

Our ref: R2174-R24-v1

04 August 2025

Barratt Homes Manchester

Adamson House
Towers Business Park
Wilmslow Road
Didsbury
M20 2YY

By e-mail: bradley.massey@barratthomes.co.uk

Dear Brad,

Tetrosyl, Waldmers Wood, Bury.

Remediation Phases 2C (South), 2D (North) & 2F (East / North) Handover Area: Plots 105-111, 126-138, 190-207, 249-250 & 258-268 - Gas / Vapour Risk Assessment

Introduction

The Smith Grant LLP (SGP) Phase 2 Remedial Strategy (report reference: R2174-R11-v6; dated October 2023) specifies the requirement for ground gas monitoring and sampling of vapours (ref: Section 7.7 and Drawings 06 and 07). With respect to the recommendations, this includes:

Ground Gas Monitoring: will be carried out to assess the gassing regime within all areas of deep fills >3m, including existing, reworked and new fill areas. Drilled boreholes will be equipped with minimum 50mm diameter gas wells with response zones 1-4m depth (where possible over bedrock), placed on a grid spacing of 1 entry per 2,500m² (~50m grid). Testing will be for pressure and flow, methane, carbon dioxide, oxygen and VOC (by PID) concentrations. Monitoring will occur on 6 occasions over a 3-month period following completion of earthworks, with possible extension of the programme should any results indicate a change from the default assumption for building protection measures of CIRIA CS2 conditions.

Volatile organic compound (VOC) vapour monitoring: will take place across all areas where built development is proposed over VOC hotspots (identified hotspot area HS6, and any other suspect areas; the latter will include locations where existing or further site investigations identify elevated VOCs by PID testing that exceed 50 ppm¹).

The VOC monitoring will utilise shallow soil probes with response zone extending from 1m to the water table or 2m below ground level; this may require drilling to competent rock. Monitoring locations will be spaced at 1 per 25m² over the VOC hotspot area within the wider Phase 2 area (HS6) and at a wider spacing of 1 per 50m² over the remaining Phase 2 site area. VOC monitoring will take place on 3 occasions, with monitoring by PID, with one sample per probe to be collected in Silocan or equivalent container for GC-MS laboratory analysis.

¹ Others have been responsible for the production of the earthworks completion report and it is understood that no previously unexpected VOC contamination was encountered within this Phase 2 Handover area.

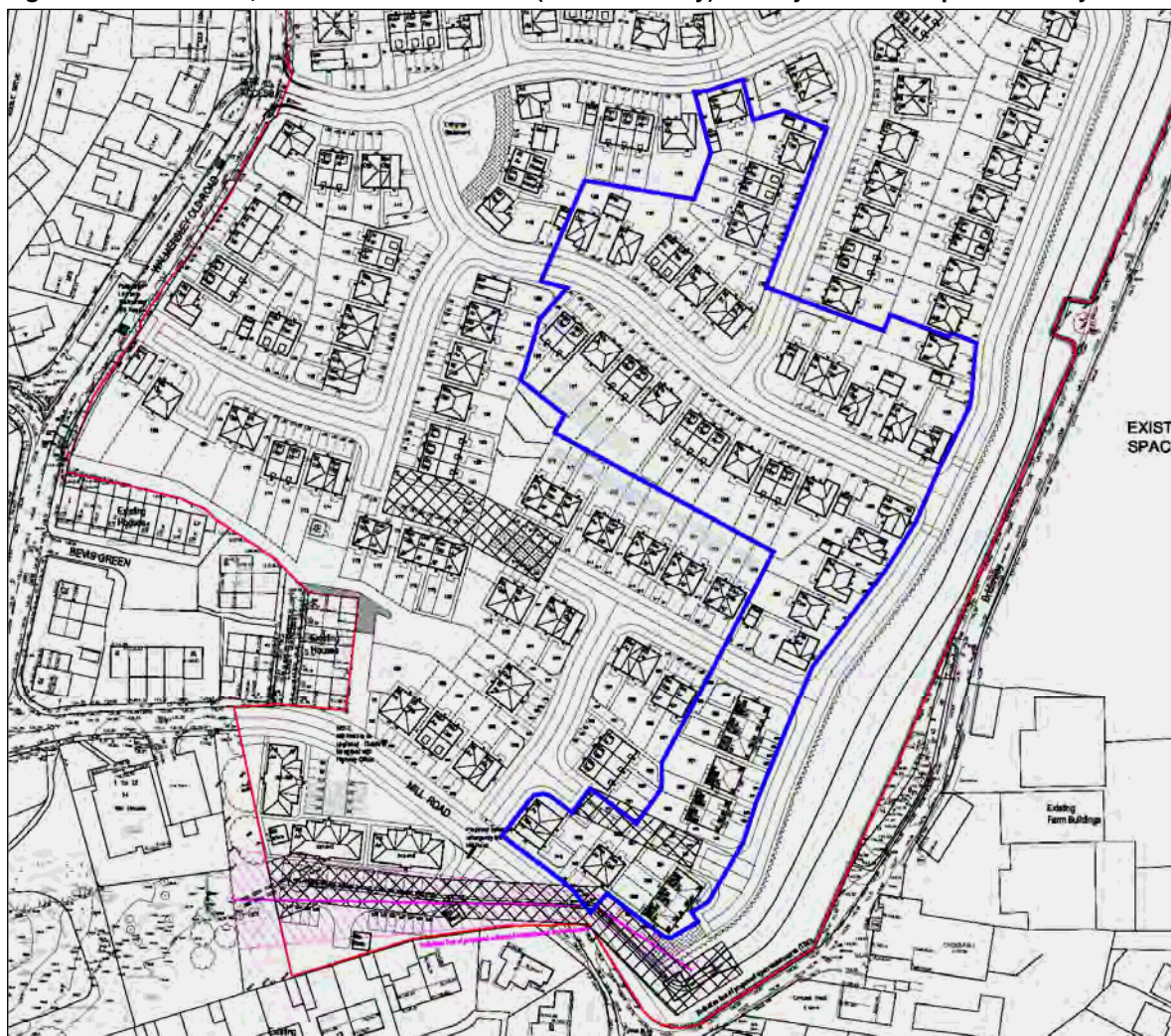
The results of laboratory VOC analysis will be compared against manufacturers' specifications for VOC-resistant membranes and outdoor inhalation health criteria to provide reassurance concerning residual VOC levels. Detailed quantitative risk assessment will be carried out to determine the significance of any exceedances of the above screening levels and need for any change to the assumed house protection measures.

The Phase 2 Remedial Strategy has been submitted to both the Environment Agency (EA) and Bury Metropolitan Borough Council (BMBC). Comments from BMBC received on 15.02.24 did not object to the post-remediation gas and vapour monitoring, hence we assume that this has been accepted.

Scope of report

Preparatory earthworks within the Phases 2C (South), 2D (North) & 2F (East / North) Handover Area (see figure 1.1 for area boundary and appended drawing 456/ED/05 for Remediation Phasing plan) have been completed. This covers Plots 105-111, 126-138, 190-207, 249-250 & 258-268 according to the most recent development layout plan provided to SGP. This report details the post-remediation gas and vapour monitoring undertaken and this information has been used to undertake a post-remediation gas / vapour risk assessment. Ultimately this is to inform the developer-stage mitigation requirements which will be detailed in the forthcoming Developer-Stage Remediation Strategy for this area. This is a consistent approach which has been adopted in previous phases.

Figure 1.1. Phases 2C, 2D & 2F Handover Area (blue boundary) overlaid on Excerpt of Site Layout Plan



Site Works

SGP carried out the intrusive investigation works on 02nd to 3rd June 2025 which consisted of the drilling of 9 continuous tube sample boreholes.

The positions of the exploratory boreholes were identified by SGP in agreement with the developer (Barratt Homes Manchester (BHM)). These included 8 semi-regular entries targeted to areas where identified / potential contamination hotspots have been identified (Hotspots 1, 2, 5, 6, 7 & 9) – these were utilised for vapour monitoring / sampling due to the potential for residual vapour risks following remediation. A single entry was also targeted to an area of deep fill in the south for gas monitoring. In totality, an approximate 25m grid spacing across the handover area.

The spacing was designed to satisfy that specified for gas / VOC monitoring within the Remedial Strategy, although some amendments were made to the borehole locations to take into account the proposed development layout of the Site. The borehole references and associated monitoring were as follows:

- VP2C01-C02, VP2D04 & VP2F05-2F09: vapour monitoring / sampling only
- GP2F10: gas monitoring only

The positions of the SGP exploratory holes drilled on site as part of this investigation are indicated on the SGP Monitoring Wells drawing (ref: D01), enclosed.

The continuous tube sample boreholes were drilled using a tracked, dumper-mounted, ATV Competitor 130 window sampler rig to 4m below ground level (bgl) for the gas monitoring well (GP2F10), or 2m bgl (VP2D04 & VP2F06-VP2F09) or refusal on hard ground (VP2C01 (0.6m bgl), VP2C02 (0.65m bgl) & VP2F05 (1.8m bgl)) for the vapour monitoring wells. Boreholes were advanced using a plastic lined, steel tube sampling system driven into the ground by a top drive percussive hammer. A near continuous 87–67mm diameter core sample was recovered of the sampled materials for subsequent examination.

On completion of the boring, all boreholes were utilised for the installation of a 50mm diameter slotted uPVC standpipe from the base of the boreholes up to 1m bgl in entries VP2D04 and VP2F06-VP2F09, 0.3m bgl in VP2C01, 0.35m in VP2C02, and 0.8m bgl VP2F05. The remaining 0.3-1m of the boreholes were finished with a section of plain, 50mm diameter pipe and a further 1m section of plain pipe was then added to protrude from the ground for ease of identification. The slotted sections of the standpipes were surrounded with pea gravel while expansive bentonite clay was added around the plain pipes and below the slotted sections to seal the boreholes. The standpipes were finished with a rubber bung with a gas tap which was left in the 'closed' position.

Three rounds of VOC vapour monitoring were carried out on boreholes VP2C01-C02, VP2D04 and VP2F05-2F09 using a MiniRAE 3000 photoionisation detector (PID) with a 10.6ev strength bulb on the following dates: 11.06.25, 18.06.25 and 26.06.25. Vapour samples were also collected from these boreholes within Bottlevac vessels on 18.06.25 for VOC and hydrocarbon analysis. A ground gas monitoring programme was also completed on borehole GP2F10 on the following dates: 11.06.25, 03.07.25, 10.07.25, 17.07.25, 24.07.25 and 31.07.25. This included a total of six rounds of ground gas monitoring using a GFM430 gas analyser including measurements of flow and well pressure.

Summary of Ground Conditions

The following information summarises the findings of the Site investigation carried out by SGP on the 02nd to 3rd June 2025. The site investigation logs and photographs of the window sampler borehole locations / arisings are provided in Appendices A and B, respectively, and the investigation locations are indicated on Drawing D01.

All depths stated in the following sections are from ground level contemporaneous with the site investigation date.

Made Ground

Made Ground was recorded in all window sampler borehole locations from ground level down to proven depths of between 0.15m bgl (VP2C01) to 3.4m bgl (GP2F10), or unproven depths >2.0mbgl (VP2F06-VP2F09). The types of made ground described were as follows:

- Dark brown, very gravelly, sandy, clay fill with frequent cobbles of sandstone and local cobbles of concrete (VP2F05-VP2F08 & VP2D04)
- Brown / dark brown / blackish brown slightly clayey to clayey, very gravelly, sand fill, typically with cobbles of sandstone, concrete or red brick (VP2F08, VP2F09 & GP2F10)
- Sandstone gravel / cobble fill (VP2C01 & VP2F06)
- Black, sandy, ashy, gravel fill; gravel is fine to medium, subangular to angular clinker, coal, sandstone and red brick fragments (GP2F10)

Silt

A thin layer of grey and light brown sandy silt was reported in VP2C01 from 0.15-0.3m bgl.

Boulder Clay

Boulder clay was described in entry GP2F10 only, comprising a soft, light brown and grey, gravelly, sandy clay from 3.4->4m bgl.

Weathered Bedrock

Weathered bedrock / bedrock recovered as sandy gravel and/or cobbles of sandstone was recorded in VP2C01 (0.3-0.6m bgl), VP2C02 (0.0-0.65m bgl), VP2D04 (1.9-2.0m bgl) and VP2F05 (1.3-1.8m bgl). This generally resulted in refusal of the window sampler rig with exception of VP2D04 which reached its intended depth.

Contamination Indicators

The only significant contamination indicator reported was a marginally elevated PID reading of 0.6ppm recorded in the made ground of entry VP2F08 from 1.35-1.50m bgl.

Groundwater

Groundwater was not encountered during the drilling works. During the vapour / gas monitoring rounds, groundwater was recorded at the following depths:

- VP2C01: Dry
- VP2C02: 0.16-0.32m bgl
- VP2D04: Dry
- VP2F05: Dry
- VP2F06: 1.18-1.61m bgl
- VP2F07: 0.46-0.53m bgl
- VP2F08: 1.55-1.78m bgl
- VP2F09: Dry
- GP2F10: 3.49-3.84m bgl

Results

Ground Gas Monitoring Results

Six rounds of ground gas monitoring have been carried out on the one borehole installed for this purpose (GP2F10). Monitoring was completed between 11th June 2025 and 31st July 2025. Due to a period of sustained high pressure during the monitoring period, none of the monitoring rounds were completed following a fall in surface pressure over the previous three days.

