



Civils Contracting Ltd

Business Park, London Oxford Airport

Baseline Condition Report

August 2022

Document Control

Document: Baseline Report

Project: Business Park, London Oxford Airport

Client: Civils Contracting Ltd

Revision: Rev 0

Date: 28th August 2022

Prepared by: Elizabeth Newbold, Technical Director

Checked by: Samuel Grattan, Managing Director



CONTENTS

- 1.0 Introduction**
- 1.1 Ground Conditions
- 1.2 Results of Analysis

APPENDICES

- Appendix 1** DWG 1988 SK01 Site Sampling Plan
- Appendix 2** Results of Analysis

1.0 Introduction and Background

Fortitude Environmental Ltd (FEL) have been provided samples for analysis by Civils Contracting Ltd from the proposed business park site at London Oxford Airport, in order to provide baseline soil conditions before the site is developed and operations begin. As such, this is a factual report and interpretation or assessment of results is not required.

The site currently comprises car parking areas and redundant buildings to the immediate south of the main London Oxford Airport site. The site is open and awaiting development.

1.1 Ground Conditions

A total of twenty rotary augers were drilled by Civils Contracting Ltd to 2m below ground level across the site, at locations shown on Drawing 1988-SK01 Site Sampling Plan within Appendix 1. Two samples were retrieved from each auger location. Groundwater was not encountered in any of the probeholes. Ground conditions encountered were generally consistent and reported to comprise:

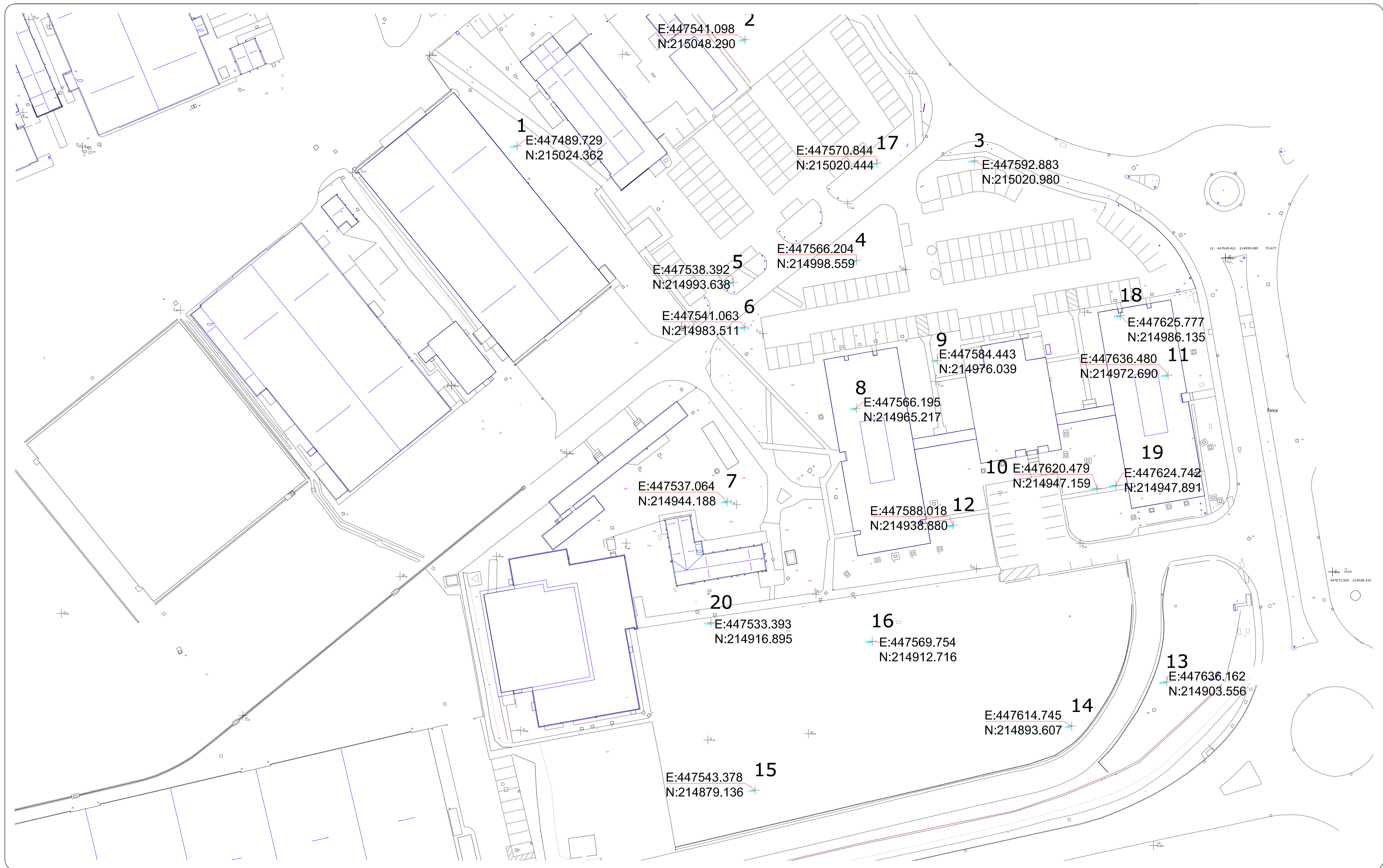
0-0.2m bgl: Topsoil/ Aggregate in car park locations;
0.2-2.0m bgl: Stiff pale brown clay/ limestone brash

1.2 Results of Analysis

Results of analysis of samples retrieved from each probehole are shown in Appendix 2. Whilst this exercise is for factual purposes only, the results of analysis show concentrations of relevant determinands to be below commercial use criteria using the LQM S4UL values where available.

