



Malcolm McKemey
Environmental Assessment Services Ltd
London Road
Hickstead
Haywards Heath
West Sussex
RH17 5LZ

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e:

Analytical Report Number : 21-62578

Project / Site name:	Dial Post Bond Z	Samples received on:	15/03/2021
Your job number:	AH-2A	Samples instructed on/ Analysis started on:	15/03/2021
Your order number:	AH-2A	Analysis completed by:	24/03/2021
Report Issue Number:	1	Report issued on:	24/03/2021
Samples Analysed:	5 soil samples		

Signed: 

Karolina Marek
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 21-62578
 Project / Site name: Dial Post Bond Z
 Your Order No: AH-2A

Lab Sample Number				1802744	1802745	1802746	1802747	1802748
Sample Reference				TP5	TP6	TP7	TP2A	TP2B
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	0.40	0.20	0.20	0.30
Date Sampled				10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	-	-
Moisture Content	%	0.01	NONE	14	16	16	-	-
Total mass of sample received	kg	0.001	NONE	0.90	1.0	1.0	-	-

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
------------------	------	-----	-----------	--------------	--------------	--------------	--------------	--------------

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.5	8.2	8.0	-	-
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Total Sulphate as SO ₄	mg/kg	50	MCERTS	810	880	1100	-	-
Organic Matter	%	0.1	MCERTS	3.2	2.3	2.7	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.35	0.48	-	-
Acenaphthene	mg/kg	0.05	MCERTS	0.28	0.63	0.38	-	-
Fluorene	mg/kg	0.05	MCERTS	0.30	0.59	0.56	-	-
Phenanthrene	mg/kg	0.05	MCERTS	3.5	6.1	5.4	-	-
Anthracene	mg/kg	0.05	MCERTS	0.95	1.7	1.6	-	-
Fluoranthene	mg/kg	0.05	MCERTS	10	13	13	-	-
Pyrene	mg/kg	0.05	MCERTS	9.5	12	12	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	4.8	6.1	6.6	-	-
Chrysene	mg/kg	0.05	MCERTS	4.0	5.2	5.6	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	4.4	5.8	6.1	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	3.0	4.0	4.9	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	4.6	5.8	6.3	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	2.0	2.9	3.3	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.61	0.83	0.89	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	2.3	3.4	3.4	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	50.4	69.0	70.3	-	-
-----------------------------	-------	-----	--------	------	------	------	---	---

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	11	11	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	2.0	2.0	1.9	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	0.5	0.6	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	21	18	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31	30	34	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110	68	110	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	19	16	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	90	110	-	-

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-

Analytical Report Number: 21-62578
 Project / Site name: Dial Post Bond Z
 Your Order No: AH-2A

Lab Sample Number	1802744			1802745			1802746			1802747			1802748		
Sample Reference	TP5			TP6			TP7			TP2A			TP2B		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	1.20			0.40			0.20			0.20			0.30		
Date Sampled	10/03/2021			10/03/2021			10/03/2021			10/03/2021			10/03/2021		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	-	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	13	27	23	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	25	35	32	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	45	61	63	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	84	120	120	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 21-62578
Project / Site name: Dial Post Bond Z

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1802744	TP5	None Supplied	1.2	Brown loam and clay with gravel and vegetation.
1802745	TP6	None Supplied	0.4	Brown loam and clay with gravel and vegetation.
1802746	TP7	None Supplied	0.2	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 21-62578
Project / Site name: Dial Post Bond Z

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

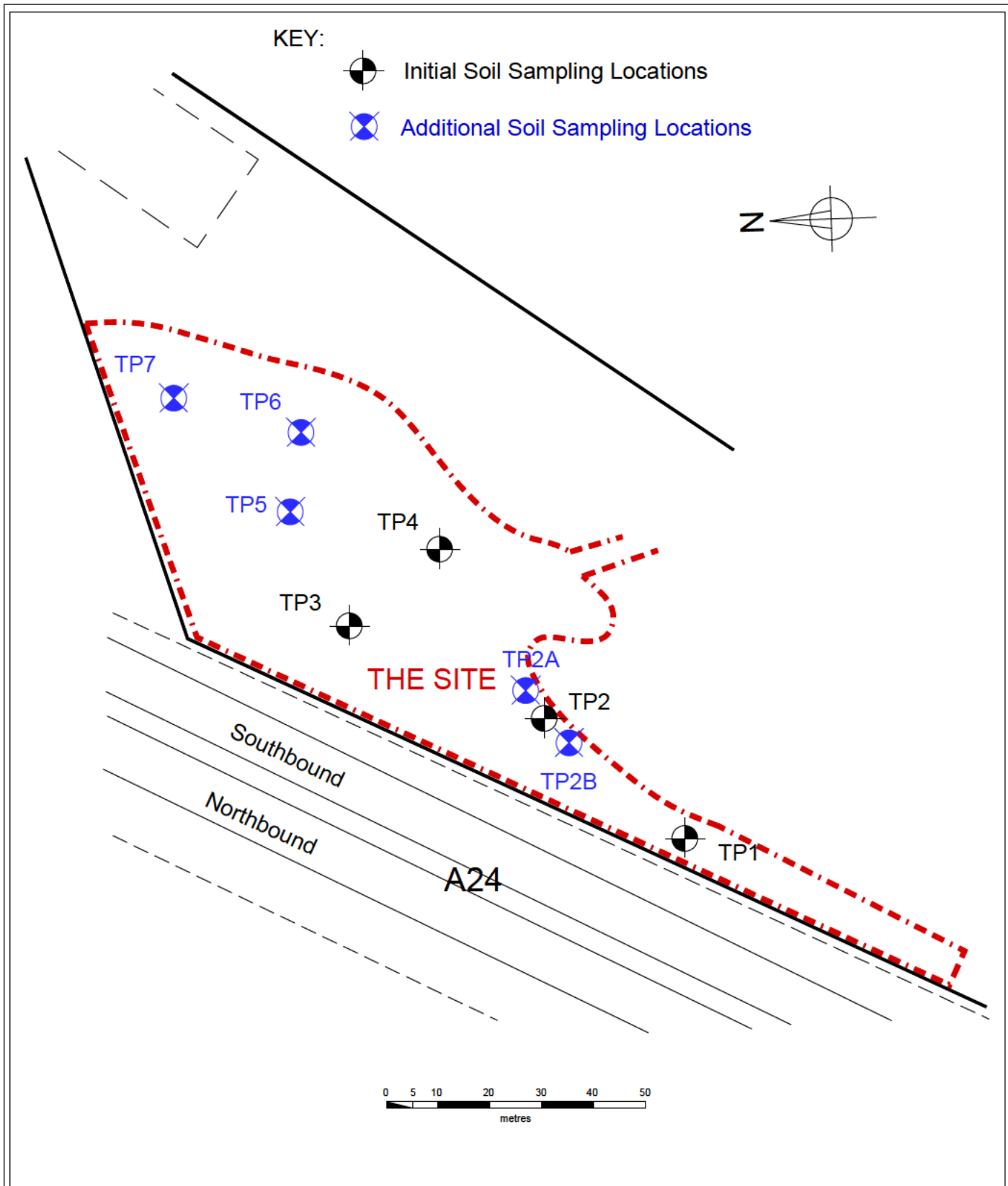
Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



Scale as shown

A. HYATT CONTRACTORS LTD

BUND AT SITE AT DIAL POST, WEST SUSSEX



Figure 1: Soil Sampling Locations

March 2021