A summary of the gas monitoring data is presented in the Table 1 and copies of the monitoring records are provided in Appendix C.

Methane concentrations were consistently below detection limits (<0.1% v/v) during the monitoring period. Carbon dioxide concentrations were also typically below detection limits (<0.1% v/v) with the exception of a single instance on 11th June 2025 where a maximum concentration of 1% v/v was reported. Gas flows were also consistently below detection limits (<0.1l/hr).

Guidance published by CIRIA ("Assessing risk posed by hazardous ground gases to buildings", CIRIA C665, 2007), CIEH ("The Local Authority Guide to Ground Gas", CIEH, 2008) and BS 8485:2015+A1:2019 ("Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings") has been referred to in determining potential risks posed by ground gases. Screening assessment criteria of 1% methane, 5% carbon dioxide and 0.07 l/hr gas screening value have been referred to initially. The gas screening value (GSV) has been calculated as the product of gas concentration and steady flow. A summary of the ground gas monitoring results is provided in the table below:

Table 1 Summary of Ground Gas Results

Well	No. visits	Max CH ₄ (%)	Max CO ₂ (%)	Max Steady Flow (l/hr)	CH ₄ GSV (l/hr)	CO ₂ GSV (l/hr)	CIRIA Classification
GP2F10	6	<0.1	1.0	<0.1	<0.07	<0.07	CS1

GSV – Gas Screening Value (=maximum concentration x maximum steady gas flow over monitoring period)

Atmospheric pressure ranged from 988mb to 1014mb during the monitoring rounds

The consistently low methane and carbon dioxide concentrations recorded, as well as the absence of positive flows, indicates a CIRIA CS1 classification at this location and that the areas of deep fill are not resulting in elevated ground gas concentrations. Regardless, as discussed below as per the Phase 2 Strategy, a site-wide CS2 requirement remains applicable.

Vapour Monitoring Results

Three rounds of vapour monitoring were carried out on all of the required boreholes (all except GP2F10). Monitoring was completed on the 11th June 2025, 18th June 2025 and 26th June 2025. Copies of the vapour monitoring records are provided in Appendix C.

During the VOC monitoring programme, positive concentrations above the limit of detection (0.1ppm) were recorded using the PID on at least one occasion in all entries, albeit at low concentrations with a maximum reading of 7.2ppm in VP2F09. The ranges were as follows:

- VP2C01: 0.1-1.1ppm
- VP2C02: 1.4-3.0ppm
- VP2D04: <0.1-1.5ppm
- VP2F05: <0.1-0.5ppm

- VP2F06: <0.1-0.8ppm
- VP2F07: 1.3-1.8ppm
- VP2F08: 0.3-0.7ppm
- VP2F09: 3.8-7.2ppm

Vapour Sampling Results

Samples for vapour analysis (speciated hydrocarbons and target list VOC compounds) were collected on 18th June 2025 from all of the borehole entries installed in the handover area with the exception of GP2F10. Samples were collected using 'Bottlevac' containers (glass containers containing a partial vacuum and quick release coupling) with dedicated sample trains as provided by Element Materials Technology (EMT), Deeside.

Soil vapours from each installation were drawn into the Bottlevac until the pressures in the well and container reached equilibrium.

The methodology for deriving assessment screening criteria for health impacts from VOCs at the receptor is set out in Appendix 9 of the VOC handbook². Tolerable Daily Soil Intake values (TDSIs) or Index Doses (IDs) (for non-carcinogens and carcinogens, respectively) are multiplied by the body weight (13.3 kg) and divided by the inhalation rate (11.85 m³/day) of a female child receptor aged 0-6yrs (time-weighted average) as defined in the EA "Updated technical background to the CLEA model" (ref: SC050021/SR3, 2009). Most of the substances under consideration have toxicological inhalation data published in either "The LQM/CIEH S4ULs for Human Health Risk Assessment" (ref: S4UL3102, 2014 – Copyright Land Quality Management Limited reproduced with permission) or the CL:AIRE "Soil Generic Assessment Criteria for Human Health Risk Assessment" report (January 2010).

The exception to this is benzene for which a UK Air Quality Standard (AQS) is available (5 µg/m³) which has been utilised.

The assessment criteria are inherently conservative as they assume long-term, constant exposure of residents over a 24-hr period for 365 days a year, from a continuous source which does not diminish over time. However, for the most vulnerable receptors (infants and small children), significant amounts of time spent within dwellings may be anticipated.

The IDs and TDSIs (calculated as the tolerable daily intake (TDI) value minus the mean daily intake (MDI) value with respect to inhalation, or 50% of the TDI where the MDI is >50% of the TDI) used in the determination of the inhalation assessment criteria are summarised in the table below. Where TDSIs or IDs are not available for any of the tested compounds, these have not been included. Target list VOCs are also not included if reported below laboratory detection limits in all samples.

Table 2. Derivation of Inhalation Assessment Criteria

Contaminant	Index Dose/Tolerable Daily Soil Intake Value (µg/kg.bw.day ⁻¹)	Assessment Criteria (µg.m ³)
Benzene	1.4 (S4UL)	5 (AQS)
Toluene	1,308 (S4UL)	1,468.05
Ethylbenzene	55.7 (S4UL)	62.51
m/p-xylene	30 (S4UL)	33.67
o-xylene	30 (S4UL)	33.67
Aliphatic Hydrocarbons (C4-C6)	2,500 (S4UL)	2,805.90

² CIRIA C682: The VOCs Handbook: Investigating, assessing and managing risks from inhalation of VOCs at land affected by contamination 2009

Contaminant	Index Dose/Tolerable Daily Soil Intake Value ($\mu\text{g}/\text{kg}.\text{bw}.\text{day}^{-1}$)	Assessment Criteria ($\mu\text{g}.\text{m}^3$)
Aliphatic Hydrocarbons (C6-C8)	2,500 (S4UL)	2,805.90
Aliphatic Hydrocarbons (C8-C10)	145 (S4UL)	162.74
Aliphatic Hydrocarbons (C10-C12)	145 (S4UL)	162.74
Aromatic Hydrocarbons (C5-C7)*	Benzene	Benzene
Aromatic Hydrocarbons (C7-C8)*	Toluene	Toluene
Aromatic Hydrocarbons (C8-C10)	30 (S4UL)	33.67
Aromatic Hydrocarbons (C10-C12)	30 (S4UL)	33.67
Vinyl Chloride	0.3 (S4UL)	0.33
Chloromethane	2.57 (CL:AIRE)	2.88
Chloroethane	2843.5 (CL:AIRE)	3191.43
MTBE	522 (CL:AIRE)	585.7
1,1,1-Trichloroethane	300 (S4ULs)	336.7
Chloroform	20 (S4ULs)	22.44
Isopropylbenzene	57.15 (CL:AIRE)	64.14
Trans-1,2-Dichloroethene	11 (CL:AIRE)	12.34
Trichloroethene (TCE)	0.57 (S4UL)	0.63

*Aromatic C5-C7 and C7-C8 correspond to benzene and toluene. As BTEX analysis has been undertaken repetition of these results in the aromatic fraction have not been reported.

Soil-vapour concentrations determined through Bottlevac sampling have been compared to the derived inhalation assessment criteria (where applicable) as summarised in Table 3 below. The EMT laboratory test certificate (ref: 25-10067) and the associated results summary table is provided in Appendix D.

Table 3. Comparison of Assessment Criteria to Soil-Vapour Concentrations

Contaminant	Assessment Criteria ($\mu\text{g}/\text{m}^3$)	Soil-Vapour Range of concentrations ($\mu\text{g}/\text{m}^3$)	Exceedances
Benzene	5 (AQS)	<3.2-70.3	7: VP2C02, VP2D04 & VP2F05-09
Toluene	1,468.05	26.4-94.2	None
Ethylbenzene	62.51	<4.3-39.1	None
m/p-xylene	33.67	<8.7-21.7	None
o-xylene	33.67	<4.3-8.7	None
Aliphatic Hydrocarbons (C4-6)	2,805.90	<33-580	None
Aliphatic Hydrocarbons (C6-8)	2,805.90	45-1,055	None
Aliphatic Hydrocarbons (C8-10)	162.74	53-2,547	7: VP2C02, VP2D04 & VP2F05-09
Aliphatic Hydrocarbons (C10-12)	162.74	<65-294	3: VP2C02, VP2F08 & VP2F09
Aromatic Hydrocarbons (C5-7)	As Benzene	<4.8-69.3	7: VP2C02, VP2D04 & VP2F05-09
Aromatic Hydrocarbons (C7-8)	As Toluene	27.9-92.7	None
Aromatic Hydrocarbons (C8-10)	33.67	<49*-191	4: VP2C02, VP2D04, VP2F05 & VP2F08
Aromatic Hydrocarbons (C10-12)	33.67	<53*	None
Vinyl Chloride	0.33	<2.6*-112.5	2: VP2C02 & VP2F09
Chloromethane	2.88	<2.1-8.3	7: VP2C01-02, VP2D04 & VP2F06-09
Chloroethane	3191.43	<2.6-5.3	None

Contaminant	Assessment Criteria (µg/m ³)	Soil-Vapour Range of concentrations (µg/m ³)	Exceedances
MTBE	585.7	<3.6-32.4	None
1,1,1-Trichloroethane	336.7	<5.5-32.7	None
Chloroform	22.44	<4.9-39.1	1: VP2C01
Isopropylbenzene	64.14	<4.9-9.8	None
Trans-1,2-Dichloroethene	12.34	<4-15.9	1: VP2C02
Trichloroethene (TCE)	0.63	<5.4*-43	3: VP2C02, VP2F05 & VP2F09

*Limit of detection is greater than the screening value

Exceedances of the derived assessment criteria were reported for:

- **Benzene** at 6.4-70.3 µg/m³ (criteria = 5 µg/m³) – VP2C02, VP2D04, VP2F05, VP2F06, VP2F07, VP2F08 & VP2F09
- **Aliphatic Hydrocarbons (C8-10)** at 197-2,547 µg/m³ (criteria = 162.74 µg/m³) – VP2C02, VP2D04, VP2F05, VP2F06, VP2F07, VP2F08 & VP2F09
- **Aliphatic Hydrocarbons (C10-12)** at 164-294 µg/m³ (criteria = 162.74 µg/m³) – VP2C02, VP2F08 & VP2F09
- **Aromatic Hydrocarbons (C5-7)** at 6.4-69.3 µg/m³ (criteria = 5 µg/m³) – VP2C02, VP2D04, VP2F05, VP2F06, VP2F07, VP2F08 & VP2F09
- **Aromatic Hydrocarbons (C8-10)** at 64-191 µg/m³ (criteria = 33.67 µg/m³) – VP2C02, VP2D04, VP2F05 & VP2F08
- **Vinyl Chloride** at 5.1-112.5 µg/m³ (criteria = 0.33 µg/m³) – VP2C02 & VP2F09
- **Chloromethane** at 4.1-8.3 µg/m³ (criteria = 2.88 µg/m³) – VP2C01, VP2C02, VP2D04, VP2F06, VP2F07, VP2F08 & VP2F09
- **Chloroform** at 39.1 µg/m³ (criteria = 2.88 µg/m³) – VP2C01
- **Trans-1,2-Dichloroethene** at 15.9 µg/m³ (criteria = 12.34 µg/m³) – VP2C02
- **Trichloroethene (TCE)** at 16.1-43 µg/m³ (criteria = 0.63 µg/m³) – VP2C02, VP2F05 & VP2F09

Given the absence of any significant VOC contamination indicators recorded during the intrusive investigation works, it is considered likely that the source of the elevated VOCs identified across the Phases 2C (South), 2D (North) & 2F (East / North) Handover Area could be associated with residual impacted bedrock/groundwater within the nearby Phase 2B area (north) which is currently undergoing remedial works. It is considered that the most practical option to mitigate risks from these residual contaminants can be undertaken at the construction phase of the development, as detailed in the recommendations section below.

Conclusions

Gas monitoring undertaken within the Phase 2F (South) Area has consistently reported low ground gas concentrations and the absence of positive flows meaning that protection measures with respect to ground gas risks are not required.

Elevated VOCs have, however, been reported across the Phases 2C (South), 2D (North) & 2F (East / North) Handover Area which has been attributed to residual contamination following remediation of this part of the Site. Based on the current information, VOC protection measures and high-level verification will be required in this area, although further detailed assessment could be considered which may negate this requirement.

A soil cover system in gardens and areas of soft landscaping will also be required to protect future receptors from potential exposure to soils impacted by residual contamination.

Recommendations

It is recommended that the findings of this report are used to produce a Developer-Stage Remediation Strategy which will detail the VOC/Gas protection measures to be installed within all dwellings in accordance with current CIRIA guidance (as well as the soil cover system to be installed in gardens / landscaped areas). The Strategy should also detail a verification plan on how the protection measures will be suitably verified, again following current guidance.