Appendix 1

DWG 1988 SK01 Site Sampling Plan



DO NOT SCALE.

Note
Use figured dimensions only.

All dimensions are to be checked on site prior to construction or fabrication and any discrepancies reported to the author.

Copyright : This drawing is not to be re-issued loaned or copied without the prior consent of the author.

All building materials, components and workmanship to comply with current construction legislation, Building Regulations, Codes of Practice and where appropriate manufacturers recommendations.

This drawing is to be read in conjunction with all related drawing issues

Revisions											
Rev	Description	Drn	Date	Rev	Description	Drn	Date	Rev	Description	Drn	Date
-	First Issue	SG	28.07.22								

Project
London Oxford Airport

Drawing Title
Site Sampling Plan



Scale
NTS

Date
July 22

Drawing No
1988 - SK01

Rev
--

Appendix 2

Results of Analysis

Fortitude Environmental
38B Loughbrickland Road
Rathriland
Co Down
Ireland
BT34 5AF



4225

Attention : Elizabeth Newbold
Date : 16th August, 2022
Your reference : Business Park
Our reference : Test Report 22/12514 Batch 1
Location :
Date samples received : 2nd August, 2022
Status : Final Report
Issue : 1

Forty samples were received for analysis on 2nd August, 2022 of which forty were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

Liza Klebe

Project Co-ordinator

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Fortitude Environmental
Reference: Business Park
Location:
Contact: Elizabeth Newbold
EMT Job No: 22/12514

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	BORE - 1	BORE - 1	BORE - 2	BORE - 2	BORE - 3	BORE - 3	BORE - 4	BORE - 4	BORE - 5	BORE - 5			
Depth	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	27/07/2022 09:00	27/07/2022 09:00	27/07/2022 09:35	27/07/2022 09:35	27/07/2022 10:45	27/07/2022 10:45	27/07/2022 11:00	27/07/2022 11:00	27/07/2022 11:15	27/07/2022 11:15			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	LOD/LOR	Units	Method No.
Aluminium	25960	28000	21470	10060	23920	19510	12260	9259	14530	11100	<50	mg/kg	TM30/PM15
Antimony	4	3	3	1	3	3	1	1	2	<1	<1	mg/kg	TM30/PM15
Arsenic #	89.8	66.8	79.4	34.2	107.4	88.6	67.1	50.6	56.6	59.3	<0.5	mg/kg	TM30/PM15
Barium #	83	85	85	36	83	64	39	29	61	46	<1	mg/kg	TM30/PM15
Beryllium	2.5	2.4	2.5	1.1	2.6	2.1	1.4	1.1	1.4	1.1	<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #	89.3	98.8	89.8	40.3	109.7	89.2	54.6	41.4	67.7	57.7	<0.5	mg/kg	TM30/PM15
Cobalt #	39.5	30.2	31.7	13.8	41.0	31.1	24.8	18.5	20.4	21.7	<0.5	mg/kg	TM30/PM15
Copper #	18	19	14	8	17	12	10	6	11	10	<1	mg/kg	TM30/PM15
Iron	87220 ^{AA}	75100 ^{AA}	87950 ^{AA}	39720	85140 ^{AA}	70590 ^{AA}	49230	37550	49470 ^{AA}	43210	<20	mg/kg	TM30/PM15
Lead #	22	26	16	5	20	13	11	6	13	12	<5	mg/kg	TM30/PM15
Magnesium	2769	2849	2674	3005	2708	2756	2855	2815	2688	2511	<25	mg/kg	TM30/PM15
Manganese #	1258	1104	1641	1019	1615	1457	1180	1013	1063	1030	<1	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	3.4	3.2	3.6	1.4	3.8	2.6	1.8	1.3	2.2	1.8	<0.1	mg/kg	TM30/PM15
Nickel #	54.5	49.4	54.7	23.7	62.5	49.7	37.0	27.6	31.8	31.7	<0.7	mg/kg	TM30/PM15
Phosphorus	856	801	695	557	656	628	515	532	605	533	<10	mg/kg	TM30/PM15
Potassium	3475	3712	2851	1589	3113	2522	1876	1480	1997	1597	<5	mg/kg	TM30/PM15
Selenium #	2	2	2	<1	2	1	2	1	2	2	<1	mg/kg	TM30/PM15
Sodium	143	154	139	195	177	193	260	225	265	296	<5	mg/kg	TM30/PM15
Total Sulphate as SO4 #	362	531	444	638	473	509	785	746	825	793	<50	mg/kg	TM50/PM29
Vanadium	138	140	134	65	157	133	89	68	89	78	<1	mg/kg	TM30/PM15
Zinc #	98	115	81	34	102	76	42	30	50	40	<5	mg/kg	TM30/PM15

Element Materials Technology

Client Name: Fortitude Environmental
 Reference: Business Park
 Location:
 Contact: Elizabeth Newbold
 EMT Job No: 22/12514

