&B	3.00		Dark grey highly weathered MUDSTONE.
TP10	3	D&B	1.20		Brown mottled grey slightly gravelly sandy CLAY.
TP15	2	D&B	0.60		Brown mottled grey slightly gravelly sandy CLAY.
TP16	2	D&B	1.00		Brown mottled grey slightly gravelly sandy CLAY.

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP07	2	D&B	0.70		Brown MUDSTONE.
TP08	4	D&B	1.90		Brown MUDSTONE.
TP20	2	D&B	0.50		Grey MUDSTONE.
TP27	3	D&B	0.80		Brown very gravelly very sandy CLAY.
TP01	1	D&B	0.10		Brown TOPSOIL.
TP23	1	D&B	0.10		Brown TOPSOIL.
TP36	1	D&B	0.10		Brown TOPSOIL.
TP14	1	D&B	0.10		Brown TOPSOIL.
BH09	17	B	9.00		Dark grey COLLIERY TAILINGS.
BH09	14	D	8.00		Brown highly weathered MUDSTONE.
BH10	13	D	9.50		Brown highly weathered MUDSTONE.
BH10	14	D	11.00		Brown sandy slightly clayey GRAVEL.

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
BH10	2	U	1.00		12							
BH10	8	U	4.00		15			37	19	18	62	Intermediate Plasticity CI
BH02	2	U	1.00		13							
BH03	4	U	2.00		16							
BH03	8	U	4.00		9.7			35	18	17	67	Intermediate Plasticity CI
BH04	2	U	1.00		19							
BH05	3	U	2.00		12							
BH06	3	U	1.00		15							
BH06	9	U	5.00		13			34	17	17	58	Low Plasticity CL
BH07	2	U	1.00		21							
BH08	4	U	2.00		12							
BH08	10	U	6.50		14			38	19	19	61	Intermediate Plasticity CI
BH09	3	U	1.00		5.6							
BH09	8	U	4.00		13							
TP04	3	D	0.50		14			48	24	24	84	Intermediate Plasticity CI
TP06	3	D	0.70		15			49	24	25	82	Intermediate Plasticity CI
TP25	3	D	2.20		13			41	20	21	78	Intermediate Plasticity CI
TP32	3	D	0.90		13			43	21	22	94	Intermediate Plasticity CI
TP35	2	D	0.70		12			42	21	21	81	Intermediate Plasticity CI

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL Professional Soils Laboratory

Pogmoor Land

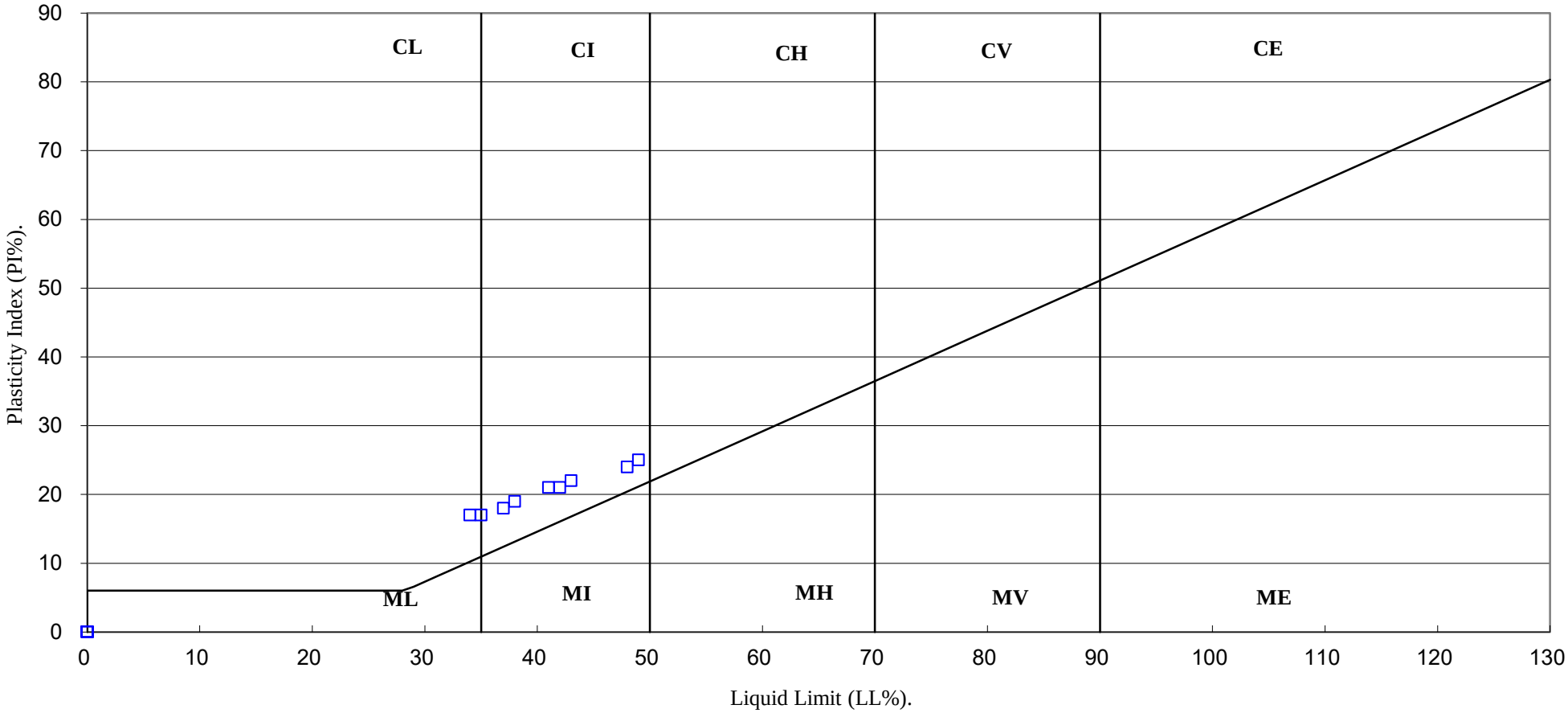
Contract No:

PSL22/6704

Client Ref:

4454

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP17	2	D	0.90		24			55	26	29	100	High Plasticity CH
TP18	1	D	0.50		18			53	26	27	100	High Plasticity CH
TP29	3	D	0.90		13			46	22	24	81	Intermediate Plasticity CI
TP30	2	D	0.50		15			39	20	19	100	Intermediate Plasticity CI
TP34	3	D	2.00		20			44	23	21	100	Intermediate Plasticity CI
TP41	2	D	2.00		17			42	22	20	100	Intermediate Plasticity CI
TP44	2	D	1.80		19			47	24	23	100	Intermediate Plasticity CI
TP01	4	D&B	1.90		19							
TP10	2	D&B	0.70		11							
TP33	5	D&B	2.00		13							
TP13	3	D&B	1.50		8.3							
TP16	3	D&B	2.50		11							
TP18	3	D&B	3.00		9.0							
TP44	3	D&B	2.20		6.7							
TP26	3	D&B	1.00		18			42	21	21	79	Intermediate Plasticity CI
TP42	4	D&B	3.00		15			50	25	25	37	High Plasticity CH
TP10	3	D&B	1.20		19			49	24	25	85	Intermediate Plasticity CI
TP15	2	D&B	0.60		14			46	22	24	86	Intermediate Plasticity CI
TP16	2	D&B	1.00		16			48	24	24	91	Intermediate Plasticity CI

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL Professional Soils Laboratory

Pogmoor Land

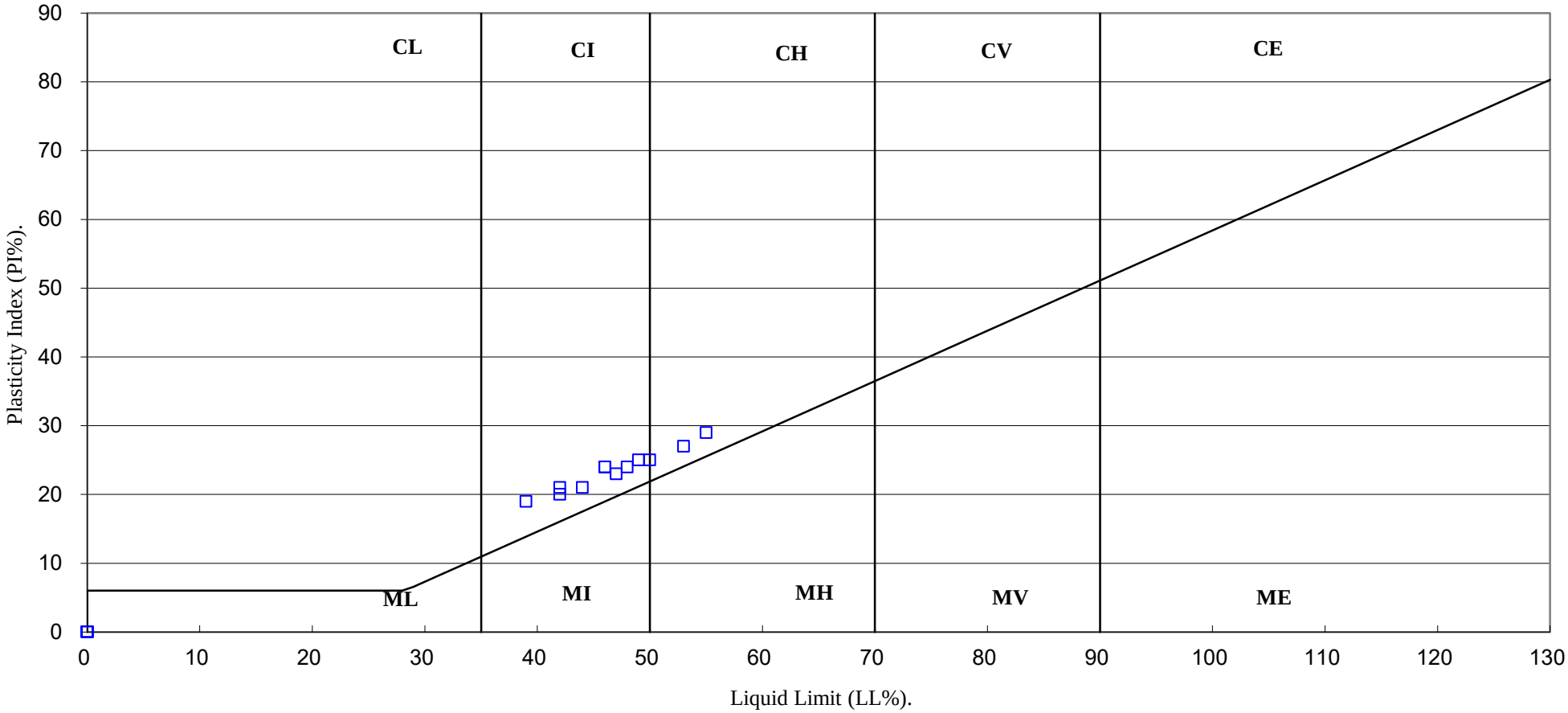
Contract No:

PSL22/6704

Client Ref:

4454

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:**
			PSL22/6704
			Client Ref:
			4454

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP07	2	D&B	0.70		14							
TP08	4	D&B	1.90		12							
TP20	2	D&B	0.50		8.8							
TP27	3	D&B	0.80		13							
BH09	17	B	9.00		29							
BH09	14	D	8.00		6.7			29	16	13	70	Low Plasticity CL
BH10	13	D	9.50		7.1			31	17	14	61	Low Plasticity CL
BH10	14	D	11.00		5.5				NP			

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

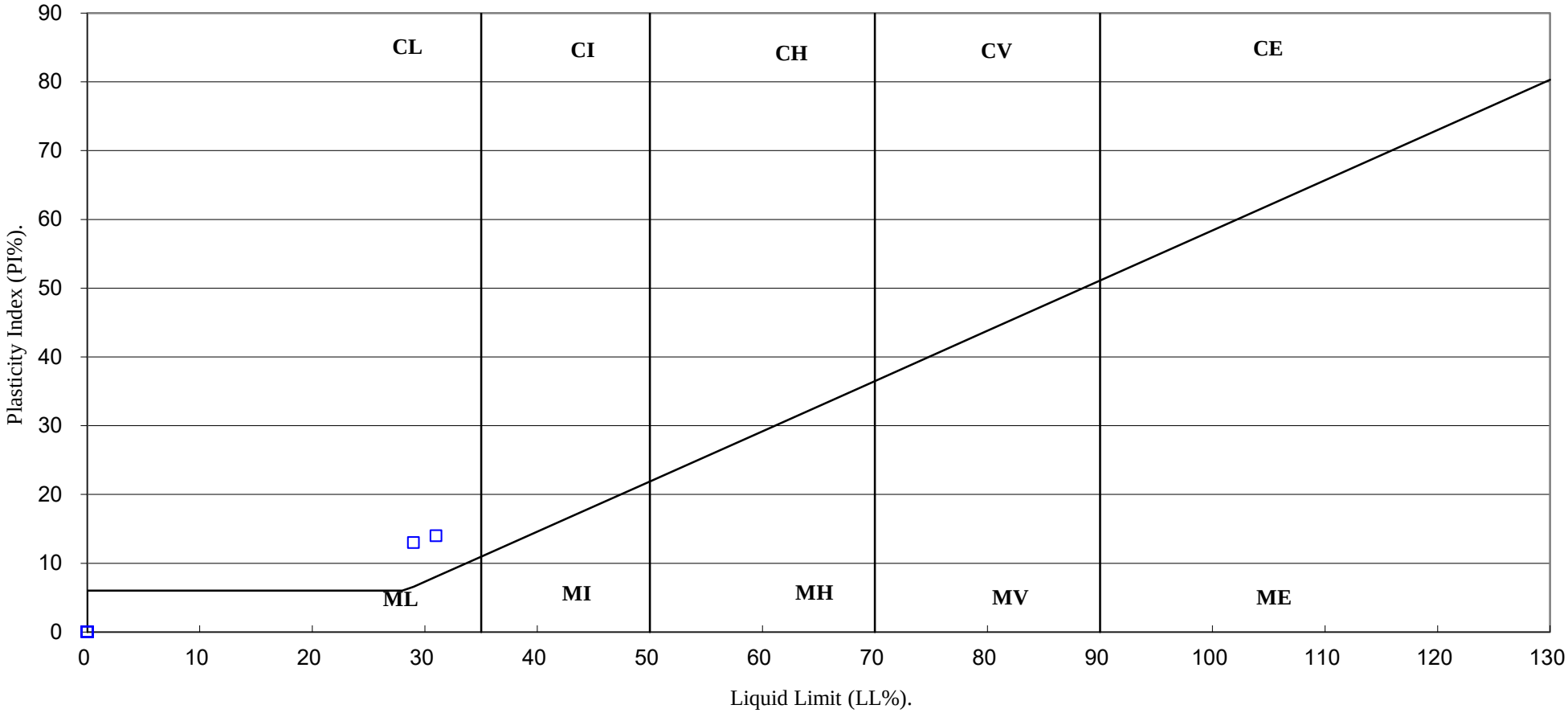
PSL Professional Soils Laboratory

Pogmoor Land

Contract No: PSL22/6704

Client Ref: 4454

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

SUMMARY OF SOIL DENSITY RELATED TESTS

(BS1377 : PART 2 & 4 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Bulk Density Mg/m^3	Dry Density Mg/m^3	Retained 20mm %	Retained 37.5mm %	Method of compaction kg	Maximum Dry Density Mg/m^3	Minimum Dry Density Mg/m^3	Remarks
TP01	4	D&B	1.90		19	1.94	1.63						
TP10	2	D&B	0.70		11	2.18	1.96						
TP33	5	D&B	2.00		13	2.19	1.94						
TP13	3	D&B	1.50		8.3	2.10	1.94						
TP16	3	D&B	2.50		11	2.19	1.97						
TP18	3	D&B	3.00		9.0	2.21	2.03						
TP44	3	D&B	2.20		6.7	2.05	1.92						
TP26	3	D&B	1.00		19	1.99	1.67						
TP42	4	D&B	3.00		15	2.01	1.75						
TP10	3	D&B	1.20		19	2.08	1.75						
TP15	2	D&B	0.60		14	2.12	1.86						
TP07	2	D&B	0.70		14	2.11	1.85						
TP08	4	D&B	1.90		12	2.22	1.98						
TP20	2	D&B	0.50		8.8	2.15	1.98						
TP27	3	D&B	0.80		13	2.12	1.88						
BH09	17	B	9.00		29	1.68	1.30						

PARTICLE SIZE DISTRIBUTION TEST

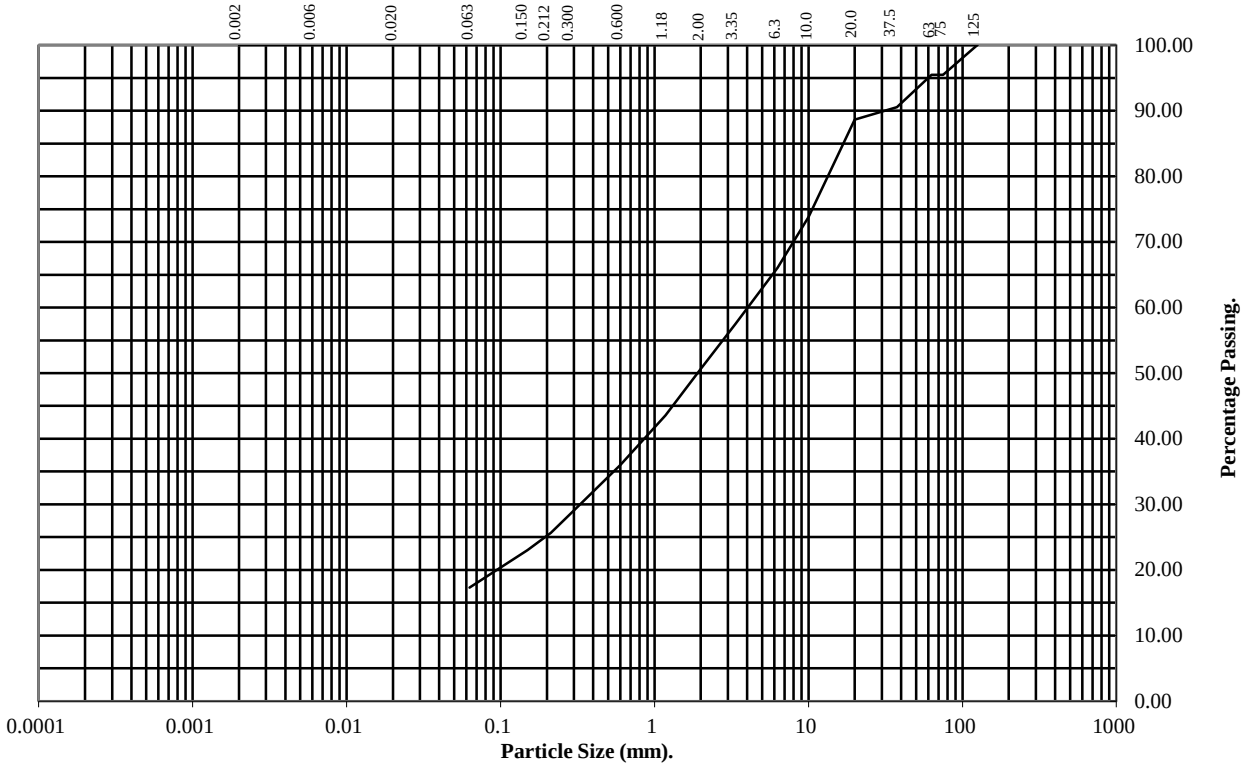
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP01** **Top Depth (m):** **1.90**

Sample Number: **4** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	95
63	95
37.5	91
20	89
10	74
6.3	66
3.35	57
2	51
1.18	44
0.6	36
0.3	29
0.212	26
0.15	23
0.063	17

Soil Fraction	Total Percentage
Cobbles	5
Gravel	44
Sand	34
Silt/Clay	17

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

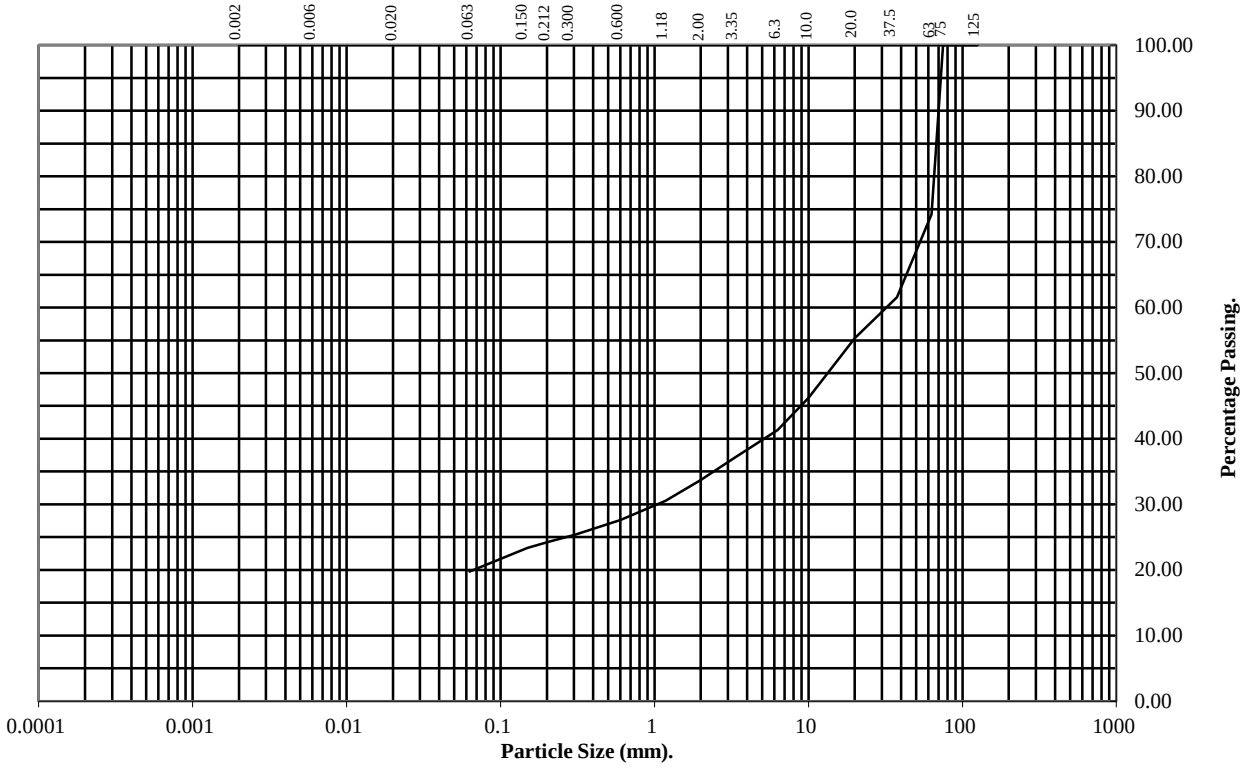
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP10** **Top Depth (m):** **0.70**

Sample Number: **2** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	74
37.5	62
20	55
10	46
6.3	41
3.35	37
2	34
1.18	31
0.6	28
0.3	25
0.212	24
0.15	23
0.063	20

Soil Fraction	Total Percentage
Cobbles	26
Gravel	40
Sand	14
Silt/Clay	20

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

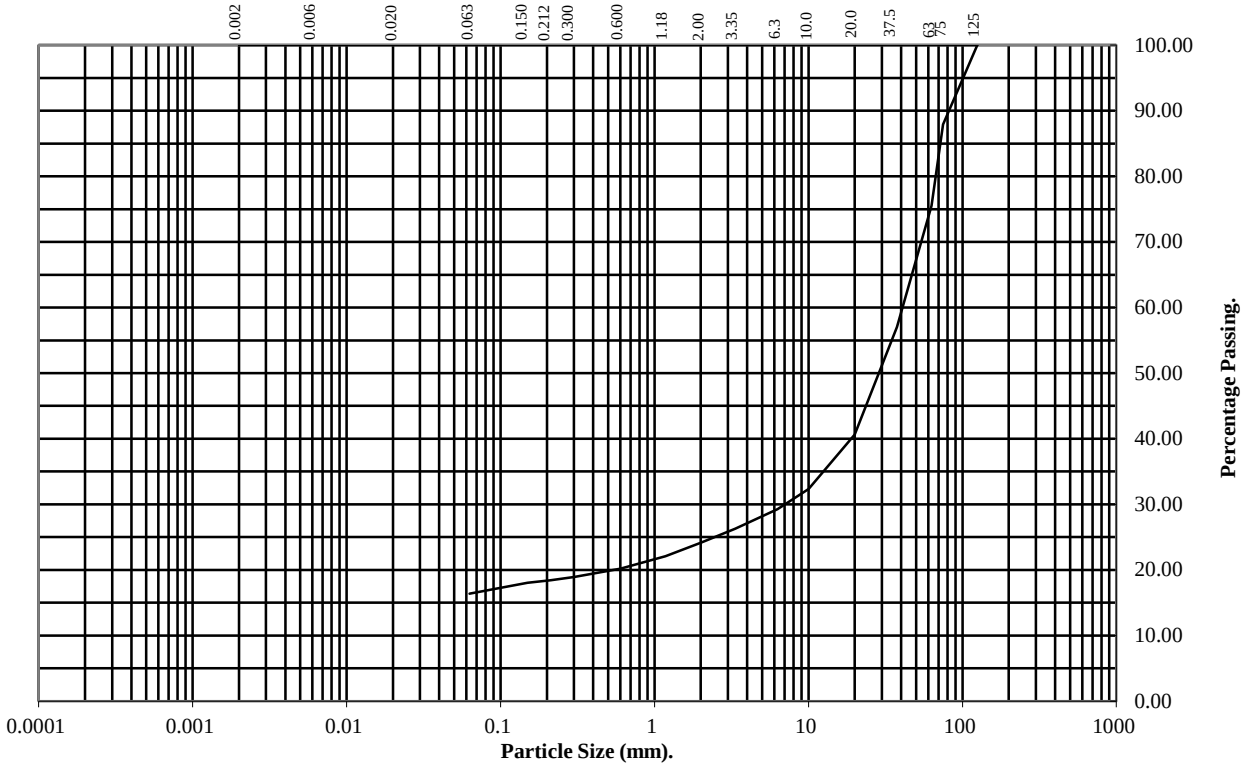
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP33** **Top Depth (m):** **2.00**

Sample Number: **5** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	88
63	76
37.5	57
20	41
10	32
6.3	29
3.35	26
2	24
1.18	22
0.6	20
0.3	19
0.212	18
0.15	18
0.063	16

Soil Fraction	Total Percentage
Cobbles	24
Gravel	52
Sand	8
Silt/Clay	16

Remarks:

See Summary of Soil Descriptions

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

PARTICLE SIZE DISTRIBUTION TEST

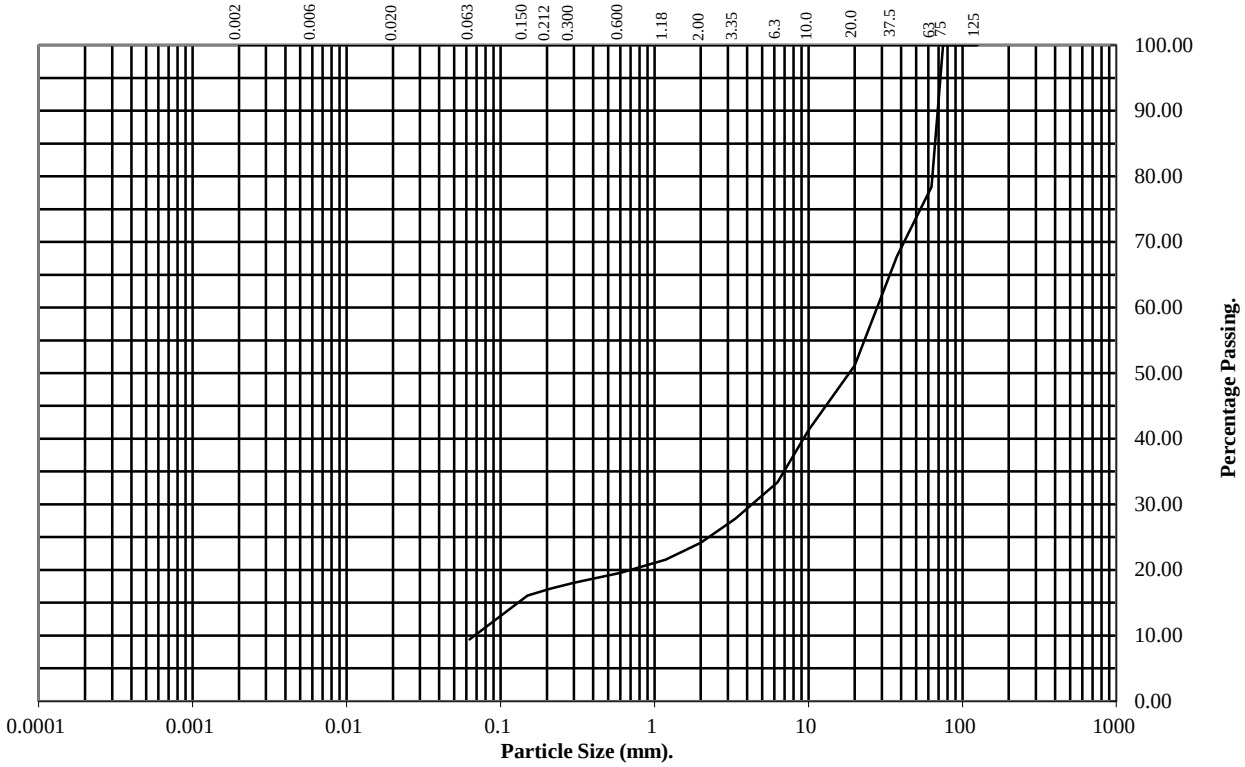
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP13** **Top Depth (m):** **1.50**

