

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS) accredited - UK.
SA	ISO17025 (SANAS) accredited - South Africa.
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to a Jones Environmental approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x2 Dilution
AB	x5 Dilution
AC	x10 Dilution

JE Job No: 17/3294

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.				
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes	Yes	AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes	Yes	AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes	Yes	AR	Yes
TM5/TM36	TM005: Modified USEPA 8015B. Determination of solvent Extractable Petroleum Hydrocarbons (EPH) including column fractionation in the carbon range of C10-35 into aliphatic and aromatic fractions by GC-FID. TM036: Modified USEPA 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C5-10 by headspace GC-FID. Including determination of	PM12/PM16	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis./Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes

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Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM5/TM36	TM005: Modified USEPA 8015B. Determination of solvent Extractable Petroleum Hydrocarbons (EPH) including column fractionation in the carbon range of C10-35 into aliphatic and aromatic fractions by GC-FID. TM036: Modified USEPA 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C5-10 by headspace GC-FID. Including determination of	PM12/PM16	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis./Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
PM13	A visual examination of the solid sample is carried out to ascertain sample make up, colour and any other inclusions. This is not a geotechnical description.	PM0	No preparation is required.			AR	
TM15	Modified USEPA 8260. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM15	Modified USEPA 8260. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes	Yes	AR	Yes
TM16	Modified USEPA 8270. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes	Yes	AR	Yes
TM21	Modified USEPA 415.1. Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.			AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21	As received solid or water samples are extracted in Methanol: Sodium Hydroxide (0.1M NaOH) (60:40) by orbital shaker.			AR	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7 and 6010B	PM14	Analysis of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for dissolved metals and acidified if required.	Yes		AR	Yes

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Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7 and 6010B	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes	Yes	AD	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes	Yes	AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes	Yes	AD	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM61	Modified US EPA methods 245.7 and 200.7. Determination of Mercury by Cold Vapour Atomic Fluorescence.	PM38	Samples are brominated to reduce all mercury compounds to Mercury (II) which is analysed using method TM061.	Yes		AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248.	PM42	Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.			AR	
TM65	Asbestos Bulk Identification method based on HSG 248.	PM42	Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	

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Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM73	Modified US EPA methods 150.1 and 9045D. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	Yes
TM73	Modified US EPA methods 150.1 and 9045D. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes	Yes	AR	No
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM32	Hot water soluble boron is extracted from dried and ground samples using a 20:1 ratio.	Yes	Yes	AD	Yes
TM89	Modified USEPA method OIA-1667. Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM0	No preparation is required.	Yes		AR	Yes
TM89	Modified USEPA method OIA-1667. Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide and Thiocyanate analysis.			AR	Yes
NONE	No Method Code	PM17	Modified method EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.			AR	
TM15_A	Modified USEPA 8260. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes



Appendix D – Geo-technical Laboratory Test Results (PENDING)



Appendix E – Gas and Groundwater Level Monitoring Results



GAS & GROUNDWATER MONITORING RECORD SHEET 1

Client NHS Property Services Ltd
Project Former Clitheroe Hospital
Job Number A094939

Visit No. 1 **Date** 10/02/17 **Start** 15.00 **End** 16.05 **By** LD **AP Trend** Steady **Weather** Overcast, cold

Instruments used - GA5000 with internal flow pod, Minirae 2000, Oil/Water Interface Meter.

Background (start)	CH₄	<0.1	CO₂	<0.1	O₂	21.8%	VOCs	<0.1	AP	1015
Background (end)	CH₄	<0.1	CO₂	<0.1	O₂	21.0%	VOCs	<0.1	AP	1016

Installation	CH ₄		CO ₂		O ₂	CO	H ₂ S	VOC	Flow Rate		Atmospheric Pressure (mbar)	Depth to Water (mbgl)	Depth to Base (mbgl)	Remarks
	Peak (% vol)	Steady (% vol)	Peak (% vol)	Steady (% vol)	Steady (% vol)	Av. (ppm)	Av. (ppm)	Av. (ppm)	Peak (l/h)	Steady (l/h)				
WS101	<0.1	<0.1	0.7	0.7	20.6	<1	<1	<0.1	0.3	0.2	1015	1.20	3.50	-
WS102	<0.1	<0.1	2.1	2.1	20.1	<1	<1	<0.1	-7.3	0.3	1015	1.60	3.00	-
WS103	<0.1	<0.1	0.3	0.3	21.2	1	<1	<0.1	0.2	0.2	1015	3.36	3.50	-
WS104	<0.1	<0.1	1.6	1.6	20.1	<1	<1	<0.1	0.3	0.3	1015	2.73	3.95	-
WS105	<0.1	<0.1	1.4	1.4	20.5	<1	<1	<0.1	<0.1	<0.1	1015	Dry	2.50	-
WS106	<0.1	<0.1	0.6	0.4	20.9	3	<1	<0.1	-1.6	0.3	1015	2.42	2.50	-
Maximum	<0.1	<0.1	2.1	2.1	-	3	<1	<0.1	0.3	0.3	1015	-	-	-