Yours sincerely
for: Smith Grant LLP



S D Miller BSc MCIWEM
(Senior Consultant)

Enclosed:

D01: Monitoring Locations

456-ED-05_Remediation_TEN_Remediation Phasing Plan_G

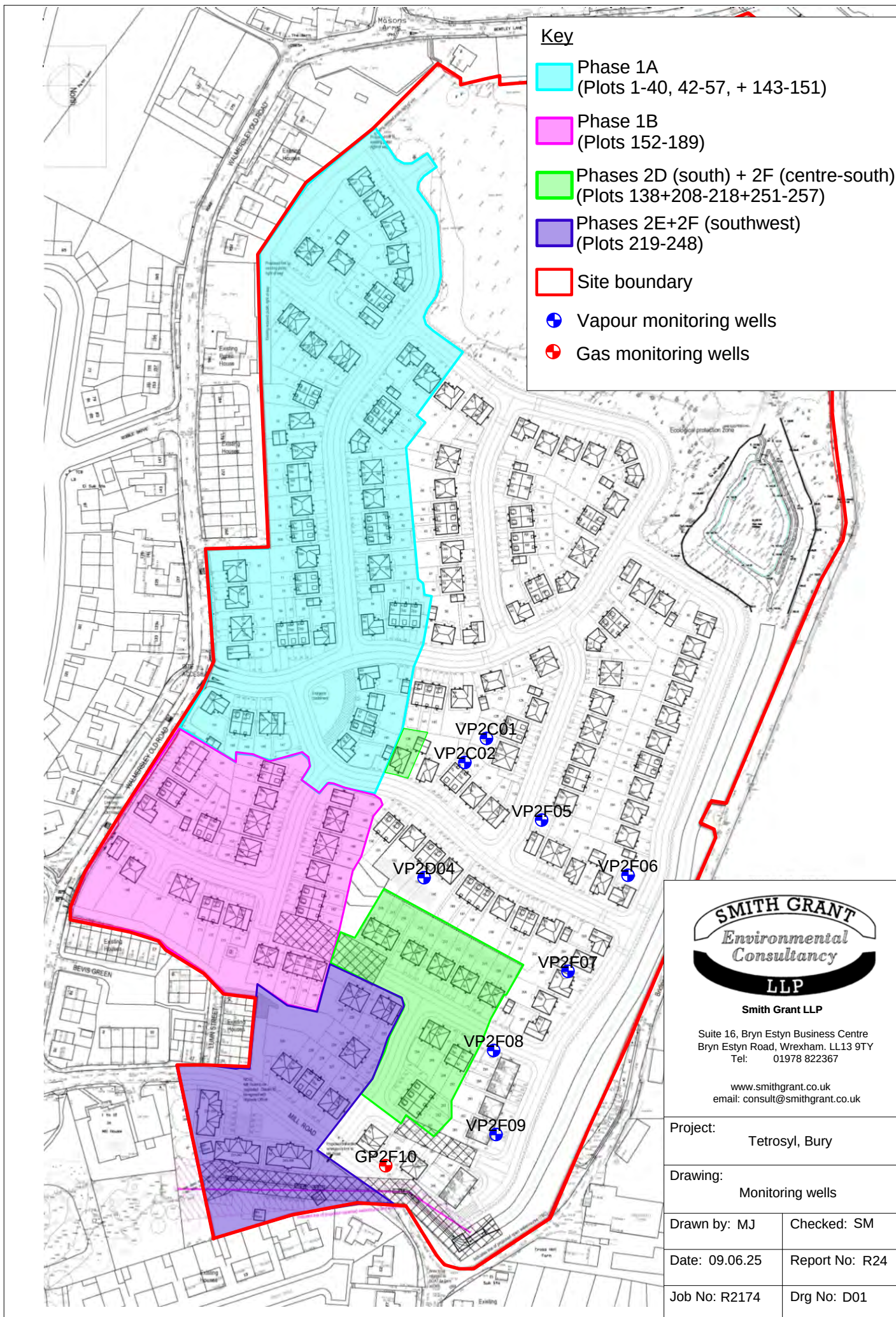
Appendix A: Borehole Logs

Appendix B: Site Investigation Photographic Record

Appendix C: Gas / Vapour monitoring Records

Appendix D: EMT Laboratory Report (25-10067) and Vapour Results Summary

DRAWINGS



Key

- Phase 1A
(Plots 1-40, 42-57, + 143-151)
- Phase 1B
(Plots 152-189)
- Phases 2D (south) + 2F (centre-south)
(Plots 138+208-218+251-257)
- Phases 2E+2F (southwest)
(Plots 219-248)
- Site boundary
- Vapour monitoring wells
- Gas monitoring wells

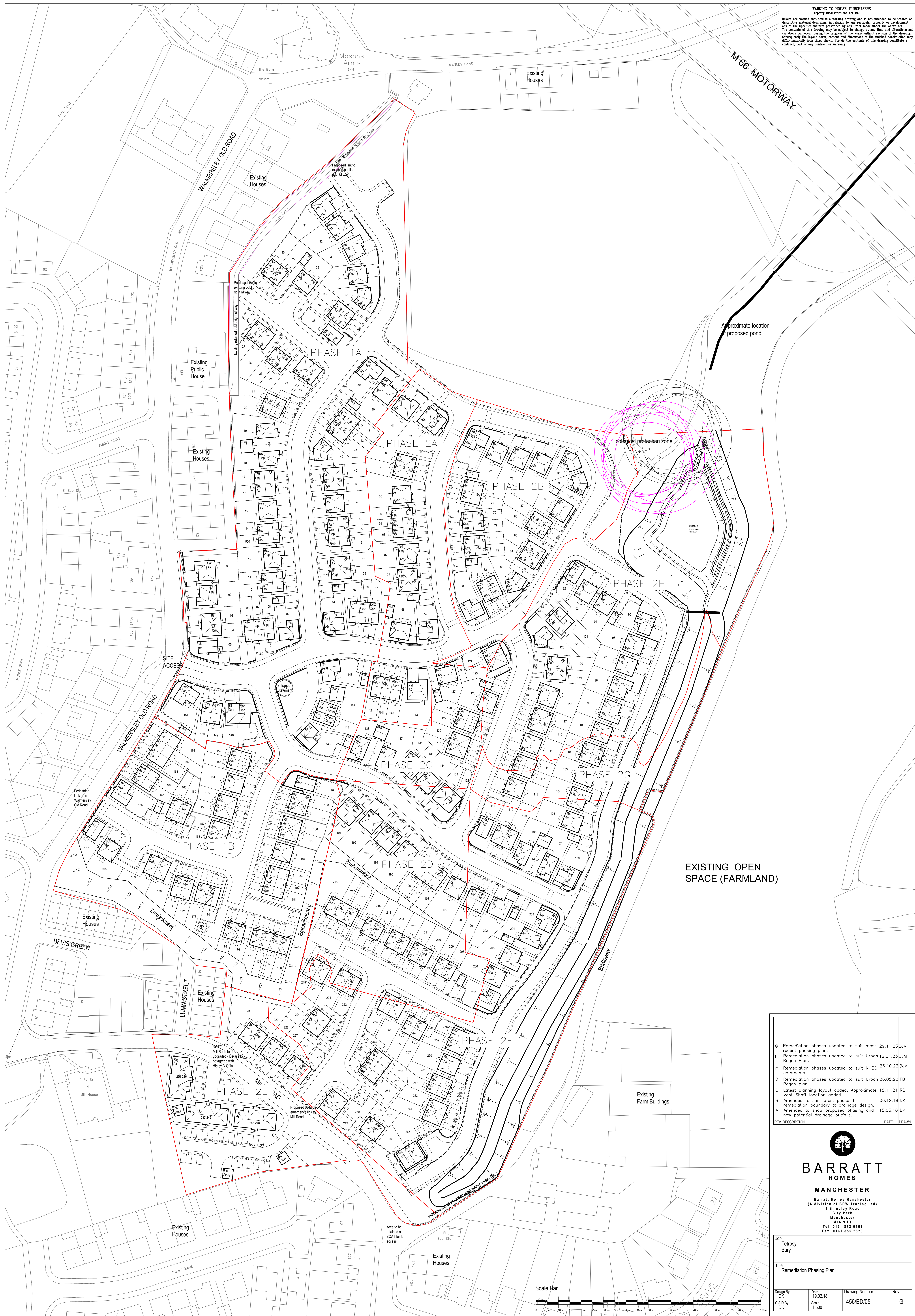


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Project: Tetrosyl, Bury	
Drawing: Monitoring wells	
Drawn by: MJ	Checked: SM
Date: 09.06.25	Report No: R24
Job No: R2174	Drg No: D01

WARNING TO HOUSE-PURCHASERS
Property Misdescriptions Act 1991

Buyers are warned that this is a working drawing and is not intended to be treated as descriptive material describing, in relation to any particular property or development, any of the specified matters prescribed by any Order made under the above Act. The contents of this drawing may be subject to change at any time and alterations or variations can occur during the progress of the works without revision of the drawing. Consequently the layout, form, content and dimensions of the finished construction may differ materially from those shown. Nor do the contents of this drawing constitute a contract, part of any contract or warranty.



	G	Remediation phases updated to suit most recent phasing plan.	29.11.23B/JM
	F	Remediation phases updated to suit Urban Regen Plan.	01.12.23BJM
	E	Remediation phases updated to suit NHBC comments.	26.10.22BJM
	D	Remediation phases updated to suit Urban Regen plan.	26.05.22 RB
	C	Latest planning layout added. Approximate Vent Shaft location added.	18.11.21 RB
	B	Amended to suit latest phase 1 remediation boundary & drainage design.	06.12.19 DK
	A	Amended to show proposed phasing and new potential drainage outfalls.	15.03.18 BA
REV	DESCRIPTION	DATE	DRAWN



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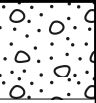
Title	Remediation Phasing Plan
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Design By DK	Date 19.02.18	Drawing Number 456/ED/05	Rev G
C.A.D By DK	Scale 1:500		

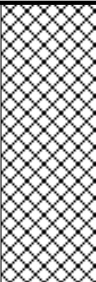
APPENDIX A

Borehole Logs

SHEET: 1 of 1	LOCATION: Bury	PROJECT: Tetrosyl (Phases 2C, 2D & 2F)	ENGINEER: SM	JOB NO. R2174	WINDOW SAMPLE NO. VP2C01
		EXCAVATED BY: ATV Competitor 130	CLIENT: Barratt Homes	DATE: 02.06.25	
PHYSICAL TESTING	DEPTH (m)	SAMPLES/ TESTING	FIELD RECORDS	Installation Slot Plain	DEPTH (m) Description of Strata
CPT Blows/150mm					0 Slightly clayey sandy gravel fill of fine to coarse subangular to angular sandstone with frequent cobbles of subangular sandstone (MADE GROUND) 0.15 Grey and light brown sandy SILT 0.3 Light brown SANDY GRAVEL of fine to coarse subangular to angular sandstone (WEATHERED BEDROCK) Borehole terminated @ 0.6m bgl due to refusal on bedrock (SANDSTONE); window sampler unable to advance borehole
LEGEND					
+ + + +					
GROUND WATER:					
Groundwater not encountered					
REMARKS:					
No contamination indicators (i.e. odours, staining or elevated PID readings) throughout strata					
Grid ref: 380946, 413881					
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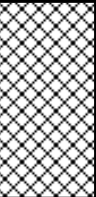
SHEET: 1 of 1	LOCATION: Bury	PROJECT: Tetrosyl (Phases 2C, 2D & 2F)		ENGINEER: SM		JOB NO. R2174		WINDOW SAMPLE NO. VP2C02
		EXCAVATED BY: ATV Competitor 130		CLIENT: Barratt Homes		DATE: 02.06.25		
PHYSICAL TESTING		DEPTH (m)	SAMPLES/ TESTING	FIELD RECORDS	Installation	DEPTH (m)	DESCRIPTION OF STRATA	LEGEND
CPT <u>Blows/150mm</u>					Slotted Plair	0	Light brown and grey SANDY GRAVEL and cobbles of subangular to angular sandstone (WEATHERED BEDROCK)	
							Borehole terminated @ 0.65m bgl due to refusal on bedrock (SANDSTONE); window sampler unable to advance borehole	
 Smith Grant LLP Bryn Estyn Business Centre (Suite 16) Bryn Estyn Road, Wrexham, LL13 9TY Tel: 01978 822367 www.smithgrant.co.uk email: consult@smithgrant.co.uk		GROUND WATER: Groundwater not encountered						
		REMARKS: No contamination indicators (i.e. odours, staining or elevated PID readings) throughout strata Grid ref: 380937, 413871						
		SCALE: 1:50	LOGGED BY: SM		FIGURE NO. 1			

SHEET: 1 of 1	LOCATION: Bury	PROJECT: Tetrosyl (Phases 2C, 2D & 2F)	ENGINEER: SM	JOB NO. R2174	WINDOW SAMPLE NO. VP2D04
		EXCAVATED BY: ATV Competitor 130	CLIENT: Barratt Homes	DATE: 02.06.25	

PHYSICAL TESTING	DEPTH (m)	SAMPLES/ TESTING	FIELD RECORDS	Installation	DEPTH (m)	DESCRIPTION OF STRATA	LEGEND
CPT <u>Blows/150mm</u>				Plain	0	Dark brown very gravelly sandy clay fill with frequent subangular cobbles of sandstone; gravel is fine to coarse subrounded to angular of mixed lithology including red brick fragments (MADE GROUND)	
				Slotted	1.9	Light brown SANDY GRAVEL of fine to coarse subangular to angular sandstone (WEATHERED BEDROCK) Borehole terminated @ 2m bgl at intended well depth.	