Sample Number: **3** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	78
37.5	68
20	51
10	41
6.3	33
3.35	28
2	24
1.18	22
0.6	20
0.3	18
0.212	17
0.15	16
0.063	9

Soil Fraction	Total Percentage
Cobbles	22
Gravel	54
Sand	15
Silt/Clay	9

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

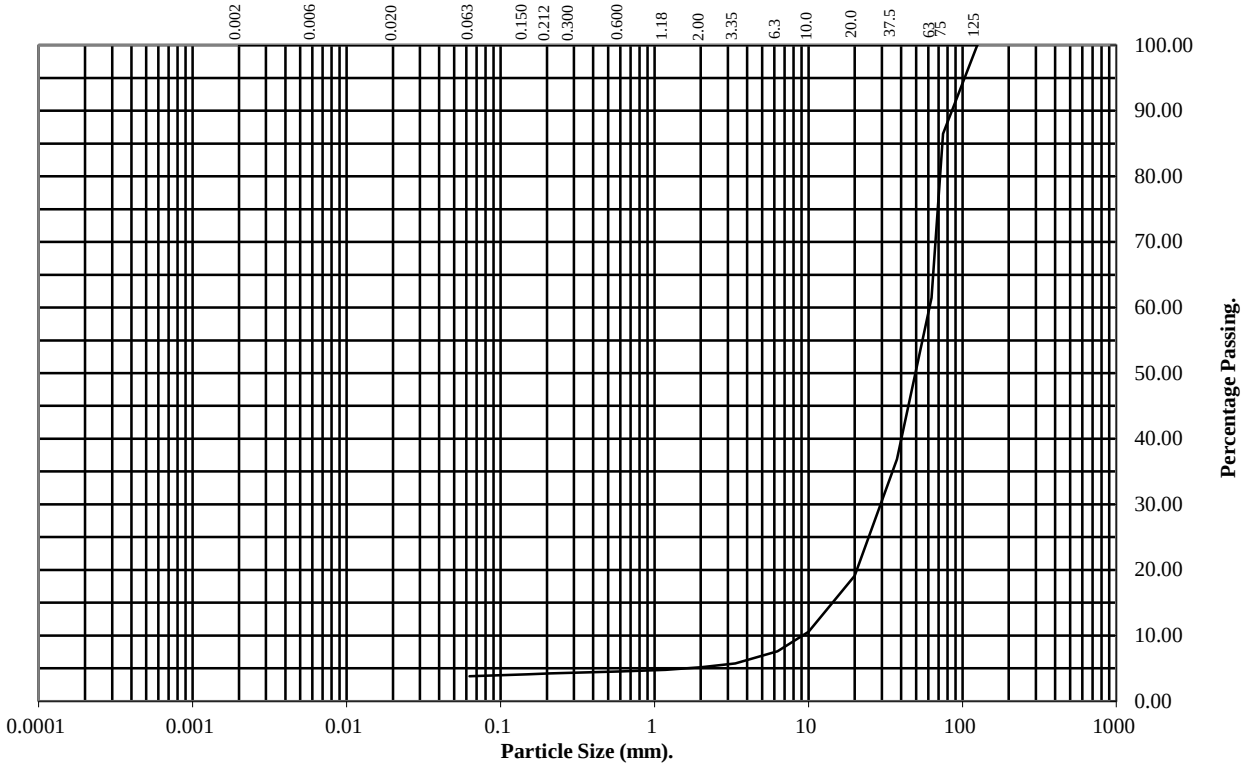
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP16** **Top Depth (m):** **2.50**

Sample Number: **3** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	87
63	61
37.5	37
20	19
10	11
6.3	8
3.35	6
2	5
1.18	5
0.6	5
0.3	4
0.212	4
0.15	4
0.063	4

Soil Fraction	Total Percentage
Cobbles	39
Gravel	56
Sand	1
Silt/Clay	4

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

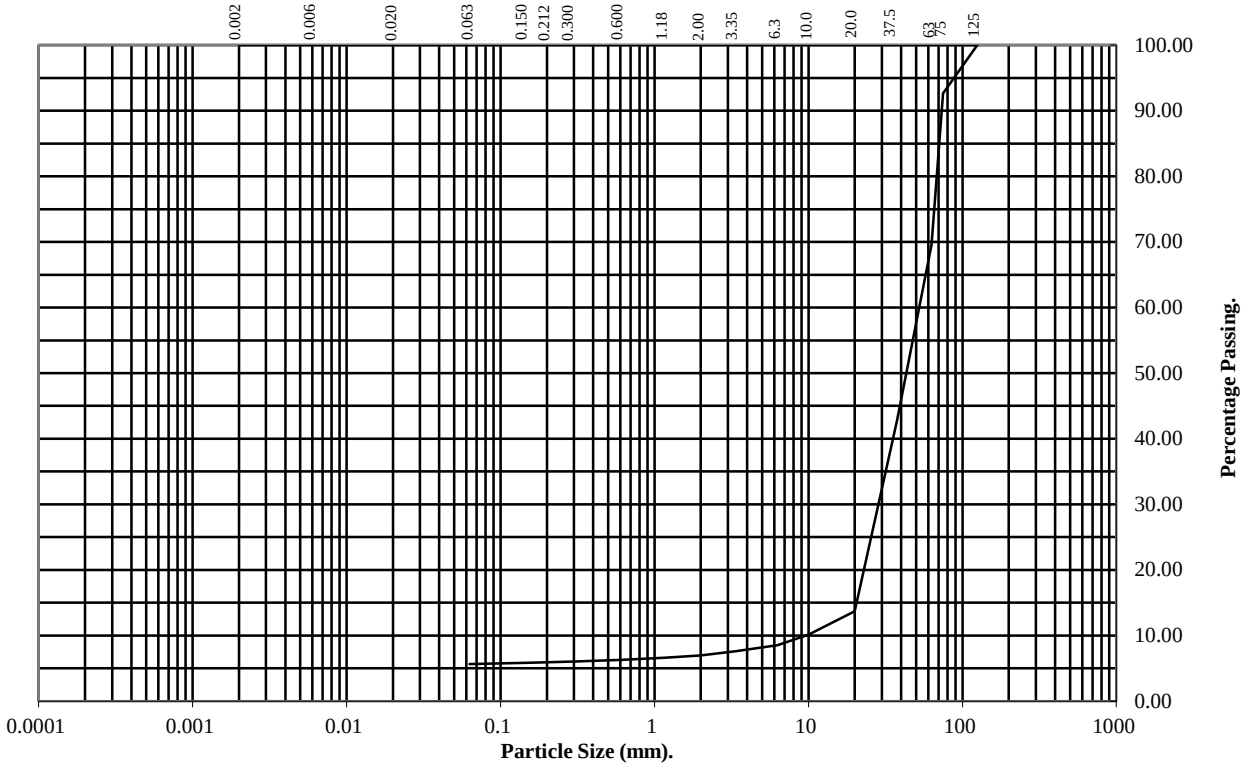
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP18** **Top Depth (m):** **3.00**

Sample Number: **3** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	93
63	70
37.5	43
20	14
10	10
6.3	9
3.35	8
2	7
1.18	7
0.6	6
0.3	6
0.212	6
0.15	6
0.063	6

Soil Fraction	Total Percentage
Cobbles	30
Gravel	63
Sand	1
Silt/Clay	6

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

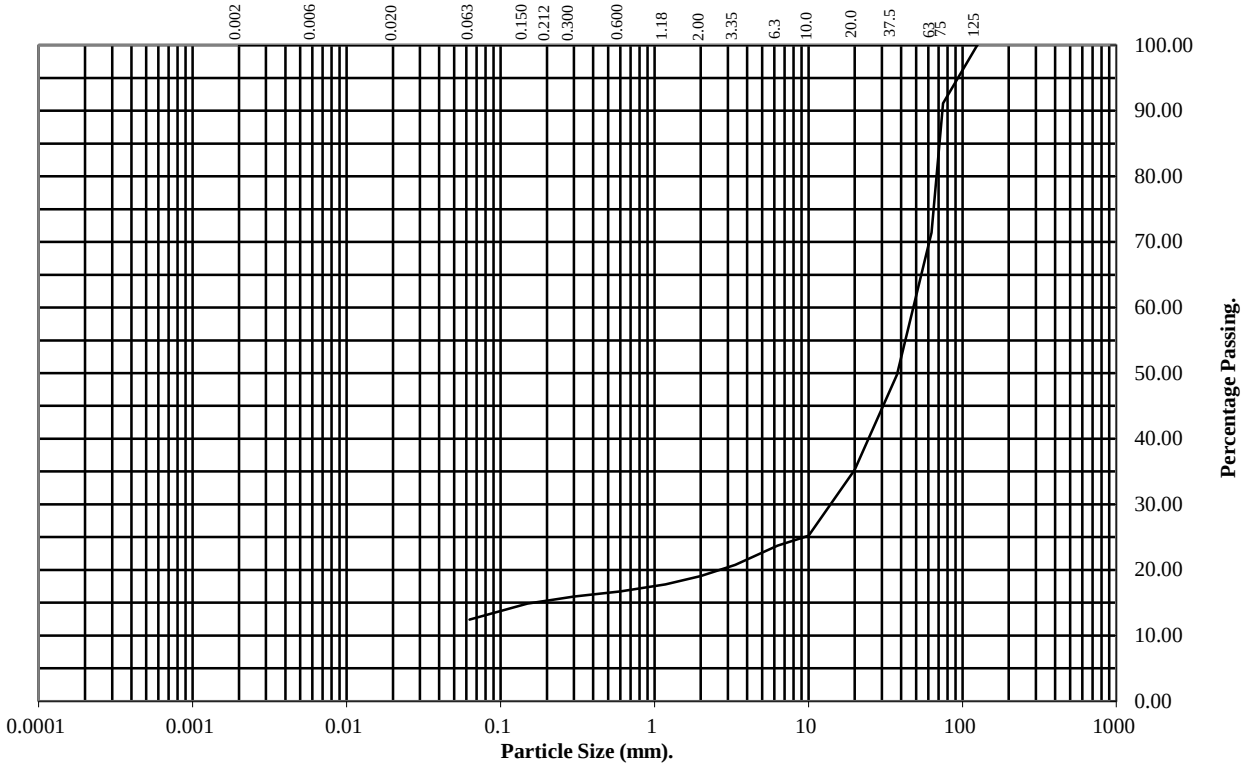
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP44** **Top Depth (m):** **2.20**

Sample Number: **3** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	91
63	71
37.5	50
20	35
10	25
6.3	24
3.35	21
2	19
1.18	18
0.6	17
0.3	16
0.212	15
0.15	15
0.063	12

Soil Fraction	Total Percentage
Cobbles	29
Gravel	52
Sand	7
Silt/Clay	12

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

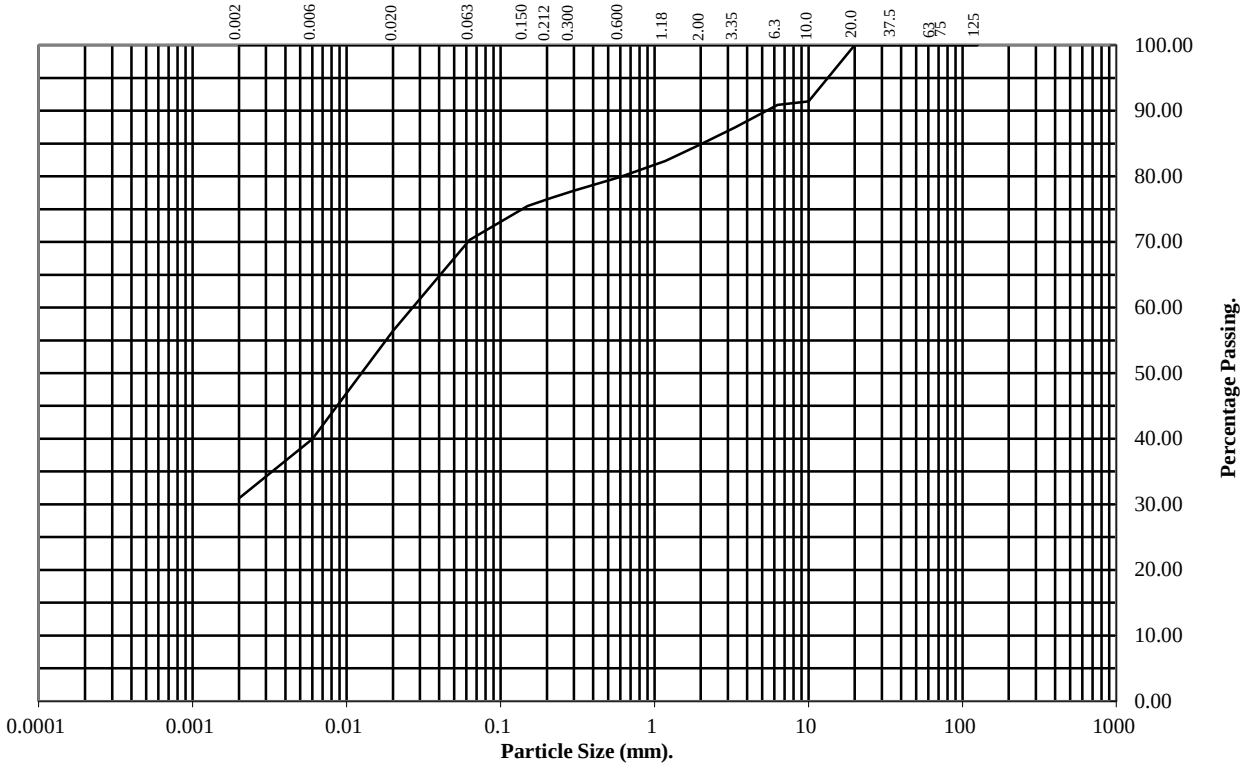
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP26** **Top Depth (m):** **1.00**

Sample Number: **3** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	91
6.3	91
3.35	87
2	85
1.18	82
0.6	80
0.3	78
0.212	77
0.15	75
0.063	70

Particle Diameter	Percentage Passing
0.02	56
0.006	40
0.002	31

Soil Fraction	Total Percentage
Cobbles	0
Gravel	15
Sand	15
Silt	39
Clay	31

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

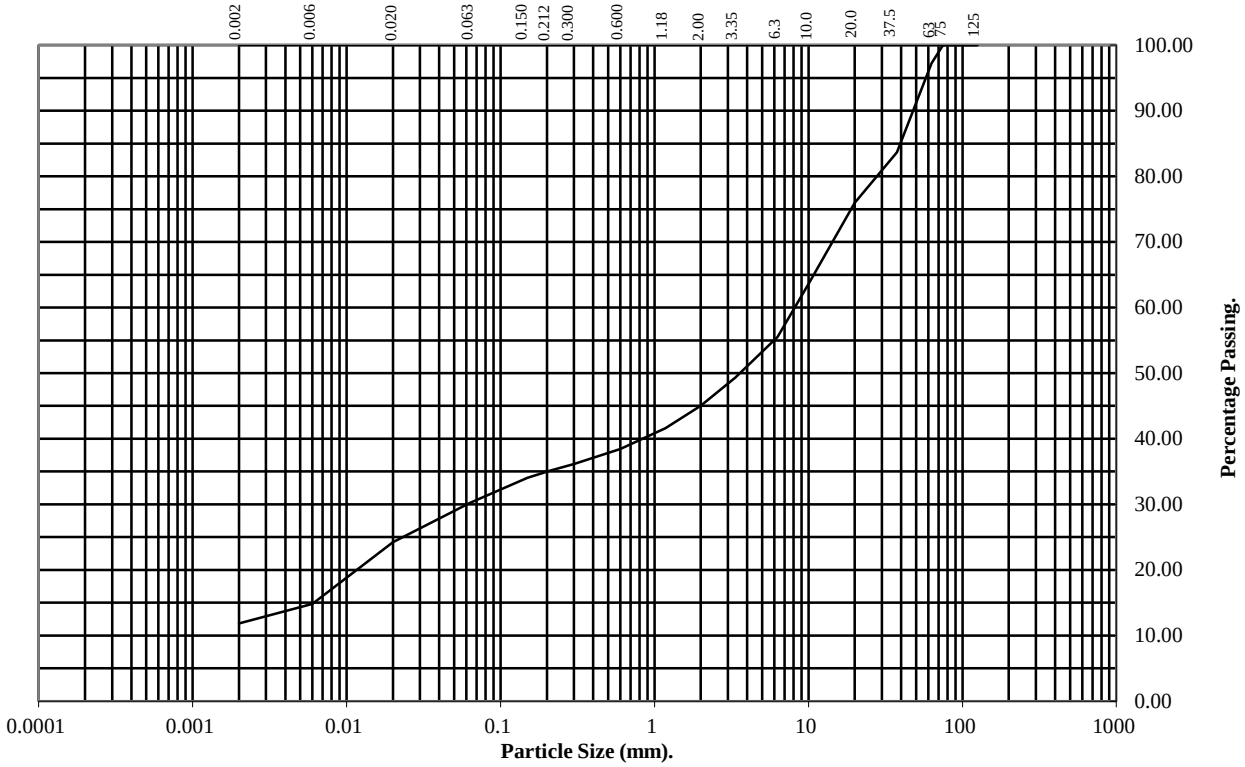
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP42** **Top Depth (m):** **3.00**

Sample Number: **4** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	97
37.5	84
20	76
10	64
6.3	56
3.35	49
2	45
1.18	42
0.6	38
0.3	36
0.212	35
0.15	34
0.063	30

Particle Diameter	Percentage Passing
0.02	24
0.006	15
0.002	12

Soil Fraction	Total Percentage
Cobbles	3
Gravel	52
Sand	15
Silt	18
Clay	12

Remarks:
See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

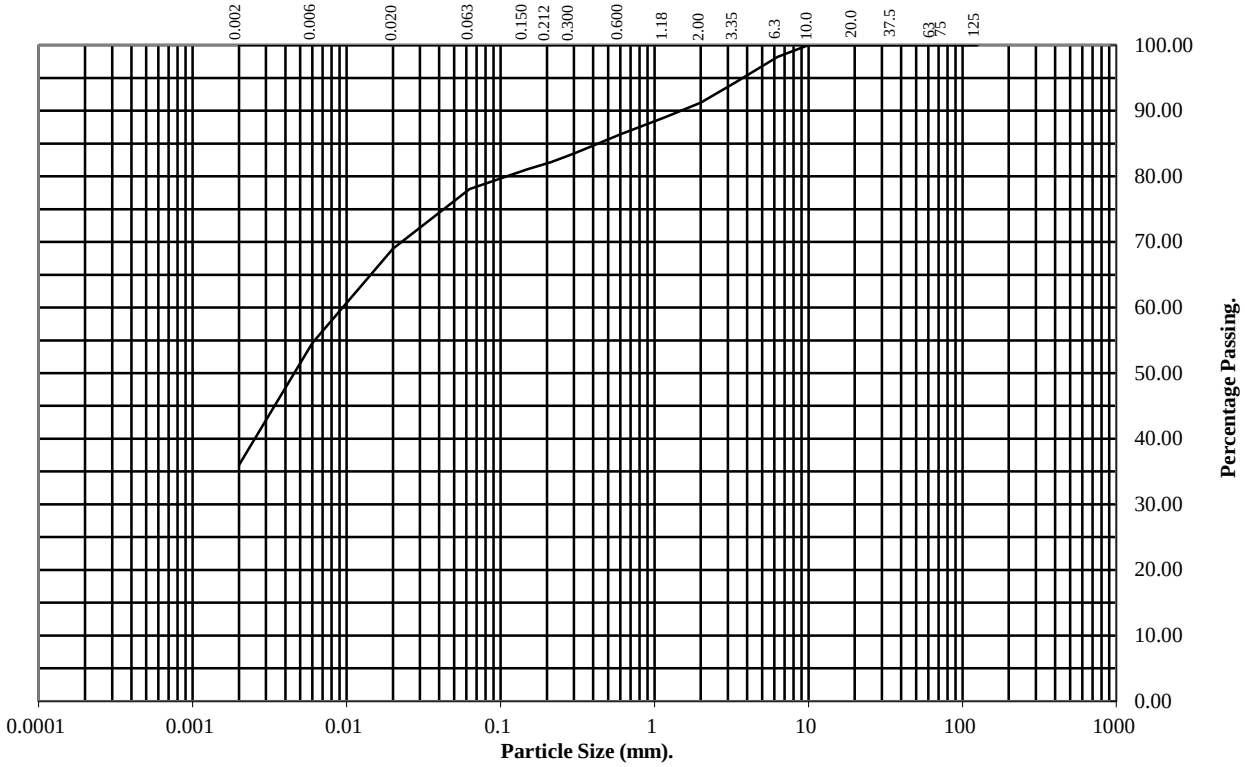
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP10** **Top Depth (m):** **1.20**

Sample Number: **3** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	98
3.35	94
2	91
1.18	89
0.6	86
0.3	84
0.212	82
0.15	81
0.063	78

Particle Diameter	Percentage Passing
0.02	69
0.006	55
0.002	36

Soil Fraction	Total Percentage
Cobbles	0
Gravel	9
Sand	13
Silt	42
Clay	36

Remarks:
See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

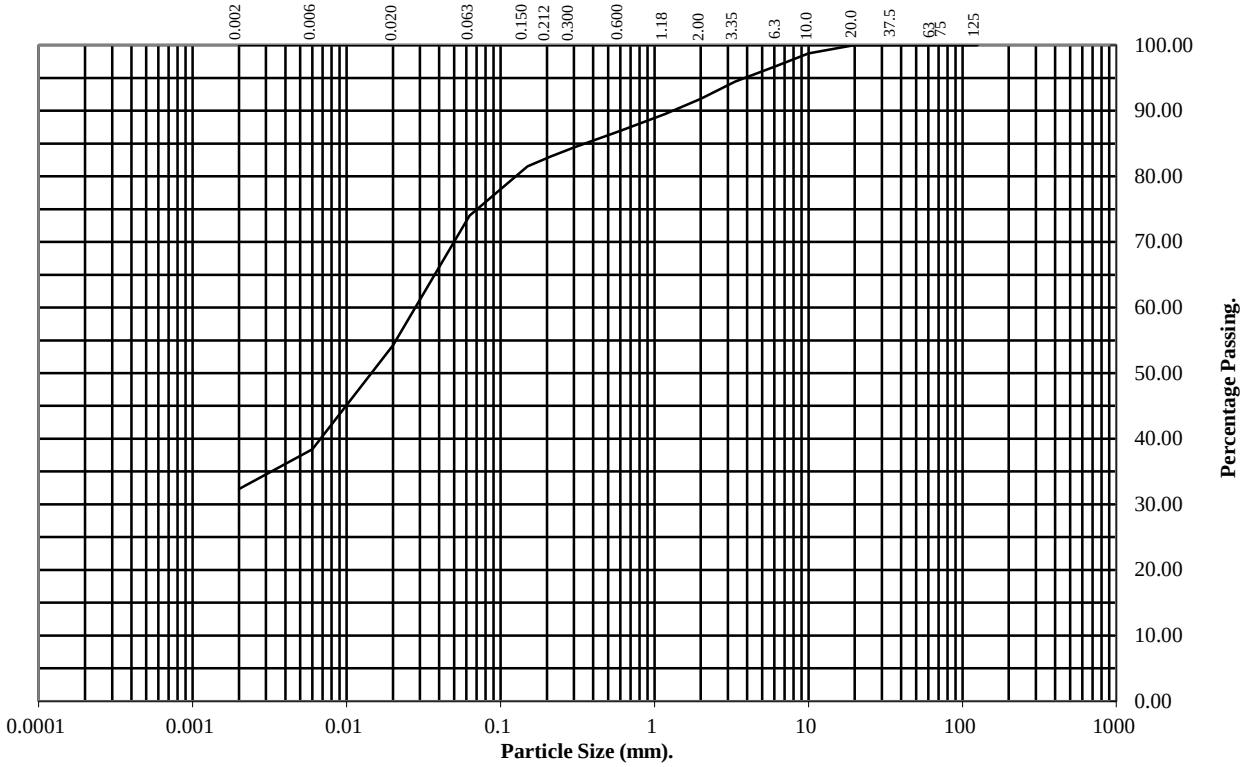
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP15** **Top Depth (m):** **0.60**

Sample Number: **2** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	97
3.35	94
2	92
1.18	90
0.6	87
0.3	84
0.212	83
0.15	82
0.063	74

Particle Diameter	Percentage Passing
0.02	54
0.006	38
0.002	32

Soil Fraction	Total Percentage
Cobbles	0
Gravel	8
Sand	18
Silt	42
Clay	32

Remarks:
See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

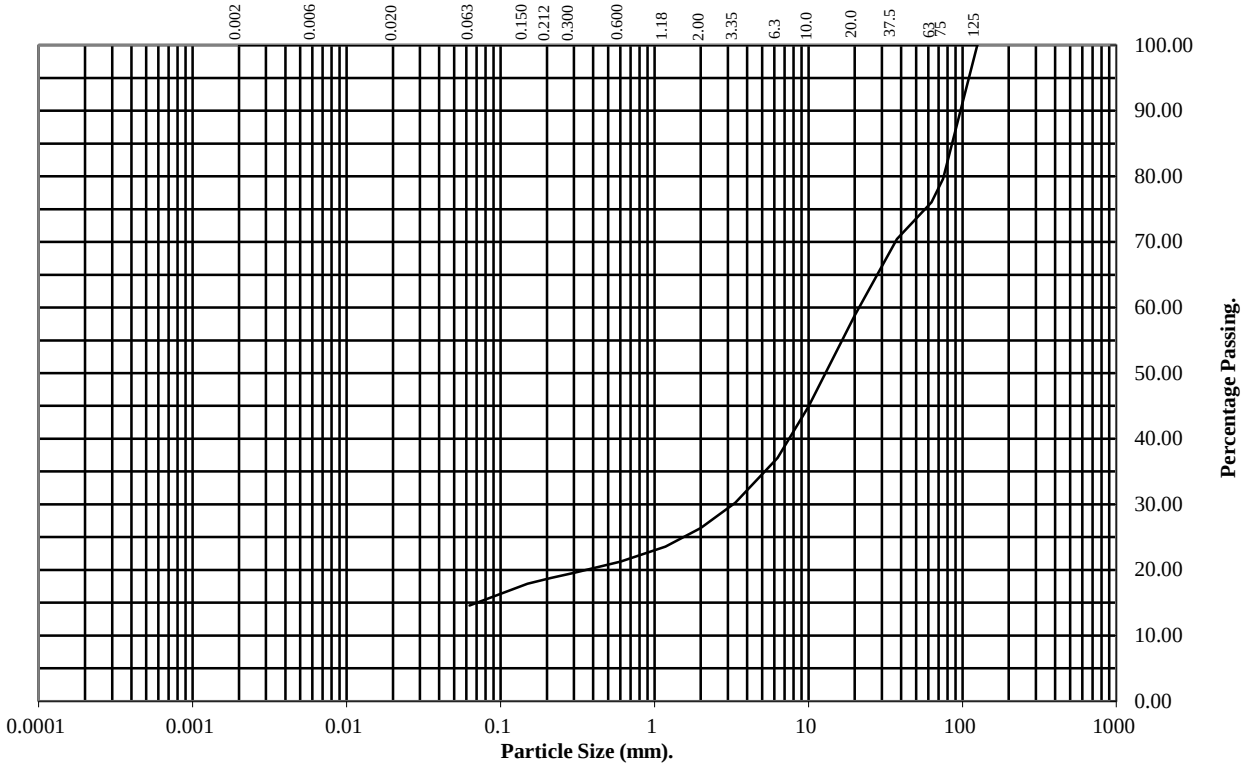
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP07** **Top Depth (m):** **0.70**