Visit No. 2 **Date** 14/02/17 **Start** 16.00 **End** 16.50 **By** LD **AP Trend** Rising **Weather** Clear, cold

Instruments used - GA5000 with internal flow pod, Minirae 2000, Oil/Water Interface Meter.

Background (start)	CH₄	<0.1	CO₂	<0.1	O₂	21.8%	VOCs	<0.1	AP	1019
Background (end)	CH₄	<0.1	CO₂	<0.1	O₂	21.2%	VOCs	<0.1	AP	1020

Installation	CH ₄		CO ₂		O ₂	CO	H ₂ S	VOC	Flow Rate		Atmospheric Pressure (mbar)	Depth to Water (mbgl)	Depth to Base (mbgl)	Remarks
	Peak (% vol)	Steady (% vol)	Peak (% vol)	Steady (% vol)	Steady (% vol)	Av. (ppm)	Av. (ppm)	Av. (ppm)	Peak (l/h)	Steady (l/h)				
WS101	<0.1	<0.1	0.9	0.8	20.4	<1	<1	<0.1	0.2	0.2	1020	1.22	3.50	-
WS102	<0.1	<0.1	2.0	2.0	20.2	<1	<1	<0.1	0.1	0.1	1020	1.61	3.00	-
WS103	<0.1	<0.1	0.5	0.4	21.1	<1	<1	<0.1	0.1	0.1	1020	3.38	3.50	-
WS104	<0.1	<0.1	1.6	1.4	20.2	<1	<1	<0.1	0.2	0.2	1020	2.75	3.95	-
WS105	<0.1	<0.1	1.4	1.4	20.5	<1	<1	<0.1	0.1	<0.1	1019	Dry	2.50	-
WS106	<0.1	<0.1	0.5	0.5	20.9	<1	<1	<0.1	0.1	<0.1	1019	2.45	2.50	-
Maximum	<0.1	<0.1	2.0	2.0	-	<1	<1	<0.1	0.2	0.2	1020	-	-	-

Notes:

Calibration gas standards = VOCs 100ppm

AP - Atmospheric Pressure Trend

Peak reading = maximum recorded level during a monitoring event.

Steady reading = level which remained constant after approximately 5 minutes.

LEL = Lower Explosive Limit

GSV = Gas Screening Value - the maximum percentage steady CH₄ or CO₂ multiplied by the gas flow rate.

GL - Ground Level

Atmospheric Pressure trend obtained from Met Office Website (<http://www.metoffice.gov.uk/education/archive/uk/>) and www.wunderground.com (History Data)



Appendix F – Radon Report



**British
Geological Survey**
NATURAL ENVIRONMENT RESEARCH COUNCIL

GeoReports

**Sara Hegewald
WYG
33 Sandstone Lane
CW6 PHD**

Radon Report: England and Wales

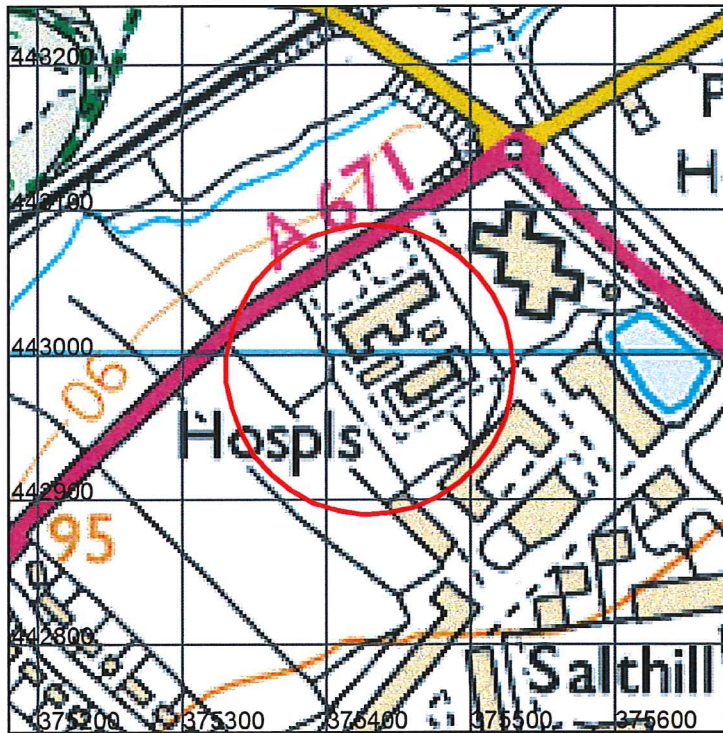
Advisory report on the requirement for radon protective measures in new buildings, conversions and extensions to existing buildings. The report also indicates whether a site is located within a radon Affected Area