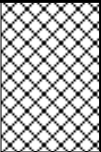
 Smith Grant LLP Bryn Estyn Business Centre (Suite 16) Bryn Estyn Road, Wrexham, LL13 9TY Tel: 01978 822367 www.smithgrant.co.uk email: consult@smithgrant.co.uk	GROUND WATER: Groundwater not encountered	
	REMARKS: No contamination indicators (i.e. odours, staining or elevated PID readings) throughout strata Grid ref: 380920, 413823	
	SCALE: 1:50	LOGGED BY: SM

SHEET: 1 of 1	LOCATION: Bury	PROJECT: Tetrosyl (Phases 2C, 2D & 2F)	ENGINEER: SM	JOB NO. R2174	WINDOW SAMPLE NO. VP2F05
		EXCAVATED BY: ATV Competitor 130	CLIENT: Barratt Homes	DATE: 02.06.25	

PHYSICAL TESTING	DEPTH (m)	SAMPLES/ TESTING	FIELD RECORDS	Installation	DEPTH (m)	DESCRIPTION OF STRATA	LEGEND
CPT <u>Blows/150mm</u>				Plain	0	Dark brown very gravelly sandy clay fill with frequent subangular cobbles of sandstone; gravel is fine to coarse subrounded to angular of mixed lithology including red brick fragments (MADE GROUND)	
				Slotted	1.3	Light brown SANDY GRAVEL of fine to medium subangular to angular sandstone (WEATHERED BEDROCK)	
					1.7	Light grey SANDSTONE recovered as gravel (BEDROCK)	
						Borehole terminated @ 1.8m bgl due to refusal on bedrock (SANDSTONE); window sampler unable to advance borehole	

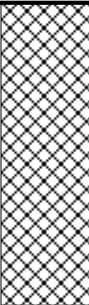
 Smith Grant LLP Bryn Estyn Business Centre (Suite 16) Bryn Estyn Road, Wrexham, LL13 9TY Tel: 01978 822367 www.smithgrant.co.uk email: consult@smithgrant.co.uk	GROUND WATER: Groundwater not encountered		
	REMARKS: No contamination indicators (i.e. odours, staining or elevated PID readings) throughout strata Grid ref: 380969, 413847		
	SCALE: 1:50	LOGGED BY: SM	FIGURE NO. 1

SHEET: 1 of 1	LOCATION: Bury	PROJECT: Tetrosyl (Phases 2C, 2D & 2F)	ENGINEER: SM	JOB NO. R2174	WINDOW SAMPLE NO. VP2F06
		EXCAVATED BY: ATV Competitor 130	CLIENT: Barratt Homes	DATE: 02.06.25	

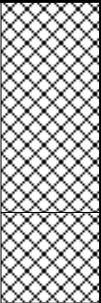
PHYSICAL TESTING	DEPTH (m)	SAMPLES/ TESTING	FIELD RECORDS	Installation	DEPTH (m)	DESCRIPTION OF STRATA	LEGEND
CPT <u>Blows/150mm</u>				Plain	0	Dark brown very gravelly sandy clay fill with frequent subangular cobbles of sandstone and cobble of concrete from 0.35-0.50m (recovered as gravel); gravel is fine to coarse subrounded to angular of mixed lithology including red brick fragments (MADE GROUND) Brown and light grey subangular to angular sandstone gravel and cobble fill with pockets of dark brown sandy gravelly clay (MADE GROUND)	
				Slotted	1		
							Borehole terminated @ 2m bgl at intended well depth.

 Smith Grant LLP Bryn Estyn Business Centre (Suite 16) Bryn Estyn Road, Wrexham, LL13 9TY Tel: 01978 822367 www.smithgrant.co.uk email: consult@smithgrant.co.uk	GROUND WATER: Groundwater not encountered		
	REMARKS: No contamination indicators (i.e. odours, staining or elevated PID readings) throughout strata Grid ref: 381005, 413824		
	SCALE: 1:50	LOGGED BY: SM	FIGURE NO. 1

SHEET: 1 of 1	LOCATION: Bury	PROJECT: Tetrosyl (Phases 2C, 2D & 2F)	ENGINEER: SM	JOB NO. R2174	WINDOW SAMPLE NO. VP2F07		
		EXCAVATED BY: ATV Competitor 130	CLIENT: Barratt Homes	DATE: 02.06.25			
PHYSICAL TESTING	DEPTH (m)	SAMPLES/ TESTING	FIELD RECORDS	Installation Plain Slotted	DEPTH (m)	DESCRIPTION OF STRATA	LEGEND
CPT <u>Blows/150mm</u>					0	Dark brown very gravelly sandy clay fill with frequent subangular cobbles of sandstone and occasional cobbles of concrete; gravel is fine to coarse subrounded to angular of mixed lithology including red brick fragments (MADE GROUND)	
						Borehole terminated @ 2m bgl at intended well depth.	
 Smith Grant LLP Bryn Estyn Business Centre (Suite 16) Bryn Estyn Road, Wrexham, LL13 9TY Tel: 01978 822367 www.smithgrant.co.uk email: consult@smithgrant.co.uk GROUND WATER: Groundwater not encountered REMARKS: No contamination indicators (i.e. odours, staining or elevated PID readings) throughout strata Grid ref: 380980, 413784							
SCALE: 1:50			LOGGED BY: SM			FIGURE NO. 1	

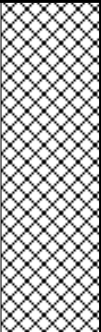
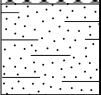
SHEET: 1 of 1	LOCATION: Bury	PROJECT: Tetrosyl (Phases 2C, 2D & 2F)	ENGINEER: SM	JOB NO. R2174	WINDOW SAMPLE NO. VP2F08			
		EXCAVATED BY: ATV Competitor 130	CLIENT: Barratt Homes	DATE: 02.06.25				
PHYSICAL TESTING		DEPTH (m)	SAMPLES/ TESTING	FIELD RECORDS	Installation	DEPTH (m)	DESCRIPTION OF STRATA	LEGEND
CPT <u>Blows/150mm</u>				PID = 0.6ppm (1.35-1.50m)	Plain	0	Dark brown very gravelly clayey sand becoming very gravelly sandy clay (~1m bgl) fill with frequent subangular cobbles of sandstone; gravel is fine to coarse subrounded to angular of mixed lithology including red brick fragments (MADE GROUND)	
					Slotted		Borehole terminated @ 2m bgl at intended well depth.	
 Smith Grant LLP Bryn Estyn Business Centre (Suite 16) Bryn Estyn Road, Wrexham, LL13 9TY Tel: 01978 822367 www.smithgrant.co.uk email: consult@smithgrant.co.uk		GROUND WATER: Groundwater not encountered						
		REMARKS: No odours or staining throughout strata Grid ref: 380949, 413751						
SCALE: 1:50		LOGGED BY: SM			FIGURE NO. 1			

SHEET: 1 of 1	LOCATION: Bury	PROJECT: Tetrosyl (Phases 2C, 2D & 2F)	ENGINEER: SM	JOB NO. R2174	WINDOW SAMPLE NO. VP2F09
		EXCAVATED BY: ATV Competitor 130	CLIENT: Barratt Homes	DATE: 03.06.25	

PHYSICAL TESTING	DEPTH (m)	SAMPLES/ TESTING	FIELD RECORDS	Installation	DEPTH (m)	DESCRIPTION OF STRATA	LEGEND
CPT <u>Blows/150mm</u>				Plain	0	Brown slightly clayey very gravelly sand fill with frequent subangular cobbles of concrete; gravel is fine to coarse subrounded to angular of mixed lithology including red brick and concrete fragments (MADE GROUND)	
				Slotted	1.4	Blackish-brown slightly clayey very gravelly sand fill; gravel is fine to coarse subrounded to angular of mixed lithology including red brick and concrete fragments (MADE GROUND)	
							Borehole terminated @ 2m bgl at intended well depth.

 Smith Grant LLP Bryn Estyn Business Centre (Suite 16) Bryn Estyn Road, Wrexham, LL13 9TY Tel: 01978 822367 www.smithgrant.co.uk email: consult@smithgrant.co.uk	GROUND WATER: Groundwater not encountered		
	REMARKS: No contamination indicators (i.e. odours, staining or elevated PID readings) throughout strata Grid ref: 380950, 413716		
	SCALE: 1:50	LOGGED BY: SM	FIGURE NO. 1

SHEET: 1 of 1	LOCATION: Bury	PROJECT: Tetrosyl (Phases 2C, 2D & 2F)	ENGINEER: SM		JOB NO. R2174	WINDOW SAMPLE NO. GP2F10
		EXCAVATED BY: ATV Competitor 130	CLIENT: Barratt Homes		DATE: 03.06.25	

PHYSICAL TESTING	DEPTH (m)	SAMPLES/ TESTING	FIELD RECORDS	Installation	DEPTH (m)	DESCRIPTION OF STRATA	LEGEND
CPT Blows/150mm				Plain	0	Brown and blackish brown slightly clayey very gravelly sand fill with pockets of gravelly sandy clay and frequent angular cobbles of red brick; gravel is fine to coarse subrounded to angular of mixed lithology including coal red brick and concrete fragments (MADE GROUND)	
					2.2	Black sandy ashy gravel fill; gravel is fine to medium subangular to angular clinker coal sandstone and red brick fragments (MADE GROUND)	
					3.4	Soft light brown and grey gravelly SANDY CLAY; gravel is fine to medium subangular to angular sandstone and coal	
						Borehole terminated @ 4m bgl at intended well depth.	

 Smith Grant LLP Bryn Estyn Business Centre (Suite 16) Bryn Estyn Road, Wrexham, LL13 9TY Tel: 01978 822367 www.smithgrant.co.uk email: consult@smithgrant.co.uk	GROUND WATER: Groundwater not encountered		
	REMARKS: No contamination indicators (i.e. odours, staining or elevated PID readings) throughout strata Grid ref: 380904, 413703		
	SCALE: 1:50	LOGGED BY: SM	FIGURE NO. 1

APPENDIX B

Site Investigation Photographic Record

Phases 2C, 2D & 2F Window Sampler Drilling Investigation Photolog

1.



02.06.25: VP2C01 Location

2.



02.06.25: VP2C01 Arisings

3.



02.06.25: VP2C02 Location

4.



02.06.25: VP2C02 Arisings

5.



02.06.25: VP2D04 Location

6.



02.06.25: VP2D04 Arisings

7.



02.06.25: VP2F05 Location

8.



02.06.25: VP2F05 Arisings

9.



02.06.25: VP2F06 Location

10.



02.06.25: VP2F06 Arisings

11.



02.06.25: VP2F07 Location

12.



02.06.25: VP2F07 Arisings

13.



02.06.25: VP2F08 Location

14.



02.06.25: VP2F08 Arisings

15.



03.06.25: VP2F09 Location

16.



03.06.25: VP2F09 Arisings

17.



03.06.25: VP2F10 Location

18.



03.06.25: VP2F10 Arisings

19.



03.06.25: GP2F11 Location

20.



03.06.25: GP2F11 Arisings

APPENDIX C

Gas / Vapour monitoring Records

Site name:	Tetrosyl Bury		Job number:	R2174		Barometric pressure at:	start:	1011	mb	finish:	1011	mb	
Time at:	start	11.15	Date:	03.07.25		Pressure trend	1014-1018-1024mb (rising)					(previous 3 days)	
	finish	11.20	Staff:	SM		Instruments:	GFM430						
Record code:	R04		Weather conditions:	4/8 Cloud, blustery winds, warm					Ground conditions:	Dry			

Well No.	Methane %vol		Carbon dioxide %vol		Oxygen %vol		Carbon monoxide ppm	Hydrogen sulphide ppm	VOCs ppm	Gas flow l/hr		Well pressure mb	Depth to water m bgl	Depth to base m bgl	Notes
	Peak	steady	peak	steady	min	steady				peak	steady				
VP2C01															
VP2C02															
VP2D04															
VP2F05															
VP2F06															
VP2F07															
VP2F08															
VP2F09															
GP2F10	0.1	0.1	0.1	0.1	17	17	1	1		0.1	0.1	0.01	3.84	4.18	Ground raised around borehole
Limit of Detection	0.10%		0.10%		0.10%		1ppm	1ppm	0.1ppm	0.1/hr (-60/+100)	0.1/hr (-60/+100)	1Pa_0.01mb (-800/+1500)			
Accuracy (% of reading)	±3.0%		±3.0%		±0.5%		±5%	±5%	±5%						

Site name:	Tetrosyl Bury		Job number:	R2174		Barometric pressure at:	start:	1006	mb	finish:	1006	mb	
Time at:	start	11:15	Date:	10.07.25		Pressure trend	1008-1016-1020mb (rising)					(previous 3 days)	
	finish	11:20	Staff:	MJ		Instruments:	GFM430						
Record code:	R05		Weather conditions:	Dry, sunny					Ground conditions:	Dry			