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	BORE - 1	BORE - 1	BORE - 2	BORE - 2	BORE - 3	BORE - 3	BORE - 4	BORE - 4	BORE - 5	BORE - 5			
Depth	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	27/07/2022 09:00	27/07/2022 09:00	27/07/2022 09:35	27/07/2022 09:35	27/07/2022 10:45	27/07/2022 10:45	27/07/2022 11:00	27/07/2022 11:00	27/07/2022 11:15	27/07/2022 11:15			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	LOD/LOR	Units	Method No.
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.07	0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	0.05	0.03	<0.03	0.14	0.08	0.08	0.03	0.28	0.18	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	0.05	0.03	<0.03	0.13	0.08	0.07	0.03	0.24	0.14	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	0.09	0.08	0.09	<0.06	0.17	0.12	<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	0.04	<0.02	<0.02	0.10	0.08	0.05	<0.02	0.21	0.12	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	<0.07	0.14	0.10	0.12	<0.07	0.37	0.25	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	0.08	0.06	0.05	<0.04	0.20	0.12	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	0.13	0.11	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	0.05	0.06	0.04	<0.04	0.12	0.10	<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6	<0.6	0.7	<0.6	<0.6	<0.6	1.8	1.2	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	0.10	0.07	0.09	<0.05	0.27	0.18	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	0.04	0.03	0.03	<0.02	0.10	0.07	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	76	78	88	91	83	91	93	91	92	86	<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	mg/kg	TM5/PM8/PM16/PM12/PM15
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR) #	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	mg/kg	TM5/PM8/PM16/PM12/PM15
Total aliphatics and aromatics(C5-35) (EH+HS_CU_1D_Total)	<38	<38	<38	<38	<38	<38	<38	<38	<38	<38	<38	mg/kg	TM5/PM8/PM16/PM12/PM15
MTBE #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM36/PM12
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM36/PM12

Element Materials Technology

Client Name: Fortitude Environmental
Reference: Business Park
Location:
Contact: Elizabeth Newbold
EMT Job No: 22/12514

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	55-57	58-60	Please see attached notes for all abbreviations and acronyms		
Sample ID	BORE - 6	BORE - 6	BORE - 7	BORE - 7	BORE - 8	BORE - 8	BORE - 9	BORE - 9	BORE - 10	BORE - 10			
Depth	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	27/07/2022 11:35	27/07/2022 11:35	27/07/2022 11:40	27/07/2022 11:40	27/07/2022 11:15	27/07/2022 11:15	27/07/2022 12:05	27/07/2022 12:05	27/07/2022 12:20	27/07/2022 12:20			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	LOD/LOR	Units	Method No.
Aluminium	21180	20290	6893	6726	5279	4616	9206	12970	24500	16310	<50	mg/kg	TM30/PM15
Antimony	3	1	<1	<1	<1	<1	<1	<1	3	5	<1	mg/kg	TM30/PM15
Arsenic #	83.9	83.5	25.4	28.5	14.5	11.9	33.3	43.3	81.8	85.5	<0.5	mg/kg	TM30/PM15
Barium #	80	75	25	24	17	15	34	50	101	84	<1	mg/kg	TM30/PM15
Beryllium	2.2	2.0	0.9	0.9	0.6	0.5	1.0	1.3	2.6	3.3	<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #	78.7	79.3	27.9	29.7	22.3	17.5	35.4	42.5	115.6	113.8	<0.5	mg/kg	TM30/PM15
Cobalt #	31.8	31.1	10.1	10.2	7.3	5.4	13.6	17.2	33.4	26.2	<0.5	mg/kg	TM30/PM15
Copper #	16	15	6	6	5	5	8	10	19	17	<1	mg/kg	TM30/PM15
Iron	77800 ^{AA}	71530 ^{AA}	28260	32120	21430	17570	32370	39420	87660 ^{AA}	157400 ^{AA}	<20	mg/kg	TM30/PM15
Lead #	22	20	8	7	<5	<5	6	7	27	34	<5	mg/kg	TM30/PM15
Magnesium	2755	2675	2944	2980	3058	2924	3031	3020	2306	1697	<25	mg/kg	TM30/PM15
Manganese #	1403	1387	911	879	703	688	1005	1162	1766	1527	<1	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	3.0	2.9	0.9	0.9	1.0	0.8	1.2	1.4	4.3	4.1	<0.1	mg/kg	TM30/PM15
Nickel #	47.7	45.7	16.8	17.9	12.3	9.4	23.3	31.1	60.0	55.7	<0.7	mg/kg	TM30/PM15
Phosphorus	701	674	667	694	383	336	602	640	953	1308	<10	mg/kg	TM30/PM15
Potassium	2964	2821	1342	1262	1078	1129	1493	1932	2985	1897	<5	mg/kg	TM30/PM15
Selenium #	2	3	<1	2	<1	<1	<1	<1	4	3	<1	mg/kg	TM30/PM15
Sodium	193	207	205	208	227	223	370	419	138	132	<5	mg/kg	TM30/PM15
Total Sulphate as SO4 #	642	684	719	755	1509	891	751	742	483	1243	<50	mg/kg	TM50/PM29
Vanadium	116	113	54	51	37	31	64	75	139	148	<1	mg/kg	TM30/PM15
Zinc #	93	76	27	38	18	12	32	43	108	123	<5	mg/kg	TM30/PM15

Element Materials Technology

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Reference: Business Park
Location:
Contact: Elizabeth Newbold
EMT Job No: 22/12514

