

23 June 2022

Our reference: 323031-R1 (00)

Ms Sophie Watkin
Trammell Crow Company
20 Grosvenor Hill
London
England
W1K 3HQ

**UPDATED SITE ASSESSMENT FOR A COMMERCIAL END USE, LAND AT HEYWOOD STORES,
HEYWOOD, OL10 2QR**

Dear Sophie

RSK were commissioned by Trammell Crow Company to complete an updated site assessment for the land at Heywood Stores, Heywood, OL10 2QR. The assessment follows the recent purchase of the land by Trammell Crow Company from Telereal Trillium.

RSK have completed site investigation works previously on site and these are summarised below:

- 322834-R1(01) Geo-environmental Site Investigation, Heywood Stores, dated November 2021;
- 322834-R2(00) Coal Mining Risk Assessment, Heywood Stores, dated October 2021;

At the time of the original site investigation no proposed development layout was available and so the ground investigation undertaken by RSK assumed a residential end use, i.e. the most sensitive end use. However, following information provided to RSK by Trammell Crow Company, the end use for the site has been confirmed as commercial and so reassessment of the existing site data has now been undertaken and summarised in this letter report.

1.1 Site Details

The site is located approximately 1.2km to the south of Heywood town centre, is approximately "L" shaped and covers an area of c. 11.19 hectares. The site is currently occupied by ten industrial units of varying sizes and lies on the site of a former RAF base. Surrounding land uses include both residential and commercial properties, with fields to the south and west of the site.

1.2 Site History

Historical maps dating back to 1848 were reviewed as part of the desk-based assessment and confirmed that the site was used for agricultural purposes until 1969 when the current buildings are shown on site. A sewage works was constructed in the southern side of the site by 1983 but not shown on plans from 2021. Although the first buildings are not shown on site until 1969, anecdotal information available online indicates that the site was used as an RAF maintenance, storage and repair facility during World War II, which was closed by 1967. The site was later used for the storage of documents to the present day.

1.3 Ground Conditions

Information available from the British Geological Survey (BGS) indicates that superficial soils comprised Devensian Till, which overlie bedrock comprising Pennine Lower Coal Measures. Coal Authority records confirm that the site lies within a coal mining area but is not within a “Development High Risk Area” as defined by the Coal Authority.

Site investigation works completed by RSK in August 2021 comprised the following:

- Drilling of three boreholes by cable percussion techniques.
- Drilling of 15 boreholes by dynamic sampling techniques.
- Laboratory (geotechnical and chemical) testing of selected soil samples.
- Six rounds of gas monitoring and completion of a gas risk assessment for the site.

The investigation confirmed ground conditions to comprise topsoil at all exploratory locations, which was described as grass onto slightly clayey, gravelly, fine, dark brown sand with rootlets. Granular made ground was encountered at all locations and was generally described as granular soils with a cohesive content. The thickness of made ground varied between 0.2m bgl (metres below ground level) in WS06 to 4.0m below ground level in CP01).

Devensian Till, described as soft to firm, slightly sandy slightly gravelly clay with lenses of sand and coal fragments was encountered beneath the topsoil and made ground. Geotechnical testing of selected samples confirmed the clay to have a low to medium volume change potential.

Pennine lower coal measures was encountered at a depth between 5.9m bgl and 9.5m bgl and was described as dark grey mudstone. Due to the drilling technique utilised, the borehole could not be progressed into the rock.

1.4 Chemical Analysis

RSK completed a broad suite of chemical analysis on selected samples of topsoil, made ground and Devensian Till. The testing included:

- Asbestos Screening.

- Polycyclic Biphenols.
- Total Petroleum Hydrocarbons.
- BRE Brownfield Suites.
- Speciated Polycyclic Aromatic Hydrocarbons.
- Metals (9) Suite.

Chemical test results were screened against the RSK Generic Assessment Criteria (GAC) for a commercial end use and results confirmed that no exceedances of the GAC were reported. Asbestos containing materials were not identified in any of the samples screened for asbestos. Based on the results from the site investigation, the soils would be suitable to remain on site. However, if unexpected contamination is identified during enabling works, it is recommended that additional samples are taken to characterise and assess the suitability of these potentially contaminated soils to remain on site.

1.5 Gas monitoring

Six rounds of gas monitoring were completed following the intrusive site works and these identified a maximum methane concentration of <0.1%, a maximum carbon dioxide concentration of 7%, combined with a maximum flow rate of 0.1 litres per hour. Based on these results the site would be classified as classification CS1, (i.e. no gas protection measures required). As such, the proposed commercial development would not require the inclusion of gas protection measures.

1.6 Coal mining

The coal mining risk assessment produced by RSK confirmed that the site does not appear to have been subjected to historical mining. However, mining activities have occurred off site to the east which includes shallow underground mining, with workings extending away from the site boundary. The closest known mine entry is approximately 50m to the east of the site boundary and is far enough away to not present a stability hazard to the proposed development.

1.7 Conclusions

An updated contamination assessment for the site has indicated that there are no exceedances of the commercial GAC, whilst no asbestos containing materials have been identified in any samples tested for asbestos. It should be noted that no investigation works could be completed in the footprint of the existing buildings and therefore the conditions in these areas are unknown. If any suspected contamination is encountered during enabling works for the new development the environmental consultant should be contacted and additional sampling would be recommended to characterise the soils and assess their suitability to remain on site.

Ground gas monitoring completed by RSK identified a maximum carbon dioxide concentration of 7% and methane concentration of <0.1%, combined with a maximum flow rate of <0.1 litres per hour. Based on the gas monitoring undertaken to date, the site would be characterised as CS1, i.e. no gas protection measures required.

Any future development of the site should take into account localised deep areas of made ground (around WS15) and also allow for cohesive soils with a medium volume change potential. Shallow groundwater was encountered on site during monitoring works and therefore dewatering may be required during excavations for foundations and service trenches.

Should you require any further details, please do not hesitate to contact us.

Yours sincerely

For RSK Environment Limited

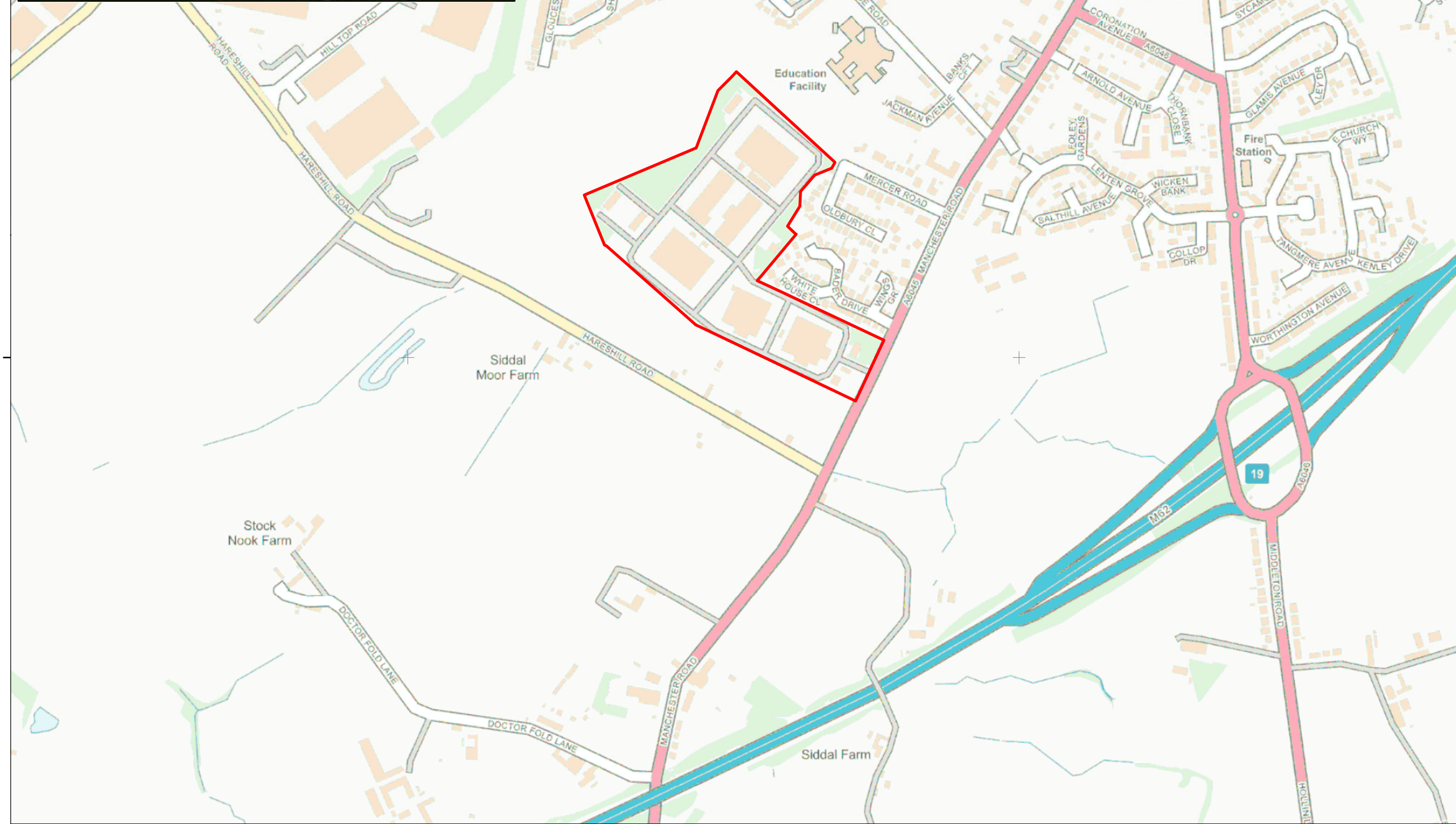


Richard Newberry (author)
Senior Geo-environmental Engineer



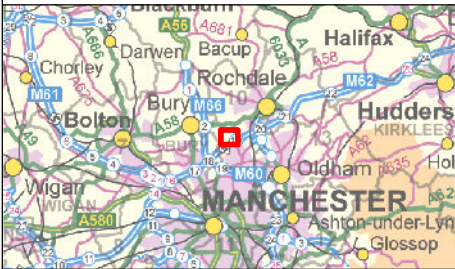
Jon Clayton (technical reviewer)
Principal Engineer