Well No.	Methane %vol		Carbon dioxide %vol		Oxygen %vol		Carbon monoxide ppm	Hydrogen sulphide ppm	VOCs ppm	Gas flow l/hr		Well pressure mb	Depth to water m bgl	Depth to base m bgl	Notes
	Peak	steady	peak	steady	min	steady				peak	steady				
VP2C01															
VP2C02															
VP2D04															
VP2F05															
VP2F06															
VP2F07															
VP2F08															
VP2F09															
GP2F10	0.1	0.1	0.1	0.1	15.8	15.8	1	1		0.1	0.1	0.01	3.84	4.2	
Limit of Detection	0.10%		0.10%		0.10%		1ppm	1ppm	0.1ppm	0.1l/hr (-60/+100)	0.1l/hr (-60/+100)	1Pa_0.01mb (-800/+1500)			
Accuracy (% of reading)	±3.0%		±3.0%		±0.5%		±5%	±5%	±5%						

Site name:	Tetrosyl Bury		Job number:	R2174		Barometric pressure at:	start:	1004	mb	finish:	1004	mb	
Time at:	start	09:30	Date:	11.06.25		Pressure trend	1012-1020-1012mb (Rise then fall)					(previous 3 days)	
	finish	10:30	Staff:	MJ		Instruments:	GFM430						
Record code:	R01		Weather conditions:	Dry, sunny, hot					Ground conditions:	Dry			

Well No.	Methane %vol		Carbon dioxide %vol		Oxygen %vol		Carbon monoxide ppm	Hydrogen sulphide ppm	VOCs ppm	Gas flow l/hr		Well pressure mb	Depth to water m bgl	Depth to base m bgl	Notes
	Peak	steady	peak	steady	min	steady				peak	steady				
VP2C01									1				Dry	0.54	
VP2C02									3				0.31	0.74	
VP2D04									1.5				Dry	1.98	
VP2F05									0.1				Dry	1.77	
VP2F06									0.8				1.61	2	
VP2F07									1.8				0.46	1.93	
VP2F08									0.7				1.78	1.89	
VP2F09									7.2				Dry	2	
GP2F10	0.1	0.1	1	1	2.6	2.6	1	1	1.7	0.1	0.1	0.01	3.49	3.84	
Limit of Detection	0.10%		0.10%		0.10%		1ppm	1ppm	0.1ppm	0.1l/hr (-60/+100)	0.1l/hr (-60/+100)	1Pa_0.01mb (-800/+1500)			
Accuracy (% of reading)	±3.0%		±3.0%		±0.5%		±5%	±5%	±5%						

Site name:	Tetrosyl Bury		Job number:	R2174		Barometric pressure at:	start:	1014	mb	finish:	1014	mb	
Time at:	start	12:10	Date:	17.07.25		Pressure trend:	1012-1012-1012mb (Static)					(previous 3 days)	
	finish	12:18	Staff:	AF		Instruments:	GFM430						
Record code:	R06		Weather conditions:	Cloudy, light rain					Ground conditions:	Damp			

Well No.	Methane %vol		Carbon dioxide %vol		Oxygen %vol		Carbon monoxide ppm	Hydrogen sulphide ppm	VOCs ppm	Gas flow l/hr		Well pressure mb	Depth to water m bgl	Depth to base m bgl	Notes
	Peak	steady	peak	steady	min	steady				peak	steady				
VP2C01															
VP2C02															
VP2D04															
VP2F05															
VP2F06															
VP2F07															
VP2F08															
VP2F09															
GP2F10	0.1	0.1	0.1	0.1	15.7	15.9	1	1		0.1	0.1	0.01	3.73	4.18	
Limit of Detection	0.10%		0.10%		0.10%		1ppm	1ppm	0.1ppm	0.1l/hr (-60/+100)	0.1l/hr (-60/+100)	1Pa_0.01mb (-800/+1500)			
Accuracy (% of reading)	±3.0%		±3.0%		±0.5%		±5%	±5%	±5%						

Site name:	Tetrosyl Bury		Job number:	R2174		Barometric pressure at:	start:	1009	mb	finish:	1008	mb	
Time at:	start	10.10	Date:	18/06/2025		Pressure trend	1025-1024-1024mb (static)					(previous 3 days)	
	finish	12.45	Staff:	SM		Instruments:	GFM430						
Record code:	R02		Weather conditions:	3/8 cloud, sunny intervals, hot					Ground conditions:	Dry			

Well No.	Methane %vol		Carbon dioxide %vol		Oxygen %vol		Carbon monoxide ppm	Hydrogen sulphide ppm	VOCs ppm	Gas flow l/hr		Well pressure mb	Depth to water m bgl	Depth to base m bgl	Notes
	Peak	steady	peak	steady	min	steady				peak	steady				
VP2C01									1.1				Dry	0.56	
VP2C02									1.7				0.16	0.63	
VP2D04									0.1				Dry	1.98	
VP2F05									0.5				Dry	1.8	
VP2F06									0.1				1.41	2	
VP2F07									1.3				0.52	1.95	
VP2F08									0.3				1.55	1.89	
VP2F09									4.8				Dry	2.25	Ground raised ~25cm around borehole
GP2F10															Bung Missing
Limit of Detection	0.10%		0.10%		0.10%		1ppm	1ppm	0.1ppm	0.1l/hr (-60/+100)	0.1l/hr (-60/+100)	1Pa_0.01mb (-800/+1500)			
Accuracy (% of reading)	±3.0%		±3.0%		±0.5%		±5%	±5%	±5%						

Site name:	Tetrosyl Bury		Job number:	R2174		Barometric pressure at:	start:	1002	mb	finish:	1002	mb	
Time at:	start	12:35	Date:	24.07.25		Pressure trend	1000-1004-1012mb (Rising)					(previous 3 days)	
	finish	12:40	Staff:	AF		Instruments:	GFM430						
Record code	R07		Weather conditions:	Cloudy, dry					Ground conditions:	Dry			

Well No.	Methane %vol		Carbon dioxide %vol		Oxygen %vol		Carbon monoxide ppm	Hydrogen sulphide ppm	VOCs ppm	Gas flow l/hr		Well pressure mb	Depth to water m bgl	Depth to base m bgl	Notes
	Peak	steady	peak	steady	min	steady				peak	steady				
VP2C01															
VP2C02															
VP2D04															
VP2F05															
VP2F06															
VP2F07															
VP2F08															
VP2F09															
GP2F10	0.1	0.1	0.1	0.1	15.7	15.7	1	1		0.1	0.1	0.01	3.84	4.2	
Limit of Detection	0.10%		0.10%		0.10%		1ppm	1ppm	0.1ppm	0.1l/hr (-60/+100)	0.1l/hr (-60/+100)	1Pa_0.01mb (-800/+1500)			
Accuracy (% of reading)	±3.0%		±3.0%		±0.5%		±5%	±5%	±5%						

Site name:	Tetrosyl Bury		Job number: R2174				Barometric pressure at: start:		988	mb	finish:	995	mb		
Time at:	start	09:40	Date: 26.06.25				Pressure trend		1004-1008-1008mb (rising then static)					(previous 3 days)	
	finish	11:00	Staff: AF				Instruments:		GFM430						
Record code:	R03		Weather conditions:		Dry/Sunny				Ground conditions:		Dry				

Well No.	Methane %vol		Carbon dioxide %vol		Oxygen %vol		Carbon monoxide ppm	Hydrogen sulphide ppm	VOCs ppm	Gas flow l/hr		Well pressure mb	Depth to water m bgl	Depth to base m bgl	Notes
	Peak	steady	peak	steady	min	steady				peak	steady				
VP2C01									0.1				Dry	0.57	
VP2C02									1.4				0.32	0.77	
VP2D04									0.7				Dry	2.05	
VP2F05									0.1				Dry	1.71	
VP2F06									0.8				1.18	2.02	
VP2F07									1.6				0.53	1.98	
VP2F08									0.3				1.56	1.95	
VP2F09									3.8				Dry	2.4	
GP2F10															Bung replaced
Limit of Detection	0.10%		0.10%		0.10%		1ppm	1ppm	0.1ppm	0.1l/hr 60/+100)	(-0.1l/hr 60/+100)	(-1Pa_0.01mb (-800/+1500)			
Accuracy (% of reading)	±3.0%		±3.0%		±0.5%		±5%	±5%	±5%						

Site name:	Tetrosyl Bury		Job number:	R2174		Barometric pressure at:	start:	998	mb	finish:	998	mb	
Time at:	start	10:30	Date:	31.07.25		Pressure trend	1020-1022-1020mb (Static)					(previous 3 days)	
	finish	10:40	Staff:	MJ		Instruments:	GFM430						
Record code	R08		Weather conditions:	Overcast, dry					Ground conditions:	Dry			

Well No.	Methane %vol		Carbon dioxide %vol		Oxygen %vol		Carbon monoxide ppm	Hydrogen sulphide ppm	VOCs ppm	Gas flow l/hr		Well pressure mb	Depth to water m bgl	Depth to base m bgl	Notes
	Peak	steady	peak	steady	min	steady				peak	steady				
VP2C01															
VP2C02															
VP2D04															
VP2F05															
VP2F06															
VP2F07															
VP2F08															
VP2F09															
GP2F10	0.1	0.1	0.1	0.1	15.8	15.8	1	1		0.1	0.1	0.01	3.56	3.87	
Limit of Detection	0.10%		0.10%		0.10%		1ppm	1ppm	0.1ppm	0.1l/hr (-60/+100)	0.1l/hr (-60/+100)	1Pa_0.01mb (-800/+1500)			
Accuracy (% of reading)	±3.0%		±3.0%		±0.5%		±5%	±5%	±5%						

APPENDIX D

EMT Laboratory Report (25-10067) and Vapour Results Summary

Smith Grant LLP
Suite 16 - Bryn Estyn Business Centre
Bryn Estyn Road
Wrexham
United Kingdom
LL13 9TY



4225



Attention : Scott Miller
Date : 27th June, 2025
Your reference : R2174
Our reference : Test Report 25/10067 Batch 1
Location : Tetrosyl
Date samples received : 19th June, 2025
Status : Final Report
Issue : 202506271146

Nine samples were received for analysis on 19th June, 2025 of which eight were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

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

The greenhouse gas emissions generated (in Carbon – Co2e) to obtain the results in this report are estimated as:

Scope 1&2 emissions - 2.172 kg of CO2

Scope 1&2&3 emissions - 5.133 kg of CO2

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Smith Grant LLP
Reference: R2174
Location: Tetrosyl
Contact: Scott Miller

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Sample ID: VP2C01
Depth:
EMT Job No: 25/10067
EMT Sample No: 1
Matrix: Air
Method: TM68 VOCs in gases (GC-MS)

Canister Serial number: V 20251 0.55

Sample Train Serial number: ST-31

Q* - Qualifiers

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

Key

MDL Method Detection Limit
RL Reporting Limit
ISO 17025 (UKAS) accredited

Cas No	Molecular Weight	Compound	Q*	RESULT	RESULT	RL	MDL	RL	MDL
				ppbv	ug/m ³	ppbv	ppbv	ug/m ³	ug/m ³
75-01-4	62.5	# Vinyl Chloride		1	<2.6	<1	<1	<2.6	<2.6
75-71-8	120.91	Dichlorodifluoromethane (F-12)		2899 _{AA}	-	<50	<1	-	-
74-87-3	50.49	Chloromethane		2	4.1	<1	<1	<2.1	<2.1
74-83-9	94.95	# Bromomethane		<1	<3.9	<1	<1	<3.9	<3.9
75-00-3	64.52	# Chloroethane		<1	<2.6	<1	<1	<2.6	<2.6
75-69-4	137.36	# Trichlorofluoromethane (F-11)		<1	<5.6	<1	<1	<5.6	<5.6
75-35-4	96.95	# 1,1-Dichloroethene (1,1 DCE)		<1	<4.0	<1	<1	<4.0	<4.0
75-09-2	84.93	# Dichloromethane (DCM)		<5	<17.4	<5	<5	<17.4	<17.4
156-60-5	96.94	Trans-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
75-34-3	98.97	# 1,1-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
156-59-2	96.94	# cis-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
594-20-7	112.99	2,2-Dichloropropane		<1.5	<6.9	<1.5	<1.5	<6.9	<6.9
74-97-5	129.38	Bromochloromethane (Int Std)		NA	NA	<1.5	<1.5	<7.9	<7.9
67-66-3	119.39	# Chloroform		8	39.1	<1	<1	<4.9	<4.9
71-55-6	133.42	# 1,1,1-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
563-58-6	110.97	1,1-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
56-23-5	153.84	# Carbon Tetrachloride		<1	<6.3	<1	<1	<6.3	<6.3
107-06-2	98.96	# 1,2-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
71-43-2	78.11	# Benzene		1	<3.2	<1	<1	<3.2	<3.2
79-01-6	131.4	# Trichloroethene (TCE)		<1	<5.4	<1	<1	<5.4	<5.4
78-87-5	112.99	# 1,2-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
74-95-3	173.83	Dibromomethane		<1.5	<10.7	<1.5	<1.5	<10.7	<10.7
75-27-4	163.83	Bromodichloromethane		<1	<6.7	<1	<1	<6.7	<6.7
10061-01-5	110.97	cis-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
108-88-3	92.13	# Toluene		8	30.1	<1	<1	<3.8	<3.8
10061-02-6	110.97	trans-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
79-00-5	133.4	# 1,1,2-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
127-18-4	165.85	# Tetrachloroethene (PCE)		<1	<6.8	<1	<1	<6.8	<6.8
142-28-9	112.99	1,3-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
124-48-1	208.28	Dibromochloromethane		<1	<8.5	<1	<1	<8.5	<8.5
106-93-4	187.86	# 1,2-Dibromoethane		<1	<7.7	<1	<1	<7.7	<7.7
108-90-7	112.56	# Chlorobenzene		<1	<4.6	<1	<1	<4.6	<4.6
630-20-6	167.85	1,1,1,2-Tetrachloroethane		<1	<6.9	<1	<1	<6.9	<6.9
100-41-4	106.16	# Ethylbenzene		<1	<4.3	<1	<1	<4.3	<4.3
179601-23-1	106.17	# m/p-Xylene		<2	<8.7	<2	<2	<8.7	<8.7
95-47-6	106.17	# o-Xylene		<1	<4.3	<1	<1	<4.3	<4.3
100-42-5	104.14	# Styrene		<1.5	<6.4	<1.5	<1.5	<6.4	<6.4
75-25-2	252.77	Bromoform		<1.5	<15.5	<1.5	<1.5	<15.5	<15.5
98-82-8	120.19	Isopropylbenzene		1	4.9	<1	<1	<4.9	<4.9