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Depth	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	27/07/2022 11:35	27/07/2022 11:35	27/07/2022 11:40	27/07/2022 11:40	27/07/2022 11:15	27/07/2022 11:15	27/07/2022 12:05	27/07/2022 12:05	27/07/2022 12:20	27/07/2022 12:20			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	LOD/LOR	Units	Method No.
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	0.03	0.07	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.16	0.15	<0.03	<0.03	<0.03	<0.03	0.51	0.33	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	0.08	0.07	<0.04	<0.04	<0.04	<0.04	0.21	0.10	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.75	0.76	<0.03	0.03	<0.03	<0.03	0.96	0.46	0.08	0.07	<0.03	mg/kg	TM4/PM8
Pyrene #	0.65	0.70	<0.03	<0.03	<0.03	<0.03	0.81	0.45	0.07	0.06	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.43	0.44	<0.06	<0.06	<0.06	<0.06	0.69	0.23	0.08	0.07	<0.06	mg/kg	TM4/PM8
Chrysene #	0.53	0.50	<0.02	0.03	0.03	<0.02	0.47	0.22	0.05	0.05	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	1.11	1.27	<0.07	<0.07	<0.07	<0.07	0.79	0.31	0.10	0.08	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.53	0.58	<0.04	<0.04	<0.04	<0.04	0.44	0.17	0.05	0.05	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	0.54	0.63	<0.04	<0.04	<0.04	<0.04	0.27	0.07	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.09	0.10	<0.04	<0.04	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	0.47	0.58	<0.04	<0.04	<0.04	<0.04	0.24	0.08	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	5.3	5.8	<0.6	<0.6	<0.6	<0.6	5.5	2.5	<0.6	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.80	0.91	<0.05	<0.05	<0.05	<0.05	0.57	0.22	0.07	0.06	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.31	0.36	<0.02	<0.02	<0.02	<0.02	0.22	0.09	0.03	0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	83	98	89	92	82	88	81	85	92	89	<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	2.5	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	<4	<4	<4	<4	<4	<4	36	<4	<4	<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<7	<7	<7	<7	<7	<7	<7	108	<7	<7	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	<7	<7	<7	<7	<7	<7	<7	86	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	<19	<19	<19	<19	<19	<19	<19	233	<19	<19	<19	mg/kg	TM5/PM8/PM16/PM12/PM15
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<4	<4	<4	<4	<4	<4	<4	10	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	14	17	<7	<7	<7	<7	<7	62	<7	<7	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	93	95	<7	<7	<7	<7	<7	128	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR) #	107	112	<19	<19	<19	<19	<19	200	<19	<19	<19	mg/kg	TM5/PM8/PM16/PM12/PM15
Total aliphatics and aromatics(C5-35) (EH+HS_CU_1D_Total)	107	112	<38	<38	<38	<38	<38	433	<38	<38	<38	mg/kg	TM5/PM8/PM16/PM12/PM15
MTBE #													
MTBE #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM36/PM12
Benzene #													
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM36/PM12

Element Materials Technology

Client Name: Fortitude Environmental
Reference: Business Park
Location:
Contact: Elizabeth Newbold
EMT Job No: 22/12514

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	61-63	64-66	67-69	70-72	73-75	76-78	79-81	82-84	85-87	88-90	Please see attached notes for all abbreviations and acronyms		
Sample ID	BORE - 11	BORE - 11	BORE - 12	BORE - 12	BORE - 13	BORE - 13	BORE - 14	BORE - 14	BORE - 15	BORE - 15			
Depth	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	27/07/2022 12:35	27/07/2022 12:35	27/07/2022 12:55	27/07/2022 12:55	27/07/2022 13:05	27/07/2022 13:05	27/07/2022 13:50	27/07/2022 13:50	27/07/2022 14:10	27/07/2022 14:10			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	LOD/LOR	Units	Method No.
Aluminium	23220	19570	6989	8061	7153	4007	8527	8307	5862	7947	<50	mg/kg	TM30/PM15
Antimony	3	2	<1	1	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM30/PM15
Arsenic #	94.2	74.4	17.2	16.7	15.3	12.0	15.9	14.3	15.9	15.3	<0.5	mg/kg	TM30/PM15
Barium #	100	73	27	27	26	13	27	26	20	26	<1	mg/kg	TM30/PM15
Beryllium	3.0	2.3	0.7	0.8	0.7	0.5	0.9	0.8	0.6	0.7	<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #	110.4	86.6	31.7	24.9	21.5	14.5	27.2	23.8	18.0	21.7	<0.5	mg/kg	TM30/PM15
Cobalt #	34.0	21.9	6.5	7.0	6.5	4.5	7.3	6.5	6.5	6.4	<0.5	mg/kg	TM30/PM15
Copper #	16	14	7	7	7	5	8	7	6	8	<1	mg/kg	TM30/PM15
Iron	117000 ^{AA}	83070 ^{AA}	23050	23890	22060	17190	24840	22240	20980	22240	<20	mg/kg	TM30/PM15
Lead #	22	15	<5	<5	6	<5	8	<5	6	6	<5	mg/kg	TM30/PM15
Magnesium	2181	2642	2932	2942	2931	2727	2874	2853	2732	3103	<25	mg/kg	TM30/PM15
Manganese #	2063	1390	801	738	846	671	739	688	719	737	<1	mg/kg	TM30/PM15
Mercury #	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	5.6	2.4	0.8	0.9	1.2	1.2	1.2	1.1	1.3	1.3	<0.1	mg/kg	TM30/PM15
Nickel #	63.0	46.8	12.6	13.5	15.1	11.7	15.1	14.4	12.1	13.1	<0.7	mg/kg	TM30/PM15
Phosphorus	1014	917	486	389	326	232	338	323	326	357	<10	mg/kg	TM30/PM15
Potassium	2263	2234	1344	1663	1376	852	1695	1659	1216	1621	<5	mg/kg	TM30/PM15
Selenium #	4	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM30/PM15
Sodium	222	262	216	230	233	217	240	240	321	341	<5	mg/kg	TM30/PM15
Total Sulphate as SO4 #	491	804	777	776	730	813	762	725	729	742	<50	mg/kg	TM50/PM29
Vanadium	154	138	41	42	41	25	43	40	35	39	<1	mg/kg	TM30/PM15
Zinc #	117	85	22	22	20	14	27	21	17	21	<5	mg/kg	TM30/PM15