Encls: Figure 1 Site Location Plan
Figure 2 Proposed Development Plan with exploratory hole locations
Ground gas monitoring results
Lab data screened against Commercial GAC
Exploratory hole records



Legend:
 Site Boundary

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

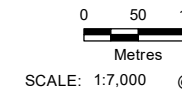


Rev	Date	Description	Drm	Chk	App
00	21/06/2022	First Draft	DR	RN	RN

Trammell Crow Company
Heywood Stores Site, Rochdale



TITLE: Figure 1:
Site Location Plan



REV 00



Legend:

- Site Boundary
- CP Hole (10m)
- Mine Shaft
- WS Location

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

00	21/06/2022	First Draft	DR	RN	RN
Rev	Date	Description	Drm	Chk	App

Trammell Crow Company
Heywood Stores Site, Rochdale

TITLE: Figure 2:
Proposed Development and
Exploratory Hole Plan

SCALE: 1:2,500 @ A3

REV 00

Job Number:
Client:
Site:

Revised Wilson and Card Classification Ground Gas Risk Assessment

Job No.:	322834
Client:	Telereal Trillium
Site:	Heywood Stores

For low-rise residential developments without a clear ventilated sub-floor void, flats and commercial / industrial sites

Characteristic Situation	Risk	GSV
1	Very Low	0.07
2	Low	0.7
3	Moderate	3.5
4	Moderate to High	15
5	High	70
6	Very High	>70

From CRIA Report 659 (2006) "Assessing Risks Posed By Hazardous Ground Gases To Buildings", Wilson et al.

KEY:	Gas Screening Value
GSV	
	GSV cannot be calculated on a site-specific basis
	GSV indicates very low risk
	GSV indicates low to moderate risk
	GSV indicates moderate or greater risk; Concentrations of CH4 ≥20%v/v; CO2 ≥30%v/v
	Oxygen concentration ≤10%v/v
	Total ground gas concentrations >100%v/v

BH NO.	DATE	DTW m/bc	CH4 I %v/v	CH4 SS %v/v	CO2 I %v/v	CO2 SS %v/v	O2 I %v/v	O2 SS %v/v	Flow l/hr	Baro mbar	BH Press mbar	I SUM %v/v	SS SUM %v/v	GSV CH4 CO2	CS No.
WS01	20/08/2021	2.01	<0.1	<0.1	0.2	3.1	20.2	17.8	0	999		20.4	20.9	0.00 0.00	CS1
	01/09/2021	2.14	<0.1	<0.1	0.2	4.0	18.3	17.6	0	1020		18.5	21.6	0.00 0.00	CS1
	15/09/2021	2.22	<0.1	<0.1	3.5	3.4	19.9	17.8	0	1000		23.4	21.2	0.00 0.00	CS1
	29/09/2021	2.20	<0.1	<0.1	1.7	1.7	20.3	19.2	0	1003		22.0	20.9	0.00 0.00	CS1
	13/10/2021	2.20	<0.1	<0.1	2.2	2.2	18.7	18.8	0	1013		20.9	21.0	0.00 0.00	CS1
	27/10/2021	2.18	<0.1	<0.1	1.7	1.7	19.7	19.7	0	993		21.4	21.4	0.00 0.00	CS1
WS03	20/08/2021	2.16	<0.1	<0.1	0.2	2.8	19.7	17.5	0	1000		19.9	20.3	0.00 0.00	CS1
	01/09/2021	2.38	<0.1	<0.1	3.5	3.6	17.9	17.3	0	1020		21.4	20.9	0.00 0.00	CS1
	15/09/2021	2.59	<0.1	<0.1	4.4	4.5	19.6	16.6	0.1	1000		24.0	21.1	0.00 0.00	CS1
	29/09/2021	2.11	<0.1	<0.1	4.5	4.4	19.3	17.7	0	1003		23.8	22.1	0.00 0.00	CS1
	13/10/2021	2.10	<0.1	<0.1	3.1	3.2	18.7	18.0	0.1	1013		21.8	21.2	0.00 0.00	CS1
	27/10/2021	1.13	<0.1	<0.1	4.7	3.8	17.4	17.9	0	992		22.1	21.7	0.00 0.00	CS1
WS05	20/08/2021	1.68	<0.1	<0.1	0.2	2.0	19.7	18.4	0	1000		19.9	20.4	0.00 0.00	CS1
	01/09/2021	0.83	<0.1	<0.1	0.5	0.3	19.7	18.6	0.1	1020		20.2	18.9	0.00 0.00	CS1
	15/09/2021	1.03	<0.1	<0.1	0.3	0.3	19.7	19.7	0.1	1000		20.0	20.0	0.00 0.00	CS1
	29/09/2021	1.12	<0.1	<0.1	1.2	1.2	20.2	19.8	0.1	1004		21.4	21.0	0.00 0.00	CS1
	13/10/2021	0.59	<0.1	<0.1	3.2	3.2	18.7	18.0	0.1	1013		21.9	21.2	0.00 0.00	CS1
	27/10/2021	0.45	<0.1	<0.1	0.5	0.4	20.4	20.6	0	993		20.9	21.0	0.00 0.00	CS1
WS07	20/08/2021	2.01	<0.1	<0.1	0.2	2.0	19.3	17.3	0	1000		19.5	19.3	0.00 0.00	CS1
	01/09/2021	2.21	<0.1	<0.1	1.8	3.0	19.7	18.6	0	1020		21.5	21.6	0.00 0.00	CS1
	15/09/2021	2.35	<0.1	<0.1	5.2	5.3	19.8	16.1	0	1000		25.0	21.4	0.00 0.00	CS1
	29/09/2021	2.33	<0.1	<0.1	6.6	6.8	18.1	14.7	0.1	1004		24.7	21.5	0.00 0.01	CS1
	13/10/2021	2.02	<0.1	<0.1	0.3	0.1	21.2	21.2	0	1013		21.5	21.3	0.00 0.00	CS1
	27/10/2021	1.62	<0.1	<0.1	7.4	6.8	18.1	18.1	0	992		25.5	24.9	0.00 0.00	CS1
WS09	20/08/2021	1.01	<0.1	<0.1	0.3	4.0	19.9	15.9	0	1000		20.2	19.9	0.00 0.00	CS1
	01/09/2021	Dry	<0.1	<0.1	5.3	5.3	16.6	16.6	0.1	1020		21.9	21.9	0.00 0.01	CS1
	15/09/2021	Dry	<0.1	<0.1	4.5	5.0	19.6	17.2	0	1001		24.1	22.2	0.00 0.00	CS1
	29/09/2021	Dry	<0.1	<0.1	4.2	4.2	18.2	17.2	0	Dry		22.4	21.4	0.00 0.00	CS1
	13/10/2021	0.99	<0.1	<0.1	3.3	3.4	19.6	18.9	0	1013		22.9	22.3	0.00 0.00	CS1
	27/10/2021	0.99	<0.1	<0.1	6.8	7.0	16.0	14.4	0	993		22.8	21.4	0.00 0.00	CS1
WS12	20/08/2021	1.22	<0.1	<0.1	0.3	3.3	19.7	17.2	0	1000		20.0	20.5	0.00 0.00	CS1
	01/09/2021	Dry	<0.1	<0.1	3.4	3.4	20.1	18.0	0	1020		23.5	21.4	0.00 0.00	CS1
	15/09/2021	Dry	<0.1	<0.1	3.0	3.2	19.6	17.7	0.1	1000		22.6	20.9	0.00 0.00	CS1
	29/09/2021	1.19	<0.1	<0.1	3.2	3.3	19.3	16.3	0	1003		22.5	19.6	0.00 0.00	CS1
	13/10/2021	1.10	<0.1	<0.1	6.0	6.1	12.5	12.5	0.1	1013		18.5	18.6	0.00 0.01	CS1
	27/10/2021	0.92	<0.1	<0.1	5.8	0.9	17.1	20.2	0	993		22.9	21.1	0.00 0.00	CS1

WORST-CASE VALUES PER BOREHOLE

	Maximum CH4	Maximum CO2	Minimum O2	Max Flow	Not Applicable	Maximum Total	Maximum GSVs	CS No
WS01	<0.1	<0.1	3.5	4.0	18.3	17.6	<0.1	CS1
WS03	<0.1	<0.1	4.7	4.5	17.4	16.6	0.1	CS1
WS05	<0.1	<0.1	3.2	3.2	18.7	18.0	0.1	CS1
WS07	<0.1	<0.1	7.4	6.8	18.1	14.7	0.1	CS1
WS09	<0.1	<0.1	6.8	7.0	16.0	14.4	0.1	CS1
WS12	<0.1	<0.1	6.0	6.1	12.5	12.5	0.1	CS1

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 21/08959
Issue Number: 1

Date: 16 September, 2021

Client: RSK Environment Helsby
Spring Lodge
172 Chester Road
Helsby
Cheshire
UK
WA6 0AR