Sample Number: **2** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	80
63	76
37.5	70
20	59
10	45
6.3	37
3.35	30
2	26
1.18	24
0.6	21
0.3	20
0.212	19
0.15	18
0.063	15

Soil Fraction	Total Percentage
Cobbles	24
Gravel	50
Sand	11
Silt/Clay	15

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

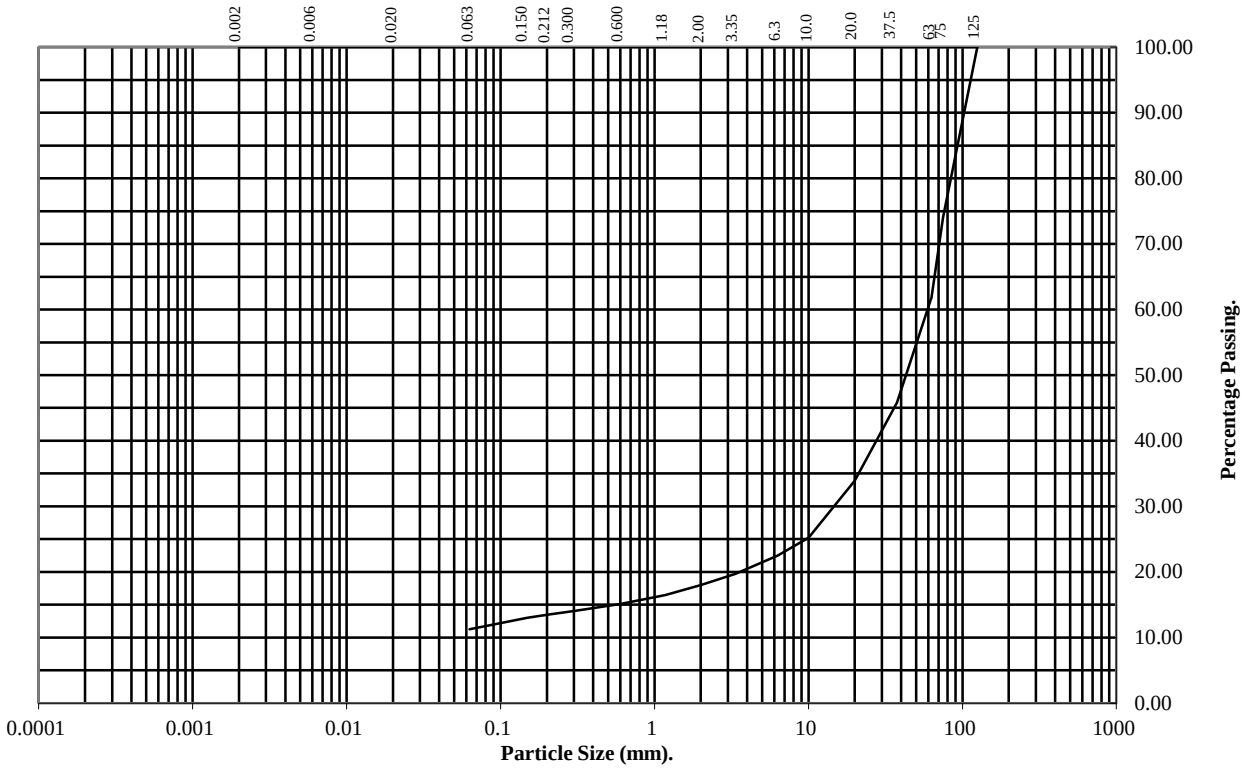
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP08** **Top Depth (m):** **1.90**

Sample Number: **4** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	74
63	62
37.5	46
20	34
10	25
6.3	22
3.35	20
2	18
1.18	16
0.6	15
0.3	14
0.212	14
0.15	13
0.063	11

Soil Fraction	Total Percentage
Cobbles	38
Gravel	44
Sand	7
Silt/Clay	11

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

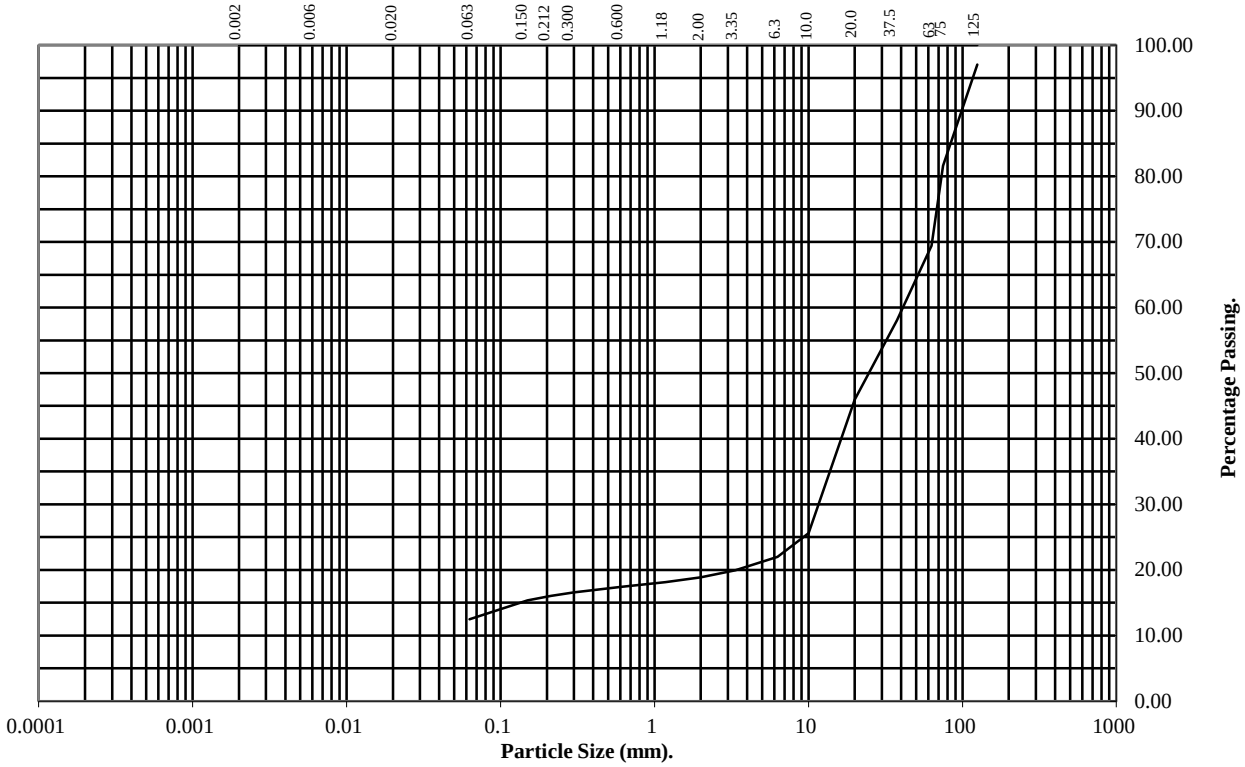
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP20** **Top Depth (m):** **0.50**

Sample Number: **2** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	97
75	82
63	69
37.5	58
20	46
10	26
6.3	22
3.35	20
2	19
1.18	18
0.6	17
0.3	17
0.212	16
0.15	15
0.063	12

Soil Fraction	Total Percentage
Cobbles	31
Gravel	50
Sand	7
Silt/Clay	12

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

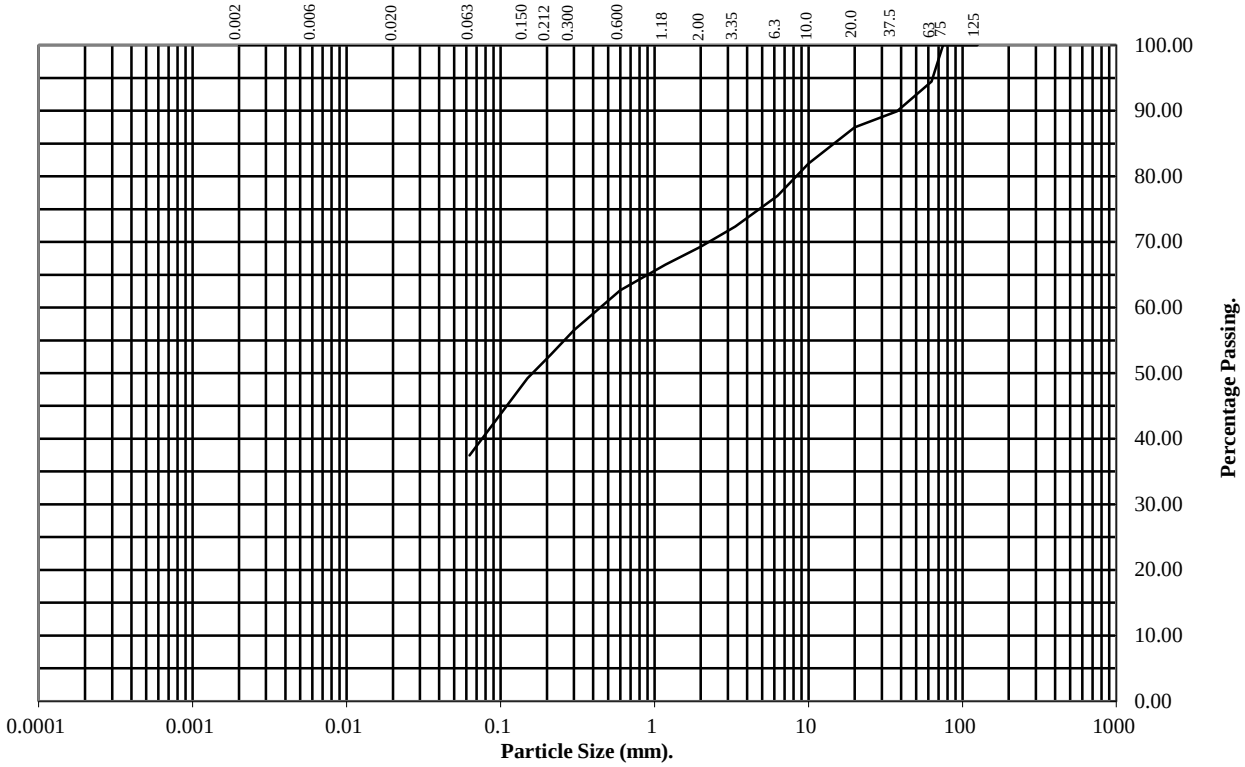
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP27** **Top Depth (m):** **0.80**

Sample Number: **3** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	94
37.5	90
20	87
10	82
6.3	77
3.35	72
2	69
1.18	67
0.6	63
0.3	57
0.212	53
0.15	49
0.063	37

Soil Fraction	Total Percentage
Cobbles	6
Gravel	25
Sand	32
Silt/Clay	37

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

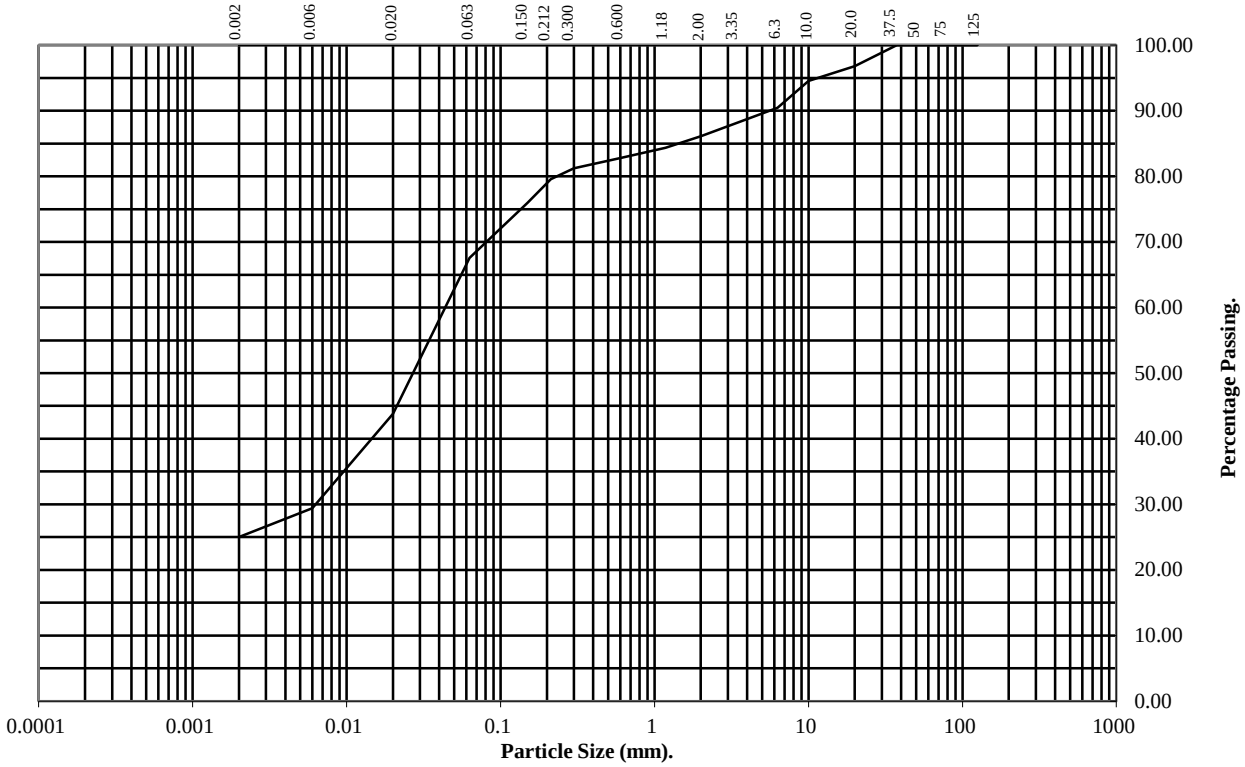
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP01** **Top Depth (m):** **0.10**

Sample Number: **1** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
50	100
37.5	100
20	97
10	95
6.3	90
3.35	88
2	86
1.18	84
0.6	83
0.3	81
0.212	80
0.15	76
0.063	68

Particle Diameter	Percentage Passing
0.02	44
0.006	29
0.002	25

Soil Fraction	Total Percentage
Cobbles	0
Gravel	14
Sand	18
Silt	43
Clay	25

Remarks:
See Summary of Soil Descriptions

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Lane**	**Contract No:** **PSL22/6704** **Client Ref:** **4454**

PARTICLE SIZE DISTRIBUTION TEST

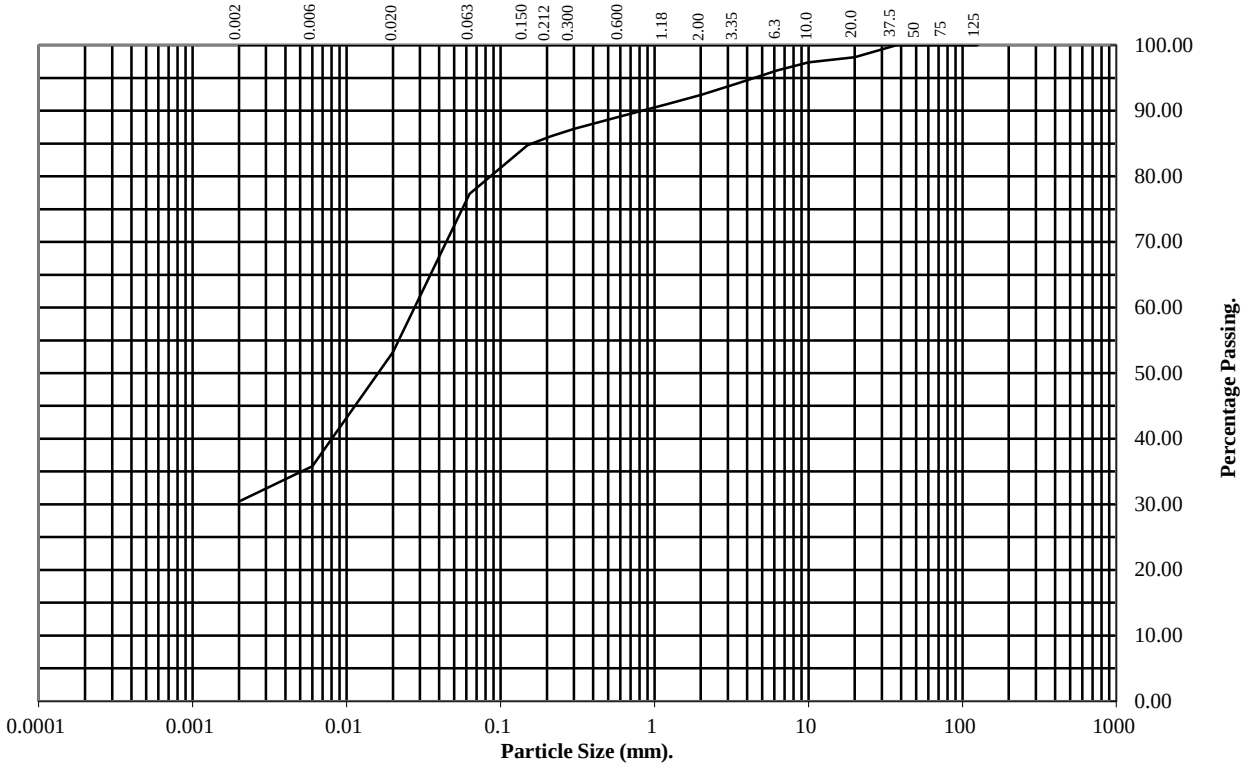
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP23** **Top Depth (m):** **0.10**

Sample Number: **1** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
50	100
37.5	100
20	98
10	97
6.3	96
3.35	94
2	92
1.18	91
0.6	89
0.3	87
0.212	86
0.15	85
0.063	77

Particle Diameter	Percentage Passing
0.02	53
0.006	36
0.002	30

Soil Fraction	Total Percentage
Cobbles	0
Gravel	8
Sand	15
Silt	47
Clay	30

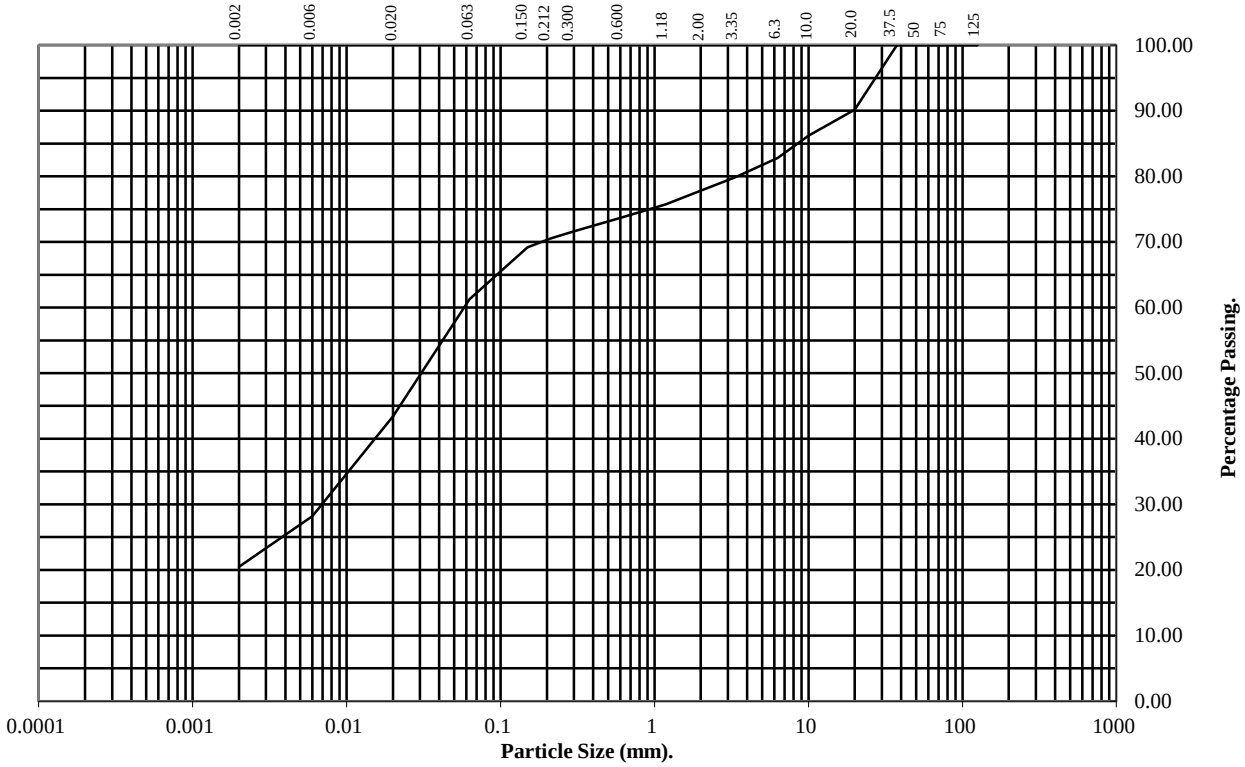
Remarks:
See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number:	**TP36**	**Top Depth (m):**	**0.10**
Sample Number:	**1**	**Base Depth(m):**	
Sample Type:	**D&B**		



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
50	100
37.5	100
20	90
10	86
6.3	83
3.35	80
2	78
1.18	76
0.6	74
0.3	72
0.212	71
0.15	69
0.063	61

Particle Diameter	Percentage Passing
0.02	43
0.006	28
0.002	20

Soil Fraction	Total Percentage
Cobbles	0
Gravel	22
Sand	17
Silt	41
Clay	20

Remarks:
See Summary of Soil Descriptions

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Lane**	**Contract No:** PSL22/6704 **Client Ref:** 4454

PARTICLE SIZE DISTRIBUTION TEST

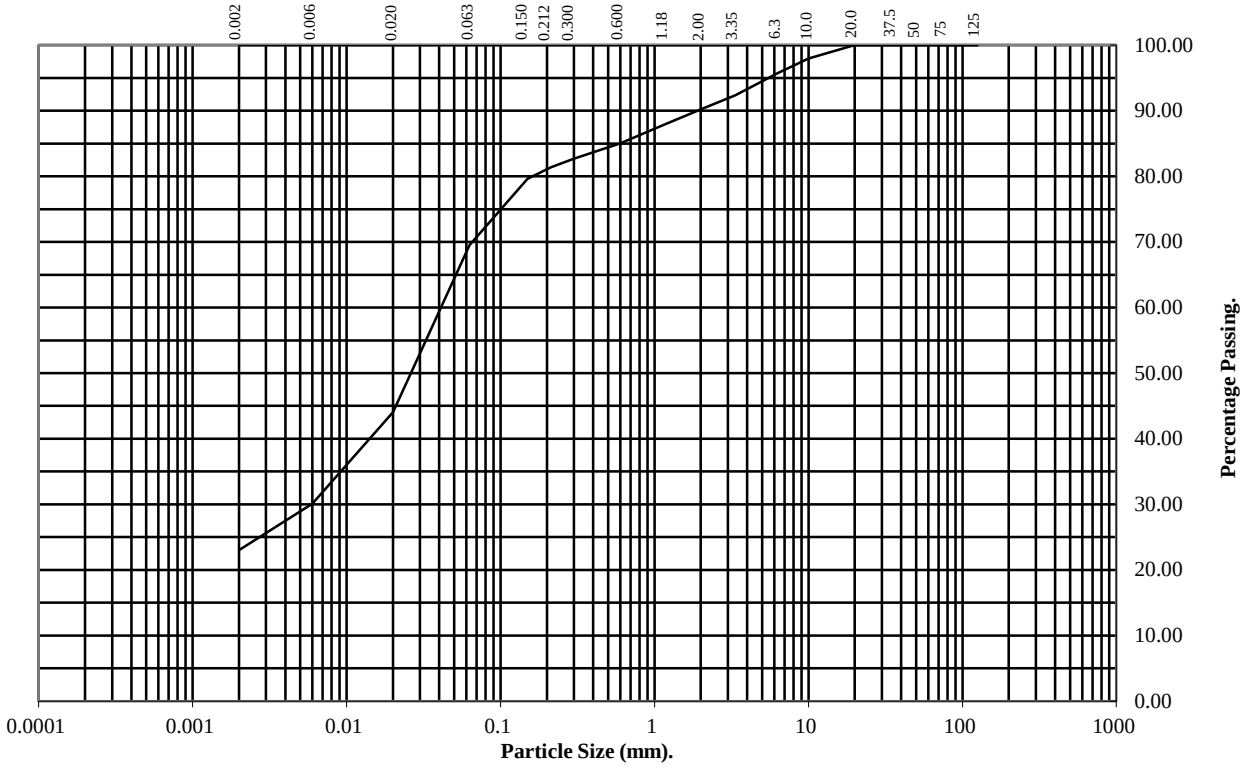
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP14** **Top Depth (m):** **0.10**

Sample Number: **1** **Base Depth(m):**

Sample Type: **D&B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
50	100
37.5	100
20	100
10	98
6.3	96
3.35	92
2	90
1.18	88
0.6	85
0.3	83
0.212	81
0.15	80
0.063	70

Particle Diameter	Percentage Passing
0.02	44
0.006	30
0.002	23

Soil Fraction	Total Percentage
Cobbles	0
Gravel	10
Sand	20
Silt	47
Clay	23

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

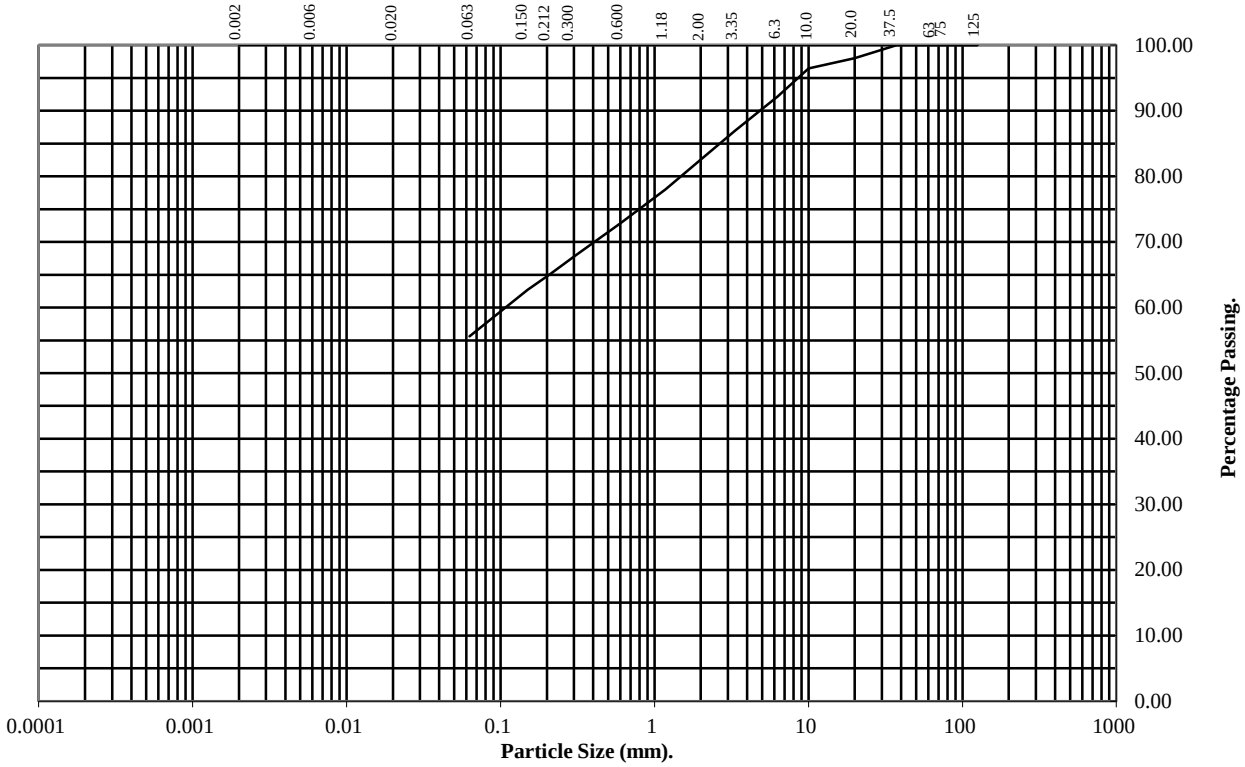
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH09** **Top Depth (m):** **9.00**