Element Materials Technology

Client Name: Fortitude Environmental
Reference: Business Park
Location:
Contact: Elizabeth Newbold
EMT Job No: 22/12514

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	61-63	64-66	67-69	70-72	73-75	76-78	79-81	82-84	85-87	88-90			
Sample ID	BORE - 11	BORE - 11	BORE - 12	BORE - 12	BORE - 13	BORE - 13	BORE - 14	BORE - 14	BORE - 15	BORE - 15			
Depth	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	27/07/2022 12:35	27/07/2022 12:35	27/07/2022 12:55	27/07/2022 12:55	27/07/2022 13:05	27/07/2022 13:05	27/07/2022 13:50	27/07/2022 13:50	27/07/2022 14:10	27/07/2022 14:10			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022			
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.06	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.60	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.21	<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.07	0.05	0.10	0.04	<0.03	<0.03	0.08	<0.03	0.07	1.38	<0.03	mg/kg	TM4/PM8
Pyrene #	0.06	0.05	0.09	0.03	<0.03	<0.03	0.08	<0.03	0.07	1.04	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.08	<0.06	0.11	<0.06	<0.06	<0.06	0.08	<0.06	0.09	0.62	<0.06	mg/kg	TM4/PM8
Chrysene #	0.05	0.03	0.07	0.03	<0.02	<0.02	0.04	<0.02	0.05	0.64	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	0.09	<0.07	0.13	<0.07	<0.07	<0.07	0.11	<0.07	0.12	1.29	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.05	<0.04	0.08	<0.04	<0.04	<0.04	0.06	<0.04	0.07	0.84	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	0.04	<0.04	0.05	0.50	<0.04	mg/kg	TM4/PM8
Dibenzo(a,h)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	0.50	<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	0.7	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	7.7	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.06	<0.05	0.09	<0.05	<0.05	<0.05	0.08	<0.05	0.09	0.93	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.03	<0.02	0.04	<0.02	<0.02	<0.02	0.03	<0.02	0.03	0.36	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	88	88	92	85	83	88	88	84	90	85	<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	<7	<7	<7	<7	<7	<7	18	<7	<7	28	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	<19	<19	<19	<19	<19	<19	<19	<19	<19	28	<19	mg/kg	TM5/PM8/PM16/PM12/PM15
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	<7	<7	<7	<7	<7	<7	<7	<7	<7	27	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	<7	<7	<7	<7	<7	<7	69	<7	<7	177	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR) #	<19	<19	<19	<19	<19	<19	69	<19	<19	204	<19	mg/kg	TM5/PM8/PM16/PM12/PM15
Total aliphatics and aromatics(C5-35) (EH+HS_CU_1D_Total)	<38	<38	<38	<38	<38	<38	69	<38	<38	232	<38	mg/kg	TM5/PM8/PM16/PM12/PM15
MTBE #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM36/PM12
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM36/PM12

Please see attached notes for all abbreviations and acronyms

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Fortitude Environmental
Reference: Business Park
Location:
Contact: Elizabeth Newbold
EMT Job No: 22/12514

