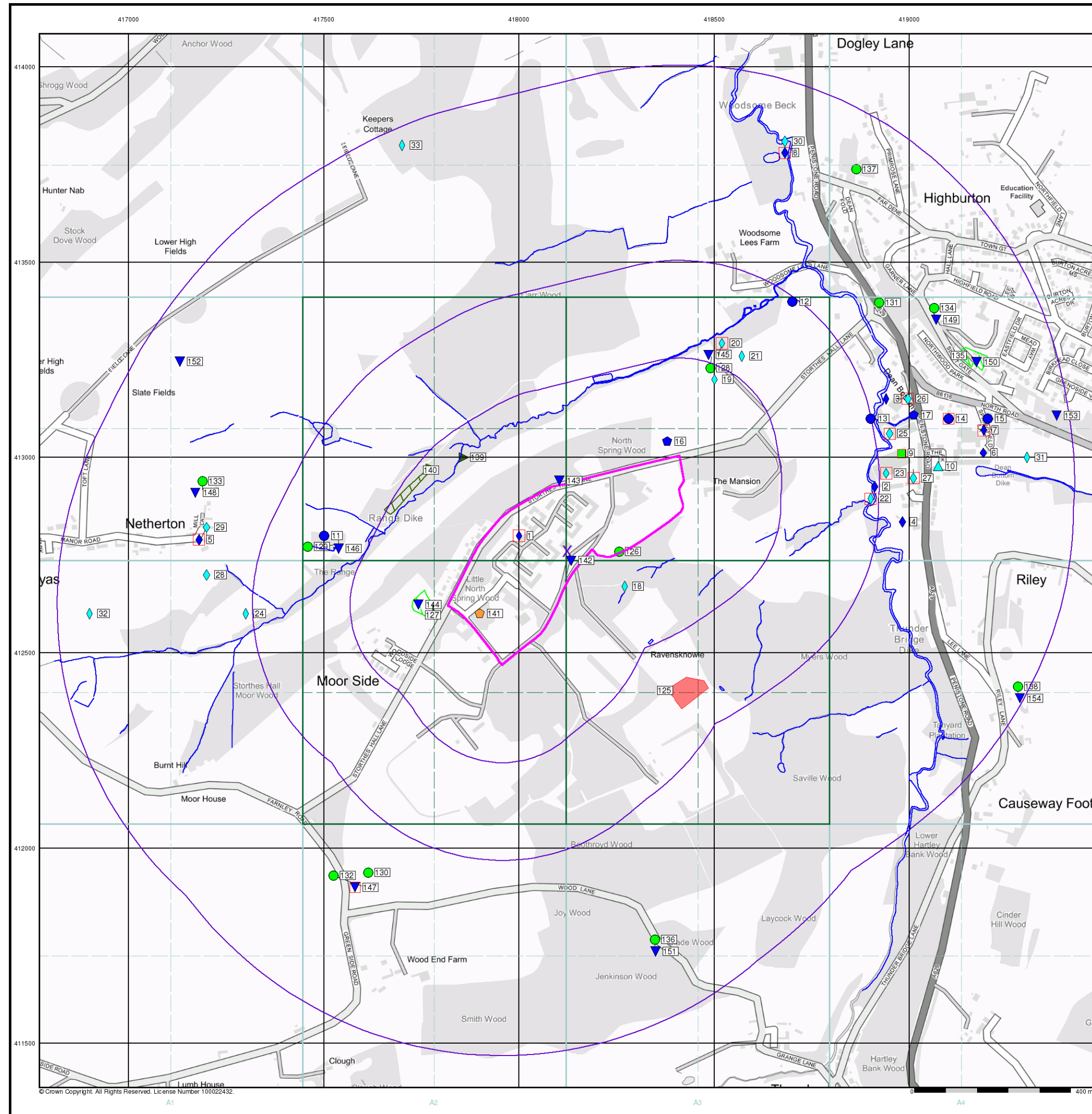


Appendix E

Search Responses & other Correspondence

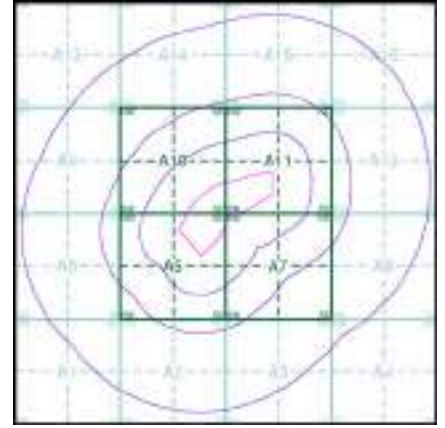


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- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A



Order Details

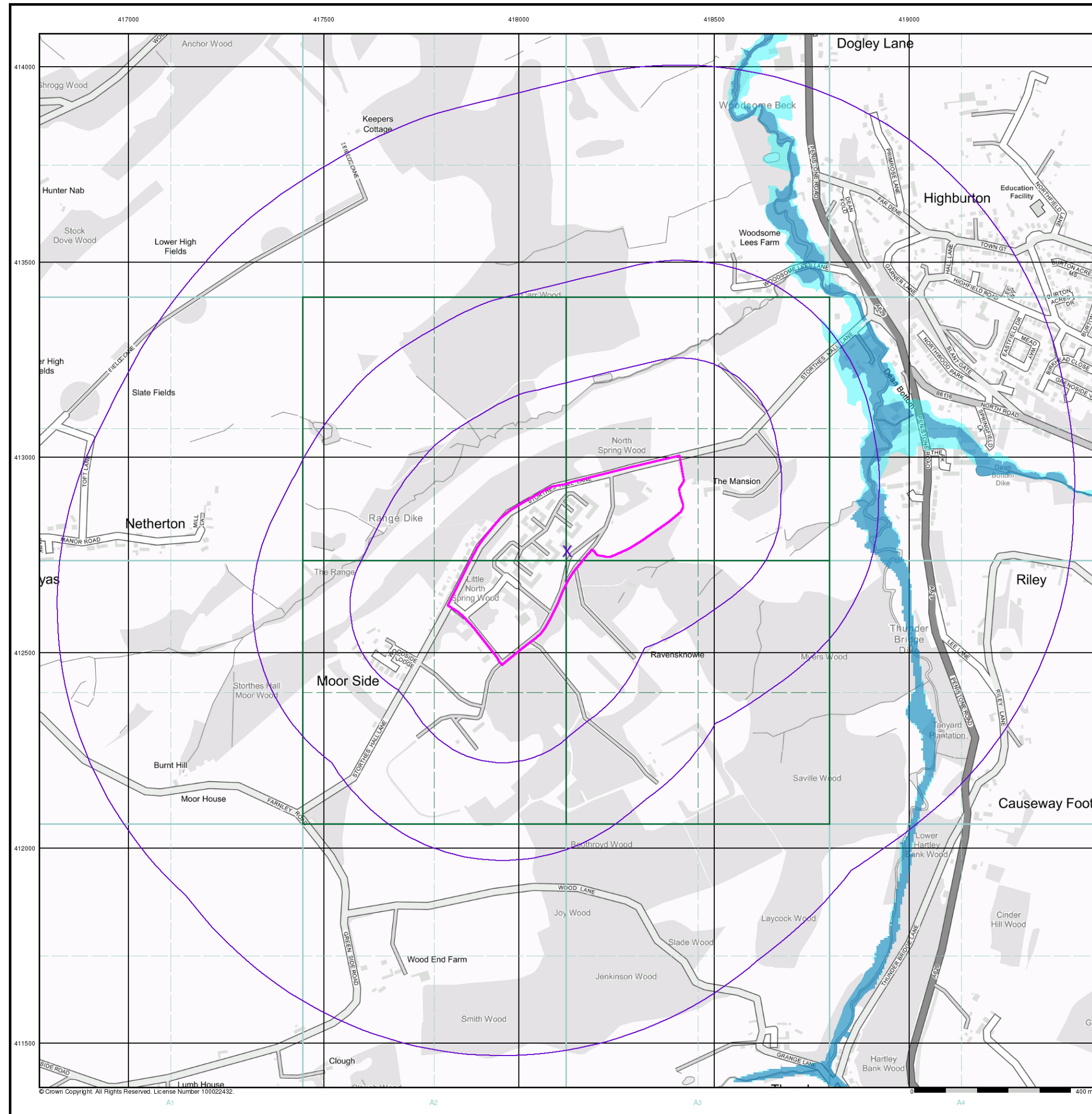
Order Number: 297903689_1_1
Customer Ref: PO19359/JW/4473
National Grid Reference: 418120, 412760
Slice: A
Site Area (Ha): 14.27
Search Buffer (m): 1000

Site Details

Site at 418030, 412740



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



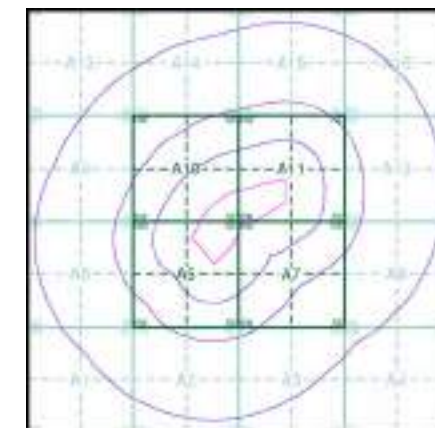
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

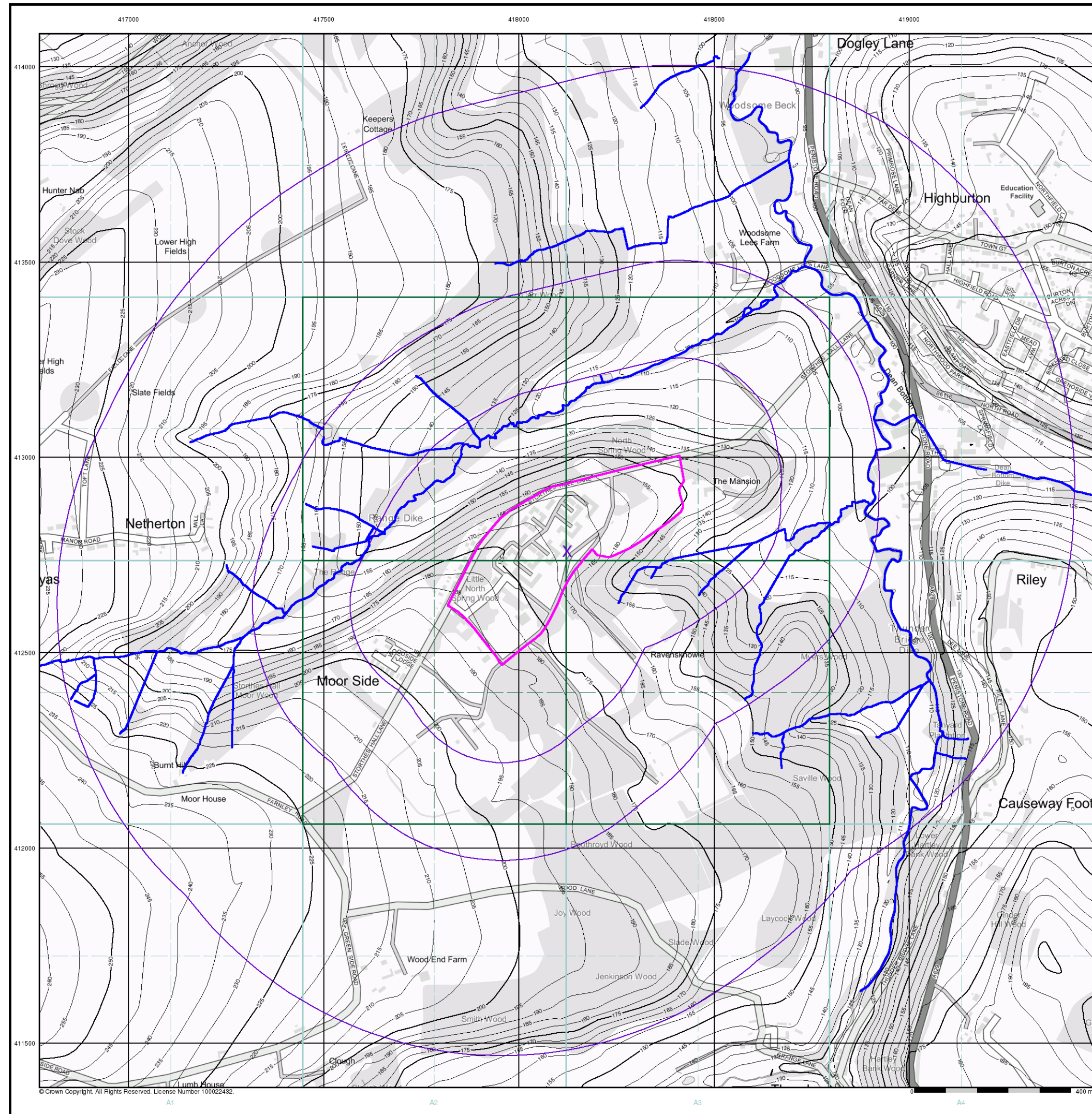
Order Number: 297903689_1_1
Customer Ref: PO19359/JW/4473
National Grid Reference: 418120, 412760
Slice: A
Site Area (Ha): 14.27
Search Buffer (m): 1000

Site Details

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

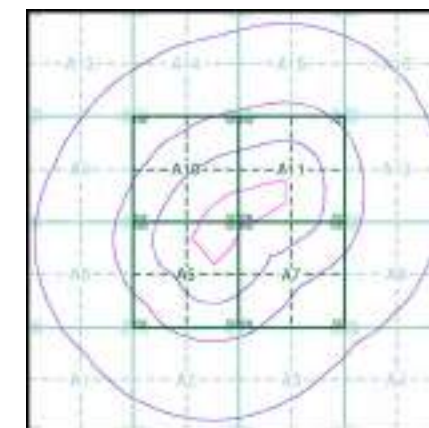
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

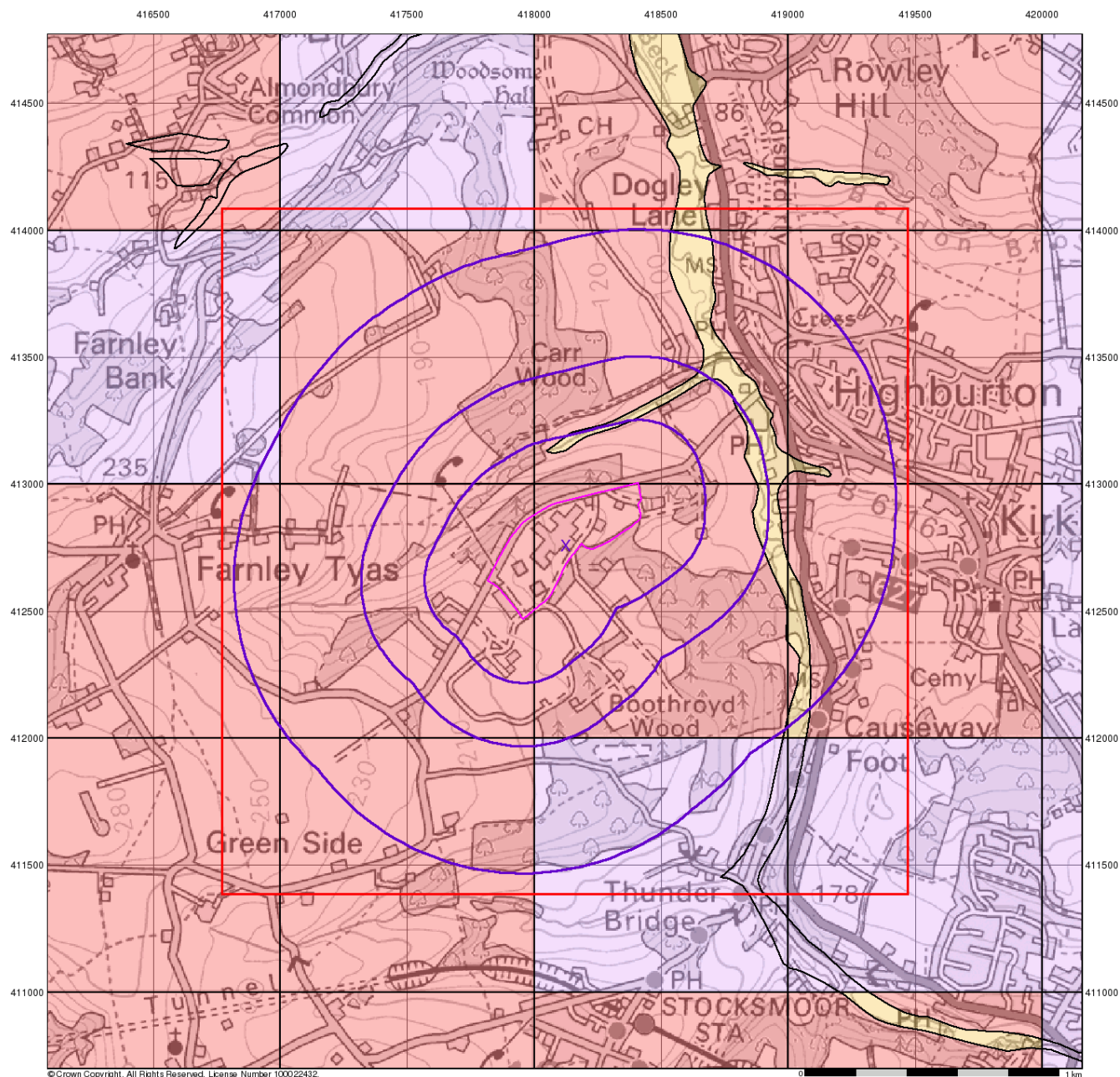
Order Number: 297903689_1_1
Customer Ref: PO19359/JW/4473
National Grid Reference: 418120, 412760
Slice: A
Site Area (Ha): 14.27
Search Buffer (m): 1000

Site Details

Site at 418030, 412740



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Groundwater Vulnerability

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Bedrock Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

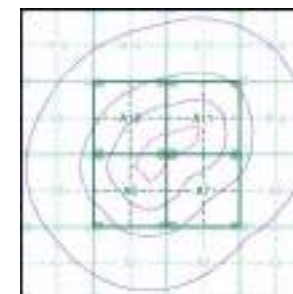
Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

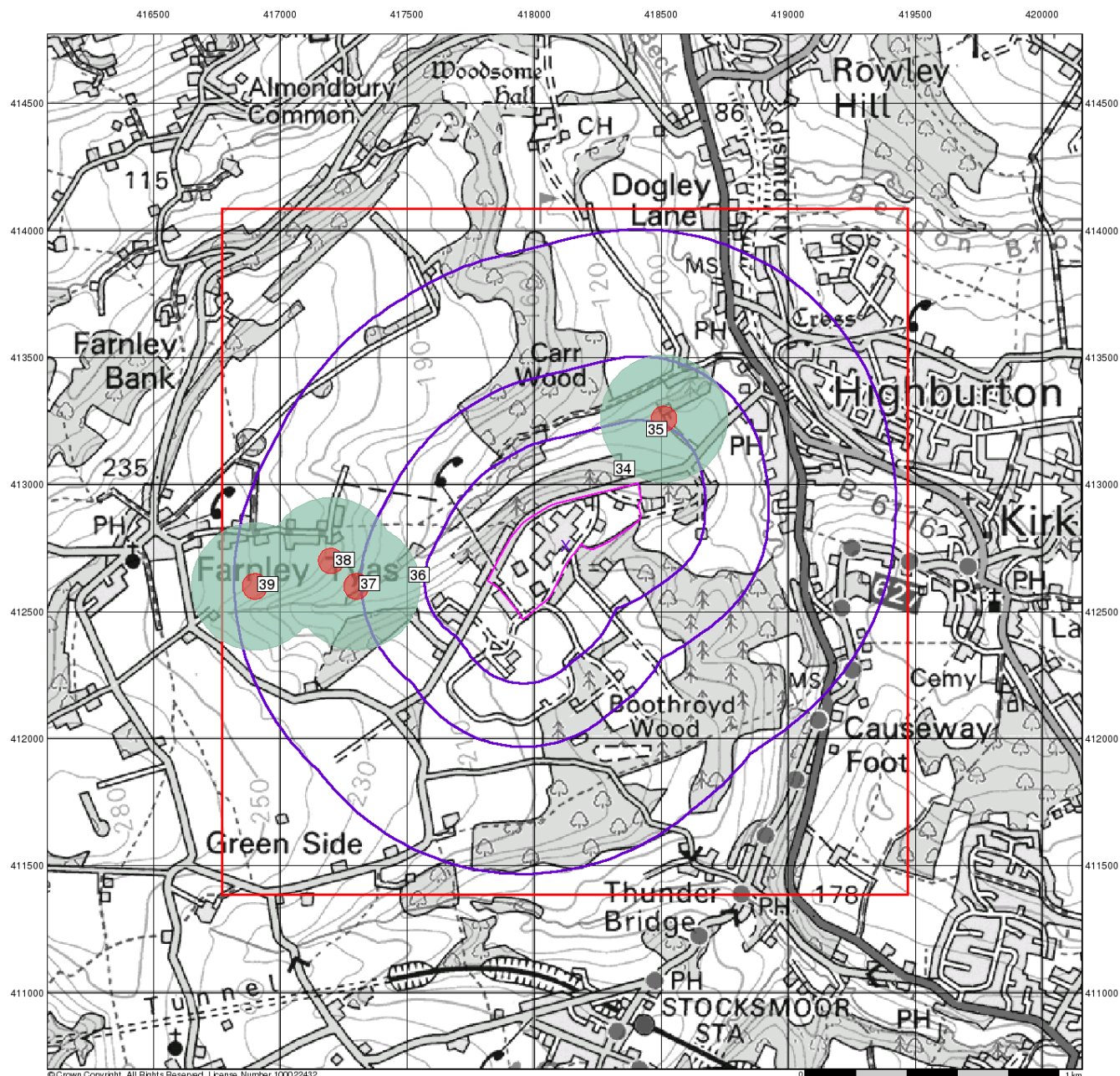
Order Number: 297903689 1 1
 Customer Ref: PO19359/JW/4473
 National Grid Reference: 418120, 412760
 Slice: A
 Site Area (Ha): 14.27
 Search Buffer (m): 1000

Site Details

Site at 418030, 412740



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 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



Source Protection Zones

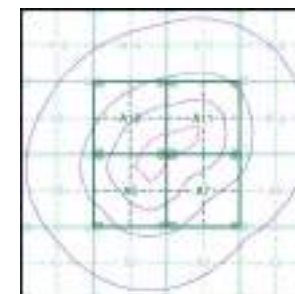
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 297903689 1 1
 Customer Ref: PO19359/JW/4473
 National Grid Reference: 418120, 412760
 Slice: A
 Site Area (Ha): 14.27
 Search Buffer (m): 1000

Site Details

Site at 418030, 412740



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 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

297903689_1_1

Customer Reference:

PO19359/JW/4473

National Grid Reference:

418120, 412760

Slice:

A

Site Area (Ha):

14.27

Search Buffer (m):

1000

Site Details:

Site at 418030, 412740

Client Details:

Mr M Perrin
Lithos Consulting Ltd
Parkhill
Walton Road
Wetherby
LS22 5DZ

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	36
Hazardous Substances	-
Geological	38
Industrial Land Use	48
Sensitive Land Use	53
Data Currency	54
Data Suppliers	60
Useful Contacts	61

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 4	2		1	14
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 9				4
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 9				1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 9		Yes		
Pollution Incidents to Controlled Waters	pg 10			3	4
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 11				1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 11		1		1
Water Abstractions	pg 11		2	11	23 (*17)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 24	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 25	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones	pg 25		2	2	2
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 26		22	23	40

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 36			1	
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 36	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 36	1	1	2	9
Potentially Infilled Land (Water)	pg 37		2		
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites	pg 37	1			
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 38	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 38	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 43	1	2	2	9
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 45	Yes	n/a	n/a	n/a
Mining Instability	pg 45	Yes	n/a	n/a	n/a
Man-Made Mining Cavities	pg 45				1
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 45	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 46		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 46	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 46		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 46	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 47	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 48				27
Fuel Station Entries	pg 50				1
Points of Interest - Commercial Services	pg 50				9
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 51				8
Points of Interest - Public Infrastructure	pg 52			2	8
Points of Interest - Recreational and Environmental	pg 52		1		1
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 53	2	1		1
Areas of Adopted Green Belt	pg 53	1			
Areas of Unadopted Green Belt	pg 53	1			
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

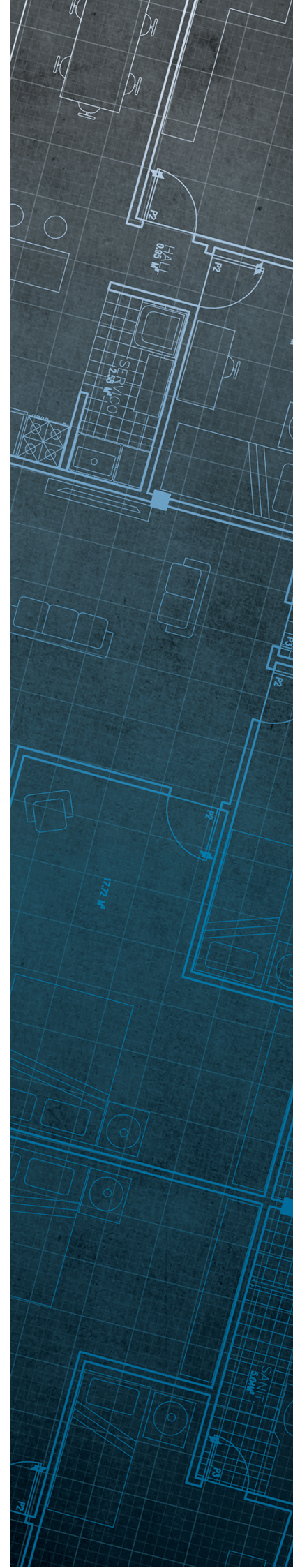


The Coal
Authority

Consultants Coal Mining Report

Storthes Hall
Kirkburton
HD8 0PT

Date of enquiry:	5 July 2022
Date enquiry received:	5 July 2022
Issue date:	5 July 2022
Our reference:	51003253698001
Your reference:	PO19358/JW/4473



Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

LITHOS CONSULTING LTD

Enquiry address

Storthes Hall
Kirkburton
HD8 0PT

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NG18 4RG

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 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

No past mining recorded.

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

None available.

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Section 4 – Further information

Based on the responses in this report, no further information has been highlighted.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

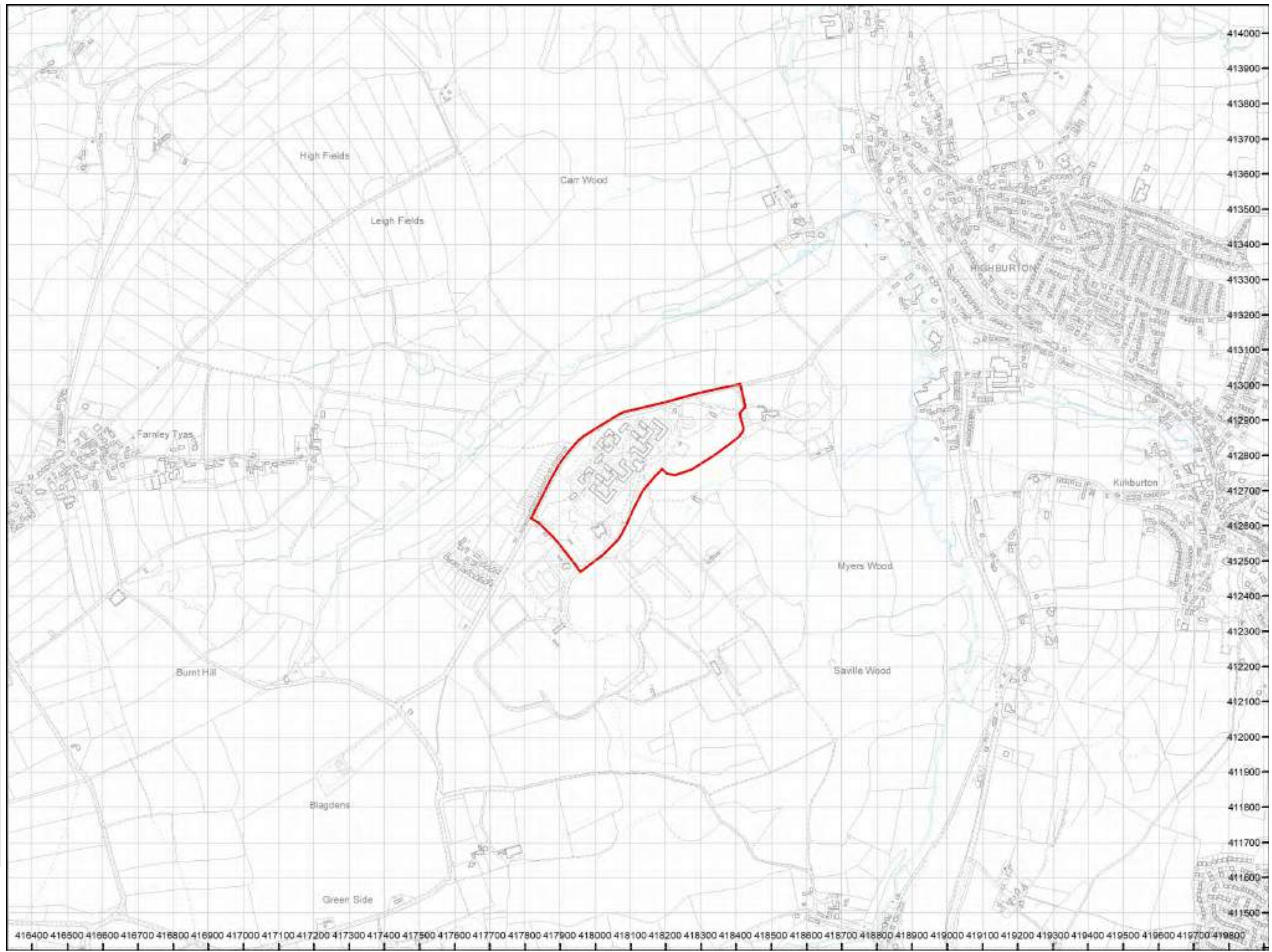
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

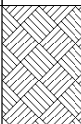
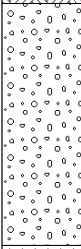
Approximate position of the enquiry boundary shown 

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+44 (0)1623 637 000 (International)
www.groundstability.com

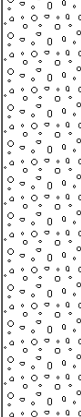


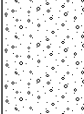
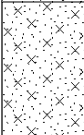
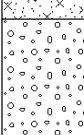
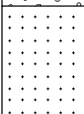
Appendix F

Trial Pit Logs

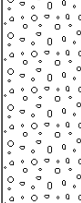
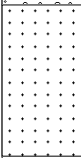
				Trial Pit Log			Trialpit No TP01 Sheet 1 of 1			
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418283.00 - 412836.00 Level:		Date 19/07/2022		
Location: Kirkburton				Dimensions (m):		2.08		Scale 1:25		
Client: Ubrique Investments				Depth 1.30				Logged JBr		
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
	Depth	Type	Results							
	0.10	J&T		0.40			Dark brown slightly gravelly silty fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of sandstone. (TOPSOIL)			
	0.20	B							Light brown angular to subangular tabular COBBLES of sandstone with much fine to coarse sand and angular to subangular fine to coarse gravel. (GRANULAR RESIDUAL SOIL) <i>At 0.45m, metal bucket buried in topsoil.</i>	
	1.10	T							Weak to medium strong light brown fine to medium grained SANDSTONE. (GRENOSIDE SANDSTONE - COAL MEASURES) <i>At 1.3m, refusal on weak to medium strong light brown fine to medium SANDSTONE.</i> <i>At 1.3m, soakaway test undertaken.</i> End of pit at 1.30 m	
				1.20						
				1.30						
1 2 3 4 5										
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.										
Stability: 1. The sides of the trial pit were unstable due to overbreak of the sidewalls in Granular Residual Soil.										



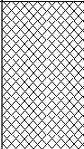
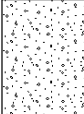
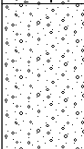
				Trial Pit Log			Trialpit No TP02 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418257.00 - 412785.00 Level:		Date 19/07/2022	
Location: Kirkburton				Dimensions (m):		2.15		Scale 1:25	
Client: Ubrique Investments				Depth 1.90				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.10	J&T		0.30			Dark brown slightly silty gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of sandstone. (TOPSOIL)		
	1.50	T		1.70			Light orangish brown fine to coarse COBBLES of sandstone with much fine to coarse sand and angular to subangular fine to coarse gravel. (GRANULAR RESIDUAL SOIL)		
				1.90			Weak to medium strong yellowish brown fine to medium grained SANDSTONE. Recovered as tabular cobbles and boulders. (GRENOSIDE SANDSTONE - COAL MEASURES) At 1.9m, refusal on sandstone bedrock. At 1.9m, soakaway test undertaken. End of pit at 1.90 m		
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable due to overbreak of the sidewalls in Granular Residual Soil.									

				Trial Pit Log			Trialpit No TP03 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418315.00 - 412831.00 Level:		Date 19/07/2022	
Location: Kirkburton				Dimensions (m):		2.12		Scale 1:25	
Client: Ubrique Investments				Depth 1.90				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.10	J&T		0.20			Dark brown gravelly slightly silty fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of sandstone. (TOPSOIL)		
	0.20	B							
				0.60			Light brown very sandy angular and subangular fine to coarse GRAVEL of sandstone with a high tabular sandstone cobble content. (GRANULAR RESIDUAL SOIL)		
	0.80	T		1.10			Orangish brown very silty fine to medium SAND. (GRANULAR RESIDUAL SOIL)	1	
				1.50			Light brown angular to subangular fine to coarse COBBLES of sandstone with much fine to coarse sand and angular to subangular fine to coarse gravel. (GRANULAR RESIDUAL SOIL)		
				1.90			Weak light yellowish brown fine to medium grained SANDSTONE. Recovered as sandy gravel and cobbles. (GRENOSIDE SANDSTONE - COAL MEASURES)		
							At 1.9m, refusal on bedrock. At 1.9m, soakaway test undertaken. End of pit at 1.90 m	2	
								3	
								4	
								5	
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable due to overbreak of the sidewalls in Granular Residual Soil.									



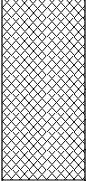
				Trial Pit Log			Trialpit No TP04 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418376.00 - 412860.00 Level:		Date 19/07/2022	
Location: Kirkburton				Dimensions (m):		2.04		Scale 1:25	
Client: Ubrique Investments				Depth 1.50				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.10	J&T		0.30			MADE GROUND: Dark brown gravelly slightly silty fine to coarse SAND. Gravel is angular to subrounded fine to coarse of sandstone and clinker. (MADE GROUND TOPSOIL)		
							Light brown angular to subangular tabular COBBLES of sandstone with much fine to coarse sand and angular and subangular gravel. (GRANULAR RESIDUAL SOIL)		
	0.90	T		1.00			Weak to medium strong light yellowish brown fine to medium grained SANDSTONE. Recovered as tabular angular and subangular fine to coarse gravel and cobbles. (GRENOSIDE SANDSTONE - COAL MEASURES)		
				1.50			At 1.5m, refusal on bedrock. At 1.5m, soakaway test undertaken. End of pit at 1.50 m		
1 2 3 4 5									
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable due to overbreak of the sidewalls in Granular Residual Soil.									

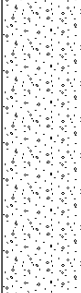
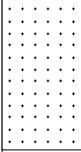


				Trial Pit Log				Trialpit No TP06 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418191.00 - 412828.00 Level:		Date 19/07/2022	
Location: Kirkburton				Dimensions (m): Depth 1.70		2.2 		Scale 1:25 Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.30	J&T		0.50			MADE GROUND: Layer of turf (0.05m thick) over dark brown very gravelly silty fine to coarse SAND. Gravel is angular to subrounded fine to medium of sandstone, concrete, limestone, brick and coal. Rare coarse gravel and cobble sized fragments of glass and plastic (GRANULAR MADE GROUND)		
				0.90			Brown gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse of sandstone. (GRANULAR RESIDUAL SOIL)		
	1.20	T		1.40			Light yellowish brown very sandy angular to subangular fine to coarse GRAVEL of sandstone with a low subangular sandstone cobble content. (GRANULAR RESIDUAL SOIL)		
	1.50	T		1.70			Weak to medium strong yellowish brown fine to medium grained SANDSTONE. Recovered as cobbles and gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)		
								At 1.7m, refusal on bedrock. End of pit at 1.70 m	
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in. Stability: 1. The sides of the trial pit were unstable due to overbreak of the sidewalls in Granular Residual Soil.									
									

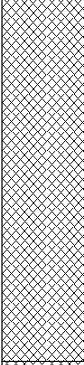
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Project Name: Storthes Hall				Project No. 4473		Co-ords: 418065.00 - 412644.00 Level:		Date 19/07/2022	
Location: Kirkburton				Dimensions (m):		2.2		Scale 1:25	
Client: Ubrique Investments				Depth 3.10				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.10	J&T		0.20			MADE GROUND: Dark brown slightly sandy slightly gravelly clayey SILT. Gravel is angular to subangular fine to coarse of brick. (MADE GROUND TOPSOIL)		
	0.50	J&T		0.70			MADE GROUND: Brown and dark brown gravelly clayey fine to coarse SAND. Gravel is angular to subangular fine to coarse brick, sandstone, concrete and coal. Rare gravel sized wood fragments. (GRANULAR MADE GROUND)		
	1.30	T		1.40			MADE GROUND: Light brown angular to subangular COBBLES of sandstone with a low sandstone boulder content and much silty fine to coarse sand and angular tabular gravel. (REWORKED NATURAL GROUND)		
	2.90	T		1.60			Dark brown slightly gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse of sandstone. (RELICT TOPSOIL)		
				2.20			Brown gravelly silty fine to medium SAND. Gravel is angular to subangular fine to medium of sandstone. (GRANULAR RESIDUAL SOIL)		
				3.10			Yellowish brown very gravelly fine to coarse SAND with a medium sandstone angular cobble content. Gravel is angular to subangular fine to coarse sandstone. (GRANULAR RESIDUAL SOIL)		
At 2.8m, becoming difficult to excavate.							End of pit at 3.10 m		
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable between surface and 1.4m depth during excavation.									

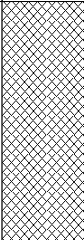
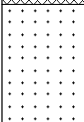


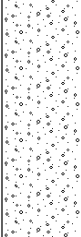
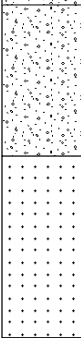
				Trial Pit Log			Trialpit No TP08 Sheet 1 of 1			
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417989.00 - 412831.00 Level:		Date 19/07/2022		
Location: Kirkburton				Dimensions (m): Depth 0.60		2.2 0.6		Scale 1:25 Logged JBr		
Client: Ubrique Investments										
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
	Depth	Type	Results							
	0.30	J&T		0.60			MADE GROUND: Brown very sandy angular to subangular fine to coarse GRAVEL of sandstone, concrete and brick with a medium concrete and brick cobble content. (GRANULAR MADE GROUND) At 0.3m, concrete boulder, 0.6m wide. At 0.4m, concrete boulder, 0.3m wide. At 0.6m, concrete obstruction across entire pit. Unable to excavate further or move exploratory hole due to utilities. End of pit at 0.60 m			
	0.50	J&T								
Remarks:				1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.						
Stability:				1. The sides of the trial pit were unstable between surface and 0.6m depth during excavation.						