Project Manager: Jon Clayton/Rebecca Chanter/Rebecca Homer/Richard
Project Name: Heywood Stores
Project Ref: 322834
Order No: N/A
Date Samples Received: 16/08/21
Date Instructions Received: 18/08/21
Date Analysis Completed: 16/09/21

Prepared by:



Sophie France
Client Service Manager

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 21/08959

Client Project Name: Heywood Stores

Client Project Ref: 322834

Lab Sample ID	21/08959/3	21/08959/4	21/08959/5	21/08959/9	21/08959/10	21/08959/11	21/08959/16	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS02	WS02	WS04	WS04	WS05	WS07			
Depth to Top	0.90	0.10	0.40	0.40	0.90	0.20	0.60			
Depth To Bottom	1.10	0.20	0.60	0.60	1.00	0.40	0.80			
Date Sampled	16-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	16-Aug-21	13-Aug-21			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	5A	6AE	5A	6AE	5A			
% Stones >10mm _A	<0.1	23.1	<0.1	20.7	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	-	7.04	-	7.17	-	5.52	5.87	pH	0.01	A-T-031s
pH BRE _D ^{M#}	5.19	-	-	-	5.94	-	-	pH	0.01	A-T-031s
Chloride BRE, SO4 equiv. (water sol 2:1) _D	19	-	-	-	-	-	-	mg/l	7	A-T-026s
Nitrate BRE, SO4 equiv. (water sol 2:1) _D	<0.4	-	-	-	-	-	-	mg/l	0.4	A-T-026s
Sulphate BRE (water sol 2:1) _D ^{M#}	25	-	-	-	69	-	-	mg/l	10	A-T-026s
Arsenic _D ^{M#}	-	7	-	4	-	17	<1	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	-	0.7	-	0.8	-	1.1	<0.5	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	-	22	-	35	-	50	7	mg/kg	1	A-T-024s
Chromium _D ^{M#}	-	15	-	17	-	23	15	mg/kg	1	A-T-024s
Lead _D ^{M#}	-	47	-	39	-	96	9	mg/kg	1	A-T-024s
Mercury _D	-	<0.17	-	<0.17	-	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	-	12	-	17	-	20	13	mg/kg	1	A-T-024s
Selenium _D ^{M#}	-	<1	-	<1	-	<1	<1	mg/kg	1	A-T-024s
Zinc _D ^{M#}	-	50	-	64	-	70	22	mg/kg	5	A-T-024s

Envirolab Job Number: 21/08959

Client Project Name: Heywood Stores

Client Project Ref: 322834

Lab Sample ID	21/08959/3	21/08959/4	21/08959/5	21/08959/9	21/08959/10	21/08959/11	21/08959/16	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS02	WS02	WS04	WS04	WS05	WS07			
Depth to Top	0.90	0.10	0.40	0.40	0.90	0.20	0.60			
Depth To Bottom	1.10	0.20	0.60	0.60	1.00	0.40	0.80			
Date Sampled	16-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	16-Aug-21	13-Aug-21			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	5A	6AE	5A	6AE	5A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	-	-	NAD	-	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	-	-	N/A	-	N/A	N/A			A-T-045

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Lab Sample ID	21/08959/3	21/08959/4	21/08959/5	21/08959/9	21/08959/10	21/08959/11	21/08959/16	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS02	WS02	WS04	WS04	WS05	WS07			
Depth to Top	0.90	0.10	0.40	0.40	0.90	0.20	0.60			
Depth To Bottom	1.10	0.20	0.60	0.60	1.00	0.40	0.80			
Date Sampled	16-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	16-Aug-21	13-Aug-21			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	5A	6AE	5A	6AE	5A			
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	-	-	0.17	-	-	-	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	-	-	0.28	-	-	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	-	-	0.63	-	-	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	-	-	0.54	-	-	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	-	-	0.55	-	-	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	-	-	0.23	-	-	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	-	-	0.21	-	-	-	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	-	-	0.64	-	-	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	-	-	0.06	-	-	-	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	-	-	1.47	-	-	-	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	-	-	0.12	-	-	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	-	-	0.31	-	-	-	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	-	-	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	-	-	1.30	-	-	-	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	-	-	1.20	-	-	-	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	-	-	7.71	-	-	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 21/08959

Client Project Name: Heywood Stores

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Lab Sample ID	21/08959/3	21/08959/4	21/08959/5	21/08959/9	21/08959/10	21/08959/11	21/08959/16	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS02	WS02	WS04	WS04	WS05	WS07			
Depth to Top	0.90	0.10	0.40	0.40	0.90	0.20	0.60			
Depth To Bottom	1.10	0.20	0.60	0.60	1.00	0.40	0.80			
Date Sampled	16-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	16-Aug-21	13-Aug-21			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	5A	6AE	5A	6AE	5A			
Speciated PCB-EC7 & WHO12										
PCB BZ 28 _A ^{M#}	-	-	-	-	-	<0.002	-	mg/kg	0.002	A-T-004s
PCB BZ 52 _A ^{M#}	-	-	-	-	-	<0.002	-	mg/kg	0.002	A-T-004s
PCB BZ 81 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 101 _A ^{M#}	-	-	-	-	-	<0.004	-	mg/kg	0.004	A-T-004s
PCB BZ 105 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 114 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 118 _A ^{M#}	-	-	-	-	-	<0.007	-	mg/kg	0.007	A-T-004s
PCB BZ 123 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 126 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 138 _A ^{M#}	-	-	-	-	-	<0.006	-	mg/kg	0.006	A-T-004s
PCB BZ 153 _A ^{M#}	-	-	-	-	-	<0.004	-	mg/kg	0.004	A-T-004s
PCB BZ 156 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 157 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 167 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 169 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 180 _A ^{M#}	-	-	-	-	-	<0.004	-	mg/kg	0.004	A-T-004s
PCB BZ 189 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
PCB BZ 77 _A	-	-	-	-	-	<0.005	-	mg/kg	0.005	A-T-004s
Total Speciated PCB-EC7 & WHO12 _A	-	-	-	-	-	<0.007	-	mg/kg	0.002	A-T-004s

Envirolab Job Number: 21/08959

Client Project Name: Heywood Stores

Client Project Ref: 322834

Lab Sample ID	21/08959/3	21/08959/4	21/08959/5	21/08959/9	21/08959/10	21/08959/11	21/08959/16	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS02	WS02	WS04	WS04	WS05	WS07			
Depth to Top	0.90	0.10	0.40	0.40	0.90	0.20	0.60			
Depth To Bottom	1.10	0.20	0.60	0.60	1.00	0.40	0.80			
Date Sampled	16-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	12-Aug-21	16-Aug-21	13-Aug-21			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	5A	6AE	5A	6AE	5A			
TPH CWG										
Ali >C5-C6 _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	-	-	<1	-	-	-	-	mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	-	-	<1	-	-	-	-	mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	-	-	<1	-	-	-	-	mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	-	-	<1	-	-	-	-	mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	-	-	2	-	-	-	-	mg/kg	1	A-T-055s
Total Aliphatics _A	-	-	2	-	-	-	-	mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	-	-	<1	-	-	-	-	mg/kg	1	A-T-055s
Aro >C10-C12 _A	-	-	<1	-	-	-	-	mg/kg	1	A-T-055s
Aro >C12-C16 _A	-	-	1	-	-	-	-	mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	-	-	2	-	-	-	-	mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	-	-	7	-	-	-	-	mg/kg	1	A-T-055s
Total Aromatics _A	-	-	11	-	-	-	-	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	-	-	13	-	-	-	-	mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
MTBE _A [#]	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 21/08959

Client Project Name: Heywood Stores

Client Project Ref: 322834

Lab Sample ID	21/08959/18	21/08959/19	21/08959/22	21/08959/27	21/08959/28	21/08959/31		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS08	WS08	WS09	WS12	WS12	WS13				
Depth to Top	0.00	0.50	0.90	0.60	1.30	0.40				
Depth To Bottom	0.30	0.70	1.10	0.70	1.50	0.60				
Date Sampled	13-Aug-21	13-Aug-21	13-Aug-21	13-Aug-21	13-Aug-21	16-Aug-21				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6ABE	5AE	6AE	5A	4A				
% Stones >10mm _A	25.8	28.9	2.2	11.5	<0.1	2.8		% w/w	0.1	A-T-044
pH _D ^{M#}	7.82	8.27	-	6.57	7.04	7.16		pH	0.01	A-T-031s
pH BRE _D ^{M#}	-	-	6.27	-	-	-		pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	-	-	22	-	-	-		mg/l	10	A-T-026s
Arsenic _D ^{M#}	9	3	-	5	2	<1		mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.5	0.8	-	1.2	0.6	<0.5		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	31	23	-	27	19	8		mg/kg	1	A-T-024s
Chromium _D ^{M#}	19	15	-	31	18	11		mg/kg	1	A-T-024s
Lead _D ^{M#}	54	43	-	70	33	16		mg/kg	1	A-T-024s
Mercury _D	0.47	1.14	-	<0.17	<0.17	<0.17		mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	16	14	-	21	14	8		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	-	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	126	68	-	87	38	17		mg/kg	5	A-T-024s

Envirolab Job Number: 21/08959

Client Project Name: Heywood Stores

Client Project Ref: 322834

Lab Sample ID	21/08959/18	21/08959/19	21/08959/22	21/08959/27	21/08959/28	21/08959/31		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS08	WS08	WS09	WS12	WS12	WS13				
Depth to Top	0.00	0.50	0.90	0.60	1.30	0.40				
Depth To Bottom	0.30	0.70	1.10	0.70	1.50	0.60				
Date Sampled	13-Aug-21	13-Aug-21	13-Aug-21	13-Aug-21	13-Aug-21	16-Aug-21				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6ABE	5AE	6AE	5A	4A				
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	-	-	-	NAD	-	NAD				A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	-	-	-	N/A	-	N/A				A-T-045