Element Materials Technology

Client Name: Smith Grant LLP
Reference: R2174
Location: Tetrosyl
Contact: Scott Miller

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Sample ID: VP2C02
Depth:
EMT Job No: 25/10067
EMT Sample No: 2
Matrix: Air
Method: TM68 VOCs in gases (GC-MS)

Canister Serial number: V 20273 0.55
Sample Train Serial number: ST-58

Q* - Qualifiers

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

Key

MDL Method Detection Limit
RL Reporting Limit
ISO 17025 (UKAS) accredited

Cas No	Molecular Weight	Compound	Q*	RESULT	RESULT	RL	MDL	RL	MDL
				ppbv	ug/m ³	ppbv	ppbv	ug/m ³	ug/m ³
75-01-4	62.5	# Vinyl Chloride		44	112.5	<1	<1	<2.6	<2.6
75-71-8	120.91	Dichlorodifluoromethane (F-12)		34943 _{AB}	-	<100	<1	-	-
74-87-3	50.49	Chloromethane		2	4.1	<1	<1	<2.1	<2.1
74-83-9	94.95	# Bromomethane		<1	<3.9	<1	<1	<3.9	<3.9
75-00-3	64.52	# Chloroethane		2	5.3	<1	<1	<2.6	<2.6
75-69-4	137.36	# Trichlorofluoromethane (F-11)		<1	<5.6	<1	<1	<5.6	<5.6
75-35-4	96.95	# 1,1-Dichloroethene (1,1 DCE)		<1	<4.0	<1	<1	<4.0	<4.0
75-09-2	84.93	# Dichloromethane (DCM)		<5	<17.4	<5	<5	<17.4	<17.4
156-60-5	96.94	Trans-1,2-Dichloroethene		4	15.9	<1	<1	<4.0	<4.0
75-34-3	98.97	# 1,1-Dichloroethane		3	12.1	<1	<1	<4.0	<4.0
156-59-2	96.94	# cis-1,2-Dichloroethene		16	63.4	<1	<1	<4.0	<4.0
594-20-7	112.99	2,2-Dichloropropane		<1.5	<6.9	<1.5	<1.5	<6.9	<6.9
74-97-5	129.38	Bromochloromethane (Int Std)		NA	NA	<1.5	<1.5	<7.9	<7.9
67-66-3	119.39	# Chloroform		2	9.8	<1	<1	<4.9	<4.9
71-55-6	133.42	# 1,1,1-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
563-58-6	110.97	1,1-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
56-23-5	153.84	# Carbon Tetrachloride		<1	<6.3	<1	<1	<6.3	<6.3
107-06-2	98.96	# 1,2-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
71-43-2	78.11	# Benzene		18	57.5	<1	<1	<3.2	<3.2
79-01-6	131.4	# Trichloroethene (TCE)		8	43.0	<1	<1	<5.4	<5.4
78-87-5	112.99	# 1,2-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
74-95-3	173.83	Dibromomethane		<1.5	<10.7	<1.5	<1.5	<10.7	<10.7
75-27-4	163.83	Bromodichloromethane		<1	<6.7	<1	<1	<6.7	<6.7
10061-01-5	110.97	cis-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
108-88-3	92.13	# Toluene		14	52.8	<1	<1	<3.8	<3.8
10061-02-6	110.97	trans-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
79-00-5	133.4	# 1,1,2-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
127-18-4	165.85	# Tetrachloroethene (PCE)		<1	<6.8	<1	<1	<6.8	<6.8
142-28-9	112.99	1,3-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
124-48-1	208.28	Dibromochloromethane		<1	<8.5	<1	<1	<8.5	<8.5
106-93-4	187.86	# 1,2-Dibromoethane		<1	<7.7	<1	<1	<7.7	<7.7
108-90-7	112.56	# Chlorobenzene		<1	<4.6	<1	<1	<4.6	<4.6
630-20-6	167.85	1,1,1,2-Tetrachloroethane		<1	<6.9	<1	<1	<6.9	<6.9
100-41-4	106.16	# Ethylbenzene		1	4.3	<1	<1	<4.3	<4.3
179601-23-1	106.17	# m/p-Xylene		4	17.4	<2	<2	<8.7	<8.7
95-47-6	106.17	# o-Xylene		2	8.7	<1	<1	<4.3	<4.3
100-42-5	104.14	# Styrene		<1.5	<6.4	<1.5	<1.5	<6.4	<6.4
75-25-2	252.77	Bromoform		<1.5	<15.5	<1.5	<1.5	<15.5	<15.5
98-82-8	120.19	Isopropylbenzene		1	4.9	<1	<1	<4.9	<4.9

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Canister Serial number: V 20273 0.55
Sample Train Serial number: ST-58

MDL	Method Detection Limit
RL	Reporting Limit
#	ISO 17025 (UKAS) accredited

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Element Materials Technology

Client Name: Smith Grant LLP
Reference: R2174
Location: Tetrosyl
Contact: Scott Miller

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Sample ID: VP2D04
Depth:
EMT Job No: 25/10067
EMT Sample No: 3
Matrix: Air
Method: TM68 VOCs in gases (GC-MS)

Canister Serial number: V 20200 0.55

Sample Train Serial number: ST-39

Q* - Qualifiers

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

Key

MDL Method Detection Limit
RL Reporting Limit
ISO 17025 (UKAS) accredited

Cas No	Molecular Weight	Compound	Q*	RESULT	RESULT	RL	MDL	RL	MDL
				ppbv	ug/m ³	ppbv	ppbv	ug/m ³	ug/m ³
75-01-4	62.5	# Vinyl Chloride		<1	<2.6	<1	<1	<2.6	<2.6
75-71-8	120.91	Dichlorodifluoromethane (F-12)		63	-	<1	<1	-	-
74-87-3	50.49	Chloromethane		3	6.2	<1	<1	<2.1	<2.1
74-83-9	94.95	# Bromomethane		<1	<3.9	<1	<1	<3.9	<3.9
75-00-3	64.52	# Chloroethane		<1	<2.6	<1	<1	<2.6	<2.6
75-69-4	137.36	# Trichlorofluoromethane (F-11)		18	101.1	<1	<1	<5.6	<5.6
75-35-4	96.95	# 1,1-Dichloroethene (1,1 DCE)		<1	<4.0	<1	<1	<4.0	<4.0
75-09-2	84.93	# Dichloromethane (DCM)		<5	<17.4	<5	<5	<17.4	<17.4
156-60-5	96.94	Trans-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
75-34-3	98.97	# 1,1-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
156-59-2	96.94	# cis-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
594-20-7	112.99	2,2-Dichloropropane		<1.5	<6.9	<1.5	<1.5	<6.9	<6.9
74-97-5	129.38	Bromochloromethane (Int Std)		NA	NA	<1.5	<1.5	<7.9	<7.9
67-66-3	119.39	# Chloroform		<1	<4.9	<1	<1	<4.9	<4.9
71-55-6	133.42	# 1,1,1-Trichloroethane		1	<5.5	<1	<1	<5.5	<5.5
563-58-6	110.97	1,1-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
56-23-5	153.84	# Carbon Tetrachloride		<1	<6.3	<1	<1	<6.3	<6.3
107-06-2	98.96	# 1,2-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
71-43-2	78.11	# Benzene		10	31.9	<1	<1	<3.2	<3.2
79-01-6	131.4	# Trichloroethene (TCE)		<1	<5.4	<1	<1	<5.4	<5.4
78-87-5	112.99	# 1,2-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
74-95-3	173.83	Dibromomethane		<1.5	<10.7	<1.5	<1.5	<10.7	<10.7
75-27-4	163.83	Bromodichloromethane		<1	<6.7	<1	<1	<6.7	<6.7
10061-01-5	110.97	cis-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
108-88-3	92.13	# Toluene		10	37.7	<1	<1	<3.8	<3.8
10061-02-6	110.97	trans-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
79-00-5	133.4	# 1,1,2-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
127-18-4	165.85	# Tetrachloroethene (PCE)		<1	<6.8	<1	<1	<6.8	<6.8
142-28-9	112.99	1,3-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
124-48-1	208.28	Dibromochloromethane		<1	<8.5	<1	<1	<8.5	<8.5
106-93-4	187.86	# 1,2-Dibromoethane		<1	<7.7	<1	<1	<7.7	<7.7
108-90-7	112.56	# Chlorobenzene		<1	<4.6	<1	<1	<4.6	<4.6
630-20-6	167.85	1,1,1,2-Tetrachloroethane		<1	<6.9	<1	<1	<6.9	<6.9
100-41-4	106.16	# Ethylbenzene		2	8.7	<1	<1	<4.3	<4.3
179601-23-1	106.17	# m/p-Xylene		5	21.7	<2	<2	<8.7	<8.7
95-47-6	106.17	# o-Xylene		2	8.7	<1	<1	<4.3	<4.3
100-42-5	104.14	# Styrene		<1.5	<6.4	<1.5	<1.5	<6.4	<6.4
75-25-2	252.77	Bromoform		<1.5	<15.5	<1.5	<1.5	<15.5	<15.5
98-82-8	120.19	Isopropylbenzene		<1	<4.9	<1	<1	<4.9	<4.9

Element Materials Technology

Client Name: Smith Grant LLP
Reference: R2174
Location: Tetrosyl
Contact: Scott Miller

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Sample ID:	VP2D04
Depth:	
EMT Job No:	25/10067
EMT Sample No:	3
Matrix:	Air
Method:	TM68 VOCs in gases (GC-MS)

Canister Serial number: V 20200 0.55

Sample Train Serial number: ST-39

Q* - Qualifiers

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

Key

MDL	Method Detection Limit
RL	Reporting Limit
#	ISO 17025 (UKAS) accredited

[illegible]

Element Materials Technology

Client Name: Smith Grant LLP
Reference: R2174
Location: Tetrosyl
Contact: Scott Miller

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Sample ID: VP2F05
Depth:
EMT Job No: 25/10067
EMT Sample No: 4
Matrix: Air
Method: TM68 VOCs in gases (GC-MS)

Canister Serial number: V 20262 0.55

Sample Train Serial number: ST-63

Q* - Qualifiers

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

Key

MDL Method Detection Limit
RL Reporting Limit
ISO 17025 (UKAS) accredited

Cas No	Molecular Weight	Compound	Q*	RESULT	RESULT	RL	MDL	RL	MDL
				ppbv	ug/m ³	ppbv	ppbv	ug/m ³	ug/m ³
75-01-4	62.5	# Vinyl Chloride		<1	<2.6	<1	<1	<2.6	<2.6
75-71-8	120.91	Dichlorodifluoromethane (F-12)		959	4742.3	<1	<1	<4.9	<4.9
74-87-3	50.49	Chloromethane		1	<2.1	<1	<1	<2.1	<2.1
74-83-9	94.95	# Bromomethane		<1	<3.9	<1	<1	<3.9	<3.9
75-00-3	64.52	# Chloroethane		<1	<2.6	<1	<1	<2.6	<2.6
75-69-4	137.36	# Trichlorofluoromethane (F-11)		28	157.3	<1	<1	<5.6	<5.6
75-35-4	96.95	# 1,1-Dichloroethene (1,1 DCE)		<1	<4.0	<1	<1	<4.0	<4.0
75-09-2	84.93	# Dichloromethane (DCM)		<5	<17.4	<5	<5	<17.4	<17.4
156-60-5	96.94	Trans-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
75-34-3	98.97	# 1,1-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
156-59-2	96.94	# cis-1,2-Dichloroethene		4	15.9	<1	<1	<4.0	<4.0
594-20-7	112.99	2,2-Dichloropropane		<1.5	<6.9	<1.5	<1.5	<6.9	<6.9
74-97-5	129.38	Bromochloromethane (Int Std)		NA	NA	<1.5	<1.5	<7.9	<7.9
67-66-3	119.39	# Chloroform		<1	<4.9	<1	<1	<4.9	<4.9
71-55-6	133.42	# 1,1,1-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
563-58-6	110.97	1,1-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
56-23-5	153.84	# Carbon Tetrachloride		<1	<6.3	<1	<1	<6.3	<6.3
107-06-2	98.96	# 1,2-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
71-43-2	78.11	# Benzene		2	6.4	<1	<1	<3.2	<3.2
79-01-6	131.4	# Trichloroethene (TCE)		2	10.7	<1	<1	<5.4	<5.4
78-87-5	112.99	# 1,2-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
74-95-3	173.83	Dibromomethane		<1.5	<10.7	<1.5	<1.5	<10.7	<10.7
75-27-4	163.83	Bromodichloromethane		<1	<6.7	<1	<1	<6.7	<6.7
10061-01-5	110.97	cis-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
108-88-3	92.13	# Toluene		25	94.2	<1	<1	<3.8	<3.8
10061-02-6	110.97	trans-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
79-00-5	133.4	# 1,1,2-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
127-18-4	165.85	# Tetrachloroethene (PCE)		<1	<6.8	<1	<1	<6.8	<6.8
142-28-9	112.99	1,3-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
124-48-1	208.28	Dibromochloromethane		<1	<8.5	<1	<1	<8.5	<8.5
106-93-4	187.86	# 1,2-Dibromoethane		<1	<7.7	<1	<1	<7.7	<7.7
108-90-7	112.56	# Chlorobenzene		<1	<4.6	<1	<1	<4.6	<4.6
630-20-6	167.85	1,1,1,2-Tetrachloroethane		<1	<6.9	<1	<1	<6.9	<6.9
100-41-4	106.16	# Ethylbenzene		9	39.1	<1	<1	<4.3	<4.3
179601-23-1	106.17	# m/p-Xylene		4	17.4	<2	<2	<8.7	<8.7
95-47-6	106.17	# o-Xylene		2	8.7	<1	<1	<4.3	<4.3
100-42-5	104.14	# Styrene		<1.5	<6.4	<1.5	<1.5	<6.4	<6.4
75-25-2	252.77	Bromoform		<1.5	<15.5	<1.5	<1.5	<15.5	<15.5
98-82-8	120.19	Isopropylbenzene		<1	<4.9	<1	<1	<4.9	<4.9