Sample Number: **17** **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	96
6.3	92
3.35	87
2	83
1.18	78
0.6	73
0.3	68
0.212	65
0.15	63
0.063	56

Soil Fraction	Total Percentage
Cobbles	0
Gravel	17
Sand	27
Silt/Clay	56

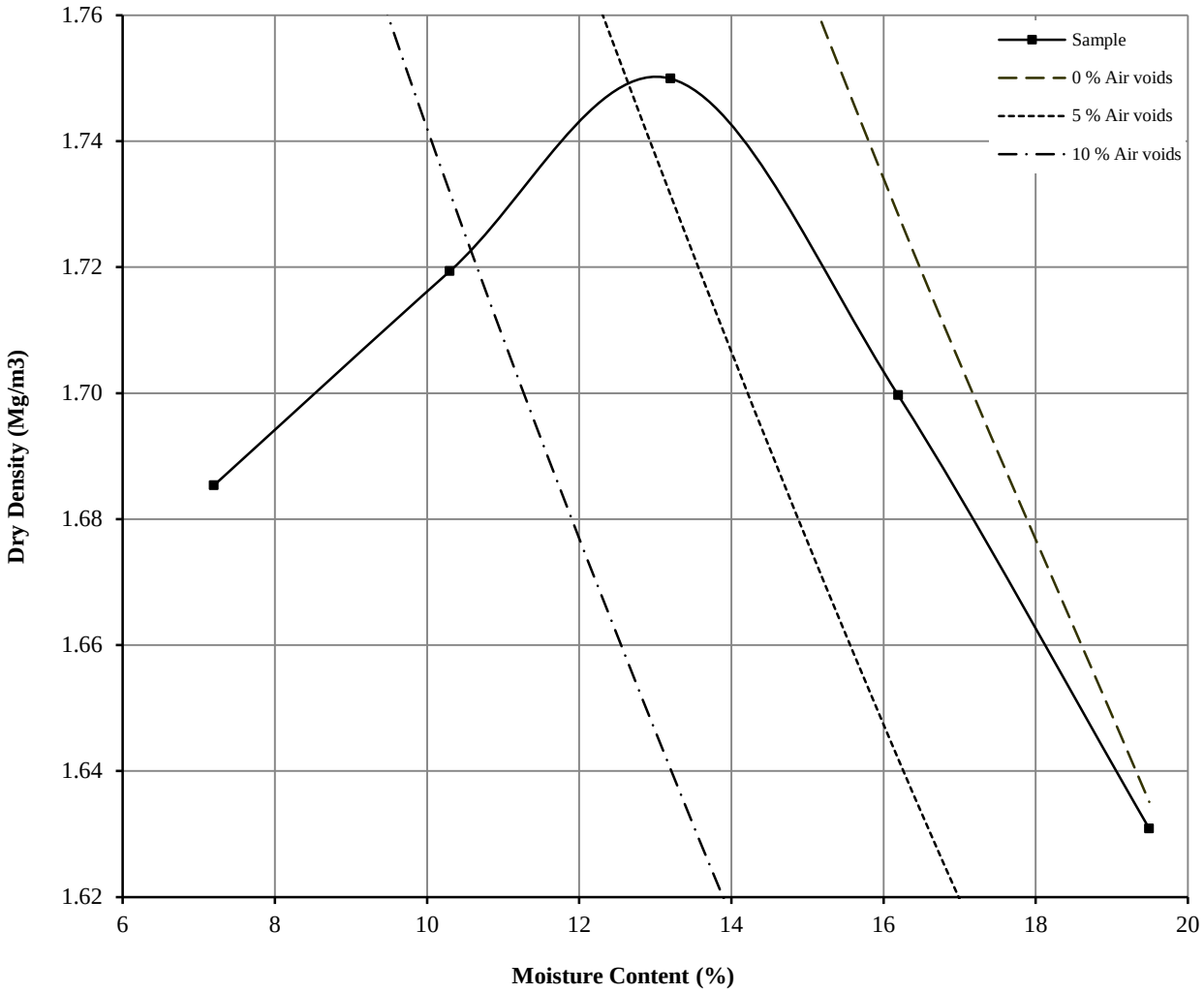
Remarks:

See Summary of Soil Descriptions

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP01**	**Top Depth (m) :**	**1.90**
Sample Number:	**4**	**Base Depth (m) :**	
Sample Type:	**D&B**		

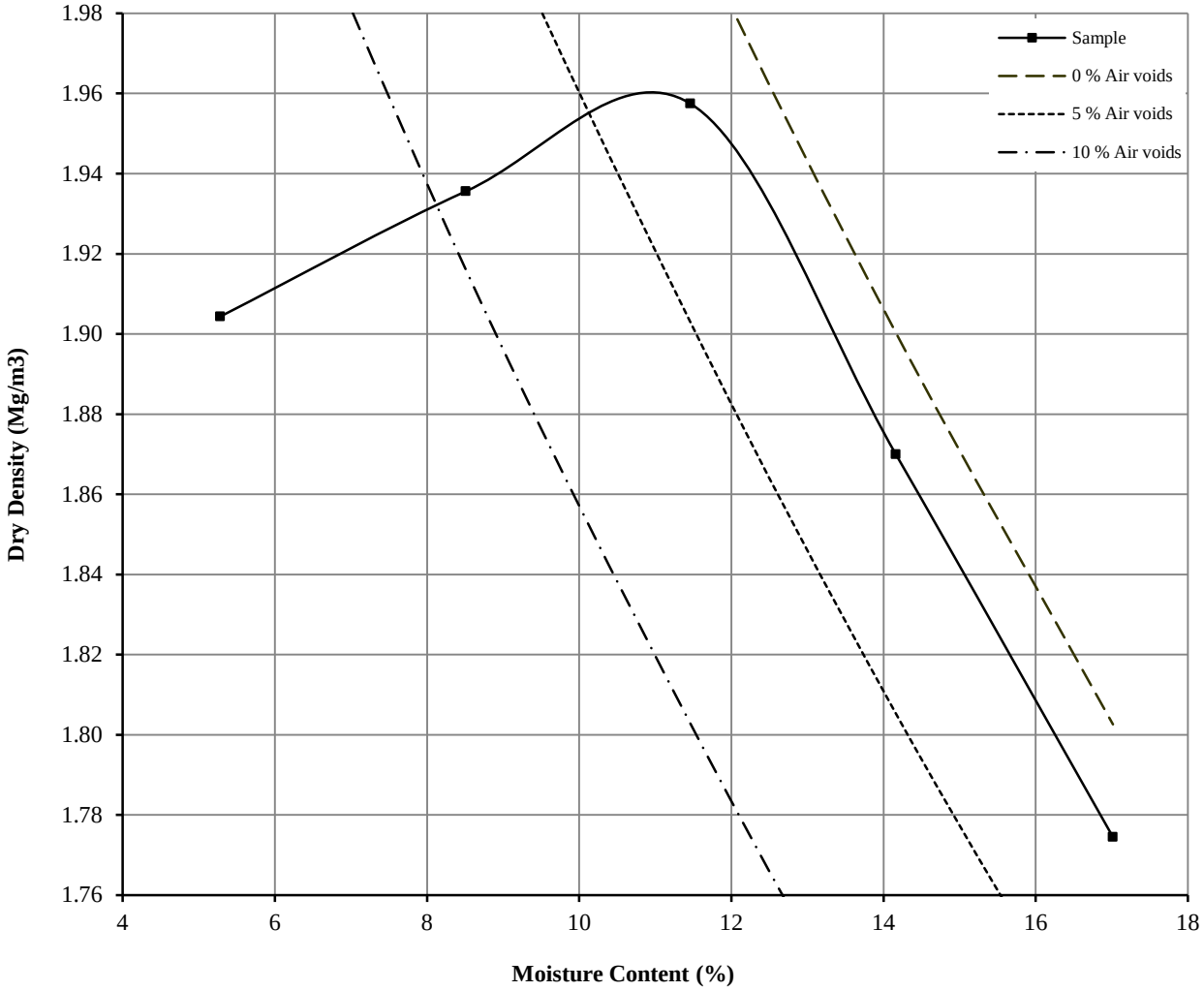


Initial Moisture Content:		19	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.4	Assumed	Material Retained on 37.5 mm Test Sieve (%):		9
Maximum Dry Density (Mg/m3):		1.75	Material Retained on 20.0 mm Test Sieve (%):		2
Optimum Moisture Content (%):		13			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP10**	**Top Depth (m) :**	**0.70**
Sample Number:	**2**	**Base Depth (m) :**	
Sample Type:	**D&B**		

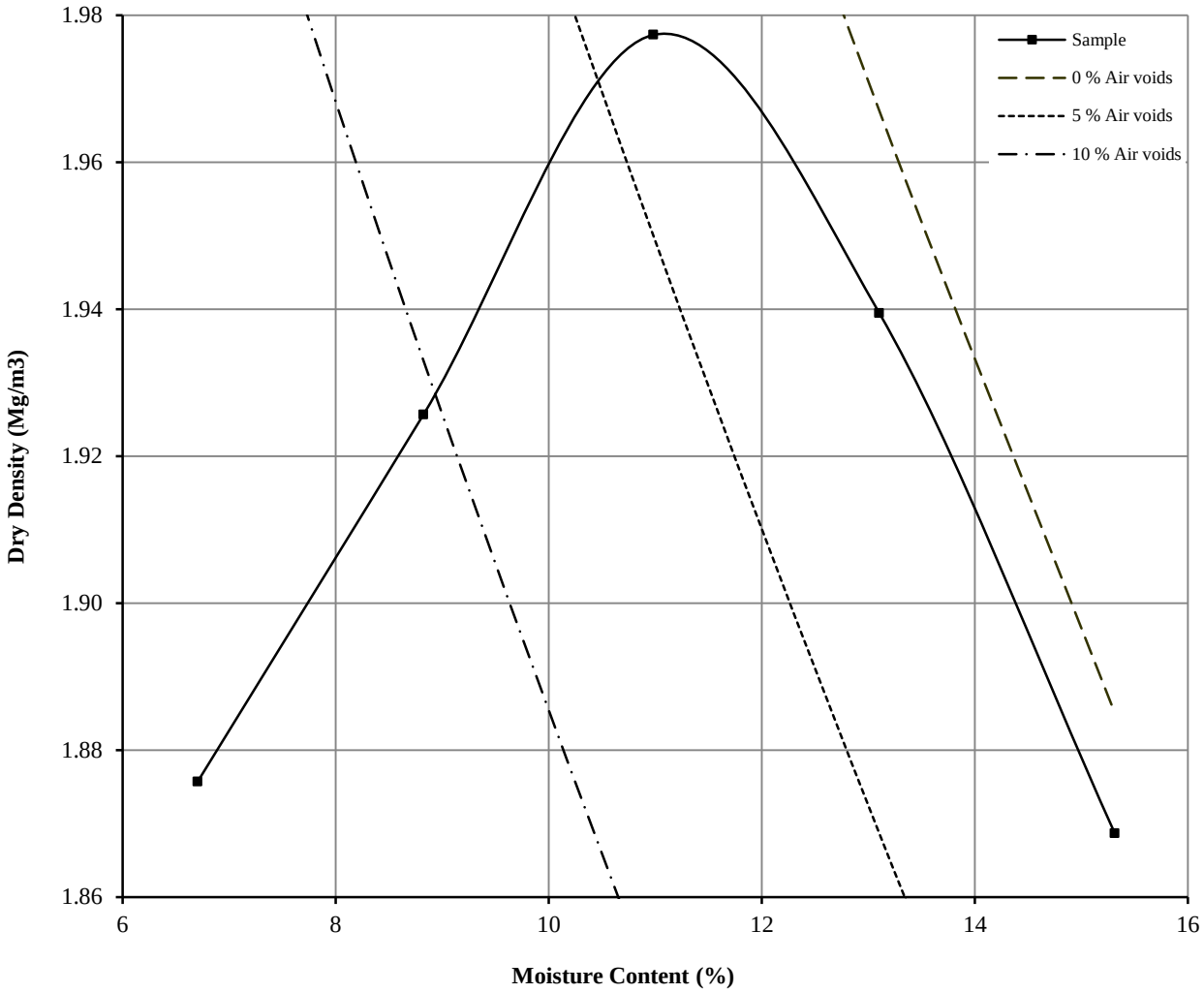


Initial Moisture Content:		11	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.6	Assumed	Material Retained on 37.5 mm Test Sieve (%):		38
Maximum Dry Density (Mg/m3):		1.96	Material Retained on 20.0 mm Test Sieve (%):		6
Optimum Moisture Content (%):		11			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP33**	**Top Depth (m) :**	**2.00**
Sample Number:	**5**	**Base Depth (m) :**	
Sample Type:	**D&B**		

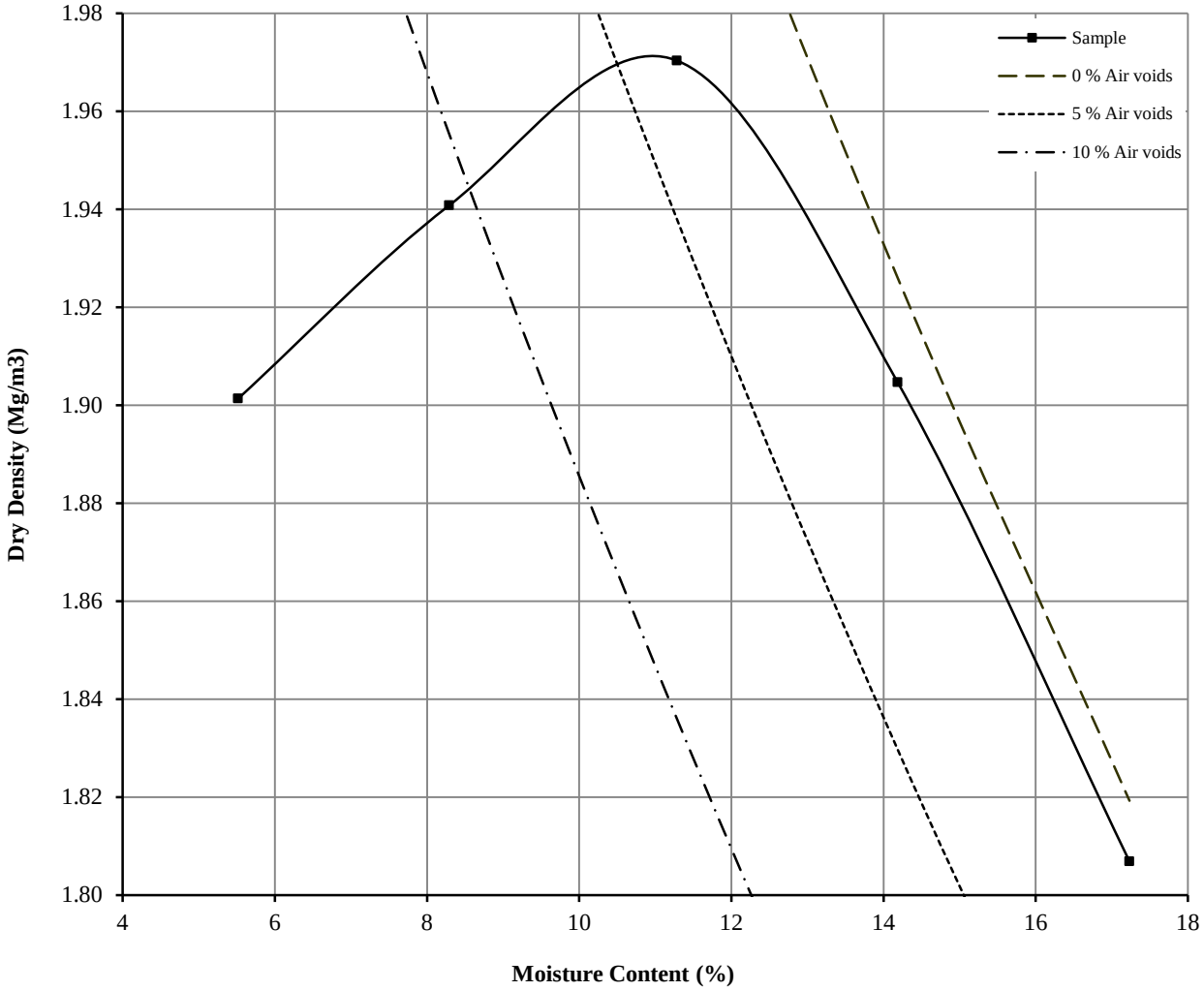


Initial Moisture Content:		13	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		43
Maximum Dry Density (Mg/m3):		1.98	Material Retained on 20.0 mm Test Sieve (%):		16
Optimum Moisture Content (%):		11			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP13**	**Top Depth (m) :**	**1.50**
Sample Number:	**3**	**Base Depth (m) :**	
Sample Type:	**D&B**		

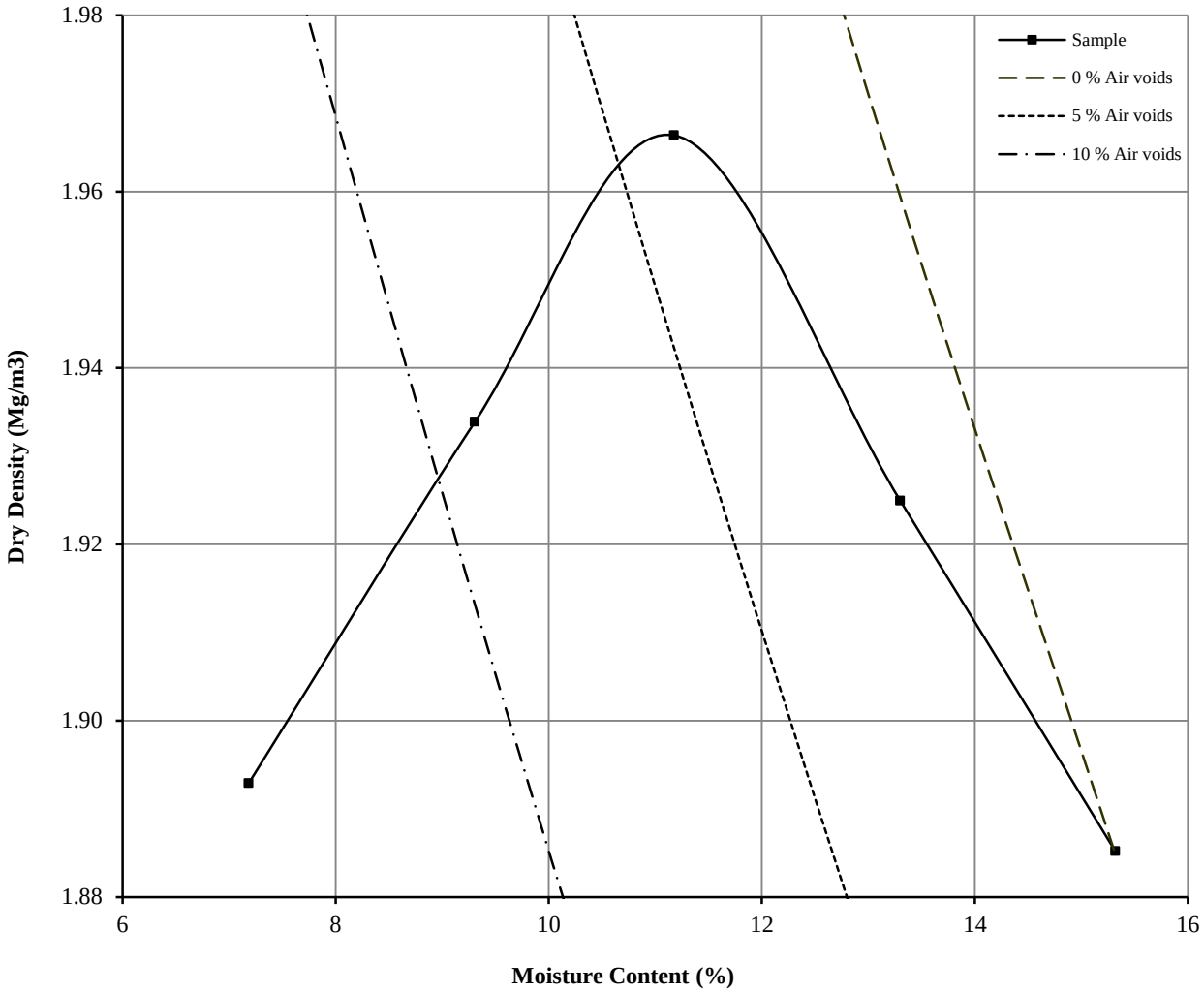


Initial Moisture Content:		8.3	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		32
Maximum Dry Density (Mg/m3):		1.97	Material Retained on 20.0 mm Test Sieve (%):		17
Optimum Moisture Content (%):		11			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP16**	**Top Depth (m) :**	**2.50**
Sample Number:	**3**	**Base Depth (m) :**	
Sample Type:	**D&B**		

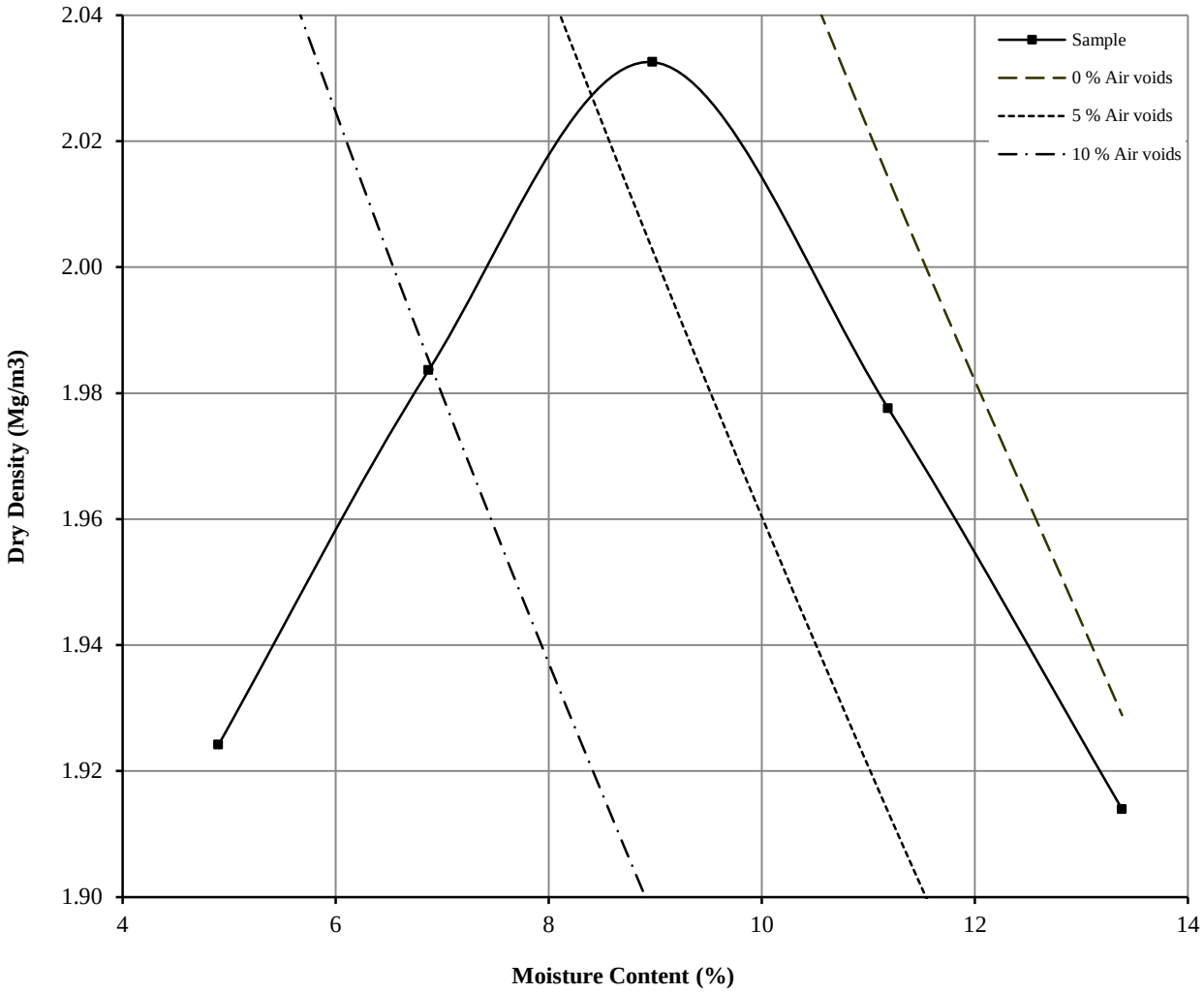


Initial Moisture Content:		11	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		63
Maximum Dry Density (Mg/m3):		1.97	Material Retained on 20.0 mm Test Sieve (%):		18
Optimum Moisture Content (%):		11			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP18**	**Top Depth (m) :**	**3.00**
Sample Number:	**3**	**Base Depth (m) :**	
Sample Type:	**D&B**		



Initial Moisture Content:		9.0	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.6	Assumed	Material Retained on 37.5 mm Test Sieve (%):		57
Maximum Dry Density (Mg/m3):		2.03	Material Retained on 20.0 mm Test Sieve (%):		29
Optimum Moisture Content (%):		9			
Remarks See summary of soil descriptions					

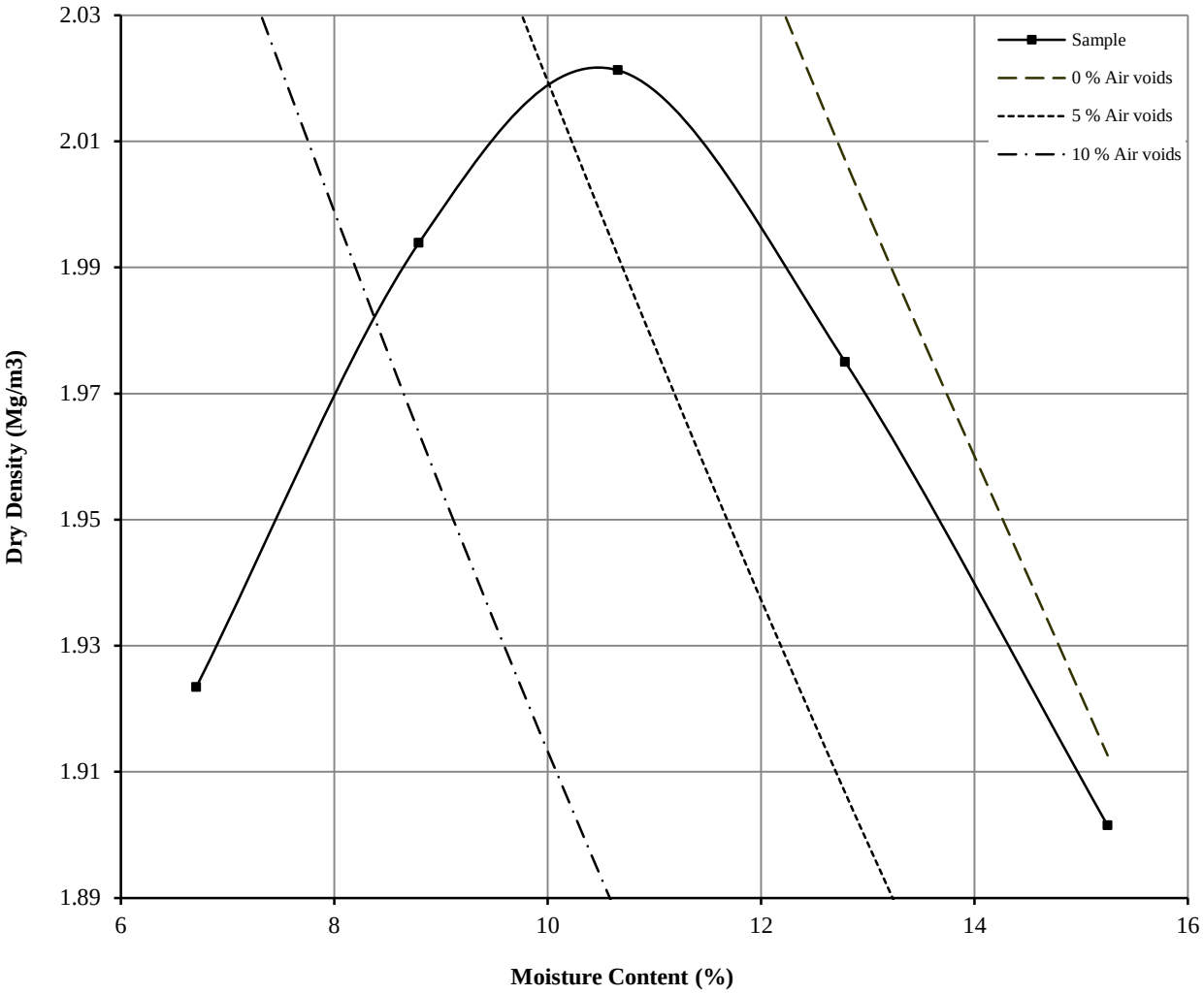
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number: TP44 **Top Depth (m) :** 2.20