Envirolab Job Number: 21/08959

Client Project Name: Heywood Stores

Client Project Ref: 322834

Lab Sample ID	21/08959/18	21/08959/19	21/08959/22	21/08959/27	21/08959/28	21/08959/31		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS08	WS08	WS09	WS12	WS12	WS13				
Depth to Top	0.00	0.50	0.90	0.60	1.30	0.40				
Depth To Bottom	0.30	0.70	1.10	0.70	1.50	0.60				
Date Sampled	13-Aug-21	13-Aug-21	13-Aug-21	13-Aug-21	13-Aug-21	16-Aug-21				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6ABE	5AE	6AE	5A	4A				
Speciated PCB-EC7 & WHO12										
PCB BZ 28 _A ^{M#}	-	-	-	-	-	<0.002		mg/kg	0.002	A-T-004s
PCB BZ 52 _A ^{M#}	-	-	-	-	-	<0.002		mg/kg	0.002	A-T-004s
PCB BZ 81 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 101 _A ^{M#}	-	-	-	-	-	<0.004		mg/kg	0.004	A-T-004s
PCB BZ 105 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 114 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 118 _A ^{M#}	-	-	-	-	-	<0.007		mg/kg	0.007	A-T-004s
PCB BZ 123 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 126 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 138 _A ^{M#}	-	-	-	-	-	<0.006		mg/kg	0.006	A-T-004s
PCB BZ 153 _A ^{M#}	-	-	-	-	-	<0.004		mg/kg	0.004	A-T-004s
PCB BZ 156 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 157 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 167 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 169 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 180 _A ^{M#}	-	-	-	-	-	<0.004		mg/kg	0.004	A-T-004s
PCB BZ 189 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
PCB BZ 77 _A	-	-	-	-	-	<0.005		mg/kg	0.005	A-T-004s
Total Speciated PCB-EC7 & WHO12 _A	-	-	-	-	-	<0.007		mg/kg	0.002	A-T-004s

Envirolab Job Number: 21/08959

Client Project Name: Heywood Stores

Client Project Ref: 322834

Lab Sample ID	21/08959/18	21/08959/19	21/08959/22	21/08959/27	21/08959/28	21/08959/31		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS08	WS08	WS09	WS12	WS12	WS13				
Depth to Top	0.00	0.50	0.90	0.60	1.30	0.40				
Depth To Bottom	0.30	0.70	1.10	0.70	1.50	0.60				
Date Sampled	13-Aug-21	13-Aug-21	13-Aug-21	13-Aug-21	13-Aug-21	16-Aug-21				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6ABE	5AE	6AE	5A	4A				
TPH CWG										
Ali >C5-C6 _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	-	<1	-	<1	<1	-		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	-	<1	-	<1	1	-		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	-	2	-	<1	4	-		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	-	4	-	2	<1	-		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	-	56	-	16	8	-		mg/kg	1	A-T-055s
Total Aliphatics _A	-	61	-	19	13	-		mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	-	2	-	1	<1	-		mg/kg	1	A-T-055s
Aro >C10-C12 _A	-	<1	-	<1	4	-		mg/kg	1	A-T-055s
Aro >C12-C16 _A	-	6	-	3	9	-		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	-	44	-	7	4	-		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	-	167	-	34	8	-		mg/kg	1	A-T-055s
Total Aromatics _A	-	220	-	45	24	-		mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	-	281	-	64	37	-		mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s
MTBE _A [#]	-	<0.01	-	<0.01	<0.01	-		mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: RSK Environment Helsby, Spring Lodge, 172 Chester Road, Helsby, Cheshire,
UK, WA6 0AR

Project: Heywood Stores

Clients Project No: 322834

Project No: 21/08959

Date Received: 18/08/2021 (am)

Cool Box Temperatures (°C): 15.7 - 17.1

Lab Sample ID	21/08959/3
Client Sample No	
Client Sample ID/Depth	WS01 0.90-1.10m
Date Sampled	16/08/21
Deviation Code	
F	✓

Key

F Maximum holding time exceeded between sampling date and analysis for analytes listed below

HOLDING TIME EXCEEDANCES

Lab Sample ID	21/08959/3
Client Sample No	
Client Sample ID/Depth	WS01 0.90-1.10m
Date Sampled	16/08/21
Chloride BRE, SO4 equiv. (water sol 2:1)	✓
Nitrate BRE, SO4 equiv. (water sol 2:1)	✓

Note: If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	21/08959/3	21/08959/4	21/08959/5	21/08959/9	21/08959/10	21/08959/11	21/08959/16	21/08959/18	21/08959/19	21/08959/22	21/08959/27	21/08959/28
Client Sample No												
Client Sample ID/Depth	WS01 0.90-1.10m	WS02 0.10-0.20m	WS02 0.40-0.60m	WS04 0.40-0.60m	WS04 0.90-1.00m	WS05 0.20-0.40m	WS07 0.60-0.80m	WS08 0.00-0.30m	WS08 0.50-0.70m	WS09 0.90-1.10m	WS12 0.60-0.70m	WS12 1.30-1.50m
Date Sampled	16/08/21	12/08/21	12/08/21	12/08/21	12/08/21	16/08/21	13/08/21	13/08/21	13/08/21	13/08/21	13/08/21	13/08/21
A-T-004s						24/08/2021						
A-T-019s	23/08/2021			23/08/2021								
A-T-022s			27/08/2021						23/08/2021		23/08/2021	23/08/2021
A-T-024s		02/09/2021		02/09/2021		02/09/2021	02/09/2021	02/09/2021	02/09/2021		02/09/2021	02/09/2021
A-T-026s	16/09/2021				02/09/2021					02/09/2021		
A-T-031s	01/09/2021	01/09/2021		01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021
A-T-044	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021	01/09/2021
A-T-045	20/08/2021			20/08/2021		20/08/2021	20/08/2021				20/08/2021	
A-T-055s			27/08/2021						23/08/2021		23/08/2021	23/08/2021

Lab Sample ID	21/08959/31
Client Sample No	
Client Sample ID/Depth	WS13 0.40-0.60m
Date Sampled	16/08/21
A-T-004s	24/08/2021
A-T-019s	
A-T-022s	
A-T-024s	02/09/2021
A-T-026s	
A-T-031s	01/09/2021
A-T-044	01/09/2021
A-T-045	20/08/2021
A-T-055s	

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

KEY TO EXPLORATORY HOLE LOGS - SUMMARY OF ABBREVIATIONS**SAMPLING**

Sample type codes:

B	=	Bulk disturbed sample.
DSPT	=	Small disturbed sample originating from SPT test.
ES	=	Soil sample for environmental testing.

IN-SITU TESTING

SPT	=	Standard Penetration Test using split spoon sampler. _(NR) indicates 'No Sample Recovery'.
PID	=	Photo Ionisation Detector Results, in ppm.

ADDITIONAL NOTES

1. All soil and rock descriptions and legends in general accordance with BS EN ISO 14688-1:2018, 14688-2:2018, 14689:2018, and BS5930:2015+A1:2020.
2. Material types divided by a broken line (- - -) indicates an unclear boundary.
3. Fracture spacings (If) quoted in the Description of Strata for specific strata or specific fracture sets are also quoted in mm, e.g. (25/80/230) referring to (Min/Avg/Max).
4. The data on any sheet within the report showing the AGS icon is available in the AGS format.

KEY TO EXPLORATORY HOLE LOGS - SUMMARY OF GRAPHIC SYMBOLS

WATER COLUMN SYMBOLS

	First water strike, second water strike etc.
	Standing water level following first strike, standing water level following second strike etc.
	Seepage.
	Standing water level recorded at documented date.

MATERIAL GRAPHIC LEGENDS

	Clayey gravelly SAND		Clayey SAND		Gravelly CLAY		Gravelly SAND
	MADE GROUND		Mudstone		SAND		Sandstone
	Sandy CLAY		Gravelly sandy CLAY		Sandy gravelly CLAY		Sandy gravelly CLAY with COBBLES
	Gravelly peaty SAND		Peaty SAND				

INSTRUMENTATION SYMBOLS

	Asphalt		Backfill		Bentonite seal		Gravel filter
	Plain pipe		Slotted pipe				

BOREHOLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Borehole: CP01
Contract Ref: 322834	Start: 16.08.21 End: 16.08.21	Ground Level: 129.88	National Grid Co-ordinate: E:385745.5 N:409036.8		Sheet: 1 of 2

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.05-0.10	1	ES	1xT+1xJ+1xV			Grass onto dark brown slightly clayey slightly gravelly fine to medium SAND. Gravel is subangular fine of mixed lithologies, including quartzite and brick with many rootlets. (TOPSOIL)	0.15	
0.90-1.00	2	ES	1xT+1xJ+1xV			MADE GROUND: Soft dark blackish brown slightly sandy slightly gravelly CLAY with low cobble content of brick and concrete with occasional rootlets. Sand is medium. Gravel is subangular fine to medium of mixed lithologies, including brick and concrete.	(1.15)	
1.20	3	B					1.30	
1.20-1.65	4	SPT	N=6			MADE GROUND: Soft light greyish brown mottled and orange sandy slightly gravelly CLAY. Sand is fine. Gravel is angular to subangular fine of mixed lithologies, including brick. Clay is damp.		
1.20-1.65	5	B						
1.20-1.65	8	ES	1xT+1xJ+1xV					
2.00-2.45	6	SPT	N=5					
2.00-2.45	7	B					(2.70)	
3.00-3.45	9	SPT	N=15			. . . 3.00m to 3.45m, thin band of blueish grey mudstone.		
4.00-4.45	10	SPT	N=25			Light blueish grey slightly weathered MUDSTONE.	4.00	
4.00-4.45	11	B					(1.90)	
5.00-5.35	12	SPT	5,4/7,20,23 for 50mm					
5.00-5.45	13	B					5.90	
6.00-6.12	14	SPT	22/50 for 60mm			Light yellowish grey medium to coarse SANDSTONE.	(0.55)	
							6.45	