				Trial Pit Log			Trialpit No TP09 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417974.00 - 412517.00 Level:		Date 20/07/2022	
Location: Kirkburton				Dimensions (m):		2.12		Scale 1:25	
Client: Ubrique Investments				Depth 1.80				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.10	J&T		0.30			MADE GROUND: Turf (0.05m thick) over dark brown very sandy silty fine to coarse angular to subangular GRAVEL of sandstone, limestone, tarmac, concrete and coal. (GRANULAR MADE GROUND)		
	1.00	T		1.30			Light orangish brown very gravelly fine to coarse SAND with a low angular and subangular sandstone cobble and boulder content. Gravel is subangular to subrounded fine to coarse of sandstone. (GRANULAR RESIDUAL SOIL)		
				1.80			Weak to medium strong light yellowish brown fine to medium grained SANDSTONE. Recovered as very sandy gravel and cobbles. (GRENOSIDE SANDSTONE - COAL MEASURES) At 1.8m, refusal on sandstone bedrock. At 1.8m, soakaway test undertaken. End of pit at 1.80 m		
1 2 3 4 5									
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit remained stable during excavation.									



				Trial Pit Log			Trialpit No TP10 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417942.00 - 412581.00 Level:		Date 20/07/2022	
Location: Kirkburton				Dimensions (m): Depth 1.30		2.2 		Scale 1:25 Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.30	J&T		1.20 1.30			MADE GROUND: Turf (0.05m thick) over light grey and reddish brown COBBLES of bricks, half bricks & concrete with much fine to coarse sand and angular and subangular fine to coarse gravel. Rare fragments of coarse gravel to boulder sized metal sheeting, glass and fabric and wire. (GRANULAR MADE GROUND) <i>At 1.2m, concrete obstruction across the base of the pit. Hydraulic breaker unable to break through slab.</i> MADE GROUND: Light grey concrete HARDSTAND. (CONCRETE HARDSTAND) <i>End of pit at 1.30 m</i>		
	0.80	J&T							
							1		
							2		
							3		
							4		
							5		
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable between surface and 1.20m depth during excavation.									
									

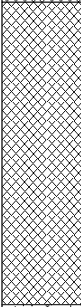
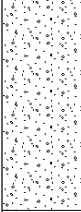
				Trial Pit Log			Trialpit No TP11 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417937.00 - 412547.00 Level:		Date 20/07/2022	
Location: Kirkburton				Dimensions (m):		2.2		Scale 1:25	
Client: Ubrique Investments				Depth 1.20				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.40	J&T					MADE GROUND: Light brown and dark brown very sandy angular to subangular fine to coarse GRAVEL of limestone, sandstone, concrete, coal, clinker and tarmac. (GRANULAR MADE GROUND) <i>At 0.2m, sandstone lintels, blocks (up to 0.5m wide).</i> <i>At 0.6m, 2no. Redundant land drains. Dry.</i>		
	1.10	T		0.80			Weak to medium strong light yellowish brown fine to medium grained SANDSTONE. Recovered as sandy gravel and cobbles. (GRENOSIDE SANDSTONE - COAL MEASURES) <i>At 1.2m, refusal on bedrock.</i>		
				1.20			End of pit at 1.20 m		
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in. Stability: 1. The sides of the trial pit were unstable between surface and 0.8m depth during excavation. 									

				Trial Pit Log			Trialpit No TP12 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417897.00 - 412637.00 Level:		Date 20/07/2022	
Location: Kirkburton				Dimensions (m):		2.21		Scale 1:25	
Client: Ubrique Investments				Depth 2.10				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.10	B		0.20			MADE GROUND: Dark brown gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse of sandstone, concrete and limestone. Rare fragments of coarse gravel sized metal, glass and pottery. Sand is occasionally ashy. (MADE GROUND TOPSOIL)		
	0.10	J&T							
	0.80	T		1.00			Light orangish brown very sandy angular to subangular fine to coarse GRAVEL of sandstone with a low subangular sandstone cobble content. (GRANULAR RESIDUAL SOIL)		
	1.70	T		1.50			Brown gravelly clayey fine to coarse SAND. Gravel is subangular fine to coarse of sandstone. (GRANULAR RESIDUAL SOIL)		
				2.10			Weak brown and light yellowish brown fine to medium grained SANDSTONE. Recovered as sand, gravel and cobbles. (GRENOSIDE SANDSTONE - COAL MEASURES)		
							At 2.1m, refusal on bedrock. At 2.1m, soakaway test undertaken. End of pit at 2.10 m		
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit remained stable during excavation.									



				Trial Pit Log			Trialpit No TP15 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417970.00 - 412535.00 Level:		Date 20/07/2022	
Location: Kirkburton				Dimensions (m):		2.2		Scale 1:25	
Client: Ubrique Investments				Depth 1.30				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.05	J&T		0.10			MADE GROUND: Light grey sandy angular to subangular fine to coarse GRAVEL of limestone, sandstone and concrete. (GRANULAR MADE GROUND)		
				0.30			MADE GROUND: Strong light grey concrete HARDSTAND. (CONCRETE HARDSTAND) <i>At 0.15m, hydraulic breaker used to break-out concrete.</i>		
	0.80	T		1.00			Orangish brown gravelly fine to coarse SAND with a low sandstone cobble content. Gravel is angular to subangular fine to coarse sandstone. (GRANULAR RESIDUAL SOIL)	1	
				1.30			Weak to medium strong light yellowish brown fine to medium grained SANDSTONE. Recovered as sandy gravelly cobbles and boulders. (GRENOSIDE SANDSTONE - COAL MEASURES) <i>At 1.3m, refusal on bedrock.</i>		
								End of pit at 1.30 m	
								2	
								3	
								4	
								5	
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable due to overbreak of the sidewalls in Granular Residual Soil.									



				Trial Pit Log			Trialpit No TP16 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417869.00 - 412633.00 Level:		Date 20/07/2022	
Location: Kirkburton				Dimensions (m):		2.2		Scale 1:25	
Client: Ubrique Investments				Depth 2.00				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.20	J&T		0.30			MADE GROUND: Dark brown gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse sandstone. Rare fragments of coarse gravel sized glass and plastic. (MADE GROUND TOPSOIL)		
	1.40	T		1.30			MADE GROUND: Brown very sandy angular to subangular fine to coarse GRAVEL of sandstone, concrete and brick with a medium subangular sandstone cobble content. (GRANULAR MADE GROUND)		
				2.00			(GRANULAR RESIDUAL SOIL) At 1.9m, becoming difficult to excavate. End of pit at 2.00 m		
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable between surface and 1.3m depth during excavation.									



				Trial Pit Log			Trialpit No TP17 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417907.00 - 412660.00 Level:		Date 20/07/2022	
Location: Kirkburton				Dimensions (m):		2.2 		Scale 1:25	
Client: Ubrique Investments				Depth 2.00		0.6 		Logged JBr	

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	J&T		0.30			MADE GROUND: Dark brown gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse sandstone and concrete. Rare fragments of fine and medium gravel sized glass. (MADE GROUND TOPSOIL)	1
	0.50	J&T					MADE GROUND: Brown very sandy angular and subangular fine to coarse GRAVEL of concrete, brick, sandstone and tarmac. Frequent fragments of cobble and boulder sized plastic sheeting, metal and polystyrene. (GRANULAR MADE GROUND)	
	0.80	J&K					From 0.75m to 0.8m, metal rebar and tar substance in south wall (0.3m diameter). Strong hydrocarbon odour. Spot sample taken.	
	1.00	J						
	1.30	J&K		1.10			Orangish brown very gravelly fine to coarse SAND with a medium sandstone cobble content. Gravel is angular to subangular fine to coarse sandstone. (GRANULAR RESIDUAL SOIL)	2
	1.90	J		1.80			Weak orangish brown fine and medium grained SANDSTONE. Recovered as sandy gravel and cobbles. (GRENOSIDE SANDSTONE - COAL MEASURES)	
				2.00		At 2.0m, refusal on bedrock.		
End of pit at 2.00 m								5

Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.

Stability: 1. The sides of the trial pit were unstable between surface and 1.1m depth during excavation.



				Trial Pit Log			Trialpit No TP18 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417883.00 - 412600.00 Level:		Date 20/07/2022	
Location: Kirkburton				Dimensions (m):		2.2		Scale 1:25	
Client: Ubrique Investments				Depth 2.00				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.20	J&T		0.10			MADE GROUND: Dark brown gravelly fine to coarse SAND. Gravel is angular and subangular fine and medium of sandstone and tarmac. (MADE GROUND TOPSOIL)	1	
				0.30			MADE GROUND: Weak black tarmac HARDSTAND. Recovered angular and subangular fine and medium gravel. (TARMAC HARDSTAND)		
	0.80	T		0.60			Weak to medium strong light yellowish brown fine and medium SANDSTONE. Recovered as cobbles and boulders. (GRANULAR RESIDUAL SOIL) <i>From 0.3m to 0.6m, very difficult to excavate.</i>		
				1.10			Orangish brown very gravelly fine to coarse SAND. Gravel is angular and subangular fine to coarse sandstone. (GRANULAR RESIDUAL SOIL)		
	1.60	T		2.00			Light orangish brown very sandy angular and subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL) <i>From 1.8m, becoming difficult to excavate.</i>		
							End of pit at 2.00 m	2	
								3	
								4	
								5	

Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.

Stability: 1. The sides of the trial pit were unstable between surface and 0.6m depth during excavation.

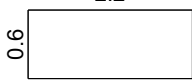


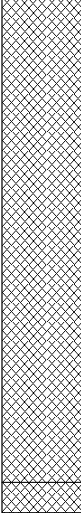
				Trial Pit Log			Trialpit No TP19 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417937.00 - 412627.00 Level:		Date 21/07/2022	
Location: Kirkburton				Dimensions (m):		2.2		Scale 1:25	
Client: Ubrique Investments				Depth 1.30				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.10	J&T		0.20			MADE GROUND: Light grey and black fine to coarse ASH with a low subangular brick cobble content. (GRANULAR MADE GROUND)		
	0.50	J&T						MADE GROUND: Dark brown and black very sandy angular and subangular fine to coarse GRAVEL of brick, concrete, sandstone, tarmac and coal. Rare fragments of coarse gravel and cobble sized metal and plastic. (GRANULAR MADE GROUND)	
	0.70	J,K&T						From 0.3m to 0.5m, significant metal rebar (150mm to 200mm diameter) From 0.6m to 0.8m, concrete obstruction in north wall. From 0.7m to 1.20m, black tar substance. Strong hydrocarbon odour. Sample taken.	
				1.30			From 1.2m, free product. At 1.3m, concrete obstruction across base of pit. End of pit at 1.30 m		
1 2 3 4 5									
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable between surface and 1.3m depth during excavation.									



				Trial Pit Log			Trialpit No TP21 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417949.00 - 412655.00 Level:		Date 21/07/2022	
Location: Kirkburton				Dimensions (m):		2.2		Scale 1:25	
Client: Ubrique Investments				Depth 1.50				Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.20	J&T		0.30			MADE GROUND: Very weak black tarmac HARDSTAND. Recovered as very sandy angular and subangular fine to coarse gravel. (TARMAC HARDSTAND)		
				0.50			At 0.2m, street lighting cable (redundant) in north wall. Weak light yellowish brown fine and medium grained SANDSTONE. Recovered as cobbles and boulders. (GRANULAR RESIDUAL SOIL)		
	0.90	T		1.00			From 0.3m to 0.5m, very difficult to excavate. Orangish brown very gravelly fine to coarse SAND. Gravel is angular and subangular fine to coarse sandstone. (GRANULAR RESIDUAL SOIL)	1	
				1.50			Weak light yellowish brown fine and medium grained SANDSTONE. Recovered as sandy angular and subangular fine to coarse gravel and cobbles. (GRENOSIDE SANDSTONE - COAL MEASURES)		
							At 1.5m, refusal on bedrock.		
							End of pit at 1.50 m		
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable between surface and 0.5m depth during excavation.									



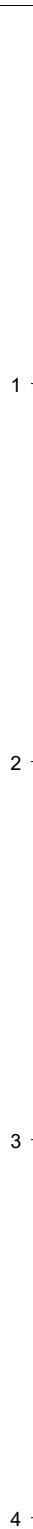
				Trial Pit Log			Trialpit No TP22 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417936.00 - 412567.00 Level:		Date 21/07/2022	
Location: Kirkburton				Dimensions (m): Depth 0.40		2.2 		Scale 1:25 Logged JBr	
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
				0.20			MADE GROUND: Strong light grey concrete HARDSTAND. (CONCRETE HARDSTAND) MADE GROUND: Brown very sandy angular and subangular fine to coarse GRAVEL of limestone and concrete. (GRANULAR MADE GROUND) <i>At 0.4m, 300mm diameter drain uncovered in trial pit. Excavation abandoned.</i> End of pit at 0.40 m		
				0.40					
									1
									2
									3
									4
									5
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit remained stable during excavation.									
									

				Trial Pit Log			Trialpit No TP23 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417957.00 - 412564.00 Level:		Date 21/07/2022	
Location: Kirkburton				Dimensions (m): Depth 1.70		2.2 0.6		Scale 1:25 Logged JBr	
Client: Ubrique Investments									
Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.70	J&T		1.60 1.70			MADE GROUND: Layer of turf (0.05m thick) over light brown and reddish brown COBBLES of brick, half brick, sandstone and concrete with much fine to coarse sand and angular and subangular fine to coarse gravel. Frequent fragments of cobble sized plastic, metal and wire. (GRANULAR MADE GROUND) <i>At 1.4m, brick wall between 0.5m and 1.6m in western trial pit wall.</i> <i>At 1.0m, concrete boulder 0.8m wide.</i> <i>At 1.6m, concrete obstruction across the base of the pit. Unable to excavate through.</i> MADE GROUND: Strong light grey concrete HARDSTAND. (CONCRETE HARDSTAND) <i>End of pit at 1.70 m</i>		
1 2 3 4 5									
Remarks: 1. Prior to excavation a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during excavation. 3. Backfilled with materials arising upon completion. 4. Co-ordinates from hand held GPS, hole not surveyed in.									
Stability: 1. The sides of the trial pit were unstable between surface and 1.6m depth during excavation.									
									

Trial Pit Log

Appendix G

Borehole Logs

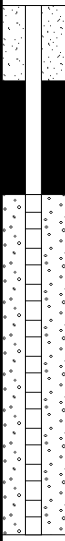
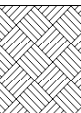
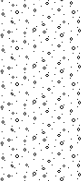
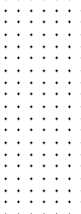
				Borehole Log			Borehole No. WS01 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418359.00 - 412839.00		Hole Type WS
Location: Kirkburton				Level:		Scale 1:20		
Client: Ubrique Investments				Dates: 19/07/2022 - 19/07/2022		Logged By ET		
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.25		 Dark brown sandy slightly gravelly CLAY. Gravel is subangular tabular fine to coarse of sandstone. (TOPSOIL)	
					0.60		 Light brown sandy subangular tabular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)	
					1.00		 Orangish brown gravelly SAND. Gravel is subangular fine to coarse sandstone, (GRANULAR RESIDUAL SOIL)	
					1.60		 Light brown sandy subangular tabular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)	
					1.70		 Light brown SANDSTONE. Recovered as slightly sandy subangular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES) <i>At 1.7m, refused on bedrock.</i> End of borehole at 1.70 m	
Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.								



LITHOS CONSULTING				Borehole Log				Borehole No. WS02 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418324.00 - 412860.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 19/07/2022 - 19/07/2022					
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.40			Dark brown sandy slightly gravelly CLAY. Gravel is subangular tabular fine to coarse of sandstone. (TOPSOIL)	
					1.70			Light brown sandy subangular tabular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)	
					2.00			Orangish brown gravelly SAND. Gravel is sandy fine to coarse of sandstone. (GRANULAR RESIDUAL SOIL)	
					2.50			Light brown SANDSTONE. Recovered as subangular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES) <u>On completion hole collapse to 2.0m.</u> <u>At 2.5m, refused on bedrock.</u>	
End of borehole at 2.50 m									4

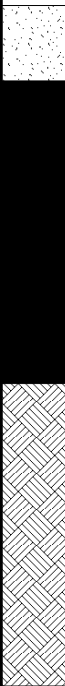
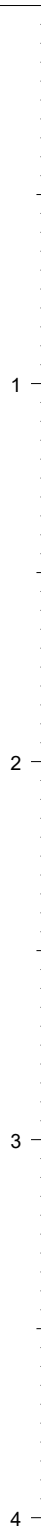
Remarks
1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.

				Borehole Log				Borehole No. WS03 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418287.00 - 412819.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20			
Client: Ubrique Investments				Dates: 19/07/2022 - 19/07/2022		Logged By ET			

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.30		 Dark brown gravelly slightly clayey SAND. Gravel is subangular tabular fine to coarse of sandstone. (TOPSOIL)	1 2 3 4	
					0.80		 Orangish brown sandy subangular tabular coarse of GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)		
					1.40		 Light brown SANDSTONE. Recovered as slightly sandy subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)		
							At 1.4m, refused on bedrock. End of borehole at 1.40 m		

Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.								
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LITHOS CONSULTING					Borehole Log			Borehole No. WS05 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 418017.00 - 412639.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		Logged By ET
Client: Ubrique Investments					Dates: 19/07/2022 - 19/07/2022				
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	T		0.19		MADE GROUND: Strong black TARMAC. (TARMAC HARDSTAND)		
		0.30	J&T		0.40		MADE GROUND: Buff subangular fine to coarse GRAVEL of limestone. (SUB-BASE)		
		0.50	J&T		0.60		MADE GROUND: Reddish brown and black gravelly SAND. Gravel is angular fine to coarse of brick and tarmac. (GRANULAR MADE GROUND)		
					0.70		Dark brown sandy CLAY with rare decomposing rootlets. (RELICT TOPSOIL)		
							Orangish brown slightly clayey slightly gravelly SAND. Gravel is subangular fine to coarse of sandstone. (GRANULAR RESIDUAL SOIL)		
		1.50	T		2.20		Light brown SANDSTONE. Recovered as sandy subangular fine to coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)		
				2.50		At 2.5m, refused on bedrock. End of borehole at 2.50 m			
Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.									

					Borehole Log			Borehole No. WS06 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 417980.00 - 412662.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		Logged By ET
Client: Ubrique Investments					Dates: 19/07/2022 - 19/07/2022				
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	T		0.19			MADE GROUND: Strong black TARMAC. (TARMAC HARDSTAND)	
		0.20	T					0.35	
		0.60	J&T		0.80		MADE GROUND: Multicoloured gravelly SAND. Gravel is angular fine to coarse of brick, tarmac, ceramic and glass. (GRANULAR MADE GROUND)		
		1.10	T				Light brown sandy subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)		
					1.80		 At 1.8m refused on bedrock.		
End of borehole at 1.80 m									
Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.									



LITHOS CONSULTING					Borehole Log			Borehole No. WS07 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 418068.00 - 412686.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		Logged By ET
Client: Ubrique Investments					Dates: 19/07/2022 - 19/07/2022				
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.75	J		0.20		MADE GROUND: Dark brown sandy slightly gravelly SAND with many rootlets. Gravel is subangular fine to coarse of sandstone, brick and plastic. (MADE GROUND TOPSOIL)	1	
						MADE GROUND: Brown slightly gravelly SAND. Gravel is subangular fine to coarse of brick, sandstone and tarmac. (GRANULAR MADE GROUND)			
						Between 0.7m and 0.8m, gravel predominantly of tarmac.			
					1.40		Firm orange and brown mottled silty CLAY. (COHESIVE RESIDUAL SOIL)		
					1.60		Orangish brown sandy subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)		
					2.40		Firm brown silty slightly gravelly CLAY. Gravel is subangular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)		
					2.60		Orangish brown sandy subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)		
					3.20		Light brown SANDSTONE. Recovered as slightly clayey sandy subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)		
					4.00		At 4.0m, refused on bedrock.		

Remarks

1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling.
3. Co-ordinates from hand held GPS, hole not surveyed in.

LITHOS CONSULTING				Borehole Log				Borehole No. WS08 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418060.00 - 412725.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 20/07/2022 - 20/07/2022					
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.20	J		0.20		MADE GROUND: Dark brown gravelly slightly clayey SAND with occasional rootlets. Gravel is subangular tabular fine to coarse of sandstone. (MADE GROUND TOPSOIL)		
		0.40 - 0.60	J		0.40		MADE GROUND: Light brown sandy subangular tabular fine to coarse GRAVEL of sandstone. (REWORKED NATURAL GROUND)		
					0.60		MADE GROUND: Dark brown sandy slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of sandstone, pottery, chert and coal. (RELICT TOPSOIL)		
		1.10 - 1.20	D		1.10		Orangish brown sandy subangular tabular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)		
		1.30 - 1.50	T		1.20		Firm orangish brown sandy slightly gravelly CLAY. Gravel is subangular tabular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)		
					1.50		Light brown to orangish brown SANDSTONE. Recovered as sandy tabular gravel. (GRENSIDE SANDSTONE - COAL MEASURES)		
At 1.5m, refused on bedrock. End of borehole at 1.50 m									
Remarks									
1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.									



LITHOS CONSULTING					Borehole Log			Borehole No. WS09 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 418104.00 - 412740.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		Logged By ET
Client: Ubrique Investments					Dates: 20/07/2022 - 20/07/2022				
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.20 - 0.50	J&T		0.10		MADE GROUND: Dark brown CLAY with occasional rootlets. (MADE GROUND TOPSOIL)		
		0.90	J		0.60		MADE GROUND: Dark brown gravelly SAND. Gravel is angular to subangular fine to coarse of limestone, sandstone and brick. With some gravel size fragments of metal and wood. (GRANULAR MADE GROUND)		
					0.80		MADE GROUND: Orangish brown clayey subangular fine to coarse GRAVEL of sandstone. (REWORKED NATURAL GROUND)		
					1.00		MADE GROUND: Dark brown sandy slightly gravelly CLAY. Gravel is subangular fine to coarse of sandstone and coal. (RELICT TOPSOIL)	1	
					1.20		Orangish brown clayey subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)		
					1.70		Orangish brown sandy subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)		
							Firm orangish brown slightly gravelly SILT. Gravel is subangular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)	2	
					2.70		Orangish brown clayey subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)	3	
					3.50		At 3.5m, band of COAL.		
			3.70		Light brown SANDSTONE. Recovered as subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES) At 3.7m, refused on bedrock. End of borehole at 3.70 m	4			

Remarks
1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.

LITHOS CONSULTING				Borehole Log				Borehole No. WS10 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418121.00 - 412794.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 20/07/2022 - 20/07/2022					
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10 - 0.50	J&T		0.10		MADE GROUND: Dark brown CLAY with occasional rootlets. (MADE GROUND TOPSOIL)		
					0.50		MADE GROUND: Dark brown gravelly slightly sandy CLAY. Gravel is subangular fine to coarse sandstone and concrete. Rare fragments of coarse gravel sized of fabric. (COHESIVE MADE GROUND)		
		0.80 - 1.00	J&T		0.80		MADE GROUND: 0.05m thick decorative paving slab underlain by loosely cemented angular GRAVEL of tarmac. (GRANULAR MADE GROUND)		
		1.00 - 1.30	D		1.00		MADE GROUND: Dark brown slightly gravelly SILT. Gravel is angular to subangular fine to coarse sandstone and ceramic. (RELICT TOPSOIL)		
					1.30		Firm orangish brown and brown mottled slightly sandy slightly gravelly CLAY. Gravel is subangular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)		
					1.60		Orangish brown slightly clayey slightly sandy subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)		
		1.80 - 2.00	T		2.50		Light brown SANDSTONE. Recovered as slightly sandy subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)		
							Between 2.1m and 2.4m, pervasive orange brown iron staining.		
							At 2.5m, refused on bedrock.		
							End of borehole at 2.50 m		
Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.									

LITHOS CONSULTING					Borehole Log			Borehole No. WS11 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 418136.00 - 412746.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		Logged By ET
Client: Ubrique Investments					Dates: 20/07/2022 - 20/07/2022				
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	T		0.19		MADE GROUND: Strong black TARMAC. (TARMAC HARDSTAND)	1	
					0.40		MADE GROUND: Dark brown subangular fine to coarse of mixed lithologies. (GRANULAR MADE GROUND)		
							MADE GROUND: Orangish brown slightly sandy gravelly CLAY. Gravel is subangular fine to coarse of sandstone. (COHESIVE MADE GROUND)		
		1.50	J&T		1.85			2	
	2.00 - 2.50	D		1.95		Dark brown slightly sandy slightly gravelly CLAY with rare decomposing rootlets. Gravel is subangular fine to coarse of sandstone. (RELICT TOPSOIL)			
						Firm light brown gravelly SILT. Gravel is subangular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)			
					2.80		Light brown SANDSTONE. Recovered as slightly clayey subangular coarse. (GRENOSIDE SANDSTONE - COAL MEASURES)	3	
		3.00	T		4.00		At 4.0m, refused on bedrock.	4	
End of borehole at 4.00 m									

Remarks

1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling.
3. Co-ordinates from hand held GPS, hole not surveyed in.

LITHOS CONSULTING				Borehole Log				Borehole No. WS12 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417909.00 - 412640.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 20/07/2022 - 20/07/2022					
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.04	T		0.04		MADE GROUND: Strong black TARMAC. (TARMAC HARDSTAND)		
					0.14		MADE GROUND: Strong light grey CONCRETE. (CONCRETE HARDSTAND)		
		0.30 - 0.45	J		0.30		MADE GROUND: Multicoloured poorly cemented rounded coarse GRAVEL of mixed lithologies. (GRANULAR MADE GROUND)		
					0.45		At 0.3m, predominately gravel of brick.		
							Brown slightly clayey gravelly SAND. Gravel subangular fine to coarse of sandstone. (GRANULAR RESIDUAL SOIL)		
		0.80	D				Firm orangish brown gravelly SILT. Gravel is subangular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)		
					1.00		Light brown SANDSTONE. Recovered as clayey tabular gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)	1	
								2	
					2.20		At 2.2, refused on bedrock.	3	
							End of borehole at 2.20 m	4	

Remarks
1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.

LITHOS CONSULTING					Borehole Log			Borehole No. WS13 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417951.00 - 412698.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 20/07/2022 - 20/07/2022					
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.50 - 0.60	J		0.20			MADE GROUND: Dark brown slightly sandy slightly gravelly CLAY. Gravel is subangular fine to coarse of sandstone. (MADE GROUND TOPSOIL)	1
					0.50			MADE GROUND: Dark brown sandy subangular fine to coarse GRAVEL of sandstone. (GRANULAR MADE GROUND)	
					0.60			MADE GROUND: Purplish black ash SAND and GRAVEL of clinker. (ASH & CLINKER)	
					0.80			Dark brown sandy slightly gravelly CLAY. Gravel is subangular tabular fine to coarse of sandstone, coal and clinker. (RELICT TOPSOIL)	
					1.70 - 1.80		D		
				1.90			Light brown SANDSTONE. Recovered as sandy subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)	2	
				2.60			At 2.6m, refused on bedrock.	3	
							End of borehole at 2.60 m	4	

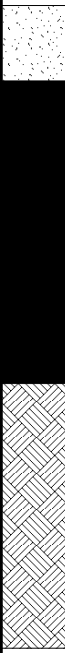
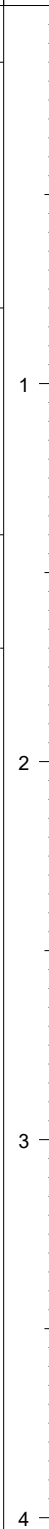
Remarks

1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling.
3. Co-ordinates from hand held GPS, hole not surveyed in.

LITHOS CONSULTING				Borehole Log				Borehole No. WS14 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 417926.00 - 412751.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 20/07/2022 - 20/07/2022					
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	T		0.17		MADE GROUND: Strong black TARMAC. (TARMAC HARDSTAND)	1	
		1.10 - 1.20	T		1.70		MADE GROUND: Grey angular medium to coarse GRAVEL of limestone. (SUB-BASE) Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular fine of coal. (RELICT TOPSOIL) Firm reddish brown slightly gravelly SILT. Gravel is subangular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL) Orangish brown clayey subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL) Light brown SANDSTONE. Recovered as sandy subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES) At 1.7m, refused on bedrock.		
End of borehole at 1.70 m									2
									3
									4

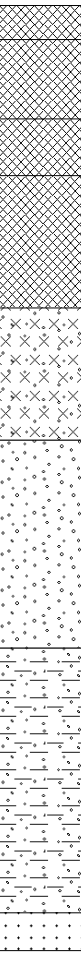
Remarks
1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.

					Borehole Log			Borehole No. WS15 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 417957.00 - 412783.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		Logged By ET
Client: Ubrique Investments					Dates: 20/07/2022 - 20/07/2022				

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.15		MADE GROUND: Strong black TARMAC. (TARMAC HARDSTAND)		
		0.40 - 0.60	J&T		0.80		MADE GROUND: Multicoloured sandy subangular fine to coarse GRAVEL of glass, brick, tarmac and concrete. (GRANULAR MADE GROUND)		
		1.00 - 1.40	T		1.40		Orangish brown gravelly slightly clayey SAND. Gravel is subangular tabular fine to coarse sandstone. (GRANULAR RESIDUAL SOIL)		
					1.70		Light brown SANDSTONE. Recovered as sandy subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES) <u>At 1.7m, refused on bedrock.</u> End of borehole at 1.70 m		

Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.								
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					Borehole Log			Borehole No. WS16 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 417989.00 - 412814.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		
Client: Ubrique Investments					Dates: 21/07/2022 - 21/07/2022		Logged By ET		

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.09	T		0.09		MADE GROUND: Strong black TARMAC. (TARMAC HARDSTAND)	1 2 3 4	
		0.30 - 0.40	J&K		0.30		MADE GROUND: Light brown angular fine to coarse GRAVEL of limestone. (SUB-BASE)		
		0.50 - 0.60	K		0.45		MADE GROUND: Dark brown clayey slightly sandy subangular fine to coarse GRAVEL of brick, coal, sandstone. (GRANULAR MADE GROUND) <i>Between 0.3m and 0.8m, hydrocarbon odour.</i>		
				0.80	MADE GROUND: Black slightly sandy angular fine to coarse GRAVEL of brick. With many fragments of coarse gravel sized wood and rare fragments of gravel sized metal. (GRANULAR MADE GROUND) <i>Between 0.7m and 0.8m, predominately gravel of brick.</i>				
		1.00	J	1.15	Firm orangish brown slightly gravelly SILT. Gravel is subangular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)				
				1.70	Orangish brown slightly sandy subangular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)				
				2.40	Firm orangish brown gravelly CLAY. Gravel is subangular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)				
			2.50		Light brown SANDSTONE. Recovered as slightly sandy subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES) <i>At 2.5m, refused on bedrock.</i> End of borehole at 2.50 m				

Remarks
 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling.
 3. Co-ordinates from hand held GPS, hole not surveyed in.



					Borehole Log			Borehole No. WS18 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 418006.00 - 412718.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		Logged By ET
Client: Ubrique Investments					Dates: 21/07/2022 - 21/07/2022				

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.19			MADE GROUND: Strong black TARMAC. (TARMAC HARDSTAND)	1 2 3 4
		0.30 - 0.40	J		0.30			MADE GROUND: Buff slightly sandy angular fine to coarse GRAVEL of limestone. (SUB-BASE)	
		0.50 - 0.70	T		0.40			MADE GROUND: Brown slightly sandy fine to coarse GRAVEL of brick and clinker. (GRANULAR MADE GROUND)	
					0.50			Orange fine to coarse SAND. (GRANULAR RESIDUAL SOIL)	
					0.70			Light brown SANDSTONE. Recovered as slightly sandy subangular fine to coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)	
								At 0.7m, refused on bedrock. End of borehole at 0.70 m	

Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.		
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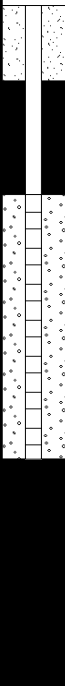
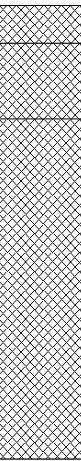
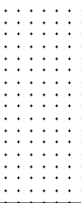
LITHOS CONSULTING					Borehole Log			Borehole No. WS19 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418029.00 - 412693.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 21/07/2022 - 21/07/2022					
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.20	J		0.20			MADE GROUND: Dark brown friable slightly sandy slightly gravelly CLAY with occasional rootlets. Gravel is angular fine to medium of mixed lithologies.	1
		0.30 - 0.40	J		0.30			(MADE GROUND TOPSOIL)	
		0.50 - 0.90	T		0.45			MADE GROUND: Buff slightly sandy angular to subangular fine to medium GRAVEL of limestone. (GRANULAR MADE GROUND)	
					0.70			MADE GROUND: Brown and orange slightly sandy angular to subangular fine to coarse GRAVEL of predominantly brick and rare ceramic, glass and clinker. (GRANULAR MADE GROUND)	
					1.40			Orangish brown clayey slightly sandy angular tabular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL) <u>At 0.45m, geotextile layer.</u> Orange slightly clayey slightly sandy subangular tabular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)	
				2.10			Light brown SANDSTONE. Recovered as slightly sandy angular tabular fine to coarse gravel. (GRANOSIDE SANDSTONE - COAL MEASURES) <u>At 2.1m, refused on bedrock.</u>	2	
End of borehole at 2.10 m									3
									4

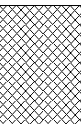
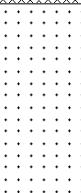
Remarks
1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.

				Borehole Log				Borehole No. WS21 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418056.00 - 412787.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 21/07/2022 - 21/07/2022					

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.35	J&T				MADE GROUND: Dark brown sandy slightly gravelly CLAY. Gravel is subangular fine to coarse coal and sandstone. (MADE GROUND TOPSOIL)		
		0.35 - 0.80	J&T		0.35		MADE GROUND: Light brown gravelly SAND. Gravel is subangular fine to coarse sandstone, concrete and coal. With some fragments of gravel sized wood. (GRANULAR MADE GROUND) <i>At 0.55m, becoming reddish brown.</i> <i>At 0.8m, geotextile layer.</i> <i>At 1.0m, refused on bedrock.</i>		
				0.80			Light brown SANDSTONE. Recovered as slightly clayey subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)	1	
				1.00			End of borehole at 1.00 m	4	

Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.		
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				Borehole Log				Borehole No. WS22 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418053.00 - 412808.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20			
Client: Ubrique Investments				Dates: 21/07/2022 - 21/07/2022		Logged By ET			
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.10	J		0.10			MADE GROUND: Dark brown friable sandy CLAY with many rootlets. (MADE GROUND TOPSOIL) MADE GROUND: Orange and brown mottled gravelly slightly sandy CLAY. Gravel is subangular fine to coarse of mixed lithologies. (COHESIVE MADE GROUND) MADE GROUND: Orangish brown slightly sandy clayey GRAVEL. Gravel is subangular tabular fine to coarse sandstone and coal. (GRANULAR MADE GROUND)	
		0.20	J		0.30				
		0.50 - 0.80	J&T						
						1.20		Light brown SANDSTONE. Recovered as slightly sandy subangular tabular fine to coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)	
					1.80		 At 1.8m, refused on bedrock.	End of borehole at 1.80 m	
1 2 3 4									
Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.									

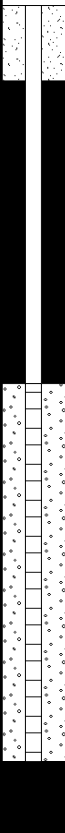
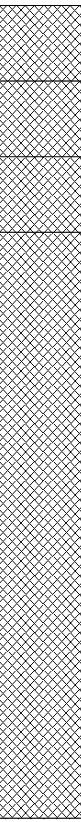
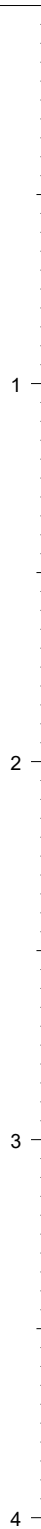
					Borehole Log			Borehole No. WS23 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 418045.00 - 412844.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		
Client: Ubrique Investments					Dates: 21/07/2022 - 21/07/2022		Logged By ET		
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.35	J		0.35			MADE GROUND: Dark brown friable slightly sandy slightly gravelly CLAY. Gravel is subangular fine to coarse of coal, brick and sandstone. (MADE GROUND TOPSOIL)	1 2 3 4
		0.50 - 0.70	T					Light brown SANDSTONE. Recovered as slightly sandy subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)	
							0.90		
Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.									

				Borehole Log				Borehole No. WS24 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418085.00 - 412823.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 22/07/2022 - 22/07/2022					

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.30	J					MADE GROUND: Dark brown friable gravelly slightly sandy CLAY with occasional rootlets. Gravel is subangular fine to coarse of mixed lithologies. (MADE GROUND TOPSOIL)	1 2 3 4
					0.30			MADE GROUND: Light brown sandy subangular fine to coarse GRAVEL of sandstone. (GRANULAR MADE GROUND)	
					0.45			MADE GROUND: Multicoloured angular to subangular coarse GRAVEL of quartzite and brick. (GRANULAR MADE GROUND)	
		0.60 - 0.80	T		0.60			Orangish brown SANDSTONE. recovered as sandy subangular tabular fine to coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)	
					0.80			At 0.8m, refused on bedrock. End of borehole at 0.80 m	

Remarks
 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling.
 3. Co-ordinates from hand held GPS, hole not surveyed in.



				Borehole Log			Borehole No. WS25 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418108.00 - 412839.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 22/07/2022 - 22/07/2022					
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.20	J					MADE GROUND: Dark brown friable slightly sandy CLAY with occasional rootlets. (MADE GROUND TOPSOIL)	
		0.20 - 0.40	J		0.20			MADE GROUND: Light brown sandy subangular fine to coarse GRAVEL of sandstone. Rare angular fine gravel of coal. (GRANULAR MADE GROUND)	
					0.40			MADE GROUND: Multicoloured slightly sandy subangular fine to coarse GRAVEL of clinker and concrete. (GRANULAR MADE GROUND)	
		0.60 - 1.00	J		0.60			MADE GROUND: Red and black mottled sandy angular fine to coarse GRAVEL of clinker and brick. (GRANULAR MADE GROUND)	
		2.00 - 2.15	J		2.15 2.20			Light brown SANDSTONE. Recovered as subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES) At 2.2m, refused on bedrock. End of borehole at 2.20 m	

Remarks
 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling.
 3. Co-ordinates from hand held GPS, hole not surveyed in.



				Borehole Log				Borehole No. WS26 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418117.00 - 412869.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20		Logged By ET	
Client: Ubrique Investments				Dates: 22/07/2022 - 22/07/2022					

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.25	J					MADE GROUND: Dark brown friable slightly sandy slightly gravelly CLAY. Gravel is subangular fine to coarse of sandstone, concrete and brick.	
		0.25 - 0.60	J		0.25			(MADE GROUND TOPSOIL)	
								MADE GROUND: Multicoloured sandy subangular fine to coarse GRAVEL of tarmac, concrete and brick.	
		0.60 - 1.00	T		0.60			(GRANULAR MADE GROUND)	
								Light brown SANDSTONE. Recovered as slightly clayey slightly sandy subangular tabular fine to coarse gravel.	
								(GRENOSIDE SANDSTONE - COAL MEASURES)	
					1.20			At 1.2m, refused on bedrock.	
								End of borehole at 1.20 m	

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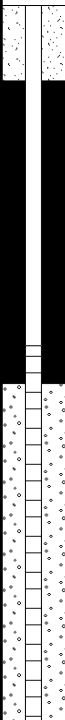
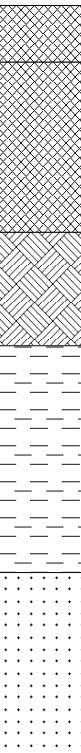
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3

4

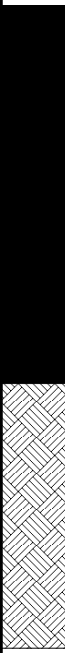
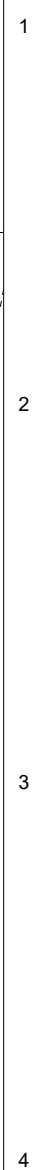
Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.		
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				Borehole Log			Borehole No. WS27 Sheet 1 of 1	
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418098.00 - 412894.00		Hole Type WS
Location: Kirkburton				Level:		Scale 1:20		
Client: Ubrique Investments				Dates: 22/07/2022 - 22/07/2022		Logged By ET		

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.15	J		0.15		MADE GROUND: Dark brown friable slightly sandy slightly gravelly CLAY. Gravel is subangular fine to coarse of sandstone, concrete and brick. (MADE GROUND TOPSOIL) MADE GROUND: Multicoloured sandy subangular fine to coarse GRAVEL of concrete, limestone and brick. (GRANULAR MADE GROUND) <i>Between 0.2m and 0.3m, gravel is predominantly of concrete.</i> <i>Between 0.3m and 0.35m, gravel is predominantly of limestone.</i> <i>Between 0.2m and 0.3m, gravel is predominantly of brick.</i> Dark brown friable slightly sandy slightly gravelly CLAY with rare rootlets. Gravel is subangular fine of mixed lithologies. (RELICT TOPSOIL) Firm orangish brown slightly sandy slightly gravelly CLAY. Gravel is subangular tabular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)	1	
		0.60 - 0.90	J		0.60				
		1.00 - 1.50	T		0.90				
		1.50 - 2.00	T		1.50				
					2.00		Light brown SANDSTONE. Recovered as slightly clayey slightly sandy subangular tabular fine to coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES) <i>At 2.0m, refused on bedrock.</i> End of borehole at 2.00 m	2	
								3	
								4	

Remarks
 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling.
 3. Co-ordinates from hand held GPS, hole not surveyed in.



				Borehole Log			Borehole No. WS28 Sheet 1 of 1		
Project Name: Storthes Hall				Project No. 4473		Co-ords: 418182.00 - 412879.00		Hole Type WS	
Location: Kirkburton				Level:		Scale 1:20			
Client: Ubrique Investments				Dates: 22/07/2022 - 22/07/2022		Logged By ET			
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.25	J				MADE GROUND: Dark brown friable slightly sandy slightly gravelly CLAY. Gravel is subangular fine of mixed lithologies. (MADE GROUND TOPSOIL)		
		0.25 - 0.65	T		0.25		MADE GROUND: Light brown sandy subangular fine to coarse GRAVEL of sandstone and brick. Rare copper wire. (GRANULAR MADE GROUND) <i>At 0.65m, geotextile membrane.</i>		
					0.65				
					0.80		Dark brown sandy slightly clayey subangular fine to coarse GRAVEL of clinker and concrete. (GRANULAR RESIDUAL SOIL)		
					1.55		Orangish brown and light brown slightly clayey slightly sandy subangular tabular fine to coarse GRAVEL of sandstone. (GRANULAR RESIDUAL SOIL)		
				1.70			Light brown SANDSTONE. Recovered as sandy subangular tabular fine to coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES) <i>At 1.7m, refused on bedrock.</i> End of borehole at 1.70 m		
Remarks 1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.									



LITHOS CONSULTING					Borehole Log			Borehole No. WS29 Sheet 1 of 1	
Project Name: Storthes Hall					Project No. 4473		Co-ords: 418205.00 - 412865.00		Hole Type WS
Location: Kirkburton					Level:		Scale 1:20		Logged By ET
Client: Ubrique Investments					Dates: 22/07/2022 - 22/07/2022				
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10 - 0.60	J		0.10			MADE GROUND: Dark brown friable slightly sandy slightly gravelly CLAY. Gravel is subangular fine to coarse of mixed lithologies. (MADE GROUND TOPSOIL)	
					0.60			MADE GROUND: Light brown gravelly SAND. Gravel is subangular fine to coarse of sandstone, tarmac and rare brick. (GRANULAR MADE GROUND)	
					0.80			MADE GROUND: Orangish brown slightly sandy slightly gravelly CLAY. Gravel is subangular fine to coarse of sandstone. (COHESIVE MADE GROUND)	
		1.00 - 1.50	D		1.00			Dark brown slightly sandy CLAY with occasional decomposing rootlets. (RELICT TOPSOIL)	
								Firm orangish brown sandy CLAY. (COHESIVE RESIDUAL SOIL)	
		1.50 - 1.80	D		1.50			Firm orangish brown sandy slightly gravelly CLAY. Gravel is subangular tabular fine to coarse of sandstone. (COHESIVE RESIDUAL SOIL)	
					1.80			Light brown SANDSTONE. Recovered as subangular tabular coarse gravel. (GRENOSIDE SANDSTONE - COAL MEASURES)	
					2.00		At 2.0m, refused on bedrock. End of borehole at 2.00 m		

Remarks
1. Prior to drilling a Cable Avoidance Tool (CAT) survey was carried out. 2. Groundwater was not apparent during drilling. 3. Co-ordinates from hand held GPS, hole not surveyed in.

Appendix H

Soakaway test results

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Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

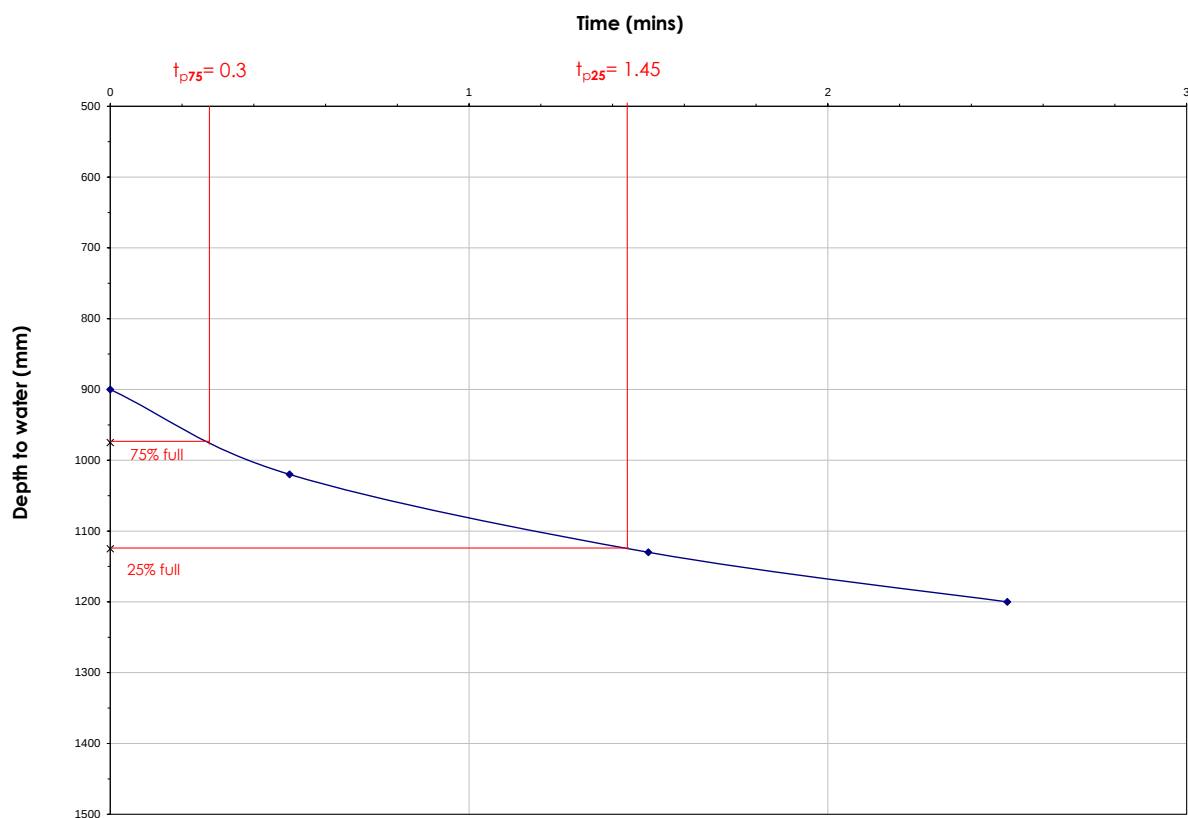
Date:	19/07/2022
Trial Pit No.	TP01
Test No.	1

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	0.58	580
Width	=	2.08	2080
Depth	=	1.20	1200
Effective Depth (% full)		(mm)	(m)
0.25	=	1125	1.13
0.50	=	1050	1.05
0.75	=	975	0.98
Depth at start of test (mm)		=	900
Depth at end of test (mm)		=	1200

Base area of pit	=	1.2064
A_{p50} - 50% internal surface area inc. base	=	2.0044
V_{p75-25} - Volume 75 - 25%	=	0.18096

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.3
$t_{p\ 25}$ (min)	=	1.45



Soil infiltration rate, f , (m/s) = 1.31E-03

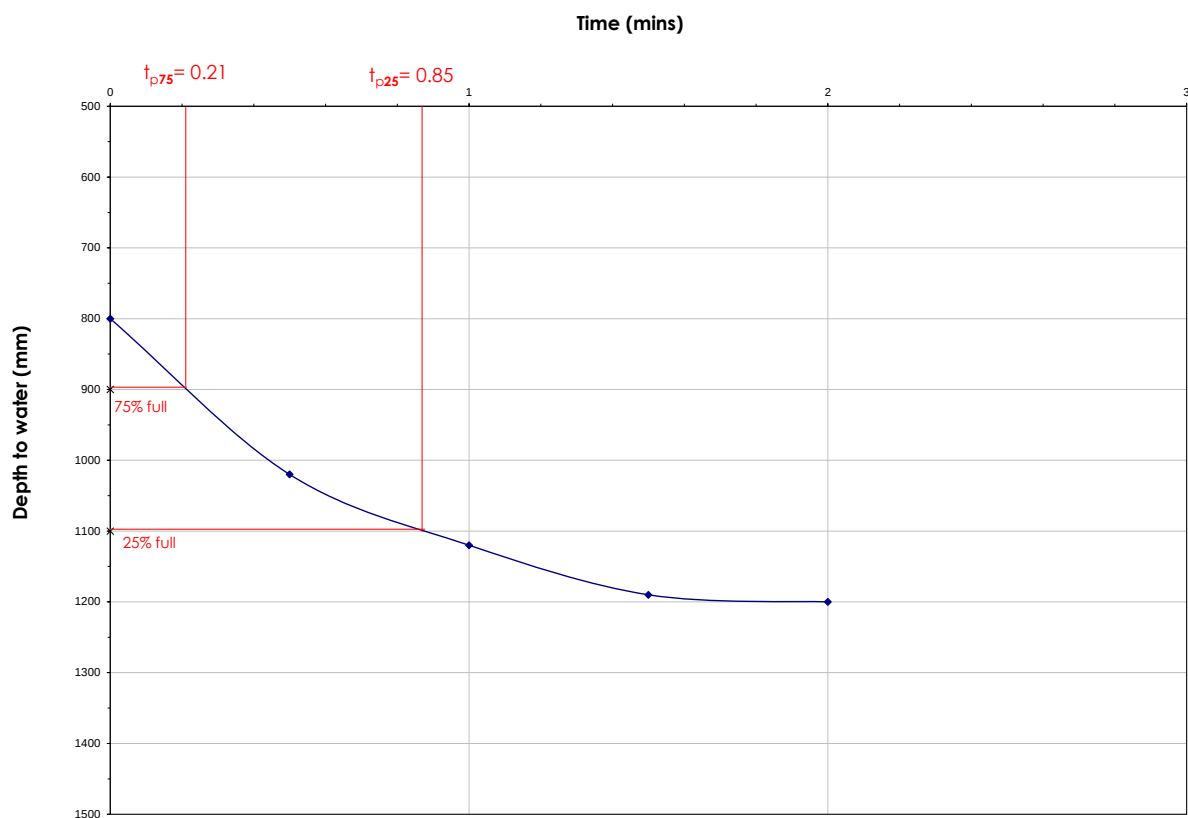
Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

Date:	19/07/2022
Trial Pit No.	TP01
Test No.	2

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.08	2080
Width	=	0.58	580
Depth	=	1.20	1200
Effective Depth (% full)		(mm)	(m)
0.25	=	1100	1.10
0.50	=	1000	1.00
0.75	=	900	0.90
Depth at start of test (mm)		=	800
Depth at end of test (mm)		=	1200
Base area of pit		=	1.2064
a _{p50} - 50% internal surface area inc. base		=	2.2704
V _{0.75-25} - Volume 75 - 25%		=	0.24128

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.21
$t_{p\ 25}$ (min)	=	0.85



Soil infiltration rate, f , (m/s) = 2.77E-03

Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

Date:	19/07/2022
Trial Pit No.	TP01
Test No.	3

[illegible]

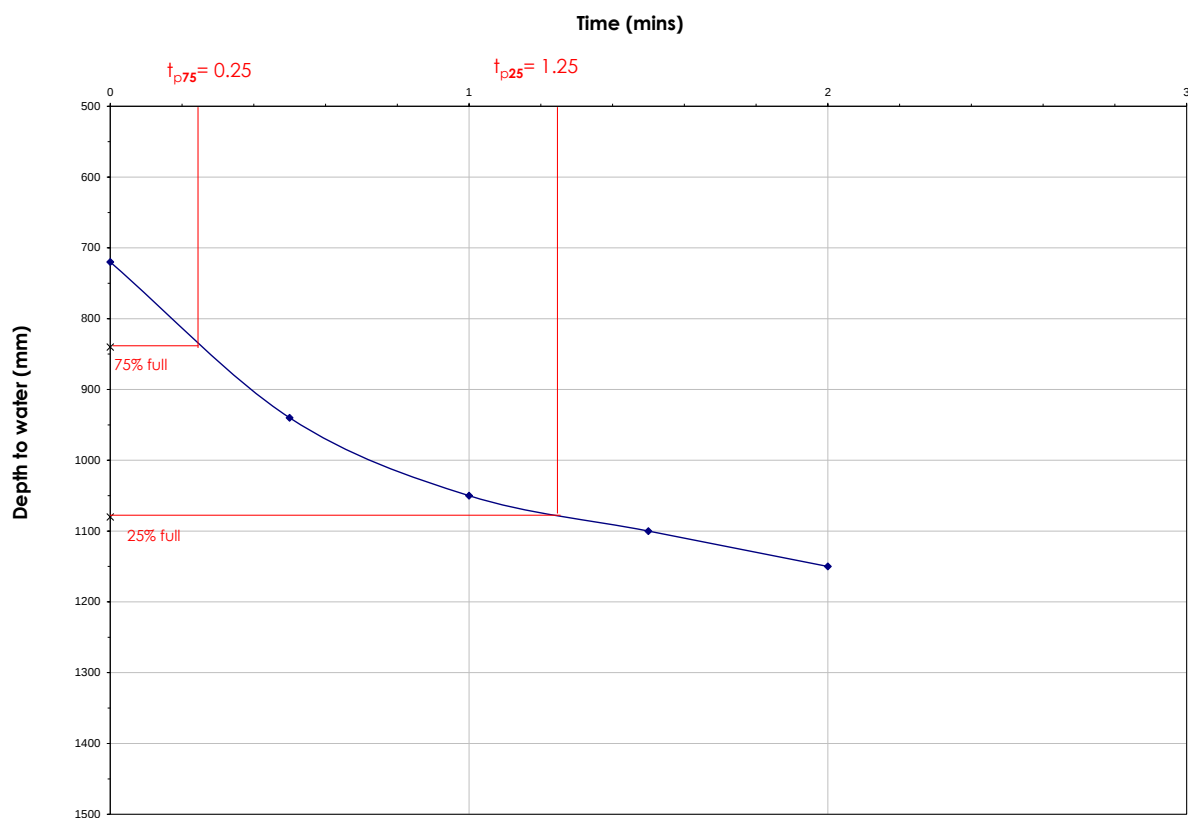
SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.08	2080
Width	=	0.58	580
Depth	=	1.20	1200

Effective Depth (% full)		(mm)	(m)
0.25	=	1080	1.08
0.50	=	960	0.96
0.75	=	840	0.84

Depth at start of test (mm)	=	720
Depth at end of test (mm)	=	1150

Base area of pit	=	1.2064
A_{p50} - 50% internal surface area inc. base	=	2.4832
V_{p75-25} - Volume 75 - 25%	=	0.289536

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.25
$t_{p\ 25}$ (min)	=	1.25



Soil infiltration rate, f , (m/s) = 1.94E-03

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client:	Ubrique Investments Limited
Engineer:	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

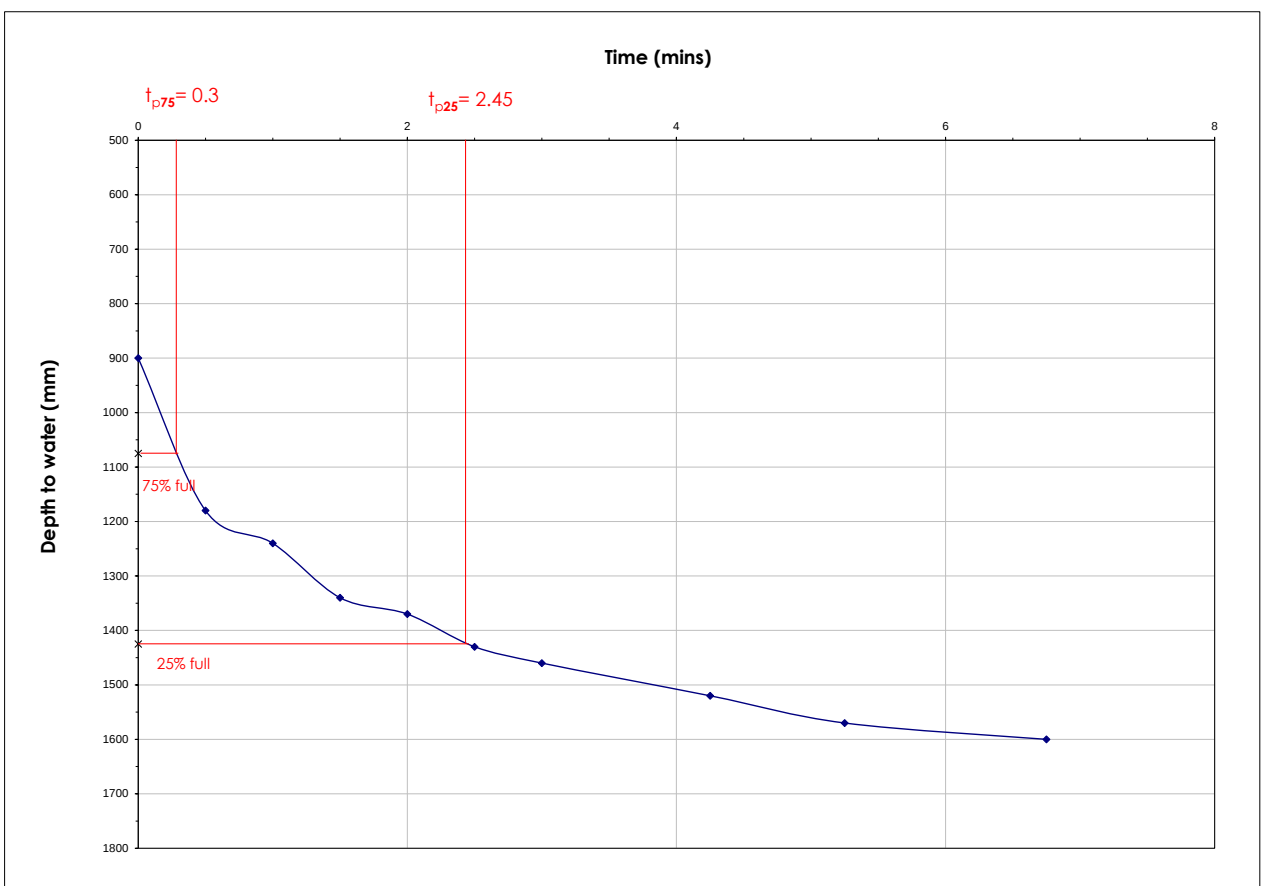


Date:	19/07/2022
Trial Pit No.	TP02
Test No.	1

Time	Elapsed Time	Depth to water from ground level	
	(min)	(m)	(mm)
09:31:45	0	0.90	900
09:32:15	0.5	1.18	1180
09:32:45	1	1.24	1240
09:33:15	1.5	1.34	1340
09:33:45	2	1.37	1370
09:34:15	2.5	1.43	1430
09:34:45	3	1.46	1460
09:36:00	4.25	1.52	1520
09:37:00	5.25	1.57	1570
09:38:30	6.75	1.60	1600
		Dry	

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.15	2150
Width	=	0.60	600
Depth	=	1.60	1600
Effective Depth (% full)		(mm)	(m)
0.25	=	1425	1.43
0.50	=	1250	1.25
0.75	=	1075	1.08
Depth at start of test (mm)		=	900
Depth at end of test (mm)		=	1600
Base area of pit		=	1.29
A _{p50} - 50% internal surface area inc. base		=	3.215
V _{p75-25} - Volume 75 - 25%		=	0.4515

Read from the graph:			
t _{p75} (min)	=	0.3	
t _{p25} (min)	=	2.45	



Soil infiltration rate, f , (m/s) = 1.09E-03

Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

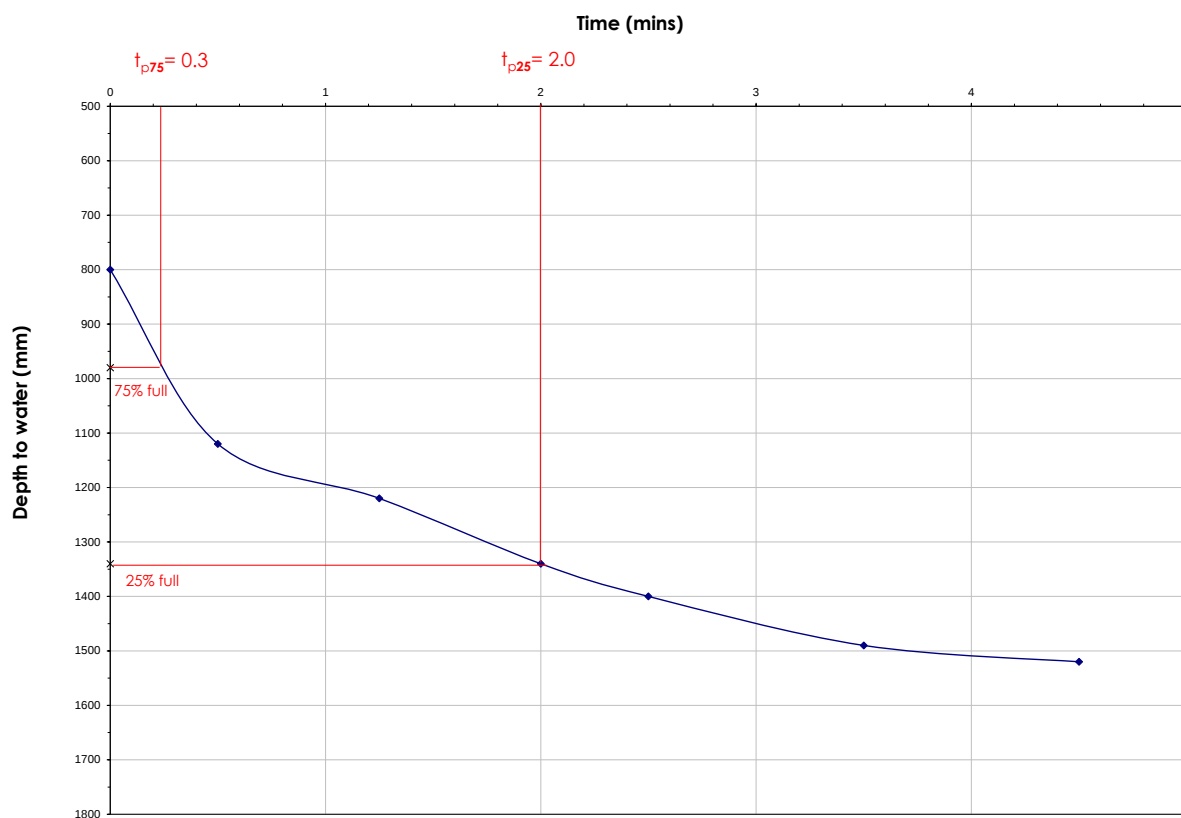
Date:	19/07/2022
Trial Pit No.	TP02
Test No.	2

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.15	2150
Width	=	0.60	600
Depth	=	1.52	1520
Effective Depth (% full)		(mm)	(m)
0.25	=	1340	1.34
0.50	=	1160	1.16
0.75	=	980	0.98
Depth at start of test (mm)		=	800
Depth at end of test (mm)		=	1520

Base area of pit	=	1.29
A_{p50} - 50% internal surface area inc. base	=	3.27
V_{p75-25} - Volume 75 - 25%	=	0.4644

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.3
$t_{p\ 25}$ (min)	=	2



Soil infiltration rate, f , (m/s) = 1.39E-03

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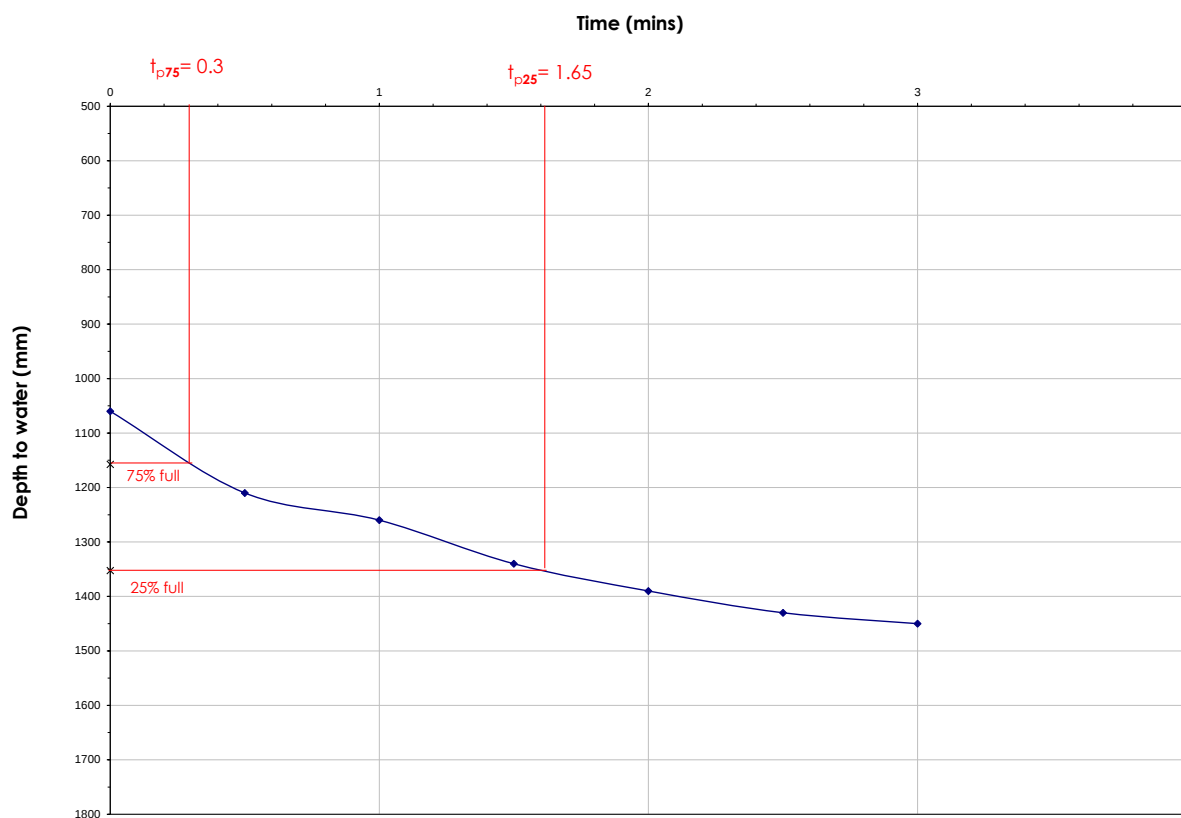
Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

Date:	19/07/2022
Trial Pit No.	TP02
Test No.	3

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.15	2150
Width	=	0.60	600
Depth	=	1.45	1450
Effective Depth (% full)		(mm)	(m)
0.25	=	1352.5	1.35
0.50	=	1255	1.26
0.75	=	1157.5	1.16
Depth at start of test (mm)		=	1060
Depth at end of test (mm)		=	1450
Base area of pit		=	1.29
a _{p50} - 50% internal surface area inc. base		=	2.3625
V _{0.75-25} - Volume 75 - 25%		=	0.25155

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.3
$t_{p\ 25}$ (min)	=	1.65



Soil infiltration rate, f , (m/s) = 1.31E-03

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CONSULTING

Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

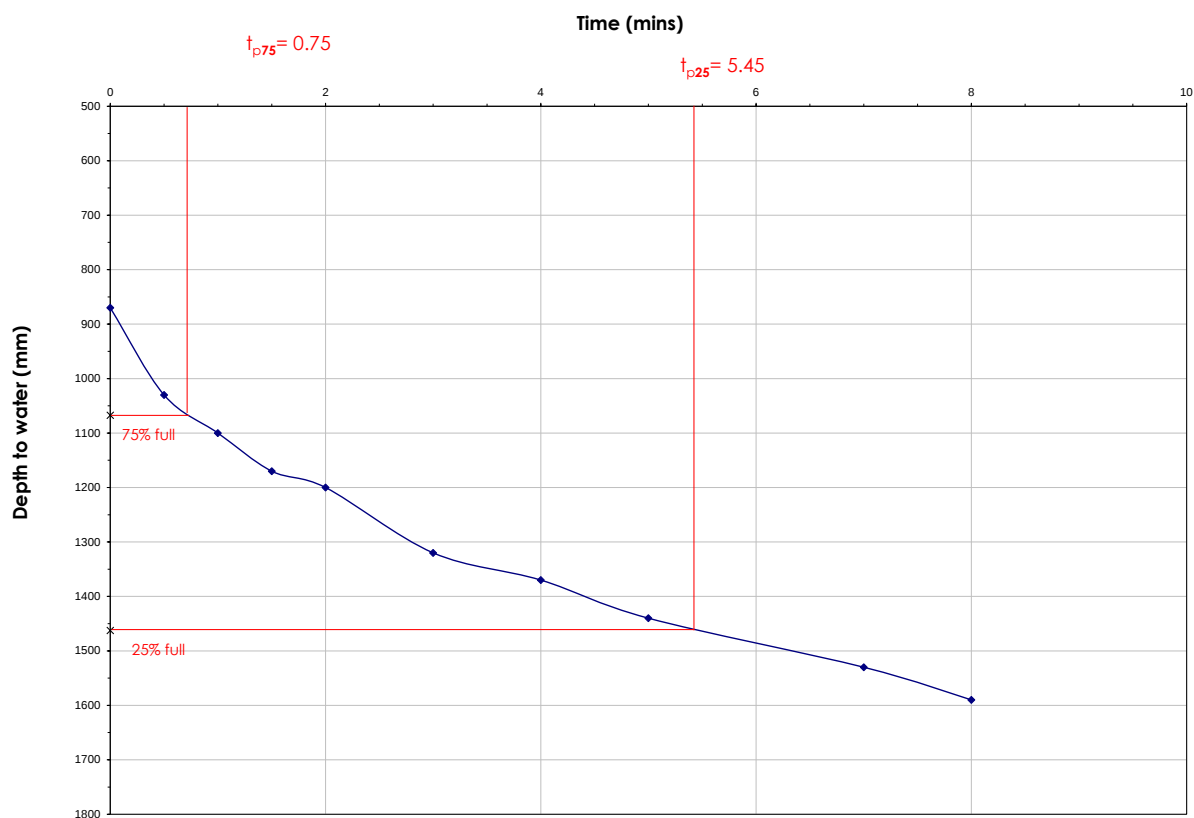
Date:	19/07/2022
Trial Pit No.	TP03
Test No.	1

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.12	2120
Width	=	0.60	600
Depth	=	1.66	1660
Effective Depth (% full)		(mm)	(m)
0.25	=	1462.5	1.46
0.50	=	1265	1.27
0.75	=	1067.5	1.07
Depth at start of test (mm)		=	870
Depth at end of test (mm)		=	1590

Base area of pit	=	1.272
A_{p50} - 50% internal surface area inc. base	=	3.4208
V_{p75-25} - Volume 75 - 25%	=	0.50244

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.75
$t_{p\ 25}$ (min)	=	5.45



Soil infiltration rate, f , (m/s) = 5.21E-04

Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

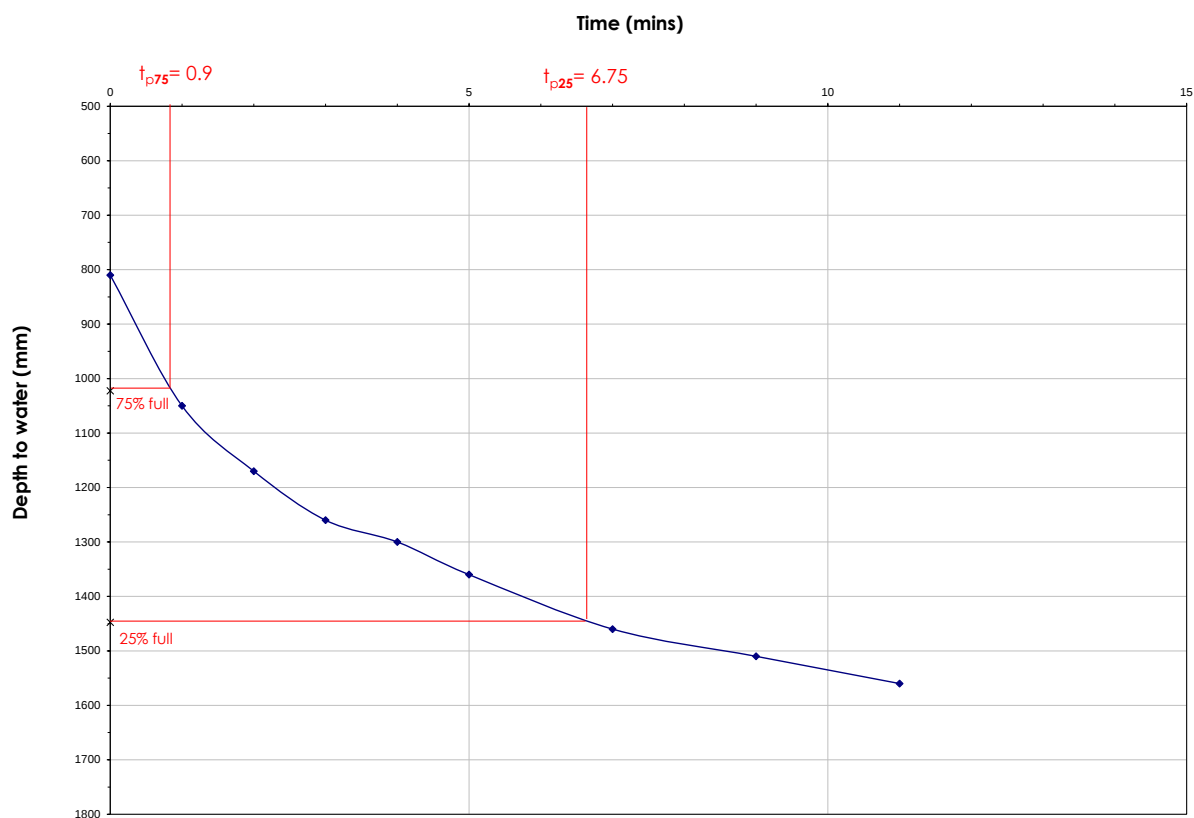
Date:	19/07/2022
Trial Pit No.	TP03
Test No.	2

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.12	2120
Width	=	0.60	600
Depth	=	1.66	1660
Effective Depth (% full)		(mm)	(m)
0.25	=	1447.5	1.45
0.50	=	1235	1.24
0.75	=	1022.5	1.02
Depth at start of test (mm)		=	810
Depth at end of test (mm)		=	1560

Base area of pit	=	1.272
A_{p50} - 50% internal surface area inc. base	=	3.584
V_{p75-25} - Volume 75 - 25%	=	0.5406

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.9
$t_{p\ 25}$ (min)	=	6.75



Soil infiltration rate, f , (m/s) = 4.30E-04

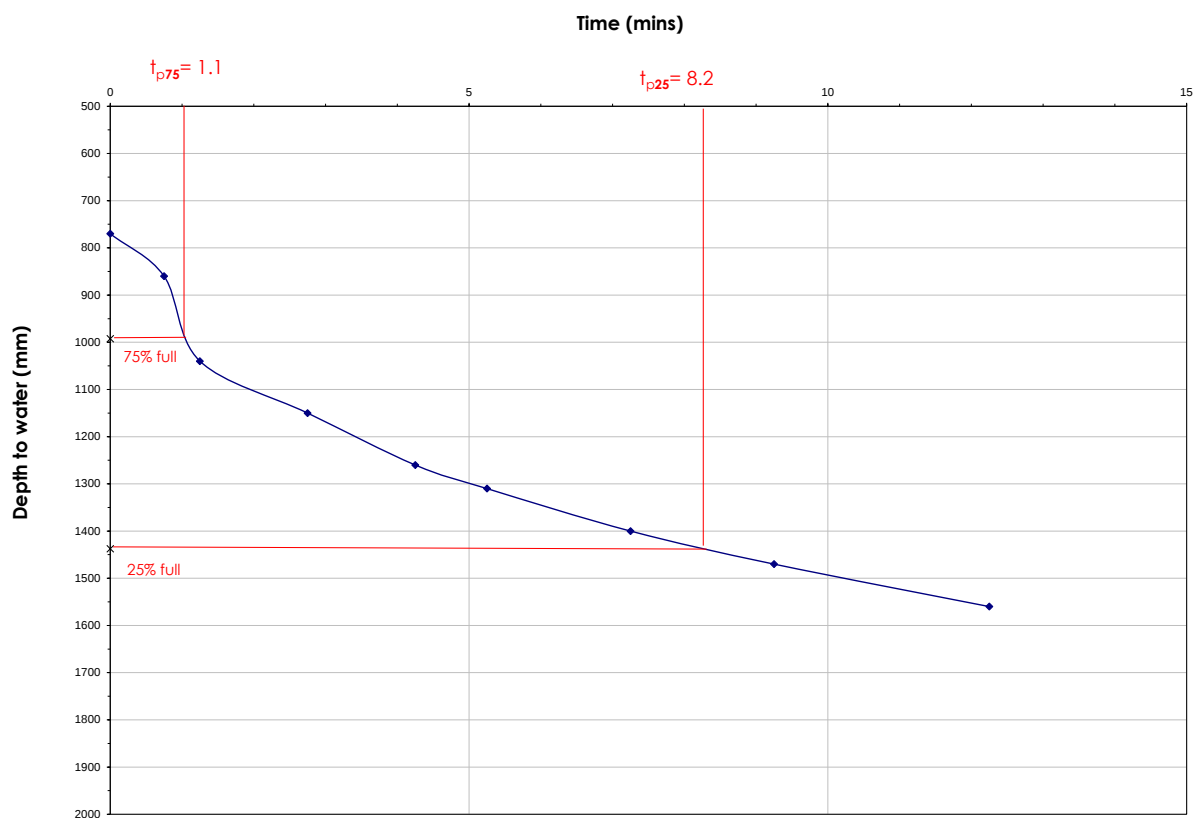
Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

Date:	19/07/2022
Trial Pit No.	TP03
Test No.	3

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.12	2120
Width	=	0.60	600
Depth	=	1.66	1660
Effective Depth (% full)		(mm)	(m)
0.25	=	1437.5	1.44
0.50	=	1215	1.22
0.75	=	992.5	0.99
Depth at start of test (mm)		=	770
Depth at end of test (mm)		=	1560
Base area of pit		=	1.272
a _{p50} - 50% internal surface area inc. base		=	3.6928
V _{0.75-25} - Volume 75 - 25%		=	0.56604

Read from the graph:		
$t_{p\ 75}$ (min)	=	1.1
$t_{p\ 25}$ (min)	=	8.2



Soil infiltration rate, f , (m/s) = 3.60E-04

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Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

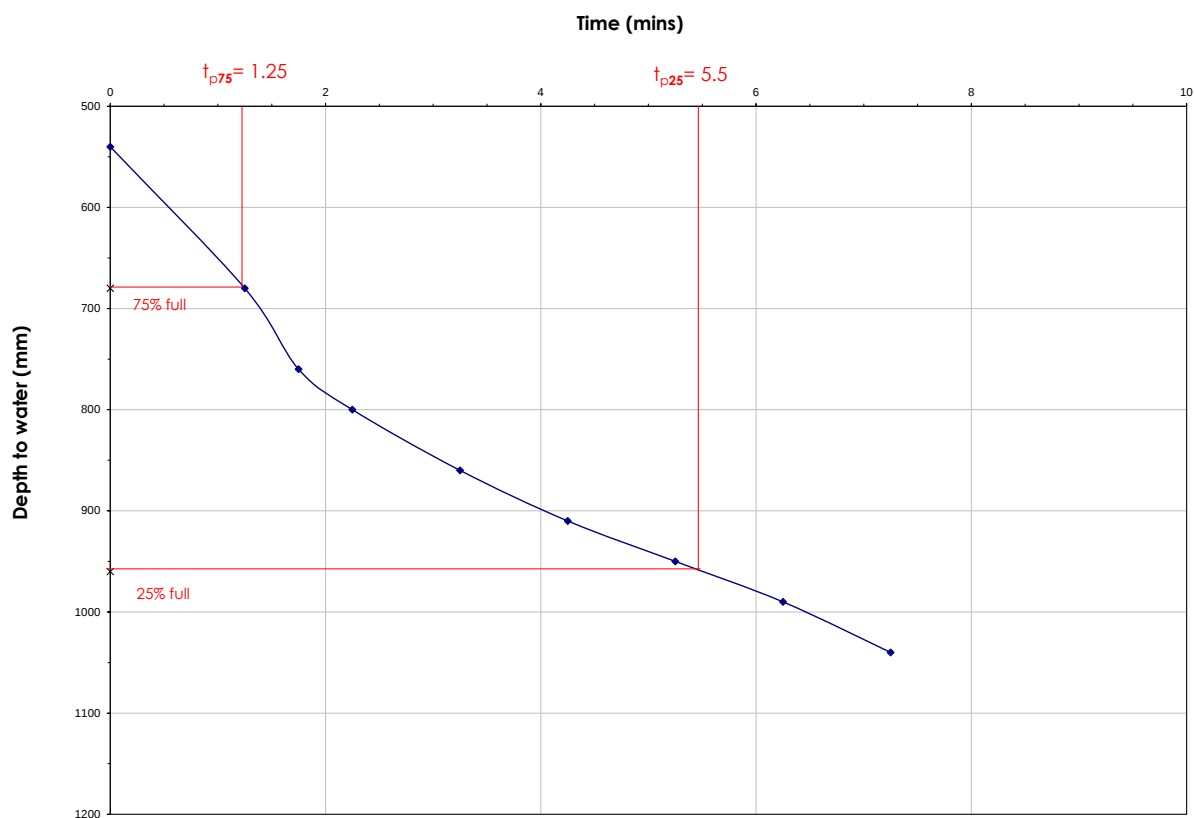
Date:	19/07/2022
Trial Pit No.	TP04
Test No.	1

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.04	2040
Width	=	0.59	590
Depth	=	1.10	1100
Effective Depth (% full)		(mm)	(m)
0.25	=	960	0.96
0.50	=	820	0.82
0.75	=	680	0.68
Depth at start of test (mm)		=	540
Depth at end of test (mm)		=	1040

Base area of pit	=	1.2036
A_{p50} - 50% internal surface area inc. base	=	2.6764
V_{p75-25} - Volume 75 - 25%	=	0.337008

Read from the graph:		
$t_{p\ 75}$ (min)	=	1.25
$t_{p\ 25}$ (min)	=	5.5



Soil infiltration rate, f , (m/s) = 4.94E-04

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client:	Ubrique Investments Limited
Engineer:	Cameron Daniel
Job Name:	Storches Hall, Kirkburton
Job No.:	4473



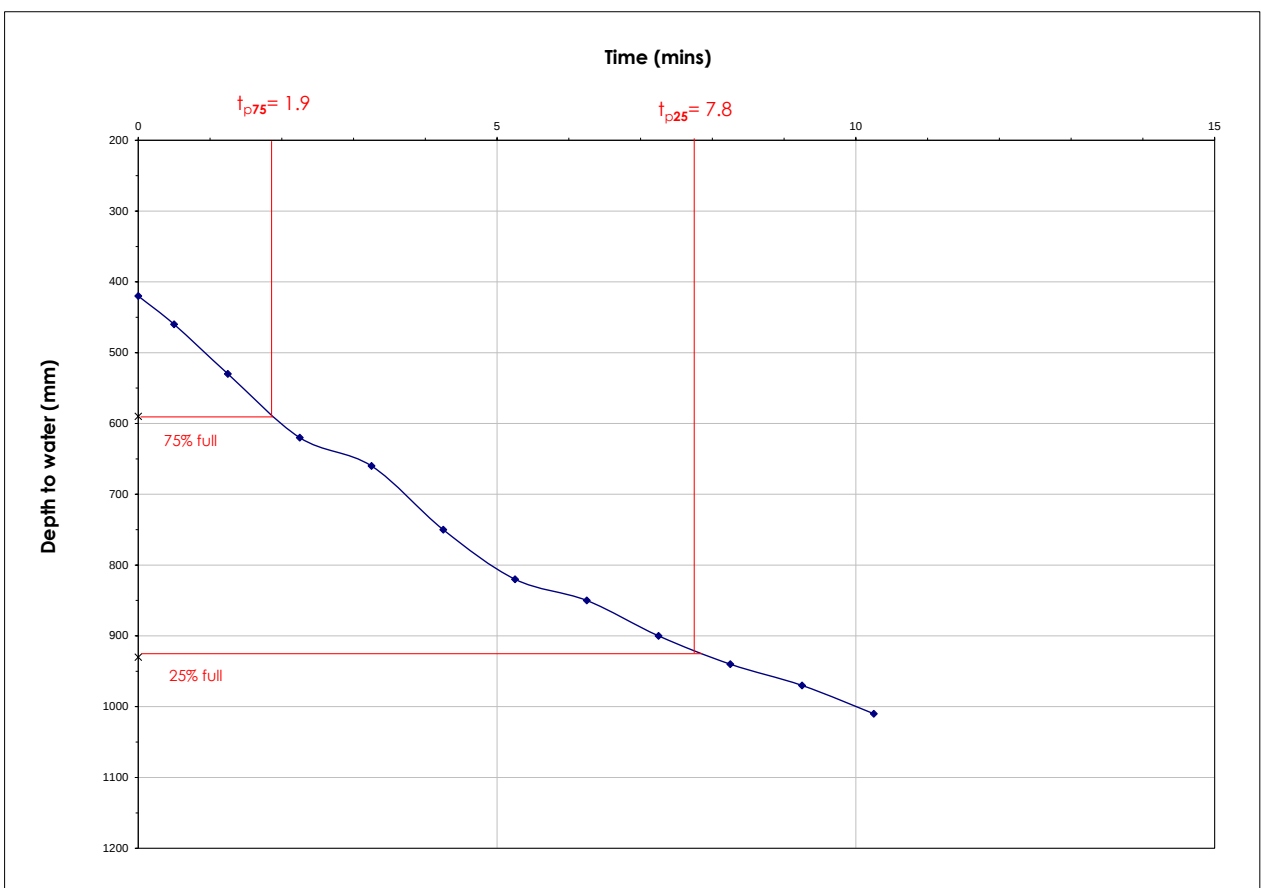
Date:	19/07/2022
Trial Pit No.	TP04
Test No.	2

Time	Elapsed Time	Depth to water from ground level	
	(min)	(m)	(mm)
15:07:45	0	0.42	420
15:08:15	0.5	0.46	460
15:09:00	1.25	0.53	530
15:10	2.25	0.62	620
15:11	3.25	0.66	660
15:12	4.25	0.75	750
15:13	5.25	0.82	820
15:14	6.25	0.85	850
15:15	7.25	0.90	900
15:16	8.25	0.94	940
15:17	9.25	0.97	970
15:18	10.25	1.01	1010

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.04	2040
Width	=	0.59	590
Depth	=	1.10	1100
Effective Depth (% full)		(mm)	(m)
0.25	=	930	0.93
0.50	=	760	0.76
0.75	=	590	0.59
Depth at start of test (mm)		=	420
Depth at end of test (mm)		=	1010

Base area of pit	=	1.2036
α_{p50} - 50% internal surface area inc. base	=	2.992
V_{p75-25} - Volume 75 - 25%	=	0.409224

Read from the graph:			
t_{p75} (min)	=	1.9	
t_{p25} (min)	=	7.8	



Soil infiltration rate, f , (m/s) = $3.86E-04$

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client:	Ubrique Investments Limited
Engineer:	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473



Date:	19/07/2022
Trial Pit No.	TP04
Test No.	3

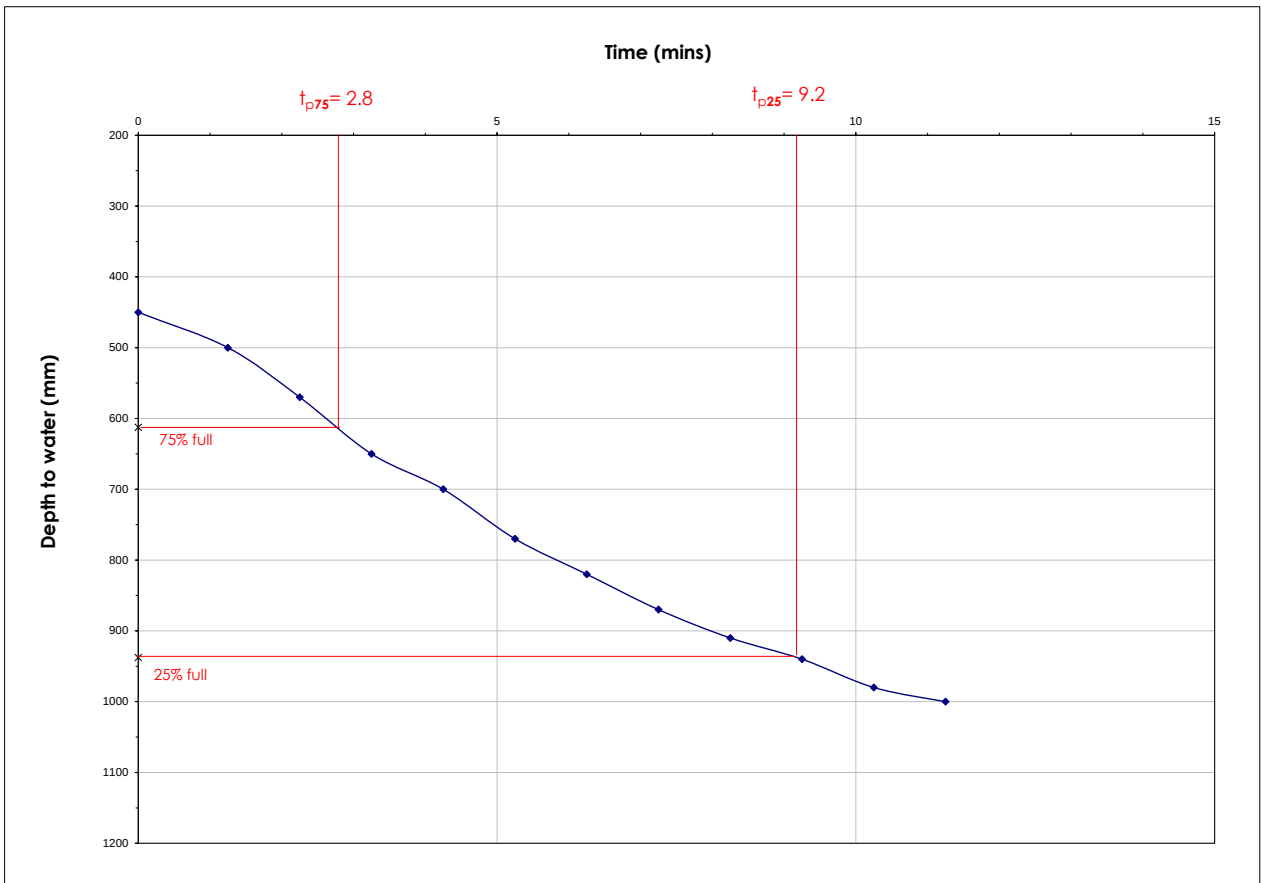
Time	Elapsed Time	Depth to water from ground level	
	(min)	(m)	(mm)
15:18:45	0	0.45	450
15:20	1.25	0.50	500
15:21	2.25	0.57	570
15:22	3.25	0.65	650
15:23	4.25	0.70	700
15:24	5.25	0.77	770
15:25	6.25	0.82	820
15:26	7.25	0.87	870
15:27	8.25	0.91	910
15:28	9.25	0.94	940
15:29	10.25	0.98	980
15:30	11.25	1.00	1000

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.09	2090
Width	=	0.59	590
Depth	=	1.10	1100
Effective Depth (% full)		(mm)	(m)
0.25	=	937.5	0.94
0.50	=	775	0.78
0.75	=	612.5	0.61

Depth at start of test (mm)	=	450
Depth at end of test (mm)	=	1000

Base area of pit	=	1.2331
α_{p50} - 50% internal surface area inc. base	=	2.9751
V_{p75-25} - Volume 75 - 25%	=	0.4007575

Read from the graph:			
t_{p75} (min)	=	2.8	
t_{p25} (min)	=	9.2	



Soil infiltration rate, f , (m/s) = $3.51E-04$

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Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

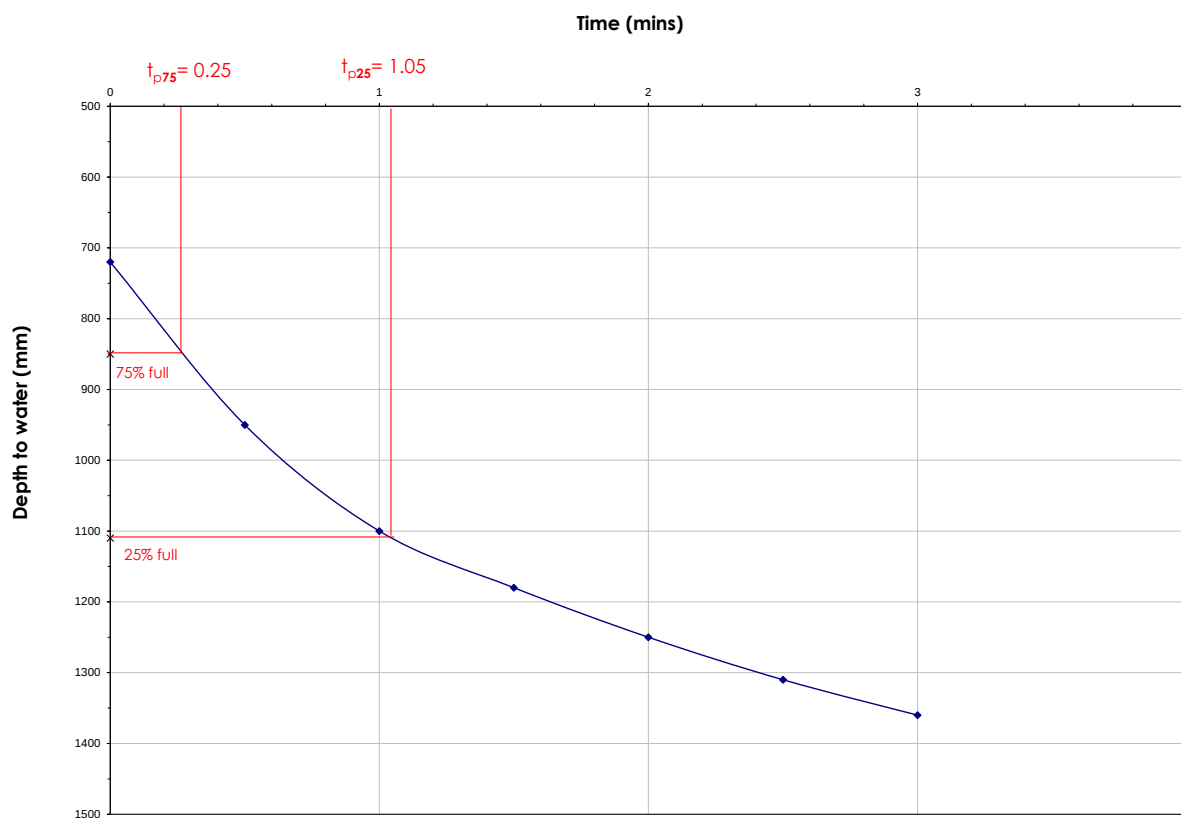
Date:	19/07/2022
Trial Pit No.	TP05
Test No.	1

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	1.81	1810
Width	=	0.59	590
Depth	=	1.24	1240
Effective Depth (% full)		(mm)	(m)
0.25	=	1110	1.11
0.50	=	980	0.98
0.75	=	850	0.85
Depth at start of test (mm)		=	720
Depth at end of test (mm)		=	1360

Base area of pit	=	1.0679
A_{p50} - 50% internal surface area inc. base	=	2.3159
V_{p75-25} - Volume 75 - 25%	=	0.277654

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.25
$t_{p\ 25}$ (min)	=	1.05



Soil infiltration rate, f , (m/s) = 2.50E-03

LITHOS
CONSULTING

Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

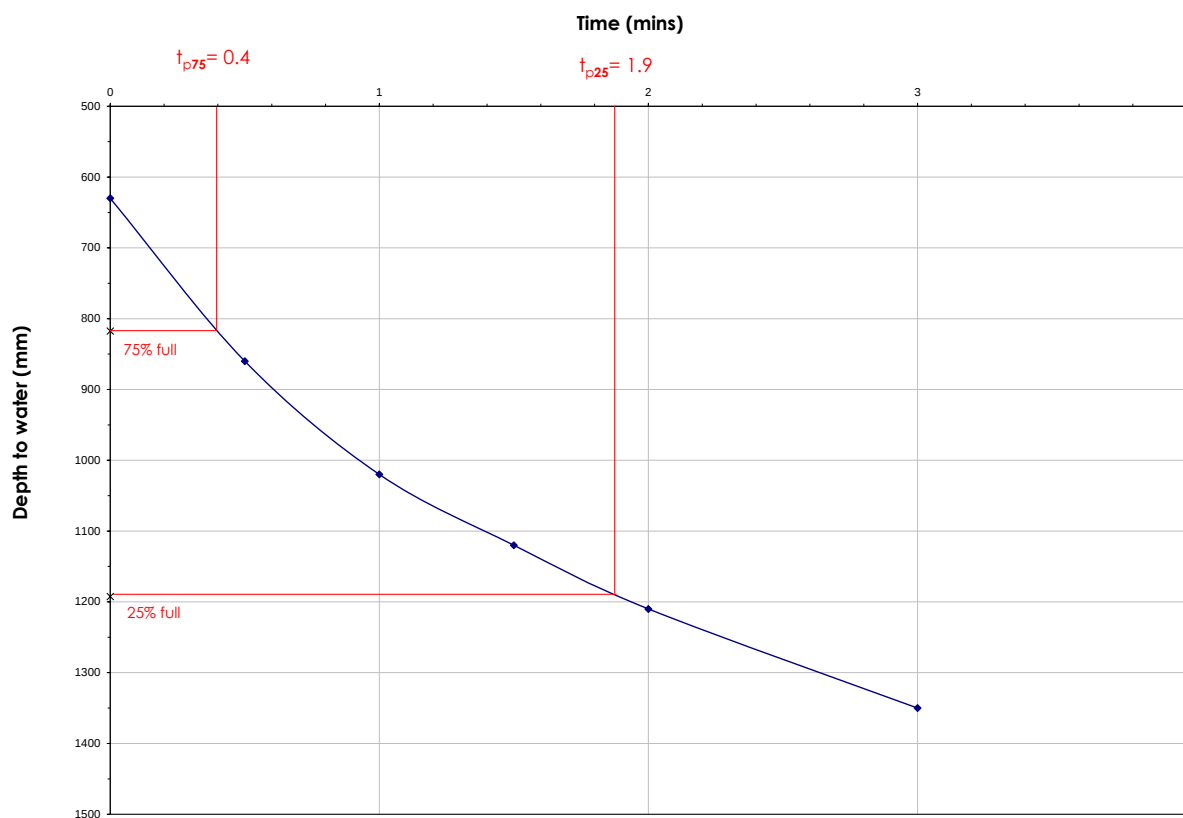
Date:	19/07/2022
Trial Pit No.	TP05
Test No.	2

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	1.81	1810
Width	=	0.59	590
Depth	=	1.38	1380
Effective Depth (% full)		(mm)	(m)
0.25	=	1192.5	1.19
0.50	=	1005	1.01
0.75	=	817.5	0.82
Depth at start of test (mm)		=	630
Depth at end of test (mm)		=	1350

Base area of pit	=	1.0679
A_{p50} - 50% internal surface area inc. base	=	2.8679
V_{p75-25} - Volume 75 - 25%	=	0.4004625

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.4
$t_{p\ 25}$ (min)	=	1.9



Soil infiltration rate, f , (m/s) = 1.55E-03

LITHOS
CONSULTING

Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

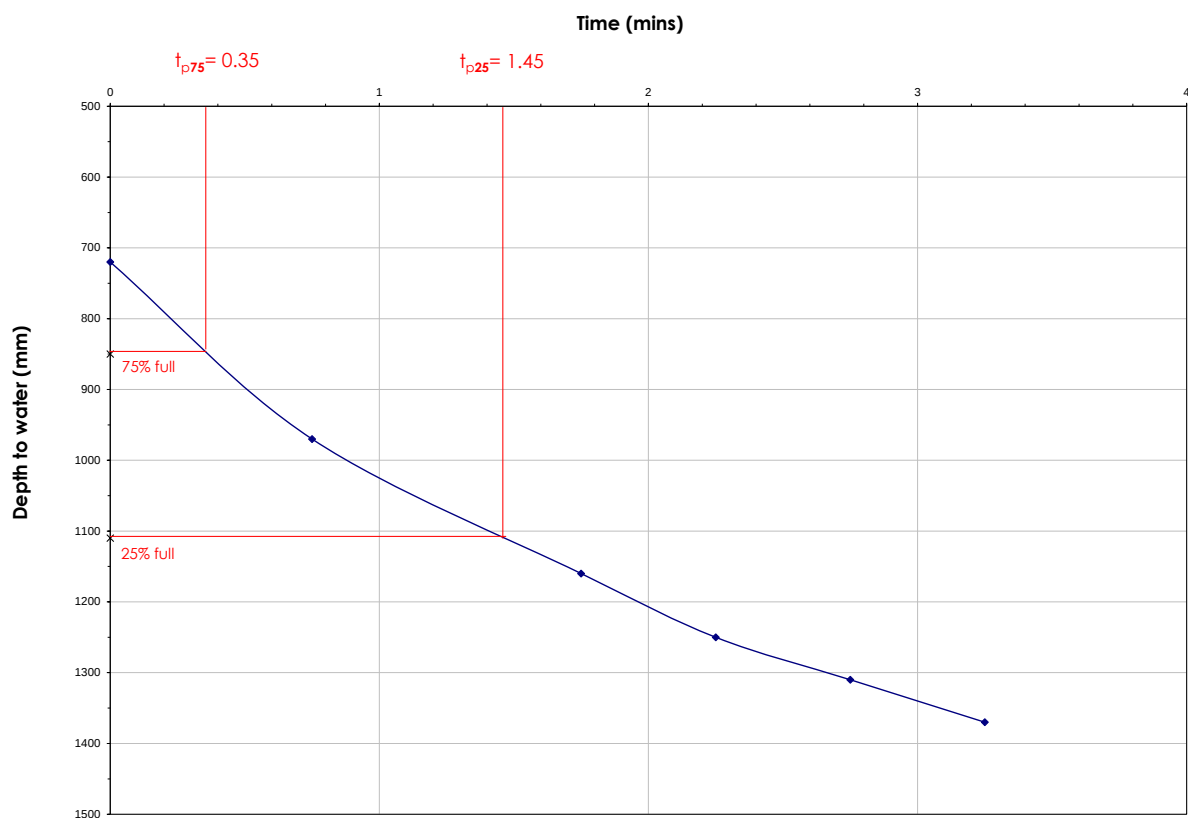
Date:	19/07/2022
Trial Pit No.	TP05
Test No.	3

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	1.81	1810
Width	=	0.59	590
Depth	=	1.24	1240
Effective Depth (% full)		(mm)	(m)
0.25	=	1110	1.11
0.50	=	980	0.98
0.75	=	850	0.85
Depth at start of test (mm)		=	720
Depth at end of test (mm)		=	1370

Base area of pit	=	1.0679
A_{p50} - 50% internal surface area inc. base	=	2.3159
V_{p75-25} - Volume 75 - 25%	=	0.277654

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.35
$t_{p\ 25}$ (min)	=	1.45



Soil infiltration rate, f , (m/s) = 1.82E-03

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client:	Ubrique Investments Limited
Engineer:	Cameron Daniel
Job Name:	Storches Hall, Kirkburton
Job No.:	4473



Date:	20/07/2022
Trial Pit No.	TP09
Test No.	1

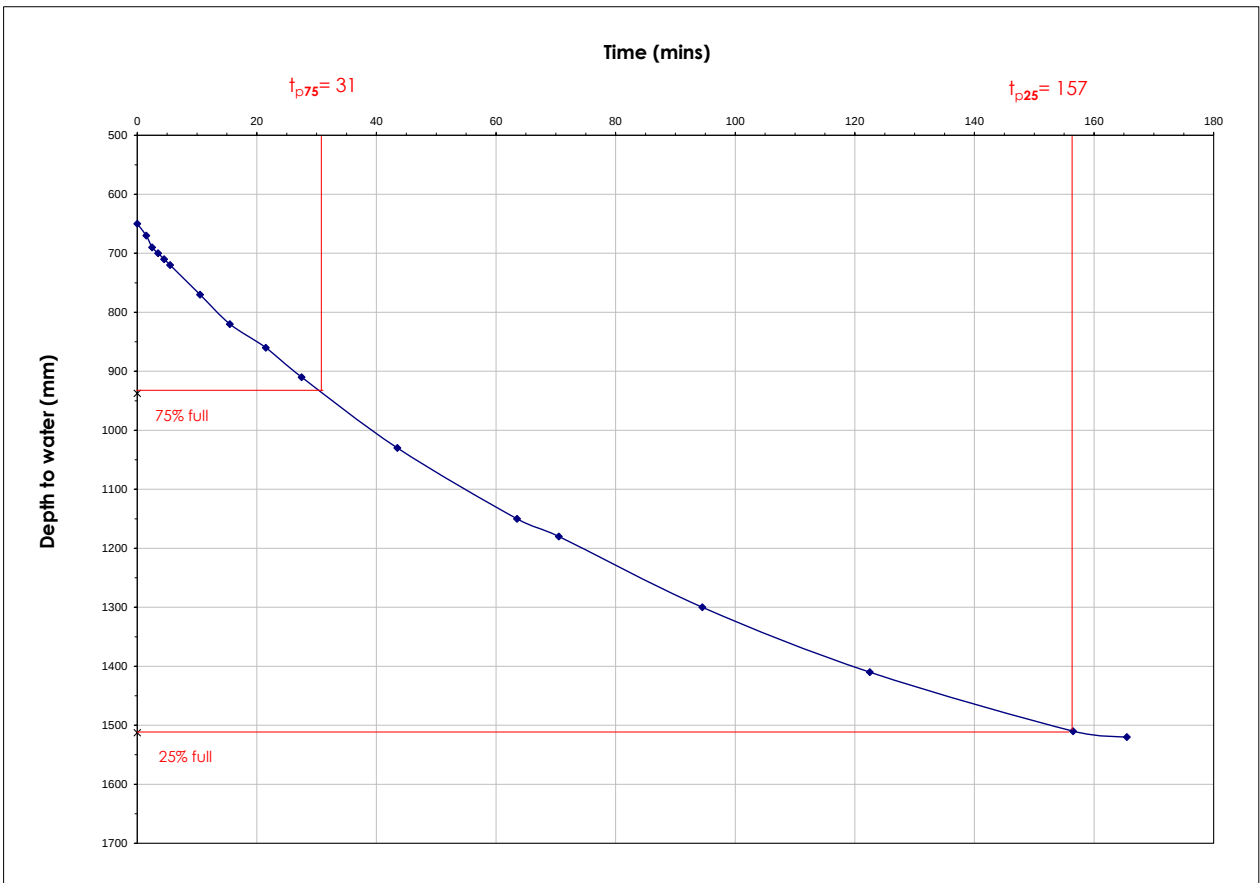
Time	Elapsed Time	Depth to water from ground level	
	(min)	(m)	(mm)
09:05:30	0	0.65	650
09:07:00	1.5	0.67	670
09:08:00	2.5	0.69	690
09:09:00	3.5	0.70	700
09:10:00	4.5	0.71	710
09:11:00	5.5	0.72	720
09:16	10.5	0.77	770
09:21	15.5	0.82	820
09:27	21.5	0.86	860
09:33	27.5	0.91	910
09:49	43.5	1.03	1030
10:09	63.5	1.15	1150
10:16	70.5	1.18	1180
10:40	94.5	1.30	1300
11:08	122.5	1.41	1410
11:42	156.5	1.51	1510
11:51	165.5	1.52	1520

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.12	2120
Width	=	0.60	600
Depth	=	1.80	1800
Effective Depth (% full)		(mm)	(m)
0.25	=	1512.5	1.51
0.50	=	1225	1.23
0.75	=	937.5	0.94

Depth at start of test (mm)	=	650
Depth at end of test (mm)	=	1520

Base area of pit	=	1.272
α_{p50} - 50% internal surface area inc. base	=	4.4
V_{p75-25} - Volume 75 - 25%	=	0.7314

Read from the graph:			
t_{p75} (min)	=	31	
t_{p25} (min)	=	157	



Soil infiltration rate, f , (m/s) = 2.20E-05

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473



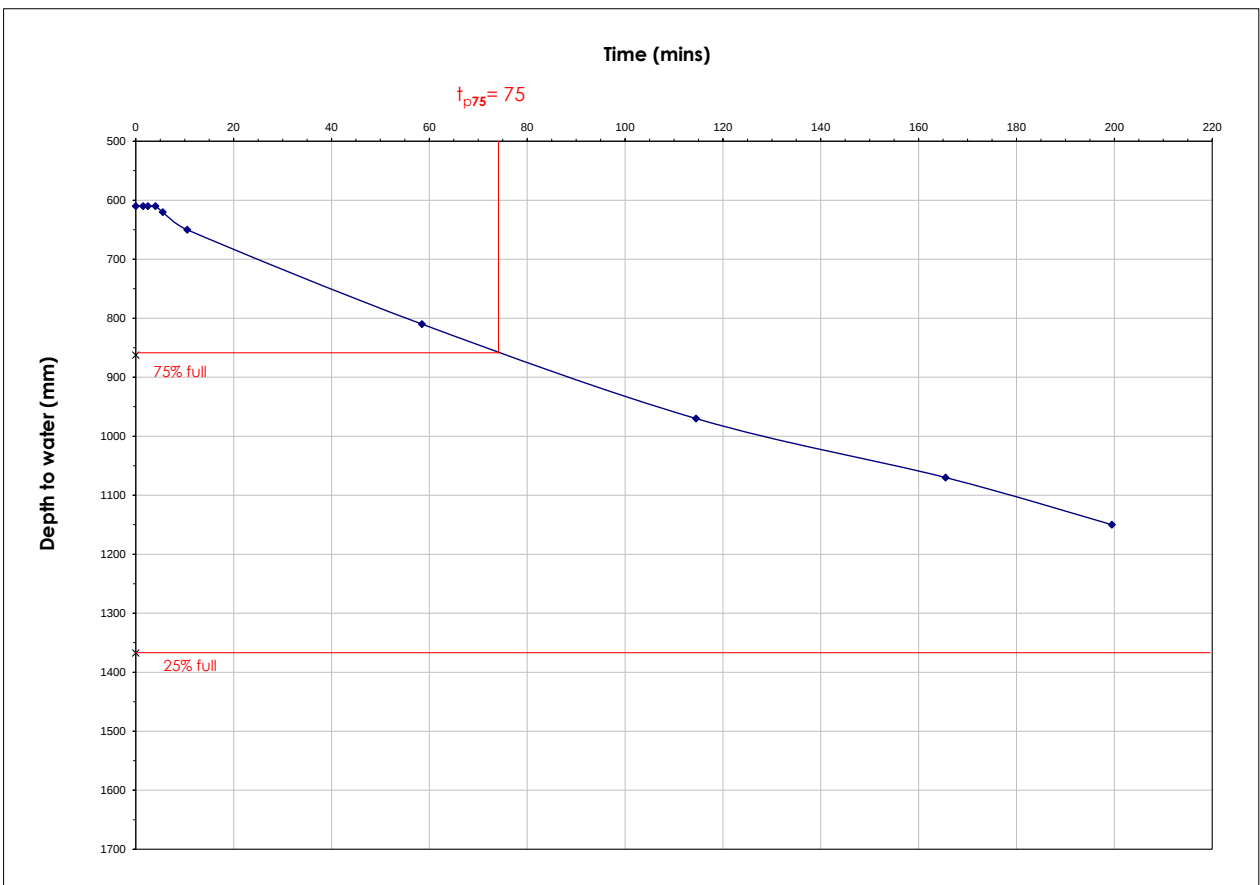
Date:	20/07/2022
Trial Pit No.	TP09
Test No.	2

Time	Elapsed Time	Depth to water from ground level	
	(min)	(m)	(mm)
11:53:30	0	0.61	610
11:55:00	1.5	0.61	610
11:56:00	2.5	0.61	610
11:57:30	4	0.61	610
11:59:00	5.5	0.62	620
12:04:00	10.5	0.65	650
12:52	58.5	0.81	810
13:48	114.5	0.97	970
14:39	165.5	1.07	1070
15:13	199.5	1.15	1150

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.12	2120
Width	=	0.60	600
Depth	=	1.62	1620
Effective Depth (% full)		(mm)	(m)
0.25	=	1367.5	1.37
0.50	=	1115	1.12
0.75	=	862.5	0.86
Depth at start of test (mm)		=	610
Depth at end of test (mm)		=	1150

Base area of pit	=	1.272
α_{p50} - 50% internal surface area inc. base	=	4.0192
V_{p75-25} - Volume 75 - 25%	=	0.64236

Read from the graph:			
t_{p75} (min)	=	75	
t_{p25} (min)	=	n/a	



Test did not attain 25% Effective depth. Unable to calculate soil infiltration rate

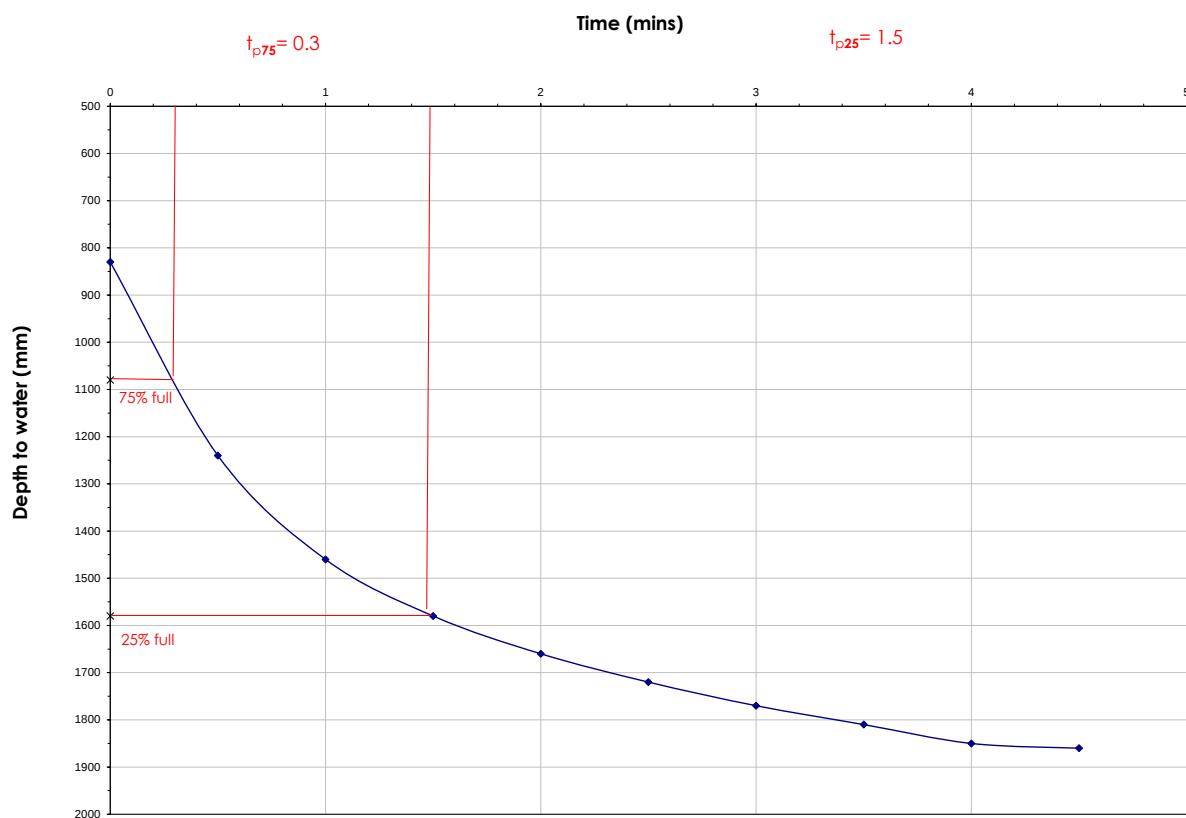
Client:	Ubrique Investments Limited
Engineer	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

Date:	20/07/2022
Trial Pit No.	TP12
Test No.	1

[illegible]

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.21	2210
Width	=	0.60	600
Depth	=	1.83	1830
Effective Depth (% full)		(mm)	(m)
0.25	=	1580	1.58
0.50	=	1330	1.33
0.75	=	1080	1.08
Depth at start of test (mm)		=	830
Depth at end of test (mm)		=	1860
Base area of pit		=	1.326
a _{p50} - 50% internal surface area inc. base		=	4.136
V _{0.75-25} - Volume 75 - 25%		=	0.663

Read from the graph:		
$t_{p\ 75}$ (min)	=	0.3
$t_{p\ 25}$ (min)	=	1.5



Soil infiltration rate, f , (m/s) = 2.23E-03

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client:	Ubrique Investments Limited
Engineer:	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473

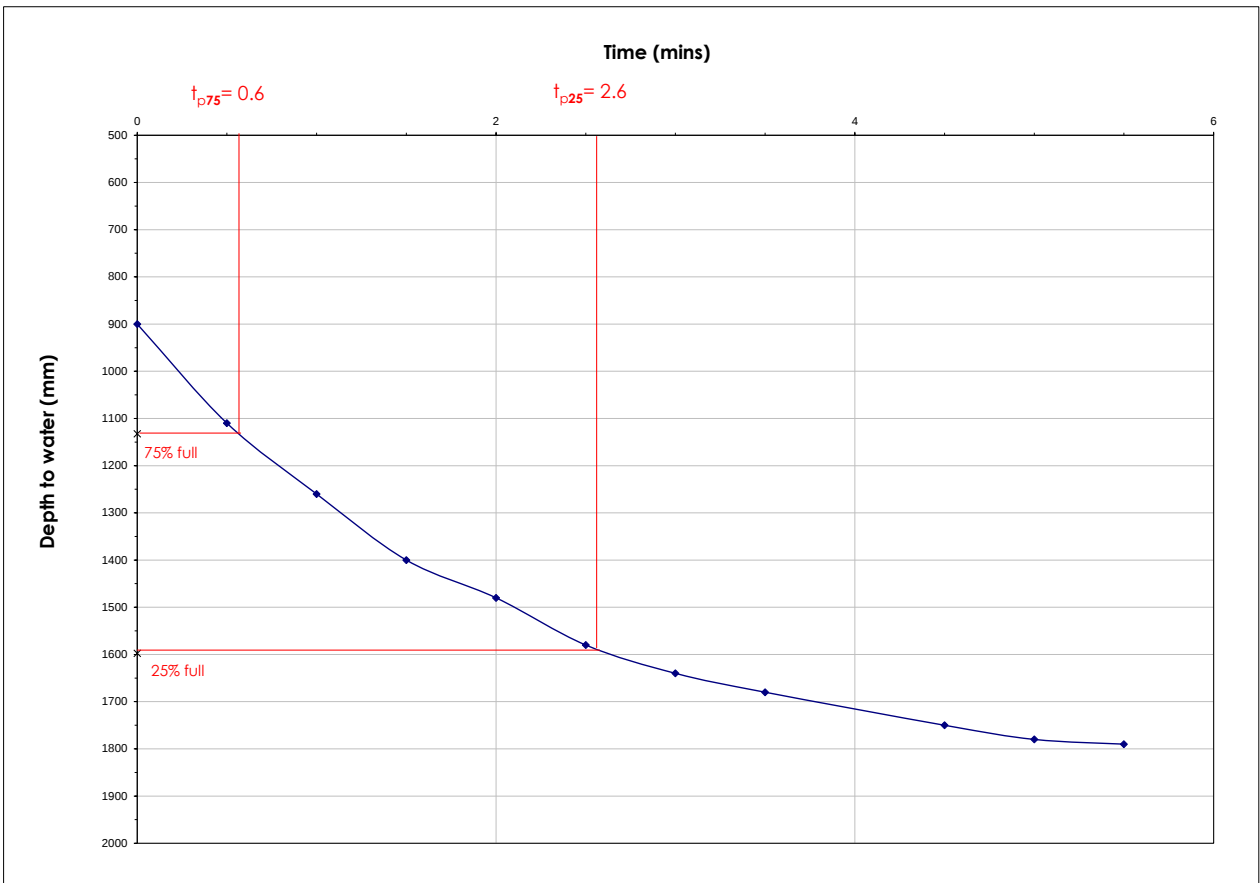


Date:	20/07/2022
Trial Pit No.	TP12
Test No.	2

Time	Elapsed Time	Depth to water from ground level	
	(min)	(m)	(mm)
10:43:30	0	0.90	900
10:44:00	0.5	1.11	1110
10:44:30	1	1.26	1260
10:45:00	1.5	1.40	1400
10:45:30	2	1.48	1480
10:46:00	2.5	1.58	1580
10:46:30	3	1.64	1640
10:47:00	3.5	1.68	1680
10:48:00	4.5	1.75	1750
10:48:30	5	1.78	1780
10:49:00	5.5	1.79	1790

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.21	2210
Width	=	0.60	600
Depth	=	1.83	1830
Effective Depth (% full)		(mm)	(m)
0.25	=	1597.5	1.60
0.50	=	1365	1.37
0.75	=	1132.5	1.13
Depth at start of test (mm)		=	900
Depth at end of test (mm)		=	1790
Base area of pit		=	1.326
A _{p50} - 50% internal surface area inc. base		=	3.9393
V _{p75-25} - Volume 75 - 25%		=	0.61659

Read from the graph:			
t _{p 75} (min)	=	0.6	
t _{p 25} (min)	=	2.6	



Soil infiltration rate, f , (m/s) = 1.30E-03

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client:	Ubrique Investments Limited
Engineer:	Cameron Daniel
Job Name:	Storches Hall, Kirkburton
Job No.:	4473

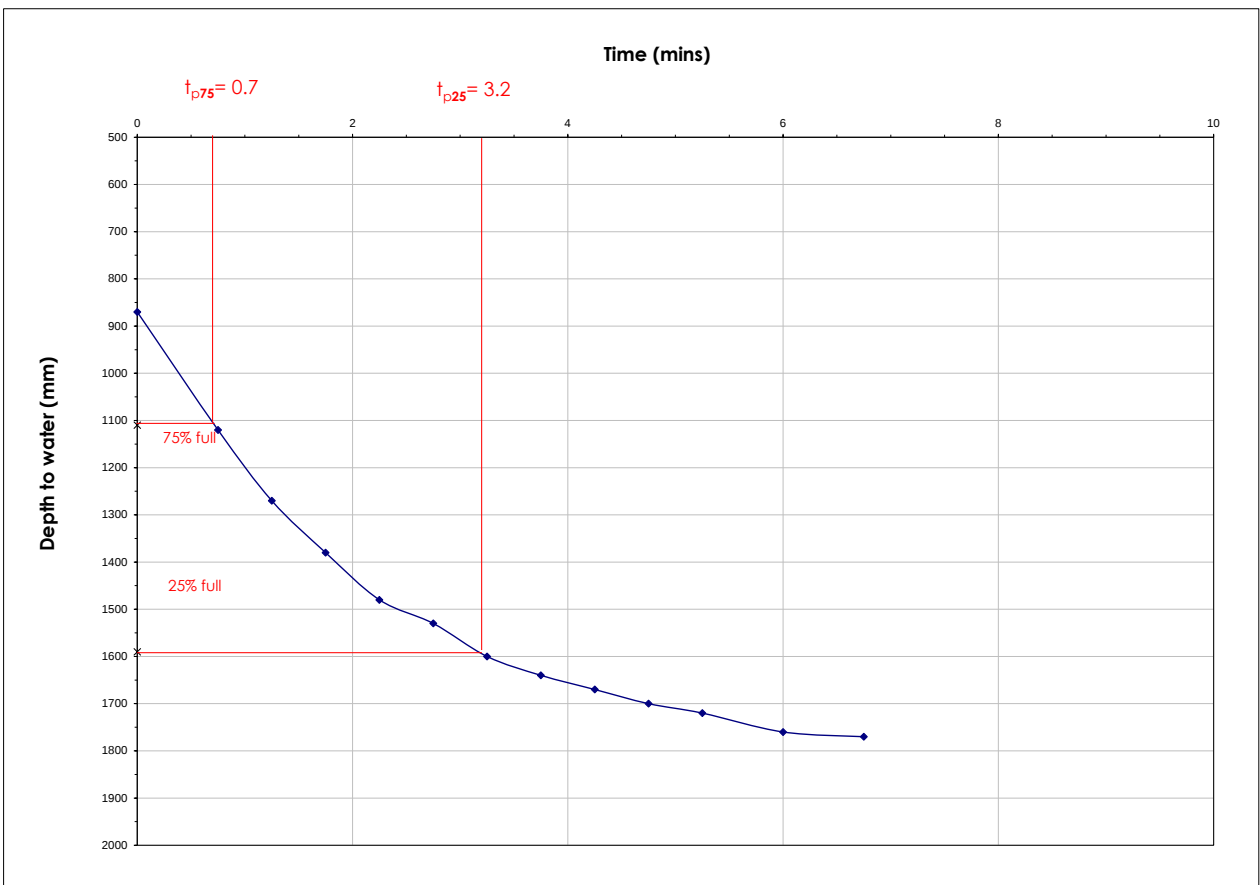


Date:	20/07/2022
Trial Pit No.	TP12
Test No.	3

Time	Elapsed Time	Depth to water from ground level	
	(min)	(m)	(mm)
10:53:45	0	0.87	870
10:54:30	0.75	1.12	1120
10:55:00	1.25	1.27	1270
10:55:30	1.75	1.38	1380
10:56:00	2.25	1.48	1480
10:56:30	2.75	1.53	1530
10:57:00	3.25	1.60	1600
10:57:30	3.75	1.64	1640
10:58:00	4.25	1.67	1670
10:58:30	4.75	1.70	1700
10:59:00	5.25	1.72	1720
10:59:45	6	1.76	1760
11:00:30	6.75	1.77	1770

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.21	2210
Width	=	0.60	600
Depth	=	1.83	1830
Effective Depth (% full)		(mm)	(m)
0.25	=	1590	1.59
0.50	=	1350	1.35
0.75	=	1110	1.11
Depth at start of test (mm)		=	870
Depth at end of test (mm)		=	1770
Base area of pit		=	1.326
α_{p50} - 50% internal surface area inc. base		=	4.0236
V_{p75-25} - Volume 75 - 25%		=	0.63648

Read from the graph:			
t_{p75} (min)	=	0.7	
t_{p25} (min)	=	3.2	



Soil infiltration rate, f , (m/s) = $1.05E-03$

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client:	Ubrique Investments Limited
Engineer:	Cameron Daniel
Job Name:	Storthes Hall, Kirkburton
Job No.:	4473



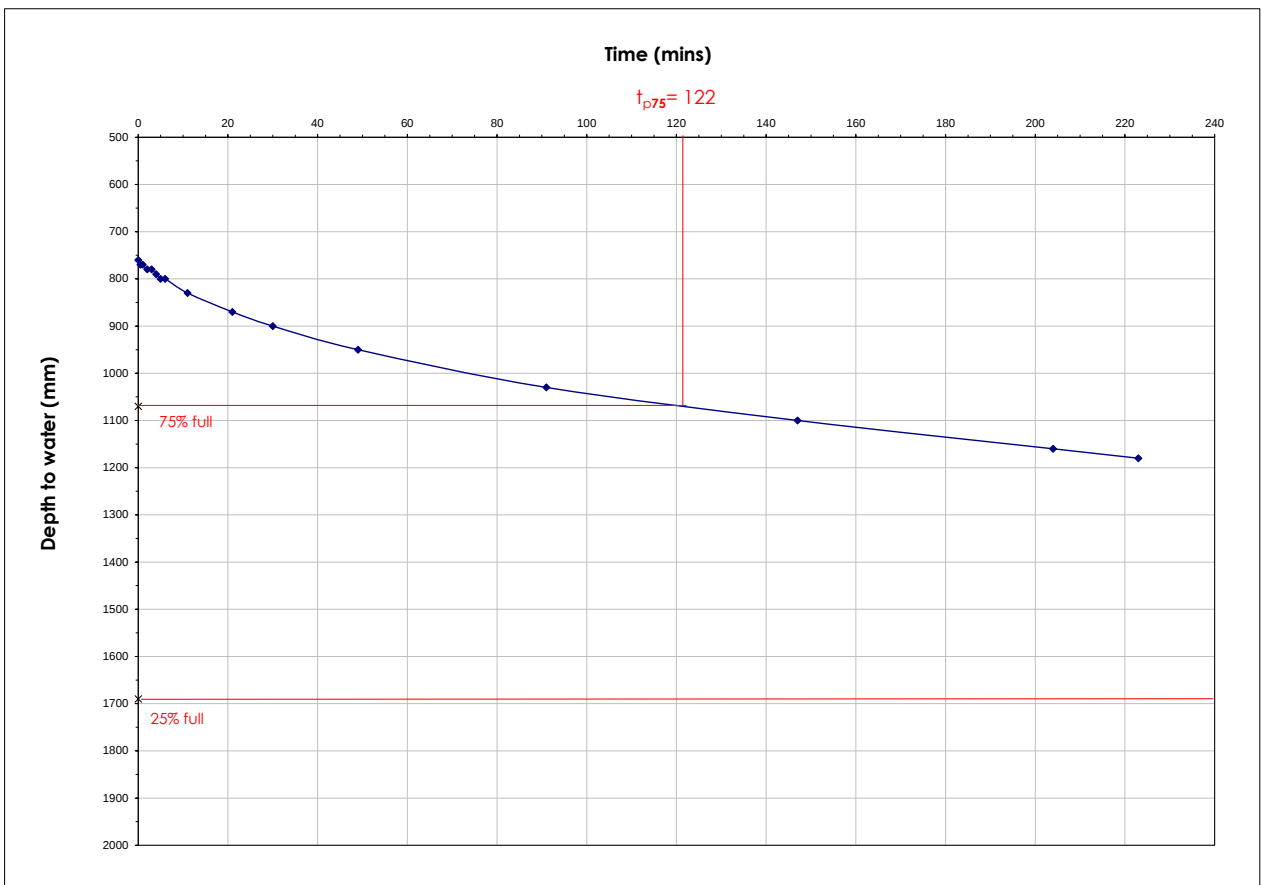
Date:	20/07/2022
Trial Pit No.	TP13
Test No.	1

Time	Elapsed Time	Depth to water from ground level	
	(min)	(m)	(mm)
11:18:00	0	0.76	760
11:18:30	0.5	0.77	770
11:19:00	1	0.77	770
11:20:00	2	0.78	780
11:21:00	3	0.78	780
11:22:00	4	0.79	790
11:23:00	5	0.80	800
11:24:00	6	0.80	800
11:29	11	0.83	830
11:39	21	0.87	870
11:48	30	0.90	900
12:07	49	0.95	950
12:49	91	1.03	1030
13:45	147	1.10	1100
14:42	204	1.16	1160
15:01	223	1.18	1180

SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.05	2050
Width	=	0.60	600
Depth	=	2.00	2000
Effective Depth (% full)		(mm)	(m)
0.25	=	1690	1.69
0.50	=	1380	1.38
0.75	=	1070	1.07
Depth at start of test (mm)		=	760
Depth at end of test (mm)		=	1180

Base area of pit	=	1.23
a_{p50} - 50% internal surface area inc. base	=	4.516
V_{p75-25} - Volume 75 - 25%	=	0.7626

Read from the graph:			
t_{p75} (min)	=	125	
t_{p25} (min)	=	n/a	



Test did not attain 25% Effective depth. Unable to calculate soil infiltration rate

Appendix I
Chemical Results



Certificate of Analysis

Certificate Number 22-14314

Issued: 12-Aug-22

Client Lithos Consulting Ltd
Parkhill
Walton Rd
Wetherby
LS22 5DZ

Our Reference 22-14314

Client Reference 4473

Order No PO19450

Contract Title Storthes Hall, Kirkburton

Description 76 Soil samples.

Date Received 26-Jul-22

Date Started 26-Jul-22

Date Completed 12-Aug-22

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

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "Kirk Bridgewood".

Kirk Bridgewood
General Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037845	2037846	2037847	2037848	2037849	2037850
Sample ID	TP01	TP02	TP03	TP04	TP05	TP07
Depth	0.10	0.10	0.10	0.10	0.10	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	19/07/2022	19/07/2022	19/07/2022	19/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETSC 1003*	1	% m/m	8.0	86	33	47	39	20
Moisture Content	DETSC 1004	0.1	%	7.4	3.4	9.4	3.3	6.8	17
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	18	8.4	15	28	17	19
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.4	< 0.2	0.3	< 0.2	0.2	0.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.5	0.2	0.4	0.3	0.4	0.3
Chromium	DETSC 2301#	0.15	mg/kg	36	30	33	21	33	29
Chromium III	DETSC 2301*	0.15	mg/kg	36	30	33	21	33	29
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	39	15	31	60	32	42
Lead	DETSC 2301#	0.3	mg/kg	87	32	76	32	69	110
Mercury	DETSC 2325#	0.05	mg/kg	0.38	0.08	0.22	0.10	0.26	0.52
Nickel	DETSC 2301#	1	mg/kg	18	13	17	28	17	19
Selenium	DETSC 2301#	0.5	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2
Vanadium	DETSC 2301#	0.8	mg/kg	33	33	32	42	32	39
Zinc	DETSC 2301#	1	mg/kg	110	71	95	50	97	110
Inorganics									
pH	DETSC 2008#		pH	6.2	6.3	5.6	6.1	5.6	6.5
Calorific Value	DETSC 5008	1	kJ/kg						
Total Organic Carbon	DETSC 2084#	0.5	%	3.2	1.0	2.9	9.0	2.9	3.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l						
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETSC 3072*	10	mg/kg						
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg						
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg						
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg						
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg						
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg						
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg						
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg						
Aromatic C5-C35	DETSC 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg						
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg						< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg						< 10

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037845	2037846	2037847	2037848	2037849	2037850
Sample ID	TP01	TP02	TP03	TP04	TP05	TP07
Depth	0.10	0.10	0.10	0.10	0.10	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	19/07/2022	19/07/2022	19/07/2022	19/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg						< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg						< 10
EPH (C21-C35)	DETSC 3311	10	mg/kg						< 10
EPH (C35-C40)	DETSC 3311	10	mg/kg						< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg						< 10
Benzene	DETSC 3321#	0.01	mg/kg						
Ethylbenzene	DETSC 3321#	0.01	mg/kg						
Toluene	DETSC 3321#	0.01	mg/kg						
Xylene	DETSC 3321#	0.01	mg/kg						
MTBE	DETSC 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.13	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.84	0.11	0.87	0.53	0.61	0.63
Anthracene	DETSC 3303	0.03	mg/kg	0.15	< 0.03	0.15	0.12	0.12	0.16
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.5	0.27	1.1	1.7	0.91	0.98
Pyrene	DETSC 3303#	0.03	mg/kg	1.3	0.25	0.93	1.6	0.82	0.88
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.70	0.13	0.54	1.1	0.43	0.44
Chrysene	DETSC 3303	0.03	mg/kg	0.73	0.16	0.53	1.1	0.55	0.46
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.85	0.20	0.56	1.3	0.46	0.50
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.25	< 0.03	0.17	0.40	0.20	0.13
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.67	0.14	0.43	1.1	0.41	0.38
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.38	< 0.03	0.24	0.62	0.23	0.18
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	0.13	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.29	< 0.03	0.20	0.48	0.17	0.16
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037845	2037846	2037847	2037848	2037849	2037850
Sample ID	TP01	TP02	TP03	TP04	TP05	TP07
Depth	0.10	0.10	0.10	0.10	0.10	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	19/07/2022	19/07/2022	19/07/2022	19/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 7.07	< 1.22	< 5.28	< 9.78	< 4.57	< 4.04
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg						
PCB 52	DETSC 3401#	0.01	mg/kg						
PCB 101	DETSC 3401#	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 153	DETSC 3401#	0.01	mg/kg						
PCB 138	DETSC 3401#	0.01	mg/kg						
PCB 180	DETSC 3401#	0.01	mg/kg						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037851	2037852	2037853	2037854	2037855	2037856
Sample ID	TP14	WS23	WS09	WS21	WS24	TP12
Depth	0.10	0.00-0.35	0.20-0.50	0.00-0.35	0.00-0.30	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	20/07/2022	21/07/2022	22/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETSC 1003*	1	% m/m	11	5.0	42	< 1.0	8.0	4.0
Moisture Content	DETSC 1004	0.1	%	12	7.8	7.9	12	9.0	8.7
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	23	22	12	36	31	6.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.4	0.5	0.2	0.6	0.4	1.9
Cadmium	DETSC 2301#	0.1	mg/kg	0.5	1.0	0.3	0.4	0.4	0.7
Chromium	DETSC 2301#	0.15	mg/kg	35	37	42	31	28	14
Chromium III	DETSC 2301*	0.15	mg/kg	35	37	42	31	28	14
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	62	96	32	70	52	23
Lead	DETSC 2301#	0.3	mg/kg	120	150	74	97	200	54
Mercury	DETSC 2325#	0.05	mg/kg	0.15	0.28	0.16	0.59	0.28	0.05
Nickel	DETSC 2301#	1	mg/kg	22	22	35	24	22	9.9
Selenium	DETSC 2301#	0.5	mg/kg	0.6	< 0.5	< 0.5	1.1	0.9	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	40	36	35	51	44	17
Zinc	DETSC 2301#	1	mg/kg	120	150	110	110	100	72
Inorganics									
pH	DETSC 2008#		pH	7.5	7.2	7.7	6.3	6.7	7.2
Calorific Value	DETSC 5008	1	kJ/kg						
Total Organic Carbon	DETSC 2084#	0.5	%	4.3	4.4	2.4	6.1	5.2	7.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l						
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETSC 3072*	10	mg/kg						
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg						
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg						
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg						
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg						
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg						
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg						
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg						
Aromatic C5-C35	DETSC 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg						
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037851	2037852	2037853	2037854	2037855	2037856
Sample ID	TP14	WS23	WS09	WS21	WS24	TP12
Depth	0.10	0.00-0.35	0.20-0.50	0.00-0.35	0.00-0.30	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	20/07/2022	21/07/2022	22/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	20
EPH (C16-C21)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	24	17	280
EPH (C21-C35)	DETSC 3311	10	mg/kg	46	52	36	51	46	550
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	40
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	DETSC 3321#	0.01	mg/kg						
Ethylbenzene	DETSC 3321#	0.01	mg/kg						
Toluene	DETSC 3321#	0.01	mg/kg						
Xylene	DETSC 3321#	0.01	mg/kg						
MTBE	DETSC 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	0.17	0.13	< 0.03	1.1	0.16	0.13
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.19
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.17	< 0.03	0.60	0.21	2.2
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	0.12	< 0.03	0.36	0.16	2.0
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.82	1.3	0.47	2.9	1.9	34
Anthracene	DETSC 3303	0.03	mg/kg	0.16	0.28	0.11	0.48	0.53	9.1
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.2	2.2	0.92	3.2	2.8	60
Pyrene	DETSC 3303#	0.03	mg/kg	1.1	2.0	0.83	2.9	2.5	51
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.58	1.5	0.68	1.9	1.6	33
Chrysene	DETSC 3303	0.03	mg/kg	0.57	1.0	0.49	1.5	1.2	20
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.70	1.2	0.63	1.3	1.2	19
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.18	0.52	0.25	0.53	0.43	6.7
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.59	1.3	0.68	1.3	1.1	22
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.28	0.76	0.43	0.64	0.63	9.2
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	0.21	< 0.03	0.18	0.14	2.6
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.23	0.80	0.41	0.67	0.68	7.4
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037851	2037852	2037853	2037854	2037855	2037856
Sample ID	TP14	WS23	WS09	WS21	WS24	TP12
Depth	0.10	0.00-0.35	0.20-0.50	0.00-0.35	0.00-0.30	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	20/07/2022	21/07/2022	22/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	6.6	14	< 5.44	20	15	270
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg						
PCB 52	DETSC 3401#	0.01	mg/kg						
PCB 101	DETSC 3401#	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 153	DETSC 3401#	0.01	mg/kg						
PCB 138	DETSC 3401#	0.01	mg/kg						
PCB 180	DETSC 3401#	0.01	mg/kg						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037857	2037858	2037859	2037860	2037861	2037862
Sample ID	TP17	TP24	WS05	WS06	WS11	WS14
Depth	0.30	0.10	0.10	0.10	0.10	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	19/07/2022	19/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETS 1003*	1	% m/m	< 1.0	6.0				
Moisture Content	DETS 1004	0.1	%	7.4	6.7				
Metals									
Arsenic	DETS 2301#	0.2	mg/kg	22	20				
Boron, Water Soluble	DETS 2311#	0.2	mg/kg	0.4	0.3				
Cadmium	DETS 2301#	0.1	mg/kg	0.4	0.4				
Chromium	DETS 2301#	0.15	mg/kg	39	15				
Chromium III	DETS 2301*	0.15	mg/kg	39	15				
Chromium, Hexavalent	DETS 2204*	1	mg/kg	< 1.0	< 1.0				
Copper	DETS 2301#	0.2	mg/kg	46	37				
Lead	DETS 2301#	0.3	mg/kg	90	84				
Mercury	DETS 2325#	0.05	mg/kg	0.50	8.7				
Nickel	DETS 2301#	1	mg/kg	11	11				
Selenium	DETS 2301#	0.5	mg/kg	< 0.5	0.5				
Vanadium	DETS 2301#	0.8	mg/kg	27	33				
Zinc	DETS 2301#	1	mg/kg	79	48				
Inorganics									
pH	DETS 2008#		pH	6.2	6.3				
Calorific Value	DETS 5008	1	MJ/kg						
Total Organic Carbon	DETS 2084#	0.5	%	4.4	6.2				
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l						
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETS 3072*	10	mg/kg						
Aromatic C5-C7	DETS 3321*	0.01	mg/kg						
Aromatic C7-C8	DETS 3321*	0.01	mg/kg						
Aromatic C8-C10	DETS 3321*	0.01	mg/kg						
Aromatic C10-C12	DETS 3072#	0.9	mg/kg						
Aromatic C12-C16	DETS 3072#	0.5	mg/kg						
Aromatic C16-C21	DETS 3072#	0.6	mg/kg						
Aromatic C21-C35	DETS 3072#	1.4	mg/kg						
Aromatic C5-C35	DETS 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETS 3072*	10	mg/kg						
EPH (C6-C10)	DETS 3321*	0.1	mg/kg	< 0.1	< 0.1				
EPH (C10-C12)	DETS 3311	10	mg/kg	< 10	< 10				

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037857	2037858	2037859	2037860	2037861	2037862
Sample ID	TP17	TP24	WS05	WS06	WS11	WS14
Depth	0.30	0.10	0.10	0.10	0.10	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	19/07/2022	19/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10				
EPH (C16-C21)	DETSC 3311	10	mg/kg	< 10	< 10				
EPH (C21-C35)	DETSC 3311	10	mg/kg	49	31				
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10				
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10				
Benzene	DETSC 3321#	0.01	mg/kg						
Ethylbenzene	DETSC 3321#	0.01	mg/kg						
Toluene	DETSC 3321#	0.01	mg/kg						
Xylene	DETSC 3321#	0.01	mg/kg						
MTBE	DETSC 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03				
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03				
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03				
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03				
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.66	0.66				
Anthracene	DETSC 3303	0.03	mg/kg	0.13	0.14				
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.6	0.94				
Pyrene	DETSC 3303#	0.03	mg/kg	1.4	0.89				
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.0	0.70				
Chrysene	DETSC 3303	0.03	mg/kg	0.77	0.48				
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.0	0.59				
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.39	0.21				
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.97	0.64				
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.66	0.43				
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.15	< 0.03				
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.69	0.34				
Naphthalene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	1.0	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	1.7	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	17	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	7.1	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	79	< 0.1
Anthracene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	26	< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	240	< 0.1
Pyrene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	220	< 0.1
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	130	< 0.1
Chrysene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	89	< 0.1
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	130	< 0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	54	< 0.1
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	160	< 0.1
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	87	< 0.1
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	15	< 0.1

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037857	2037858	2037859	2037860	2037861	2037862
Sample ID	TP17	TP24	WS05	WS06	WS11	WS14
Depth	0.30	0.10	0.10	0.10	0.10	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	19/07/2022	19/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg			< 0.1	< 0.1	83	< 0.1
Coronene	DETSC 3301*	0.1	mg/kg			< 0.1	< 0.1	32	< 0.1
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 8.70	< 5.63				
PAH 16 Total	DETSC 3301	1.6	mg/kg			< 1.6	< 1.6	1400	< 1.6
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg						
PCB 52	DETSC 3401#	0.01	mg/kg						
PCB 101	DETSC 3401#	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 153	DETSC 3401#	0.01	mg/kg						
PCB 138	DETSC 3401#	0.01	mg/kg						
PCB 180	DETSC 3401#	0.01	mg/kg						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037863	2037864	2037865	2037866	2037867	2037868
Sample ID	WS16	TP13	TP18	TP21	WS12	WS05
Depth	0.30-0.40	0.10	0.20	0.20	0.00-0.04	0.30
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	21/07/2022	20/07/2022	20/07/2022	21/07/2022	20/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETS 1003*	1	% m/m						82
Moisture Content	DETS 1004	0.1	%						6.5
Metals									
Arsenic	DETS 2301#	0.2	mg/kg						2.0
Boron, Water Soluble	DETS 2311#	0.2	mg/kg						< 0.2
Cadmium	DETS 2301#	0.1	mg/kg						0.1
Chromium	DETS 2301#	0.15	mg/kg						14
Chromium III	DETS 2301*	0.15	mg/kg						14
Chromium, Hexavalent	DETS 2204*	1	mg/kg						< 1.0
Copper	DETS 2301#	0.2	mg/kg						15
Lead	DETS 2301#	0.3	mg/kg						10
Mercury	DETS 2325#	0.05	mg/kg						0.06
Nickel	DETS 2301#	1	mg/kg						5.3
Selenium	DETS 2301#	0.5	mg/kg						0.5
Vanadium	DETS 2301#	0.8	mg/kg						7.9
Zinc	DETS 2301#	1	mg/kg						21
Inorganics									
pH	DETS 2008#		pH						8.5
Calorific Value	DETS 5008	1	MJ/kg						
Total Organic Carbon	DETS 2084#	0.5	%						7.2
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l						
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETS 3072*	10	mg/kg						
Aromatic C5-C7	DETS 3321*	0.01	mg/kg						
Aromatic C7-C8	DETS 3321*	0.01	mg/kg						
Aromatic C8-C10	DETS 3321*	0.01	mg/kg						
Aromatic C10-C12	DETS 3072#	0.9	mg/kg						
Aromatic C12-C16	DETS 3072#	0.5	mg/kg						
Aromatic C16-C21	DETS 3072#	0.6	mg/kg						
Aromatic C21-C35	DETS 3072#	1.4	mg/kg						
Aromatic C5-C35	DETS 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETS 3072*	10	mg/kg						
EPH (C6-C10)	DETS 3321*	0.1	mg/kg						< 0.1
EPH (C10-C12)	DETS 3311	10	mg/kg						< 10

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037863	2037864	2037865	2037866	2037867	2037868
Sample ID	WS16	TP13	TP18	TP21	WS12	WS05
Depth	0.30-0.40	0.10	0.20	0.20	0.00-0.04	0.30
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	21/07/2022	20/07/2022	20/07/2022	21/07/2022	20/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETS 3311	10	mg/kg						< 10
EPH (C16-C21)	DETS 3311	10	mg/kg						< 10
EPH (C21-C35)	DETS 3311	10	mg/kg						< 10
EPH (C35-C40)	DETS 3311	10	mg/kg						< 10
EPH (C10-C40)	DETS 3311#	10	mg/kg						< 10
Benzene	DETS 3321#	0.01	mg/kg						
Ethylbenzene	DETS 3321#	0.01	mg/kg						
Toluene	DETS 3321#	0.01	mg/kg						
Xylene	DETS 3321#	0.01	mg/kg						
MTBE	DETS 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETS 3303#	0.03	mg/kg						< 0.03
Acenaphthylene	DETS 3303#	0.03	mg/kg						< 0.03
Acenaphthene	DETS 3303#	0.03	mg/kg						< 0.03
Fluorene	DETS 3303	0.03	mg/kg						< 0.03
Phenanthrene	DETS 3303#	0.03	mg/kg						< 0.03
Anthracene	DETS 3303	0.03	mg/kg						< 0.03
Fluoranthene	DETS 3303#	0.03	mg/kg						< 0.03
Pyrene	DETS 3303#	0.03	mg/kg						< 0.03
Benzo(a)anthracene	DETS 3303#	0.03	mg/kg						< 0.03
Chrysene	DETS 3303	0.03	mg/kg						< 0.03
Benzo(b)fluoranthene	DETS 3303#	0.03	mg/kg						< 0.03
Benzo(k)fluoranthene	DETS 3303#	0.03	mg/kg						< 0.03
Benzo(a)pyrene	DETS 3303#	0.03	mg/kg						< 0.03
Indeno(1,2,3-c,d)pyrene	DETS 3303#	0.03	mg/kg						< 0.03
Dibenzo(a,h)anthracene	DETS 3303#	0.03	mg/kg						< 0.03
Benzo(g,h,i)perylene	DETS 3303#	0.03	mg/kg						< 0.03
Naphthalene	DETS 3301	0.1	mg/kg	< 0.1	1.1	1.6	1.2	< 0.1	
Acenaphthylene	DETS 3301	0.1	mg/kg	< 0.1	3.0	< 0.1	< 0.1	< 0.1	
Acenaphthene	DETS 3301	0.1	mg/kg	0.1	20	< 0.1	< 0.1	< 0.1	
Fluorene	DETS 3301	0.1	mg/kg	0.1	12	< 0.1	< 0.1	< 0.1	
Phenanthrene	DETS 3301	0.1	mg/kg	0.6	130	1.6	1.4	2.2	
Anthracene	DETS 3301	0.1	mg/kg	0.2	38	< 0.1	< 0.1	< 0.1	
Fluoranthene	DETS 3301	0.1	mg/kg	0.9	310	0.6	0.7	1.6	
Pyrene	DETS 3301	0.1	mg/kg	0.9	290	0.7	0.7	2.0	
Benzo(a)anthracene	DETS 3301	0.1	mg/kg	0.5	180	0.4	0.5	< 0.1	
Chrysene	DETS 3301	0.1	mg/kg	0.4	130	0.6	0.6	< 0.1	
Benzo(b)fluoranthene	DETS 3301	0.1	mg/kg	0.4	220	0.6	0.5	< 0.1	
Benzo(k)fluoranthene	DETS 3301	0.1	mg/kg	0.3	69	0.1	0.2	< 0.1	
Benzo(a)pyrene	DETS 3301	0.1	mg/kg	0.5	240	0.5	0.5	< 0.1	
Indeno(1,2,3-c,d)pyrene	DETS 3301	0.1	mg/kg	0.3	130	0.3	0.3	< 0.1	
Dibenzo(a,h)anthracene	DETS 3301	0.1	mg/kg	< 0.1	19	< 0.1	< 0.1	< 0.1	

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037863	2037864	2037865	2037866	2037867	2037868
Sample ID	WS16	TP13	TP18	TP21	WS12	WS05
Depth	0.30-0.40	0.10	0.20	0.20	0.00-0.04	0.30
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	21/07/2022	20/07/2022	20/07/2022	21/07/2022	20/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	0.3	90	0.3	0.3	< 0.1	
Coronene	DETSC 3301*	0.1	mg/kg	< 0.1	32	< 0.1	< 0.1	< 0.1	
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg						< 0.10
PAH 16 Total	DETSC 3301	1.6	mg/kg	5.5	1900	7.2	6.7	5.8	
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg						
PCB 52	DETSC 3401#	0.01	mg/kg						
PCB 101	DETSC 3401#	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 153	DETSC 3401#	0.01	mg/kg						
PCB 138	DETSC 3401#	0.01	mg/kg						
PCB 180	DETSC 3401#	0.01	mg/kg						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037869	2037870	2037871	2037872	2037873	2037874
Sample ID	WS13	WS16	WS16	WS16	TP17	TP17
Depth	0.50-0.60	0.30-0.40	0.50-0.60	1.00-1.15	0.80	1.00
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	n/s	21/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETS 1003*	1	% m/m	48	< 1.0	3.0	< 1.0	< 1.0	18
Moisture Content	DETS 1004	0.1	%	10	15	17	10	5.1	11
Metals									
Arsenic	DETS 2301#	0.2	mg/kg	42					8.7
Boron, Water Soluble	DETS 2311#	0.2	mg/kg	0.3					0.7
Cadmium	DETS 2301#	0.1	mg/kg	0.5					0.3
Chromium	DETS 2301#	0.15	mg/kg	46					16
Chromium III	DETS 2301*	0.15	mg/kg	46					16
Chromium, Hexavalent	DETS 2204*	1	mg/kg	< 1.0					< 1.0
Copper	DETS 2301#	0.2	mg/kg	77					24
Lead	DETS 2301#	0.3	mg/kg	110					78
Mercury	DETS 2325#	0.05	mg/kg	0.32					0.07
Nickel	DETS 2301#	1	mg/kg	36					14
Selenium	DETS 2301#	0.5	mg/kg	0.6					0.8
Vanadium	DETS 2301#	0.8	mg/kg	71					28
Zinc	DETS 2301#	1	mg/kg	110					54
Inorganics									
pH	DETS 2008#		pH	8.6				7.6	8.2
Calorific Value	DETS 5008	1	kJ/kg	4.8					
Total Organic Carbon	DETS 2084#	0.5	%	17	4.5	5.0	< 0.5	6.7	4.5
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l					67	38
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	66	< 0.01
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5	520	< 1.5
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg		2.6	< 1.2	< 1.2	3200	17
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg		5.3	< 1.5	< 1.5	3100	36
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg		45	25	< 3.4	4100	100
Aliphatic C5-C35	DETS 3072*	10	mg/kg		53	25	< 10	11000	160
Aromatic C5-C7	DETS 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETS 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETS 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETS 3072#	0.9	mg/kg		< 0.9	< 0.9	< 0.9	30	1.4
Aromatic C12-C16	DETS 3072#	0.5	mg/kg		2.6	3.8	< 0.5	640	21
Aromatic C16-C21	DETS 3072#	0.6	mg/kg		28	35	< 0.6	1500	63
Aromatic C21-C35	DETS 3072#	1.4	mg/kg		110	98	< 1.4	2500	120
Aromatic C5-C35	DETS 3072*	10	mg/kg		140	140	< 10	4600	200
TPH Ali/Aro Total C5-C35	DETS 3072*	10	mg/kg		190	160	< 10	16000	360
EPH (C6-C10)	DETS 3321*	0.1	mg/kg	< 0.1			< 0.1		
EPH (C10-C12)	DETS 3311	10	mg/kg	< 10			< 10		

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037869	2037870	2037871	2037872	2037873	2037874
Sample ID	WS13	WS16	WS16	WS16	TP17	TP17
Depth	0.50-0.60	0.30-0.40	0.50-0.60	1.00-1.15	0.80	1.00
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	n/s	21/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg	54			< 10		
EPH (C16-C21)	DETSC 3311	10	mg/kg	700			< 10		
EPH (C21-C35)	DETSC 3311	10	mg/kg	2100			< 10		
EPH (C35-C40)	DETSC 3311	10	mg/kg	130			< 10		
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10			< 10		
Benzene	DETSC 3321#	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	DETSC 3321#	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	DETSC 3321#	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Xylene	DETSC 3321#	0.01	mg/kg		< 0.01	< 0.01	< 0.01	45	< 0.01
MTBE	DETSC 3321	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	0.48					
Acenaphthylene	DETSC 3303#	0.03	mg/kg	1.3					
Acenaphthene	DETSC 3303#	0.03	mg/kg	8.4					
Fluorene	DETSC 3303	0.03	mg/kg	8.4					
Phenanthrene	DETSC 3303#	0.03	mg/kg	100					
Anthracene	DETSC 3303	0.03	mg/kg	29					
Fluoranthene	DETSC 3303#	0.03	mg/kg	280					
Pyrene	DETSC 3303#	0.03	mg/kg	240					
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	79					
Chrysene	DETSC 3303	0.03	mg/kg	61					
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	72					
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	26					
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	70					
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	30					
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	5.3					
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	24					
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037869	2037870	2037871	2037872	2037873	2037874
Sample ID	WS13	WS16	WS16	WS16	TP17	TP17
Depth	0.50-0.60	0.30-0.40	0.50-0.60	1.00-1.15	0.80	1.00
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	n/s	21/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1000					
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg		< 0.01				
PCB 52	DETSC 3401#	0.01	mg/kg		< 0.01				
PCB 101	DETSC 3401#	0.01	mg/kg		< 0.01				
PCB 118	DETSC 3401#	0.01	mg/kg		< 0.01				
PCB 153	DETSC 3401#	0.01	mg/kg		< 0.01				
PCB 138	DETSC 3401#	0.01	mg/kg		< 0.01				
PCB 180	DETSC 3401#	0.01	mg/kg		< 0.01				
PCB 7 Total	DETSC 3401#	0.01	mg/kg		< 0.01				