Element Materials Technology

Client Name: Smith Grant LLP
Reference: R2174
Location: Tetrosyl
Contact: Scott Miller

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Sample ID: VP2F06
Depth:
EMT Job No: 25/10067
EMT Sample No: 5
Matrix: Air
Method: TM68 VOCs in gases (GC-MS)

Canister Serial number: V 20204 0.55
Sample Train Serial number: ST-46

Q* - Qualifiers

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

Key

MDL Method Detection Limit
RL Reporting Limit
ISO 17025 (UKAS) accredited

Cas No	Molecular Weight	Compound	Q*	RESULT	RESULT	RL	MDL	RL	MDL
				ppbv	ug/m ³	ppbv	ppbv	ug/m ³	ug/m ³
75-01-4	62.5	# Vinyl Chloride		<1	<2.6	<1	<1	<2.6	<2.6
75-71-8	120.91	Dichlorodifluoromethane (F-12)		147	726.9	<1	<1	<4.9	<4.9
74-87-3	50.49	Chloromethane		2	4.1	<1	<1	<2.1	<2.1
74-83-9	94.95	# Bromomethane		<1	<3.9	<1	<1	<3.9	<3.9
75-00-3	64.52	# Chloroethane		<1	<2.6	<1	<1	<2.6	<2.6
75-69-4	137.36	# Trichlorofluoromethane (F-11)		2	11.2	<1	<1	<5.6	<5.6
75-35-4	96.95	# 1,1-Dichloroethene (1,1 DCE)		<1	<4.0	<1	<1	<4.0	<4.0
75-09-2	84.93	# Dichloromethane (DCM)		<5	<17.4	<5	<5	<17.4	<17.4
156-60-5	96.94	Trans-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
75-34-3	98.97	# 1,1-Dichloroethane		1	4.0	<1	<1	<4.0	<4.0
156-59-2	96.94	# cis-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
594-20-7	112.99	2,2-Dichloropropane		<1.5	<6.9	<1.5	<1.5	<6.9	<6.9
74-97-5	129.38	Bromochloromethane (Int Std)		NA	NA	<1.5	<1.5	<7.9	<7.9
67-66-3	119.39	# Chloroform		<1	<4.9	<1	<1	<4.9	<4.9
71-55-6	133.42	# 1,1,1-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
563-58-6	110.97	1,1-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
56-23-5	153.84	# Carbon Tetrachloride		<1	<6.3	<1	<1	<6.3	<6.3
107-06-2	98.96	# 1,2-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
71-43-2	78.11	# Benzene		3	9.6	<1	<1	<3.2	<3.2
79-01-6	131.4	# Trichloroethene (TCE)		1	<5.4	<1	<1	<5.4	<5.4
78-87-5	112.99	# 1,2-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
74-95-3	173.83	Dibromomethane		<1.5	<10.7	<1.5	<1.5	<10.7	<10.7
75-27-4	163.83	Bromodichloromethane		<1	<6.7	<1	<1	<6.7	<6.7
10061-01-5	110.97	cis-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
108-88-3	92.13	# Toluene		7	26.4	<1	<1	<3.8	<3.8
10061-02-6	110.97	trans-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
79-00-5	133.4	# 1,1,2-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
127-18-4	165.85	# Tetrachloroethene (PCE)		<1	<6.8	<1	<1	<6.8	<6.8
142-28-9	112.99	1,3-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
124-48-1	208.28	Dibromochloromethane		<1	<8.5	<1	<1	<8.5	<8.5
106-93-4	187.86	# 1,2-Dibromoethane		<1	<7.7	<1	<1	<7.7	<7.7
108-90-7	112.56	# Chlorobenzene		<1	<4.6	<1	<1	<4.6	<4.6
630-20-6	167.85	1,1,1,2-Tetrachloroethane		<1	<6.9	<1	<1	<6.9	<6.9
100-41-4	106.16	# Ethylbenzene		<1	<4.3	<1	<1	<4.3	<4.3
179601-23-1	106.17	# m/p-Xylene		<2	<8.7	<2	<2	<8.7	<8.7
95-47-6	106.17	# o-Xylene		1	4.3	<1	<1	<4.3	<4.3
100-42-5	104.14	# Styrene		<1.5	<6.4	<1.5	<1.5	<6.4	<6.4
75-25-2	252.77	Bromoform		<1.5	<15.5	<1.5	<1.5	<15.5	<15.5
98-82-8	120.19	Isopropylbenzene		<1	<4.9	<1	<1	<4.9	<4.9

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Canister Serial number: V 20204 0.55
Sample Train Serial number: ST-46

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

MDL	Method Detection Limit
RL	Reporting Limit
#	ISO 17025 (UKAS) accredited

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Element Materials Technology

Client Name: Smith Grant LLP
Reference: R2174
Location: Tetrosyl
Contact: Scott Miller

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Sample ID: VP2F07
Depth:
EMT Job No: 25/10067
EMT Sample No: 6
Matrix: Air
Method: TM68 VOCs in gases (GC-MS)

Canister Serial number: V 20203 0.55

Sample Train Serial number: ST-45

Q* - Qualifiers

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

Key

MDL Method Detection Limit
RL Reporting Limit
ISO 17025 (UKAS) accredited

Cas No	Molecular Weight	Compound	Q*	RESULT	RESULT	RL	MDL	RL	MDL
				ppbv	ug/m ³	ppbv	ppbv	ug/m ³	ug/m ³
75-01-4	62.5	# Vinyl Chloride		<1	<2.6	<1	<1	<2.6	<2.6
75-71-8	120.91	Dichlorodifluoromethane (F-12)		24	118.7	<1	<1	<4.9	<4.9
74-87-3	50.49	Chloromethane		4	8.3	<1	<1	<2.1	<2.1
74-83-9	94.95	# Bromomethane		<1	<3.9	<1	<1	<3.9	<3.9
75-00-3	64.52	# Chloroethane		<1	<2.6	<1	<1	<2.6	<2.6
75-69-4	137.36	# Trichlorofluoromethane (F-11)		<1	<5.6	<1	<1	<5.6	<5.6
75-35-4	96.95	# 1,1-Dichloroethene (1,1 DCE)		<1	<4.0	<1	<1	<4.0	<4.0
75-09-2	84.93	# Dichloromethane (DCM)		<5	<17.4	<5	<5	<17.4	<17.4
156-60-5	96.94	Trans-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
75-34-3	98.97	# 1,1-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
156-59-2	96.94	# cis-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
594-20-7	112.99	2,2-Dichloropropane		<1.5	<6.9	<1.5	<1.5	<6.9	<6.9
74-97-5	129.38	Bromochloromethane (Int Std)		NA	NA	<1.5	<1.5	<7.9	<7.9
67-66-3	119.39	# Chloroform		<1	<4.9	<1	<1	<4.9	<4.9
71-55-6	133.42	# 1,1,1-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
563-58-6	110.97	1,1-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
56-23-5	153.84	# Carbon Tetrachloride		<1	<6.3	<1	<1	<6.3	<6.3
107-06-2	98.96	# 1,2-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
71-43-2	78.11	# Benzene		8	25.6	<1	<1	<3.2	<3.2
79-01-6	131.4	# Trichloroethene (TCE)		<1	<5.4	<1	<1	<5.4	<5.4
78-87-5	112.99	# 1,2-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
74-95-3	173.83	Dibromomethane		<1.5	<10.7	<1.5	<1.5	<10.7	<10.7
75-27-4	163.83	Bromodichloromethane		<1	<6.7	<1	<1	<6.7	<6.7
10061-01-5	110.97	cis-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
108-88-3	92.13	# Toluene		11	41.4	<1	<1	<3.8	<3.8
10061-02-6	110.97	trans-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
79-00-5	133.4	# 1,1,2-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
127-18-4	165.85	# Tetrachloroethene (PCE)		<1	<6.8	<1	<1	<6.8	<6.8
142-28-9	112.99	1,3-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
124-48-1	208.28	Dibromochloromethane		<1	<8.5	<1	<1	<8.5	<8.5
106-93-4	187.86	# 1,2-Dibromoethane		<1	<7.7	<1	<1	<7.7	<7.7
108-90-7	112.56	# Chlorobenzene		<1	<4.6	<1	<1	<4.6	<4.6
630-20-6	167.85	1,1,1,2-Tetrachloroethane		<1	<6.9	<1	<1	<6.9	<6.9
100-41-4	106.16	# Ethylbenzene		1	4.3	<1	<1	<4.3	<4.3
179601-23-1	106.17	# m/p-Xylene		3	13.0	<2	<2	<8.7	<8.7
95-47-6	106.17	# o-Xylene		2	8.7	<1	<1	<4.3	<4.3
100-42-5	104.14	# Styrene		<1.5	<6.4	<1.5	<1.5	<6.4	<6.4
75-25-2	252.77	Bromoform		<1.5	<15.5	<1.5	<1.5	<15.5	<15.5
98-82-8	120.19	Isopropylbenzene		<1	<4.9	<1	<1	<4.9	<4.9

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Canister Serial number: V 20203 0.55
Sample Train Serial number: ST-45

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

MDL	Method Detection Limit
RL	Reporting Limit
#	ISO 17025 (UKAS) accredited

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Element Materials Technology

Client Name: Smith Grant LLP
Reference: R2174
Location: Tetrosyl
Contact: Scott Miller

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Sample ID: VP2F08
Depth:
EMT Job No: 25/10067
EMT Sample No: 7
Matrix: Air
Method: TM68 VOCs in gases (GC-MS)

Canister Serial number: V 20263 0.55

Sample Train Serial number: ST-77

Q* - Qualifiers

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

Key

MDL Method Detection Limit
RL Reporting Limit
ISO 17025 (UKAS) accredited

Cas No	Molecular Weight	Compound	Q*	RESULT	RESULT	RL	MDL	RL	MDL
				ppbv	ug/m ³	ppbv	ppbv	ug/m ³	ug/m ³
75-01-4	62.5	# Vinyl Chloride		<1	<2.6	<1	<1	<2.6	<2.6
75-71-8	120.91	Dichlorodifluoromethane (F-12)		30	148.4	<1	<1	<4.9	<4.9
74-87-3	50.49	Chloromethane		3	6.2	<1	<1	<2.1	<2.1
74-83-9	94.95	# Bromomethane		<1	<3.9	<1	<1	<3.9	<3.9
75-00-3	64.52	# Chloroethane		<1	<2.6	<1	<1	<2.6	<2.6
75-69-4	137.36	# Trichlorofluoromethane (F-11)		8	44.9	<1	<1	<5.6	<5.6
75-35-4	96.95	# 1,1-Dichloroethene (1,1 DCE)		<1	<4.0	<1	<1	<4.0	<4.0
75-09-2	84.93	# Dichloromethane (DCM)		<5	<17.4	<5	<5	<17.4	<17.4
156-60-5	96.94	Trans-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
75-34-3	98.97	# 1,1-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
156-59-2	96.94	# cis-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
594-20-7	112.99	2,2-Dichloropropane		<1.5	<6.9	<1.5	<1.5	<6.9	<6.9
74-97-5	129.38	Bromochloromethane (Int Std)		NA	NA	<1.5	<1.5	<7.9	<7.9
67-66-3	119.39	# Chloroform		<1	<4.9	<1	<1	<4.9	<4.9
71-55-6	133.42	# 1,1,1-Trichloroethane		6	32.7	<1	<1	<5.5	<5.5
563-58-6	110.97	1,1-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
56-23-5	153.84	# Carbon Tetrachloride		<1	<6.3	<1	<1	<6.3	<6.3
107-06-2	98.96	# 1,2-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
71-43-2	78.11	# Benzene		22	70.3	<1	<1	<3.2	<3.2
79-01-6	131.4	# Trichloroethene (TCE)		1	<5.4	<1	<1	<5.4	<5.4
78-87-5	112.99	# 1,2-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
74-95-3	173.83	Dibromomethane		<1.5	<10.7	<1.5	<1.5	<10.7	<10.7
75-27-4	163.83	Bromodichloromethane		<1	<6.7	<1	<1	<6.7	<6.7
10061-01-5	110.97	cis-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
108-88-3	92.13	# Toluene		11	41.4	<1	<1	<3.8	<3.8
10061-02-6	110.97	trans-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
79-00-5	133.4	# 1,1,2-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
127-18-4	165.85	# Tetrachloroethene (PCE)		<1	<6.8	<1	<1	<6.8	<6.8
142-28-9	112.99	1,3-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
124-48-1	208.28	Dibromochloromethane		<1	<8.5	<1	<1	<8.5	<8.5
106-93-4	187.86	# 1,2-Dibromoethane		<1	<7.7	<1	<1	<7.7	<7.7
108-90-7	112.56	# Chlorobenzene		<1	<4.6	<1	<1	<4.6	<4.6
630-20-6	167.85	1,1,1,2-Tetrachloroethane		<1	<6.9	<1	<1	<6.9	<6.9
100-41-4	106.16	# Ethylbenzene		<1	<4.3	<1	<1	<4.3	<4.3
179601-23-1	106.17	# m/p-Xylene		3	13.0	<2	<2	<8.7	<8.7
95-47-6	106.17	# o-Xylene		2	8.7	<1	<1	<4.3	<4.3
100-42-5	104.14	# Styrene		<1.5	<6.4	<1.5	<1.5	<6.4	<6.4
75-25-2	252.77	Bromoform		<1.5	<15.5	<1.5	<1.5	<15.5	<15.5
98-82-8	120.19	Isopropylbenzene		2	9.8	<1	<1	<4.9	<4.9