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
									1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. No groundwater encountered. 4. Borehole terminated at 6.45m on refusal. 5. Backfilled with bentonite from 6.45m to 6.00m and arisings from 6.00m to 0.00m. 6. Had to move rig backwards 10.00m due to concrete structure(?) preventing drilling. 7. Refusal at 5.00m, 1hr slow drilling/chiselling, refusal All dimensions in metres Scale: 1:50
Method Used: Cable percussion		Plant Used: Dando 2500		Drilled By: Vincent Cameron		Logged By: RHomer		Checked By:	

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SINT LIBRARY_V10_01GLB LibVersion: v8_07_001 PriVersion: v8_07 | Log CABLE PERCUSSION LOG - A4P | 322834-HEYWOOD-STORES.GPJ - v10_01.
RSK Environment Ltd, Spring Lodge, 172 Chester Road, Helsby, Cheshire, WA6 0AR. Tel: 01928 726006; Fax: 01928 725633; Web: www.rsk.co.uk | 24/09/21 - 12:12 | AW1 |

BOREHOLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Borehole: CP02
Contract Ref: 322834	Start: 17.08.21 End: 17.08.21	Ground Level: 126.14	National Grid Co-ordinate: E:385356.9 N:409231.0		Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-1.00	11	B				Grass onto dark brown slightly clayey slightly gravelly fine to medium SAND. Gravel is angular to rounded fine to medium of mixed lithologies, including quartzite and brick with frequent rootlets.	0.30	
0.10-0.20	1	ES	1xT+1xJ+1xV				(0.50)	
0.30-0.50	2	ES	1xT+1xJ+1xV			(TOPSOIL)	0.80	
						MADE GROUND: Soft dark orangish brown mottled grey sandy slightly gravelly CLAY with low cobble content of brick and concrete. Sand is medium. Gravel is fine to medium of mixed lithologies, including brick and concrete with occasional rootlets.	(0.50)	
1.20	4	ES	1xT+1xJ+1xV				1.30	
1.20-1.65	6	SPT	N=7			MADE GROUND: Soft light bluish grey slightly sandy gravelly CLAY. Gravel is angular fine to medium of mixed lithologies, including sandstone and brick.	(1.20)	
1.20-1.65	12	B				Firm light brownish grey mottled orange sandy slightly gravelly CLAY. Sand is medium to coarse. Gravel is angular to subangular fine and of mixed lithologies, including sandstone.	2.50	
2.00-2.45	7	SPT	N=6					
2.00-2.45	13	B				Soft bluish grey slightly gravelly CLAY. Gravel is subangular to subrounded fine to medium of mixed lithologies, including sandstone.	(2.40)	
3.00-3.45	8	SPT	N=3				4.90	
3.00-3.45	14	B					5.10	
4.00-4.20	5	ES	1xT+1xJ+1xV			Light brownish yellow coarse SAND.	(0.90)	
4.00-4.45	15	B				Soft greyish brown slightly gravelly CLAY. Gravel is subrounded fine to medium of sandstone.	6.00	
5.00-5.45	9	SPT	N=13				6.10	
5.00-5.45	16	B				Light brownish yellow SANDSTONE.		

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
			-		1.30				1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. Groundwater encountered at 1.30m. 4. Terminated at 6.10m after refusal and chiselling. 5. Backfilled with bentonite from 6.10m to 5.90m and arisings from 5.90m to 0.00m.
Method Used: Cable percussion						All dimensions in metres			Scale: 1:50
Plant Used: Dando 2500			Drilled By: Vincent Cameron			Logged By: RHomer		Checked By:	

BOREHOLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Borehole: CP03
Contract Ref: 322834	Start: 17.08.21 End: 17.08.21	Ground Level: 131.66	National Grid Co-ordinate: E:385613.9 N:409272.0		Sheet: 1 of 2

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-1.00 0.05-0.10	5 1	B ES	1xT+1xJ+1xV			MADE GROUND: Grass onto dark greyish brown slightly clayey slightly gravelly medium SAND. Gravel is subangular fine to medium of mixed lithologies, including sandstone, brick and concrete with many rootlets. Soft bluish grey slightly sandy slightly gravelly CLAY. Sand is medium to coarse. Gravel is subangular to subrounded fine to medium of mixed lithologies, including mudstone.	0.15 (1.35)	 
1.20-1.65 1.20-1.65	6 7	SPT B	N=4			Soft light greyish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular fine to medium of mixed lithologies, including mudstone and sandstone.	1.50	
2.00-2.20 2.00-2.45 2.00-2.45	2 8 9	ES SPT B	N=4					
3.00-3.45 3.00-3.45	10 11	SPT B	N=13					
4.00-4.45 4.00-4.45	12 13	SPT B	N=10			... 4.00m, becoming firm.	(4.30)	
4.50-4.60	3	ES	1xT+1xJ+1xV					
5.00-5.45 5.00-5.45	14 15	SPT B	N=17					
6.00-6.45 6.00-6.45	16 17	SPT B	N=22			Dark reddish brown coarse SAND. Firm light greyish brown slightly sandy slightly gravelly CLAY. Sand is medium. Gravel is subangular fine to medium of mixed lithologies, including sandstone and mudstone. ... 6.00m, becoming medium to coarse gravel.	5.80 6.00 (1.00)	 
7.20-7.30 7.50-7.95	4 19	ES B				Firm light brown gravelly CLAY. Gravel is subangular to subrounded medium to coarse, of mixed lithologies including sandstone. Very wet clay. ... 7.50m, boulder.	7.00	
8.00-8.45	20	SPT	N=35				(2.50)	

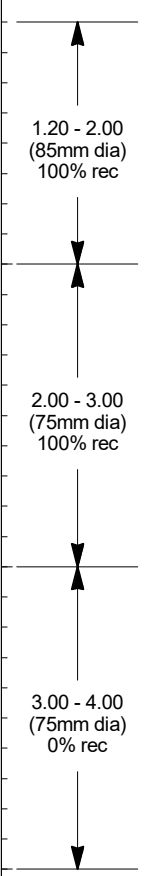
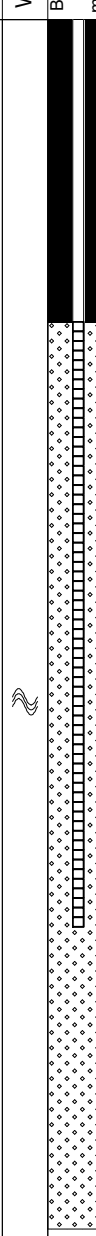
Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
									1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. No groundwater encountered. 4. Refusal at 7.5m on SPT, 1 hour of chiselling - boulder. 5. Borehole terminated on 10.00m SPT on refusal. 6. Borehole backfilled with bentonite from 10.45m to 10.00m and arisings from 10.0m to 0.00m.
									All dimensions in metres Scale: 1:50
Method Used: Cable percussion			Plant Used: Dando 2500			Drilled By: Vincent Cameron		Logged By: RHomer	Checked By: 

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RSK Environment Ltd, Spring Lodge, 172 Chester Road, Helsby, Cheshire, WA6 0AR. Tel: 01928 726006; Fax: 01928 725633; Web: www.rsk.co.uk | 24/09/21 - 12:13 | AW1 |

WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS01
Contract Ref: 322834	Start: 16.08.21 End: 16.08.21	Ground Level: 126.99	National Grid Co-ordinate: E:385732.2 N:408946.2		Sheet: 1 of 1

Progress	Samples / Tests				Water Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results				
 1.20 - 2.00 (85mm dia) 100% rec 2.00 - 3.00 (75mm dia) 100% rec 3.00 - 4.00 (75mm dia) 0% rec	0.00-0.15 0.00	4	ES PID	1xT+1xJ+1xV 0.0ppm		Grass onto dark brown slightly gravelly fine to medium SAND. Gravel is subangular fine to medium of mixed lithologies, including mudstone and sandstone. Occasional rootlets. (TOPSOIL) MADE GROUND: Dark brown slightly clayey slightly gravelly fine to medium SAND. Gravel is subangular fine to medium of mixed lithologies, including brick fragments.	0.15	
	0.30-0.50 0.30	5	ES PID	1xT+1xJ+1xV 0.0ppm		Light yellowish grey clayey fine to medium SAND. Occasional pockets of firm dark greyish brown mottled orange slightly sandy clay. Sand is fine.	(0.70) 0.85	
	0.90-1.10 0.90	6	ES PID	1xT+1xJ+1xV 0.0ppm		Firm dark greyish brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular fine to medium of sandstone and coal fragments.	(0.35) 1.20	
	1.20-1.65	1	SPT	N=10		Dark orangish brown fine to medium SAND.	1.70 1.75	
	2.00-2.45	2	SPT	N=2		Firm dark greyish brown sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of sandstone, mudstone and coal fragments.	(0.35) 2.20	
	3.00-3.45	3	SPT	N=8		Dark orangish brown fine to medium SAND.	(0.80) 3.00	
						Firm dark greyish brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular fine of sandstone and mudstone.	(1.00) 4.00	
						No recovery.		