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	91-93	94-96	97-99	100-102	103-105	106-108	109-111	112-114	115-117	118-120	Please see attached notes for all abbreviations and acronyms		
Sample ID	BORE - 16	BORE - 16	BORE - 17	BORE - 17	BORE - 18	BORE - 18	BORE - 19	BORE - 19	BORE - 20	BORE - 20			
Depth	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	27/07/2022 14:35	27/07/2022 14:35	27/07/2022 14:55	27/07/2022 14:55	27/07/2022 15:10	27/07/2022 15:10	27/07/2022 15:20	27/07/2022 15:20	27/07/2022 15:30	27/07/2022 15:30			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	LOD/LOR	Units	Method No.
Aluminium	8285	6198	13830	9024	23390	14810	11620	13260	6448	5230	<50	mg/kg	TM30/PM15
Antimony	<1	<1	2	<1	3	2	2	1	<1	<1	<1	mg/kg	TM30/PM15
Arsenic #	14.9	12.8	60.9	47.7	84.6	49.8	28.1	38.2	21.2	14.8	<0.5	mg/kg	TM30/PM15
Barium #	23	17	48	31	90	53	33	40	23	16	<1	mg/kg	TM30/PM15
Beryllium	0.7	0.6	1.7	1.1	2.5	1.5	1.1	1.3	0.7	0.6	<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #	25.9	22.3	56.1	40.4	96.7	56.3	38.7	46.6	30.5	23.7	<0.5	mg/kg	TM30/PM15
Cobalt #	6.8	4.9	23.8	18.1	32.5	18.7	10.0	13.3	8.7	6.0	<0.5	mg/kg	TM30/PM15
Copper #	7	6	9	6	17	11	9	10	8	6	<1	mg/kg	TM30/PM15
Iron	23470	18630	53900 ^{AA}	36980	86530 ^{AA}	51850 ^{AA}	33770	42480	23570	20060	<20	mg/kg	TM30/PM15
Lead #	<5	<5	10	6	17	10	6	8	9	5	<5	mg/kg	TM30/PM15
Magnesium	3054	2834	2755	3003	2971	3579	3301	3428	2857	3240	<25	mg/kg	TM30/PM15
Manganese #	732	700	1201	1132	1702	1314	907	1155	854	764	<1	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	1.1	0.9	1.9	1.4	2.7	1.6	1.1	1.3	1.1	0.8	<0.1	mg/kg	TM30/PM15
Nickel #	12.4	9.5	35.7	25.9	55.6	32.8	19.2	24.9	14.5	10.8	<0.7	mg/kg	TM30/PM15
Phosphorus	368	360	650	698	828	728	420	566	647	421	<10	mg/kg	TM30/PM15
Potassium	1731	1314	1889	1405	2668	2061	1954	2015	1375	1297	<5	mg/kg	TM30/PM15
Selenium #	<1	<1	2	<1	2	2	<1	<1	<1	<1	<1	mg/kg	TM30/PM15
Sodium	229	217	226	245	257	272	232	238	202	212	<5	mg/kg	TM30/PM15
Total Sulphate as SO4 #	789	821	727	823	812	1007	669	738	739	659	<50	mg/kg	TM50/PM29
Vanadium	42	32	95	70	152	104	65	80	45	38	<1	mg/kg	TM30/PM15
Zinc #	19	15	52	32	100	52	32	40	26	19	<5	mg/kg	TM30/PM15

Element Materials Technology

Client Name: Fortitude Environmental
Reference: Business Park
Location:
Contact: Elizabeth Newbold
EMT Job No: 22/12514

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	91-93	94-96	97-99	100-102	103-105	106-108	109-111	112-114	115-117	118-120	Please see attached notes for all abbreviations and acronyms		
Sample ID	BORE - 16	BORE - 16	BORE - 17	BORE - 17	BORE - 18	BORE - 18	BORE - 19	BORE - 19	BORE - 20	BORE - 20			
Depth	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20	0.25	1.20			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	27/07/2022 14:35	27/07/2022 14:35	27/07/2022 14:55	27/07/2022 14:55	27/07/2022 15:10	27/07/2022 15:10	27/07/2022 15:20	27/07/2022 15:20	27/07/2022 15:30	27/07/2022 15:30			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	02/08/2022	LOD/LOR	Units	Method No.
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.13	0.16	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.28	0.27	0.08	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	0.32	0.23	0.08	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.18	0.15	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #	0.22	0.17	0.06	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(b)fluoranthene #	0.53	0.29	0.10	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.33	0.16	0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	0.18	0.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(a,h)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	0.15	0.09	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	2.3	1.7	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.38	0.21	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.15	0.08	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	93	74	88	89	84	89	80	88	83	91	<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2 ^{SV}	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4 ^{SV}	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<7 ^{SV}	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	<7 ^{SV}	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	mg/kg	TM5/PM8/PM16/PM12/PM15
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2 ^{SV}	<0.2 ^{SV}	<0.2	<0.2	<0.2 ^{SV}	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<4 ^{SV}	<4 ^{SV}	<4	<4	<4 ^{SV}	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	<7 ^{SV}	<7 ^{SV}	<7	<7	<7 ^{SV}	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	<7 ^{SV}	<7 ^{SV}	<7	<7	<7 ^{SV}	25	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR) #	<19	<19 ^{SV}	<19	<19	<19 ^{SV}	25	<19	<19	<19	<19	<19	mg/kg	TM5/PM8/PM16/PM12/PM15
Total aliphatics and aromatics(C5-35) (EH+HS_CU_1D_Total)	<38	<38 ^{SV}	<38	<38	<38 ^{SV}	<38	<38	<38	<38	<38	<38	mg/kg	TM5/PM8/PM16/PM12/PM15
MTBE #													
	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM36/PM12
Benzene #													
	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM36/PM12

Client Name: Fortitude Environmental
Reference: Business Park
Location:
Contact: Elizabeth Newbold