Sample Number: 3 **Base Depth (m) :**

Sample Type: D&B

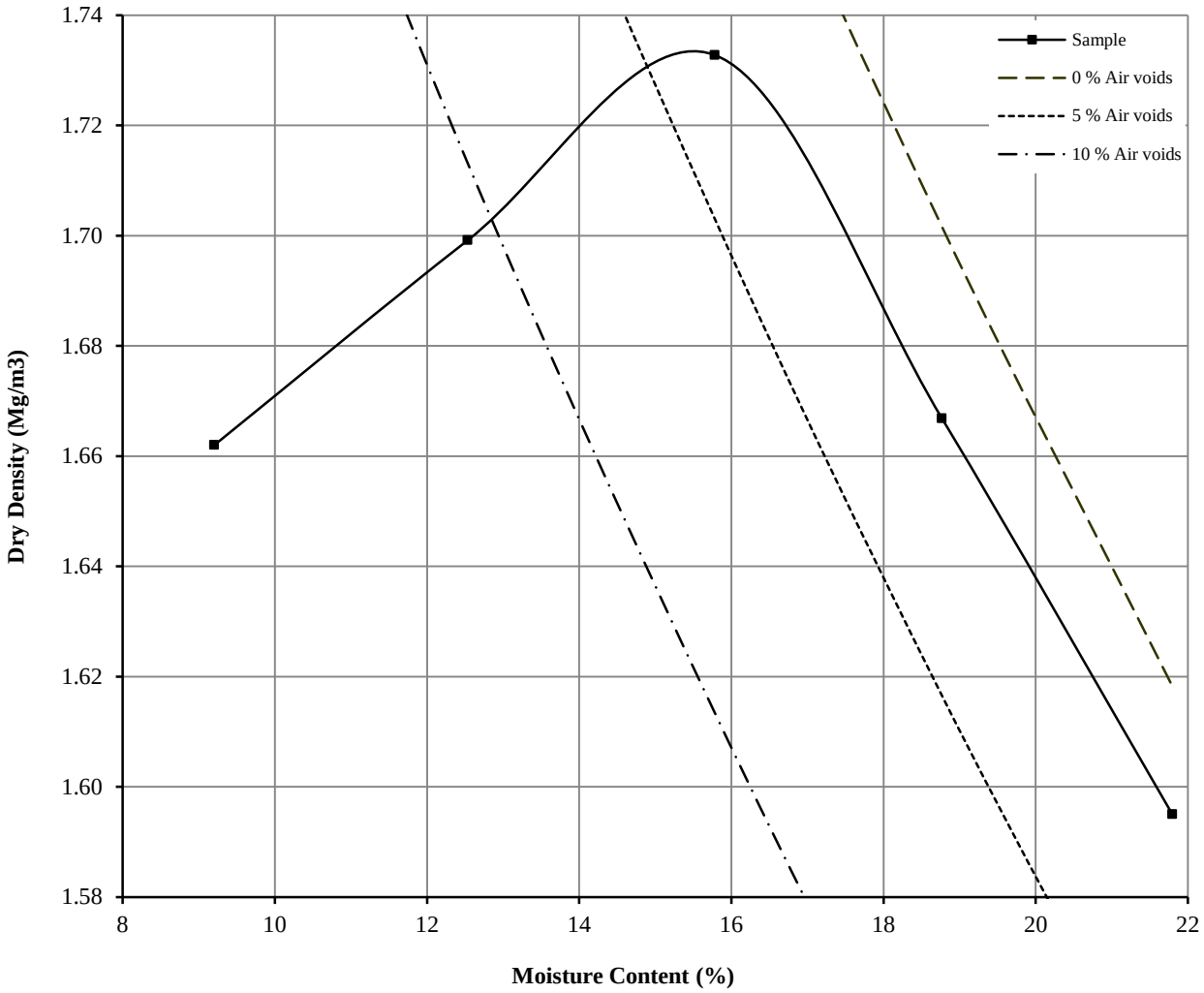


Initial Moisture Content:		6.7	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.7	Assumed	Material Retained on 37.5 mm Test Sieve (%):		50
Maximum Dry Density (Mg/m3):		2.02	Material Retained on 20.0 mm Test Sieve (%):		15
Optimum Moisture Content (%):		11			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number:	**TP26**	**Top Depth (m) :**	**1.00**
Sample Number:	**3**	**Base Depth (m) :**	
Sample Type:	**D&B**		

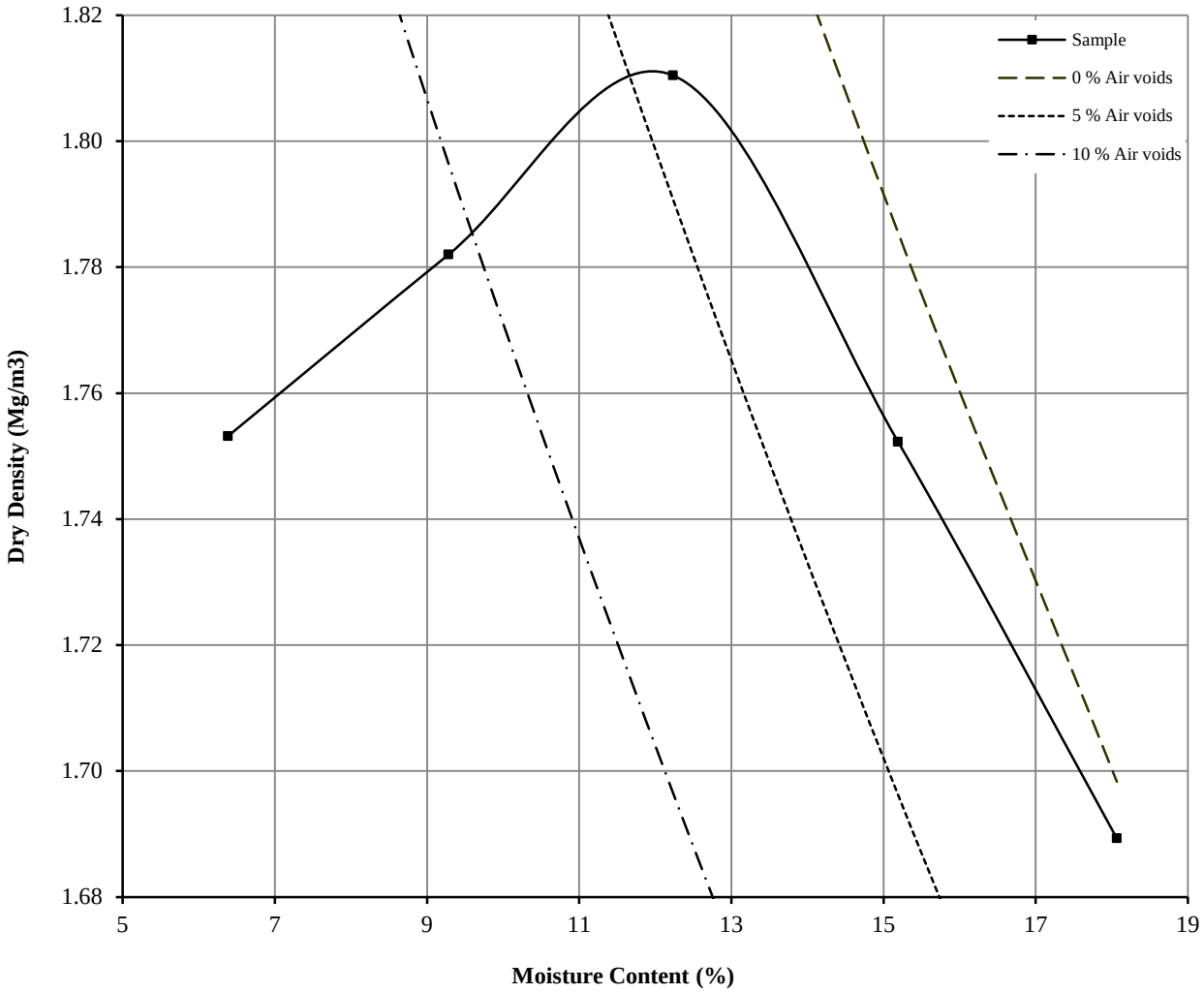


Initial Moisture Content:		19	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.5	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.73	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		16			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP42**	**Top Depth (m) :**	**3.00**
Sample Number:	**4**	**Base Depth (m) :**	
Sample Type:	**D&B**		

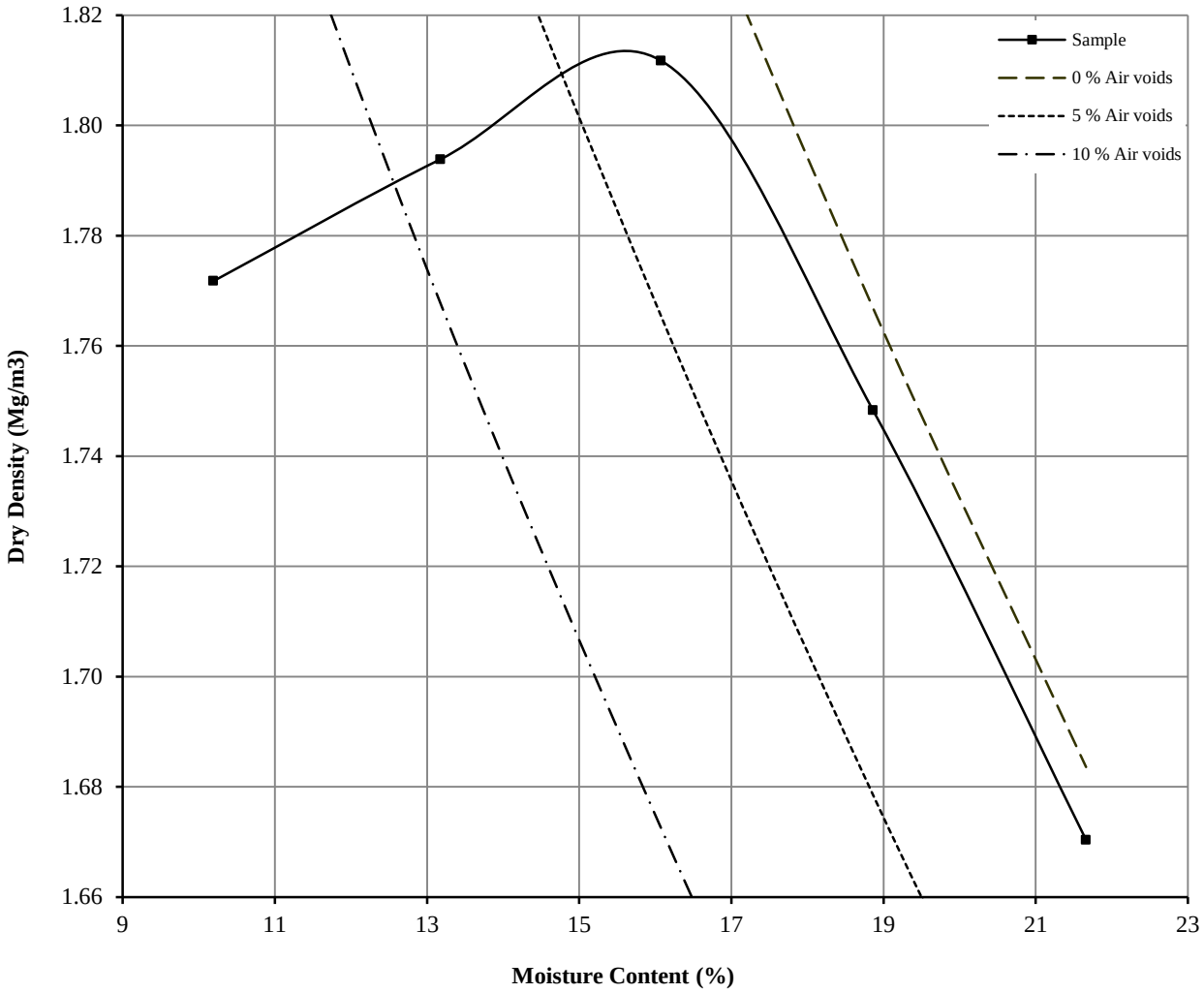


Initial Moisture Content:		15	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.45	Assumed	Material Retained on 37.5 mm Test Sieve (%):		16
Maximum Dry Density (Mg/m3):		1.81	Material Retained on 20.0 mm Test Sieve (%):		8
Optimum Moisture Content (%):		12			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number:	**TP10**	**Top Depth (m) :**	**1.20**
Sample Number:	**3**	**Base Depth (m) :**	
Sample Type:	**D&B**		

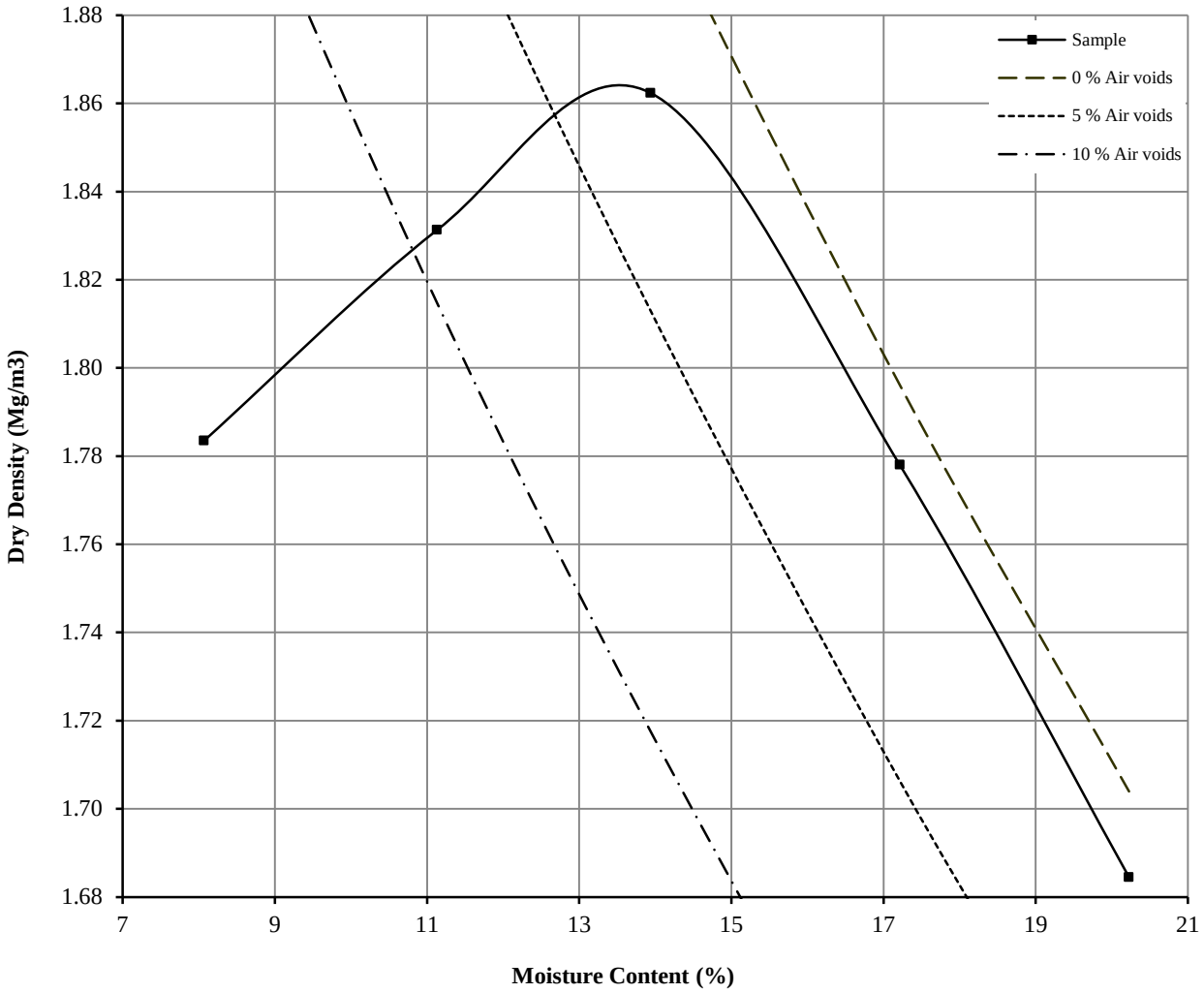


Initial Moisture Content:		19	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.81	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		16			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number:	**TP15**	**Top Depth (m) :**	**0.60**
Sample Number:	**2**	**Base Depth (m) :**	
Sample Type:	**D&B**		



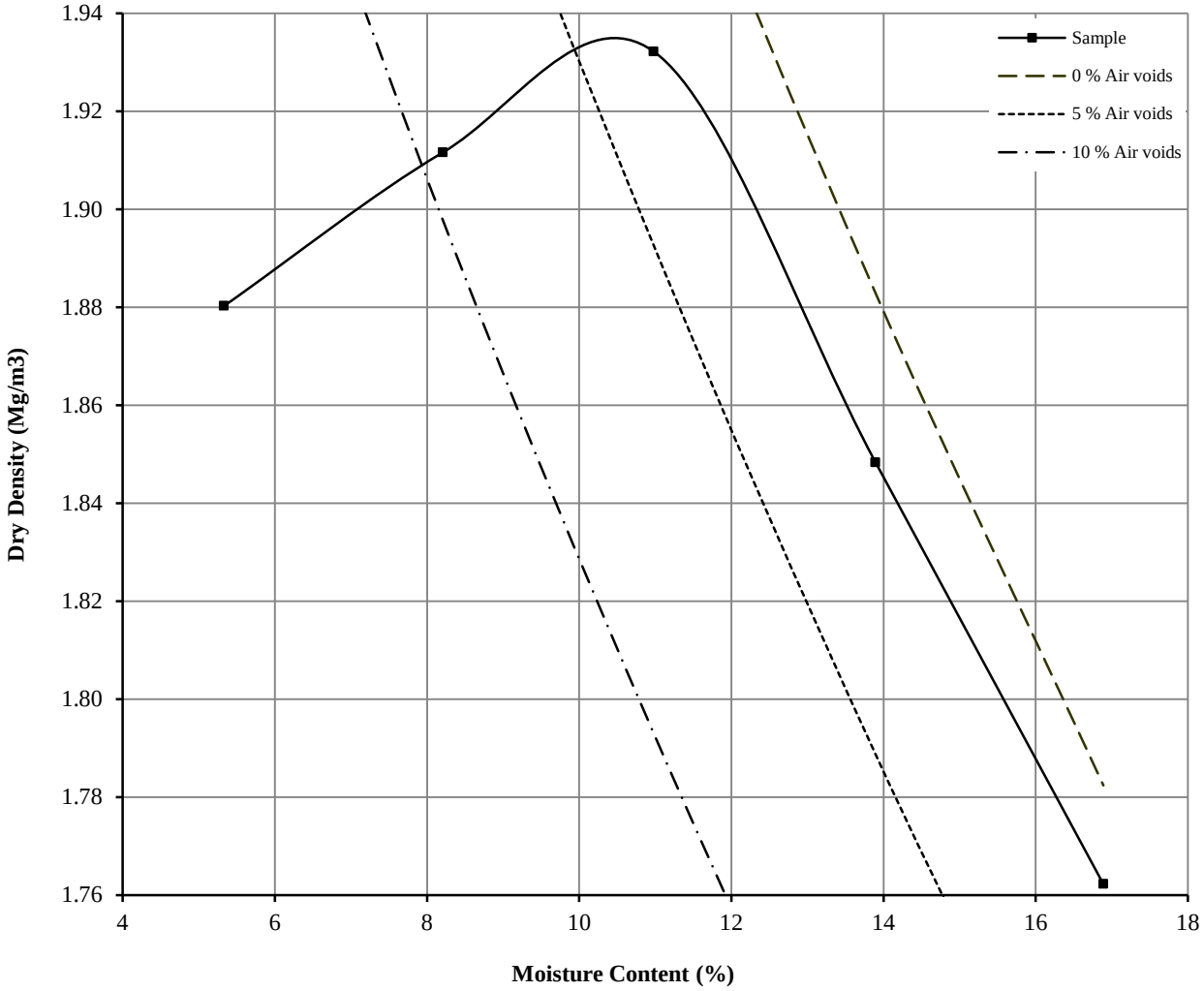
Initial Moisture Content:		14	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.60	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.86	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		14			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract** PSL22/6704 **Client Ref** 4454

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP07**	**Top Depth (m) :**	**0.70**
Sample Number:	**2**	**Base Depth (m) :**	
Sample Type:	**D&B**		

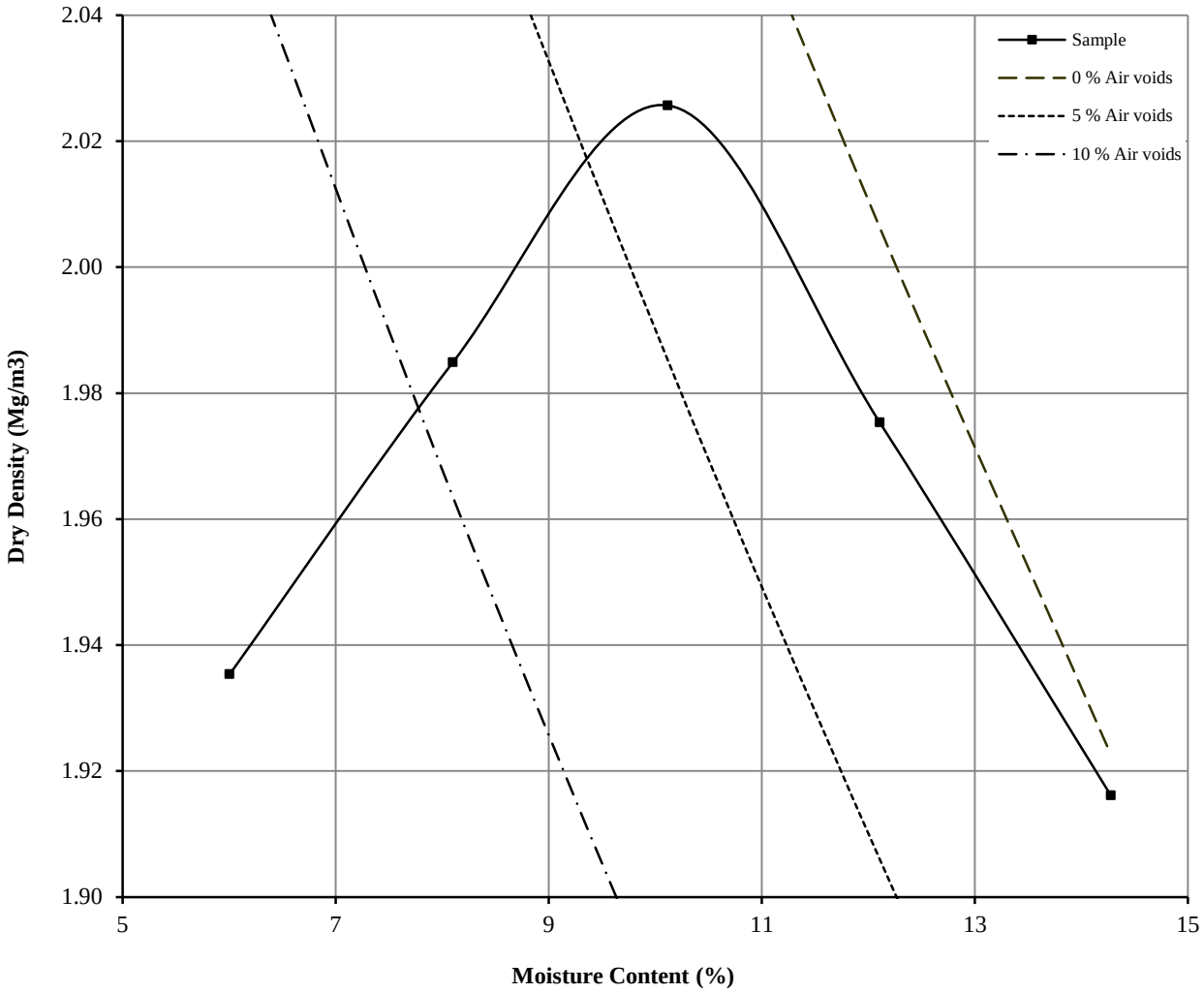


Initial Moisture Content:		14	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.55	Assumed	Material Retained on 37.5 mm Test Sieve (%):		30
Maximum Dry Density (Mg/m3):		1.93	Material Retained on 20.0 mm Test Sieve (%):		11
Optimum Moisture Content (%):		11			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP08**	**Top Depth (m) :**	**1.90**
Sample Number:	**4**	**Base Depth (m) :**	
Sample Type:	**D&B**		

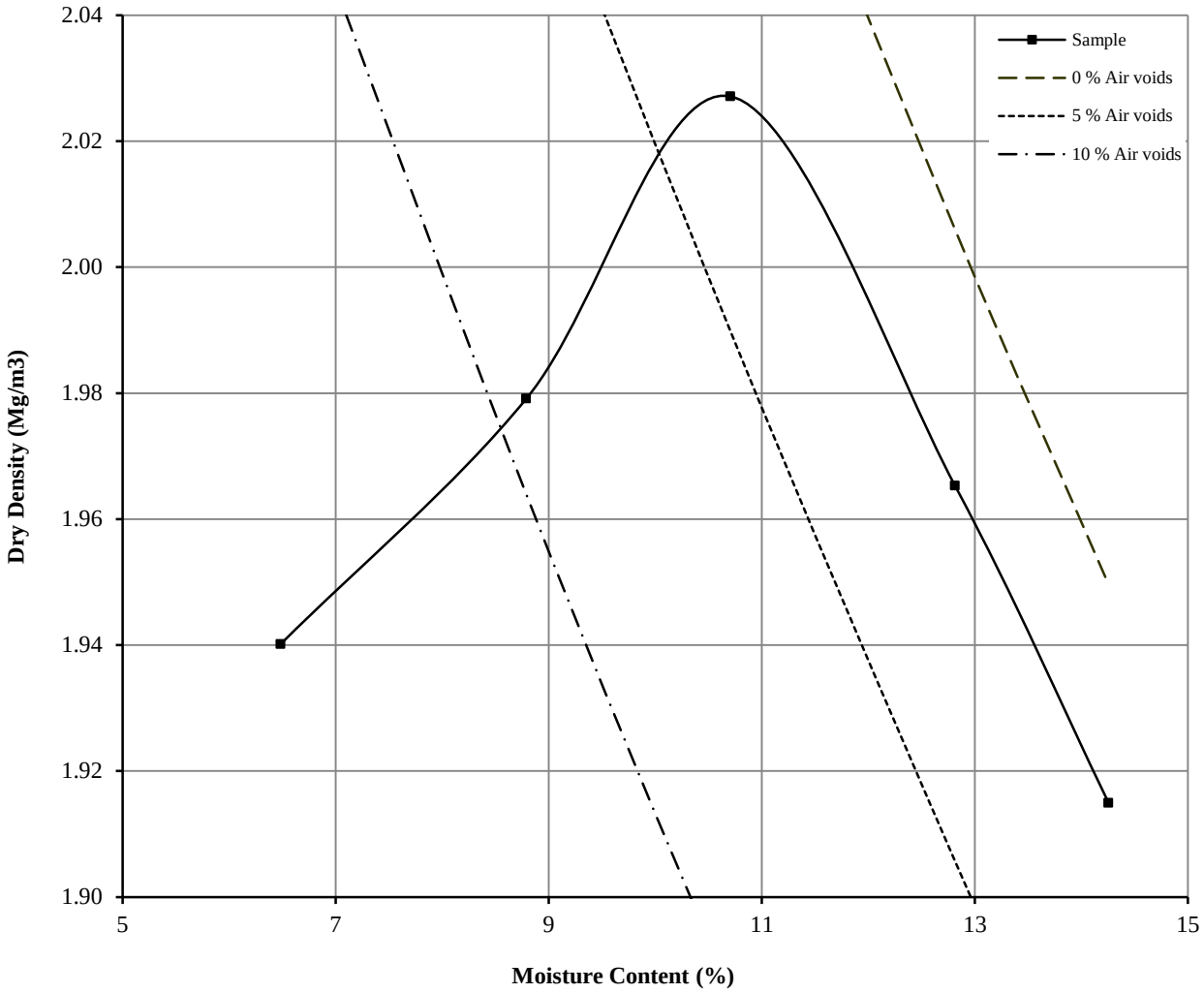


Initial Moisture Content:		12	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		54
Maximum Dry Density (Mg/m3):		2.03	Material Retained on 20.0 mm Test Sieve (%):		12
Optimum Moisture Content (%):		10			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP20**	**Top Depth (m) :**	**0.50**
Sample Number:	**2**	**Base Depth (m) :**	
Sample Type:	**D&B**		