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037875	2037876	2037877	2037878	2037879	2037880
Sample ID	TP17	TP19	TP19	TP19	TP10	TP11
Depth	1.30	0.10	0.50	0.80	0.80	0.40
Other ID				Oily		
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	21/07/2022	21/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETS 1003*	1	% m/m	12	46	74	49	68	82
Moisture Content	DETS 1004	0.1	%	9.8	4.1	6.1	5.5	6.5	5.5
Metals									
Arsenic	DETS 2301#	0.2	mg/kg		31	5.3		6.7	9.9
Boron, Water Soluble	DETS 2311#	0.2	mg/kg		2.5	0.9		0.3	< 0.2
Cadmium	DETS 2301#	0.1	mg/kg		1.1	0.2		0.3	< 0.1
Chromium	DETS 2301#	0.15	mg/kg		53	14		13	18
Chromium III	DETS 2301*	0.15	mg/kg		53	14		13	18
Chromium, Hexavalent	DETS 2204*	1	mg/kg		< 1.0	< 1.0		< 1.0	< 1.0
Copper	DETS 2301#	0.2	mg/kg		580	23		39	17
Lead	DETS 2301#	0.3	mg/kg		430	36		180	34
Mercury	DETS 2325#	0.05	mg/kg		< 0.05	0.15		0.23	< 0.05
Nickel	DETS 2301#	1	mg/kg		22	10		9.3	11
Selenium	DETS 2301#	0.5	mg/kg		< 0.5	< 0.5		< 0.5	< 0.5
Vanadium	DETS 2301#	0.8	mg/kg		17	21		22	21
Zinc	DETS 2301#	1	mg/kg		2500	130		92	25
Inorganics									
pH	DETS 2008#		pH		9.7	10.3		8.4	7.8
Calorific Value	DETS 5008	1	kJ/kg		1.3				
Total Organic Carbon	DETS 2084#	0.5	%	< 0.5	4.5	15	42	3.6	6.1
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l			73		26	11
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg	< 0.01			< 0.01		
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg	< 0.01			< 0.01		
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg	< 0.01			490		
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg	< 1.5			2500		
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg	< 1.2			16000		
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg	< 1.5			13000		
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg	< 3.4			16000		
Aliphatic C5-C35	DETS 3072*	10	mg/kg	< 10			47000		
Aromatic C5-C7	DETS 3321*	0.01	mg/kg	< 0.01			< 0.01		
Aromatic C7-C8	DETS 3321*	0.01	mg/kg	< 0.01			0.52		
Aromatic C8-C10	DETS 3321*	0.01	mg/kg	0.11			< 0.01		
Aromatic C10-C12	DETS 3072#	0.9	mg/kg	< 0.9			28		
Aromatic C12-C16	DETS 3072#	0.5	mg/kg	< 0.5			890		
Aromatic C16-C21	DETS 3072#	0.6	mg/kg	< 0.6			2900		
Aromatic C21-C35	DETS 3072#	1.4	mg/kg	< 1.4			5900		
Aromatic C5-C35	DETS 3072*	10	mg/kg	< 10			9700		
TPH Ali/Aro Total C5-C35	DETS 3072*	10	mg/kg	< 10			57000		
EPH (C6-C10)	DETS 3321*	0.1	mg/kg		< 0.1	< 0.1		< 0.1	< 0.1
EPH (C10-C12)	DETS 3311	10	mg/kg		< 10	< 10		< 10	< 10

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037875	2037876	2037877	2037878	2037879	2037880
Sample ID	TP17	TP19	TP19	TP19	TP10	TP11
Depth	1.30	0.10	0.50	0.80	0.80	0.40
Other ID				Oily		
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	21/07/2022	21/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg		< 10	< 10		< 10	< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg		< 10	< 10		< 10	37
EPH (C21-C35)	DETSC 3311	10	mg/kg		< 10	48		11	190
EPH (C35-C40)	DETSC 3311	10	mg/kg		< 10	< 10		< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg		< 10	< 10		< 10	< 10
Benzene	DETSC 3321#	0.01	mg/kg	< 0.01			7.9		
Ethylbenzene	DETSC 3321#	0.01	mg/kg	< 0.01			640		
Toluene	DETSC 3321#	0.01	mg/kg	< 0.01			530		
Xylene	DETSC 3321#	0.01	mg/kg	< 0.01			2100		
MTBE	DETSC 3321	0.01	mg/kg	< 0.01			< 0.01		
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg		< 0.03			< 0.03	0.12
Acenaphthylene	DETSC 3303#	0.03	mg/kg		< 0.03			< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg		< 0.03			< 0.03	0.12
Fluorene	DETSC 3303	0.03	mg/kg		< 0.03			< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg		< 0.03			0.55	1.7
Anthracene	DETSC 3303	0.03	mg/kg		< 0.03			0.16	0.72
Fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03			1.5	15
Pyrene	DETSC 3303#	0.03	mg/kg		< 0.03			1.4	16
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03			1.1	8.1
Chrysene	DETSC 3303	0.03	mg/kg		< 0.03			0.82	7.0
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03			1.1	8.6
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03			0.43	3.2
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03			1.1	8.0
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03			0.65	4.0
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03			0.13	0.83
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg		< 0.03			0.57	3.1
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037875	2037876	2037877	2037878	2037879	2037880
Sample ID	TP17	TP19	TP19	TP19	TP10	TP11
Depth	1.30	0.10	0.50	0.80	0.80	0.40
Other ID				Oily		
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	21/07/2022	21/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg		< 0.10			< 8.88	77
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg						
PCB 52	DETSC 3401#	0.01	mg/kg						
PCB 101	DETSC 3401#	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 153	DETSC 3401#	0.01	mg/kg						
PCB 138	DETSC 3401#	0.01	mg/kg						
PCB 180	DETSC 3401#	0.01	mg/kg						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037881	2037882	2037883	2037884	2037885	2037886
Sample ID	TP13	TP17	TP20	TP23	TP06	TP07
Depth	0.20	0.50	0.60	0.70	0.30	0.50
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	20/07/2022	21/07/2022	21/07/2022	19/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETSC 1003*	1	% m/m	41	54	96	90	12	78
Moisture Content	DETSC 1004	0.1	%	8.5	4.7	4.3	4.7	11	17
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	18	16	3.7	3.4	11	17
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.3	0.2	0.3	0.2	0.3	0.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	0.3	0.2	0.1	0.2	0.2
Chromium	DETSC 2301#	0.15	mg/kg	14	23	4.0	13	22	40
Chromium III	DETSC 2301*	0.15	mg/kg	14	23	4.0	13	22	40
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	49	44	14	13	23	33
Lead	DETSC 2301#	0.3	mg/kg	53	110	17	77	120	110
Mercury	DETSC 2325#	0.05	mg/kg	0.65	0.19	0.70	880	0.14	0.52
Nickel	DETSC 2301#	1	mg/kg	15	16	4.0	8.1	15	20
Selenium	DETSC 2301#	0.5	mg/kg	0.6	< 0.5	< 0.5	< 0.5	< 0.5	0.5
Vanadium	DETSC 2301#	0.8	mg/kg	31	28	6.6	16	30	34
Zinc	DETSC 2301#	1	mg/kg	76	120	50	44	66	83
Inorganics									
pH	DETSC 2008#		pH	7.5	7.6	10.4	8.6	7.3	7.4
Calorific Value	DETSC 5008	1	kJ/kg						
Total Organic Carbon	DETSC 2084#	0.5	%	7.4	2.7	38	0.9	2.2	3.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l		16	89	21	12	17
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETSC 3072*	10	mg/kg						
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg						
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg						
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg						
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg						
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg						
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg						
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg						
Aromatic C5-C35	DETSC 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg						
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037881	2037882	2037883	2037884	2037885	2037886
Sample ID	TP13	TP17	TP20	TP23	TP06	TP07
Depth	0.20	0.50	0.60	0.70	0.30	0.50
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	20/07/2022	21/07/2022	21/07/2022	19/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg	38	< 10	< 10	< 10	< 10	< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg	590	14	3200	13	< 10	12
EPH (C21-C35)	DETSC 3311	10	mg/kg	1100	54	230	98	28	39
EPH (C35-C40)	DETSC 3311	10	mg/kg	38	< 10	140	10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	38	< 10	< 10	< 10	< 10	< 10
Benzene	DETSC 3321#	0.01	mg/kg						
Ethylbenzene	DETSC 3321#	0.01	mg/kg						
Toluene	DETSC 3321#	0.01	mg/kg						
Xylene	DETSC 3321#	0.01	mg/kg						
MTBE	DETSC 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	0.22	< 0.03	0.20	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.32	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	3.6	0.17	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	2.8	0.13	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	29	2.0	0.15	1.1	0.58	0.86
Anthracene	DETSC 3303	0.03	mg/kg	9.7	0.45	< 0.03	0.31	0.12	0.19
Fluoranthene	DETSC 3303#	0.03	mg/kg	81	3.4	0.33	3.1	1.5	2.2
Pyrene	DETSC 3303#	0.03	mg/kg	70	3.1	1.0	2.9	1.4	2.0
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	38	2.0	0.30	2.1	0.81	1.2
Chrysene	DETSC 3303	0.03	mg/kg	29	1.6	0.61	1.7	0.84	1.1
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	38	2.1	< 0.03	2.5	0.95	1.3
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	11	0.93	< 0.03	0.99	0.34	0.45
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	38	2.3	< 0.03	2.4	0.84	1.2
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	16	1.3	< 0.03	1.5	0.50	0.65
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	2.2	0.20	< 0.03	0.28	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	9.3	1.0	< 0.03	1.3	0.41	0.53
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037881	2037882	2037883	2037884	2037885	2037886
Sample ID	TP13	TP17	TP20	TP23	TP06	TP07
Depth	0.20	0.50	0.60	0.70	0.30	0.50
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	20/07/2022	21/07/2022	21/07/2022	19/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	380	< 19.53	2.6	< 19.07	< 7.33	< 9.62
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg						
PCB 52	DETSC 3401#	0.01	mg/kg						
PCB 101	DETSC 3401#	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 153	DETSC 3401#	0.01	mg/kg						
PCB 138	DETSC 3401#	0.01	mg/kg						
PCB 180	DETSC 3401#	0.01	mg/kg						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037887	2037888	2037889	2037890	2037891	2037892
Sample ID	TP08	WS05	WS15	WS20	WS22	WS25
Depth	0.50	0.50	0.40-0.60	0.20-0.30	0.50-0.80	0.60-1.00
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	19/07/2022	20/07/2022	21/07/2022	21/07/2022	22/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETSC 1003*	1	% m/m	49	68	32	36	16	31
Moisture Content	DETSC 1004	0.1	%	6.2	12	9.5	5.0	14	12
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	8.3	14	4.4	11	6.0	17
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.5	1.6	0.3	0.3	0.4	0.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	0.2	0.2	0.3	< 0.1	0.2
Chromium	DETSC 2301#	0.15	mg/kg	40	19	14	27	30	20
Chromium III	DETSC 2301*	0.15	mg/kg	40	19	14	27	30	20
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	37	27	16	25	22	82
Lead	DETSC 2301#	0.3	mg/kg	93	570	54	130	27	490
Mercury	DETSC 2325#	0.05	mg/kg	0.10	0.13	0.15	0.15	< 0.05	0.14
Nickel	DETSC 2301#	1	mg/kg	24	14	11	18	22	17
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	29	29	18	28	37	27
Zinc	DETSC 2301#	1	mg/kg	88	210	56	130	60	170
Inorganics									
pH	DETSC 2008#		pH	8.0	8.1	8.4	7.9	7.8	8.0
Calorific Value	DETSC 5008	1	kJ/kg						
Total Organic Carbon	DETSC 2084#	0.5	%	1.4	5.0	2.8	3.0	1.1	7.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	30	120	50	18	17	44
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETSC 3072*	10	mg/kg						
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg						
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg						
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg						
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg						
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg						
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg						
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg						
Aromatic C5-C35	DETSC 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg						
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037887	2037888	2037889	2037890	2037891	2037892
Sample ID	TP08	WS05	WS15	WS20	WS22	WS25
Depth	0.50	0.50	0.40-0.60	0.20-0.30	0.50-0.80	0.60-1.00
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	19/07/2022	20/07/2022	21/07/2022	21/07/2022	22/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	26
EPH (C16-C21)	DETSC 3311	10	mg/kg	21	22	< 10	27	< 10	180
EPH (C21-C35)	DETSC 3311	10	mg/kg	58	62	61	81	< 10	170
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10	16	< 10	< 10	21
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	DETSC 3321#	0.01	mg/kg						
Ethylbenzene	DETSC 3321#	0.01	mg/kg						
Toluene	DETSC 3321#	0.01	mg/kg						
Xylene	DETSC 3321#	0.01	mg/kg						
MTBE	DETSC 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.57
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	1.0
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.32	< 0.03	0.19	< 0.03	2.7
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	0.27	< 0.03	0.14	< 0.03	2.4
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.60	3.3	0.41	2.8	< 0.03	28
Anthracene	DETSC 3303	0.03	mg/kg	0.13	0.67	< 0.03	0.72	< 0.03	5.4
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.4	4.7	0.55	6.4	< 0.03	30
Pyrene	DETSC 3303#	0.03	mg/kg	1.3	3.9	0.50	5.6	< 0.03	25
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.69	1.8	0.22	3.6	< 0.03	12
Chrysene	DETSC 3303	0.03	mg/kg	0.72	1.9	0.23	2.8	< 0.03	9.5
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.54	1.5	0.19	2.9	< 0.03	9.2
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.43	1.0	0.15	1.5	< 0.03	4.3
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.75	1.8	0.19	3.2	< 0.03	9.1
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.56	1.2	< 0.03	2.8	< 0.03	6.9
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	0.40	< 0.03	1.4
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.39	0.84	< 0.03	1.9	< 0.03	4.8
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037887	2037888	2037889	2037890	2037891	2037892
Sample ID	TP08	WS05	WS15	WS20	WS22	WS25
Depth	0.50	0.50	0.40-0.60	0.20-0.30	0.50-0.80	0.60-1.00
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	19/07/2022	20/07/2022	21/07/2022	21/07/2022	22/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 6.97	< 20.34	< 2.21	< 33.19	< 0.10	150
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg	< 0.01					
PCB 52	DETSC 3401#	0.01	mg/kg	< 0.01					
PCB 101	DETSC 3401#	0.01	mg/kg	< 0.01					
PCB 118	DETSC 3401#	0.01	mg/kg	< 0.01					
PCB 153	DETSC 3401#	0.01	mg/kg	< 0.01					
PCB 138	DETSC 3401#	0.01	mg/kg	< 0.01					
PCB 180	DETSC 3401#	0.01	mg/kg	< 0.01					
PCB 7 Total	DETSC 3401#	0.01	mg/kg	< 0.01					

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037893	2037894	2037895	2037896	2037897	2037898
Sample ID	WS08	WS09	WS10	WS11	TP02	TP04
Depth	0.40-0.60	0.90	0.80-1.00	1.50	1.50	0.90
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	20/07/2022	20/07/2022	20/07/2022	19/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETS 1003*	1	% m/m	< 1.0	26	< 1.0	74		
Moisture Content	DETS 1004	0.1	%	13	13	18	8.1		
Metals									
Arsenic	DETS 2301#	0.2	mg/kg	16	9.0	17	1.8		
Boron, Water Soluble	DETS 2311#	0.2	mg/kg	0.4	0.9	0.5	3.7		
Cadmium	DETS 2301#	0.1	mg/kg	0.3	0.2	< 0.1	0.1		
Chromium	DETS 2301#	0.15	mg/kg	24	28	22	25		
Chromium III	DETS 2301*	0.15	mg/kg	24	28	22	25		
Chromium, Hexavalent	DETS 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0		
Copper	DETS 2301#	0.2	mg/kg	24	23	28	12		
Lead	DETS 2301#	0.3	mg/kg	160	65	88	29		
Mercury	DETS 2325#	0.05	mg/kg	0.13	0.12	0.11	< 0.05		
Nickel	DETS 2301#	1	mg/kg	18	21	16	19		
Selenium	DETS 2301#	0.5	mg/kg	0.7	< 0.5	0.5	0.6		
Vanadium	DETS 2301#	0.8	mg/kg	35	36	33	30		
Zinc	DETS 2301#	1	mg/kg	76	70	53	48		
Inorganics									
pH	DETS 2008#		pH	6.9	7.2	7.4	7.7	7.4	7.2
Calorific Value	DETS 5008	1	kJ/kg						
Total Organic Carbon	DETS 2084#	0.5	%	2.9	2.0	2.3	< 0.5		
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l	< 10	110	12	12	< 10	69
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETS 3072*	10	mg/kg						
Aromatic C5-C7	DETS 3321*	0.01	mg/kg						
Aromatic C7-C8	DETS 3321*	0.01	mg/kg						
Aromatic C8-C10	DETS 3321*	0.01	mg/kg						
Aromatic C10-C12	DETS 3072#	0.9	mg/kg						
Aromatic C12-C16	DETS 3072#	0.5	mg/kg						
Aromatic C16-C21	DETS 3072#	0.6	mg/kg						
Aromatic C21-C35	DETS 3072#	1.4	mg/kg						
Aromatic C5-C35	DETS 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETS 3072*	10	mg/kg						
EPH (C6-C10)	DETS 3321*	0.1	mg/kg	< 0.1	< 0.1				
EPH (C10-C12)	DETS 3311	10	mg/kg	< 10	< 10				

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037893	2037894	2037895	2037896	2037897	2037898
Sample ID	WS08	WS09	WS10	WS11	TP02	TP04
Depth	0.40-0.60	0.90	0.80-1.00	1.50	1.50	0.90
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	20/07/2022	20/07/2022	20/07/2022	19/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10				
EPH (C16-C21)	DETSC 3311	10	mg/kg	< 10	< 10				
EPH (C21-C35)	DETSC 3311	10	mg/kg	< 10	< 10				
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10				
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10				
Benzene	DETSC 3321#	0.01	mg/kg						
Ethylbenzene	DETSC 3321#	0.01	mg/kg						
Toluene	DETSC 3321#	0.01	mg/kg						
Xylene	DETSC 3321#	0.01	mg/kg						
MTBE	DETSC 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	14	< 0.03		
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03		
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.13	5.8	< 0.03		
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	7.0	< 0.03		
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.40	0.81	52	< 0.03		
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	0.15	13	< 0.03		
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.78	1.5	40	< 0.03		
Pyrene	DETSC 3303#	0.03	mg/kg	0.69	1.3	31	< 0.03		
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.36	0.65	18	< 0.03		
Chrysene	DETSC 3303	0.03	mg/kg	0.38	0.49	14	< 0.03		
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.37	0.49	14	< 0.03		
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.17	0.23	5.9	< 0.03		
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.40	0.44	16	< 0.03		
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.21	0.33	8.6	< 0.03		
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	1.8	< 0.03		
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.20	0.25	5.8	< 0.03		
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037893	2037894	2037895	2037896	2037897	2037898
Sample ID	WS08	WS09	WS10	WS11	TP02	TP04
Depth	0.40-0.60	0.90	0.80-1.00	1.50	1.50	0.90
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	20/07/2022	20/07/2022	20/07/2022	19/07/2022	19/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 3.44	< 5.97	250	< 0.10		
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg						
PCB 52	DETSC 3401#	0.01	mg/kg						
PCB 101	DETSC 3401#	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 153	DETSC 3401#	0.01	mg/kg						
PCB 138	DETSC 3401#	0.01	mg/kg						
PCB 180	DETSC 3401#	0.01	mg/kg						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037899	2037900	2037901	2037902	2037903	2037904
Sample ID	TP05	WS27	TP06	TP07	WS05	WS19
Depth	1.00	1.00-1.30	1.20	2.90	1.50	0.50-0.90
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	22/07/2022	19/07/2022	19/07/2022	19/07/2022	21/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETS 1003*	1	% m/m						
Moisture Content	DETS 1004	0.1	%						
Metals									
Arsenic	DETS 2301#	0.2	mg/kg						
Boron, Water Soluble	DETS 2311#	0.2	mg/kg						
Cadmium	DETS 2301#	0.1	mg/kg						
Chromium	DETS 2301#	0.15	mg/kg						
Chromium III	DETS 2301*	0.15	mg/kg						
Chromium, Hexavalent	DETS 2204*	1	mg/kg						
Copper	DETS 2301#	0.2	mg/kg						
Lead	DETS 2301#	0.3	mg/kg						
Mercury	DETS 2325#	0.05	mg/kg						
Nickel	DETS 2301#	1	mg/kg						
Selenium	DETS 2301#	0.5	mg/kg						
Vanadium	DETS 2301#	0.8	mg/kg						
Zinc	DETS 2301#	1	mg/kg						
Inorganics									
pH	DETS 2008#		pH	7.2	7.1	7.2	6.5	6.5	7.6
Calorific Value	DETS 5008	1	kJ/kg						
Total Organic Carbon	DETS 2084#	0.5	%						
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l	19	100	15	25	37	19
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETS 3072*	10	mg/kg						
Aromatic C5-C7	DETS 3321*	0.01	mg/kg						
Aromatic C7-C8	DETS 3321*	0.01	mg/kg						
Aromatic C8-C10	DETS 3321*	0.01	mg/kg						
Aromatic C10-C12	DETS 3072#	0.9	mg/kg						
Aromatic C12-C16	DETS 3072#	0.5	mg/kg						
Aromatic C16-C21	DETS 3072#	0.6	mg/kg						
Aromatic C21-C35	DETS 3072#	1.4	mg/kg						
Aromatic C5-C35	DETS 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETS 3072*	10	mg/kg						
EPH (C6-C10)	DETS 3321*	0.1	mg/kg						
EPH (C10-C12)	DETS 3311	10	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037899	2037900	2037901	2037902	2037903	2037904
Sample ID	TP05	WS27	TP06	TP07	WS05	WS19
Depth	1.00	1.00-1.30	1.20	2.90	1.50	0.50-0.90
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	22/07/2022	19/07/2022	19/07/2022	19/07/2022	21/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg						
EPH (C16-C21)	DETSC 3311	10	mg/kg						
EPH (C21-C35)	DETSC 3311	10	mg/kg						
EPH (C35-C40)	DETSC 3311	10	mg/kg						
EPH (C10-C40)	DETSC 3311#	10	mg/kg						
Benzene	DETSC 3321#	0.01	mg/kg						
Ethylbenzene	DETSC 3321#	0.01	mg/kg						
Toluene	DETSC 3321#	0.01	mg/kg						
Xylene	DETSC 3321#	0.01	mg/kg						
MTBE	DETSC 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg						
Acenaphthylene	DETSC 3303#	0.03	mg/kg						
Acenaphthene	DETSC 3303#	0.03	mg/kg						
Fluorene	DETSC 3303	0.03	mg/kg						
Phenanthrene	DETSC 3303#	0.03	mg/kg						
Anthracene	DETSC 3303	0.03	mg/kg						
Fluoranthene	DETSC 3303#	0.03	mg/kg						
Pyrene	DETSC 3303#	0.03	mg/kg						
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg						
Chrysene	DETSC 3303	0.03	mg/kg						
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg						
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg						
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg						
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg						
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037899	2037900	2037901	2037902	2037903	2037904
Sample ID	TP05	WS27	TP06	TP07	WS05	WS19
Depth	1.00	1.00-1.30	1.20	2.90	1.50	0.50-0.90
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	22/07/2022	19/07/2022	19/07/2022	19/07/2022	21/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg						
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg						
PCB 52	DETSC 3401#	0.01	mg/kg						
PCB 101	DETSC 3401#	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 153	DETSC 3401#	0.01	mg/kg						
PCB 138	DETSC 3401#	0.01	mg/kg						
PCB 180	DETSC 3401#	0.01	mg/kg						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037905	2037906	2037907	2037908	2037909	2037910
Sample ID	WS28	TP06	WS08	WS14	WS24	WS27
Depth	0.25-0.65	1.50	1.20-1.50	1.10-1.20	0.60-0.80	1.50-2.00
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	22/07/2022	19/07/2022	20/07/2022	20/07/2022	22/07/2022	22/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETS 1003*	1	% m/m						
Moisture Content	DETS 1004	0.1	%						
Metals									
Arsenic	DETS 2301#	0.2	mg/kg						
Boron, Water Soluble	DETS 2311#	0.2	mg/kg						
Cadmium	DETS 2301#	0.1	mg/kg						
Chromium	DETS 2301#	0.15	mg/kg						
Chromium III	DETS 2301*	0.15	mg/kg						
Chromium, Hexavalent	DETS 2204*	1	mg/kg						
Copper	DETS 2301#	0.2	mg/kg						
Lead	DETS 2301#	0.3	mg/kg						
Mercury	DETS 2325#	0.05	mg/kg						
Nickel	DETS 2301#	1	mg/kg						
Selenium	DETS 2301#	0.5	mg/kg						
Vanadium	DETS 2301#	0.8	mg/kg						
Zinc	DETS 2301#	1	mg/kg						
Inorganics									
pH	DETS 2008#		pH	8.3	7.5	7.3	7.1	7.2	7.1
Calorific Value	DETS 5008	1	kJ/kg						
Total Organic Carbon	DETS 2084#	0.5	%						
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l	26	13	< 10	12	33	13
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETS 3072*	10	mg/kg						
Aromatic C5-C7	DETS 3321*	0.01	mg/kg						
Aromatic C7-C8	DETS 3321*	0.01	mg/kg						
Aromatic C8-C10	DETS 3321*	0.01	mg/kg						
Aromatic C10-C12	DETS 3072#	0.9	mg/kg						
Aromatic C12-C16	DETS 3072#	0.5	mg/kg						
Aromatic C16-C21	DETS 3072#	0.6	mg/kg						
Aromatic C21-C35	DETS 3072#	1.4	mg/kg						
Aromatic C5-C35	DETS 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETS 3072*	10	mg/kg						
EPH (C6-C10)	DETS 3321*	0.1	mg/kg						
EPH (C10-C12)	DETS 3311	10	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037905	2037906	2037907	2037908	2037909	2037910
Sample ID	WS28	TP06	WS08	WS14	WS24	WS27
Depth	0.25-0.65	1.50	1.20-1.50	1.10-1.20	0.60-0.80	1.50-2.00
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	22/07/2022	19/07/2022	20/07/2022	20/07/2022	22/07/2022	22/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg						
EPH (C16-C21)	DETSC 3311	10	mg/kg						
EPH (C21-C35)	DETSC 3311	10	mg/kg						
EPH (C35-C40)	DETSC 3311	10	mg/kg						
EPH (C10-C40)	DETSC 3311#	10	mg/kg						
Benzene	DETSC 3321#	0.01	mg/kg						
Ethylbenzene	DETSC 3321#	0.01	mg/kg						
Toluene	DETSC 3321#	0.01	mg/kg						
Xylene	DETSC 3321#	0.01	mg/kg						
MTBE	DETSC 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg						
Acenaphthylene	DETSC 3303#	0.03	mg/kg						
Acenaphthene	DETSC 3303#	0.03	mg/kg						
Fluorene	DETSC 3303	0.03	mg/kg						
Phenanthrene	DETSC 3303#	0.03	mg/kg						
Anthracene	DETSC 3303	0.03	mg/kg						
Fluoranthene	DETSC 3303#	0.03	mg/kg						
Pyrene	DETSC 3303#	0.03	mg/kg						
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg						
Chrysene	DETSC 3303	0.03	mg/kg						
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg						
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg						
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg						
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg						
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037905	2037906	2037907	2037908	2037909	2037910
Sample ID	WS28	TP06	WS08	WS14	WS24	WS27
Depth	0.25-0.65	1.50	1.20-1.50	1.10-1.20	0.60-0.80	1.50-2.00
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	22/07/2022	19/07/2022	20/07/2022	20/07/2022	22/07/2022	22/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg						
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg						
PCB 52	DETSC 3401#	0.01	mg/kg						
PCB 101	DETSC 3401#	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 153	DETSC 3401#	0.01	mg/kg						
PCB 138	DETSC 3401#	0.01	mg/kg						
PCB 180	DETSC 3401#	0.01	mg/kg						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037911	2037912	2037913	2037914	2037915	2037916
Sample ID	TP09	TP13	TP16	TP18	TP11	TP12
Depth	1.00	2.00	1.40	0.80	1.10	1.70
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	20/07/2022	20/07/2022	20/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones >10mm	DETS 1003*	1	% m/m						
Moisture Content	DETS 1004	0.1	%						
Metals									
Arsenic	DETS 2301#	0.2	mg/kg						
Boron, Water Soluble	DETS 2311#	0.2	mg/kg						
Cadmium	DETS 2301#	0.1	mg/kg						
Chromium	DETS 2301#	0.15	mg/kg						
Chromium III	DETS 2301*	0.15	mg/kg						
Chromium, Hexavalent	DETS 2204*	1	mg/kg						
Copper	DETS 2301#	0.2	mg/kg						
Lead	DETS 2301#	0.3	mg/kg						
Mercury	DETS 2325#	0.05	mg/kg						
Nickel	DETS 2301#	1	mg/kg						
Selenium	DETS 2301#	0.5	mg/kg						
Vanadium	DETS 2301#	0.8	mg/kg						
Zinc	DETS 2301#	1	mg/kg						
Inorganics									
pH	DETS 2008#		pH	7.7	8.2	7.5		7.7	6.6
Calorific Value	DETS 5008	1	kJ/kg						
Total Organic Carbon	DETS 2084#	0.5	%				1.5		
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l	15	21	19		< 10	77
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg						
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg						
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg						
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg						
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg						
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg						
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg						
Aliphatic C5-C35	DETS 3072*	10	mg/kg						
Aromatic C5-C7	DETS 3321*	0.01	mg/kg						
Aromatic C7-C8	DETS 3321*	0.01	mg/kg						
Aromatic C8-C10	DETS 3321*	0.01	mg/kg						
Aromatic C10-C12	DETS 3072#	0.9	mg/kg						
Aromatic C12-C16	DETS 3072#	0.5	mg/kg						
Aromatic C16-C21	DETS 3072#	0.6	mg/kg						
Aromatic C21-C35	DETS 3072#	1.4	mg/kg						
Aromatic C5-C35	DETS 3072*	10	mg/kg						
TPH Ali/Aro Total C5-C35	DETS 3072*	10	mg/kg						
EPH (C6-C10)	DETS 3321*	0.1	mg/kg						
EPH (C10-C12)	DETS 3311	10	mg/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037911	2037912	2037913	2037914	2037915	2037916
Sample ID	TP09	TP13	TP16	TP18	TP11	TP12
Depth	1.00	2.00	1.40	0.80	1.10	1.70
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	20/07/2022	20/07/2022	20/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
EPH (C12-C16)	DETSC 3311	10	mg/kg						
EPH (C16-C21)	DETSC 3311	10	mg/kg						
EPH (C21-C35)	DETSC 3311	10	mg/kg						
EPH (C35-C40)	DETSC 3311	10	mg/kg						
EPH (C10-C40)	DETSC 3311#	10	mg/kg						
Benzene	DETSC 3321#	0.01	mg/kg						
Ethylbenzene	DETSC 3321#	0.01	mg/kg						
Toluene	DETSC 3321#	0.01	mg/kg						
Xylene	DETSC 3321#	0.01	mg/kg						
MTBE	DETSC 3321	0.01	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg						
Acenaphthylene	DETSC 3303#	0.03	mg/kg						
Acenaphthene	DETSC 3303#	0.03	mg/kg						
Fluorene	DETSC 3303	0.03	mg/kg						
Phenanthrene	DETSC 3303#	0.03	mg/kg						
Anthracene	DETSC 3303	0.03	mg/kg						
Fluoranthene	DETSC 3303#	0.03	mg/kg						
Pyrene	DETSC 3303#	0.03	mg/kg						
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg						
Chrysene	DETSC 3303	0.03	mg/kg						
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg						
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg						
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg						
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg						
Naphthalene	DETSC 3301	0.1	mg/kg						
Acenaphthylene	DETSC 3301	0.1	mg/kg						
Acenaphthene	DETSC 3301	0.1	mg/kg						
Fluorene	DETSC 3301	0.1	mg/kg						
Phenanthrene	DETSC 3301	0.1	mg/kg						
Anthracene	DETSC 3301	0.1	mg/kg						
Fluoranthene	DETSC 3301	0.1	mg/kg						
Pyrene	DETSC 3301	0.1	mg/kg						
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg						
Chrysene	DETSC 3301	0.1	mg/kg						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg						
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg						

Summary of Chemical Analysis Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037911	2037912	2037913	2037914	2037915	2037916
Sample ID	TP09	TP13	TP16	TP18	TP11	TP12
Depth	1.00	2.00	1.40	0.80	1.10	1.70
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	20/07/2022	20/07/2022	20/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg						
Coronene	DETSC 3301*	0.1	mg/kg						
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg						
PAH 16 Total	DETSC 3301	1.6	mg/kg						
PCBs									
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg				< 0.01		
PCB 52	DETSC 3401#	0.01	mg/kg				< 0.01		
PCB 101	DETSC 3401#	0.01	mg/kg				< 0.01		
PCB 118	DETSC 3401#	0.01	mg/kg				< 0.01		
PCB 153	DETSC 3401#	0.01	mg/kg				< 0.01		
PCB 138	DETSC 3401#	0.01	mg/kg				< 0.01		
PCB 180	DETSC 3401#	0.01	mg/kg				< 0.01		
PCB 7 Total	DETSC 3401#	0.01	mg/kg				< 0.01		

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037917	2038366	2038367	2038368
Sample ID	TP17	TP20	TP20	WS26
Depth	1.90	0.80	1.90	0.00-0.25
Other ID				
Sample Type	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	21/07/2022	22/07/2022
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Preparation							
Stones >10mm	DETSC 1003*	1	% m/m	39			68
Moisture Content	DETSC 1004	0.1	%	8.2			12
Metals							
Arsenic	DETSC 2301#	0.2	mg/kg				23
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg				0.4
Cadmium	DETSC 2301#	0.1	mg/kg				1.0
Chromium	DETSC 2301#	0.15	mg/kg				39
Chromium III	DETSC 2301*	0.15	mg/kg				39
Chromium, Hexavalent	DETSC 2204*	1	mg/kg				< 1.0
Copper	DETSC 2301#	0.2	mg/kg				100
Lead	DETSC 2301#	0.3	mg/kg				150
Mercury	DETSC 2325#	0.05	mg/kg				0.26
Nickel	DETSC 2301#	1	mg/kg				23
Selenium	DETSC 2301#	0.5	mg/kg				0.9
Vanadium	DETSC 2301#	0.8	mg/kg				37
Zinc	DETSC 2301#	1	mg/kg				150
Inorganics							
pH	DETSC 2008#		pH			7.8	7.6
Calorific Value	DETSC 5008	1	kJ/kg				
Total Organic Carbon	DETSC 2084#	0.5	%	< 0.5			3.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l			20	
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg				
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg				
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg				
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg				
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg				
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg				
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg				
Aliphatic C5-C35	DETSC 3072*	10	mg/kg				
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg				
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg				
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg				
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg				
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg				
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg				
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg				
Aromatic C5-C35	DETSC 3072*	10	mg/kg				
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg				
EPH (C6-C10)	DETSC 3321*	0.1	mg/kg	< 0.1			< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10			< 10

Summary of Chemical Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037917	2038366	2038367	2038368
Sample ID	TP17	TP20	TP20	WS26
Depth	1.90	0.80	1.90	0.00-0.25
Other ID				
Sample Type	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	21/07/2022	22/07/2022
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
EPH (C12-C16)	DETS 3311	10	mg/kg	< 10			< 10
EPH (C16-C21)	DETS 3311	10	mg/kg	< 10			25
EPH (C21-C35)	DETS 3311	10	mg/kg	< 10			62
EPH (C35-C40)	DETS 3311	10	mg/kg	< 10			11
EPH (C10-C40)	DETS 3311#	10	mg/kg	< 10			110
Benzene	DETS 3321#	0.01	mg/kg				
Ethylbenzene	DETS 3321#	0.01	mg/kg				
Toluene	DETS 3321#	0.01	mg/kg				
Xylene	DETS 3321#	0.01	mg/kg				
MTBE	DETS 3321	0.01	mg/kg				
PAHs							
Naphthalene	DETS 3303#	0.03	mg/kg	< 0.03			1.4
Acenaphthylene	DETS 3303#	0.03	mg/kg	< 0.03			< 0.03
Acenaphthene	DETS 3303#	0.03	mg/kg	< 0.03			0.54
Fluorene	DETS 3303	0.03	mg/kg	< 0.03			0.43
Phenanthrene	DETS 3303#	0.03	mg/kg	0.11			2.2
Anthracene	DETS 3303	0.03	mg/kg	< 0.03			0.45
Fluoranthene	DETS 3303#	0.03	mg/kg	0.19			2.1
Pyrene	DETS 3303#	0.03	mg/kg	0.21			1.8
Benzo(a)anthracene	DETS 3303#	0.03	mg/kg	0.12			0.85
Chrysene	DETS 3303	0.03	mg/kg	0.12			0.78
Benzo(b)fluoranthene	DETS 3303#	0.03	mg/kg	< 0.03			0.84
Benzo(k)fluoranthene	DETS 3303#	0.03	mg/kg	< 0.03			0.29
Benzo(a)pyrene	DETS 3303#	0.03	mg/kg	0.14			0.61
Indeno(1,2,3-c,d)pyrene	DETS 3303#	0.03	mg/kg	< 0.03			0.24
Dibenzo(a,h)anthracene	DETS 3303#	0.03	mg/kg	< 0.03			0.08
Benzo(g,h,i)perylene	DETS 3303#	0.03	mg/kg	< 0.03			0.25
Naphthalene	DETS 3301	0.1	mg/kg		0.4		
Acenaphthylene	DETS 3301	0.1	mg/kg		< 0.1		
Acenaphthene	DETS 3301	0.1	mg/kg		< 0.1		
Fluorene	DETS 3301	0.1	mg/kg		0.3		
Phenanthrene	DETS 3301	0.1	mg/kg		0.5		
Anthracene	DETS 3301	0.1	mg/kg		0.3		
Fluoranthene	DETS 3301	0.1	mg/kg		4.0		
Pyrene	DETS 3301	0.1	mg/kg		11		
Benzo(a)anthracene	DETS 3301	0.1	mg/kg		2.1		
Chrysene	DETS 3301	0.1	mg/kg		4.9		
Benzo(b)fluoranthene	DETS 3301	0.1	mg/kg		3.5		
Benzo(k)fluoranthene	DETS 3301	0.1	mg/kg		2.5		
Benzo(a)pyrene	DETS 3301	0.1	mg/kg		2.2		
Indeno(1,2,3-c,d)pyrene	DETS 3301	0.1	mg/kg		< 0.1		
Dibenzo(a,h)anthracene	DETS 3301	0.1	mg/kg		1.5		

Summary of Chemical Analysis Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037917	2038366	2038367	2038368
Sample ID	TP17	TP20	TP20	WS26
Depth	1.90	0.80	1.90	0.00-0.25
Other ID				
Sample Type	SOIL	SOIL	SOIL	SOIL
Sampling Date	20/07/2022	21/07/2022	21/07/2022	22/07/2022
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg		0.9		
Coronene	DETSC 3301*	0.1	mg/kg		1.0		
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.81			13
PAH 16 Total	DETSC 3301	1.6	mg/kg		35		
PCBs							
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg				
PCB 52	DETSC 3401#	0.01	mg/kg				
PCB 101	DETSC 3401#	0.01	mg/kg				
PCB 118	DETSC 3401#	0.01	mg/kg				
PCB 153	DETSC 3401#	0.01	mg/kg				
PCB 138	DETSC 3401#	0.01	mg/kg				
PCB 180	DETSC 3401#	0.01	mg/kg				
PCB 7 Total	DETSC 3401#	0.01	mg/kg				

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037870	2037871	2037872	2037873	2037874	2037875
Sample ID	WS16	WS16	WS16	TP17	TP17	TP17
Depth	0.30-0.40	0.50-0.60	1.00-1.15	0.80	1.00	1.30
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	21/07/2022	n/s	21/07/2022	20/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
SVOCs									
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	0.8	< 0.1	16	0.7	0.6
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037870	2037871	2037872	2037873	2037874	2037875
Sample ID	WS16	WS16	WS16	TP17	TP17	TP17
Depth	0.30-0.40	0.50-0.60	1.00-1.15	0.80	1.00	1.30
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	21/07/2022	n/s	21/07/2022	20/07/2022	20/07/2022	20/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(123cd)pyrene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzo(ah)anthracene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	1.8	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037877	2037878
Sample ID	TP19	TP19
Depth	0.50	0.80
Other ID		Oily
Sample Type	SOIL	SOIL
Sampling Date	21/07/2022	21/07/2022
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
SVOCs					
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Naphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	3.2	140
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Acenaphthylene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Acenaphthene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Fluorene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Phenanthrene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Anthracene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Fluoranthene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Pyrene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2037877	2037878
Sample ID	TP19	TP19
Depth	0.50	0.80
Other ID		Oily
Sample Type	SOIL	SOIL
Sampling Date	21/07/2022	21/07/2022
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Benzo(a)anthracene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Chrysene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Benzo(b)fluoranthene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Benzo(k)fluoranthene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Benzo(a)pyrene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Indeno(123cd)pyrene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Dibenzo(ah)anthracene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Benzo(ghi)perylene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1