Note:
 Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/12514	1	BORE - 1	0.25	3	Simon Postlewhite	15/08/2022	General Description (Bulk Analysis)	Brown soil/stones
					Simon Postlewhite	15/08/2022	Asbestos Fibres	NAD
					Simon Postlewhite	15/08/2022	Asbestos ACM	NAD
					Simon Postlewhite	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 1	1.20	6	Matthew Turner	12/08/2022	General Description (Bulk Analysis)	Brown soil/Stone
					Matthew Turner	12/08/2022	Asbestos Fibres	NAD
					Matthew Turner	12/08/2022	Asbestos ACM	NAD
					Matthew Turner	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 2	0.25	9	Anthony Carman	15/08/2022	General Description (Bulk Analysis)	Brown Soil/Stones
					Anthony Carman	15/08/2022	Asbestos Fibres	NAD
					Anthony Carman	15/08/2022	Asbestos ACM	NAD
					Anthony Carman	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 2	1.20	12	Remigiusz Blichowski	12/08/2022	General Description (Bulk Analysis)	Brown sand
					Remigiusz Blichowski	12/08/2022	Asbestos Fibres	NAD
					Remigiusz Blichowski	12/08/2022	Asbestos ACM	NAD
					Remigiusz Blichowski	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 3	0.25	15	Anthony Carman	15/08/2022	General Description (Bulk Analysis)	Brown Soil/Stones
					Anthony Carman	15/08/2022	Asbestos Fibres	NAD
					Anthony Carman	15/08/2022	Asbestos ACM	NAD
					Anthony Carman	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 3	1.20	18	Anthony Carman	15/08/2022	General Description (Bulk Analysis)	Brown Soil/Stones
					Anthony Carman	15/08/2022	Asbestos Fibres	NAD
					Anthony Carman	15/08/2022	Asbestos ACM	NAD
					Anthony Carman	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 4	0.25	21	Andrew Alker	12/08/2022	General Description (Bulk Analysis)	brown soil
					Andrew Alker	12/08/2022	Asbestos Fibres	NAD
					Andrew Alker	12/08/2022	Asbestos ACM	NAD
					Andrew Alker	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 4	1.20	24	Andrew Alker	12/08/2022	General Description (Bulk Analysis)	brown soil and stone
					Andrew Alker	12/08/2022	Asbestos Fibres	NAD
					Andrew Alker	12/08/2022	Asbestos ACM	NAD
					Andrew Alker	12/08/2022	Asbestos Type	NAD

Client Name: Fortitude Environmental
Reference: Business Park
Location:
Contact: Elizabeth Newbold

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/12514	1	BORE - 5	0.25	27	Anthony Carman	15/08/2022	General Description (Bulk Analysis)	Brown Soil/Stones
					Anthony Carman	15/08/2022	Asbestos Fibres	NAD
					Anthony Carman	15/08/2022	Asbestos ACM	NAD
					Anthony Carman	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 5	1.20	30	Anthony Carman	15/08/2022	General Description (Bulk Analysis)	Brown Soil/Stones
					Anthony Carman	15/08/2022	Asbestos Fibres	NAD
					Anthony Carman	15/08/2022	Asbestos ACM	NAD
					Anthony Carman	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 6	0.25	33	Remigiusz Blichowski	15/08/2022	General Description (Bulk Analysis)	Brown sand and roots
					Remigiusz Blichowski	15/08/2022	Asbestos Fibres	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos ACM	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 6	1.20	36	Remigiusz Blichowski	15/08/2022	General Description (Bulk Analysis)	Brown sand
					Remigiusz Blichowski	15/08/2022	Asbestos Fibres	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos ACM	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 7	0.25	39	Andrew Alker	12/08/2022	General Description (Bulk Analysis)	brown soil and stone
					Andrew Alker	12/08/2022	Asbestos Fibres	NAD
					Andrew Alker	12/08/2022	Asbestos ACM	NAD
					Andrew Alker	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 7	1.20	42	Remigiusz Blichowski	15/08/2022	General Description (Bulk Analysis)	Brown sand
					Remigiusz Blichowski	15/08/2022	Asbestos Fibres	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos ACM	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 8	0.25	45	Andrew Alker	12/08/2022	General Description (Bulk Analysis)	brown soil and stone
					Andrew Alker	12/08/2022	Asbestos Fibres	NAD
					Andrew Alker	12/08/2022	Asbestos ACM	NAD
					Andrew Alker	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 8	1.20	48	Remigiusz Blichowski	15/08/2022	General Description (Bulk Analysis)	Brown sand
					Remigiusz Blichowski	15/08/2022	Asbestos Fibres	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos ACM	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 9	0.25	51	Remigiusz Blichowski	12/08/2022	General Description (Bulk Analysis)	Brown sand
					Remigiusz Blichowski	12/08/2022	Asbestos Fibres	NAD
					Remigiusz Blichowski	12/08/2022	Asbestos ACM	NAD
					Remigiusz Blichowski	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 9	1.20	54	Remigiusz Blichowski	12/08/2022	General Description (Bulk Analysis)	Brown sand
					Remigiusz Blichowski	12/08/2022	Asbestos Fibres	NAD
					Remigiusz Blichowski	12/08/2022	Asbestos ACM	NAD
					Remigiusz Blichowski	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 10	0.25	57	Rebecca Collins	12/08/2022	General Description (Bulk Analysis)	orange brown sandy soil and stone
					Rebecca Collins	12/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	12/08/2022	Asbestos ACM	NAD

Client Name: Fortitude Environmental
Reference: Business Park
Location:
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EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/12514	1	BORE - 10	0.25	57	Rebecca Collins	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 10	1.20	60	Rebecca Collins	12/08/2022	General Description (Bulk Analysis)	orange brown soil and stone
					Rebecca Collins	12/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	12/08/2022	Asbestos ACM	NAD
					Rebecca Collins	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 11	0.25	63	Rebecca Collins	12/08/2022	General Description (Bulk Analysis)	orange sand soil and stone
					Rebecca Collins	12/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	12/08/2022	Asbestos ACM	NAD
					Rebecca Collins	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 11	1.20	66	Rebecca Collins	12/08/2022	General Description (Bulk Analysis)	orange brown sand and stone
					Rebecca Collins	12/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	12/08/2022	Asbestos ACM	NAD
					Rebecca Collins	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 12	0.25	69	Rebecca Collins	15/08/2022	General Description (Bulk Analysis)	brown/yellow soil sand and stone
					Rebecca Collins	15/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	15/08/2022	Asbestos ACM	NAD
					Rebecca Collins	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 12	1.20	72	Rebecca Collins	15/08/2022	General Description (Bulk Analysis)	brown yellow soil sand stone
					Rebecca Collins	15/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	15/08/2022	Asbestos ACM	NAD
					Rebecca Collins	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 13	0.25	75	Rebecca Collins	15/08/2022	General Description (Bulk Analysis)	brown yellow soil sand and stone
					Rebecca Collins	15/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	15/08/2022	Asbestos ACM	NAD
					Rebecca Collins	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 13	1.20	78	Rebecca Collins	12/08/2022	General Description (Bulk Analysis)	light brown sand and stone
					Rebecca Collins	12/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	12/08/2022	Asbestos ACM	NAD
					Rebecca Collins	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 14	0.25	81	Remigiusz Blichowski	12/08/2022	General Description (Bulk Analysis)	Brown sand
					Remigiusz Blichowski	12/08/2022	Asbestos Fibres	NAD
					Remigiusz Blichowski	12/08/2022	Asbestos ACM	NAD
					Remigiusz Blichowski	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 14	1.20	84	Remigiusz Blichowski	15/08/2022	General Description (Bulk Analysis)	Brown sand
					Remigiusz Blichowski	15/08/2022	Asbestos Fibres	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos ACM	NAD
					Remigiusz Blichowski	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 15	0.25	87	Andrew Alker	12/08/2022	General Description (Bulk Analysis)	brown soil and stone
					Andrew Alker	12/08/2022	Asbestos Fibres	NAD
					Andrew Alker	12/08/2022	Asbestos ACM	NAD
					Andrew Alker	12/08/2022	Asbestos Type	NAD

Client Name: Fortitude Environmental
Reference: Business Park
Location:
Contact: Elizabeth Newbold

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/12514	1	BORE - 15	1.20	90	Rebecca Collins	15/08/2022	General Description (Bulk Analysis)	brown yellow soil and stone
					Rebecca Collins	15/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	15/08/2022	Asbestos ACM	NAD
					Rebecca Collins	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 16	0.25	93	Andrew Alker	12/08/2022	General Description (Bulk Analysis)	brown soil
					Andrew Alker	12/08/2022	Asbestos Fibres	NAD
					Andrew Alker	12/08/2022	Asbestos ACM	NAD
					Andrew Alker	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 16	1.20	96	Andrew Alker	12/08/2022	General Description (Bulk Analysis)	brown soil
					Andrew Alker	12/08/2022	Asbestos Fibres	NAD
					Andrew Alker	12/08/2022	Asbestos ACM	NAD
					Andrew Alker	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 17	0.25	99	Rebecca Collins	15/08/2022	General Description (Bulk Analysis)	brown orange sand soil stone
					Rebecca Collins	15/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	15/08/2022	Asbestos ACM	NAD
					Rebecca Collins	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 17	1.20	102	Andrew Alker	12/08/2022	General Description (Bulk Analysis)	brown soil
					Andrew Alker	12/08/2022	Asbestos Fibres	NAD
					Andrew Alker	12/08/2022	Asbestos ACM	NAD
					Andrew Alker	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 18	0.25	105	Rebecca Collins	12/08/2022	General Description (Bulk Analysis)	orange sand and stone
					Rebecca Collins	12/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	12/08/2022	Asbestos ACM	NAD
					Rebecca Collins	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 18	1.20	108	Rebecca Collins	15/08/2022	General Description (Bulk Analysis)	brown sandy soil
					Rebecca Collins	15/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	15/08/2022	Asbestos ACM	NAD
					Rebecca Collins	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 19	0.25	111	Rebecca Collins	15/08/2022	General Description (Bulk Analysis)	orange yellow sandy soil
					Rebecca Collins	15/08/2022	Asbestos Fibres	NAD
					Rebecca Collins	15/08/2022	Asbestos ACM	NAD
					Rebecca Collins	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 19	1.20	114	Anthony Carman	15/08/2022	General Description (Bulk Analysis)	Brown Soil/Stones
					Anthony Carman	15/08/2022	Asbestos Fibres	NAD
					Anthony Carman	15/08/2022	Asbestos ACM	NAD
					Anthony Carman	15/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 20	0.25	117	Simon Postlewhite	12/08/2022	General Description (Bulk Analysis)	Brown soil/stones
					Simon Postlewhite	12/08/2022	Asbestos Fibres	NAD
					Simon Postlewhite	12/08/2022	Asbestos ACM	NAD
					Simon Postlewhite	12/08/2022	Asbestos Type	NAD
22/12514	1	BORE - 20	1.20	120	Anthony Carman	15/08/2022	General Description (Bulk Analysis)	Brown Soil/Stones
					Anthony Carman	15/08/2022	Asbestos Fibres	NAD
					Anthony Carman	15/08/2022	Asbestos ACM	NAD

Element Materials Technology

Notification of Deviating Samples

Client Name: Fortitude Environmental

Matrix : Solid

Reference: Business Park

Location:

Contact: Elizabeth Newbold

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
22/12514	1	BORE - 3	1.20	16-18	EPH	Sample holding time exceeded
22/12514	1	BORE - 5	0.25	25-27	EPH	Sample holding time exceeded

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating. Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 22/12514

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x5 Dilution

HWOL ACRONYMS AND OPERATORS USED

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

EMT Job No: 22/12514

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	Yes		AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.			AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry); WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry); WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

EMT Job No: 22/12514

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.	Yes		AR	Yes