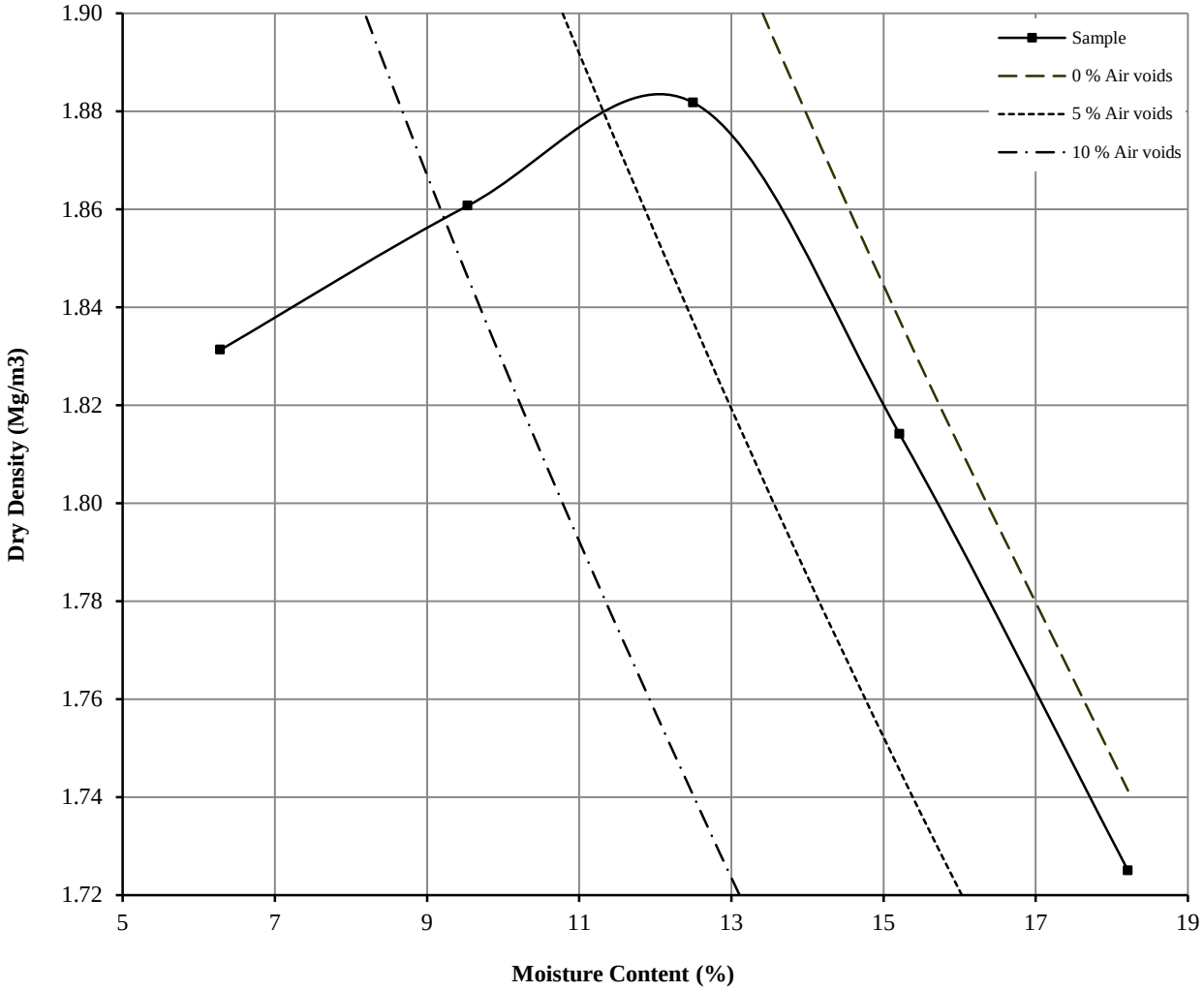


Initial Moisture Content:		8.8	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.7	Assumed	Material Retained on 37.5 mm Test Sieve (%):		42
Maximum Dry Density (Mg/m3):		2.03	Material Retained on 20.0 mm Test Sieve (%):		12
Optimum Moisture Content (%):		11			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number:	**TP27**	**Top Depth (m) :**	**0.80**
Sample Number:	**3**	**Base Depth (m) :**	
Sample Type:	**D&B**		

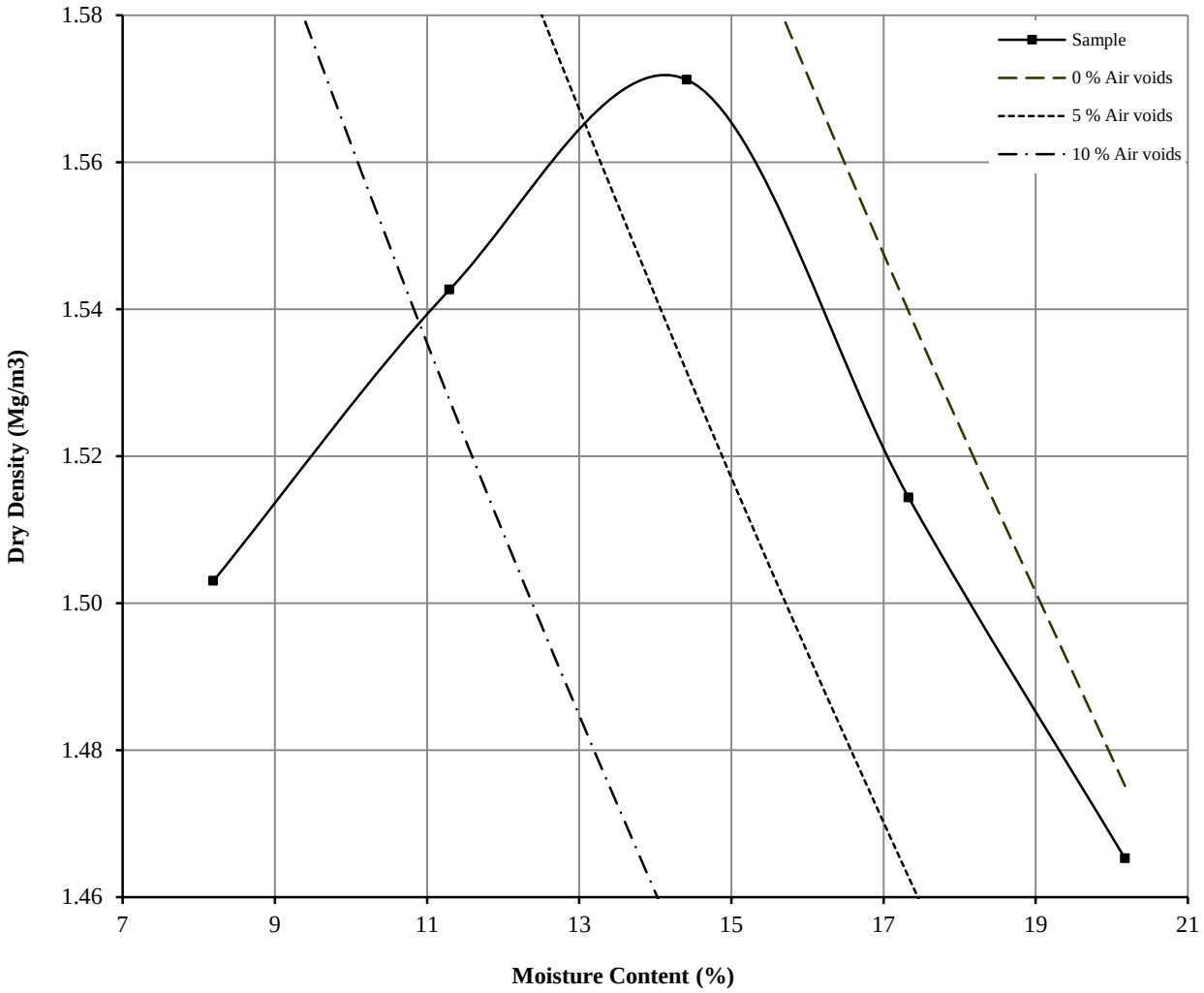


Initial Moisture Content:		13	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.55	Assumed	Material Retained on 37.5 mm Test Sieve (%):		10
Maximum Dry Density (Mg/m3):		1.88	Material Retained on 20.0 mm Test Sieve (%):		3
Optimum Moisture Content (%):		13			
Remarks See summary of soil descriptions					

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number:	**BH09**	**Top Depth (m) :**	**9.00**
Sample Number:	**17**	**Base Depth (m) :**	
Sample Type:	**B**		



Initial Moisture Content:		29	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.10	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.57	Material Retained on 20.0 mm Test Sieve (%):		2
Optimum Moisture Content (%):		14			
Remarks See summary of soil descriptions					

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

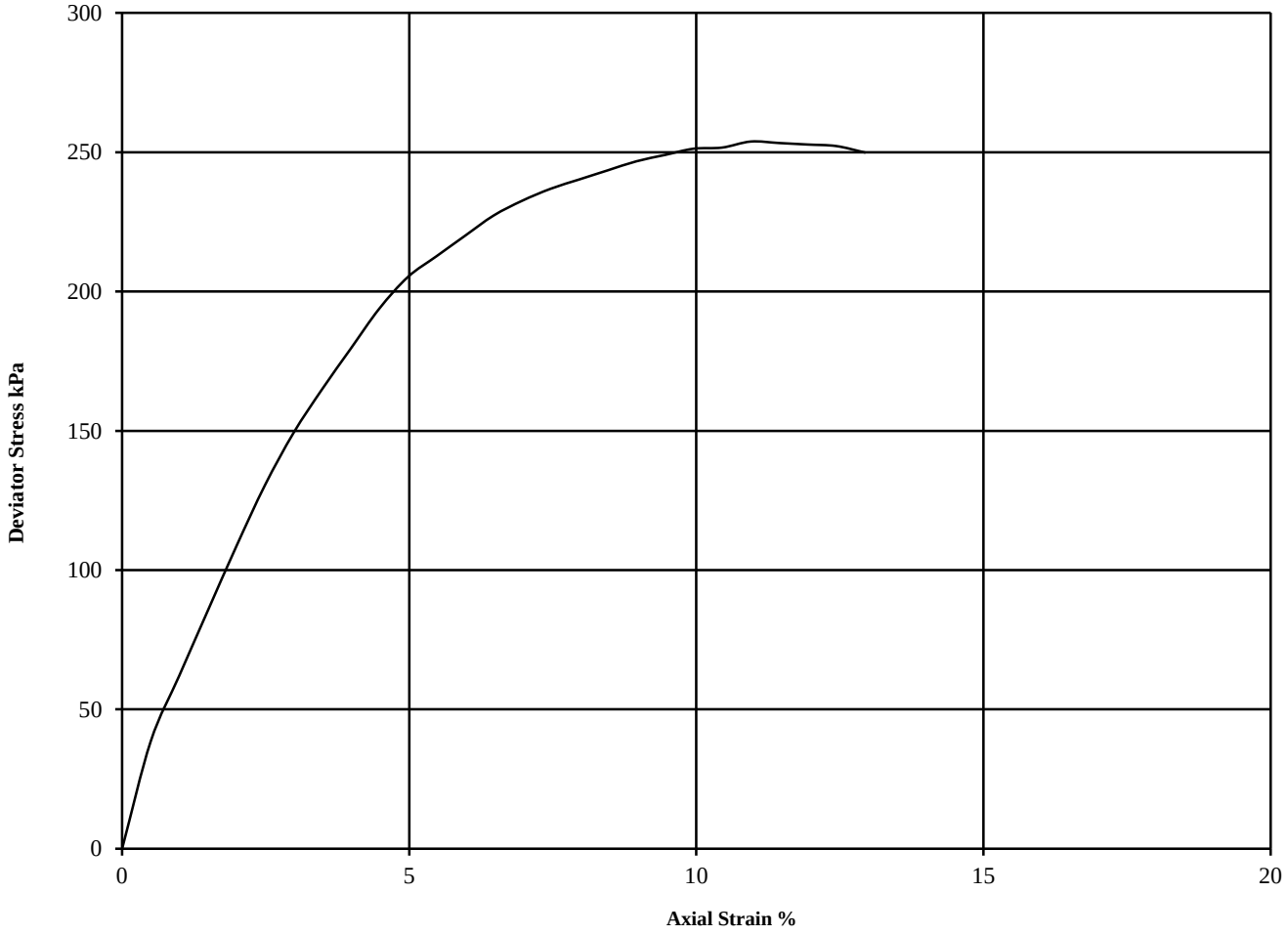
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **BH10** **Top Depth (m):** **1.00**

Sample Number: **2** **Base Depth (m):**

Sample Type **U**



Diameter (mm):		103	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.35
1	12	2.09	1.87	20	254	127	10.9	Brittle	See summary of soil descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Pogmoor Land

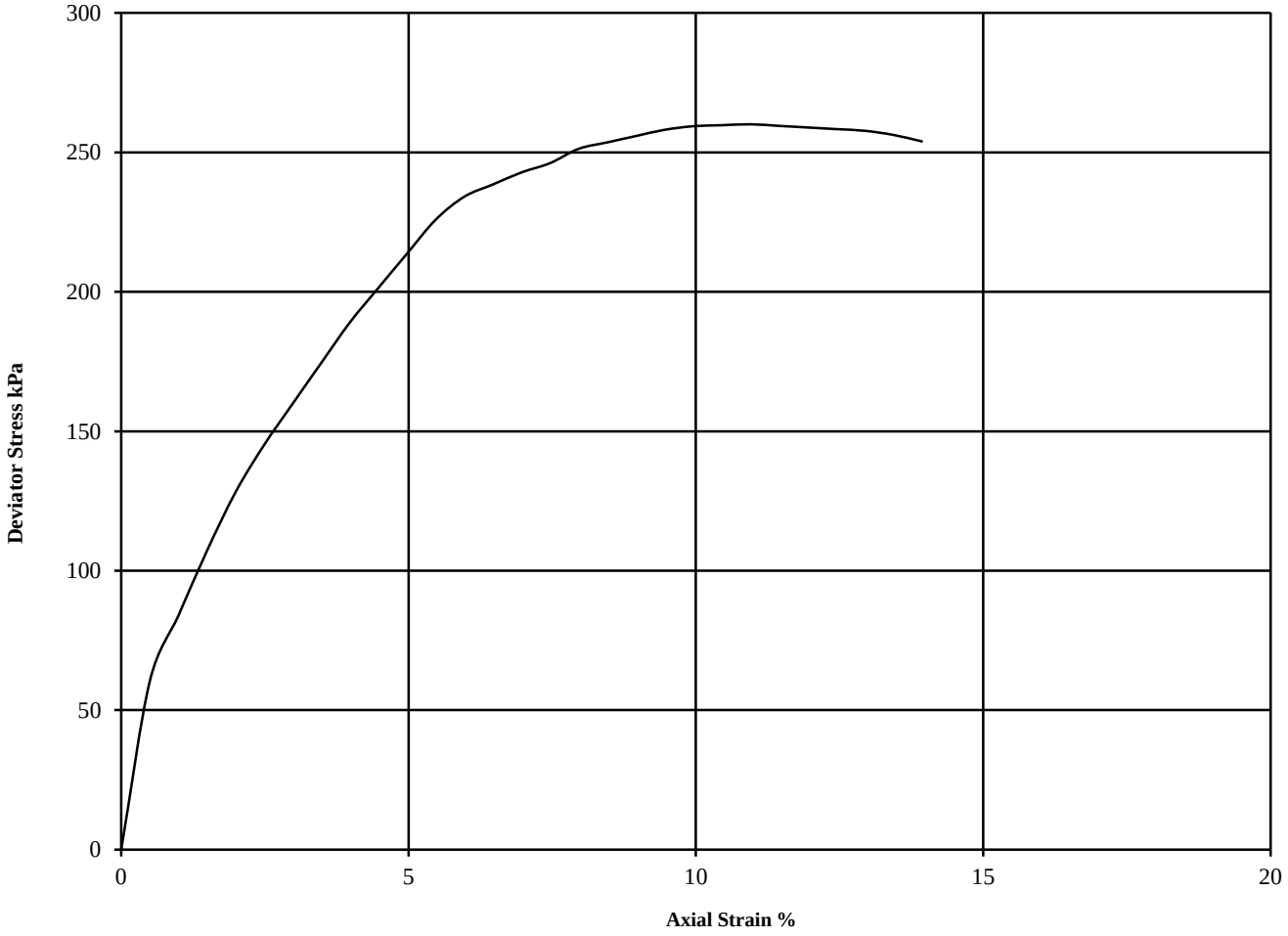
Contract No:
PSL22/6704
Client Ref:
4454

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number:	**BH03**	**Top Depth (m):**	**4.00**
Sample Number:	**8**	**Base Depth (m):**	
Sample Type	**U**		



Diameter (mm):		103	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.35
1	9.7	2.03	1.85	80	260	130	10.9	Brittle	See summary of soil descriptions

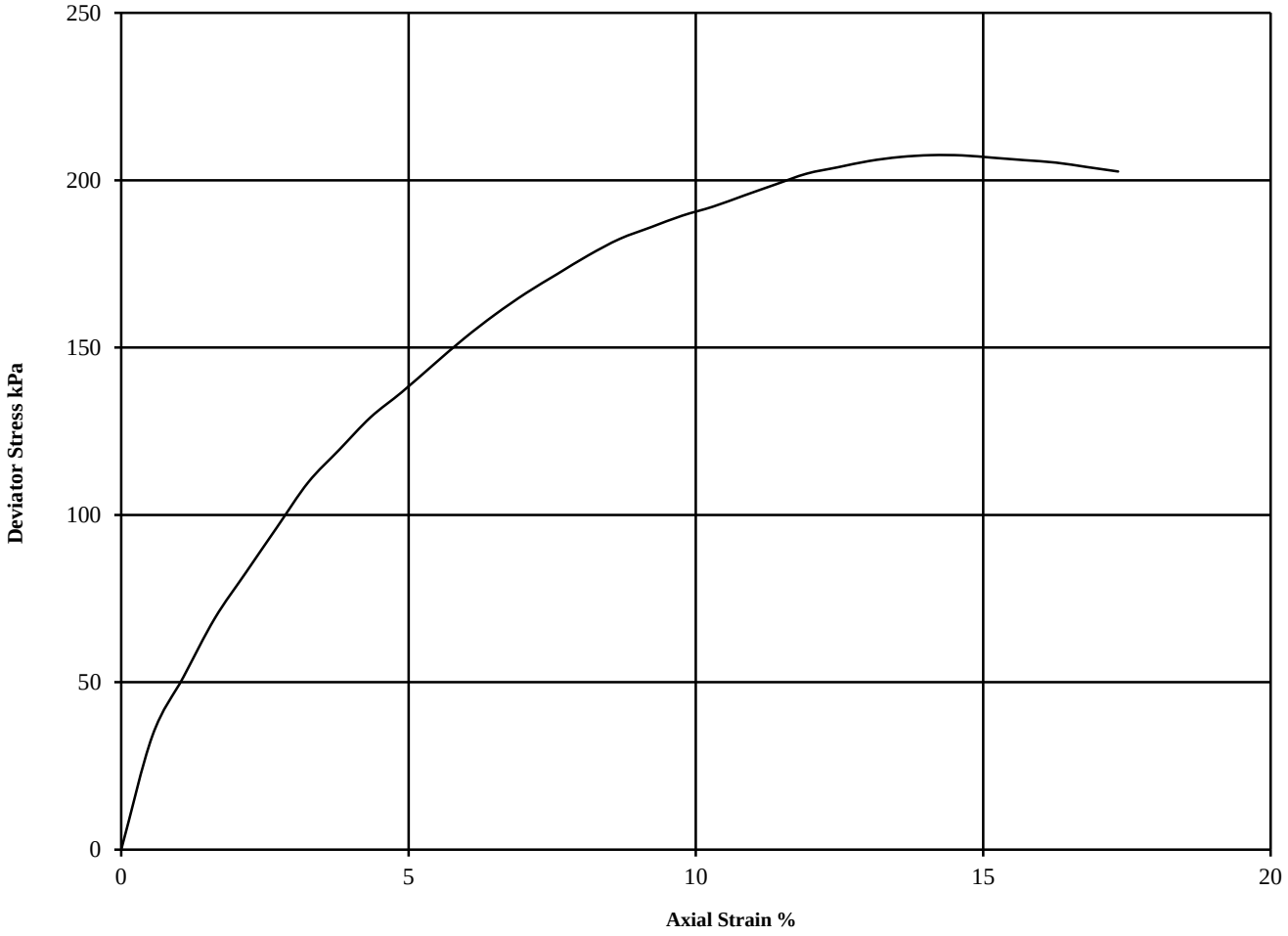
UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number:	**BH05**	**Top Depth (m):**	**2.00**
Sample Number:	**3**	**Base Depth (m):**	
Sample Type	**U**		



Diameter (mm):		103	Height (mm):		190	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.34
1	12	2.11	1.88	40	208	104	14.1	Plastic	See summary of soil descriptions

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

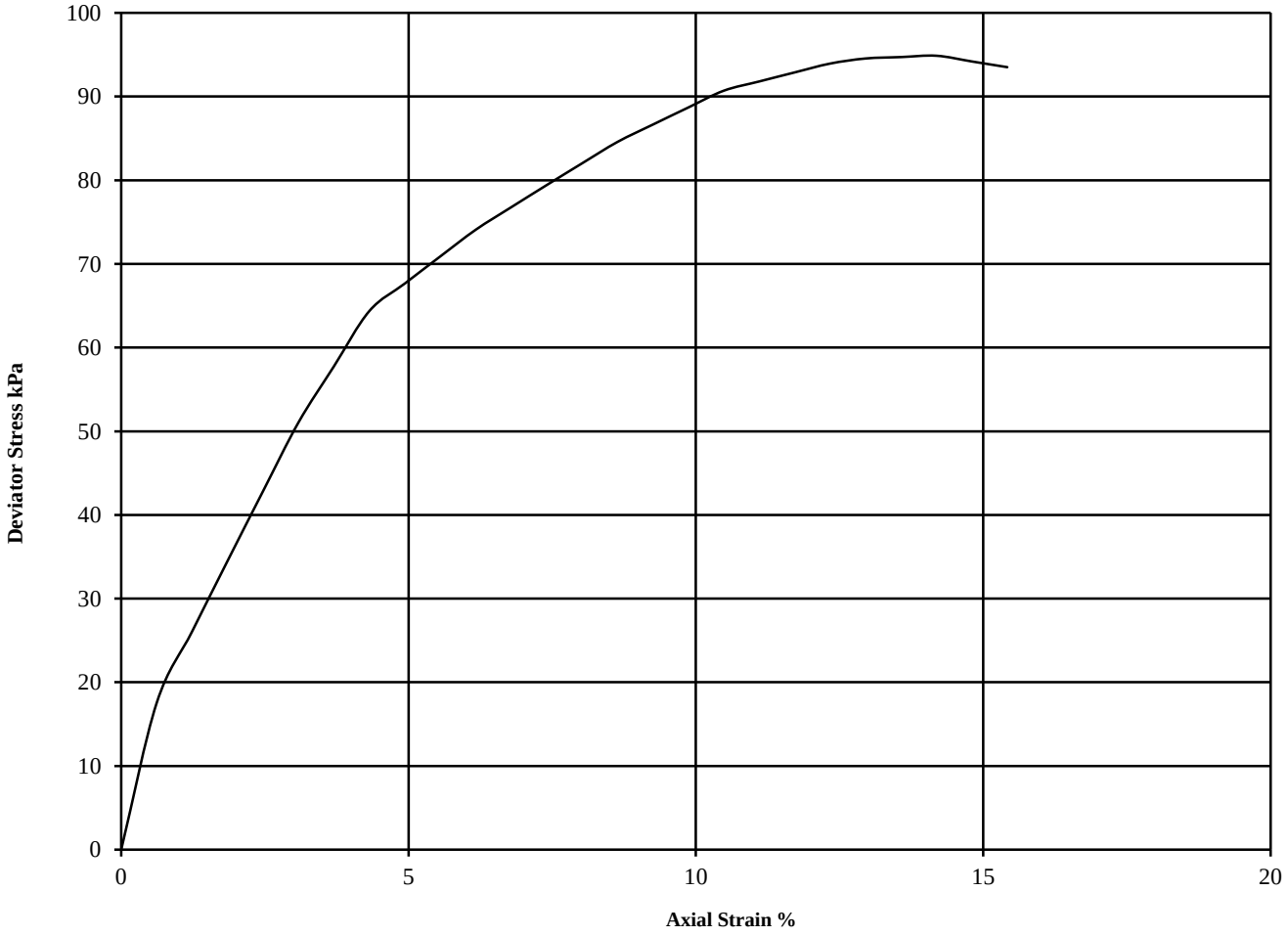
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **BH07** **Top Depth (m):** **1.00**

Sample Number: **2** **Base Depth (m):**

Sample Type **U**



Diameter (mm):		103	Height (mm):		167	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.34
1	21	1.94	1.59	20	95	47	14.2	Plastic	See summary of soil descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Pogmoor Land

Contract No: **PSL22/6704**

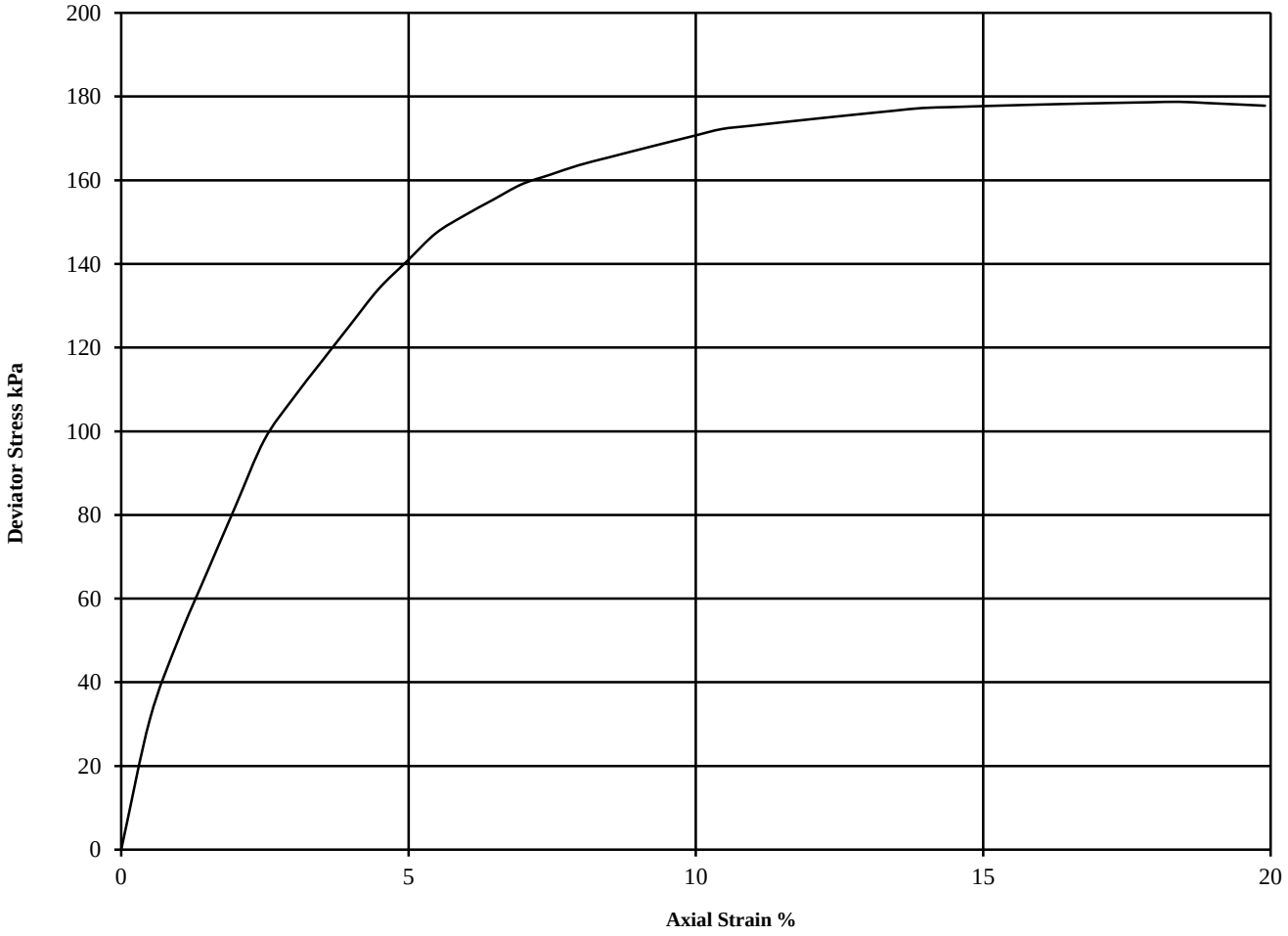
Client Ref: **4454**

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number:	**BH08**	**Top Depth (m):**	**6.50**
Sample Number:	**10**	**Base Depth (m):**	
Sample Type	**U**		