Report Id: GR_215334/1

Client reference: SH A094939 Clitheroe



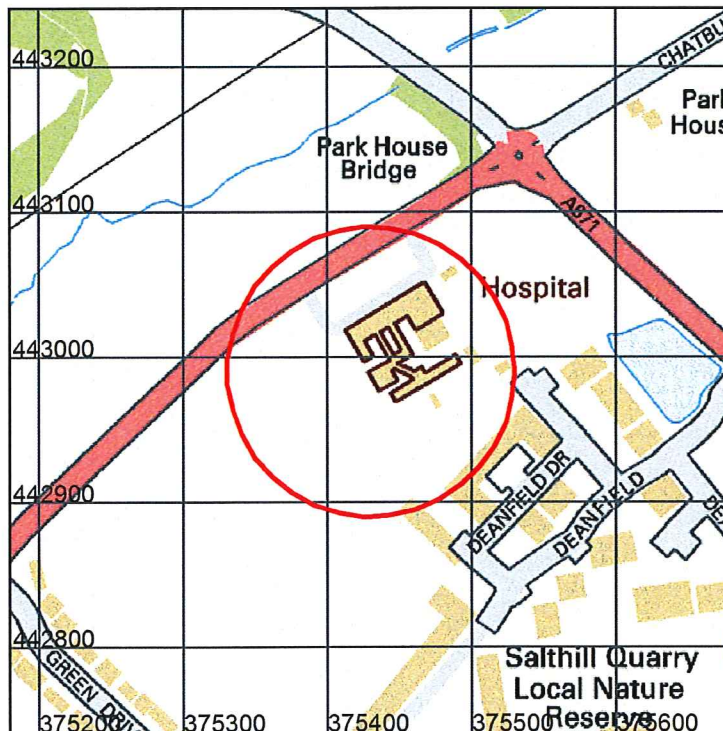
Search location



This report describes a site located at National Grid Reference 375430, 442990. Note that for sites of irregular shape, this point may lie outside the site boundary. Where the client has submitted a site plan the assessment will be based on the area given.

Search location indicated in red

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Scale: 1:5 000 (1cm = 50 m)



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OS Street View: Scale: 1:5 000 (1cm = 50 m)



Radon Report: England and Wales

When extensions are made to existing buildings in high radon areas, or new buildings are constructed in these areas the Building Regulations for England, Wales and Scotland require that protective measures are taken against radon entering the building.

This report provides information on whether radon protective measures are required. Depending on the probability of buildings having high radon levels, the Regulations may require either:

1. No protective measures
2. Basic protective measures
3. Full protective measures

This is an advisory report on the requirement for radon protective measures in new buildings, conversions and extensions. The report also indicates whether a site is located within a radon Affected Area

Requirement for radon protective measures

The determination below follows advice in *BR211 Radon: Guidance on protective measures for new buildings (2015 edition)*, which also provides guidance on what to do if the result indicates that protective measures are required.

NO RADON PROTECTIVE MEASURES ARE REQUIRED FOR THE REPORT AREA.

More details of the protective measures required are available in *BR211 Radon: Guidance on protective measures for new buildings (2015 Edition)*. Additional information and guidance is available from the Building Research Establishment website (<http://www.bre.co.uk/radon/>).

If you require further information or guidance, you should contact your local authority building control officer or approved inspector.



Radon Affected Area

Is this property in a radon affected area – **YES**

The answer to the standard enquiry on house purchase known as **CON29 Standard Enquiry of Local Authority 3.13 Radon Gas: Location of the Property in a radon Affected Area** is **YES** this property is in a Radon Affected Area as defined by Public Health England (PHE).

The estimated probability of the property being above the Action Level for radon is:
1-3% (INTERMEDIATE PROBABILITY).

Public Health England (PHE) recommends a radon 'Action Level' of 200 becquerels per cubic metre of air for the annual average of the radon gas concentration in a home. Where 1% or more of homes are estimated to exceed the Action Level (i.e. are in an Intermediate or Higher probability radon area) the area should be regarded as a radon Affected Area.

This report informs you whether the property is in a radon Affected Area as defined by PHE and the percentage of homes that are estimated to be at or above the radon Action Level. This does not necessarily mean there is a radon problem in the property; the only way to find out whether it is above or below the Action Level is to carry out a radon measurement in an existing property.

PHE advises that radon gas should be measured in all properties within radon Affected Areas and that homes with radon levels above the Action Level (200 Bq m⁻³) should be remediated, and where achievable to below the Target Level of 100 Bq m⁻³. Householders with levels between the Target Level and Action Level should seriously consider reducing their radon level, especially if they are at greater risk, such as if they are current or ex smokers. Whether or not a home is in fact above or below the Action Level or Target Level can only be established by having the building tested. PHE provides a radon testing service which can be accessed at www.ukradon.org.

The information in this report provides an answer to one of the standard legal enquiries on house purchase in England and Wales, known as Law Society CON29 Enquiries of the Local Authority (2016); 3.14 Radon Gas: Do records indicate that the property is in a "Radon Affected Area" as identified by Public Health England. The data can also be used to advise house buyers and sellers in Scotland.

If you are buying a new build property in a Radon Affected Area, you should ask the builder whether radon protective measures were incorporated in the construction of the property.



If you are buying a currently occupied property in a Radon Affected Area you should ask the present owner whether radon levels have been measured in the property. If they have, ask whether the results were above the Radon Action Level and if so whether remedial measures were installed, radon levels were retested, and the that the results of re-testing confirmed the effectiveness of the measures.

Further information on radon is available from PHE or www.ukradon.org.



What is radon?

Radon is a naturally occurring radioactive gas, which is produced by the radioactive decay of radium which, in turn, is derived from the radioactive decay of uranium. Uranium is found in small quantities in all soils and rocks, although the amount varies from place to place. Radon released from rocks and soils is quickly diluted in the atmosphere. Concentrations in the open air are normally very low and do not present a hazard. Radon that enters enclosed spaces such as some buildings (particularly basements), caves, mines, and tunnels may reach high concentrations in some circumstances. The construction method and degree of ventilation will influence radon levels in individual buildings. A person's exposure to radon will also vary according to how particular buildings and spaces are used.

Inhalation of the radioactive decay products of radon gas increases the chance of developing lung cancer. If individuals are exposed to high concentrations for significant periods of time, there may be cause for concern. In order to limit the risk to individuals, the Government has adopted an Action Level for radon in homes of 200 becquerels per cubic metre (Bq m^{-3}). The Government advises householders that, where the radon level exceeds the Action Level, measures should be taken to reduce the concentration.

Radon in workplaces

The Ionising Radiation Regulations, 1999, require employers to take action when radon is present above a defined level in the workplace. Advice may be obtained from your local Health and Safety Executive Area Office or the Environmental Health Department of your local authority. The BRE publishes a guide (BR293): **Radon in the workplace**. BRE publications may be obtained from the BRE Bookshop, Tel: 01923 664262, email: bookshop@bre.co.uk website: www.brebookshop.com



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- Raw data may have been transcribed from analogue to digital format, or may have been acquired by means of automated measuring techniques. Although such processes are subjected to quality control to ensure reliability where possible, some raw data may have been processed without human intervention and may in consequence contain undetected errors.
- Detail, which is clearly defined and accurately depicted on large-scale maps, may be lost when small-scale maps are derived from them.
- Although samples and records are maintained with all reasonable care, there may be some deterioration in the long term.
- The most appropriate techniques for copying original records are used, but there may be some loss of detail and dimensional distortion when such records are copied.
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- The topography shown on any map extracts is based on the latest OS mapping and is not necessarily the same as that used in the original compilation of the BGS geological map, and to which the geological linework available at that time was fitted.
- Note that for some sites, the latest available records may be quite historical in nature, and while every effort is made to place the analysis in a modern geological context, it is possible in some cases that the detailed geology at a site may differ from that described.

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**Report issued by
BGS Enquiry Service**



Appendix G – Tier 1 Screening Assessment

Table with columns: Sample Location, Type, Date Sampled, Depth (m bgl), Units, LOD, and various chemical names (e.g., PCB 27, PCB 118, PCB 126, PCB 157, PCB 167, PCB 189, Total PCBs, PAHs, PAHs Total, etc.).

Red: Concentration exceeds TSV
SLU 6% SOH
SLU 6% SOH
EPC/AGC/CLAIRE 6%
WWS Screening Value
Bold text indicates above lab limit of detection (LOD)



Results	TP101A	TP102	TP102	TP104	TP105	TP106	WS101	WS102	WS103	WS104	WS105	WS106
	0.2	0.2	0.5	0.2	0.5	0.2	0.4	0.2	0.2	0.5	0.2	0.2
Benzo(a)anthracene	0.22	0.26	0.06	0.22	0.06	0.13	0.73	0.56	0.34	0.12	0.73	111.31
Chrysene	0.20	0.26	0.02	0.21	0.03	0.12	0.78	0.55	0.37	0.09	0.78	106.78
Benzo(b)fluoranthene	0.19	0.28	0.05	0.21	0.05	0.14	0.98	0.59	0.44	0.09	1.04	136.61
Benzo(k)fluoranthene	0.07	0.11	0.02	0.08	0.02	0.06	0.38	0.23	0.17	0.04	0.40	53.13
Dibenzo(ah)anthracene	0.04	0.04	0.04	0.04	0.04	0.04	0.08	0.07	0.04	0.04	0.12	17.26
Indeno(123cd)pyrene	0.11	0.18	0.04	0.11	0.04	0.11	0.52	0.30	0.23	0.04	0.60	70.34
Benzo(ghi)perylene	0.09	0.15	0.04	0.10	0.04	0.09	0.50	0.27	0.23	0.04	0.59	60.91
Benzo(a)pyrene	0.17	0.24	0.04	0.18	0.04	0.13	0.83	0.51	0.36	0.08	0.89	116.55

Ratio to BaP	TP101A	TP102	TP102	TP104	TP105	TP106	WS101	WS102	WS103	WS104	WS105	WS106	Min	Max	Culp study limits	
	0.2	0.2	0.5	0.2	0.5	0.2	0.4	0.2	0.2	0.5	0.2	0.2			Lower Limit	Upper Limit
Benzo(a)anthracene	1.29	1.08	1.50	1.22	1.50	1.00	0.88	1.10	0.94	1.50	0.82	0.96	0.82	1.50	0.12	12.43
Chrysene	1.18	1.08	0.50	1.17	0.75	0.92	0.94	1.08	1.03	1.13	0.88	0.92	0.50	1.18	0.12	11.61
Benzo(b)fluoranthene	1.12	1.17	1.25	1.17	1.25	1.08	1.18	1.16	1.22	1.13	1.17	1.17	1.08	1.25	0.11	10.85
Benzo(k)fluoranthene	0.41	0.46	0.50	0.44	0.50	0.46	0.46	0.45	0.47	0.50	0.45	0.46	0.41	0.50	0.04	3.72
Dibenzo(ah)anthracene	0.24	0.17	1.00	0.22	1.00	0.31	0.10	0.14	0.11	0.50	0.13	0.15	0.10	1.00	0.01	1.38
Indeno(123cd)pyrene	0.65	0.75	1.00	0.61	1.00	0.85	0.63	0.59	0.64	0.50	0.67	0.60	0.50	1.00	0.07	7.27
Benzo(ghi)perylene	0.53	0.63	1.00	0.56	1.00	0.69	0.60	0.53	0.64	0.50	0.66	0.52	0.50	1.00	0.08	8.22

			Sample ID	TP101A	TP102	WS106
			Depth	0.20	0.50	0.20
Test	Units	LOD	TSV	MG	NG	MG
pH	pH units	<0.01	6.5-9.5	8.22	8.07	8.14
Sulphate #	mg/l	<0.05	250	1.06	0.67	3.92
Ammoniacal Nitrogen as N ⁺	mg/l	<0.03	0.6	0.04	0.05	<0.03
Total Cyanide #	mg/l	<0.005	0.05	<0.05	<0.005	<0.005
Metals						
Dissolved Arsenic #	µg/l	<0.9	10	<0.9	<0.9	3.5
Dissolved Boron #	µg/l	<12	1000	<12	<12	<12
Dissolved Cadmium #	µg/l	<0.03	5	<0.03	<0.03	<0.03
Dissolved Chromium #	µg/l	<0.2	50	0.2	0.9	1.1
Dissolved Copper #	µg/l	<3	2000	<3	<3	<3
Dissolved Lead #	µg/l	<0.4	10	<0.4	<0.4	5.9
Dissolved Nickel #	µg/l	<0.2	20	0.8	0.4	<0.2
Dissolved Selenium #	µg/l	<1.2	10	<1.2	<1.2	<1.2
Dissolved Zinc #	µg/l	<3	10.9	4	4	<3
Mercury Dissolved by CVAF #	µg/l	<0.01	1	0.02	<0.01	<0.01

Concentration exceeds TSV (Tier 1 Screening value)
 Drinking Water Standard (DWS)
 Environmental Quality Standard (EQS)