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. Groundwater encountered at 2.30m. 4. Installed to 3.00m: 1.00m plain and 2.00m slotted. 5. Terminated at 4.00m due to no recovery from 3.00m to 4.00m.			
			-		2.30				
Method Used: Tracked window sampling						All dimensions in metres Scale: 1:25			
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		

WINDOW SAMPLE LOG

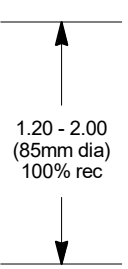
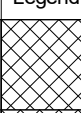
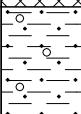
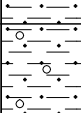
Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS02
Contract Ref: 322834	Start: 12.08.21 End: 12.08.21	Ground Level: 129.53	National Grid Co-ordinate: E:385605.4 N:409028.7		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20 0.10	2	ES PID	1xT+1xJ+1xV 0.0ppm			Grass onto dark brown slightly clayey slightly gravelly organic fine to coarse SAND. Gravel subangular fine to medium of concrete and slag. Occasional rootlets. (TOPSOIL)	0.25	
	0.40-0.60 0.40	3	ES PID	1xT+1xJ+1xV 0.0ppm			Dark reddish brown slightly gravelly fine to coarse SAND. Gravel subangular to subrounded fine to medium of sandstone. Occasional pockets of dark grey and orange mottled soft to firm clay. ... 0.3m to 0.35m, wood.	(1.35)	
	1.20-1.20	1	SPT	NP				1.60	
							Soft dark grey slightly sandy CLAY. Sand fine to coarse.	1.80	
							Dark reddish brown slightly clayey fine to coarse SAND.	2.00	
							No recovery.	(1.00)	
								3.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. Groundwater encountered at 1.20m, rising to 1.00m. 4. Terminated at 3.00m due to no recovery between 2.00m and 3.00m. 5. Backfilled with arisings.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		

WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS03
Contract Ref: 322834	Start: 12.08.21 End: 12.08.21	Ground Level: 130.16	National Grid Co-ordinate: E:385613.9 N:409064.6		Sheet: 1 of 2

Progress	Samples / Tests				Water Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results				
	0.30-0.50 0.30	2	ES PID	1xT+1xJ+1xV 0.1ppm		MADE GROUND. Grass onto dark brown slightly clayey slightly gravelly fine to coarse SAND with low cobble content of brick. Gravel is subangular fine to medium of concrete, sandstone and brick fragments. Occasional rootlets.	(0.30) 0.30	
	0.70-0.90 0.70	3	ES PID	1xT+1xJ+1xV 0.4ppm		MADE GROUND: Light yellow slightly gravelly fine to coarse SAND. Gravel subangular fine to medium of brick fragments. Occasional pockets of light yellow soft sandy clay. Sand fine to medium.	(0.40) 0.70	
	1.20-1.65 1.20-1.40 1.20	1 7	SPT ES PID	N=5 1xT+1xJ+1xV 0.0ppm		Firm dark reddish brown mottled orange slightly sandy slightly gravelly CLAY. Sand fine to medium. Gravel is subangular fine of sandstone, mudstone and coal fragments.	(0.50) 1.20	
	2.00-2.45	4	SPT	N=15		Firm dark orangish brown mottled grey sandy CLAY. Sand fine to medium.	(0.30) 1.50	
	3.00-3.45	5	SPT	N=13		Firm dark greyish brown sandy slightly gravelly CLAY. Sand fine to coarse. Gravel is subangular fine of mudstone, coal and sandstone. ... Becoming less sandy from 1.7. Gravel is fine to medium	(2.50) 4.00	
	4.00-4.45	6	SPT	N=17		Dark reddish brown slightly gravelly fine to coarse SAND. Gravel is fine to medium of sandstone. Occasional pockets of firm clay.	(1.00) 5.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. Groundwater encountered at 3.00m. 4. Installed to 3.90m: 1.00m plain and 2.90m slotted. 5. Drilled to 5.00m collapsed in to 3.90m.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		

WINDOW SAMPLE LOG

Contract:		Client:		Window Sample:
Heywood Stores		Telereal Trillium Ltd		WS03
Contract Ref:	Start: 12.08.21	Ground Level:	National Grid Co-ordinate:	Sheet:
322834	End: 12.08.21	130.16	E:385613.9 N:409064.6	2 of 2

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Drilling Progress and Water Observations						General Remarks
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	
All dimensions in metres						Scale: 1:25
Method Used:	Tracked window sampling		Plant Used:	Premier 110		Drilled By: Vincent Cameron Logged By: RChanter Checked By:

WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS04
Contract Ref: 322834	Start: 12.08.21 End: 12.08.21	Ground Level: 129.17	National Grid Co-ordinate: E:385512.6 N:409099.5		Sheet: 1 of 2

Progress		Samples / Tests			Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
							Grass onto dark brown organic fine to coarse SAND. Occasional rootlets. (TOPSOIL)	0.20	
	0.40-0.60 0.40	1	ES PID	1xT+1xJ+1xV 0.0ppm			MADE GROUND: Dark brown slightly clayey gravelly fine to coarse SAND with low cobble content of sandstone and brick. Gravel angular to subangular fine to coarse of brick, clinker, concrete and sandstone.	(0.70)	
	0.90-1.00 0.90	2	ES PID	1xT+1xJ+1xV 0.0ppm			Soft to firm dark greyish brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subrounded fine to medium of sandstone.	0.90	
	1.20-1.65	3	SPT	N=6			... 1.20m, becoming firm.	(0.80)	
	1.20 - 2.00 (85mm dia) 90% rec						... 1.60m to 1.65m, sand band.	1.70	
	2.00-2.45	4	SPT	N=12			Firm dark reddish brown mottled grey slightly sandy slightly gravelly CLAY. Sand fine to medium. Gravel is subangular fine to medium of sandstone.	(0.30)	
	2.00 - 3.00 (75mm dia) 100% rec						Firm dark greyish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular fine to medium of sandstone and coal. Occasional bands of fine to medium sand.	(1.00)	
	3.00-3.45	5	SPT	N=32			Stiff dark greyish brown slightly gravelly CLAY. Gravel is fine to medium of sandstone and mudstone.	3.00	
	3.00 - 4.00 (75mm dia) 100% rec								
	4.00-4.45	6	SPT	N=38				(2.45)	
	4.00 - 5.00 (75mm dia) 90% rec								

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. Back filled with arisings. 4. No groundwater encountered.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		

WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS04
Contract Ref: 322834	Start: 12.08.21 End: 12.08.21	Ground Level: 129.17	National Grid Co-ordinate: E:385512.6 N:409099.5		Sheet: 2 of 2

Progress		Samples / Tests			Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
4.00 - 5.00 (75mm dia) 90% rec ▼	5.00-5.45	7	SPT	N=43			Stiff dark greyish brown slightly gravelly CLAY. Gravel is fine to medium of sandstone and mudstone. (stratum copied from 3.00m from previous sheet)	5.45	

Drilling Progress and Water Observations						General Remarks
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	

WINDOW SAMPLE LOG

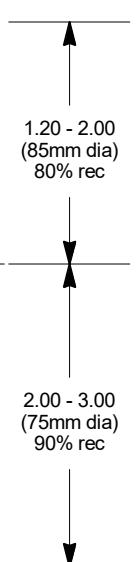
Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS05
Contract Ref: 322834	Start: 16.08.21 End: 16.08.21	Ground Level: 130.86	National Grid Co-ordinate: E:385582.5 N:409154.6		Sheet: 1 of 1

Progress	Samples / Tests				Water Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results				
	0.20-0.40 0.20	4	ES PID	1xT+1xJ+1xV 0.0ppm		Grass onto dark brown slightly clayey slightly gravelly fine to medium SAND. Gravel is subangular fine of sandstone. (TOPSOIL) MADE GROUND: Dark brown slightly clayey slightly gravelly fine to medium SAND with low cobble content of brick.. Gravel is subangular to subrounded fine to medium of brick fragments, sandstone and mudstone.	0.15 (0.75)	
	0.90-1.00 0.90	5	ES PID	1xT+1xJ+1xV 0.0ppm		Firm light greyish brown mottled orange slightly sandy CLAY. Sand is fine.	0.90 (0.30)	
	1.20-1.65	1	SPT	N=8		Firm light greyish brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of sandstone and mudstone.	1.20	
	1.20 - 2.00 (85mm dia) 50% rec					... 2.00m, gravel becoming fine to coarse.	(1.30)	
	2.00-2.45	2	SPT	N=17		Firm dark brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of mudstone and sandstone.	2.50 (0.70)	
	2.00 - 3.00 (75mm dia) 90% rec					No recovery.	3.20 (0.80)	
	3.00-3.45	3	SPT	N=17			4.00	
	3.00 - 4.00 (75mm dia) 20% rec							

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. No groundwater encountered. 4. Installed to 3.00m: 1.00m plain and 2.00m slotted. 5. Terminated at 4.00m due to no recovery from 3.20m to 4.00m.			
						All dimensions in metres		Scale:	1:25
Method Used: Tracked window sampling		Plant Used: Premier 110		Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:	