Diameter (mm):		103	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.33
1	14	2.19	1.92	130	179	89	18.4	Plastic	See summary of soil descriptions

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

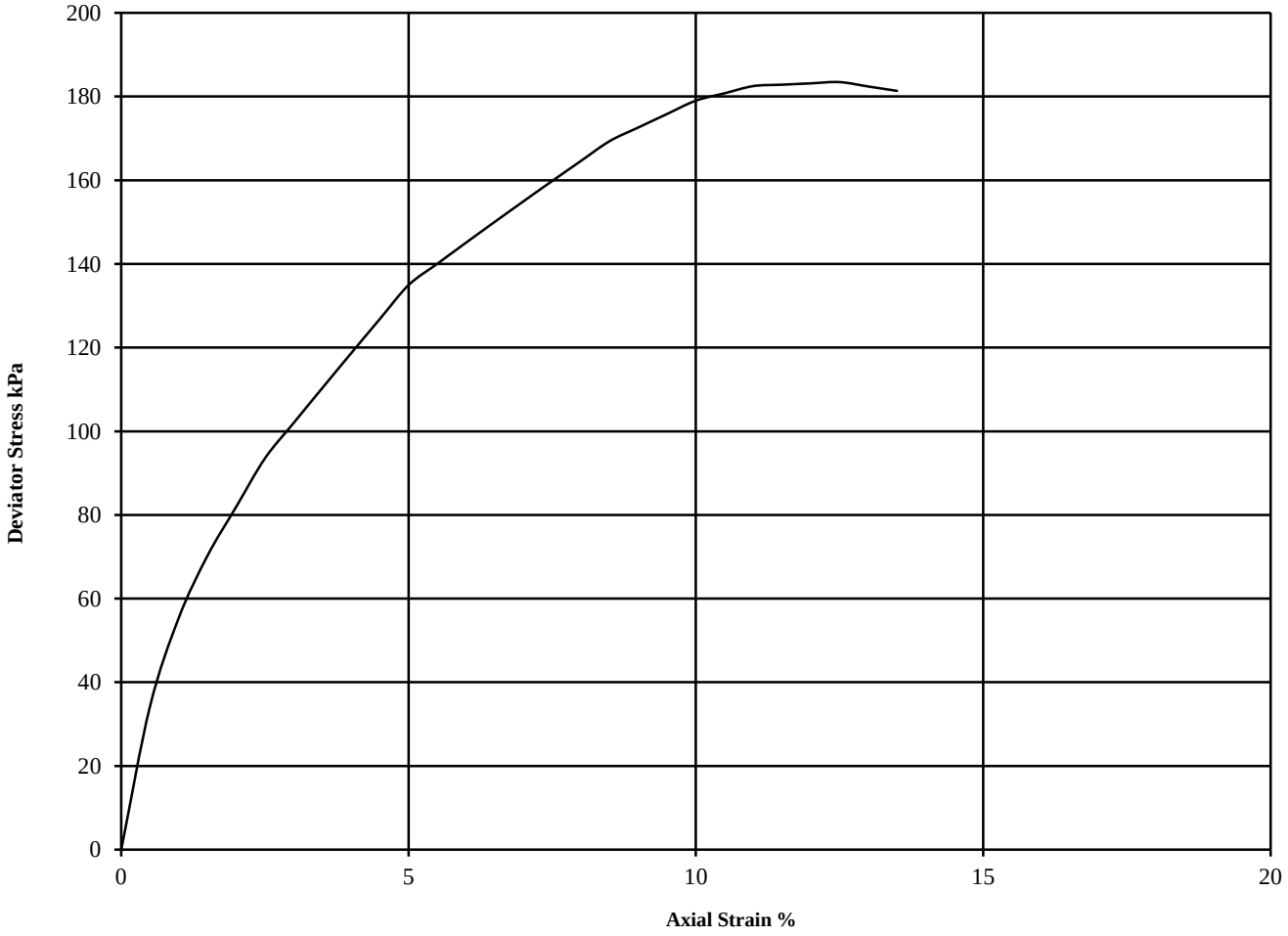
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **BH09** **Top Depth (m):** **4.00**

Sample Number: **8** **Base Depth (m):**

Sample Type **U**



Diameter (mm):		38	Height (mm):		76	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.82
1	13	2.07	1.83	80	183	92	12.5	Intermediate	See summary of soil descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Pogmoor Land

Contract No:
PSL22/6704
Client Ref:
4454

ONE DIMENSIONAL CONSOLIDATION TEST

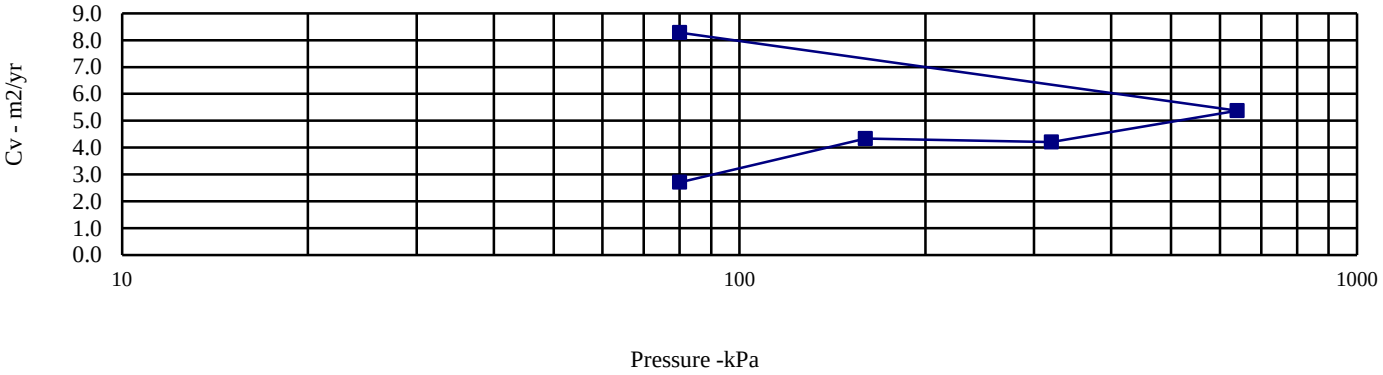
BS 1377: Part 5: 1990: Clause 3

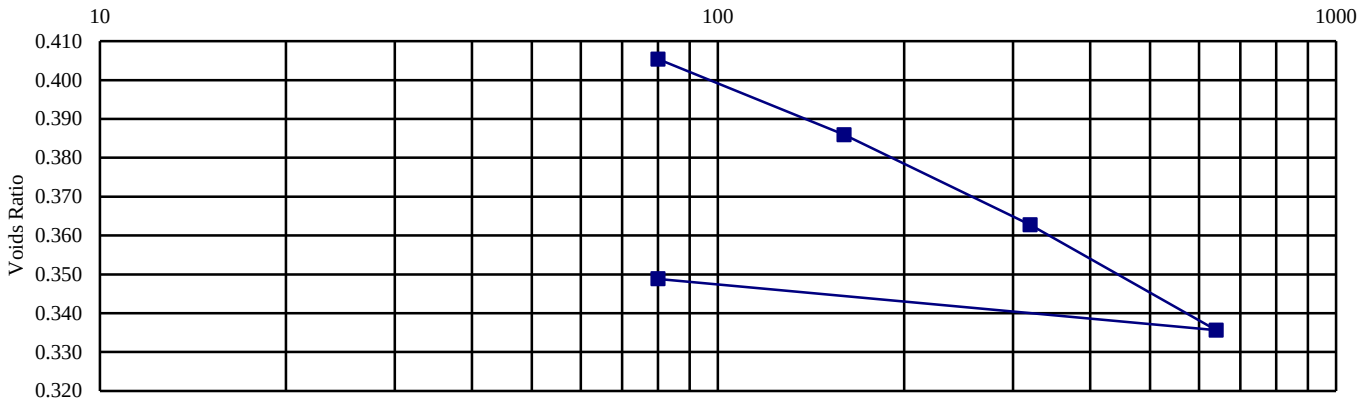
Hole Number: **BH10** **Top Depth (m):** **4.00**

Sample Number: **8** **Base Depth (m) :**

Sample Type: **U**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	15						
Bulk Density (Mg/m3):	2.11	0	80	0.368	2.708	Method used to	
Dry Density (Mg/m3):	1.83	80	160	0.173	4.337	determine CV:	T90
Voids Ratio:	0.448	160	320	0.105	4.205	Nominal temperature	
Degree of saturation:	91.1	320	640	0.062	5.371	during test ' C:	20
Height (mm):	20.02	640	80	0.018	8.282	Remarks:	
Diameter (mm)	75.01					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.65						





UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

ONE DIMENSIONAL CONSOLIDATION TEST

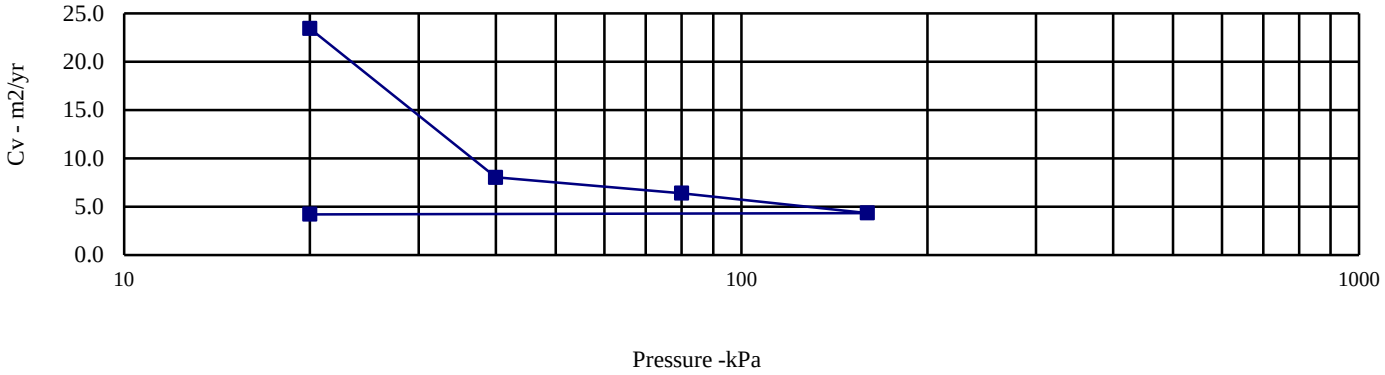
BS 1377: Part 5: 1990: Clause 3

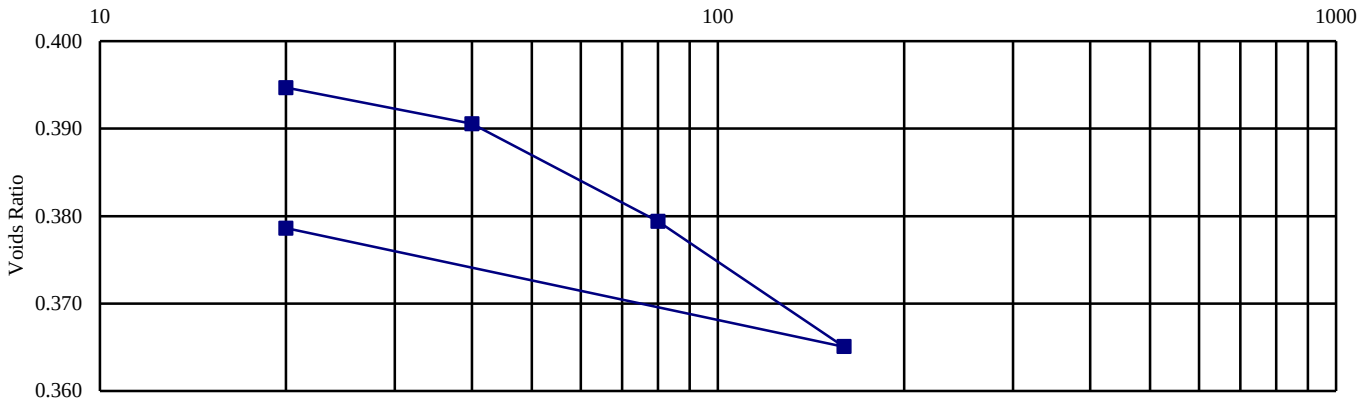
Hole Number: **BH02** **Top Depth (m):** **1.00**

Sample Number: **2** **Base Depth (m) :**

Sample Type: **U**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	13						
Bulk Density (Mg/m3):	2.15	0	20	0.122	23.426	Method used to	
Dry Density (Mg/m3):	1.90	20	40	0.148	8.035	determine CV:	T90
Voids Ratio:	0.398	40	80	0.201	6.401	Nominal temperature	
Degree of saturation:	89.2	80	160	0.130	4.351	during test ' C:	20
Height (mm):	20.012	160	20	0.071	4.222	Remarks:	
Diameter (mm)	75.033					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.65						





UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

ONE DIMENSIONAL CONSOLIDATION TEST

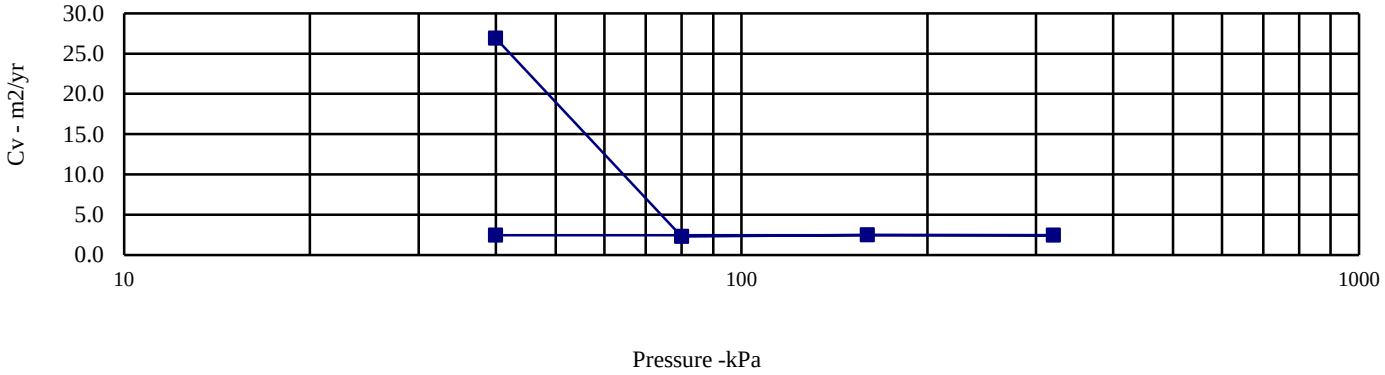
BS 1377: Part 5: 1990: Clause 3

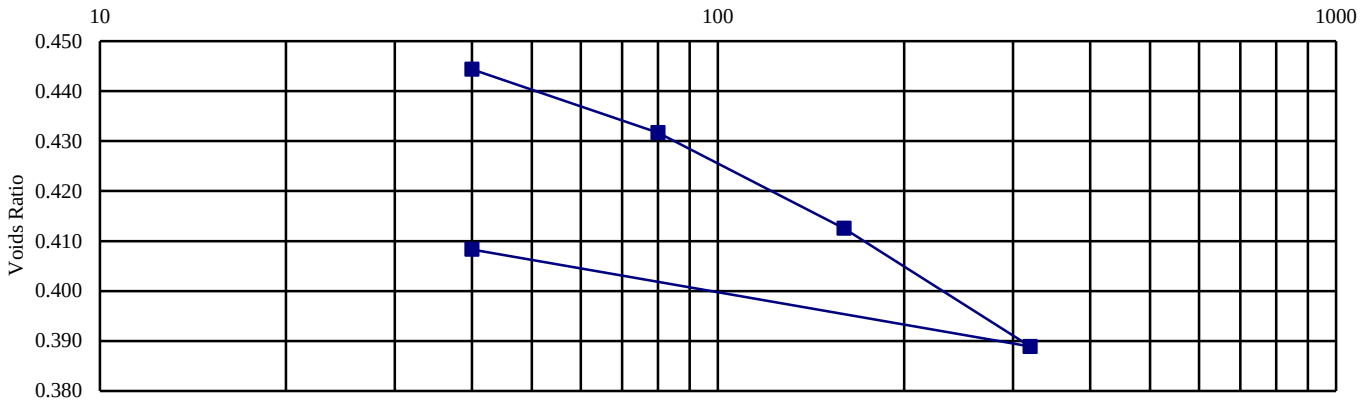
Hole Number: **BH03** **Top Depth (m):** **2.00**

Sample Number: **4** **Base Depth (m) :**

Sample Type: **U**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	16						
Bulk Density (Mg/m3):	2.11	0	40	0.251	26.904	Method used to	
Dry Density (Mg/m3):	1.82	40	80	0.219	2.322	determine CV:	T90
Voids Ratio:	0.459	80	160	0.167	2.510	Nominal temperature	
Degree of saturation:	91.8	160	320	0.105	2.473	during test ' C:	20
Height (mm):	20.032	320	40	0.050	2.483	Remarks:	
Diameter (mm)	75.04					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.65						





UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

ONE DIMENSIONAL CONSOLIDATION TEST

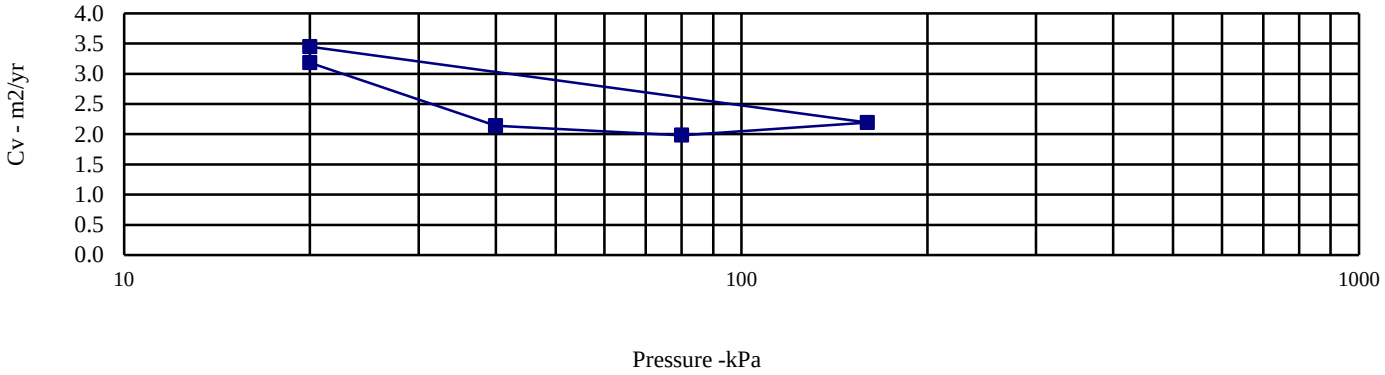
BS 1377: Part 5: 1990: Clause 3

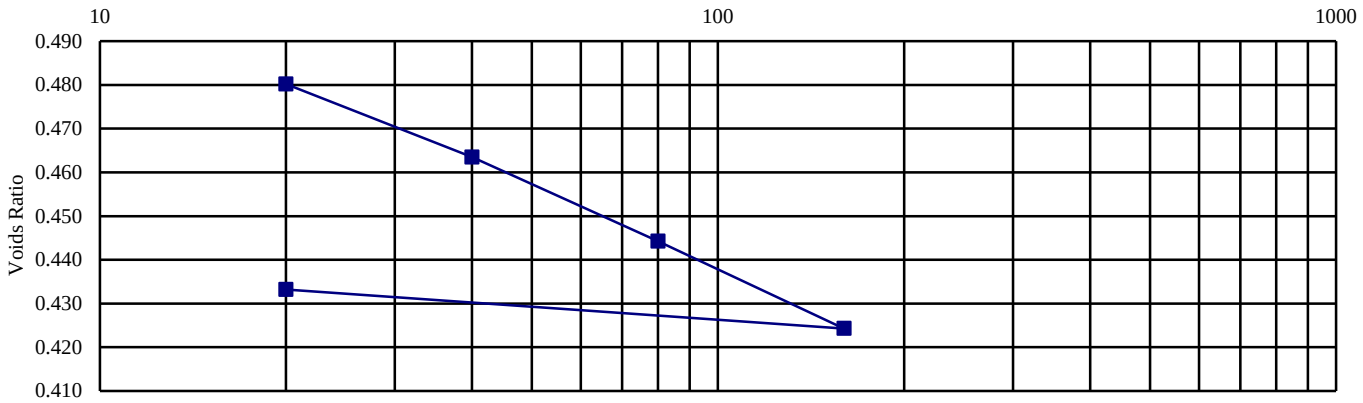
Hole Number: **BH04** **Top Depth (m):** **1.00**

Sample Number: **2** **Base Depth (m) :**

Sample Type: **U**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	19						
Bulk Density (Mg/m3):	2.11	0	20	0.512	3.182	Method used to	
Dry Density (Mg/m3):	1.77	20	40	0.566	2.139	determine CV:	T90
Voids Ratio:	0.496	40	80	0.328	1.981	Nominal temperature	
Degree of saturation:	101.7	80	160	0.173	2.191	during test ' C:	20
Height (mm):	20.002	160	20	0.045	3.447	Remarks:	
Diameter (mm)	75.018					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.65						





UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

ONE DIMENSIONAL CONSOLIDATION TEST

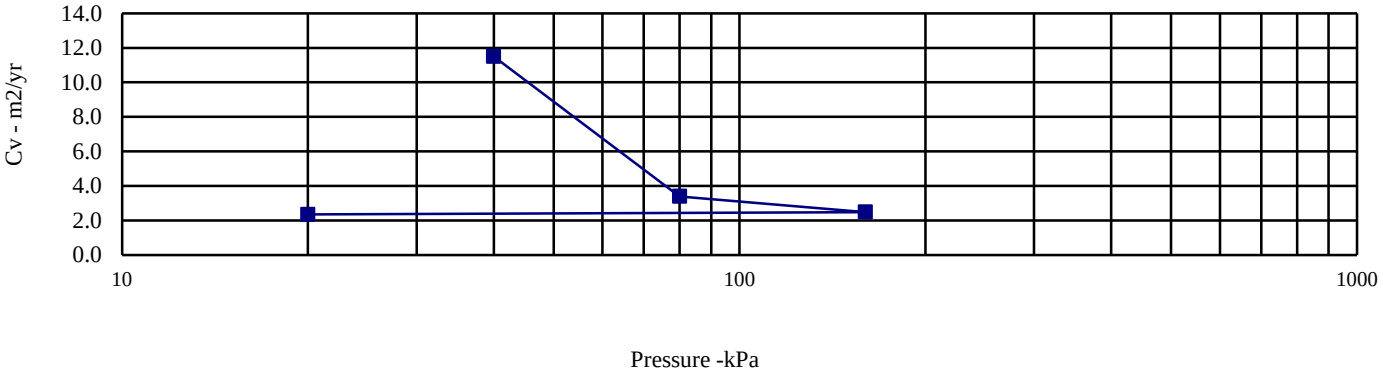
BS 1377: Part 5: 1990: Clause 3

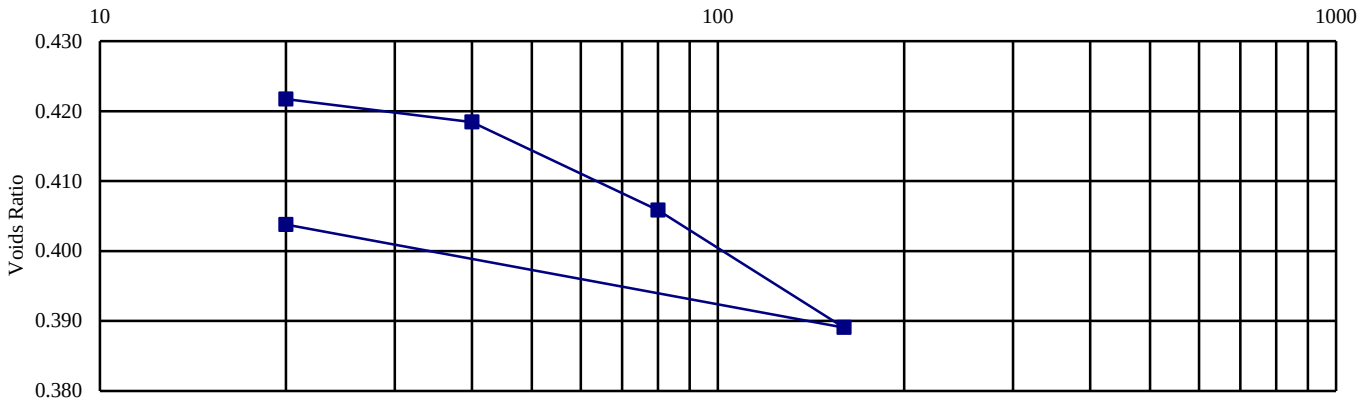
Hole Number: **BH06** **Top Depth (m):** **1.00**

Sample Number: **3** **Base Depth (m) :**

Sample Type: **U**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	15						
Bulk Density (Mg/m3):	2.14	0	20	Swelling	Swelling	Method used to	
Dry Density (Mg/m3):	1.86	20	40	0.115	11.499	determine CV:	T90
Voids Ratio:	0.425	40	80	0.222	3.401	Nominal temperature	
Degree of saturation:	92.3	80	160	0.149	2.496	during test ' C:	20
Height (mm):	20.032	160	20	0.076	2.352	Remarks:	
Diameter (mm)	75.003					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.65						





UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

ONE DIMENSIONAL CONSOLIDATION TEST

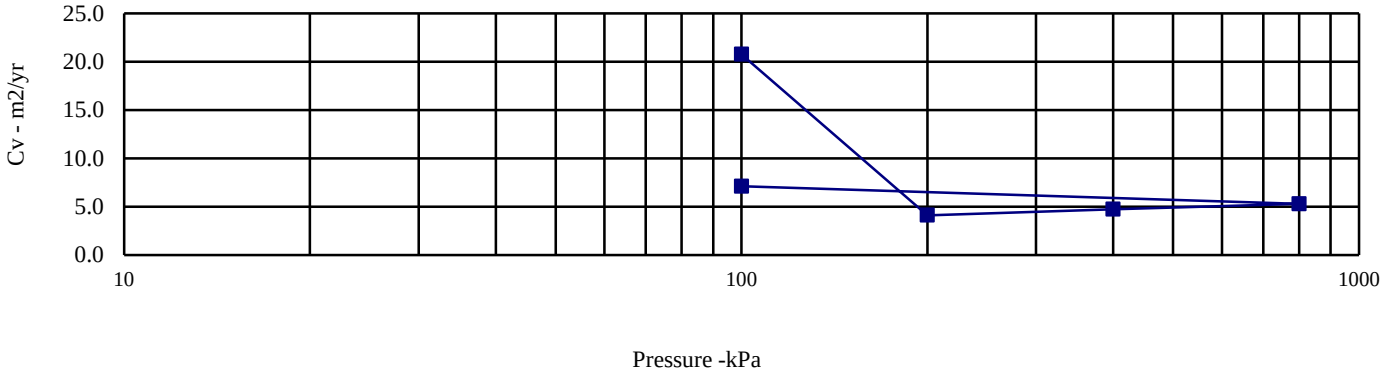
BS 1377: Part 5: 1990: Clause 3

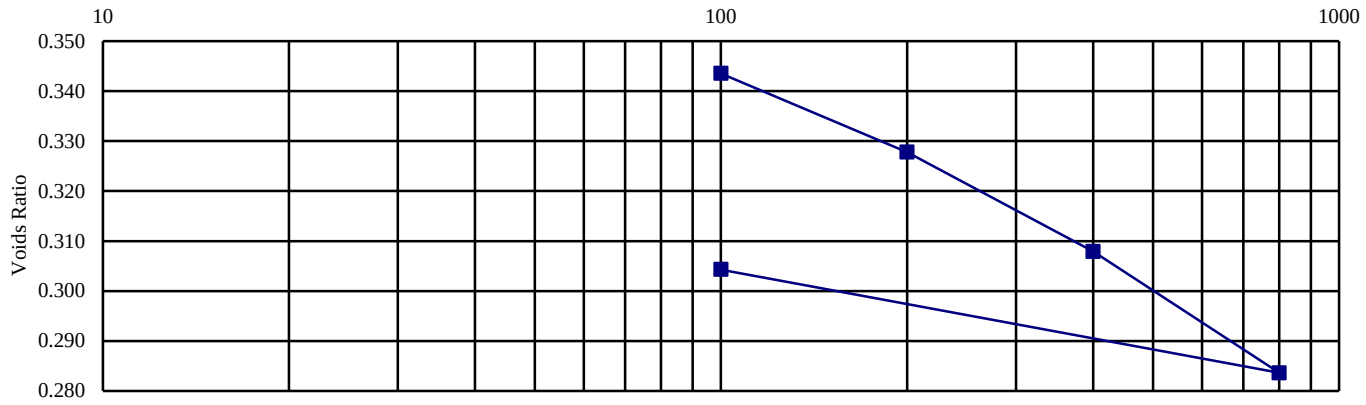
Hole Number: **BH06** **Top Depth (m):** **5.00**

Sample Number: **9** **Base Depth (m) :**

Sample Type: **U**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	13						
Bulk Density (Mg/m3):	2.20	0	100	0.137	20.749	Method used to	
Dry Density (Mg/m3):	1.95	100	200	0.118	4.119	determine CV:	T90
Voids Ratio:	0.362	200	400	0.075	4.742	Nominal temperature	
Degree of saturation:	95.1	400	800	0.046	5.310	during test ' C:	20
Height (mm):	20.016	800	100	0.023	7.107	Remarks:	
Diameter (mm)	75.028					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.65						





UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

ONE DIMENSIONAL CONSOLIDATION TEST

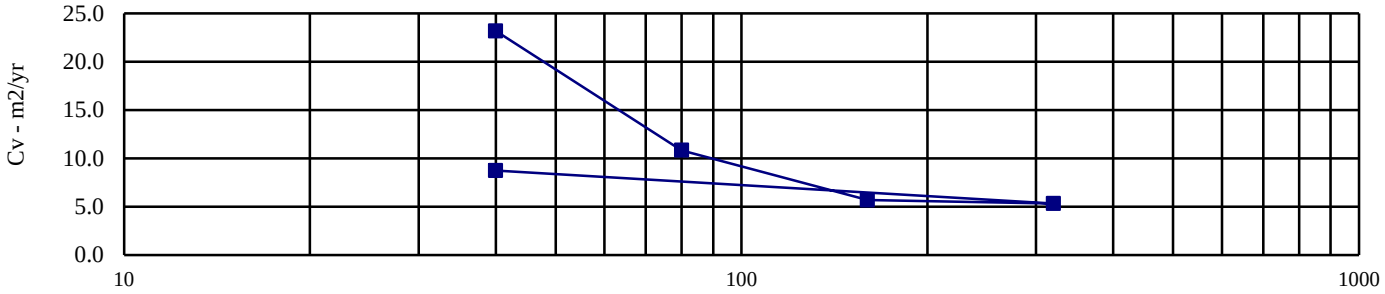
BS 1377: Part 5: 1990: Clause 3

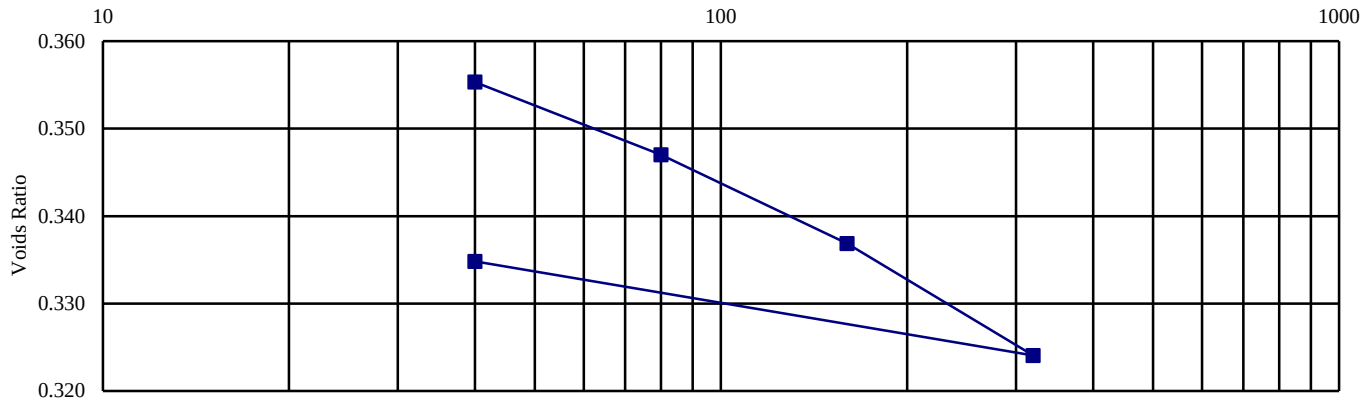
Hole Number: **BH08** **Top Depth (m):** **2.00**

Sample Number: **4** **Base Depth (m) :**

Sample Type: **U**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	12						
Bulk Density (Mg/m3):	2.18	0	40	0.140	23.168	Method used to	
Dry Density (Mg/m3):	1.94	40	80	0.153	10.838	determine CV:	T90
Voids Ratio:	0.363	80	160	0.094	5.687	Nominal temperature	
Degree of saturation:	87.6	160	320	0.060	5.324	during test ' C:	20
Height (mm):	20.012	320	40	0.029	8.728	Remarks:	
Diameter (mm)	75.003					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.65						





UKAS TESTING 4043	PSL Professional Soils Laboratory	**Pogmoor Land**	**Contract No:** PSL22/6704 **Client Ref:** 4454

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
RC01	8.50	1	A	Perp	85	41	3485	4437.24	66.61	-	7.01	1.58	1.138	1.80	Valid	
RC01	9.50	2	A	Perp	85	38	3230	4112.56	64.13	-	1.08	0.26	1.119	0.29	Valid	
RC01	9.90	3	A	Perp	85	39	3315	4220.79	64.97	-	5.98	1.42	1.125	1.59	Valid	
RC01	11.00	6	A	Perp	85	36	3060	3896.11	62.42	-	0.51	0.13	1.105	0.14	Valid	
RC01	12.60	7	A	Perp	85	40	3400	4329.01	65.80	-	1.94	0.45	1.131	0.51	Valid	
RC01	12.70	8	A	Perp	85	39	3315	4220.79	64.97	-	1.15	0.27	1.125	0.31	Valid	
RC01	13.10	9	A	Perp	85	41	3485	4437.24	66.61	-	0.94	0.21	1.138	0.24	Valid	
RC02	14.80	1	A	Perp	85	42	3570	4545.47	67.42	-	2.42	0.53	1.144	0.61	Valid	
RC02	16.30	3	A	Perp	85	36	3060	3896.11	62.42	-	6.87	1.76	1.105	1.95	Valid	
RC02	17.00	4	A	Perp	85	42	3570	4545.47	67.42	-	3.08	0.68	1.144	0.78	Valid	
RC02	18.30	6	A	Perp	85	47	3995	5086.59	71.32	-	6.28	1.23	1.173	1.45	Valid	
RC02	19.30	8	A	Perp	85	38	3230	4112.56	64.13	-	7.09	1.72	1.119	1.93	Valid	
RC03	11.70	1	A	Perp	85	40	3400	4329.01	65.80	-	11.27	2.60	1.131	2.95	Valid	
RC03	12.40	2	A	Perp	85	36	3060	3896.11	62.42	-	3.27	0.84	1.105	0.93	Valid	
RC03	13.60	4	A	Perp	85	38	3230	4112.56	64.13	-	1.08	0.26	1.119	0.29	Valid	
RC03	14.90	6	A	Perp	85	37	3145	4004.34	63.28	-	0.47	0.12	1.112	0.13	Valid	
RC03	16.30	8	A	Perp	85	70	5950	7575.78	87.04	-	6.28	0.83	1.283	1.06	Valid	

Note All testing carried out on samples at as received water content Par = parallel, Perp = perpendicular, U = Random A = Axial, D = Diametral, I = Irregular

UKAS TESTING 4043

PSL Professional Soils Laboratory

Pogmoor Land

Contract No:

PSL22/6704

Client Ref:

4454

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		D_e^2	D_e	Failure Load		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	L	D		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
RC01	8.50	1	D	Par	-	85	7225	85.00	-	4.59	0.635	1.270	0.81	Valid	
RC01	9.50	2	D	Par	-	85	7225	85.00	-	0.87	0.120	1.270	0.15	Valid	
RC01	9.90	3	D	Par	-	85	7225	85.00	-	4.79	0.663	1.270	0.84	Valid	
RC01	11.00	6	D	Par	-	85	7225	85.00	-	0.33	0.046	1.270	0.06	Valid	
RC01	12.60	7	D	Par	-	85	7225	85.00	-	0.78	0.108	1.270	0.14	Valid	
RC01	12.70	8	D	Par	-	85	7225	85.00	-	1.87	0.259	1.270	0.33	Valid	
RC01	13.10	9	D	Par	-	85	7225	85.00	-	0.82	0.113	1.270	0.14	Valid	
RC02	14.80	1	D	Par	-	85	7225	85.00	-	1.19	0.165	1.270	0.21	Valid	
RC02	16.30	3	D	Par	-	85	7225	85.00	-	2.72	0.376	1.270	0.48	Valid	
RC02	17.00	4	D	Par	-	85	7225	85.00	-	1.88	0.260	1.270	0.33	Valid	
RC02	18.30	6	D	Par	-	85	7225	85.00	-	1.05	0.145	1.270	0.18	Valid	
RC02	19.30	8	D	Par	-	85	7225	85.00	-	3.08	0.426	1.270	0.54	Valid	
RC03	11.70	1	D	Par	-	85	7225	85.00	-	7.62	1.055	1.270	1.34	Valid	
RC03	12.40	2	D	Par	-	85	7225	85.00	-	1.08	0.149	1.270	0.19	Valid	
RC03	13.60	4	D	Par	-	85	7225	85.00	-	0.74	0.102	1.270	0.13	Valid	
RC03	14.90	6	D	Par	-	85	7225	85.00	-	0.32	0.044	1.270	0.06	Valid	
RC03	16.30	8	D	Par	-	85	7225	85.00	-	4.12	0.570	1.270	0.72	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular, U = Random

UKAS TESTING 4043

PSL Professional Soils Laboratory

Pogmoor Land

Contract No:

PSL22/6704

Client Ref:

4454

DETERMINATION OF UNCONFINED COMPRESSIVE STRENGTH

ISRM Suggested Methods, pp 111 –116, 1981.

Hole Number	Sample Number	Sample Type	Top Depth (m)	Base Depth (m)	Sample Diameter (mm)	Sample Length (mm)	Height Ratio	Initial Mass (g)	Bulk Density (Mg/m)	Moisture Content (%)	Dry Density (Mg/m)	Load Failure (kN)	UCS (MPa)	Failure Mode	Date Tested	Remarks
RC01	4	UCS	10.40		85	160	1.9	2336	2.57	5.6	2.44	253.5	44.7	Brittle	07/11/22	
RC01	5	UCS	10.70		85	160	1.9	2340	2.58	6.1	2.43	43.8	7.7	Brittle	07/11/22	
RC02	2	UCS	15.00		85	160	1.9	2381	2.62	5.2	2.49	271.6	47.9	Brittle	07/11/22	
RC02	5	UCS	17.10		85	159	1.9	2294	2.54	3.2	2.46	266.6	47.0	Brittle	07/11/22	
RC02	7	UCS	18.90		85	160	1.9	2403	2.65	2.5	2.58	287.4	50.6	Brittle	07/11/22	
RC03	3	UCS	13.20		85	160	1.9	2279	2.51	3.5	2.42	236.7	41.7	Brittle	07/11/22	
RC03	5	UCS	13.70		85	160	1.9	2308	2.54	3.4	2.46	250.2	44.1	Brittle	07/11/22	
RC03	7	UCS	15.30		85	159	1.9	2374	2.63	2.0	2.58	246.4	43.4	Brittle	07/11/22	

Professional Soils Laboratory

Pogmoor Land

Contract No:
PSL22/6704
Client Ref:
4454

Certificate of Analysis

Certificate Number	22-22524	*Issued:*	10-Nov-22

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	22-22524
Client Reference	PSL22/6704
Order No	(not supplied)
Contract Title	Pogmoor Land
Description	45 Soil samples.
Date Received	04-Nov-22
Date Started	04-Nov-22
Date Completed	10-Nov-22
Test Procedures	Identified by prefix DETSn (details on request).
Notes	Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Soil Samples

Our Ref 22-22524
Client Ref PSL22/6704
Contract Title Pogmoor Land

			Lab No	2081089	2081090	2081091	2081092	2081093	2081094	2081095	2081096	2081097	2081098	2081099	2081100
			.Sample ID	BH10	BH06	BH08	BH08	TP30	BH02	BH05	BH09	BH10	TP02	TP14	TP39
			Depth	4.00	5.00	6.50	11.00	3.00	14.00	6.00	9.00	12.50	3.30	0.90	2.00
			Other ID	8	9	10	15	3	17	9	15	16	3	3	3
			Sample Type	U	U	U	D	D	D	D	D	D	D	D	D
			Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**												
Inorganics															
pH	DETSC 2008#		pH	8.1	7.6	8.0	7.1	3.6	4.3	4.2	5.5	4.9	5.4	7.4	6.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	130	130	150	57	23	140	26	44	840	22	23	23

Key: # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 22-22524
Client Ref PSL22/6704
Contract Title Pogmoor Land

			Lab No	2081101	2081102	2081103	2081104	2081105	2081106	2081107	2081108	2081109	2081110	2081111	2081112
			.Sample ID	TP45	TP04	TP06	TP32	TP35	TP17	TP18	TP29	TP30	TP34	TP41	TP44
			Depth	2.60	0.50	0.70	0.90	0.70	0.90	0.50	0.90	0.50	2.00	2.00	1.80
			Other ID	4	3	3	3	2	2	1	3	2	3	2	2
			Sample Type	D	D	D	D	D	D	D	D	D	D	D	D
			Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**												
Inorganics															
pH	DETSC 2008#		pH	6.4	6.7	5.6	6.7	6.3	4.6	4.7	4.9	6.4	6.4	6.8	6.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	21	57	34	28	84	28	26	36	16	250	45	120

Key: # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 22-22524
Client Ref PSL22/6704
Contract Title Pogmoor Land

			Lab No	2081113	2081114	2081115	2081116	2081117	2081118	2081119	2081120	2081121	2081122	2081123	2081124
			.Sample ID	TP07	TP09	TP37	TP01	TP10	TP33	TP13	TP42	TP10	TP15	TP07	TP20
			Depth	3.00	1.00	0.60	1.90	0.70	2.00	1.50	3.00	1.20	0.60	0.70	0.50
			Other ID	3	3	3	4	2	5	3	4	3	2	2	2
			Sample Type	D	D	D	D	D	D	D	D	D	D	D	D
			Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**												
Inorganics															
pH	DETSC 2008#		pH	7.9	7.0	7.7	7.0	6.4	7.6	6.6	7.8	5.8	6.0	7.1	7.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	54	33	10	11	45	150	18	37	50	11	16	13

Key: # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 22-22524
Client Ref PSL22/6704
Contract Title Pogmoor Land

	Lab No	2081125	2081126	2081127	2081128	2081129	2081130	2081131	2081132	2081133
	.Sample ID	TP27	BH02	BH09	BH09	BH10	BH10	BH07	BH08	BH10
	Depth	0.80	13.50	9.00	8.00	9.50	11.00	8.60	14.00	14.50
	Other ID	3	16	17	14	13	14	14	19	18
	Sample Type	D	D	D	D	D	D	D	D	D
	Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
	Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Inorganics										
pH	DETSC 2008#		pH	6.4	4.4	6.2	6.1	7.6	7.7	6.7	4.0	5.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	14	120	20	27	27	57	41	430	300

Key: # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 22-22524
Client Ref PSL22/6704
Contract Pogmoor Land

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2081089	BH10 4.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081090	BH06 5.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081091	BH08 6.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081092	BH08 11.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081093	TP30 3.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081094	BH02 14.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081095	BH05 6.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081096	BH09 9.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081097	BH10 12.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081098	TP02 3.30 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081099	TP14 0.90 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081100	TP39 2.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081101	TP45 2.60 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081102	TP04 0.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081103	TP06 0.70 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081104	TP32 0.90 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081105	TP35 0.70 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081106	TP17 0.90 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081107	TP18 0.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081108	TP29 0.90 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081109	TP30 0.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081110	TP34 2.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081111	TP41 2.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081112	TP44 1.80 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081113	TP07 3.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081114	TP09 1.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081115	TP37 0.60 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081116	TP01 1.90 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	

Information in Support of the Analytical Results

Our Ref 22-22524
Client Ref PSL22/6704
Contract Pogmoor Land

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2081117	TP10 0.70 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081118	TP33 2.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081119	TP13 1.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081120	TP42 3.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081121	TP10 1.20 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081122	TP15 0.60 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081123	TP07 0.70 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081124	TP20 0.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081125	TP27 0.80 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081126	BH02 13.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081127	BH09 9.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081128	BH09 8.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081129	BH10 9.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081130	BH10 11.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081131	BH07 8.60 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081132	BH08 14.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2081133	BH10 14.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.
The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

Certificate of Analysis

Certificate Number	22-22682	*Issued:*	10-Nov-22

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	22-22682
Client Reference	PSL22/6704
Order No	(not supplied)
Contract Title	Pogmoor Land
Description	One Soil sample.
Date Received	07-Nov-22
Date Started	07-Nov-22
Date Completed	10-Nov-22
Test Procedures	Identified by prefix DETSn (details on request).
Notes	Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood
General Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 22-22682
Client Ref PSL22/6704
Contract Title Pogmoor Land

Lab No	2081756
.Sample ID	TP15
Depth	0.60
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Inorganics				
pH	DETSC 2008#		pH	7.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	14

Information in Support of the Analytical Results

Our Ref 22-22682
Client Ref PSL22/6704
Contract Pogmoor Land

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2081756	TP15 0.60 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

Certificate of Analysis

Certificate Number 22-23574 *Issued:* 24-Nov-22

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference 22-23574

Client Reference PSL22/6704

Order No (not supplied)

Contract Title Pogmoor Land

Description 11 Soil samples.

Date Received 04-Nov-22

Date Started 17-Nov-22

Date Completed 24-Nov-22

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Soil Samples

Our Ref 22-23574
Client Ref PSL22/6704
Contract Title Pogmoor Land

			Lab No	2086611	2086612	2086613	2086614	2086615	2086616	2086617	2086618	2086619	2086620	2086621
			.Sample ID	TP30	BH02	BH05	BH10	TP02	TP17	TP18	TP29	BH02	BH08	BH10
			Depth	3.00	14.00	6.00	12.50	3.30	0.90	0.50	0.90	13.50	14.00	14.50
			Other ID	3	17	9	16	3	2	1	3	16	19	18
			Sample Type	D	D	D	D	D	D	D	D	D	D	D
			Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**											
Metals														
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10	18	< 10	99	< 10	< 10	< 10	< 10	23	60	38
Inorganics														
Chloride Aqueous Extract	DETSC 2055	1	mg/l	3.2	13	3.9	4.8	3.2	4.5	1.9	3.1	9.4	2.4	3.2
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	21	20	12	< 1.0	1.4	8.1	< 1.0	< 1.0	19	< 1.0	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	19	150	22	630	19	24	24	32	140	470	340

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 22-23574
Client Ref PSL22/6704
Contract Pogmoor Land

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2086611	TP30 3.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086612	BH02 14.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086613	BH05 6.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086614	BH10 12.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086615	TP02 3.30 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086616	TP17 0.90 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086617	TP18 0.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086618	TP29 0.90 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086619	BH02 13.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086620	BH08 14.00 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	
2086621	BH10 14.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days)	

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

Appendix M
Gas Monitoring Results

Visit 1

Job Title:	Job No:
Barnsley West, Pogmoor Parcel	4454
Client:	Sheet :
Strata Homes	1 of 3

Date:	Arrival Time:	Depart Time:	Operator:
24/10/2022	08:00	10:25	Toby Tapp

Gas Monitoring Results:

Ambient Concentration (% Volume):	CH_4:	ND	CO_2:	ND	O_2:	20.6

Monitoring Point	Groundwater level	Concentrations: Initial / Highest		Concentrations: Steady concentrations		Concentrations: Lowest concn	Gas Flow Rates: Initial / Maximum	Gas Flow Rates: Steady	Gas Flow Rates: Time to fall from highest to steady	Bottom of well	Remarks
		CH_4	CO_2	CH_4	CO_2	O_2					
	(m) bgl	% v/v	(%)	% v/v	(%)	(%)	litre/hr	litre/hr	secs	m	
BH01	ND	ND	1.3	ND	1.3	19.4	0.1	ND	5.0	5.86	
BH02	ND	ND	0.9	ND	0.9	19.7	ND	ND	ND	5.78	
BH03	ND	ND	4.5	ND	4.5	16.2	0.4	ND	20.0	5.72	
BH04	ND	ND	0.8	ND	0.8	18.9	0.3	ND	10.0	3.29	
BH05	ND	ND	3.5	ND	3.5	15.3	0.7	ND	60.0	5.74	
BH06	ND	ND	1.8	ND	1.8	18.5	ND	ND	ND	5.78	
BH07	ND	ND	2.0	ND	2.0	17.5	0.3	ND	5.0	5.74	
BH08	ND	ND	2.4	ND	2.4	17.9	0.1	ND	5.0	5.85	
BH09	ND	ND	1.2	ND	1.2	18.4	ND	ND	ND	5.70	
BH10	ND	ND	1.9	ND	1.9	18.1	ND	ND	ND	5.79	
PH01	5.54	ND	13.6	ND	13.6	5.1	0.7	ND	15.0	7.18	
PH04	ND	ND	4.9	ND	4.9	14.1	1.5	ND	10.0	4.41	
PH08	7.18	ND	0.1	ND	0.1	20.4	0.6	ND	20.0	7.23	Bung not on well. Replaced before monitoring.
PH13	NR	ND	0.9	ND	0.9	19.8	ND	ND	ND	NR	Bung stuck in well. Cannot dip for groundwater.
PH14	ND	ND	3.7	ND	3.7	17.5	ND	ND	ND	8.15	
PH15	ND	ND	0.7	ND	0.7	20.0	ND	ND	ND	11.73	
PH17	ND	ND	1.8	ND	1.8	18.9	ND	ND	ND	2.98	
PH21	ND	ND	2.4	ND	2.4	18.1	0.2	ND	10.0	2.78	
PH26	2.01	ND	0.5	ND	0.5	19.9	8.5	ND	30.0	2.96	
PH27	ND	ND	0.8	ND	0.8	19.9	ND	ND	ND	14.28	

Equipment Used:	Next Calibration Date
Gas Data GFM436 Infrared Gas Analyser Geotechnical Instruments Dipmeter	08/03/2023

Key

ND	None Detected
NR	Not Recorded
1.0	Recorded value does not breach trigger levels
5.0	Recorded value breaches trigger level 1
10.0	Recorded value breaches trigger level 2

Site Data:			Weather Station Data (sid - IBARNS27 Station)						
Temp (°C):	12		Barometric Pressure Trend:			Rising			
Time:	08:09	09:11	10:15	01:04	06:04	08:09	09:09	10:14	12:14
Pressure (mb):	977	978	980	982	983	985	986	987	988

Weather Conditions:	Moderate cloud / Gentle breeze	
Surface Ground Conditions:	Wet	

	CH_4	CO_2	O_2
Trigger level 1	1.0	5.0	16.0
Trigger level 2	5.0	10.0	10.0

Remarks:

Job Title:	Job No:
Barnsley West, Pogmoor Parcel	4454
Client:	Sheet :
Strata Homes	2 of 3

Date:	Arrival Time:	Depart Time:	Operator:
07/12/2022	13:15	15:10	Toby Tapp

Gas Monitoring Results:

Ambient Concentration (% Volume):	CH_4:	ND	CO_2:	ND	O_2:	20.2

Monitoring Point	Groundwater level	Concentrations					Gas Flow Rates			Bottom of well	Remarks
		Initial / Highest		Steady concentrations		Lowest concn	Initial / Maximum	Steady	Time to fall from highest to steady		
		CH_4	CO_2	CH_4	CO_2	O_2					
	(m) bgl	% v/v	(%)	% v/v	(%)	(%)	litre/hr	litre/hr	secs	m	
BH01	ND	ND	1.5	ND	1.5	18.8	ND	ND	ND	5.84	
BH02	ND	ND	1.1	ND	1.1	17.3	ND	ND	ND	5.79	
BH03	ND	ND	5.3	ND	5.3	11.4	ND	ND	ND	5.73	
BH04	ND	ND	1.6	ND	1.6	17.3	ND	ND	ND	3.28	
BH05	ND	ND	4.1	ND	4.1	11.8	ND	ND	ND	5.74	
BH06	ND	ND	4.2	ND	4.2	14.8	ND	ND	ND	5.77	
BH07	ND	ND	3.4	ND	3.4	13.9	ND	ND	ND	5.73	
BH08	ND	ND	9.2	ND	9.2	7.3	ND	ND	ND	5.87	
BH09	ND	ND	2.3	ND	2.3	15.1	ND	ND	ND	5.73	
BH10	ND	ND	2.3	ND	2.3	17.1	ND	ND	ND	5.80	
PH01	5.71	ND	20.0	ND	20.0	0.5	ND	ND	ND	7.15	
PH04	4.33	ND	5.7	ND	5.7	9.3	ND	ND	ND	4.35	
PH08	7.24	ND	2.3	ND	2.3	16.5	ND	ND	ND	7.25	
PH13	NR	ND	2.4	ND	2.4	15.7	ND	ND	ND	NR	Bung stuck in well.
PH14	ND	ND	4.1	ND	4.1	13.3	ND	ND	ND	8.15	
PH15	ND	ND	1.5	ND	1.5	18.1	-1.5	ND	10.0	11.76	
PH17	ND	ND	1.4	ND	1.4	17.6	ND	ND	ND	3.00	
PH21	ND	ND	2.5	ND	2.5	13.0	ND	ND	ND	2.82	
PH26	2.81	ND	0.5	ND	0.5	19.8	ND	ND	ND	2.94	
PH27	14.16	ND	0.8	ND	0.8	19.2	ND	ND	ND	14.26	

Equipment Used:	Next Calibration Date
Gas Data GFM436 Infrared Gas Analyser Geotechnical Instruments Dipmeter	08/03/2023

Key

ND	None Detected
NR	Not Recorded
1.0	Recorded value does not breach trigger levels
5.0	Recorded value breaches trigger level 1
10.0	Recorded value breaches trigger level 2

	Site Data:			Weather Station Data (sid - IBARNS27 Station)							CH_4	CO_2	O_2
	Temp (°C):	3 to 4		Barometric Pressure Trend:			Falling						
Time:	13:20	14:09	15:05	00:59	11:19	13:19	14:09	15:04	17:04	Trigger level 1	1.0	5.0	16.0
Pressure (mb):	1004	1003	1000	1013	1011	1009	1008	1008	1007	Trigger level 2	5.0	10.0	10.0
	Weather Conditions:		Light cloud / Moderate breeze										
	Surface Ground Conditions:		Wet										

Remarks: