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Phase 2 Intrusive Site Investigation Report

LOCATION	Oxford Road, Gomersal, BD19 4JS
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FOR	Angela Swift (Gomersal) Ltd
CLIENT REF.	
OUR REF.	G26117

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1. Introduction

In accordance with your instruction, Geoinvestigate Limited has carried out an intrusive site investigation at Oxford Road, Gomersal BD19 4JS.

A Phase 1 Desk Study has previously been completed by Geoinvestigate Limited (G26117, April 2026). The major conclusions of this desk-based Phase one study are summarised in the table below:

Site Suitability	Desk Study Finding	Preliminary Assessment
Normal Foundations	Bedrock expected to be present at shallow depth with possible thin cohesive superficial drift deposits.	Likely to be suitable
Soakaways	Sandstone/mudstone/siltstone bedrock unlikely to offer sufficient permeability.	Unlikely to be suitable

Potential Risks	Desk Study Finding	Preliminary Risk Assessment
Radon Gas	Between 1% and 3% of properties affected	Very Low
Chemical Contamination	Historical nearby and on-site land uses potentially giving rise to a range of inorganic and organic contaminants including asbestos, metals/metalloids, PAHs and petroleum hydrocarbons.	Low to Moderate
Hazardous Gas	There is unlikely to be any significant potential source of hazardous gas, although this may change if the development footprint is altered such that the zone of influence is encroached	Moderate
Ground Instability/ subsidence	Potential for vegetation influence on shrink-swell clays which may be present, including risk of soil heave.	Negligible
	Potential for significant deposits of compressible made/infilled ground.	Very Low
Ground Instability/ subsidence	Potential for unrecorded shallow coal mining and from onsite mineshaft.	Very Low (as long as development is kept outside of Zone of Influence of Mineshaft)

NB. Arbitrary potential hazard assessment: High (Red), Moderate (Amber), Low (Yellow), Very Low (Green), Negligible (uncoloured)

A Coal Mining Risk Assessment CMRA has been carried by Geoinvestigate Ltd for the site (Ref: G26117, April 2026). The CMRA has considered the mineshaft (420426 016) which lies within the site boundary some 25m to 35m from the care home, however, it is concluded that as the will be excluded from the development area and public access by a fenced locked gated reserve with warning signage, this is considered a low risk of both instability and safety to the proposed building and land use.

The CMRA indicates that conditions are likely to exist within the site that could increase mine gas risk, namely the nearby mine shaft within 35m of the care home. However, the risk may be less considering no mine gas incidents have been reported at this locality and typically on the UKs coalfields surface mine gas is rarely a problem.

Based on the findings of the CMRA report, the site presents no significant coal-mining-related constraints to the proposed development. Historical underground workings are present, but they occur at depths that are not expected to affect surface stability, and no unrecorded shallow workings are anticipated. Although two recorded mine shafts are located close to the site, one of which lies within the

development boundary, the calculated zones of influence confirm that all proposed works are outside areas of potential impact. The provision of a fenced exclusion zone around mine shaft 420426-016 will further minimise any associated risk.

It is proposed to construct an 84-bed care home with garden areas, new access, and parking. The boundary of the current study area and the proposed developmental layout are presented on the site plan included within Appendix 1 of this report.

The purpose of this Phase 2 investigation has been to establish the true nature of the ground conditions at the site with regard to the potential contamination, hazardous gas and geotechnical risks that have been identified during preliminary research, and to determine appropriate foundation solutions for the proposed new structure(s).

Investigation of soil permeability, slope stability and sinkhole risk was not within the scope of these investigation works.

The report is carried out generally in accordance with BS 10175 (2011) and Land Contamination Risk Management (LCRM, 2020), and presents factual records of the site work, the ground conditions encountered and laboratory test results.

The recommendation, interpretation and summary expressed in this report are based on the strata observed in the exploratory holes. No responsibility is taken for conditions that have not been revealed by the exploratory holes, or which occur between them. Whilst every effort has been made to interpret the conditions between investigation locations, such information is only indicative, and liability cannot be accepted for its accuracy.

2. Scope of Phase 2 Investigation

2.1 Scope of Works

Given the above, the following investigation was carried out to assess the potential risks to the proposed development:

- Eight (8) boreholes (ref. BH1 to BH8) were undertaken at the site to depths of between 1.70m and 4.0m below ground level (bgl) with associated soil sampling, logging and supervision of the works by a suitably qualified geo-environmental engineer. The boreholes were sunk using windowless sampling techniques with an archway dart mini drilling rig.

- Five (5) hand excavated trial pits (re. TPA to TPE) to provide additional information on near-surface ground conditions and to collect additional samples for contamination analysis, including from proposed soft landscaping and/or garden areas and locations inaccessible to the drilling rig.

- The installation of three (3) ground gas monitoring wells in boreholes BH1, BH2 and BH3 with allowance for up to six (6) gas monitoring visits over a period of up to three (3) months (if appropriate), including readings below 1000mb and where possible following a sharp drop in atmospheric pressure.

- Water infiltration testing according to the BS 5930 “falling head testing in boreholes” method in two 2.00m deep boreholes (BH7 and BH8) to assess soil permeability and SuDS options at the site.

- Dynamic cone penetrometer testing was undertaken in four (4) locations (DCP1 to DCP4) within the proposed car parking area to provide indicative California Bearing Ratio (CBR) information for road design.

- Geotechnical testing comprising thirty-seven (37) moisture content determinations, seven (7) Atterberg Limit plasticity tests, and a number of water-soluble sulphate concentrations and pH tests to allow suitable foundations and concrete design advice, including assessment of the shrinkage potential of any clay soils.

- Contamination analyses of six (6) samples of topsoil natural subsoil recovered at depths of 0.50m. Analysis was variably undertaken for a general suite of potential metal/metalloid contaminants, polycyclic aromatic hydrocarbons (PAHs), asbestos, and petroleum hydrocarbons (including BTEX*). Chemical analyses were based on the attending engineer’s assessment of soils and ground conditions at the site together with desk study findings. Leachate from three (3) of these samples was tested to check the mobility of potential. *Benzene, toluene, ethyl benzene and xylenes

- Provision of a factual and interpretative report including site plan, borehole logs, trial pit logs, geotechnical and contamination soil analysis results, ground gas monitoring results, advice on the contamination, gas situation at the site, appropriate foundation advice, and advice regarding any remediation and validation works that may be necessary.

The trial pit and borehole positions are shown on the plan provided in Appendix 1.

The excavations were sampled and logged at site by a geoenvironmental engineer and the ground conditions encountered are described on the trial pit and borehole logs also provided in Appendix 1.

The results of geotechnical soil testing and soil moisture profiles are included in Appendix 2, together with DCP test results sheets.

The results of the contamination testing are included in Appendix 3 (Eurofins Chemtest Ltd. report no. 26-04496).

2.2 Sampling Rationale

The borehole positions were chosen to give an indication of the ground conditions generally throughout the site, both in terms of geotechnical appraisal and assessment of soil contamination.

The soils encountered in the boreholes are considered to be broadly representative of soils throughout the site. The hand excavated trial pit positions were specifically chosen to target proposed areas of soft landscaping or gardens.

3. Phase 2 Investigation Findings

3.1 Ground Conditions

3.1.1 Windowless Sample Boreholes

The ground conditions differed across the site. BH2 to BH8 all encountered a surface topsoil overlying granular clay subsoils, whereas BH1 encountered a gravel band under the surface topsoil. All boreholes were terminated early due to refusal within highly weathered mudstone or sandstone bedrock, with the exceptions of BH7 and BH8 which were to conduct soakaway tests.

The surface layer of topsoil was recorded to a maximum depth of 0.30m and comprised a loose, dark brown, gravelly and slightly clayey sand with fine to coarse gravel of sandstone. Some rootlets were recorded within this topsoil though none were recovered.

As mentioned, the natural ground in BH2 to BH8 comprised an initial horizon of firm to stiff, sandy, gravelly and silty clay containing gravel constituents of sandstone, mudstone and occasionally coal, to depths of between 0.90m (BH4) and 2.10m (BH6). Highly weathered bedrock was found below the upper clay in most boreholes and consisted of either extremely weak and distinctly weathered sandstone, or mudstone with sandstone inclusions. The bedrock was recovered as sand and gravel sized fragments and were encountered to termination depths between 1.60m (BH4) and 4.00m (BH6).

Locally, in BH1, the surface topsoil was underlain by dense, sandy and slightly clayey gravel of fine to coarse sandstone, mudstone and coal. This was found from 0.30m to 1.60m before the weathered sandstone commenced to a termination depth of 1.90m bgl. Similarly, in BH7 and BH8, below the topsoil a thin horizon of firm, very sandy and very gravelly clay with sandstone and mudstone fragments, was recorded from 0.30m to between 0.70m and 0.80m respectively. Below this was similar silty clay found elsewhere to 2.00m. In BH7 and BH8 infiltration testing was conducted.

Hand shear vane testing within the upper silty clay returned values between 50kN/m^2 and 92kN/m^2 from depths between 0.50m and 2.00m, indicating generally firm to stiff conditions.

Standard Penetration Tests (SPTs) were undertaken within the weathered bedrock, SPT N_{300} values between N=34 and N>50 were recorded, indicating generally dense to very dense conditions.

No ground water was recorded during the works and no significant roots were recovered.

3.1.2 Hand Excavated Trial Pits

Trial pits TPA to TPE each encountered broadly similar conditions to the boreholes. The initial topsoil was underlain by either sandy gravel or silty clay natural strata to 0.60m and 1.30m. The natural strata extended to the termination depth of TPA, TPC and TPD, although in TPB and TPE the superficial deposits were underlain by weathered bedrock.

The trial pits all remained stable and dry on completion.

3.2 Soil Moisture, Plasticity Testing and Vegetation Influence.

Borehole moisture profiles are presented in Appendix 2. Moisture contents between 3.95% and 24.1% were reported.

Testing returned Plasticity Indices of between 10.1% (BH2) and 10.8% (BH3) which classifies the soils as Clay of Low (CL) and Intermediate (CI) Plasticity, according to BS 5930. According to NHBC Section 4.2 Building Near Trees, the clay soils are noted to be Low to Medium Shrinkage Soils (volume change potential). However, in BH4, BH5, BH6, BH7 and BH8 were deemed too sandy to carry out plasticity testing following initial sieve preparation.

Given the above and the presence of granular soils at the site, together with the absence of significant vegetation at the site and any roots in the excavations, it was considered that no special precautions are required with regard to foundation design and seasonal vegetation influence.

3.3 Dynamic Cone Penetration (DCP) Test Results

Dynamic Cone Penetrometer testing was undertaken at the four (4) locations. These are referenced DCP A to DCP D and were carried out to determine equivalent CBR values for the site.

Results of the DCP testing are presented in Appendix 2 together with calculations of representative CBR values for various strata that these tests encountered.

The lowest CBR value of any of the strata encountered by these tests (which extended to approximately 0.90m below ground level) was 1.4% for the upper 300mm and 3% between 600mm and 900mm.

Therefore, a CBR value of 2.5% for natural material would be a reasonable, conservative value to use for design purposes, but it should be noted that wet or winter weather and site trafficking may detrimentally affect the CBR rating of the soil once works are commenced, and CBR values may vary seasonally and with moisture content.

3.4 Infiltration Testing

Infiltration testing was carried out in BH7 and BH8, according to the BS 5930 “falling head testing in boreholes” method. The water infiltration tests were carried out with 1.00m of borehole casing remaining in situ, from ground level to a depth of 1.00m bgl, with the test response zone therefore between 1.00m and 2.00m bgl.

Infiltration testing was carried out with the entirety of the response zone in underlying natural subsoils (i.e., below the topsoil horizon and not including any made ground horizons) as these soils would be expected to be the receiving material in any subsequently excavated soakaways.

Following infilling of the boreholes, negligible water level drop was noted over the hour test duration for either borehole.

Therefore, based on the testing, the soils at the site have been determined as unsuitable for soakaways.

4. Contamination Testing

The soils most likely to contain contamination were expected to be the made ground deposits, but contamination could feasibly also occur throughout the full thickness of the topsoil strata which was encountered in the boreholes and trial pits to a maximum depth of 0.35m.

Soils close to surface would be the most relevant regarding human health risk assessment though analysis of leachate from the made ground was also considered appropriate to ensure no risk to local ground and surface waters exists through potential contaminant leaching and mobilisation.

The topsoil showed no obvious visual or olfactory evidence of potential contamination or contaminative materials. However, the potential for contamination to have affected the site could not be ruled out without soil analyses.

Based on the findings of the site works, six (6) samples of topsoil and natural subsoil from depths of 0.50m were recovered from across the site. These samples were tested for a range of substances, depending on their origin, the requirements of the investigation, and the assessment of the attending engineer. Test suites variably included metals/metalloids, PAHs, asbestos, and petroleum hydrocarbons (including BTEX in some cases). Leachate from three (3) of the samples was analysed also to determine if there might be any risk of mobile contamination.

The results of the contamination testing are included in Appendix 3 of this report (Eurofins Chemtest Ltd. Report 26-04496 and have been used in the following contamination risk assessment.

5. Risk Assessment

5.1 Method

Geoinvestigate Ltd. uses a combination of assessment criterion provided by the Environment Agency, DEFRA and by the Chartered Institute of Environmental Health in order to assess the presence of potentially harmful chemicals within soils and water. These include: Environment Agency Environmental Quality Standards (EQSs), Site Specific Assessment Criteria (SSAC) generated using CLEA software version 1.06 site specific risk assessment modelling, DEFRA Category 4 Screening Levels (C4SLs), and Land Quality Management / Chartered Institute of Environmental Health (LQM/CIEH) Safe for Use Levels (S4ULs).

As the site is to be developed as a residential dwelling, it falls within the residential end-use category. As it is possible that persons living on the site may cultivate vegetables / fruit for consumption, consideration to this end is also necessary.

No site-specific assessment criteria (SSAC) have been created for the site as no unusual circumstances (i.e., occupation periods etc.) are considered to be present/likely at the site that would render the generic residential assessment criteria unsuitable.
Where results have been found to be above the intervention values, an assessment of the available pathways and receptors has been carried out to determine whether further investigation or remediation may be necessary.

An appraisal of the chemical results and relevant limits is set out in the Contamination Risk Assessment that follows.

5.2 Contamination Risk to Sensitive Receptors

5.2.1 Human Health

Topsoil was encountered to a maximum depth of 0.35m, this was underlain by a cohesive natural clay subsoils with localised bands of granular deposits.

No visual and/or olfactory evidence of contamination was found in any of the encountered soils, including no visible evidence of asbestos contamination.

As discussed earlier in the report, levels of determinands have been compared to the soil assessment criteria for residential end-use, as published by DEFRA and LQM/CIEH, with DEFRA C4SLs taking priority where more than one target value exists due to their "more pragmatic whist still strongly precautionary" nature (quote from SP1010 C4SL Policy companion Document).

A mean Soil Organic Matter Content (SOM) of 2.28% was returned from the soil analyses. Therefore, the LQM/CIEH GAC for PAHs and other hydrocarbons were chosen using the highest Soil Organic Matter (SOM) option of 2.5%, which is considered the most representative (and a conservative) value for the samples returned.

A summary of the results is shown in Table 1 below.

Table 1: Summary of Chemical Determinands in Soil

Determinand	Units	Limits of Detection	Total Samples	Returned Concentrations		Threshold Ranges S4UL / C4SL	
				Min	Max	Min	Max
pH	pH Unit	N/a	6	6.3	7.3	-	-
Water Soluble Sulphate	g/l	<1.25	5	<1.25	33.6	-	-
Moisture Content	%	< 0.01	6	11.1	20.8	-	-
Organic Matter	%	< 0.1	5	0.78	8.03	-	-
Metals							
Arsenic	mg/kg	<1	6	4.60	15.70	37	37
Boron (Water Soluble)	mg/kg	< 1	5	<0.2	< 1	290	290
Cadmium	mg/kg	< 0.2	6	<0.2	< 0.2	11	11
Copper	mg/kg	< 4	6	13.30	338.00	2400	2400
Chromium III	mg/kg	< 2	5	19.10	22.30	910	910
Hexavalent Chromium	mg/kg	< 1.8	5	<1.8	< 1.8	6	6
Free Cyanide	mg/kg	< 1	5	<1	< 1	140	140
Total Cyanide	mg/kg	< 1	5	<1	< 1	140	140
Lead	mg/kg	< 1	6	9.30	218.00	200	200
Mercury	mg/kg	< 0.3	6	<0.3	< 0.3	410	410
Nickel	mg/kg	< 1	6	19.20	32.00	120	180
Selenium	mg/kg	< 1	6	<1	< 1	250	250
Zinc	mg/kg	< 1	6	40.30	203.00	3700	3700
Asbestos Screen	-	-	6	Not Detected		Detection	

Table 1 (Ctd): Summary of Chemical Determinands in Soil

Determinand	Units	Limits of Detection	Total Samples	Returned Concentrations		Threshold Ranges S4UL / C4SL	
				Min	Max	Min	Max
Organics							
Total Phenols	mg/kg	< 1	5	<1	< 1	120	380
Naphthalene	mg/kg	< 0.05	6	<0.05	0.088	2.3	13
Acenaphthylene	mg/kg	< 0.05	6	<0.05	0.066	170	920
Acenaphthene	mg/kg	< 0.05	6	<0.05	0.044	210	1100
Fluorene	mg/kg	< 0.05	6	<0.05	0.068	170	860
Phenanthrene	mg/kg	< 0.05	6	<0.05	0.915	95	440
Anthracene	mg/kg	< 0.05	6	<0.05	0.285	2400	11000
Fluoranthene	mg/kg	< 0.05	6	<0.05	2.53	280	890
Pyrene	mg/kg	< 0.05	6	<0.05	2.3	620	2000
Benzo(a)anthracene	mg/kg	< 0.05	6	<0.05	1.54	7.2	13
Chrysene	mg/kg	< 0.05	6	<0.05	1.45	15	27
Benzo(b)fluoranthene	mg/kg	< 0.05	6	<0.05	2.28	2.6	3.7
Benzo(k)fluoranthene	mg/kg	< 0.05	6	<0.05	0.946	77	100
Benzo(a)pyrene	mg/kg	< 0.05	6	<0.05	2.05	5	5
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.05	6	<0.05	1.9	27	41
Dibenzo(a,h)anthracene	mg/kg	< 0.05	6	<0.05	0.317	0.24	0.3
Benzo(g,h,i)perylene	mg/kg	< 0.05	6	<0.05	1.29	320	350
Total PAH(16)	mg/kg	< 0.08	5	<0.05	18.1	-	-
>C5-C6 Aliphatic	mg/kg	< 0.02	5	<0.01	< 0.02	42	160
>C6-C8 Aliphatic	mg/kg	< 0.02	5	<0.01	< 0.02	100	530
>C8-C10 Aliphatic	mg/kg	< 0.02	5	<0.01	< 0.02	100	530
>C10-C12 Aliphatic	mg/kg	< 0.05	5	<1	< 0.05	27	150
>C12-C16 Aliphatic	mg/kg	< 1	5	0.5	1.4	130	760
>C16-C21 Aliphatic	mg/kg	< 2	5	0.9	2	1100	4300
>C21-C35 Aliphatic	mg/kg	< 8	5	6	11.6	65000	110000
>C35-C44 Aliphatic	mg/kg	< 8	5	1.1	2.7	65000	110000
>C5-C7 Aromatic	mg/kg	< 8.4	5	<10	< 8.4	65000	110000
>C7-C8 Aromatic	mg/kg	< 8.5	5	<0.01	< 8.5	-	-
>C8-C10 Aromatic	mg/kg	< 10	5	<0.01	< 10	-	-
>C10-C12 Aromatic	mg/kg	< 0.01	5	1.5	2.5	70	300
>C12-C16 Aromatic	mg/kg	< 0.01	5	5.9	10.2	130	660
>C16-C21 Aromatic	mg/kg	< 1	5	2.6	10.6	34	190
>C21-C35 Aromatic	mg/kg	< 1	5	27.1	71.5	74	380
>C35-C44 Aromatic	mg/kg	< 2	5	6.3	17.9	140	660
VOCs / SVOCs							
Benzene	ug/kg	< 2	6	<5	< 2	0.87	3.7
Toluene	ug/kg	< 5	6	<5	< 5	130	660
Ethylbenzene	ug/kg	< 2	6	<5	< 2	47	260
m,p-Xylene	ug/kg	< 2	6	<5	< 2	59	320
oXylenes	ug/kg	< 2	6	<5	< 2	60	330

The analyses have shown elevated concentrations of two determinands.

A summary of the exceedances determined during laboratory testing and subsequent assessment are shown in table 2 on the following page.

Table 2: Soil Threshold Exceedances and Locations

Location	Depth (mbgl)	Determinand(s)	Threshold @ 2.5 (mg/kg)	Observed Concentration (mg/kg)
BH6	0.5	Lead	200	218
		Dibenzo(a,h)anthracene	0.3	0.317

Levels of one (1) PAH species has been detected above their corresponding target values in one (1) sample recovered from a depth of 0.50m in BH6. This exceedance is dibenzo(a,h)anthracene. The same sample also returned an elevated concentration of lead.

Generally, petroleum hydrocarbons have been returned at levels below detectable levels and/or the adopted target values.

No asbestos was detected in any of the six samples inspected.

5.2.2 Controlled Waters

Leachate was analysed from three (3) samples to investigate possible contaminant mobility. These samples were obtained from TPA (0.50m), TPC (0.50m) and BH6 (0.50m).

The leaching test is an aggressive test (de-ionised water) and is not in aqueous equilibrium (steady state) with the solid sample, this may cause overestimation of the aqueous phase concentrations compared to groundwater in contact with the same contaminated soils and therefore may not give results that are an accurate representation of the groundwater risk on site. Further to this, the leaching test was actually developed for inorganic constituents, with the leaching of organics being poorly understood, and again may not be representative of their presence.

Levels for domestic water supply, or the protection of aquatic life levels, as published by the Environment Agency are presented as the assessment criteria, but these are not strictly target values. They are not directly applicable to leachates because these standards would represent the total concentration in the receiving water bodies following mixing and attenuation of the leached contaminants. As such, the standards are included as an example of good water quality for consideration of how leachable contamination might affect such waters.

A Summary of the leachate testing is shown in table 3 on the following page.

Table 3: Chemical Determinands in Leachate

Determinant	Units	LOD	Total Samples	Returned Concentrations		Recommended Thresholds	
				Min	Max	Risks to Groundwater	Risks to Surface Water
Inorganics							
pH (10:1 extract)	-	n/a	3	7.60	7.80	5.5 - 10 (UKDWS)	
Arsenic Leachate	µg/l	<1	3	0.18	0.77	10	50
Cadmium Leachate	µg/l	<0.08	3	<0.08	<0.08	5	0.45 - 1.5
Chromium Leachate	µg/l	<0.4	3	<0.4	<0.4	50	3.4
Copper Leachate	µg/l	<0.7	3	<0.7	<0.7	2000	1 - 28
Lead Leachate	µg/l	<1	3	<1	<1	10	7.2
Mercury Leachate	µg/l	<0.5	3	<0.5	<0.5	20	20
Nickel Leachate	µg/l	<0.3	3	<0.3	<0.3	20	20
Selenium Leachate	µg/l	<4	3	<4	<4	10	10
Zinc Leachate	µg/l	<0.4	3	<0.4	<0.4	3750	8 - 125
Total Monohydric Phenols	µg/l	<10	3	<10	<10	50	7.7
Organics							
Total Cyanide	µg/l	<0.01	3	<10	<10	250000	250000
Free Cyanide	µg/l	<0.01	3	<10	<10	-	-
Naphthalene	µg/l	<0.01	3	<0.01	<0.01	70	-
Acenaphthylene	µg/l	<0.01	3	<0.01	<0.01	210	-
Acenaphthene	µg/l	<0.01	3	<0.01	<0.01	210	-
Fluorene	µg/l	<0.01	3	<0.01	<0.01	140	-
Phenanthrene	µg/l	<0.01	3	<0.01	<0.01	43.8	-
Anthracene	µg/l	<0.01	3	<0.01	<0.01	1050	0.4
Fluoranthene	µg/l	<0.01	3	<0.01	<0.01	43.8	1
Pyrene	µg/l	<0.01	3	<0.01	<0.01	105	-
Benzo(a)anthracene	µg/l	<0.01	3	<0.01	<0.01	0.543	-
Chrysene	µg/l	<0.01	3	<0.01	<0.01	1.09	-
Benzo(b)fluoranthene	µg/l	<0.01	3	<0.01	<0.01	0.137	-
Benzo(k)fluoranthene	µg/l	<0.01	3	<0.01	<0.01	3.61	-
Benzo(a)pyrene	µg/l	<0.01	3	<0.01	<0.01	0.01	0.1
Indeno(1,2,3-cd)pyrene	µg/l	<0.01	3	<0.01	<0.01	1.55	-
Dibenzo(a,h)anthracene	µg/l	<0.01	3	<0.01	<0.01	0.011	-
Benzo(g,h,i)perylene	µg/l	<0.01	3	<0.01	<0.01	12	-
Total PAH(16)	µg/l	<0.01	3	<0.01	<0.01	-	-

As can be seen from Table 3 and the detailed results presented in Eurofins Chemtest Ltd. report 26-04496 (Appendix 3), soils at the site have generally been shown to not be leaching any potential contaminants at levels that would be expected to have any significant impact on local ground and surface water bodies.

5.3 Hazardous Gas / Ground Gas

5.3.1 Gas Regime

Given the presence of a nearby mineshaft and the potential for deep infilled ground at nearby sites, a ground gas monitoring exercise has been undertaken at the site to quantify the risk in this regard. Gas monitoring wells were installed in boreholes BH1, BH2 and BH3.

The results of two (2) initial gas monitoring visit at the site are presented in Table 3 below. A further set of up to four measurements may be required to complete the gas risk assessment at the site.

Table 3: Summary of Gas Monitoring Data

Borehole	Number of Visits	CH_4 (%)	CO_2 (%)	O_2 (%)	Flow Rate (l/hr)	Atmospheric Pressure (mb)
BH1	2	<0.1 (both)	1.8-2.0	18.6-19.1	<0.1 (all)	961 (rising) to 1025 (falling)
BH2		<0.1 (both)	1.7	18.6-19.0		
BH3		<0.1 (both)	1.5-1.8	18.9		

The gas monitoring visit carried out to date at atmospheric pressures of 961mb to 1025mb returned:

- Slightly elevated concentrations of CO_2.
- Consistently negligible or very low levels of CH_4.
- Near-normal oxygen levels.
- Consistently negligible H_2S and CO levels below detectable limits (<1ppm).
- Consistently negligible flow rates below detectable limits (<0.1 l/hr).

5.3.2 Radon Gas

As confirmed by the phase 1 desk study report for the site, the site in an area where 1%-3% of properties are above the radon action level. Therefore, no radon protection measures will be required in the new structure(s).

6. Waste (WAC Testing)

One (1) samples obtained from a depth of 0.50m in BH5 respectively waw submitted for waste acceptance criteria (WAC) testing to assist in the waste classification of any soils that will subsequently be removed from the site to landfill.

Table 4: WAC Analysis Results

Sample ID	TOC %	LOI %	Hazardous Indicators	Meets Inert Criteria	Meets Non-Haz Criteria	Classification
BH5	4.26%	8.44%	No	No	Yes	Stable Non-reactive Hazardous Waste

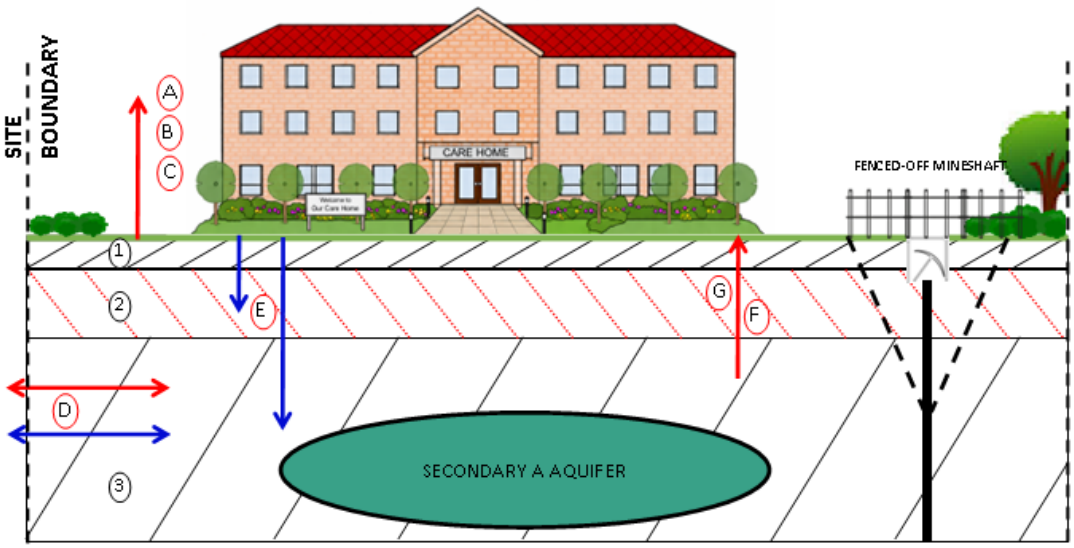
The analysis results suggest that soil types represented by these samples (topsoil and undisturbed natural subsoil) would meet the requirements for Stable Non-reactive Hazardous waste landfill.
The Total Organic Carbon exceeded the threshold for Inert Waste landfill.

Final decision-making regarding waste classification is left to the waste carrier/receiver.

7. Conceptual Ground Hazard Model (CGHM)

The conceptual ground hazard model (CGHM) presented on the following page shows the potential hazards and pollutant linkages which have been considered at the site and those which may still be complete, or would be complete, if the site were to be developed as a residential unit in its current condition.

Figure 1: CGHM – Conceptual cross section of site including a Source, Pathway and Receptor Model



IDENTIFIED HAZARDS Including Potential CONTAMINATION SOURCES

- **Potential contamination of shallow soils by past land use both within and near to the site.**
- **Possible presence of limited made ground.**
- **Stability concerns relating to the onsite mineshaft. Mitigated by fencing and site management**
- **Potential mine gas risk due to onsite mineshaft.**

IDENTIFIED RECEPTORS and ASSOCIATED PATHWAY

A— End Users through Direct Contact / Inhalation / Ingestion. Buildings and hard standing will encompass some of the site, removing any pathway to end users through direct contact in these areas.

B— Plants and Trees through uptake, possible given the intended end use of the site.

C— End Users through cultivation and consumption of vegetables / fruit. Possible given the intended end use of the site.

Linkages A to C deemed partially present due to elevated PAH contamination at BH6 requiring remediation

D— Neighbouring Sites through lateral migration (in soil and water, including surface water run off).

E— Ground water through leaching of sub-soil.

F— Buildings and services through direct contact. Buildings and hard standing will encompass some of the site, removing any pathway to end users through direct contact in these areas.

G— End users and buildings through ground gas migration. Buildings and hard standing will encompass some of the site, removing any pathway to end users through direct contact in these areas.

Linkage G—ground gassing regime considered to be low risk, based on low levels of ground gas returned through initial monitoring

8. Conclusions

8.1 Soil & Water Contamination

Soil analysis results have confirmed that localised remedial works will be required at the site (in the position of BH6 only) before it can be deemed fit for purpose in a residential context.

No contamination risk to ground/surface waters has been identified.

The most cost-effective and appropriate method of remediation is likely to comprise the installation of a capping layer (often referred to as a cover system). This comprises the excavation and removal of soils to (normally) 600mm below the proposed finished ground levels, followed by replacement with at least a 600mm thickness (or other agreed thickness) of proven uncontaminated new soils. Topsoil extends to variable depths across the site, up to 0.40m below the current ground levels, and has been confirmed to pose no risk to local ground and surface waters through leaching. As such, the confining of these soils below a new capping layer will minimise the quantity of waste to be excavated and transported to landfill, while posing no residual risk to the proposed development or water environment.

The local planning authority (LPA) will most likely require a "remediation and validation strategy" document for approval prior to commencement of the remedial works, and a "validation report" on completion of the works confirming their success.

Though unlikely, if the development plan were to change significantly, or obvious evidence were uncovered during groundworks of potential contamination that has not been previously encountered, then both Geoinvestigate Ltd. and the local planning authority should be notified and, if appropriate, redevelopment works halted/postponed while further assessment and/or remediation work is undertaken.

8.2 Hazardous Gas / Ground Gas

Ground gas monitoring is ongoing at the site with two of a potential six monitoring visits having been undertaken to date. The monitoring undertaken to date has returned no significantly elevated levels of hazardous gas and negligible gas flow rates (below detectable limits). Readings have been taken at low atmospheric pressure and in a period of falling atmospheric pressure.

Based the data gathered to date, the site is expected fall into Characteristic situation 1 (CS1) of the Modified Wilson and Card classification or "Green" of the NHBC Traffic Light System for low rise housing with a ventilated under-floor void (min 150mm) (CIRIA C665). If the continued monitoring returns comparable data, no gas protection will be required in the new building(s). No final decision should be made without further monitoring, however.

No radon protection measures will be required for the new development.

Note that these conclusions are provisional and that the gas monitoring exercise is not yet completed, with only two of a possible six sets of readings gathered to date. Final recommendations regarding gas

protection will be issued in due course in a Gas Monitoring Addendum Report following completion of the gas monitoring exercise.

No hydrocarbon vapour protection is expected to be necessary for the new development.

Note that these conclusions are provisional and that the gas monitoring exercise is not yet completed, with only two of a possible six sets of readings gathered to date. Final recommendations regarding gas protection will be issued in due course in a Gas Monitoring Addendum Report following completion of the gas monitoring exercise.

8.3 Foundation Design

The encountered ground conditions comprised shallow made ground underlain by natural firm to stiff sandy silty clay or occasionally clayey silty gravel. Weathered sandstone rock (or mudstone with sandstone horizons - in BH3 and BH4) commenced below depths of 0.90m (BH4) to 2.10m (BH6)

Based on the conditions above, although the initial superficial firm to stiff clay is in a reasonable competent condition, it would be considered prudent to extend foundations into the weathered sandstone (and occasional mudstone) rock. Based on the conditions noted in the boreholes, target depths for the trench fill foundations would be 1.20m (BH4 and BH5), 1.70m (BH1, BH2, BH4 and BH6) and 2.00m in BH3.

Foundations seated within competent weathered sandstone or mudstone at the above target depths may be designed to a safe net bearing pressure of 185kN/m², based on the lowest SPT N Values returned. Providing the safe bearing capacity is not exceeded settlement would be anticipated to be less than 25mm.

Following removal of the weaker made ground and cohesive soils, the natural clay or gravel would provide a suitable base for construction of a lightly loaded reinforced ground bearing floor slab.

Groundwater was not encountered during the investigation; therefore, it is not likely that groundwater ingress will pose an issue during the forming of foundation excavations. However, all excavations should be monitored during construction for groundwater ingress, particularly after periods of heavy and/or prolonged rainfall, and mitigated accordingly, i.e., via sumps and pumping.

8.4 Road Design

DCP testing has indicated that the lowest CBR value for surface might be 2.5% in the natural grave and clay.

As such, based on a CBR of 2.5%, NHBC guidance for “Shared parking and associated access areas having frequent use by commercial vehicles” recommends a sub-base of 300mm compacted stone below the normal road construction (normal asphalt and base layers), which would be underlain by a geo textile mesh.

However, it should be noted that wet or winter weather and site trafficking may detrimentally affect the CBR rating of the soil once works are commenced, and CBR values may vary seasonally and with moisture

content. It may be necessary to carry out further testing during formation works to confirm requirements in this regard.

8.5 Concrete Design

The results of chemical analyses of the fill returned Water Soluble Sulphate levels of between 29.80mg/kg and 33.6mg/kg and pH levels of between 6.3 and 7.3. Additionally, the site is inferred to classify as natural soils with no mobile water.

On this basis concrete in contact with the ground may be designed to ACEC Class DS-1 AC-1s of "BRE Special Digest 1 – Concrete in aggressive ground".

END OF REPORT

The findings and contents of this (intrusive) Site Investigation Report pertain solely to the study area(s) outlined herein and are based solely on the findings of the excavations undertaken as part of the current exercise unless otherwise stated. The findings and/or recommendations of this report do not take into account any ground conditions that may be present but have hitherto not been encountered and as such further investigation and/or a reconsideration of the findings of this report should be undertaken if such conditions are subsequently encountered or an alternative development plan or land use is subsequently proposed.

This report considers various environmental and/or geological risks posed to the site and/or proposed development and offers advice accordingly as guidance only. The findings of this report will remain valid provided no change of ground or groundwater conditions, either natural or anthropogenic, take place and no warrantee is offered or implied.

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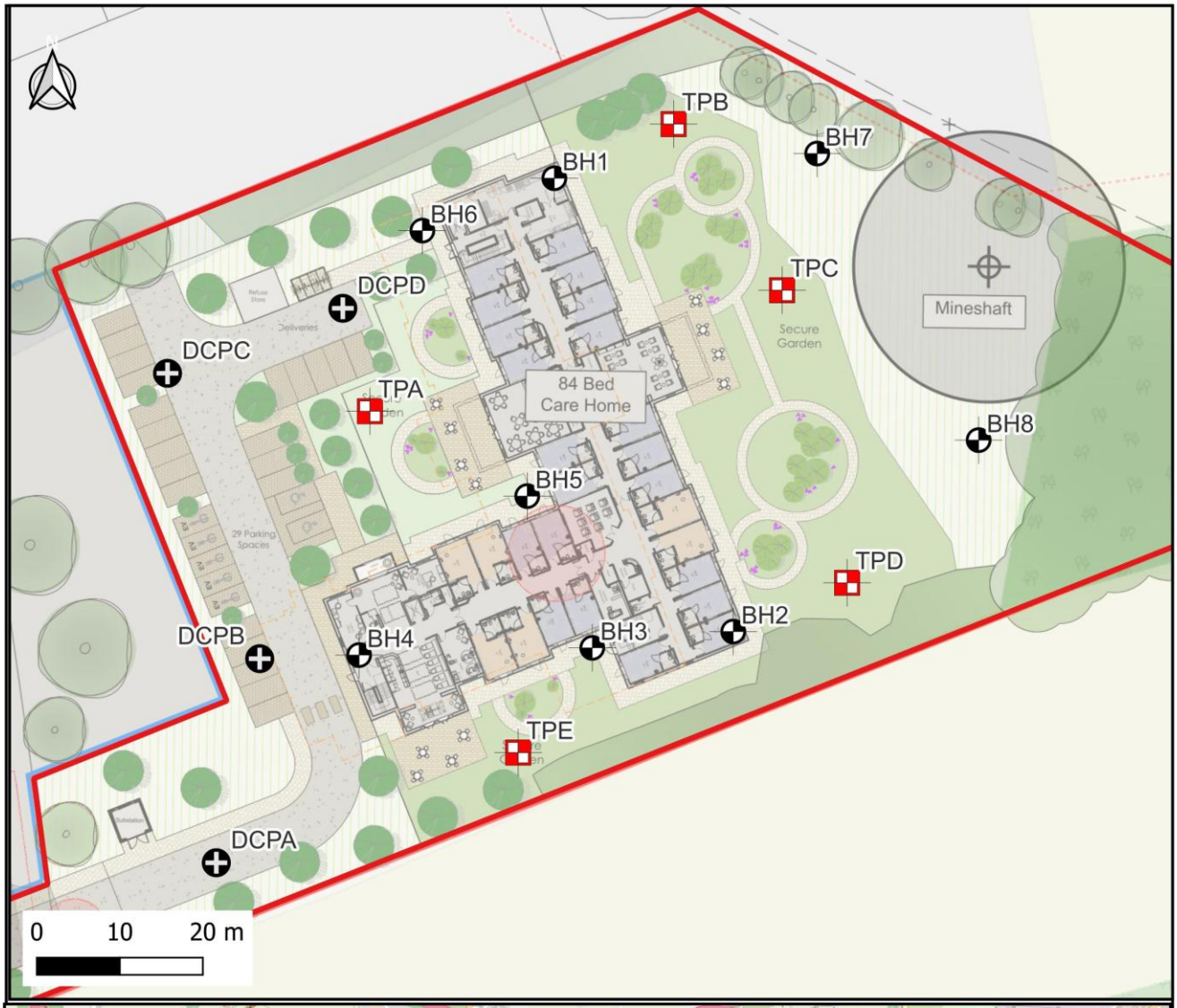
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APPENDIX 1

Site Plans

and

Exploratory Hole Logs





CLIENT: A Swift c/o Walter Thompson	TITLE: Site Plan				Legend: Site Boundary; Hand Dug Trial Pit; Window Samples; DCP Location
PROJECT: Oxford Road, Gomersal, BD19 4JS	Notes:				GeoInvestigate Ltd, Terry Dicken Indsutrial Estate, Ellerback Way, Stokesley, TS9 7AE
PROJECT NUMBER: G26117	SCALE: NTS	DRAWN: JB DATE: 20/02/26	CHECK: LR DATE: 20/02/26	REV: 0 DATE: 20/02/26	

GEO INVESTIGATE

Borehole Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

BH 1

Sheet No 1 of 1

Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Gas Well	Sample	Test Type Result	SPT N Value (Depth)	Depth to Water	Depth (m)
	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	300			O	Cv kN/m2			0.25
0.30	Dense light brown slightly clayey sandy GRAVEL. Gravel is fine to coarse of sandstone and mudstone. Occasional cobbles were noted.				O				0.50
									0.75
		1300			S-O		1.00m - 1.45m 5/6/5/7/10/12 N=34		1.00
									1.25
1.60					O				1.50
	Weak brown and grey SANDSTONE.	300					1.90m - 2.05m 40/45 N=85		1.75
1.90					S-O				
	Borehole terminated at 1.90m due to refusal.								

Remarks:
Casing to 1.00m
Dynamic windowless sampling by Terrier Rig to 1.90 mbgl
Borehole remained dry on completion
Gas well installed to 1.90m with gas bung and cover

Key:
Slotted Pipe
Plain Pipe
Bentonite
Gravel Filter

O Disturbed sample
Cv Shear vane
W Water sample
S Standard Penetration Test
C Cone Penetration Test

BH 1

GEO INVESTIGATE

Borehole Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

BH 2

Sheet No 1 of 1

Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Gas Well	Sample	Test Type Result	SPT N Value (Depth)	Depth to Water	Depth (m)
						Cv kN/m2			
0.20	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	200			O				0.25
	Stiff sandy slightly gravelly silty CLAY. Gravel is fine to coarse of sandstone.				Cv-O	90			0.50
									0.75
		1300			Cv-O	92			1.00
									1.25
1.50					Cv O	88	1.70m - 1.85m 31/40		1.50
1.70	Weak brown and grey SANDSTONE.	200			S-O		N=71		1.70
	Borehole terminated at 1.70m due to refusal.								

Remarks:
Casing to 1.00m
Dynamic windowless sampling by Terrier Rig to 1.70 mbgl
Borehole remained dry on completion
Gas well installed to 1.70m with gas bung and cover

Key:
Slotted Pipe
Plain Pipe
Bentonite
Gravel Filter

O Disturbed sample
Cv Shear vane
S Standard Penetration Test
C Cone Penetration Test

BH 2

GEO INVESTIGATE

Borehole Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

BH 3

Sheet No 1 of 1

Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Gas Well	Sample	Test Type Result	SPT N Value (Depth)	Depth to Water	Depth (m)
						Cv kN/m2			
0.20	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	200			O				0.25
	Firm orangish brown sandy slightly gravelly silty CLAY. Gravel is fine to coarse of sandstone and mudstone. Occasional coal fragments noted.				Cv-O	64			0.50
									0.75
					Cv-O	74			1.00
		1700							1.25
					Cv-O	86			1.50
									1.75
1.90							2.00m - 2.45m		
	Weak brown MUDSTONE with sandstone inclusions.				S-O		4/5/5/5/7/7 N=24		2.00
		800							2.25
					O		2.70m - 2.95m 40/44		2.50
2.70					O		N=88		2.70
	Borehole terminated at 2.70m due to refusal.								

Remarks:
Casing to 1.00m
Dynamic windowless sampling by Terrier Rig to 2.70 mbgl
Borehole remained dry on completion
Gas well installed to 2.70m with gas bung and cover

Key:
Slotted Pipe
Plain Pipe
Bentonite
Gravel Filter

O Disturbed sample
Cv Shear vane
W Water sample
S Standard Penetration Test
C Cone Penetration Test

BH 3

GEO INVESTIGATE

Borehole Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

BH 4

Sheet No 1 of 1

Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick-ness	Legend	Gas Well	Sample	Test Type Result	SPT N Value (Depth)	Depth to Water	Depth (m)
	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	300			O	Cv kN/m2			0.25
0.30	Firm orangish brown sandy slightly gravelly silty CLAY. Gravel is fine to coarse of sandstone and mudstone.	600			Cv-O	70			0.50
									0.75
0.90	Weak brown MUDSTONE with sandstone inclusions.	700			S-O		1.00m - 1.45m 4/5/7/7/7/10 N=31		1.00
									1.25
					O		1.60m - 2.00m 14/20/25/36 N=61		1.50
1.60					O				
	Borehole terminated at 1.60m due to refusal.								

Remarks:
Casing to 1.00m
Dynamic windowless sampling by Terrier Rig to 1.60 mbgl
Borehole remained dry on completion

Key:
Slotted Pipe
Plain Pipe
Bentonite
Gravel Filter

O Disturbed sample
Cv Shear vane
W Water sample
S Standard Penetration Test
C Cone Penetration Test

BH 4

GEO INVESTIGATE
Borehole Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

BH 5
Sheet No 1 of 1
Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Gas Well	Sample	Test Type Result	SPT N Value (Depth)	Depth to Water	Depth (m)
	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	350			O	Cv kN/m2			0.25
0.35									
	Firm orangish brown sandy slightly gravelly silty CLAY. Gravel is fine to coarse of sandstone and mudstone. Occasional coal fragments noted.	750			Cv-O	76			0.50
									0.75
1.10					Cv-O	82			1.00
	Weak grey SANDSTONE with occasional mudstone inclusions.	900			O				1.25
									1.50
									1.75
2.00					S-O		2.00m - 2.45m 8/12/16/17/21/27 N=81		2.00
	Borehole terminated at 2.00m due to refusal.								

Remarks:
Casing to 1.00m
Dynamic windowless sampling by Terrier Rig to 2.00 mbgl
Borehole remained dry on completion

Key:
Slotted Pipe
Plain Pipe
Bentonite
Gravel Filter

O Disturbed sample
Cv Shear vane
W Water sample
S Standard Penetration Test
C Cone Penetration Test

BH 5

GEO INVESTIGATE

Borehole Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

BH 6

Sheet No 1 of 1

Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick-ness	Legend	Gas Well	Sample	Test Type Result	SPT N Value (Depth)	Depth to Water	Depth (m)
						Cv kN/m2			
0.30	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	300			O				0.25
	Firm orangish brown sandy slightly gravelly silty CLAY. Gravel is fine to coarse of sandstone and mudstone. Occasional coal fragments noted.				Cv-O	50			0.50
									0.75
					Cv-O	56			1.00
		1800							1.25
					O				1.50
									1.75
2.10					Cv-O	70			2.00
	Weak light grey SANDSTONE with occasional mudstone inclusions.								2.25
					O				2.50
									2.75
							3.00m - 3.45m 5/7/10/11/9/10 N=40		
		1900			S-O				3.00
									3.25
					O				3.50
									3.75
4.00					S-O		4.00m - 4.45m 14/17/11/14/16/20 N=61		4.00
	Borehole terminated at 4.00m due to refusal.								

Remarks:
Casing to 1.00m
Dynamic windowless sampling by Terrier Rig to 4.00 mbgl
Borehole remained dry on completion

Key:
Slotted Pipe
Plain Pipe
Bentonite
Gravel Filter

O Disturbed sample
Cv Shear vane
W Water sample
S Standard Penetration Test
C Cone Penetration Test

BH 6

GEO INVESTIGATE

Borehole Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

BH 7

Sheet No 1 of 1

Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Gas Well	Sample	Test Type Result	SPT N Value (Depth)	Depth to Water	Depth (m)
0.30	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	300				Cv kN/m2			0.25
0.80	Firm light brown very sandy very gravelly CLAY. Gravel is fine to coarse of sandstone and mudstone.	500							0.50 0.75
1.80	Firm light orangish brown sandy slightly gravelly silty CLAY.	1000							1.00 1.25 1.50 1.75
2.00	Weak light grey SANDSTONE	200							2.00
	Borehole terminated at 2.00m to undertake soakaway.								

Remarks:
Casing to 1.00m
Dynamic windowless sampling by Terrier Rig to 2.00 mbgl
Borehole remained dry on completion

Key:
Slotted Pipe
Plain Pipe
Bentonite
Gravel Filter

O Disturbed sample
Cv Shear vane
S Standard Penetration Test
C Cone Penetration Test

BH 7

GEO INVESTIGATE

Borehole Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

BH 8

Sheet No 1 of 1

Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Gas Well	Sample	Test Type Result	SPT N Value (Depth)	Depth to Water	Depth (m)
0.30	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	300				Cv kN/m2			0.25
0.70	Firm light brown very sandy very gravelly CLAY. Gravel is fine to coarse of sandstone and mudstone.	400							0.50
2.00	Firm to light orangish brown sandy slightly gravelly silty CLAY. Gravel is fine to coarse of sandstone and mudstone.	1300							0.75 1.00 1.25 1.50 1.75 2.00
	Borehole terminated at 2.00m to undertake soakaway.								

Remarks:
Casing to 1.00m
Dynamic windowless sampling by Terrier Rig to 2.00 mbgl
Borehole remained dry on completion

Key:
Slotted Pipe
Plain Pipe
Bentonite
Gravel Filter

O Disturbed sample
Cv Shear vane
W Water sample
S Standard Penetration Test
C Cone Penetration Test

BH 8



TPA



TPB



TPC



TPD



TPE

GEO INVESTIGATE

Trial Pit Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

TP-A

Sheet No 1 of 1
Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick-ness	Legend	Sample	Test Type Result	Depth to Water	Depth (m)
	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.				Cv kN/m^2		0.10
				O			0.20
0.30							0.30
	Medium dense light brown sandy slightly clayey GRAVEL. Gravel is fine to coarse of sandstone and mudstone. Occasional cobbles noted.						0.40
				O			0.50
							0.60
							0.70
							0.80
							0.90
							1.00
1.10				O			1.10
	Trial Pit terminated at 1.10m.						

Remarks:
Trial Pit excavated to a maximum depth of 1.10 mbgl
Trial Pit remained dry on completion

Key:
O Disturbed sample
Cv Shear vane
W Water sample

TP-A

GEO INVESTIGATE

Trial Pit Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

TP -B

Sheet No 1 of 1

Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Sample	Test Type Result	Depth to Water	Depth (m)
0.25	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	250		O	Cv kN/m^2		0.10 0.20
0.60	Medium dense light brown sandy slightly clayey GRAVEL. Gravel is fine to coarse of sandstone and mudstone. Occasional cobbles noted.	350		O			0.30 0.40 0.50 0.60
0.70	Weak light grey SANDSTONE.	100		O			0.70
	Trial Pit terminated at 0.70m due to refusal.						

Remarks:
Trial Pit excavated to a maximum depth of 0.70 mbgl
Trial Pit remained dry on completion

Key:
O Disturbed sample
Cv Shear vane
W Water sample

TP -B

GEO INVESTIGATE

Trial Pit Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

TP -C

Sheet No 1 of 1
Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Sample	Test Type Result	Depth to Water	Depth (m)
	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	300		O	Cv kN/m^2		0.10 0.20 0.30
0.30	Firm brown sandy slightly gravelly silty CLAY. Gravel is fine to coarse of sandstone and mudstone.	1000		O O O			0.40 0.50 0.60 0.70 0.80 0.90 1.00 1.10 1.20 1.30
1.30	Trial pit terminated at 1.30m.						

Remarks:
Trial Pit excavated to a maximum depth of 1.30 mbgl
Trial Pit remained dry on completion

Key:
O Disturbed sample
Cv Shear vane
W Water sample

TP -C

GEO INVESTIGATE

Trial Pit Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

TP -D

Sheet No 1 of 1
Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Sample	Test Type Result	Depth to Water	Depth (m)
0.30	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	300		O	Cv kN/m^2		0.10 0.20 0.30
0.60	Loose orange fine to coarse SAND.	300		O			0.40 0.50 0.60
1.10	Medium dense light brown sandy slightly clayey GRAVEL. Gravel is fine to coarse of sandstone and mudstone. Occasional cobbles noted.	500		O			0.70 0.80 0.90 1.00 1.10
	Trial pit terminated at 1.10m.						

Remarks:
Trial Pit excavated to a maximum depth of 1.10 mbgl
Trial Pit remained dry on completion

Key:
O Disturbed sample
Cv Shear vane
W Water sample

TP -D

GEO INVESTIGATE

Trial Pit Log

Client Ref:
Our Ref: G26117
Date: 08/04/2026
Location: Oxford Road, Gomersal, BD19 4JS
Comments:

TP -E

Sheet No 1 of 1
Drilled by: AM
Logged by: JJ

Depth (m)	Description of Strata	Thick -ness	Legend	Sample	Test Type Result	Depth to Water	Depth (m)
0.20	TURF and TOPSOIL. Loose dark brown slightly clayey gravelly sand. Gravel is fine to coarse of sandstone.	200		O	Cv kN/m^2		0.10 0.20
0.80	Medium dense light brown sandy slightly clayey GRAVEL. Gravel is fine to coarse of sandstone and mudstone. Occasional cobbles noted.	600		O			0.30 0.40 0.50 0.60 0.70 0.80
1.20	Weak grey SANDSTONE.	400		O			0.90 1.00 1.10 1.20
	Trial Pit terminated at 1.20m due to refusal.						

Remarks:
Trial Pit excavated to a maximum depth of 1.20 mbgl
Trial Pit remained dry on completion

Key:
O Disturbed sample
Cv Shear vane
W Water sample

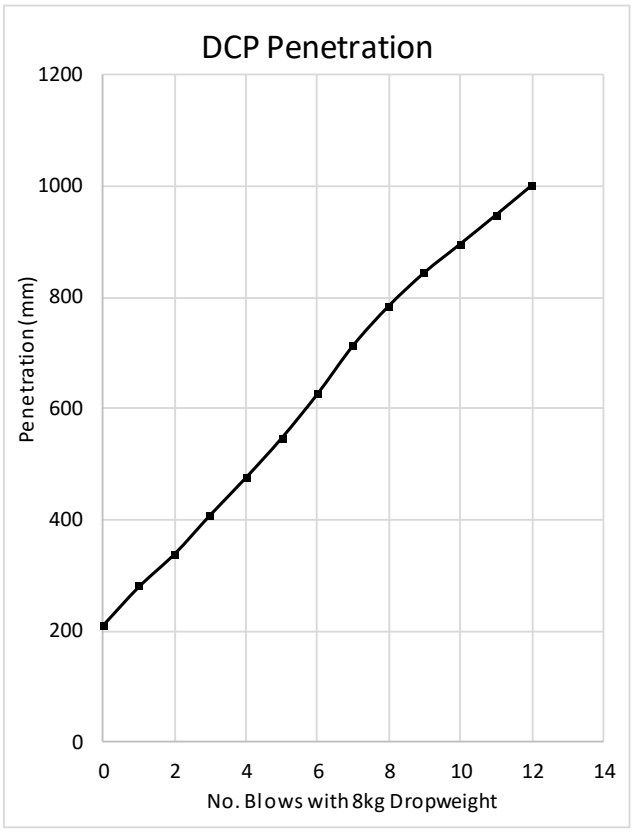
TP -E

DCP Test Result

Site	Oxford Road, Gomersal, BD19 4JS
Job no.	G26117
Test no.	DCP A
Date	08/04/2026

Start Point: 211 mm Below Ground Level

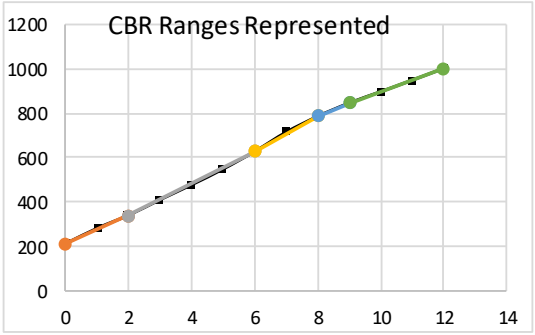
Raw DCP Data		
No. blows (8kg Weight)	Cumulative Blows	Penetration (mm)
0	0	211
1	1	280
1	2	339
1	3	409
1	4	476
1	5	547
1	6	626
1	7	713
1	8	784
1	9	844
1	10	895
1	11	947
1	12	1000



Range (blows)	Start (blows)	End (blows)
0-2	0	2
2-6	2	6
6-8	6	8
8-9	8	9
9-12	9	12

Start (depth)	End (depth)	mm per blow	Log_{10}(CBR)
211	339	64.0	0.57087
339	626	71.8	0.51840
626	784	79.0	0.47421
784	844	60.0	0.60049
844	1000	52.0	0.66618

Depth (mm)	CBR Value (%)
211-339	**3.7**
339-626	**3.3**
626-784	**3.0**
784-844	**4.0**
844-1000	**4.6**

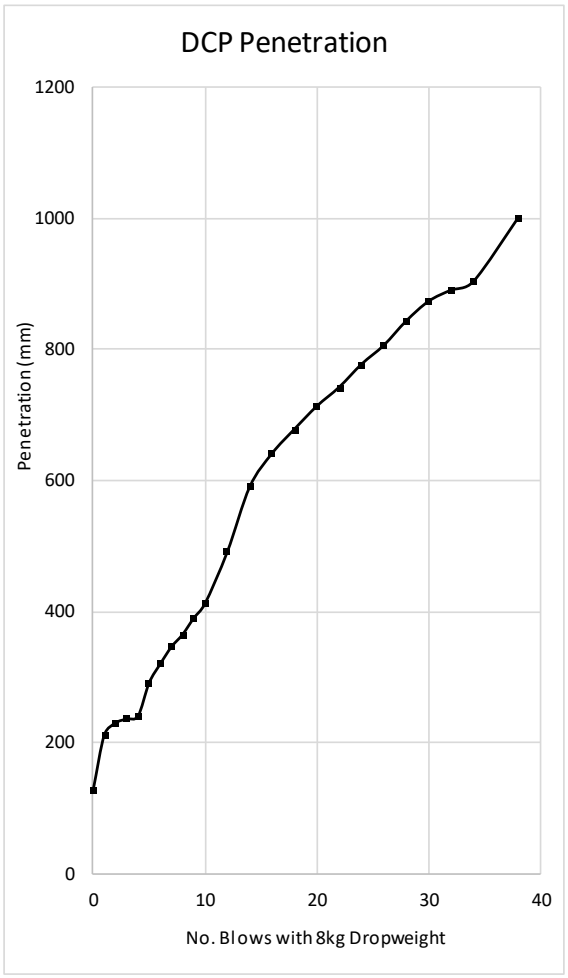


DCP Test Result

Site	Oxford Road, Gomersal, BD19 4JS
Job no.	G26117
Test no.	DCP B
Date	08/04/2026

Start Point: 128 mm Below Ground Level

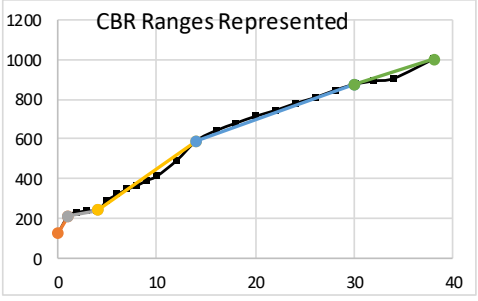
Raw DCP Data		
No. blows (8kg Weight)	Cumulative Blows	Penetration (mm)
0	0	128
1	1	212
1	2	230
1	3	236
1	4	240
1	5	291
1	6	320
1	7	346
1	8	365
1	9	390
1	10	412
2	12	491
2	14	590
2	16	641
2	18	678
2	20	713
2	22	742
2	24	777
2	26	806
2	28	843
2	30	873
2	32	890
2	34	903
4	38	1000



Range (blows)	Start (blows)	End (blows)
0-1	0	1
1-4	1	4
4-14	4	14
14-30	14	30
30-38	30	38

Start (depth)	End (depth)	mm per blow	Log_{10}(CBR)
128	212	84.0	0.44604
212	240	9.3	1.45467
240	590	35.0	0.84792
590	873	17.7	1.16122
873	1000	15.9	1.21085

Depth (mm)	CBR Value (%)
128-212	**2.8**
212-240	**28.5**
240-590	**7.0**
590-873	**14.5**
873-1000	**16.2**

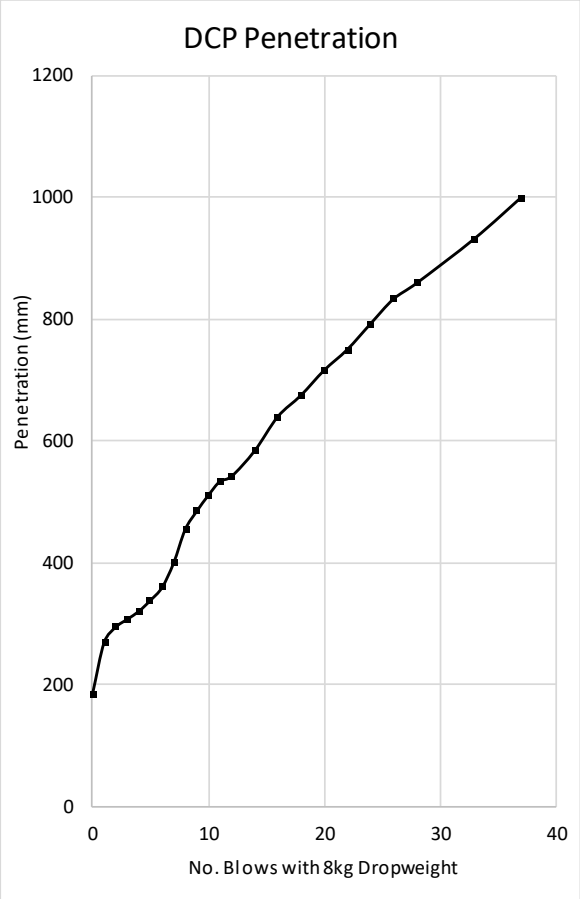


DCP Test Result

Site	Oxford Road, Gomersal, BD19 4JS
Job no.	G26117
Test no.	DCP C
Date	08/04/2026

Start Point: 187 mm Below Ground Level

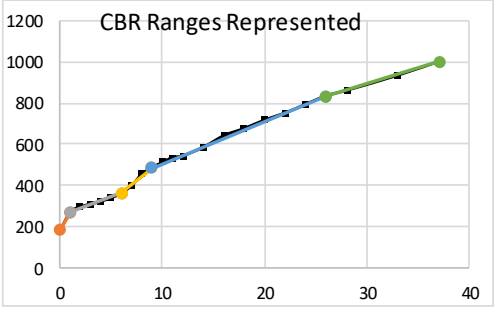
Raw DCP Data		
No. blows (8kg Weight)	Cumulative Blows	Penetration (mm)
0	0	187
1	1	271
1	2	296
1	3	309
1	4	322
1	5	340
1	6	361
1	7	401
1	8	456
1	9	486
1	10	512
1	11	535
1	12	543
2	14	585
2	16	641
2	18	676
2	20	717
2	22	751
2	24	793
2	26	834
2	28	860
5	33	933
4	37	1000



Range (blows)	Start (blows)	End (blows)
0-2	0	1
2-10	1	6
10-16	6	9
15-30	9	26
0-30	26	37

Start (depth)	End (depth)	mm per blow	Log_{10}(CBR)
187	271	84.0	0.44604
271	361	18.0	1.15318
361	486	41.7	0.76788
486	834	20.5	1.09414
834	1000	15.1	1.23410

Depth (mm)	CBR Value (%)
187-271	**2.8**
271-361	**14.2**
361-486	**5.9**
486-834	**12.4**
834-1000	**17.1**

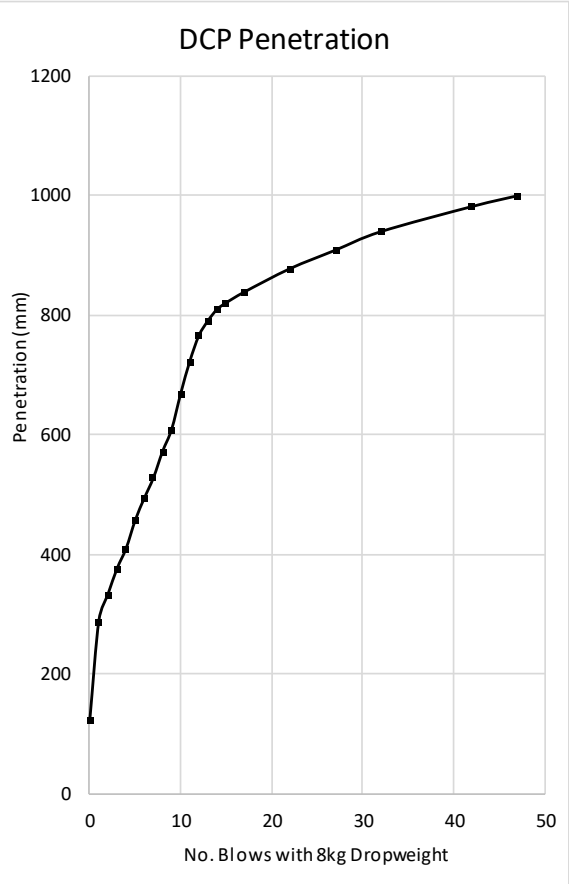


DCP Test Result

Site	Oxford Road, Gomersal, BD19 4JS
Job no.	G26117
Test no.	DCP D
Date	08/04/2026

Start Point: 122 mm Below Ground Level

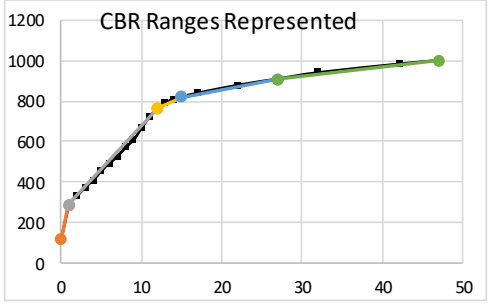
Raw DCP Data		
No. blows (8kg Weight)	Cumulative Blows	Penetration (mm)
0	0	122
1	1	289
1	2	333
1	3	376
1	4	410
1	5	457
1	6	494
1	7	528
1	8	572
1	9	609
1	10	669
1	11	723
1	12	766
1	13	791
1	14	810
1	15	821
2	17	839
5	22	878
5	27	909
5	32	940
10	42	982
5	47	1000



Range (blows)	Start (blows)	End (blows)
0-2	0	1
2-10	1	12
10-16	12	15
15-30	15	27
0-30	27	47

Start (depth)	End (depth)	mm per blow	Log_{10}(CBR)
122	289	167.0	0.13059
289	766	43.4	0.74956
766	821	18.3	1.14475
821	909	7.3	1.56538
909	1000	4.6	1.78448

Depth (mm)	CBR Value (%)
122-289	**1.4**
289-766	**5.6**
766-821	**14.0**
821-909	**36.8**
909-1000	**60.9**



APPENDIX 2

Geotechnical Testing

Geotechnical Test Results

Our Ref: G26117
Your Ref:
Location: Oxford Road, Gomersal, BD19 4JS

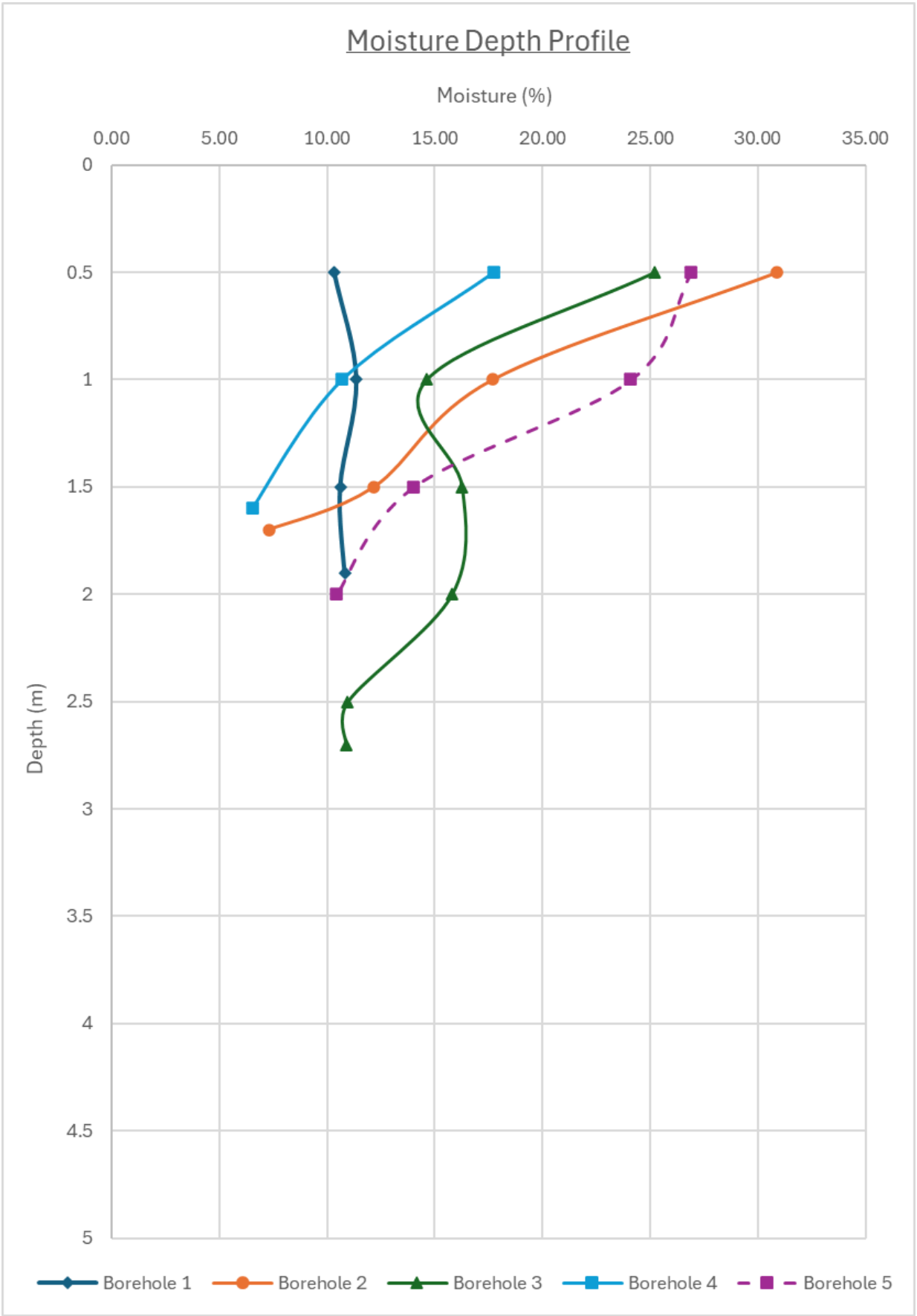
TP / BH No.	Sample Depth (m)	Insitu Moisture Content (%)	% Passing BS 425 Micron Sieve	Corrected Moisture Content (%)	Plastic Limit (%)	Liquid Limit (%)	Plasticity Index (%)	Soil Classification BS5930 [1999]
1	0.50	10.3						
	1.00	11.4						
	1.50	10.6						
	1.90	10.8						
2	0.50	30.9						
	1.00	17.7	84.9	20.8	25.6	35.7	10.1	CI
	1.50	12.2						
	1.70	7.3						
3	0.50	25.2						
	1.00	14.6	68.3	21.4	20.5	31.3	10.8	CL
	1.50	16.3						
	2.00	15.8						
	2.50	11.0						
	2.70	10.9						

Geotechnical Test Results

Our Ref: G26117
Your Ref:
Location: Oxford Road, Gomersal, BD19 4JS

TP / BH No.	Sample Depth (m)	Insitu Moisture Content (%)	% Passing BS 425 Micron Sieve	Corrected Moisture Content (%)	Plastic Limit (%)	Liquid Limit (%)	Plasticity Index (%)	Soil Classification BS5930 [1999]
4	0.50	17.7	87.1	20.3	*	*	*	*
	1.00	10.7						
	1.60	6.5						
5	0.50	26.9						
	1.00	24.1	78.4	30.7	*	*	*	*
	1.50	14.0						
	2.00	10.4						

* Note - Essentially Non Plastic Material


Moisture Depth Profile
Moisture (%)
0.00
5.00
10.00
15.00
20.00
25.00
30.00
35.00
Depth (m)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
Borehole 1
Borehole 2
Borehole 3
Borehole 4
Borehole 5

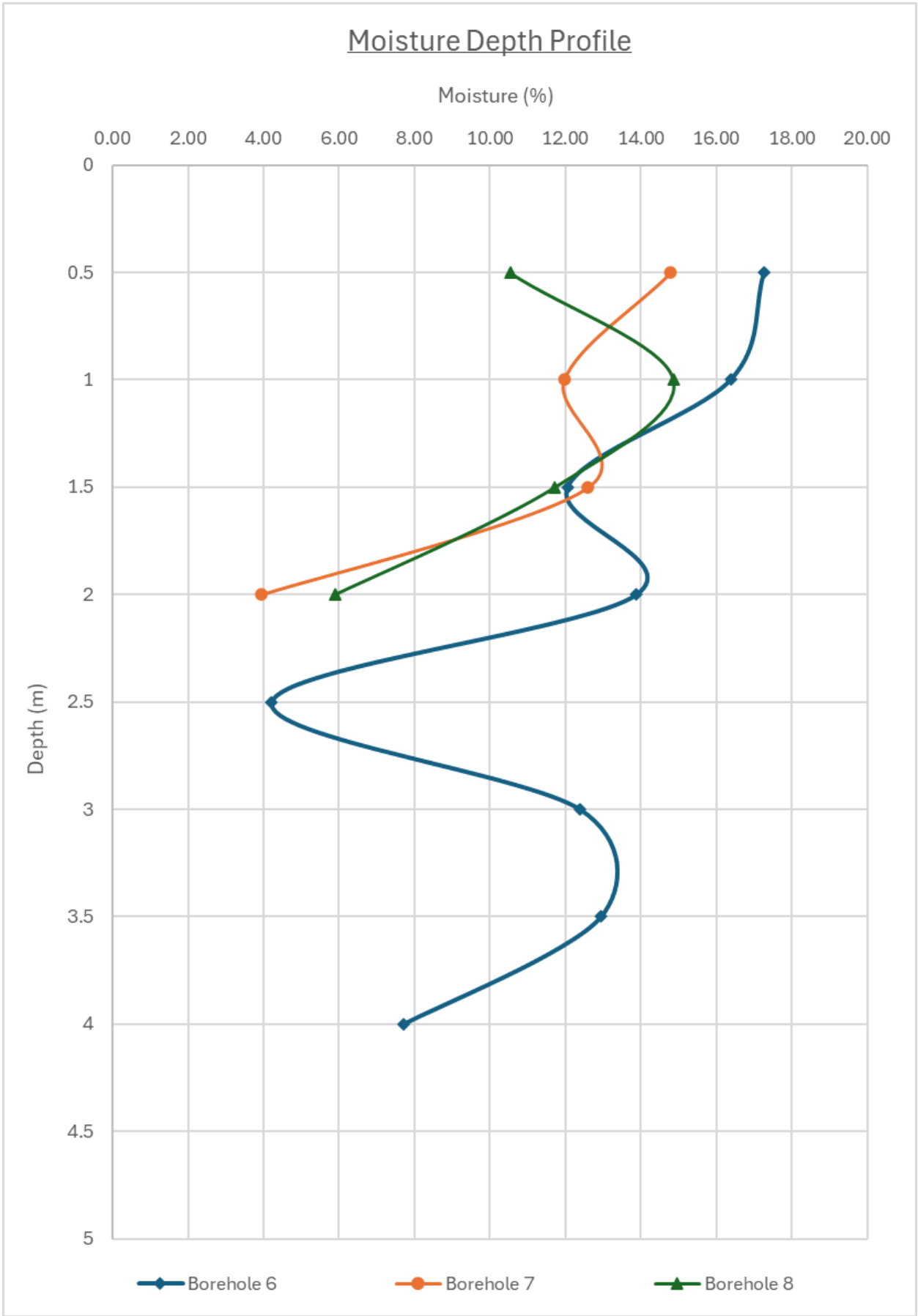
GEO INVESTIGATE

Geotechnical Test Results

Our Ref: G26117
Your Ref:
Location: Oxford Road, Gomersal, BD19 4JS

TP / BH No.	Sample Depth (m)	Insitu Moisture Content (%)	% Passing BS 425 Micron Sieve	Corrected Moisture Content (%)	Plastic Limit (%)	Liquid Limit (%)	Plasticity Index (%)	Soil Classification BS5930 [1999]
6	0.50	17.3						
	1.00	16.4						
	1.50	12.1	51.4	*	*	*	*	*
	2.00	13.9						
	2.50	4.2						
	3.00	12.4						
	3.50	12.9						
	4.00	7.7						
7	0.50	14.8						
	1.00	12.0						
	1.50	12.6	64.9	*	*	*	*	*
	2.00	4.0						
8	0.50	10.5						
	1.00	14.9						
	1.50	11.7	45.8	*	*	*	*	*
	2.00	5.9						

* Note - Essentially Non Plastic Material


Moisture Depth Profile
Moisture (%)
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
Depth (m)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
Borehole 6
Borehole 7
Borehole 8

APPENDIX 3

Contamination Testing Report

ANALYTICAL TEST REPORT

Report Number	26-04496, issue number 1
Contract name:	Oxford Road Gomersal
Client reference:	G26117
Clients name:	Geo Investigate Ltd
Clients address:	Geo Investigate Ltd Unit 4 & 5 Terry Dicken Industrial Estate Stokesley TS9 7AE
Samples received:	17/04/2026
Analysis started:	18/04/2026
Analysis completed:	28/04/2026
Report issued:	28/04/2026

Key

U UKAS accredited test
M MCERTS & UKAS accredited test
(B) Analysis performed at Southampton Site
I/S Insufficient sample to carry out test
U/S Sample not suitable for testing
NAD No Asbestos Detected
Full key available on Information page



Approved by:

Sam Rogerson
Receipt and Reporting Manager

Unit 6 Parkhead, Greencroft Industrial Park, Stanley, County Durham, DH9 7YB

Telephone: (01207) 528578, Email supportsquad@chemtech-env.co.uk

SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
% Moisture reported as MCERTS drying at 30ºC

Lab ref	Sample ID	Depth (m)	Sample description	Material removed	% Removed	% Moisture
101102	BH5	0.50	Brown Sandy Clay with Vegetation and Gravel.	-	-	20.8
101103	TPE	0.50	Brown Sandy Clay with Vegetation and Gravel.	-	-	12.2
101104	TPA	0.50	Brown Sandy Clay with Vegetation and Gravel.	-	-	11.1
101105	TPC	0.50	Brown Sandy Clay with Vegetation and Gravel.	-	-	16.7
101106	BH6	0.50	Brown Sandy Clay with Vegetation and Gravel.	-	-	19.1
101107	TPB	0.50	Brown Sandy Clay with Vegetation and Gravel.	-	-	12.7

SOILS

Lab Number					101102	101103	101104	101105	101106
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH5	TPE	TPA	TPC	BH6
Depth (m)					0.50	0.50	0.50	0.50	0.50
Sampling Date					10/04/2026	10/04/2026	10/04/2026	10/04/2026	10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**					
Asbestos									
Asbestos Identification	SUBCON	SU	0	-	NAD	NAD	NAD	NAD	NAD
Metals									
Water Soluble Sulphate	CE061	M	20	mg/kg	n/t	31.1	29.8	< 20.0	33.6
Water Soluble Boron	CE063	N	0.5	mg/kg	n/t	< 0.50	< 0.50	< 0.50	< 0.50
Antimony	CE264	U	4.7	mg/kg	< 4.7	n/t	n/t	n/t	n/t
Arsenic	CE264	M	2.3	mg/kg	13.8	5.6	6.5	4.6	15.7
Barium	CE264	M	7.6	mg/kg	95.7	n/t	n/t	n/t	n/t
Cadmium	CE264	M	1.1	mg/kg	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
Chromium	CE264	U	1.3	mg/kg	18.3	19.7	19.2	22.1	22.3
Copper	CE264	M	1.2	mg/kg	19.2	15.0	16.4	13.3	338
Lead	CE264	U	2.4	mg/kg	33.7	14.9	10.6	9.3	218
Mercury	CE264	M	0.6	mg/kg	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Molybdenum	CE264	M	1.1	mg/kg	1.1	n/t	n/t	n/t	n/t
Nickel	CE264	M	1.6	mg/kg	20.0	32.0	26.5	19.2	20.8
Selenium	CE264	M	3	mg/kg	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Zinc	CE264	M	2.4	mg/kg	80.5	40.3	83.8	68.7	203
PCB (ICES 7 congeners)									
Total PCBs (7 congeners)	CE137	M	0.035	mg/kg	< 0.035	n/t	n/t	n/t	n/t
PCB 101	CE137	M	0.015	mg/kg	< 0.015	n/t	n/t	n/t	n/t
PCB 118	CE137	M	0.015	mg/kg	< 0.015	n/t	n/t	n/t	n/t
PCB 138	CE137	M	0.015	mg/kg	< 0.015	n/t	n/t	n/t	n/t
PCB 153	CE137	M	0.01	mg/kg	< 0.010	n/t	n/t	n/t	n/t
PCB 180	CE137	M	0.01	mg/kg	< 0.010	n/t	n/t	n/t	n/t
PCB 28	CE137	M	0.015	mg/kg	< 0.015	n/t	n/t	n/t	n/t
PCB 52	CE137	M	0.01	mg/kg	< 0.010	n/t	n/t	n/t	n/t
Colourimetric									
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	n/t	< 0.040	< 0.040	< 0.040	< 0.040
Total Monohydric Phenols	CE078	N	0.5	mg/kg	n/t	< 0.50	< 0.50	< 0.50	< 0.50
Total Cyanide	CE077	N	1	mg/kg	n/t	< 1.0	< 1.0	< 1.0	< 1.0

SOILS

Lab Number					101102	101103	101104	101105	101106
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH5	TPE	TPA	TPC	BH6
Depth (m)					0.50	0.50	0.50	0.50	0.50
Sampling Date					10/04/2026	10/04/2026	10/04/2026	10/04/2026	10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**					
Free Cyanide	CE077	N	1	mg/kg	n/t	< 1.0	< 1.0	< 1.0	< 1.0
Chromium III	CE208	N	2	mg/kg	n/t	19.7	19.2	22.1	22.3
Thiocyanate	CE145	M	1	mg/kg	n/t	g < 1.0	g < 1.0	g < 1.0	g < 1.0
Total Sulphide	CE284	N	4	mg/kg	n/t	g < 4	g < 4	g < 4	g < 4
Combustion									
Moisture Content	CE001	N	0.1	%	20.8	12.2	11.1	16.7	19.1
Total Organic Carbon	CE197	M	0.1	%	4.26	n/t	n/t	n/t	n/t
Loss on Ignition	CE006	U	0.1	%	8.44	n/t	n/t	n/t	n/t
Soil Organic Matter	CE192	N	0.1	%	n/t	0.78	0.79	1.03	8.03
Polyaromatic hydrocarbons									
Naphthalene	CE087	M	0.016	mg/kg	< 0.016	< 0.016	< 0.016	< 0.016	0.088
Acenaphthylene	CE087	M	0.015	mg/kg	< 0.015	< 0.015	< 0.015	< 0.015	0.066
Acenaphthene	CE087	M	0.013	mg/kg	0.017	< 0.013	< 0.013	< 0.013	0.044
Fluorene	CE087	U	0.013	mg/kg	< 0.013	< 0.013	< 0.013	< 0.013	0.068
Phenanthrene	CE087	M	0.014	mg/kg	0.235	< 0.014	< 0.014	< 0.014	0.915
Anthracene	CE087	U	0.017	mg/kg	0.062	< 0.017	< 0.017	< 0.017	0.285
Fluoranthene	CE087	M	0.017	mg/kg	0.619	< 0.017	0.017	< 0.017	2.53
Pyrene	CE087	M	0.016	mg/kg	0.532	< 0.016	0.016	< 0.016	2.30
Benzo(a)anthracene	CE087	U	0.012	mg/kg	0.310	< 0.012	< 0.012	< 0.012	1.54
Chrysene	CE087	M	0.028	mg/kg	0.275	< 0.028	< 0.028	< 0.028	1.45
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	0.369	< 0.020	< 0.020	< 0.020	2.28
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	0.166	< 0.025	< 0.025	< 0.025	0.946
Benzo(a)pyrene	CE087	U	0.019	mg/kg	0.289	< 0.019	< 0.019	< 0.019	2.05
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	0.258	< 0.019	< 0.019	< 0.019	1.90
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	0.044	< 0.017	< 0.017	< 0.017	0.317
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	0.178	< 0.019	< 0.019	< 0.019	1.29
Coronene	CE087	N	0.02	mg/kg	0.041	n/t	n/t	n/t	n/t
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	< 0.280	< 0.280	< 0.280	18.1
Total PAH(17)	CE087	N	0.3	mg/kg	3.40	n/t	n/t	n/t	n/t
BTEX									

SOILS

Lab Number					101102	101103	101104	101105	101106
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH5	TPE	TPA	TPC	BH6
Depth (m)					0.50	0.50	0.50	0.50	0.50
Sampling Date					10/04/2026	10/04/2026	10/04/2026	10/04/2026	10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**					
Benzene	CE267	U	0.001	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	CE267	U	0.001	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	CE267	U	0.001	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes	CE267	N	0.004	mg/kg	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
MTBE	CE267	N	0.002	mg/kg	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Total BTEX	CE267	N	0.007	mg/kg	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
m,p-Xylene	CE267	U	0.002	mg/kg	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
oXylenes	CE267	U	0.002	mg/kg	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Total Petroleum Hydrocarbons									
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	< 0.10	< 0.10	< 0.10	< 0.10
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	< 0.10	< 0.10	< 0.10	< 0.10
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	< 0.10	< 0.10	< 0.10	< 0.10
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	mg/kg	n/t	< 1.0	< 1.0	< 1.0	< 1.0
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	n/t	0.7	0.6	0.6	1.4
>C16-C21 Aliphatic (EH_2D_AL)	CE250	N	0.7	mg/kg	n/t	1.0	0.9	1.0	2.0
>C21-C35 Aliphatic (EH_2D_AL)	CE250	N	4	mg/kg	n/t	8.6	7.6	6.0	11.6
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	n/t	1.5	1.1	1.1	2.7
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	< 0.010	< 0.010	< 0.010	< 0.010
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	< 0.010	< 0.010	< 0.010	< 0.010
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	< 0.010	< 0.010	< 0.010	< 0.010
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	0.6	mg/kg	n/t	1.8	1.6	1.5	2.5
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	mg/kg	n/t	7.2	6.6	6.8	10.2
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	n/t	3.4	2.8	3.1	10.6
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	4.5	mg/kg	n/t	45.0	37.6	34.1	71.5
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	n/t	8.0	6.6	9.1	17.9
Mineral Oil (>C10-C40 Total) (EH_CU_1D_Total)	CE162	N	19	mg/kg	64	n/t	n/t	n/t	n/t
Wet Chem									
pH	CE004	M	0.1	pH units	6.3	7.1	6.4	7.0	6.7
Acid Neutralisation Capacity pH4	CE083	N	0.02	mol/kg	0.020	n/t	n/t	n/t	n/t
Acid Neutralisation Capacity pH7	CE083	N	0.02	mol/kg	< 0.020	n/t	n/t	n/t	n/t

SOILS

Lab Number					101107
Client Reference					SOIL
Sample ID					TPB
Depth (m)					0.50
Sampling Date					10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**	
Asbestos					
Asbestos Identification	SUBCON	SU	0	-	NAD
Metals					
Water Soluble Sulphate	CE061	M	20	mg/kg	< 20.0
Water Soluble Boron	CE063	N	0.5	mg/kg	< 0.50
Antimony	CE264	U	4.7	mg/kg	n/t
Arsenic	CE264	M	2.3	mg/kg	6.2
Barium	CE264	M	7.6	mg/kg	n/t
Cadmium	CE264	M	1.1	mg/kg	< 1.1
Chromium	CE264	U	1.3	mg/kg	19.1
Copper	CE264	M	1.2	mg/kg	40.8
Lead	CE264	U	2.4	mg/kg	27.1
Mercury	CE264	M	0.6	mg/kg	< 0.6
Molybdenum	CE264	M	1.1	mg/kg	n/t
Nickel	CE264	M	1.6	mg/kg	23.5
Selenium	CE264	M	3	mg/kg	< 3.0
Zinc	CE264	M	2.4	mg/kg	93.6
PCB (ICES 7 congeners)					
Total PCBs (7 congeners)	CE137	M	0.035	mg/kg	n/t
PCB 101	CE137	M	0.015	mg/kg	n/t
PCB 118	CE137	M	0.015	mg/kg	n/t
PCB 138	CE137	M	0.015	mg/kg	n/t
PCB 153	CE137	M	0.01	mg/kg	n/t
PCB 180	CE137	M	0.01	mg/kg	n/t
PCB 28	CE137	M	0.015	mg/kg	n/t
PCB 52	CE137	M	0.01	mg/kg	n/t
Colourimetric					
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	< 0.040
Total Monohydric Phenols	CE078	N	0.5	mg/kg	< 0.50
Total Cyanide	CE077	N	1	mg/kg	< 1.0

SOILS

Lab Number					101107
Client Reference					SOIL
Sample ID					TPB
Depth (m)					0.50
Sampling Date					10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**	
Free Cyanide	CE077	N	1	mg/kg	< 1.0
Chromium III	CE208	N	2	mg/kg	19.1
Thiocyanate	CE145	M	1	mg/kg	g < 1.0
Total Sulphide	CE284	N	4	mg/kg	g < 4
Combustion					
Moisture Content	CE001	N	0.1	%	12.7
Total Organic Carbon	CE197	M	0.1	%	n/t
Loss on Ignition	CE006	U	0.1	%	n/t
Soil Organic Matter	CE192	N	0.1	%	0.79
Polyaromatic hydrocarbons					
Naphthalene	CE087	M	0.016	mg/kg	< 0.016
Acenaphthylene	CE087	M	0.015	mg/kg	< 0.015
Acenaphthene	CE087	M	0.013	mg/kg	< 0.013
Fluorene	CE087	U	0.013	mg/kg	< 0.013
Phenanthrene	CE087	M	0.014	mg/kg	< 0.014
Anthracene	CE087	U	0.017	mg/kg	< 0.017
Fluoranthene	CE087	M	0.017	mg/kg	< 0.017
Pyrene	CE087	M	0.016	mg/kg	< 0.016
Benzo(a)anthracene	CE087	U	0.012	mg/kg	0.017
Chrysene	CE087	M	0.028	mg/kg	< 0.028
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	< 0.020
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	< 0.025
Benzo(a)pyrene	CE087	U	0.019	mg/kg	< 0.019
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	< 0.019
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	< 0.017
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	< 0.019
Coronene	CE087	N	0.02	mg/kg	n/t
Total PAH(16)	CE087	N	0.28	mg/kg	< 0.280
Total PAH(17)	CE087	N	0.3	mg/kg	n/t
BTEX					

SOILS

Lab Number					101107
Client Reference					SOIL
Sample ID					TPB
Depth (m)					0.50
Sampling Date					10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**	
Benzene	CE267	U	0.001	mg/kg	< 0.001
Toluene	CE267	U	0.001	mg/kg	< 0.001
Ethylbenzene	CE267	U	0.001	mg/kg	< 0.001
Xylenes	CE267	N	0.004	mg/kg	< 0.004
MTBE	CE267	N	0.002	mg/kg	< 0.002
Total BTEX	CE267	N	0.007	mg/kg	< 0.007
m,p-Xylene	CE267	U	0.002	mg/kg	< 0.002
oXylenes	CE267	U	0.002	mg/kg	< 0.002
Total Petroleum Hydrocarbons					
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	mg/kg	< 1.0
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	0.5
>C16-C21 Aliphatic (EH_2D_AL)	CE250	N	0.7	mg/kg	1.2
>C21-C35 Aliphatic (EH_2D_AL)	CE250	N	4	mg/kg	8.4
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	1.1
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	0.6	mg/kg	1.5
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	mg/kg	5.9
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	2.6
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	4.5	mg/kg	27.1
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	6.3
Mineral Oil (>C10-C40 Total) (EH_CU_1D_Total)	CE162	N	19	mg/kg	n/t
Wet Chem					
pH	CE004	M	0.1	pH units	7.3
Acid Neutralisation Capacity pH4	CE083	N	0.02	mol/kg	n/t
Acid Neutralisation Capacity pH7	CE083	N	0.02	mol/kg	n/t

LEACHATE

Lab Number					101102	101104	101105	101106
Client Reference					SOIL	SOIL	SOIL	SOIL
Sample ID					BH5	TPA	TPC	BH6
Depth (m)					0.50	0.50	0.50	0.50
Sampling Date					10/04/2026	10/04/2026	10/04/2026	10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**				
Metals								
Arsenic 2:1	CE265	N	0.1	µg/l	1.07	n/t	n/t	n/t
Barium 2:1	CE265	N	0.9	µg/l	9.05	n/t	n/t	n/t
Cadmium 2:1	CE265	N	0.1	µg/l	< 0.10	n/t	n/t	n/t
Chromium 2:1	CE265	N	0.5	µg/l	0.86	n/t	n/t	n/t
Copper 2:1	CE265	N	0.6	µg/l	5.41	n/t	n/t	n/t
Mercury 2:1	CE265	N	0.05	µg/l	< 0.050	n/t	n/t	n/t
Molybdenum 2:1	CE265	N	0.9	µg/l	< 0.90	n/t	n/t	n/t
Nickel 2:1	CE265	N	0.4	µg/l	1.29	n/t	n/t	n/t
Lead 2:1	CE265	N	0.6	µg/l	9.43	n/t	n/t	n/t
Antimony 2:1	CE265	N	0.8	µg/l	< 0.80	n/t	n/t	n/t
Selenium 2:1	CE265	N	1.1	µg/l	< 1.10	n/t	n/t	n/t
Zinc 2:1	CE265	N	3	µg/l	9.60	n/t	n/t	n/t
Arsenic 8:1	CE265	N	0.1	µg/l	0.79	n/t	n/t	n/t
Barium 8:1	CE265	N	0.9	µg/l	6.36	n/t	n/t	n/t
Cadmium 8:1	CE265	N	0.1	µg/l	< 0.10	n/t	n/t	n/t
Chromium 8:1	CE265	N	0.5	µg/l	0.71	n/t	n/t	n/t
Copper 8:1	CE265	N	0.6	µg/l	3.18	n/t	n/t	n/t
Mercury 8:1	CE265	N	0.05	µg/l	< 0.05	n/t	n/t	n/t
Molybdenum 8:1	CE265	N	0.9	µg/l	< 0.90	n/t	n/t	n/t
Nickel 8:1	CE265	N	0.4	µg/l	0.72	n/t	n/t	n/t
Lead 8:1	CE265	N	0.6	µg/l	1.18	n/t	n/t	n/t
Antimony 8:1	CE265	N	0.8	µg/l	< 0.80	n/t	n/t	n/t
Selenium 8:1	CE265	N	1.1	µg/l	< 1.10	n/t	n/t	n/t
Zinc 8:1	CE265	N	3	µg/l	3.06	n/t	n/t	n/t
Arsenic 2:1	CE265	N	0.0002	mg/kg	0.0021	n/t	n/t	n/t
Barium 2:1	CE265	N	0.0018	mg/kg	0.0181	n/t	n/t	n/t
Arsenic Leachate	CE265	U	0.1	µg/l	n/t	0.21	0.18	0.77
Cadmium 2:1	CE265	N	0.0002	mg/kg	< 0.0002	n/t	n/t	n/t
Sulphur Leachate	CE265	U	0.8	mg/l	n/t	1.31	1.14	0.95

LEACHATE

Lab Number					101102	101104	101105	101106
Client Reference					SOIL	SOIL	SOIL	SOIL
Sample ID					BH5	TPA	TPC	BH6
Depth (m)					0.50	0.50	0.50	0.50
Sampling Date					10/04/2026	10/04/2026	10/04/2026	10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**				
Chromium 2:1	CE265	N	0.001	mg/kg	0.002	n/t	n/t	n/t
Copper 2:1	CE265	N	0.0012	mg/kg	0.0108	n/t	n/t	n/t
Boron Leachate	CE265	N	4	µg/l	n/t	7.1	7.5	15.5
Mercury 2:1	CE265	N	0.0001	mg/kg	< 0.0001	n/t	n/t	n/t
Cadmium Leachate	CE265	U	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Molybdenum 2:1	CE265	N	0.0018	mg/kg	< 0.0018	n/t	n/t	n/t
Nickel 2:1	CE265	N	0.0008	mg/kg	0.0026	n/t	n/t	n/t
Chromium Leachate	CE265	U	0.5	µg/l	n/t	< 0.50	0.54	1.01
Lead 2:1	CE265	N	0.0012	mg/kg	0.0189	n/t	n/t	n/t
Antimony 2:1	CE265	N	0.0016	mg/kg	< 0.0016	n/t	n/t	n/t
Copper Leachate	CE265	U	0.5	µg/l	n/t	< 0.50	0.73	8.70
Selenium 2:1	CE265	N	0.0022	mg/kg	< 0.0022	n/t	n/t	n/t
Zinc 2:1	CE265	N	0.006	mg/kg	0.019	n/t	n/t	n/t
Lead Leachate	CE265	U	0.6	µg/l	n/t	< 0.60	< 0.60	4.71
Mercury Leachate	CE265	N	0.05	µg/l	n/t	< 0.050	< 0.050	< 0.050
Nickel Leachate	CE265	U	0.4	µg/l	n/t	< 0.40	< 0.40	1.13
Selenium Leachate	CE265	U	1.1	µg/l	n/t	< 1.1	< 1.1	< 1.1
Zinc Leachate	CE265	U	3.5	µg/l	n/t	< 3.5	< 3.5	15.3
Arsenic 10:1	CE265	N	0.001	mg/kg	0.008	n/t	n/t	n/t
Barium 10:1	CE265	N	0.009	mg/kg	0.066	n/t	n/t	n/t
Cadmium 10:1	CE265	N	0.001	mg/kg	< 0.001	n/t	n/t	n/t
Chromium 10:1	CE265	N	0.005	mg/kg	0.007	n/t	n/t	n/t
Copper 10:1	CE265	N	0.006	mg/kg	0.034	n/t	n/t	n/t
Mercury 10:1	CE265	N	0.0005	mg/kg	< 0.0005	n/t	n/t	n/t
Molybdenum 10:1	CE265	N	0.009	mg/kg	< 0.009	n/t	n/t	n/t
Nickel 10:1	CE265	N	0.004	mg/kg	0.008	n/t	n/t	n/t
Lead 10:1	CE265	N	0.006	mg/kg	0.020	n/t	n/t	n/t
Antimony 10:1	CE265	N	0.008	mg/kg	< 0.008	n/t	n/t	n/t
Selenium 10:1	CE265	N	0.011	mg/kg	< 0.011	n/t	n/t	n/t
Zinc 10:1	CE265	N	0.03	mg/kg	0.04	n/t	n/t	n/t

LEACHATE

Lab Number					101102	101104	101105	101106
Client Reference					SOIL	SOIL	SOIL	SOIL
Sample ID					BH5	TPA	TPC	BH6
Depth (m)					0.50	0.50	0.50	0.50
Sampling Date					10/04/2026	10/04/2026	10/04/2026	10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**				
Colourimetric								
Chloride 2:1	CE257	N	0.4	mg/l	< 0.40	n/t	n/t	n/t
Fluoride 2:1	CE257	N	0.08	mg/l	0.200	n/t	n/t	n/t
Sulphate 2:1	CE257	N	0.3	mg/l	0.500	n/t	n/t	n/t
Phenol Index 2:1	CE148	N	0.01	mg/l	< 0.010	n/t	n/t	n/t
Chloride 8:1	CE257	N	0.4	mg/l	< 0.40	n/t	n/t	n/t
Fluoride 8:1	CE257	N	0.08	mg/l	0.100	n/t	n/t	n/t
Sulphate 8:1	CE257	N	0.3	mg/l	< 0.300	n/t	n/t	n/t
Phenol Index 8:1	CE148	N	0.01	mg/l	< 0.010	n/t	n/t	n/t
Chloride 2:1	CE257	N	0.8	mg/kg	< 0.80	n/t	n/t	n/t
Fluoride 2:1	CE257	N	0.16	mg/kg	0.400	n/t	n/t	n/t
Sulphate 2:1	CE257	N	0.6	mg/kg	1.00	n/t	n/t	n/t
Phenol Index 2:1	CE148	N	0.02	mg/kg	< 0.020	n/t	n/t	n/t
Sulphate	CE257	U	0.3	mg/l	n/t	< 0.30	< 0.30	< 0.30
Chloride 10:1	CE257	N	4	mg/kg	< 4.0	n/t	n/t	n/t
Fluoride 10:1	CE257	N	0.8	mg/kg	1.09	n/t	n/t	n/t
Sulphate 10:1	CE257	N	3	mg/kg	< 3.0	n/t	n/t	n/t
Phenol Index 10:1	CE148	N	0.1	mg/kg	< 0.10	n/t	n/t	n/t
Total Monohydric Phenols	CE148	N	10	µg/l	n/t	< 10	< 10	< 10
Total Cyanide	CE147	N	5	µg/l	n/t	< 5.0	51.4	5.3
Free Cyanide	CE147	N	5	µg/l	n/t	< 5.0	< 5.0	< 5.0
Thiocyanate	CE014	N	200	µg/l	n/t	< 200	< 200	< 200
Sulphide	CE283	N	0.4	mg/l	n/t	g < 0.40	g 0.43	g 0.59
Combustion								
Total Dissolved Solids 2:1	CE039	N	10	mg/l	42.6	n/t	n/t	n/t
Dissolved Organic Carbon 2:1	CE247	N	0.85	mg/l	3.33	n/t	n/t	n/t
Total Dissolved Solids 8:1	CE039	N	10	mg/l	43	n/t	n/t	n/t
Dissolved Organic Carbon 8:1	CE247	N	0.85	mg/l	3.21	n/t	n/t	n/t
Total Dissolved Solids 2:1	CE039	N	20	mg/kg	85.1	n/t	n/t	n/t
Dissolved Organic Carbon 2:1	CE247	N	1.7	mg/kg	6.7	n/t	n/t	n/t

LEACHATE

Lab Number					101102	101104	101105	101106
Client Reference					SOIL	SOIL	SOIL	SOIL
Sample ID					BH5	TPA	TPC	BH6
Depth (m)					0.50	0.50	0.50	0.50
Sampling Date					10/04/2026	10/04/2026	10/04/2026	10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**				
Total Dissolved Solids 10:1	CE039	N	100	mg/kg	426	n/t	n/t	n/t
Dissolved Organic Carbon 10:1	CE247	N	8.5	mg/kg	32.2	n/t	n/t	n/t
Polyaromatic hydrocarbons								
Naphthalene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Acenaphthylene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Acenaphthene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Fluorene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Phenanthrene	CE051	N	0.1	µg/l	n/t	0.13	< 0.10	0.17
Anthracene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Fluoranthene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Pyrene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Benzo(a)anthracene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Chrysene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Benzo(b)fluoranthene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Benzo(a)pyrene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Dibenzo(a,h)anthracene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Benzo(g,h,i)perylene	CE051	N	0.1	µg/l	n/t	< 0.10	< 0.10	< 0.10
Total PAH(16)	CE051	N	1.6	µg/l	n/t	< 1.60	< 1.60	< 1.60
Wet Chem								
pH 2:1	CE213	N	0	pH units	8.0	n/t	n/t	n/t
Conductivity 2:1	CE214	N	10	µS/cm	56	n/t	n/t	n/t
Temperature 2:1	CE002	N	0	°C	18	n/t	n/t	n/t
Dry mass of test portion	CE002	N	0	kg	0.175	n/t	n/t	n/t
Dry Matter	CE002	N	0.1	%	79.2	n/t	n/t	n/t
Eluent Volume	CE002	N	0	l	0.165	n/t	n/t	n/t
Leachant Volume - L2	CE002	N	0	l	0.304	n/t	n/t	n/t
Leachant Volume - L8	CE002	N	0	l	1.40	n/t	n/t	n/t
pH (10:1 extract)	CE213	U	0.1	pH units	n/t	7.8	7.8	7.6

LEACHATE

Lab Number					101102	101104	101105	101106
Client Reference					SOIL	SOIL	SOIL	SOIL
Sample ID					BH5	TPA	TPC	BH6
Depth (m)					0.50	0.50	0.50	0.50
Sampling Date					10/04/2026	10/04/2026	10/04/2026	10/04/2026
Test	**Method**	**Accred**	**LoD**	**Units**				
Moisture Content	CE001	N	0.1	%	26.3	n/t	n/t	n/t
pH 8:1	CE213	N	0	pH units	8.2	n/t	n/t	n/t
Conductivity 8:1	CE214	N	10	µS/cm	56	n/t	n/t	n/t
Temperature 8:1	CE002	N	0	°C	18	n/t	n/t	n/t

Waste Acceptance Criteria Testing
BS EN 12457-Part 3, Two Stage Process

CHEMTECH environmental

WAC Analysis

Lab Ref:	101102					**Landfill Waste Acceptance Criteria Limits**		
Job Number:	26-04496					**Inert Waste Landfill**	**Stable Non-reactive Hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Sample Date:	10/04/2026							
Sample ID:	BH5							
Depth (m)	0.50							
Site:	Oxford Road Gomersal							
Determinand	**Code**	**Units**	**Result**					
Total Organic Carbon	MU	%	4.26			3	5	6
Loss on Ignition	U	%	8.44			--	--	10
Total BTEX	N	mg/kg	< 0.007			6	--	--
Total PCBs (7 congeners)	MU	mg/kg	< 0.035			1	--	--
Mineral Oil (>C10-C40 Aliphatic) (EH_CU_1D_AL)	N	mg/kg	64			500	--	--
Total (of 17) PAHs	N	mg/kg	3.4			100	--	--
pH	MU		6.3			--	>6	--
Acid Neutralisation Capacity (pH4)	N	mol/kg	0.02			--	To be evaluated	
Acid Neutralisation Capacity (pH7)	N	mol/kg	< 0.020			--	To be evaluated	
Eluate Analysis		**Conc in Eluate**		**2:1**	**10:1**	**Council Decision 2003/33/EC**		
		2:1	**8:1**	**mg/kg**	**mg/kg**	**Limit Values mg/kg at L:S 10:1**		
Arsenic (µg/l)	N	1.07	0.79	0.0021	0.008	0.5	2	25
Barium (µg/l)	N	9.05	6.36	0.0181	0.066	20	100	300
Cadmium (µg/l)	N	< 0.10	< 0.10	< 0.0002	< 0.001	0.04	1	5
Chromium (µg/l)	N	0.86	0.71	0.002	0.007	0.5	10	70
Copper (µg/l)	N	5.41	3.18	0.0108	0.034	2	50	100
Mercury (µg/l)	N	< 0.050	< 0.05	< 0.0001	< 0.0005	0.01	0.2	2
Molybdenum (µg/l)	N	< 0.90	< 0.90	< 0.0018	< 0.009	0.5	10	30
Nickel (µg/l)	N	1.29	0.72	0.0026	0.008	0.4	10	40
Lead (µg/l)	N	9.43	1.18	0.0189	0.02	0.5	10	50
Antimony (µg/l)	N	< 0.80	< 0.80	< 0.0016	< 0.008	0.06	0.7	5
Selenium (µg/l)	N	< 1.10	< 1.10	< 0.0022	< 0.011	0.1	0.5	7
Zinc (µg/l)	N	9.6	3.06	0.019	0.04	4	50	200
Chloride (mg/l)	N	< 0.40	< 0.40	< 0.80	< 4.0	800	15000	25000
Fluoride (mg/l)	N	0.2	0.1	0.4	1.09	10	150	500
Sulphate (mg/l)	N	0.5	< 0.300	1	< 3.0	1000	20000	50000
Total Dissolved Solids (mg/l)	N	42.6	43	85.1	426	4000	60000	100000
Phenol Index (mg/l)	N	< 0.010	< 0.010	< 0.020	< 0.10	1	-	-
Dissolved Organic Carbon (mg/l)	N	3.33	3.21	6.7	32.2	500	800	1000
Leach Test Information								
pH	N	8	8.2					
Conductivity (uS/cm)	N	56	56					
Temperature (°C)	N	18	18					
Mass of dried test portion (kg)	N	0.175						
Mass of wet test portion (kg)	N	0.221						
Dry Matter (%)	N	79.2						
Moisture (%)	N	26.3						
Material Removed (%)								
Eluate Volume (1) (VE1) Litre	N	0.165						
Eluent Volume (l) L2/L8	N	0.304	1.4					

Disclaimer: The Landfill Waste Acceptance Criteria limits in this report are provided for guidance only and values are transcribed from the Council Decision annex 2003/33/EC

Chemtech Environmental Ltd does not take responsibility for any errors or omissions in the transcription, and all data should be verified by the end user.

Results will be colour flagged to the lowest threshold value breached. Any assessments made are based on the published results from the Laboratory and make no assessment of uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. Method uncertainty levels can be provided Interpretation/assessment is outside the scope of the laboratory's UKAS accreditation.
Moisture Content Calculated on Wet Weight Basis

METHOD DETAILS

METHOD	TESTNAME	METHOD SUMMARY	ANALYSIS BASIS
CE267	VPH in Soil	HS-GCFID	As submitted sample
CE265	Metals by ICP in 2:1 WAC	ICPMS	As submitted sample
CE002	WAC in leachates 2:1 two stage	BS12457-3	As submitted sample
CE250	GCXGC in Soil	DCM Extraction and GCxGC-FID	As submitted sample
CE257	Anions in 2:1 WAC	Gallery Discrete Analyser/IC	As submitted sample
CE148	Phenols in 2:1 WAC	Continuous Flow Analyser	As submitted sample
CE247	DOC in 2:1 WAC	FORMACS TOC Analyser	As submitted sample
CE002	WAC moistures	Gravimetric	As submitted sample
SUBCON	Asbestos Soil	HSG248	Air Dried Sample
CE213	pH of Leachate	Potentiometric	-
CE001	WAC in leachates 10:1 two stage	BS12457-3	As submitted sample
CE265	Metals by ICP in 8:1 WAC	FORMACS TOC Analyser	As submitted sample
CE083	Acid Neutralisation Capacity	Titration	Air dried sample
CE257	Anions in 8:1 WAC	Gallery Discrete Analyser/IC	As submitted sample
CE039	WAC in leachates 8:1 two stage	BS12457-3	As submitted sample
CE148	Phenols in 8:1 WAC	Continuous Flow Analyser	As submitted sample
CE247	DOC in 8:1 WAC	FORMACS TOC Analyser	As submitted sample
CE061	W. Sol Metals	ICPOES	Air dried sample
CE063	Water soluble boron	ICPOES	Air dried sample
CE137	PCB's in Soil	DCM Extraction and GCMS	As submitted sample
CE264	Metals by ICP in Soil	ICPOES	Air dried sample
CE265	Dissolved metals by ICP in Leachate	ICPMS	As submitted sample
CE267	BTEX in Soils	Analysis by HSGCFID	As submitted sample
CE263	ChromiumVI by Discrete Analyser in Soil	Gallery	Air dried sample
CE257	Anions by Discrete Analyser in Leachate	Gallery	As submitted sample
CE051	PAH in Leachate	DCM Extraction and GCMS	As submitted sample
CE087	PAH in Soil	DCM Extraction and GCMS	As submitted sample
CE148	Phenols in Leachate	Continuous Flow Analyser	As submitted sample
CE078	Phenols in Soil	Continuous Flow Analyser	As submitted sample
CE147	Cyanides in Leachate	Continuous Flow Analyser	As submitted sample
CE077	Cyanides in Soils	Continuous Flow Analyser	As submitted sample
CE014	Thiocyanate in Leachate	UV Spectrometer	As submitted sample
CE283	Sulphide By DA in Leachate	Gallery Discrete Analyser	As submitted sample
CE208	Chromium Hexavalent in Soil	Colorimetry	Air dried sample
CE145	Thiocyanate	UV Spectrometer	Air dried sample
CE284	Sulphide By DA in Soil	Gallery Discrete Analyser	Air dried sample
CE197	TOC In Soil	PRIMACS Combustion Analyser	Air dried sample
CE006	Loss on ignition at 440 deg C	Gravimetric	Air dried sample
CE162	Mineral Oil in Soil	Acetone:Hexane extract, Floriil clean up and GCFID	As submitted sample

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

a	Sampling date not provided
b	Sampling time not provided (waters only)
c	Sample not received in appropriate containers
d	Storage Temperature
e	Headspace present in sample container
f	Sample exceeded sampling to receipt
g	Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
101102	BH5	0.50	N	
101103	TPE	0.50	Y	Sulphide By DA in Soil(g), Thiocyanate(g)
101104	TPA	0.50	Y	Sulphide By DA in Soil(g), Sulphide By DA in Leachate(g), Thiocyanate(g)
101105	TPC	0.50	Y	Sulphide By DA in Soil(g), Sulphide By DA in Leachate(g), Thiocyanate(g)
101106	BH6	0.50	Y	Sulphide By DA in Soil(g), Sulphide By DA in Leachate(g), Thiocyanate(g)
101107	TPB	0.50	Y	Sulphide By DA in Soil(g), Thiocyanate(g)

REPORT INFORMATION

Report No.:26-04496, issue number 1

Key	
U	ISO17025 Accredited Result
M	ISO17025 and MCERTS Accredited Result
N	Do not currently hold accreditation
^	MCERTS accreditation not applicable for sample matrix
*	ISO17025 accreditation not applicable for sample matrix
S	Subcontracted
I/S	Insufficient Sample
U/S	Unsuitable sample
N/T	Not tested
<	Means "less than"
>	Means "greater than"

LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

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

Opinions and interpretations expressed herein are outside the UKAS accreditation scope.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

The results relate only to the sample received.

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Moisture Content Calculated on a Wet Weight basis (at 30°C)

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

Where sampling was undertaken by Chemtech Environmental Limited it is outside the UKAS accreditation scope.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

BTEX compounds are identified by retention time only and may include interference from co-eluting compounds.

For soils and solids, all results are reported on a dry basis (30°C). Samples dried at no more than 30°C in a drying cabinet.

For soils and solids, analytical results are inclusive of stones and 'inert' material, where applicable.

'Client Reference', 'Sample ID', 'Sample Location', 'Sample Type', 'Depth', 'Sample Date' and 'Sample Time' information is provided by the customer

Sample Retention and Disposal

All soil samples will be retained for a period of 4 weeks from the point of receipt

All water samples will be retained for a period of 2 weeks from the point of Reporting

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

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

Unless specifically identified (noted as "(B)" in analyte name) all internal analysis performed at Durham site

Statement of Conformity

Statement of Conformity

Where Chemtech reports a statement of conformity to a specification, the decision rules applied are derived from the Ilac document ILAC G8:09/2019.

Acceptance limits (AL), applied are derived from the tolerance limits (TL) by you the client or applicable standard (e.g. 2003.33.EC Council Decision, BS3882, BS8601)

Agreed and reported Decision Rule:

"PASS" if the result < TL, and the bias / precision values for the process meet the targets defined within the methodology and/or applied accreditation.

Reported Decisions:

Result < TL for determinands: PASS

Result > TL for determinands: FAIL

Definitions Used:

Acceptance limit (AL) Specified upper or lower bounds of permissible measured quantity values.

Tolerance limit (TL) Specified upper or lower bound of permissible values of a property.

Accreditation of WAC/BS3882/BS8601

Accreditation in Soil to MCERTS is only applicable for specific matrix types identified as soil (Sand/Loam/Clay) during the sample assessment

If the sample is classified as not soil, no accreditation is conveyed