WINDOW SAMPLE LOG

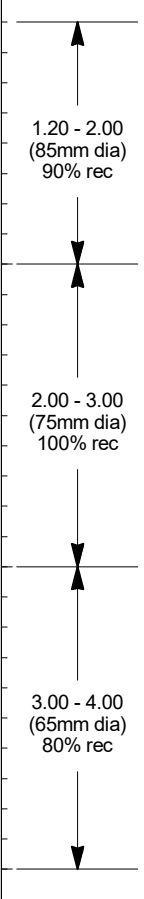
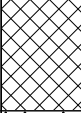
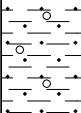
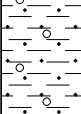
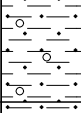
Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS06
Contract Ref: 322834	Start: 13.08.21 End: 13.08.21	Ground Level: 131.54	National Grid Co-ordinate: E:385618.8 N:409221.7		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20-0.40	4	ES	1xT+1xJ+1xV			Grass onto dark brown slightly clayey slightly gravelly fine SAND. Gravel is fine of mixed lithologies, including sandstone and mudstone. Occasional rootlets. (TOPSOIL)	0.20	
	0.50-0.70	5	ES	1xT+1xJ+1xV			MADE GROUND: Dark brown slightly clayey slightly gravelly fine to medium SAND. Gravel is angular to subangular fine to medium of brick, concrete and sandstone.	0.40	
							Firm dark greyish brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular fine of mudstone and sandstone.	(0.80)	
	1.20-1.65	1	SPT	N=7			Firm dark greyish brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular fine to medium of sandstone and mudstone.	1.20	
	2.00-2.45	2	SPT	N=11			Firm dark greyish brown slightly gravelly CLAY. Gravel is subangular to subrounded fine to medium of mudstone and sandstone. Occasional fibrous material.	(0.80)	
	3.00-3.45	3	SPT	N=15			Firm to stiff dark greyish brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subrounded fine to medium of mudstone and sandstone.	(0.95)	
								3.45	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. No groundwater encountered. 4. Barrel getting stuck in ground at 3.0m, borehole terminated at 3.45m. 5. Backfill with arisings.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		

WINDOW SAMPLE LOG

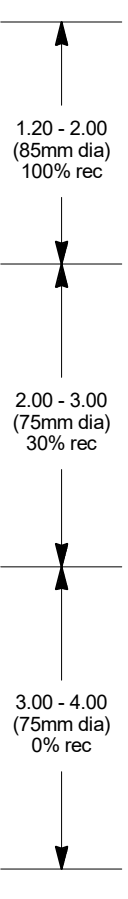
Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS07
Contract Ref: 322834	Start: 13.08.21 End: 13.08.21	Ground Level: 131.76	National Grid Co-ordinate: E:385625.4 N:409349.8		Sheet: 1 of 1

Progress	Samples / Tests				Water Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results				
	0.20-0.40 0.20	5	ES PID	1xT+1xJ+1xV 0.0ppm		Grass onto dark brown slightly gravelly fine to medium SAND. Gravel is subangular fine of sandstone. (TOPSOIL)	0.20	
	0.60-0.80 0.60	6	ES PID	1xT+1xJ+1xV 0.0ppm		MADE GROUND: Dark brown clayey slightly gravelly fine to medium SAND. Gravel is angular to subangular fine to coarse of brick fragments and sandstone.	(0.40) 0.60	
	1.20-1.65	1	SPT	N=3		Light yellowish grey slightly gravelly fine to medium SAND. Gravel is subangular to rounded fine to medium of mixed lithologies including, sandstone.	(0.65) 1.25	
	1.40-1.70 1.40	7	ES PID	1xT+1xJ+1xV 0.0ppm		Firm dark greyish brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is fine of sandstone and mudstone. Occasional sand lenses and fibrous material.	(0.75) 2.00	
	2.00-2.45	2	SPT	N=9		Dark reddish grey clayey fine to medium SAND.	2.05	
	2.00-3.00 (75mm dia) 100% rec					Firm dark brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subrounded fine of mudstone and sandstone. Occasional sand lenses.	(0.75) 2.80	
	3.00-3.45	3	SPT	N=13		Firm dark brown slightly sandy CLAY. Sand is fine. Occasional sand lenses.	3.00	
	3.00-4.00 (65mm dia) 80% rec					Firm dark brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine to medium of sandstone and mudstone.	(1.45) 4.45	
	4.00-4.45	4	SPT	N=21				

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit at 1.20m. 2. CAT and Genny scanned prior to start. 3. Installed to 4.00m: 1.50m plain and 2.50m slotted. 4. Groundwater encountered at 3.70m. 5. Terminated at 4.45m as borehole collapsed in.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		

WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS08
Contract Ref: 322834	Start: 13.08.21 End: 13.08.21	Ground Level: 130.87	National Grid Co-ordinate: E:385544.2 N:409436.5		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
 1.20 - 2.00 (85mm dia) 100% rec 2.00 - 3.00 (75mm dia) 30% rec 3.00 - 4.00 (75mm dia) 0% rec	0.00-0.30 0.00	4	ES PID	1xT+1xJ+1xV 0.1ppm			Grass onto dark brown slightly gravelly fine to medium SAND. Gravel is subangular fine of concrete and brick fragments. Occasional rootlets. (TOPSOIL)	(0.30)	
							MADE GROUND: CONCRETE block.	0.30	
							MADE GROUND: Dark brown clayey gravelly fine to medium SAND. Gravel is angular to subangular fine to coarse of brick, concrete, slag and ceramics. Occasional piece of plastic and wood. Occasional pockets of clay.	0.40	
	0.50-0.70 0.50	5	ES PID	1xT+1xJ+1xV 0.0ppm				(0.80)	
	1.20-1.65 1.20-1.40 1.20	1 6	SPT ES PID	N=7 1xT+1xJ+1xV 0.1ppm			Firm dark brown sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine of mudstone. Occasional bands of fine to medium sand.	1.20	
							Firm dark greyish brown mottled grey slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine of mudstone. Occasional fibrous material.	(0.50)	
	2.00-2.45	2	SPT	N=7			Firm dark greyish brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of mudstone.	2.00	
							No recovery.	(1.00)	
								3.00	
								(1.00)	
								4.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. Backfilled with arisings. 4. No groundwater encountered. 5. Collapsed in at 3.00m, no recovery on last sampler tube and SPT at 3.00m not taken due to pit collapse.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		

WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS09
Contract Ref: 322834	Start: 13.08.21 End: 13.08.21	Ground Level: 127.30	National Grid Co-ordinate: E:385461.5 N:409280.5		Sheet: 1 of 1

Progress		Samples / Tests			Water Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results				
						Grass onto dark brown slightly gravelly fine to medium SAND. Gravel is subangular fine of mixed lithologies, including sandstone and mudstone. (TOPSOIL)	0.25	
	0.40-0.60 0.40	5	ES PID	1xT+1xJ+1xV 0.0ppm		MADE GROUND: Dark brown clayey slightly gravelly fine to medium SAND. Gravel is subangular fine to medium of brick fragments, concrete and sandstone. Occasional pockets of firm clay.	(0.65) 0.90	
	0.90-1.10 0.90	6	ES PID	1xT+1xJ+1xV 0.0ppm		Dark yellowish brown slightly clayey slightly gravelly fine to medium SAND. Gravel is subangular to subrounded fine to coarse of sandstone.	(0.35) 1.25	
	1.20-1.65	1	SPT	N=8		Firm dark orangish brown mottled grey slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine of mudstone, sandstone and coal fragments.	1.50	
	1.20 - 2.00 (85mm dia) 100% rec					Firm dark greyish brown slightly sandy CLAY. Sand is fine. Occasional fibrous material.	(0.50) 2.00	
	2.00-2.45	2	SPT	N=21		Firm dark greyish brown slightly sandy CLAY. Sand is fine.	(0.50) 2.50	
	2.20-2.40 2.20	7	ES PID	1xT+1xJ+1xV 0.0ppm		Firm dark brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular fine to medium of coal fragments.	2.60	
	2.00 - 3.00 (85mm dia) 100% rec					Firm dark greyish brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of mudstone. Occasional bands of fine sand.	(1.85) 4.45	
	3.00-3.45	3	SPT	N=43		... 3.80m, gravel becoming fine to medium.		
	3.00 - 4.00 (75mm dia) 100% rec							
	4.00-4.45	4	SPT	N=50				

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. No groundwater encountered. 4. Installed to 1.00m: 0.50m plain and 0.50m slotted. 5. Terminated on refusal on 4.00m SPT.			
						All dimensions in metres		Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Premier 110		Drilled By:	Vincent Cameron	Logged By:	RChanter
						Checked By:			AGS

WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS11
Contract Ref: 322834	Start: 13.08.21 End: 13.08.21	Ground Level: 126.94	National Grid Co-ordinate: E:385428.7 N:409217.8		Sheet: 1 of 2

Progress		Samples / Tests			Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
							MADE GROUND: Grass onto dark brown slightly clayey slightly gravelly fine to coarse SAND. Gravel is angular to subangular fine to medium of brick fragments, concrete and sandstone. Occasional rootlets and piece of plastic.	(0.40)	
	0.40-0.60 0.40	5	ES PID	1xT+1xJ+1xV 0.0ppm			MADE GROUND: Dark brown clayey slightly gravelly fine to medium SAND. Gravel is subangular to angular fine to coarse of brick fragments. Occasional pockets of firm dark brown sandy clay.	0.40	
	0.80-0.00 0.80	6	ES PID	1xT+1xJ+1xV 0.0ppm			Firm dark greyish brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of mudstone and sandstone.	0.60	
	1.20-1.65	1	SPT	N=9			... 1.20m, gravel becoming fine to coarse.	(1.70)	
	1.20 - 2.00 (85mm dia) 80% rec								
	2.00-2.45	2	SPT	N=14				2.30	
	2.00 - 3.00 (75mm dia) 100% rec						Firm dark greyish brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular fine to medium of sandstone and coal fragments.	(0.70)	
	3.00-3.45	3	SPT	N=12			Firm dark greyish brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of mudstone and sandstone.	3.00	
	3.00 - 4.00 (65mm dia) 90% rec						Firm dark greyish brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to medium of sandstone and coal fragments	(0.30)	
	4.00-4.45	4	SPT	N=16			Firm dark greyish brown slightly sandy CLAY. Sand is fine.	3.30	
	4.00 - 5.00 (65mm dia) 0% rec						No recovery.	3.50	
								(0.50)	
								4.00	
								(1.00)	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Hand dug pit to 1.20m. 2. No groundwater encountered. 3. Backfilled with arisings. 4. CAT and Genny scanned prior to start. 5. Terminated at 5.00m with no recovery in sampler from 4.00m to 5.00m.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter	Checked By:			