Summary of Asbestos Analysis

Soil Samples

Our Ref 22-14314

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2037845	TP01 0.10	SOIL	NAD	NA	SUB
2037846	TP02 0.10	SOIL	NAD	NA	SUB
2037847	TP03 0.10	SOIL	NAD	NA	SUB
2037848	TP04 0.10	SOIL	Chrysotile	Loose Bundles	SUB
2037849	TP05 0.10	SOIL	NAD	NA	SUB
2037850	TP07 0.10	SOIL	NAD	NA	SUB
2037851	TP14 0.10	SOIL	Chrysotile	Loose Fibres	SUB
2037852	WS23 0.00-0.35	SOIL	NAD	NA	SUB
2037853	WS09 0.20-0.50	SOIL	NAD	NA	SUB
2037854	WS21 0.00-0.35	SOIL	NAD	NA	SUB
2037855	WS24 0.00-0.30	SOIL	NAD	NA	SUB
2037856	TP12 0.10	SOIL	NAD	NA	SUB
2037857	TP17 0.30	SOIL	NAD	NA	SUB
2037858	TP24 0.10	SOIL	NAD	NA	SUB
2037868	WS05 0.30	SOIL	NAD	NA	SUB
2037869	WS13 0.50-0.60	SOIL	NAD	NA	SUB
2037874	TP17 1.00	SOIL	NAD	NA	SUB
2037876	TP19 0.10	SOIL	NAD	NA	SUB
2037877	TP19 0.50	SOIL	Chrysotile	Loose Fibres	SUB
2037879	TP10 0.80	SOIL	Chrysotile	Loose Fibres	SUB
2037880	TP11 0.40	SOIL	NAD	NA	SUB
2037881	TP13 0.20	SOIL	Chrysotile	Loose Fibres	SUB
2037882	TP17 0.50	SOIL	NAD	NA	SUB
2037883	TP20 0.60	SOIL	NAD	NA	SUB
2037884	TP23 0.70	SOIL	NAD	NA	SUB
2037885	TP06 0.30	SOIL	NAD	NA	SUB
2037886	TP07 0.50	SOIL	NAD	NA	SUB
2037887	TP08 0.50	SOIL	Chrysotile	Loose Fibres	SUB
2037888	WS05 0.50	SOIL	NAD	NA	SUB
2037889	WS15 0.40-0.60	SOIL	NAD	NA	SUB
2037890	WS20 0.20-0.30	SOIL	NAD	NA	SUB
2037891	WS22 0.50-0.80	SOIL	NAD	NA	SUB
2037892	WS25 0.60-1.00	SOIL	NAD	NA	SUB
2037893	WS08 0.40-0.60	SOIL	NAD	NA	SUB
2037894	WS09 0.90	SOIL	NAD	NA	SUB
2037895	WS10 0.80-1.00	SOIL	NAD	NA	SUB
2037896	WS11 1.50	SOIL	NAD	NA	SUB
2038368	WS26 0.00-0.25	SOIL	NAD	NA	SUB

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

Information in Support of the Analytical Results

Our Ref 22-14314
 Client Ref 4473
 Contract Storthes Hall, Kirkburton

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2037845	TP01 0.10 SOIL	19/07/22	GJ 250ml, PT 1L		
2037846	TP02 0.10 SOIL	19/07/22	GJ 250ml, PT 1L		
2037847	TP03 0.10 SOIL	19/07/22	GJ 250ml, PT 1L		
2037848	TP04 0.10 SOIL	19/07/22	GJ 250ml, PT 1L		
2037849	TP05 0.10 SOIL	19/07/22	GJ 250ml, PT 1L		
2037850	TP07 0.10 SOIL	19/07/22	GJ 250ml, PT 1L		
2037851	TP14 0.10 SOIL	20/07/22	GJ 250ml, PT 1L		
2037852	WS23 0.00-0.35 SOIL	21/07/22	GJ 250ml		
2037853	WS09 0.20-0.50 SOIL	20/07/22	GJ 250ml, PT 1L		
2037854	WS21 0.00-0.35 SOIL	21/07/22	GJ 250ml, PT 1L		
2037855	WS24 0.00-0.30 SOIL	22/07/22	GJ 250ml		
2037856	TP12 0.10 SOIL	20/07/22	GJ 250ml, PT 1L		
2037857	TP17 0.30 SOIL	20/07/22	GJ 250ml, PT 1L		
2037858	TP24 0.10 SOIL	21/07/22	GJ 250ml, PT 1L		
2037859	WS05 0.10 SOIL	19/07/22	PT 1L		Naphthalene, PAH FID
2037860	WS06 0.10 SOIL	19/07/22	PT 1L		Naphthalene, PAH FID
2037861	WS11 0.10 SOIL	20/07/22	PT 1L		Naphthalene, PAH FID
2037862	WS14 0.10 SOIL	20/07/22	PT 1L		Naphthalene, PAH FID
2037863	WS16 0.30-0.40 SOIL	21/07/22	GJ 250ml, GJ 60ml		
2037864	TP13 0.10 SOIL	20/07/22	GJ 250ml, PT 1L		
2037865	TP18 0.20 SOIL	20/07/22	GJ 250ml, PT 1L		
2037866	TP21 0.20 SOIL	21/07/22	GJ 250ml, PT 1L		
2037867	WS12 0.00-0.04 SOIL	20/07/22	PT 1L		Naphthalene, PAH FID
2037868	WS05 0.30 SOIL	19/07/22	GJ 250ml, PT 1L		
2037869	WS13 0.50-0.60 SOIL	20/07/22	GJ 250ml		
2037870	WS16 0.30-0.40 SOIL	21/07/22	GJ 250ml, GJ 60ml		
2037871	WS16 0.50-0.60 SOIL		GJ 60ml	Sample date not supplied, Aliphatics/Aromatics (14 days), BTEX (14 days), Organic Matter (Auto) (28 days), SVOC (14 days)	
2037872	WS16 1.00-1.15 SOIL	21/07/22	GJ 250ml, PT 1L		
2037873	TP17 0.80 SOIL	20/07/22	GJ 250ml, GJ 60ml		
2037874	TP17 1.00 SOIL	20/07/22	GJ 250ml, GJ 60ml		
2037875	TP17 1.30 SOIL	20/07/22	GJ 250ml, GJ 60ml		
2037876	TP19 0.10 SOIL	21/07/22	GJ 250ml, PT 1L		
2037877	TP19 0.50 SOIL	21/07/22	PT 1L		BTEX, SVOC, EPH/TPH
2037878	TP19 0.80 SOIL	21/07/22	GJ 250ml, GJ 60ml, PT 1L		
2037879	TP10 0.80 SOIL	20/07/22	GJ 250ml, PT 1L		
2037880	TP11 0.40 SOIL	20/07/22	GJ 250ml, PT 1L		
2037881	TP13 0.20 SOIL	20/07/22	PT 1L		BTEX, Naphthalene, PAH MS, EPH/TPH
2037882	TP17 0.50 SOIL	20/07/22	GJ 250ml, PT 1L		
2037883	TP20 0.60 SOIL	21/07/22	GJ 250ml		
2037884	TP23 0.70 SOIL	21/07/22	GJ 250ml, PT 1L		
2037885	TP06 0.30 SOIL	19/07/22	GJ 250ml, PT 1L		
2037886	TP07 0.50 SOIL	19/07/22	GJ 250ml, PT 1L		
2037887	TP08 0.50 SOIL	19/07/22	GJ 250ml, PT 1L		
2037888	WS05 0.50 SOIL	19/07/22	GJ 250ml, PT 1L		
2037889	WS15 0.40-0.60 SOIL	20/07/22	GJ 250ml, PT 1L		

Information in Support of the Analytical Results

Our Ref 22-14314
Client Ref 4473
Contract Storthes Hall, Kirkburton

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2037890	WS20 0.20-0.30 SOIL	21/07/22	GJ 250ml		
2037891	WS22 0.50-0.80 SOIL	21/07/22	GJ 250ml, PT 1L		
2037892	WS25 0.60-1.00 SOIL	22/07/22	GJ 250ml		
2037893	WS08 0.40-0.60 SOIL	20/07/22	GJ 250ml		
2037894	WS09 0.90 SOIL	20/07/22	GJ 250ml		
2037895	WS10 0.80-1.00 SOIL	20/07/22	GJ 250ml, PT 1L		
2037896	WS11 1.50 SOIL	20/07/22	GJ 250ml, PT 1L		
2037897	TP02 1.50 SOIL	19/07/22	PT 1L		
2037898	TP04 0.90 SOIL	19/07/22	PT 1L		
2037899	TP05 1.00 SOIL	19/07/22	PT 1L		
2037900	WS27 1.00-1.30 SOIL	22/07/22	PT 1L		
2037901	TP06 1.20 SOIL	19/07/22	PT 1L		
2037902	TP07 2.90 SOIL	19/07/22	PT 1L		
2037903	WS05 1.50 SOIL	19/07/22	PT 1L		
2037904	WS19 0.50-0.90 SOIL	21/07/22	PT 1L		
2037905	WS28 0.25-0.65 SOIL	22/07/22	PT 1L		
2037906	TP06 1.50 SOIL	19/07/22	PT 1L		
2037907	WS08 1.20-1.50 SOIL	20/07/22	PT 1L		
2037908	WS14 1.10-1.20 SOIL	20/07/22	PT 1L		
2037909	WS24 0.60-0.80 SOIL	22/07/22	PT 1L		
2037910	WS27 1.50-2.00 SOIL	22/07/22	PT 1L		
2037911	TP09 1.00 SOIL	19/07/22	PT 1L		
2037912	TP13 2.00 SOIL	20/07/22	PT 1L		
2037913	TP16 1.40 SOIL	20/07/22	PT 1L		
2037914	TP18 0.80 SOIL	20/07/22	GJ 250ml		
2037915	TP11 1.10 SOIL	20/07/22	PT 1L		
2037916	TP12 1.70 SOIL	20/07/22	PT 1L		
2037917	TP17 1.90 SOIL	20/07/22	GJ 250ml		
2038366	TP20 0.80 SOIL	21/07/22	PT 1L		Naphthalene, PAH FID
2038367	TP20 1.90 SOIL	21/07/22	PT 1L		
2038368	WS26 0.00-0.25 SOIL	22/07/22	GJ 250ml		

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

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

Soil Analysis Notes

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

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

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

Disposal

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

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

Information in Support of the Analytical Results

Our Ref 22-14314
Client Ref 4473
Contract Storthes Hall, Kirkburton

End of Report



Certificate of Analysis

Certificate Number 22-15987

Issued: 23-Aug-22

Client Lithos Consulting Ltd
Parkhill
Walton Rd
Wetherby
LS22 5DZ

Our Reference 22-15987

Client Reference 4473

Order No PO19450

Contract Title Storthes Hall, Kirkburton

Description 9 Soil samples.

Date Received 26-Jul-22

Date Started 16-Aug-22

Date Completed 23-Aug-22

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

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "K. Bridgewood".

Kirk Bridgewood
General Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 22-15987

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2046385	2046386	2046387	2046388	2046389	2046390	2046391	2046392	2046393
Sample ID	TP04	TP14	TP19	TP10	TP13	TP23 Sub Sample 1	TP08	TP23 Sub Sample 2	TP23 Sub Sample 3
Depth	0.10	0.10	0.50	0.80	0.20	0.70	0.50	0.70	0.70
Other ID									
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	19/07/2022	20/07/2022	21/07/2022	20/07/2022	20/07/2022	21/07/2022	19/07/2022	21/07/2022	21/07/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units								
Asbestos Quantification	DETSC 1102	0.001	%	0.001	< 0.001	< 0.001	0.001	0.002		< 0.001	
Metals											
Mercury	DETSC 2325#	0.05	mg/kg						7.1	11	13

Summary of Asbestos Analysis Samples

Our Ref 22-15987

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

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

Summary of Asbestos Quantification Analysis

Soil Samples

Our Ref 22-15987

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

			Lab No	2046385	2046386	2046387	2046388
			Sample ID	TP04	TP14	TP19	TP10
			Depth	0.10	0.10	0.50	0.80
			Other ID				
			Sample Type				
			Sampling Date	19/07/2022	20/07/2022	21/07/2022	20/07/2022
			Sampling Time				
Test	Method	Units					
Total Mass% Asbestos (a+b+c)	DETS 1102	Mass %	0.001	< 0.001	< 0.001	< 0.001	0.001
Gravimetric Quantification (a)	DETS 1102	Mass %	na	na	na	na	na
Detailed Gravimetric Quantification (b)	DETS 1102	Mass %	0.001	<0.001	<0.001	<0.001	0.001
Quantification by PCOM (c)	DETS 1102	Mass %	na	na	na	na	na
Potentially Respirable Fibres (d)	DETS 1102	Fibres/g	na	na	na	na	na
Breakdown of Gravimetric Analysis (a)							
Mass of Sample		g	985.45	721.85	939.64	959.78	
ACMs present*		type					
Mass of ACM in sample		g					
% ACM by mass		%					
% asbestos in ACM		%					
% asbestos in sample		%					
Breakdown of Detailed Gravimetric Analysis (b)							
% Amphibole bundles in sample		Mass %	na	na	na	na	na
% Chrysotile bundles in sample		Mass %	0.001	<0.001	<0.001	<0.001	0.001
Breakdown of PCOM Analysis (c)							
% Amphibole fibres in sample		Mass %	na	na	na	na	na
% Chrysotile fibres in sample		Mass %	na	na	na	na	na
Breakdown of Potentially Respirable Fibre Analysis (d)							
Amphibole fibres		Fibres/g	na	na	na	na	na
Chrysotile fibres		Fibres/g	na	na	na	na	na

* Denotes test or material description outside of UKAS accreditation.
 % asbestos in Asbestos Containing Materials (ACMs) is determined by
 by reference to HSG 264.
 Recommended sample size for quantification is approximately 1kg
 # denotes deviating sample

Summary of Asbestos Quantification Analysis Soil Samples

Our Ref 22-15987

Client Ref 4473

Contract Title Storthes Hall, Kirkburton

Lab No	2046389	2046391
Sample ID	TP13	TP08
Depth	0.20	0.50
Other ID		
Sample Type		
Sampling Date	20/07/2022	19/07/2022
Sampling Time		

Test	Method	Units		
Total Mass% Asbestos (a+b+c)	DETS 1102	Mass %	0.002	< 0.001
Gravimetric Quantification (a)	DETS 1102	Mass %	na	na
Detailed Gravimetric Quantification (b)	DETS 1102	Mass %	0.002	<0.001
Quantification by PCOM (c)	DETS 1102	Mass %	na	na
Potentially Respirable Fibres (d)	DETS 1102	Fibres/g	na	na
Breakdown of Gravimetric Analysis (a)				
Mass of Sample		g	740.73	1164.09
ACMs present*		type		
Mass of ACM in sample		g		
% ACM by mass		%		
% asbestos in ACM		%		
% asbestos in sample		%		
Breakdown of Detailed Gravimetric Analysis (b)				
% Amphibole bundles in sample		Mass %	na	na
% Chrysotile bundles in sample		Mass %	0.002	<0.001
Breakdown of PCOM Analysis (c)				
% Amphibole fibres in sample		Mass %	na	na
% Chrysotile fibres in sample		Mass %	na	na
Breakdown of Potentially Respirable Fibre Analysis (d)				
Amphibole fibres		Fibres/g	na	na
Chrysotile fibres		Fibres/g	na	na

* Denotes test or material description outside of UKAS accreditation.
% asbestos in Asbestos Containing Materials (ACMs) is determined by
by reference to HSG 264.
Recommended sample size for quantification is approximately 1kg
denotes deviating sample

Information in Support of the Analytical Results

Our Ref 22-15987
 Client Ref 4473
 Contract Storthes Hall, Kirkburton

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Hold time exceeded for tests	Inappropriate container for tests
2046385	TP04 0.10 SOIL	19/07/22	GJ 250ml, PT 1L		
2046386	TP14 0.10 SOIL	20/07/22	GJ 250ml, PT 1L		
2046387	TP19 0.50 SOIL	21/07/22	PT 1L		
2046388	TP10 0.80 SOIL	20/07/22	GJ 250ml, PT 1L		
2046389	TP13 0.20 SOIL	20/07/22	PT 1L		
2046390	TP23 Sub Sample 1 0.70 SOIL	21/07/22	GJ 250ml, PT 1L		
2046391	TP08 0.50 SOIL	19/07/22	GJ 250ml, PT 1L		
2046392	TP23 Sub Sample 2 0.70 SOIL	21/07/22	GJ 250ml, PT 1L		
2046393	TP23 Sub Sample 3 0.70 SOIL	21/07/22	GJ 250ml, PT 1L		

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

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

Disposal

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

End of Report

Appendix J
Geotechnical Test Results



LABORATORY REPORT



4043

Contract Number: PSL22/4949

Report Date: 08 August 2022
Client's Reference: 4473
Client Name: Lithos Consulting
Parkhill
Walton Road
Wetherby
North Yorkshire
LS22 5DZ

For the attention of: James Brown

Contract Title: Storthes Hall, Kirkburton
Date Received: 27/7/2022
Date Commenced: 27/7/2022
Date Completed: 08/08/2022

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins
(Director)

R Berriman
(Quality Manager)

S Royle
(Laboratory Manager)

L Knight
(Assistant Laboratory Manager)

S Eyre
(Senior Technician)

M Fennell
(Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AR
tel: +44 (0)844 815 6641
fax: +44 (0)844 815 6642
e-mail: rberriman@prosoils.co.uk
awatkins@prosoils.co.uk

Page 1 of

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP01	2	B	0.20		Brown TOPSOIL.
TP03	2	B	0.20		Brown TOPSOIL.
TP05	2	B	0.20		Brown TOPSOIL.
TP12	2	B	0.10		Brown TOPSOIL.
TP14	2	B	0.10		Brown TOPSOIL.
WS08	3	D	1.10	1.20	Brown slightly gravelly sandy very silty CLAY.
WS10	3	D	1.00	1.30	Brown gravelly sandy very silty CLAY.
WS11	3	D	2.00	2.50	Brown very gravelly sandy very silty CLAY.
WS12	3	D	0.80		Brown very gravelly very silty SAND.
WS13	3	D	1.70	1.80	Brown slightly gravelly sandy very silty CLAY.
WS29	2	D	1.00	1.50	Brown slightly gravelly sandy very silty CLAY.
WS29	3	D	1.50	1.80	Brown very gravelly very silty SAND.



4043

PSL

Professional Soils Laboratory

Storthes Hall, Kirkburton

Contract No:

PSL22/4949

Client Ref:

4473

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

[illegible]

SYMBOLS : NP : Non Plastic

*** : Liquid Limit and Plastic Limit Wet Sieved.**



4043

PSL
Professional Soils Laboratory

Storthes Hall, Kirkburton

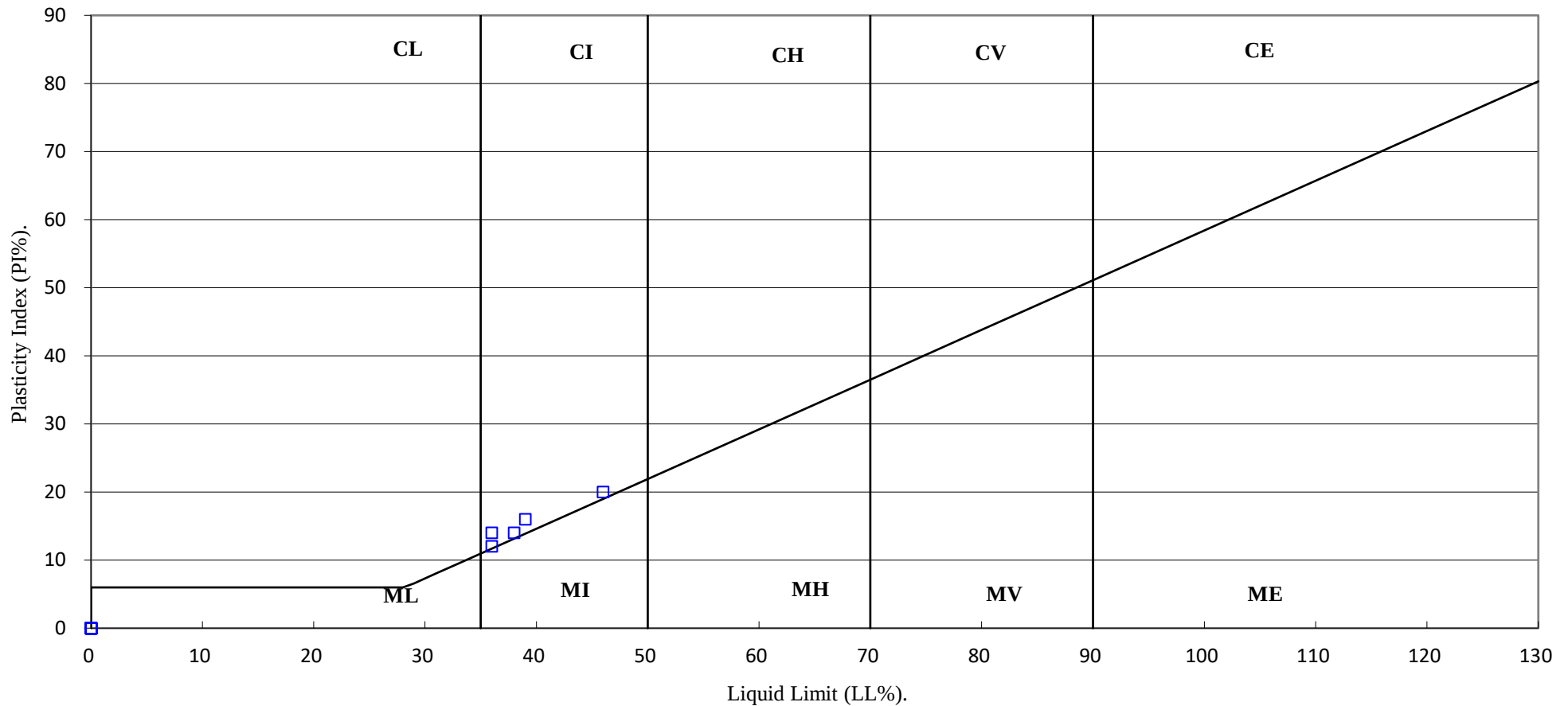
Contract No:

PSL22/4949

Client Ref:

4473

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



4043

PSL
Professional Soils Laboratory

Storthes Hall, Kirkburton

Contract No:

PSL22/4949

Client Ref:

4473

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

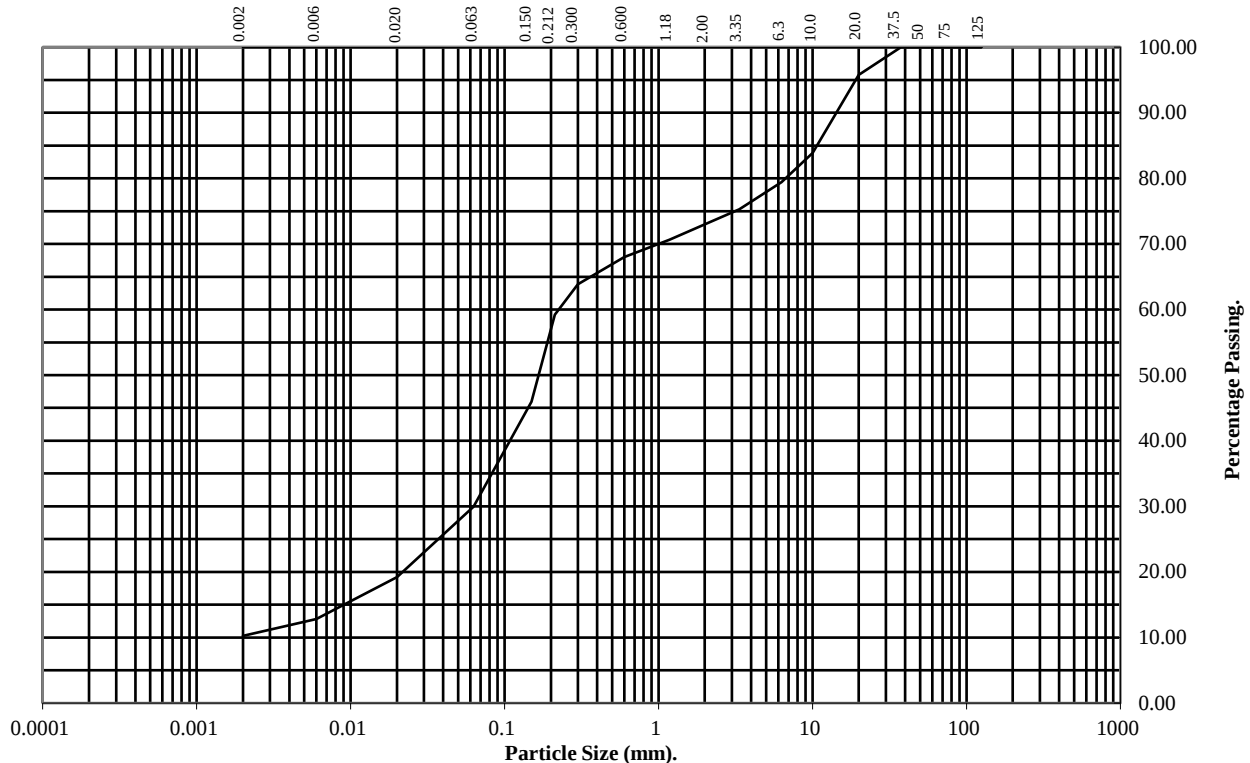
Hole Number: TP01

Top Depth (m): 0.20

Sample Number: 2

Base Depth(m):

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
50	100
37.5	100
20	96
10	84
6.3	79
3.35	75
2	73
1.18	71
0.6	68
0.3	64
0.212	59
0.15	46
0.063	30

Particle Diameter	Percentage Passing
0.02	19
0.006	13
0.002	10

Soil Fraction	Total Percentage
Cobbles	0
Gravel	27
Sand	43
Silt	20
Clay	10

Remarks:

See Summary of Soil Descriptions



Storthes Hall, Kirkburton

Contract No:
PSL22/4949
Client Ref:
4473

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

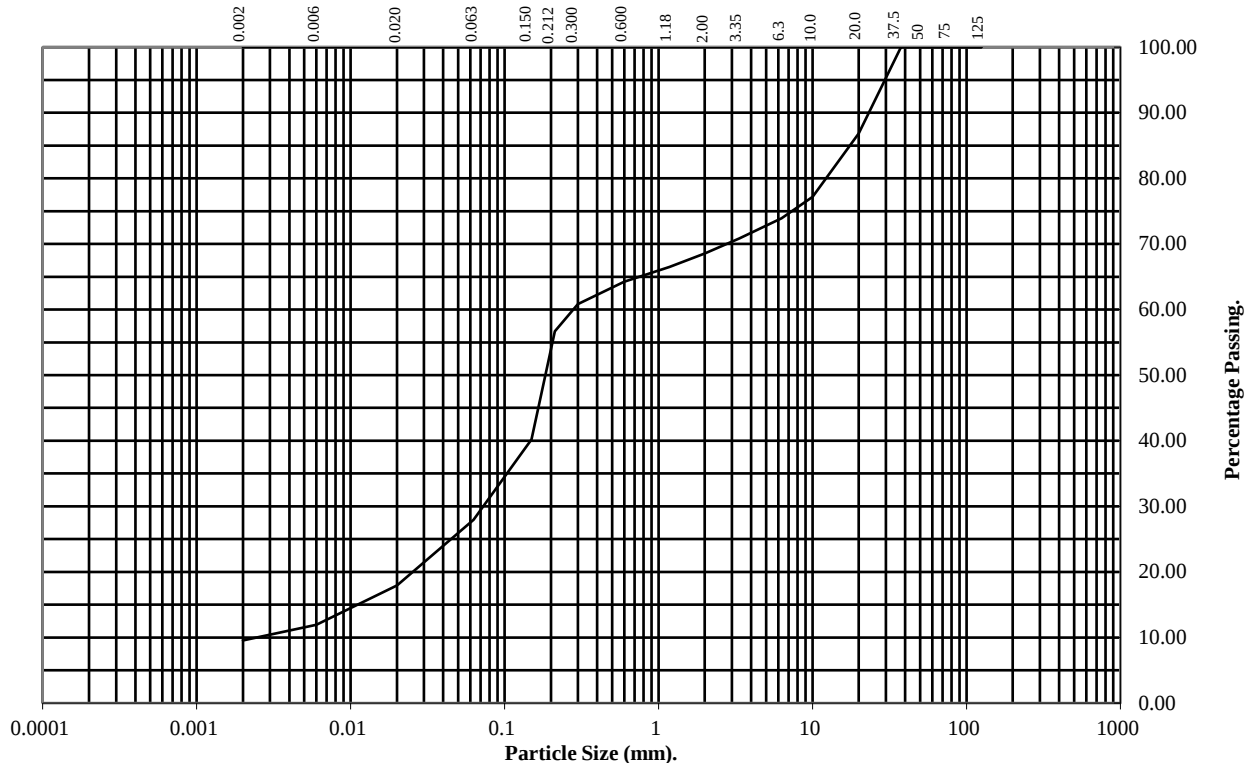
Hole Number: TP03

Top Depth (m): 0.20

Sample Number: 2

Base Depth(m):

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
50	100
37.5	100
20	87
10	77
6.3	74
3.35	71
2	69
1.18	67
0.6	64
0.3	61
0.212	57
0.15	40
0.063	28

Particle Diameter	Percentage Passing
0.02	18
0.006	12
0.002	10

Soil Fraction	Total Percentage
Cobbles	0
Gravel	31
Sand	41
Silt	18
Clay	10

Remarks:

See Summary of Soil Descriptions



Storthes Hall, Kirkburton

Contract No:
PSL22/4949
Client Ref:
4473

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

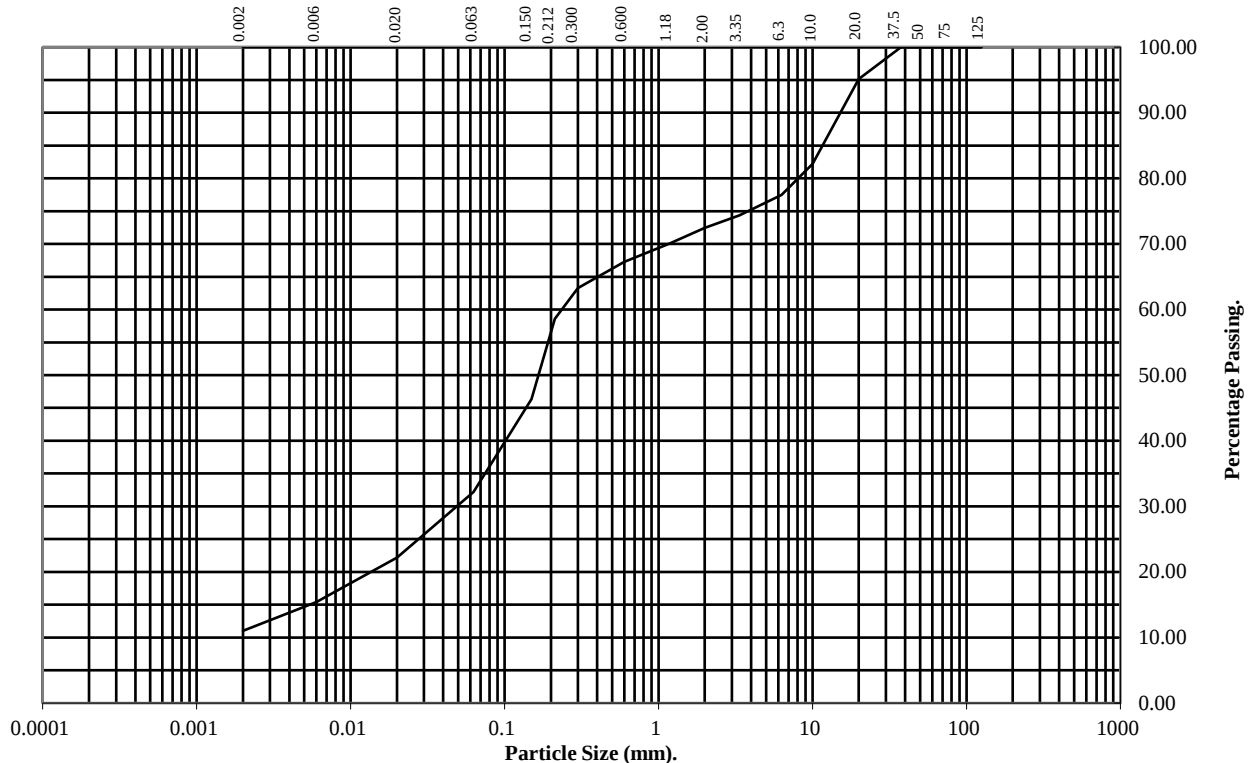
Hole Number: TP05

Top Depth (m): 0.20

Sample Number: 2

Base Depth(m):

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
50	100
37.5	100
20	95
10	82
6.3	77
3.35	74
2	72
1.18	70
0.6	67
0.3	63
0.212	59
0.15	46
0.063	32

Particle Diameter	Percentage Passing
0.02	22
0.006	15
0.002	11

Soil Fraction	Total Percentage
Cobbles	0
Gravel	28
Sand	40
Silt	21
Clay	11

Remarks:

See Summary of Soil Descriptions



Storthes Hall, Kirkburton

Contract No:
PSL22/4949
Client Ref:
4473

PARTICLE SIZE DISTRIBUTION TEST

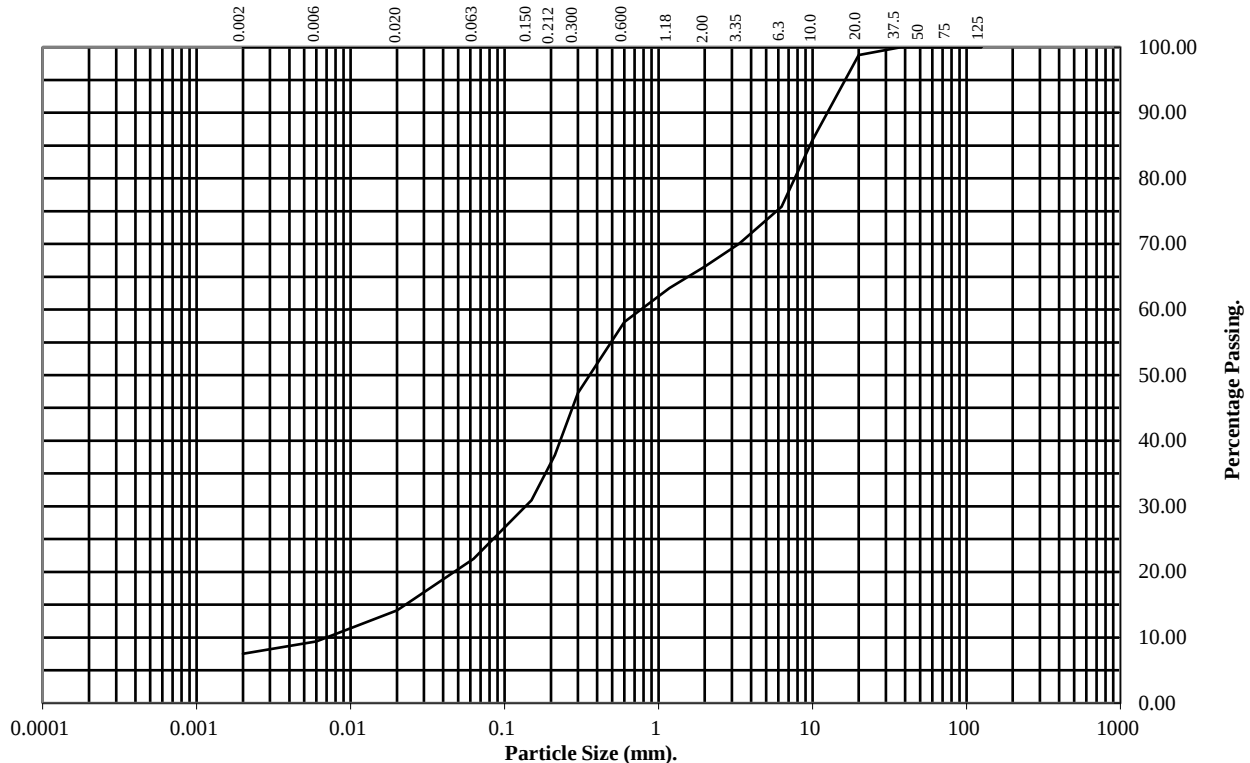
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: TP12 Top Depth (m): 0.10

Sample Number: 2 Base Depth(m):

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
50	100
37.5	100
20	99
10	86
6.3	76
3.35	70
2	67
1.18	63
0.6	58
0.3	47
0.212	38
0.15	31
0.063	22

Particle Diameter	Percentage Passing
0.02	14
0.006	9
0.002	8

Soil Fraction	Total Percentage
Cobbles	0
Gravel	33
Sand	45
Silt	14
Clay	8

Remarks:
See Summary of Soil Descriptions



Storthes Hall, Kirkburton

Contract No:
PSL22/4949
Client Ref:
4473

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

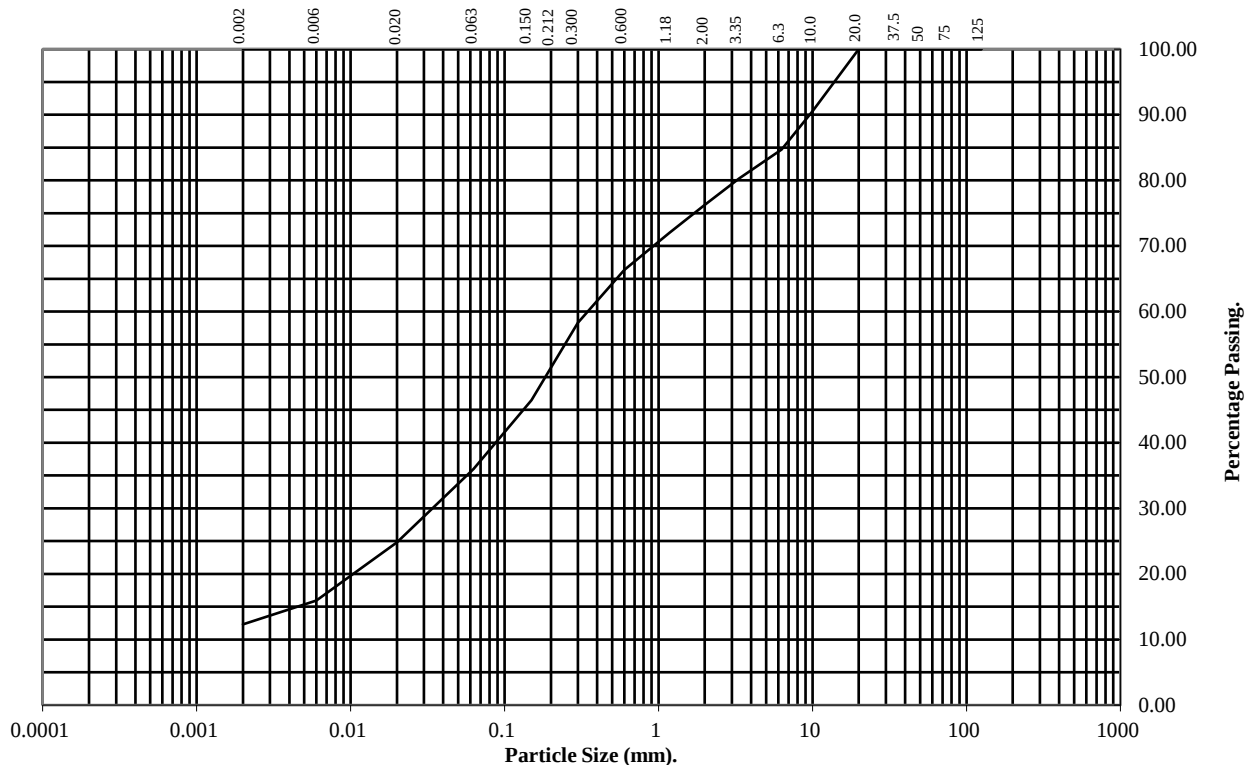
Hole Number: TP14

Top Depth (m): 0.10

Sample Number: 2

Base Depth(m):

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
50	100
37.5	100
20	100
10	91
6.3	85
3.35	80
2	76
1.18	72
0.6	66
0.3	58
0.212	52
0.15	46
0.063	36

Particle Diameter	Percentage Passing
0.02	25
0.006	16
0.002	12

Soil Fraction	Total Percentage
Cobbles	0
Gravel	24
Sand	40
Silt	24
Clay	12

Remarks:

See Summary of Soil Descriptions



Storthes Hall, Kirkburton

Contract No:
PSL22/4949
Client Ref:
4473



Certificate of Analysis

Certificate Number 22-15065

Issued: 09-Aug-22

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

Our Reference 22-15065

Client Reference PSL22/4949

Order No (not supplied)

Contract Title Storthes Hall, Kirkburton

Description 6 Soil samples.

Date Received 04-Aug-22

Date Started 04-Aug-22

Date Completed 09-Aug-22

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

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "K. Bridgewood", is written over a light blue circular stamp.

Kirk Bridgewood
General Manager





Summary of Chemical Analysis Soil Samples

Our Ref 22-15065

Client Ref PSL22/4949

Contract Title Storthes Hall, Kirkburton

Lab No	2041837	2041838	2041839	2041840	2041841	2041842
Sample ID	WS08	WS10	WS11	WS13	WS29	WS29
Depth	1.10-1.20	1.00-1.30	2.00-2.50	1.70-1.80	1.00-1.50	1.50-1.80
Other ID						
Sample Type	D	D	D	D	D	D
Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Inorganics									
pH	DETSC 2008#		pH	7.6	7.7	7.9	7.7	5.6	7.3
Sulphate Aqueous Extract as SO4	DETSC 2076*	10	%	< 10	< 10	< 10	< 10	< 10	< 10

Information in Support of the Analytical Results

Our Ref 22-15065
 Client Ref PSL22/4949
 Contract Storthes Hall, Kirkburton

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2041837	WS08 1.10-1.20 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2041838	WS10 1.00-1.30 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2041839	WS11 2.00-2.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2041840	WS13 1.70-1.80 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2041841	WS29 1.00-1.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	
2041842	WS29 1.50-1.80 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), pH + Conductivity (7 days)	

Key: P-Plastic T-Tub

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

Soil Analysis Notes

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

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

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

Disposal

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

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

End of Report

Appendix K
Gas Monitoring Results



NOTES

- WOODLAND
- GRASS & OVERGROWN AREAS
- BUILDING
- TARMAC HARDSTAND
- BLOCK SURFACING & CONCRETE HARDSTAND
- HISTORICAL (FUEL) STORAGE TANKS
- WINDOW SAMPLE LOCATION
- APPROXIMATE SITE BOUNDARY

EXPLORATORY HOLE LOCATIONS BASED ON DATA FROM A HAND-HELD GPS (+/- 3M ACCURACY)

REV.	DESCRIPTION	DATE
------	-------------	------



info@lithos.co.uk
www.lithos.co.uk
Tel 01937 545330

CLIENT

UBRIQUE INVESTMENTS LIMITED

JOB TITLE

STORTHES HALL, KIRKBURTON

DRAWING TITLE

EXPLORATORY HOLE LOCATIONS (MONITORING WELLS ONLY)

DRAWN	JBR	DATE	25/07/2022	STATUS FOR COMMENT ☐ FOR APPROVAL ☐ DRAFT ☐ FINAL ☒			
CHECKED	GLM	DATE	25/07/2022				
SCALE	1:2,000	SHEET	A3	DRAWING NO.	4473/8	REVISION	

Visit 1														
Job Title:							Job No:							
Storthes Hall, Kirkburton							4473							
Client:							Sheet :							
Ubrique Investments							1 of 6							
Date:		Arrival Time:		Depart Time:		Operator:								
10/08/2022		07:30		10:30		Cameron Daniel								
Gas Monitoring Results:														
Ambient Concentration (% Volume):			CH ₄ :	ND	CO ₂ :	ND	O ₂ :	20.9						
Monitoring Point	Groundwater level	Concentrations					Gas Flow Rates			Bottom of well	Remarks			
		Initial / Highest		Steady concentrations		Lowest concn	Initial / Maximum	Steady	Time to fall from highest to steady					
		CH ₄	CO ₂	CH ₄	CO ₂	O ₂								
	(m) bgl	% v/v	(%)	% v/v	(%)	(%)	litre / hr	litre / hr	secs					
WS01	ND	ND	0.5	ND	0.5	20.6	0.1	ND	5.0	1.38				
WS02	ND	ND	0.6	ND	0.6	20.7	ND	ND	ND	1.96				
WS03	ND	ND	0.6	ND	0.6	20.5	ND	ND	ND	1.16				
WS04	ND	ND	3.2	ND	3.2	19.1	ND	ND	ND	2.87				
WS08	ND	ND	0.2	ND	0.2	20.9	0.1	ND	10.0	1.46				
WS10	ND	ND	0.2	ND	0.2	20.9	ND	ND	ND	2.40				
WS11	ND	ND	0.6	ND	0.6	20.1	ND	ND	ND	3.91				
WS12	ND	ND	2.0	ND	2.0	19.2	-0.1	ND	5.0	2.04				
WS14	ND	ND	3.3	ND	3.3	17.4	0.1	ND	10.0	1.77				
WS22	ND	ND	0.1	ND	0.1	20.9	ND	ND	ND	1.24				
WS25	ND	ND	0.1	ND	0.1	20.9	ND	ND	ND	1.86				
WS27	ND	ND	4.5	ND	4.5	16.0	ND	ND	ND	1.72	Screw stuck, pulled up headworks for monitoring.			
WS29	ND	ND	2.2	ND	2.2	18.8	ND	ND	ND	1.97				
Equipment Used:					Next Calibration Date					Key				
Gas Data GFM436 Infrared Gas Analyser					08/03/2023					ND	None Detected			
Geotechnical Instruments Dipmeter										NR	Not Recorded			
										1.0	Recorded value does not breach trigger levels			
										5.0	Recorded value breaches trigger level 1			
										10.0	Recorded value breaches trigger level 2			
	Site Data:			Weather Station Data (Reinwood Station)										
	Temp (°C):	15 to 21		Barometric Pressure Trend:			Steady							
Time:	07:48	09:26	10:16	01:00	06:00	07:45	09:25	10:15	12:00	Trigger level 1	1.0	5.0	16.0	
Pressure (mb):	1008	1007	1007	1029	1028	1028	1028	1028	1027	Trigger level 2	5.0	10.0	10.0	
	Weather Conditions:		Sunny/ Still											
	Surface Ground Conditions:		Dry											
Remarks:														

Job Title:										Job No:		
Storthes Hall, Kirkburton										4473		
Client:										Sheet :		
Ubrique Investments										2 of 6		
Date:		Arrival Time:		Depart Time:		Operator:						
08/09/2022		08:30		10:00		Toby Tapp						

Gas Monitoring Results:									
Ambient Concentration (% Volume):			CH ₄ :	ND	CO ₂ :	ND	O ₂ :	20.7	

Monitoring Point	Groundwater level (m) bgl	Concentrations					Gas Flow Rates			Bottom of well m	Remarks
		Initial / Highest		Steady concentrations		Lowest concn	Initial / Maximum litre / hr	Steady litre / hr	Time to fall from highest to steady secs		
		CH ₄	CO ₂	CH ₄	CO ₂	O ₂					
		% v/v	(%)	% v/v	(%)	(%)					
WS01	ND	ND	0.7	ND	0.7	20.1	ND	ND	ND	1.39	
WS02	ND	ND	0.8	ND	0.8	20.0	ND	ND	ND	1.98	
WS03	ND	ND	0.7	ND	0.7	20.1	ND	ND	ND	1.16	
WS04	ND	ND	3.2	ND	3.2	18.1	ND	ND	ND	2.85	
WS08	ND	ND	0.1	ND	0.1	20.6	ND	ND	ND	1.46	
WS10	ND	ND	0.3	ND	0.3	20.3	ND	ND	ND	2.38	
WS11	ND	ND	1.0	ND	1.0	19.5	ND	ND	ND	3.90	
WS12	ND	ND	2.0	ND	2.0	19.2	ND	ND	ND	2.03	
WS14	ND	ND	2.7	ND	2.7	18.5	ND	ND	ND	1.77	
WS22	ND	ND	ND	ND	ND	20.6	ND	ND	ND	1.25	
WS25	ND	ND	0.3	ND	0.3	20.4	ND	ND	ND	1.88	
WS27	ND	ND	4.0	ND	4.0	15.3	ND	ND	ND	1.73	
WS29	ND	ND	2.5	ND	2.5	18.2	ND	ND	ND	1.97	

Equipment Used:						Next Calibration Date				Key					
Gas Data GFM436 Infrared Gas Analyser						08/03/2023				ND				None Detected	
Geotechnical Instruments Dipmeter										NR				Not Recorded	
										1.0				Recorded value does not breach trigger levels	
										5.0				Recorded value breaches trigger level 1	
										10.0				Recorded value breaches trigger level 2	

	Site Data:			Weather Station Data (Reinwood Station)					
	Temp (°C):	13 to 14		Barometric Pressure Trend:			Falling		
Time:	08:44	09:38	09:55	01:00	06:45	08:40	09:40	09:55	11:55
Pressure (mb):	985	984	982	1005	1004	1004	1004	1004	1004
	Weather Conditions:		Fog / Still						
	Surface Ground Conditions:		Damp						
Remarks:									

Job Title:								Job No:					
Storthes Hall, Kirkburton								4473					
Client:								Sheet :					
Ubrique Investments								3 of 6					
Date:		Arrival Time:		Depart Time:		Operator:							
03/10/2022		08:30		10:10		Toby Tapp							

Gas Monitoring Results:											
Ambient Concentration (% Volume):				CH ₄ :	ND	CO ₂ :	ND	O ₂ :	20.4		

Monitoring Point	Groundwater level (m) bgl	Concentrations					Gas Flow Rates			Bottom of well m	Remarks
		Initial / Highest		Steady concentrations		Lowest concn	Initial / Maximum litre / hr	Steady litre / hr	Time to fall from highest to steady secs		
		CH ₄	CO ₂	CH ₄	CO ₂	O ₂					
		% v/v	(%)	% v/v	(%)	(%)					
WS01	ND	ND	0.5	ND	0.5	20.2	ND	ND	ND	1.40	
WS02	ND	ND	0.7	ND	0.7	20.1	ND	ND	ND	1.97	
WS03	ND	ND	0.5	ND	0.5	20.3	ND	ND	ND	1.16	
WS04	ND	ND	2.2	ND	2.2	18.7	ND	ND	ND	2.87	
WS08	ND	ND	0.1	ND	0.1	20.4	ND	ND	ND	1.47	
WS10	ND	ND	0.4	ND	0.4	20.1	ND	ND	ND	2.38	
WS11	ND	ND	1.0	ND	1.0	19.3	ND	ND	ND	3.89	10 ppm CO
WS12	ND	ND	2.0	ND	2.0	18.5	ND	ND	ND	2.03	
WS14	ND	ND	2.1	ND	2.1	18.5	ND	ND	ND	1.77	
WS22	ND	ND	0.1	ND	0.1	20.4	ND	ND	ND	1.23	
WS25	ND	ND	0.3	ND	0.3	20.2	ND	ND	ND	1.88	
WS27	ND	ND	6.2	ND	6.2	13.8	ND	ND	ND	1.72	
WS29	ND	ND	2.6	ND	2.6	18.3	ND	ND	ND	1.97	

Equipment Used:						Next Calibration Date				Key				
Gas Data GFM436 Infrared Gas Analyser						08/03/2023				ND				None Detected
Geotechnical Instruments Dipmeter										NR				Not Recorded
										1.0				Recorded value does not breach trigger levels
										5.0				Recorded value breaches trigger level 1
										10.0				Recorded value breaches trigger level 2

	Site Data:			Weather Station Data (Reinwood Station)					
	Temp (°C):	9 to 11		Barometric Pressure Trend:			Fluctuating		
Time:	08:45	09:33	10:03	01:05	06:30	08:30	09:35	10:05	12:05
Pressure (mb):	1006	1005	1004	1026	1026	1025	1026	1025	1024
	Weather Conditions:		Clear / Still						
	Surface Ground Conditions:		Damp						
Remarks:									

Job Title:								Job No:					
Storthes Hall, Kirkburton								4473					
Client:								Sheet :					
Ubrique Investments								4 of 6					
Date:		Arrival Time:		Depart Time:		Operator:							
26/10/2022		12:45		14:55		Toby Tapp							

Gas Monitoring Results:											
Ambient Concentration (% Volume):				CH ₄ :	ND	CO ₂ :	ND	O ₂ :	20.5		

Monitoring Point	Groundwater level (m) bgl	Concentrations					Gas Flow Rates			Bottom of well m	Remarks
		Initial / Highest		Steady concentrations		Lowest concn	Initial / Maximum	Steady	Time to fall from highest to steady		
		CH ₄	CO ₂	CH ₄	CO ₂	O ₂					
		% v/v	(%)	% v/v	(%)	(%)					
WS01	ND	ND	0.4	ND	0.4	20.3	ND	ND	ND	1.39	
WS02	ND	ND	0.9	ND	0.9	19.6	ND	ND	ND	1.98	
WS03	ND	ND	0.3	ND	0.3	20.3	ND	ND	ND	1.16	
WS04	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	Could not find well.
WS08	ND	ND	ND	ND	ND	20.5	ND	ND	ND	1.46	
WS10	ND	ND	0.4	ND	0.4	20.1	ND	ND	ND	2.39	
WS11	ND	ND	1.0	ND	1.0	19.4	ND	ND	ND	3.90	
WS12	ND	ND	1.7	ND	1.7	18.9	ND	ND	ND	2.03	
WS14	ND	ND	2.0	ND	2.0	18.9	ND	ND	ND	1.76	
WS22	ND	ND	0.5	ND	0.5	20.1	0.1	ND	5.0	1.24	
WS25	ND	ND	0.4	ND	0.4	20.0	ND	ND	ND	1.88	
WS27	ND	ND	1.5	ND	1.5	18.9	ND	ND	ND	1.74	
WS29	ND	ND	2.8	ND	2.8	17.4	ND	ND	ND	1.97	

Equipment Used:						Next Calibration Date				Key				
Gas Data GFM436 Infrared Gas Analyser						08/03/2023				ND				None Detected
Geotechnical Instruments Dipmeter										NR				Not Recorded
										1.0				Recorded value does not breach trigger levels
										5.0				Recorded value breaches trigger level 1
										10.0				Recorded value breaches trigger level 2

	Site Data:			Weather Station Data (Reinwood Station)									
	Temp (°C):	14 to 17		Barometric Pressure Trend:			Rising						
Time:	12:58	14:18	14:45	01:00	10:00	13:00	14:20	14:45	16:45	Trigger level 1			
Pressure (mb):	987	985	985	1004	1003	1005	1006	1006	1007	Trigger level 2			
	Weather Conditions:			Light cloud / Gentle breeze									
	Surface Ground Conditions:			Damp									
Remarks:													

Job Title:								Job No:					
Storthes Hall, Kirkburton								4473					
Client:								Sheet :					
Ubrique Investments								5 of 6					
Date:		Arrival Time:		Depart Time:		Operator:							
08/11/2022		13:15		14:50		Toby Tapp							

Gas Monitoring Results:												
Ambient Concentration (% Volume):				CH ₄ :	ND	CO ₂ :	ND	O ₂ :	20.5			

Monitoring Point	Groundwater level	Concentrations					Gas Flow Rates			Bottom of well	Remarks
		Initial / Highest		Steady concentrations		Lowest concn	Initial / Maximum	Steady	Time to fall from highest to steady		
		CH ₄	CO ₂	CH ₄	CO ₂	O ₂					
	(m) bgl	% v/v	(%)	% v/v	(%)	(%)	litre / hr	litre / hr	secs	m	
WS01	ND	ND	0.4	ND	0.4	20.1	ND	ND	ND	1.39	
WS02	ND	ND	0.8	ND	0.8	19.8	ND	ND	ND	1.98	
WS03	ND	ND	0.7	ND	0.7	19.8	ND	ND	ND	1.16	
WS04	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	Could not find.
WS08	ND	ND	0.1	ND	0.1	20.4	ND	ND	ND	1.47	
WS10	ND	ND	0.4	ND	0.4	20.0	3.7	ND	20.0	2.40	Peak flow due to gust of wind.
WS11	ND	ND	1.0	ND	1.0	19.6	ND	ND	ND	3.90	
WS12	ND	ND	1.6	ND	1.6	18.5	ND	ND	ND	2.03	
WS14	ND	ND	1.9	ND	1.9	18.7	0.9	ND	5.0	1.77	
WS22	ND	ND	0.5	ND	0.5	20.0	ND	ND	ND	1.24	
WS25	ND	ND	0.4	ND	0.4	20.1	ND	ND	ND	1.86	
WS27	ND	ND	1.7	ND	1.7	18.3	ND	ND	ND	1.74	
WS29	ND	ND	1.9	ND	1.9	17.8	-0.1	ND	5.0	1.97	

Equipment Used:						Next Calibration Date				Key				
Gas Data GFM436 Infrared Gas Analyser						08/03/2023				ND				None Detected
Geotechnical Instruments Dipmeter										NR				Not Recorded
										1.0				Recorded value does not breach trigger levels
										5.0				Recorded value breaches trigger level 1
										10.0				Recorded value breaches trigger level 2

	Site Data:			Weather Station Data (reinwood Station)							CH ₄	CO ₂	O ₂	
	Temp (°C):	10 to 12		Barometric Pressure Trend:			Fluctuating							
Time:	13:36	14:13	14:40	01:00	11:00	13:35	14:10	14:40	16:40	Trigger level 1	1.0	5.0	16.0	
Pressure (mb):	968	968	968	990	990	989	988	989	988	Trigger level 2	5.0	10.0	10.0	
	Weather Conditions:			Overcast / Moderate breeze										
	Surface Ground Conditions:			Damp										
Remarks:														

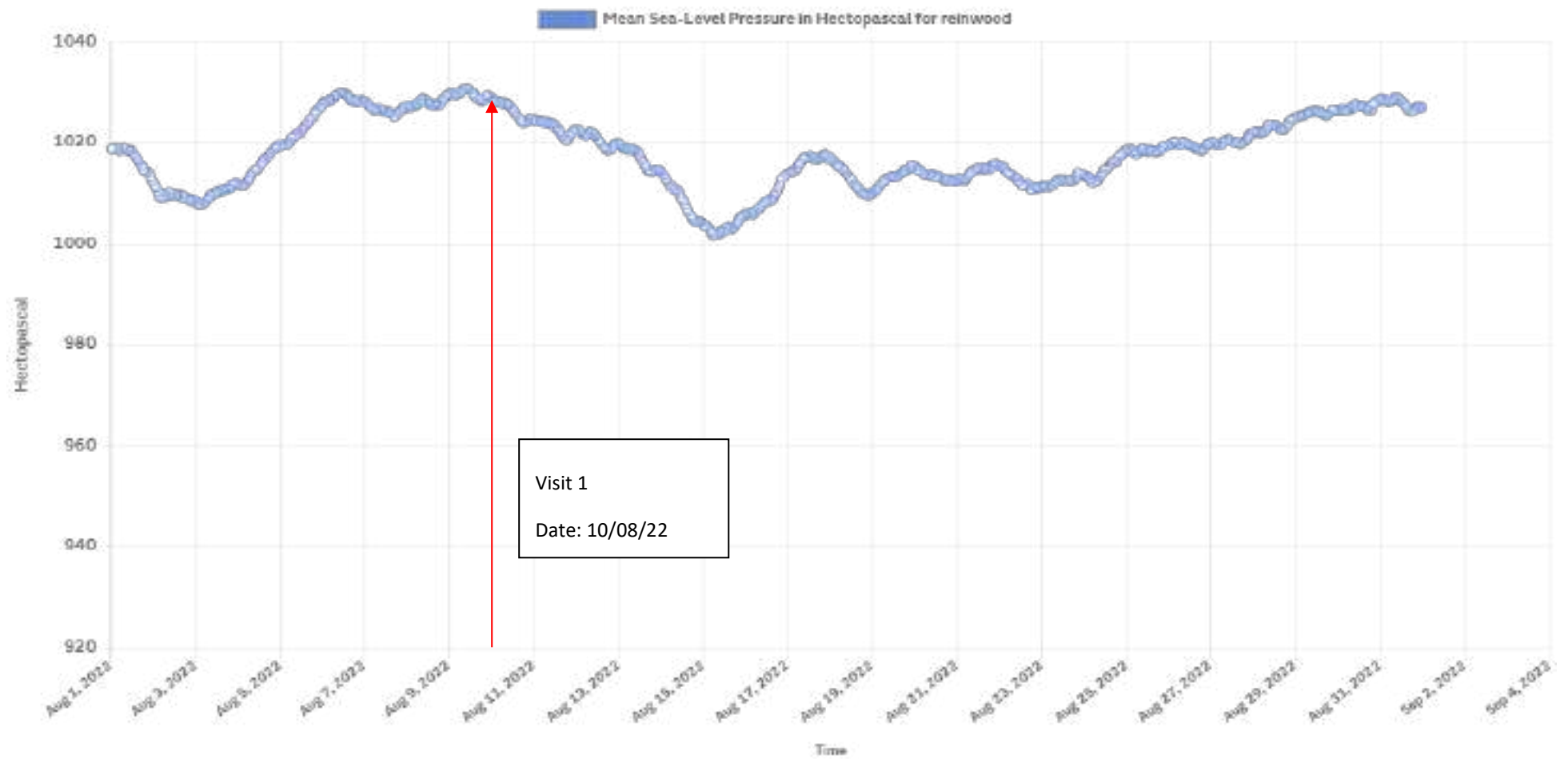
Job Title:								Job No:					
Storthes Hall, Kirkburton								4473					
Client:								Sheet :					
Ubrique Investments								6 of 6					
Date:		Arrival Time:		Depart Time:		Operator:							
05/12/2022		14:10		15:30		Toby Tapp							

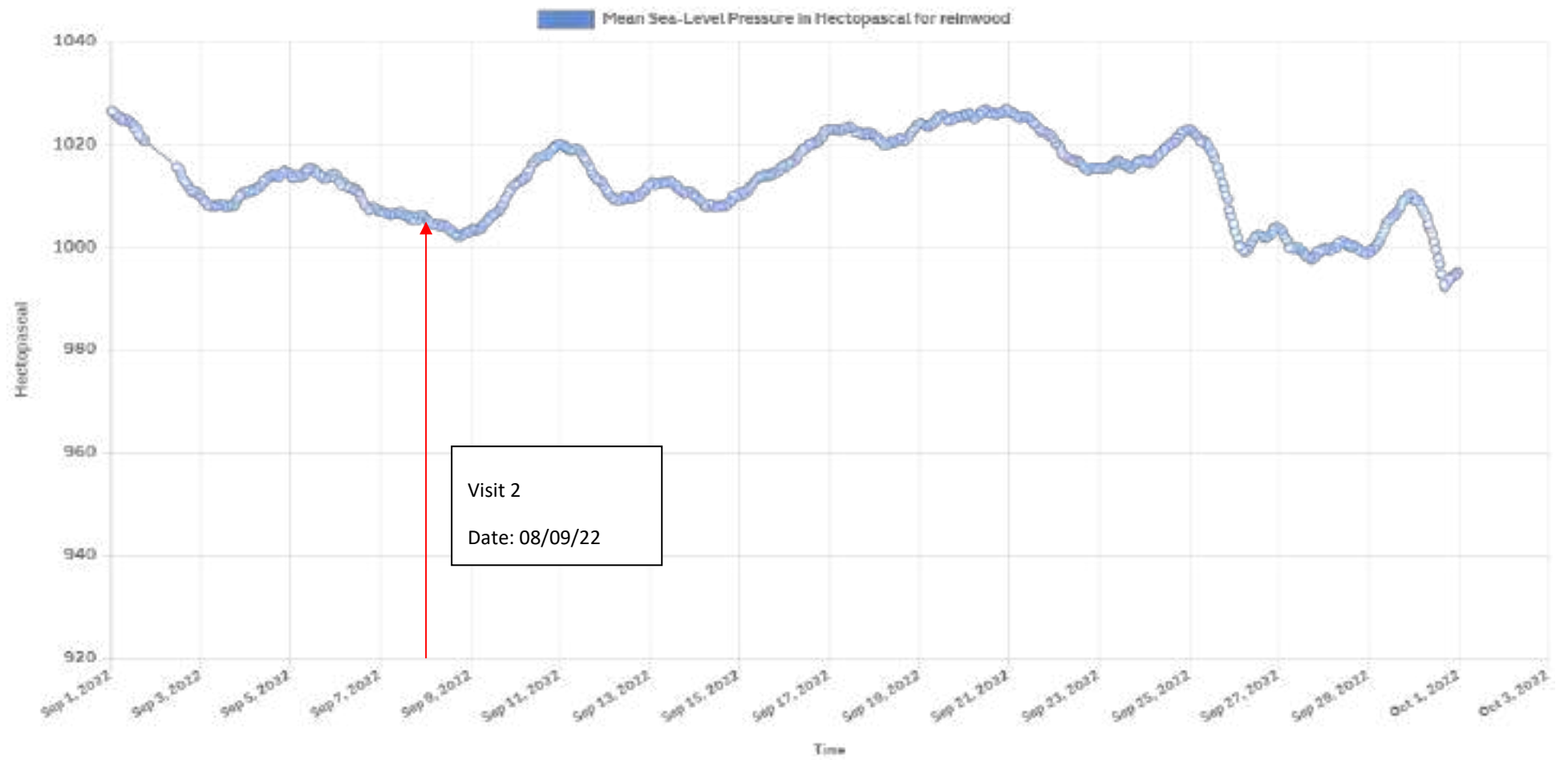
Gas Monitoring Results:											
Ambient Concentration (% Volume):				CH ₄ :	ND	CO ₂ :	ND	O ₂ :	20.3		

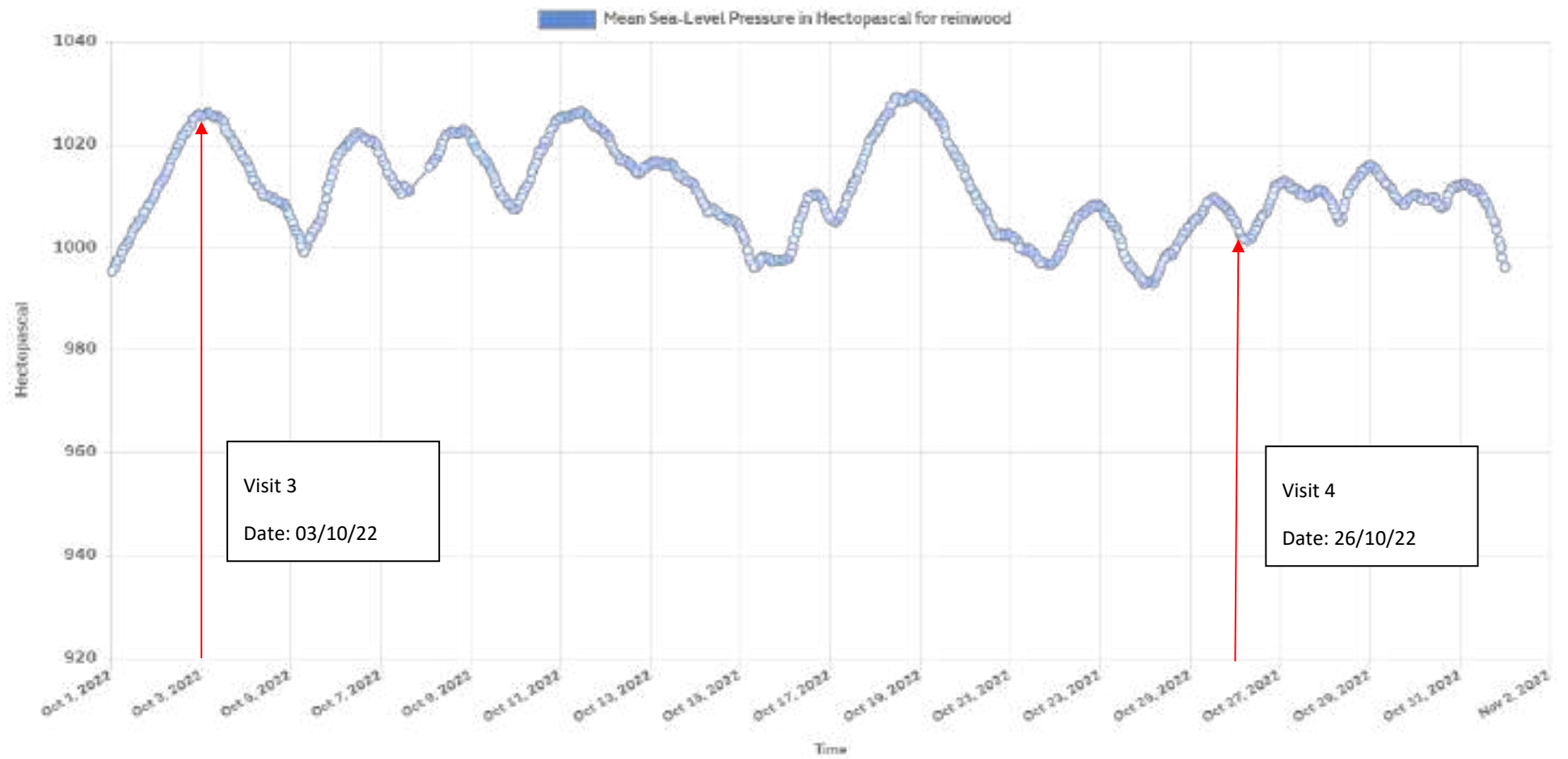
Monitoring Point	Groundwater level (m) bgl	Concentrations					Gas Flow Rates			Bottom of well m	Remarks
		Initial / Highest		Steady concentrations		Lowest concn	Initial / Maximum	Steady	Time to fall from highest to steady		
		CH ₄	CO ₂	CH ₄	CO ₂	O ₂					
		% v/v	(%)	% v/v	(%)	(%)					
WS01	ND	ND	0.4	ND	0.4	20.0	-0.1	ND	5.0	1.39	
WS02	ND	ND	0.7	ND	0.7	19.8	0.3	ND	20.0	1.98	
WS03	ND	ND	0.6	ND	0.6	19.9	-0.2	ND	15.0	1.16	
WS04	ND	ND	0.7	ND	0.7	19.3	ND	ND	ND	2.88	
WS08	ND	ND	0.7	ND	0.7	19.2	-2.7	ND	5.0	1.46	
WS10	ND	ND	0.7	ND	0.7	19.8	0.1	ND	5.0	2.39	
WS11	ND	ND	1.0	ND	1.0	19.5	ND	ND	ND	3.89	
WS12	ND	ND	1.9	ND	1.9	18.4	0.3	ND	20.0	2.02	
WS14	ND	ND	1.5	ND	1.5	19.8	ND	ND	ND	1.77	
WS22	ND	ND	0.6	ND	0.6	19.7	ND	ND	ND	1.25	
WS25	ND	ND	0.7	ND	0.7	19.0	1.1	ND	30.0	1.86	
WS27	ND	ND	1.7	ND	1.7	15.9	0.1	ND	10.0	1.74	
WS29	ND	ND	3.6	ND	3.6	14.8	0.1	ND	5.0	1.96	

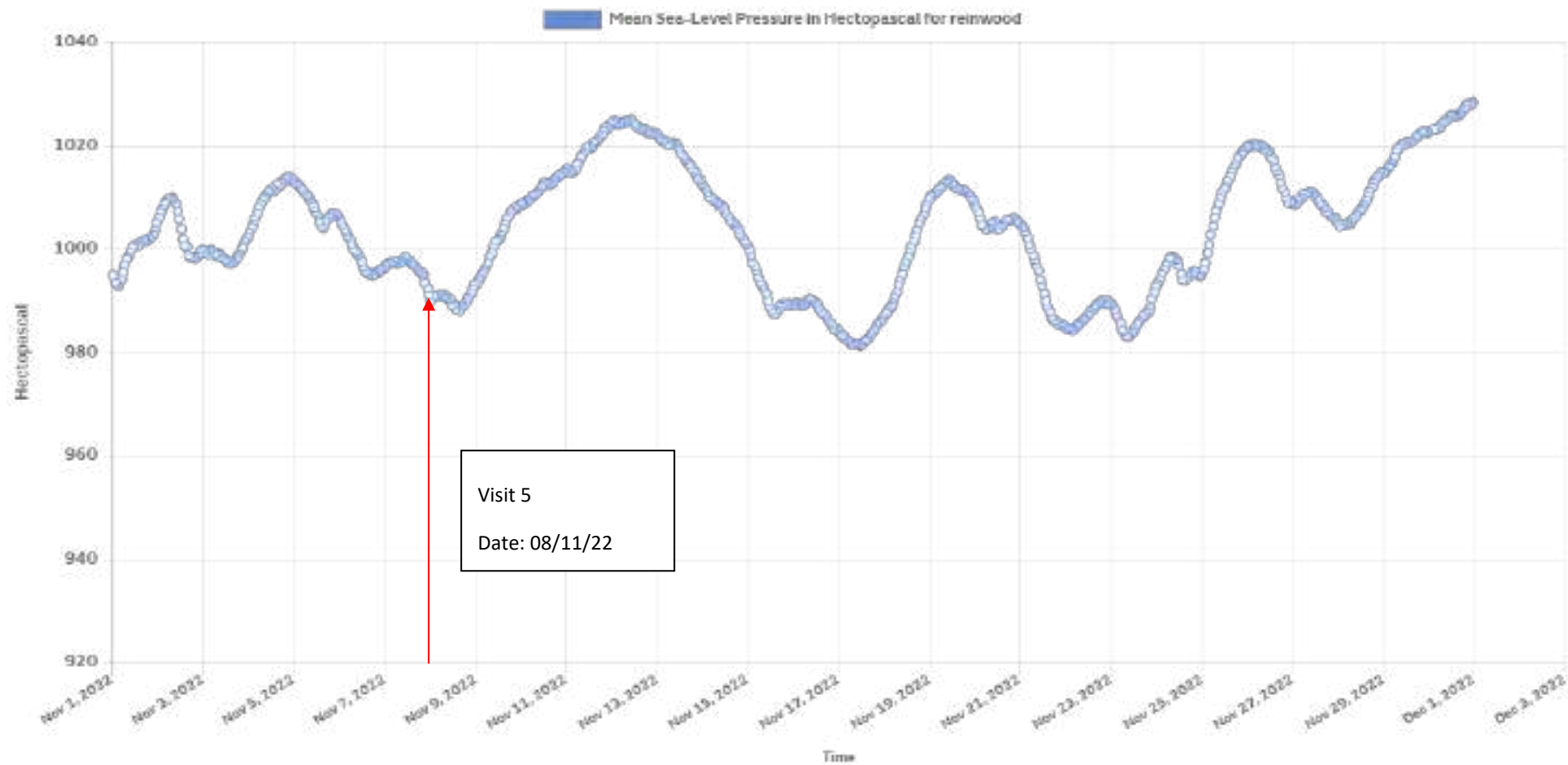
Equipment Used:				Next Calibration Date				Key				
Gas Data GFM436 Infrared Gas Analyser				08/03/2023				ND				None Detected
Geotechnical Instruments Dipmeter								NR				Not Recorded
								1.0				Recorded value does not breach trigger levels
								5.0				Recorded value breaches trigger level 1
								10.0				Recorded value breaches trigger level 2

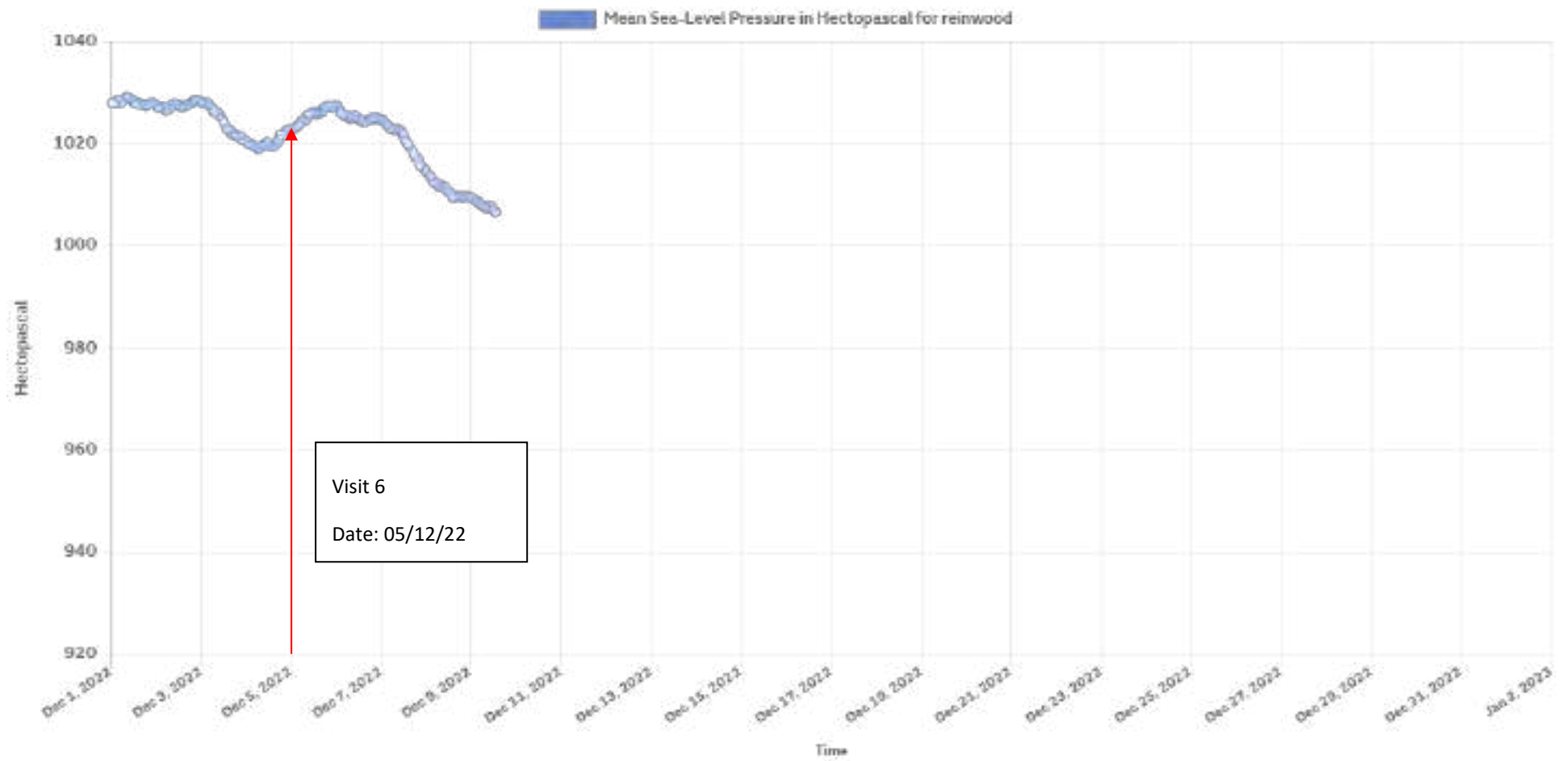
	Site Data:			Weather Station Data (Almondbury Station)							CH ₄	CO ₂	O ₂	
	Temp (°C):	5 to 6		Barometric Pressure Trend:			Rising slowly							
Time:	14:21	14:54	15:24	01:00	12:00	14:20	14:55	15:25	17:25	Trigger level 1	1.0	5.0	16.0	
Pressure (mb):	1004	1002	1003	1011	1013	1013	1013	1014	1014	Trigger level 2	5.0	10.0	10.0	
	Weather Conditions:			Overcast / Moderate breeze										
	Surface Ground Conditions:			Damp										
Remarks:														











Appendix L
Walkover Photographs



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12