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Canister Serial number: V 20263 0.55
Sample Train Serial number: ST-77

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

MDL	Method Detection Limit
RL	Reporting Limit
#	ISO 17025 (UKAS) accredited

QF-PM 3.1.13 v6

Element Materials Technology

Client Name: Smith Grant LLP
Reference: R2174
Location: Tetrosyl
Contact: Scott Miller

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Sample ID: VP2F09
Depth:
EMT Job No: 25/10067
EMT Sample No: 8
Matrix: Air
Method: TM68 VOCs in gases (GC-MS)

Canister Serial number: V 20296 0.55

Sample Train Serial number: ST-120

Q* - Qualifiers

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

Key

MDL Method Detection Limit
RL Reporting Limit
ISO 17025 (UKAS) accredited

Cas No	Molecular Weight	Compound	Q*	RESULT	RESULT	RL	MDL	RL	MDL
				ppbv	ug/m ³	ppbv	ppbv	ug/m ³	ug/m ³
75-01-4	62.5	# Vinyl Chloride		2	5.1	<1	<1	<2.6	<2.6
75-71-8	120.91	Dichlorodifluoromethane (F-12)		576	2848.3	<1	<1	<4.9	<4.9
74-87-3	50.49	Chloromethane		3	6.2	<1	<1	<2.1	<2.1
74-83-9	94.95	# Bromomethane		<1	<3.9	<1	<1	<3.9	<3.9
75-00-3	64.52	# Chloroethane		<1	<2.6	<1	<1	<2.6	<2.6
75-69-4	137.36	# Trichlorofluoromethane (F-11)		14	78.6	<1	<1	<5.6	<5.6
75-35-4	96.95	# 1,1-Dichloroethene (1,1 DCE)		<1	<4.0	<1	<1	<4.0	<4.0
75-09-2	84.93	# Dichloromethane (DCM)		<5	<17.4	<5	<5	<17.4	<17.4
156-60-5	96.94	Trans-1,2-Dichloroethene		<1	<4.0	<1	<1	<4.0	<4.0
75-34-3	98.97	# 1,1-Dichloroethane		3	12.1	<1	<1	<4.0	<4.0
156-59-2	96.94	# cis-1,2-Dichloroethene		1	<4.0	<1	<1	<4.0	<4.0
594-20-7	112.99	2,2-Dichloropropane		<1.5	<6.9	<1.5	<1.5	<6.9	<6.9
74-97-5	129.38	Bromochloromethane (Int Std)		NA	NA	<1.5	<1.5	<7.9	<7.9
67-66-3	119.39	# Chloroform		<1	<4.9	<1	<1	<4.9	<4.9
71-55-6	133.42	# 1,1,1-Trichloroethane		2	10.9	<1	<1	<5.5	<5.5
563-58-6	110.97	1,1-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
56-23-5	153.84	# Carbon Tetrachloride		<1	<6.3	<1	<1	<6.3	<6.3
107-06-2	98.96	# 1,2-Dichloroethane		<1	<4.0	<1	<1	<4.0	<4.0
71-43-2	78.11	# Benzene		8	25.6	<1	<1	<3.2	<3.2
79-01-6	131.4	# Trichloroethene (TCE)		3	16.1	<1	<1	<5.4	<5.4
78-87-5	112.99	# 1,2-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
74-95-3	173.83	Dibromomethane		<1.5	<10.7	<1.5	<1.5	<10.7	<10.7
75-27-4	163.83	Bromodichloromethane		<1	<6.7	<1	<1	<6.7	<6.7
10061-01-5	110.97	cis-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
108-88-3	92.13	# Toluene		11	41.4	<1	<1	<3.8	<3.8
10061-02-6	110.97	trans-1,3-Dichloropropene		<1	<4.5	<1	<1	<4.5	<4.5
79-00-5	133.4	# 1,1,2-Trichloroethane		<1	<5.5	<1	<1	<5.5	<5.5
127-18-4	165.85	# Tetrachloroethene (PCE)		<1	<6.8	<1	<1	<6.8	<6.8
142-28-9	112.99	1,3-Dichloropropane		<1	<4.6	<1	<1	<4.6	<4.6
124-48-1	208.28	Dibromochloromethane		<1	<8.5	<1	<1	<8.5	<8.5
106-93-4	187.86	# 1,2-Dibromoethane		<1	<7.7	<1	<1	<7.7	<7.7
108-90-7	112.56	# Chlorobenzene		<1	<4.6	<1	<1	<4.6	<4.6
630-20-6	167.85	1,1,1,2-Tetrachloroethane		<1	<6.9	<1	<1	<6.9	<6.9
100-41-4	106.16	# Ethylbenzene		1	4.3	<1	<1	<4.3	<4.3
179601-23-1	106.17	# m/p-Xylene		4	17.4	<2	<2	<8.7	<8.7
95-47-6	106.17	# o-Xylene		2	8.7	<1	<1	<4.3	<4.3
100-42-5	104.14	# Styrene		<1.5	<6.4	<1.5	<1.5	<6.4	<6.4
75-25-2	252.77	Bromoform		<1.5	<15.5	<1.5	<1.5	<15.5	<15.5
98-82-8	120.19	Isopropylbenzene		<1	<4.9	<1	<1	<4.9	<4.9

Sample Date: 18 Jun 2025
Date of Receipt: 19 Jun 2025
Date Analysed: 24 Jun 2025

Canister Serial number: V 20296 0.55
Sample Train Serial number: ST-120

B Indicates analyte found in associated method blank
>> Indicates value exceeds calibration range

MDL	Method Detection Limit
RL	Reporting Limit
#	ISO 17025 (UKAS) accredited

QF-PM 3.1.13 v6

Element Materials Technology

Notification of Deviating Samples

Notification of Deviating Samples

Client Name: Smith Grant LLP

Reference: R2174

Location: Tetrosyl

Contact: Scott Miller

[illegible]

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

It is a requirement under ISO 17025 that we inform clients if samples are deviating i.e. outside what is expected. A deviating sample indicates that the sample 'may' be compromised but not necessarily will be compromised. The result is still accredited and our analytical reports will still show accreditation on the relevant analytes.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 25/10067

SOILS and ASH

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

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

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

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

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

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

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

Where Mineral Oil is quoted, this refers to Total Aliphatics C10-C40.

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

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

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

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

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

WATERS

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

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

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

Where Mineral Oil is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

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

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

DEVIATING SAMPLES

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

SURROGATES

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

DILUTIONS

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

BLANKS

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

NOTE

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

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

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

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Measurement Uncertainty

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

Customer Provided Information

Sample ID and depth is information provided by the customer.

Age of Diesel

The age of release estimation is based on the nC17/pristane ratio only as prescribed by Christensen and Larsen (1993) and Kaplan, Galperin, Alimi et al., (1996).

Age estimation should be treated with caution as it can be influenced by site specific factors of which the laboratory are not aware.

Tentatively Identified Compounds (TICs)

Where Tentatively Identified Compounds (TICs) are reported, up to 10 Tentatively Identified Compounds will be listed where there is found to be a greater than 80% match with the NIST library. The reported concentration is determined semi-quantitatively, with a matrix specific limit of detection.

Note, other compounds may be present but are not reported.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
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	x50 Dilution
AB	x100 Dilution

EMT Job No: 25/10067

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
TM68	Modified TO-15 method. Volatile Organic Compounds (VOCs) sampled using Gas Canisters, BottleVacs or Tedlar bags and analysed using Entech GC-MS.	PM0	No preparation is required.				
TM68	Modified TO-15 method. Volatile Organic Compounds (VOCs) sampled using Gas Canisters, BottleVacs or Tedlar bags and analysed using Entech GC-MS.	PM0	No preparation is required.	Yes			

VOC	Unit	VP2C01	VP2C02	VP2D04	VP2F05	VP2F06	VP2F07	VP2F08	VP2F09
Vinyl Chloride #	ug.m3	2.6	112.5	2.6	2.6	2.6	2.6	2.6	5.1
Dichlorodifluoromethane (F-12)	ug.m3	14335.6	172793.6	311.5	4742.3	726.9	118.7	148.4	2848.3
Chloromethane	ug.m3	4.1	4.1	6.2	2.1	4.1	8.3	6.2	6.2
Chloroethane	ug.m3	2.6	5.3	2.6	2.6	2.6	2.6	2.6	2.6
Trichlorofluoromethane (F-11) #	ug.m3	5.6	5.6	101.1	157.3	11.2	5.6	44.9	78.6
MTBE	ug.m3	3.6	32.4	3.6	3.6	7.2	3.6	3.6	3.6
1,1,1-Trichloroethane #	ug.m3	5.5	5.5	5.5	5.5	5.5	5.5	32.7	10.9
Chloroform	ug.m3	39.1	9.8	4.9	4.9	4.9	4.9	4.9	4.9
Isopropylbenzene	ug.m3	4.9	4.9	4.9	4.9	4.9	4.9	9.8	4.9
Trans-1,2-Dichloroethene	ug.m3	4	15.9	4	4	4	4	4	4
1,1-Dichloroethane #	ug.m3	4	12.1	4	4	4	4	4	12.1
cis-1,2-Dichloroethene #	ug.m3	4	63.4	4	15.9	4	4	4	4
Benzene #	ug.m3	3.2	57.5	31.9	6.4	9.6	25.6	70.3	25.6
Trichloroethene (TCE) #	ug.m3	5.4	43	5.4	10.7	5.4	5.4	5.4	16.1
Toluene #	ug.m3	30.1	52.8	37.7	94.2	26.4	41.4	41.4	41.4
Ethylbenzene #	ug.m3	4.3	4.3	8.7	39.1	4.3	4.3	4.3	4.3
m/p-Xylene #	ug.m3	8.7	17.4	21.7	17.4	<8.7	13	13	17.4
o-Xylene #	ug.m3	4.3	8.7	8.7	8.7	4.3	8.7	8.7	8.7
Volatile Hydrocarbons	Unit	VP2C01	VP2C02	VP2D04	VP2F05	VP2F06	VP2F07	VP2F08	VP2F09
Aliphatic >C4-C6	ug.m3	33	215	255	33	123	116	33	580
Aliphatic >C6-C8	ug.m3	45	335	519	70	585	479	176	1055
Aliphatic >C8-C10	ug.m3	53	287	627	197	516	1074	526	2547
Aliphatic >C10-C12	ug.m3	65	164	92	124	65	98	294	183
Aromatic >C5-EC7 (Benzene)	ug.m3	4.8	56.5	31.9	6.4	10.9	25.2	69.3	25.9
Aromatic >EC7-EC8 (Toluene)	ug.m3	29	51.6	39.2	92.7	27.9	39.9	41.1	40.7
Aromatic >EC8-EC10	ug.m3	49	98	64	191	49	49	83	49
Aromatic >EC10-EC12	ug.m3	53	53	53	53	53	53	53	53

Min	Max	SV
2.6	112.5	0.33
118.7	172793.6	-
2.1	8.3	2.88
2.6	5.3	3191.43
5.6	157.3	-
3.6	32.4	585.87
5.5	32.7	336.7
4.9	39.1	22.44
4.9	9.8	64.14
4	15.9	12.34
4	12.1	-
4	63.4	-
3.2	70.3	5
5.4	43	0.63
26.4	94.2	1,468.05
4.3	39.1	62.51
8.7	21.7	33.67
4.3	8.7	33.67
Min	Max	SV
33	580	2,805.90
45	1055	2,805.90
53	2547	162.74
65	294	162.74
4.8	69.3	5
27.9	92.7	2115.91
49	191	33.67
53	53	33.67