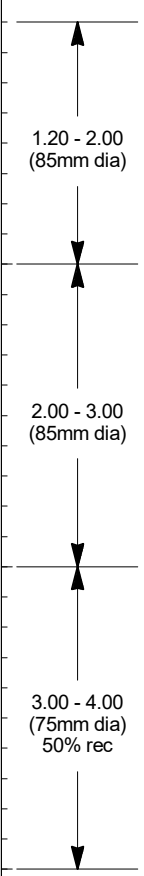
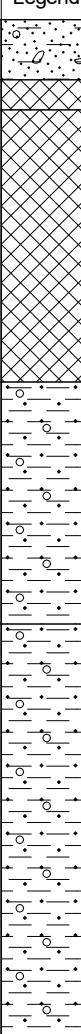
WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS11
Contract Ref: 322834	Start: 13.08.21 End: 13.08.21	Ground Level: 126.94	National Grid Co-ordinate: E:385428.7 N:409217.8		Sheet: 2 of 2

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WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS12
Contract Ref: 322834	Start: 13.08.21 End: 13.08.21	Ground Level: 124.91	National Grid Co-ordinate: E:385353.6 N:409208.6		Sheet: 1 of 1

Progress		Samples / Tests			Water Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results				
	0.20-0.30 0.20	3	ES PID	1xT+1xJ+1xV 0.0ppm		Grass onto dark brown slightly clayey slightly gravelly fine to coarse SAND. Gravel is subangular fine to medium of brick fragments mudstone and sandstone. Occasional rootlets. (TOPSOIL)	0.20 0.30	
	0.60-0.70 0.60	4	ES PID	1xT+1xJ+1xV 0.0ppm		MADE GROUND: Dark brown slightly clayey slightly gravelly fine to coarse SAND. Gravel is subangular fine to coarse of brick fragments, sandstone and mudstone. MADE GROUND: Dark brown very clayey slightly gravelly fine to medium SAND. Gravel is fine to medium of brick fragments and sandstone.	(0.90) 1.20	
	1.20-1.65 1.30-1.50 1.30	1 6	SPT ES PID	N=4 1xT+1xJ+1xV 0.0ppm		Firm dark greyish brown mottled grey and orange slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular fine and of sandstone.	(0.80) 2.00	
	2.00-2.45	2	SPT	N=4		Firm dark greyish brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of mixed lithologies, including sandstone.	(1.40) 3.40	
	3.00-3.45	5	SPT	N=10		No recovery.	(1.05) 4.45	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. Groundwater encountered at 3.20m rising to 2.00m. 4. Installed to 1.20m: 0.60m plain and 0.60m slotted.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		

WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS13
Contract Ref: 322834	Start: 16.08.21 End: 16.08.21	Ground Level: 127.70	National Grid Co-ordinate: E:385461.5 N:409206.4		Sheet: 1 of 2

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.00		PID	0.0ppm			Grass onto dark brown slightly clayey slightly gravelly fine to medium SAND. Gravel is subangular fine to medium of sandstone. Occasional rootlets.	0.20	
	0.20		PID	0.0ppm			(TOPSOIL)		
	0.40		PID	0.0ppm			MADE GROUND: Dark brown slightly clayey slightly gravelly fine to medium SAND. Gravel is angular to subangular fine to coarse of brick fragments and sandstone.	0.40	
							Light yellowish grey fine to medium SAND. Occasional pockets of firm very sandy clay, sand is fine.	(0.80)	
	1.20-1.65	1	SPT	N=5			Firm dark greyish brown mottled orange slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of mudstone and sandstone.	1.20	
								(0.80)	
	2.00-2.45	2	SPT	N=20			Firm to stiff dark brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of mudstone and sandstone.	2.00	
								(2.00)	
	3.00-3.45	3	SPT	N=12					
								4.00	
	4.00-4.45	4	SPT	N=13			No recovery.		
								(1.00)	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. No groundwater encountered. 4. Backfilled with arisings. 5. No recovery from 4.00m to 5.00m. Borehole terminated.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		

WINDOW SAMPLE LOG

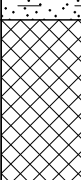
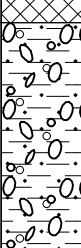
Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS13
Contract Ref: 322834	Start: 16.08.21 End: 16.08.21	Ground Level: 127.70	National Grid Co-ordinate: E:385461.5 N:409206.4		Sheet: 2 of 2

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Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
		All dimensions in metres				Scale:	1:25		
Method Used:	Tracked window sampling		Plant Used:	Premier 110		Drilled By: Vincent Cameron	Logged By: RChanter	Checked By:	

WINDOW SAMPLE LOG

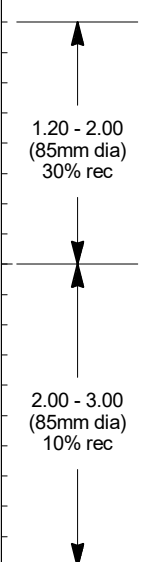
Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS14
Contract Ref: 322834	Start: 12.08.21 End: 12.08.21	Ground Level: 126.80	National Grid Co-ordinate: E:385431.3 N:409104.2		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.40-0.60 0.40	1	ES PID	1xT+1xJ+1xV 0.0ppm			Grass onto dark brown slightly clayey fine to medium SAND. Occasional rootlets. (TOPSOIL)	(0.30) 0.30	
	0.90-1.10 0.90	4	ES PID	1xT+1xJ+1xV 0.0ppm			MADE GROUND: Dark brown slightly clayey slightly gravelly fine to coarse SAND. Gravel is subangular fine of sandstone and brick fragments.	(0.60) 0.90	
	1.20-	2	SPT				Firm light greyish brown mottled orange sandy slightly gravelly CLAY with low cobble content of sandstone.. Sand is fine to medium. Gravel is subangular fine of sandstone and coal.	(0.80) 1.20	
	1.70-	3	SPT						

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Hand dug pit to 1.20m. 2. CAT and Genny scanned prior to start. 3. Water seepage rising from 1.20m to 0.80m. 4. SPT at 1.20m very soft, sampler recovery fell out in borehole and couldn't progress further than 1.70m. Removed sampler and did an SPT at 1.70m, which was a refusal. 5. Borehole terminated on a refusal and back filled with arisings.			
						All dimensions in metres Scale: 1:25			
Method Used:	Tracked window sampling		Plant Used:	Premier 110		Drilled By:	Vincent Cameron	Logged By:	RChanter
						Checked By:			

WINDOW SAMPLE LOG

Contract: Heywood Stores			Client: Telereal Trillium Ltd		Window Sample: WS15
Contract Ref: 322834	Start: 16.08.21 End: 16.08.21	Ground Level: 127.62	National Grid Co-ordinate: E:385674.2 N:408971.5		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20-0.40 0.20	3	ES PID	1xT+1xJ+1xV 0.0ppm			Grass onto dark brown slightly gravelly fine to medium SAND. Gravel is subangular to subrounded fine of sandstone. Occasional rootlets. (TOPSOIL)	0.20	
							MADE GROUND: Dark brown slightly gravelly fine SAND. Gravel is subangular to subrounded fine to medium of brick fragments and sandstone. Occasional pieces of wood.	(0.40)	
	0.80-1.00 0.80	4	ES PID	1xT+1xJ+1xV 0.0ppm			MADE GROUND: Light pinkish brown gravelly fine to coarse SAND. Gravel is angular to subangular fine to medium of brick fragments and clinker.	(0.60)	
	1.20-1.65 1.20-1.60 1.20	1 5	SPT ES PID	N=0 1xT+1xJ+1xV 0.0ppm			MADE GROUND: Soft to firm dark greyish brown mottled yellow slightly sandy CLAY. Sand is fine.	1.20	
							MADE GROUND: dark pinkish grey sandy angular to subangular fine to medium GRAVEL of clinker and mudstone. Sand is fine to coarse.	(0.40)	
	2.00-2.45	2	SPT	N=6			MADE GROUND: Firm dark greyish brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is subangular to subrounded fine of mudstone and sandstone.	2.00	
							MADE GROUND: dark pinkish grey sandy fine to medium and angular to subangular GRAVEL of clinker and mudstone. Sand is fine to coarse.	(0.30)	
							No recovery.	(0.50)	
								3.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Hand dug pit to 1.20m. 2. Groundwater seepage encountered at 1.40m. 3. CAT and Genny scanned prior to start. 4. Backfilled with arisings. 5. Terminated at 3.00m with no recovery with 2.50m to 3.00m.			
Method Used: Tracked window sampling						All dimensions in metres		Scale: 1:25	
Plant Used: Premier 110			Drilled By: Vincent Cameron		Logged By: RChanter		Checked By:		