Environmental Monitoring Report

Reporting Period
03/01/2011-30/01/2011

Former Bayer Crop Science Site
Hauxton
Cambridgeshire

10th February 2011

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APPENDICIES

1.0 Introduction

1.1. General

This report has been prepared and submitted in accordance Environmental Permitting Regulations 2007 with reference to the approved Deployment of Vertase FLI's Environmental Permit Ref: ERP/QP3293FY for the remediation works at the former Bayer CropScience site Hauxton, and in accordance with Condition 4 of the planning permission dated 5th February 2010.

The time period that this report represents is from the 3rd of January 2011, until the 30th of January 2011.

1.2. The site

The site is the former Bayer Crop Science site, Cambridge Road, Hauxton, Cambridge. The site was used for the storage and production of agrichemicals from the 1940's through to ceasing production in 2004. The site was used primarily for the synthesis, formulation, packaging and storage of agrichemicals (both herbicides and pesticides). It is this former historical use that has led to the contamination legacy of soil and groundwater at the site.

There is also a Waste Water Treatment Plant (WWTP) and other agricultural land which is part of the former land holding of Bayer Crop Science and is part of that controlled by Harrow Estates. The WWTP will be utilised to assist in the treatment of recovered groundwater and will be improved to undertake this task and then maintained for the duration of the remediation. This area of the site will not be subject to remediation as part of this phase of works but will be remediated as a separate phase of work under a separate contract and separate Remediation Method Statement in the future.

1.3. Remediation Brief and Philosophy

The philosophy for this remediation project is set out in detail in the agreed Remediation Method Statement. The remediation of the site has been developed from knowledge of the site gained from historical site investigations, Atkins Preliminary Conceptual Model Report August 2006 (interpretative report defining the current and correct understanding of the geological and

environmental conditions) and subsequent sampling and analysis defining the extent of contamination following further investigation. This information has allowed the conceptual site model and pollutant linkages to be developed to form the remediation methodology. Whilst the remediation work itself is complex and varied, the philosophy is simple and defines the proposed remedial action required. This philosophy has been designed with the brief in mind. This brief can be defined as "a remediation to address all pollutant linkages and ensure that following remediation and re-development no unacceptable risks will remain associated with the treated area of the site by applying the best available techniques not entailing excessive costs (BATNEEC)".

The philosophy behind the remediation is to remove all uncertainty relating to soils and groundwater within the site area by the excavation, characterisation and treatment. All pathways between the identified sources and receptors will be removed and the contaminant mass within soils reduced as far as the practical limits of cost effective technology permit. The Remediation Method Statement sets out how this philosophy or strategy will be achieved practically on site and validated with confirmative post remediation risk assessment.

These remediation works are also required to satisfy the regulators that adequate remediation works have been completed to satisfy their requirements under Part IIa of the Environmental Protection Act 1990.

2.0 Monthly Progress

Week 43. Week Commencing 3rd January 2011

Excavation of contaminated materials was undertaken in grid squares F14 and F15, this material was formed in to treatment windrows in the east of the site, this material was non odorous and did not require covering. A trial pitting exercise was undertaken to assess level of contamination and characterise materials in grid squares to the east of the site, this area had been previously excavated to remove heavily impacted madeground. Due to recent snow fall and wet weather turning of treatment beds was restricted to materials stored in the high bay warehouse, as this material was dry enough to be processed. Spent mushroom compost was added to a number of treatment beds to aid in the biodegradation of contaminants and maintain the heat within the treatment beds. A temporary pedestrian footpath was installed around the Mill Lane car park adjacent to form a diversion route while works are undertaken near the original line of the Mill Lane footpath.

Week 44. Week Commencing 10th January 2011

Excavation of contaminated materials continued through in to grid squares F15 and F16, with treatment beds being created adjacent to the excavation, these works were ceased on the 11/02/2011 due to wet weather. The trial pitting exercise from the previous week was continued when the weather condition allowed. Turning of treatment beds was restricted to materials stored in the high bay warehouse, as this material was dry enough to be processed. The works on the temporary footpath diversion around Mill Lane car park continued.

Week 45. Week Commencing 17th January 2011

Persistent wet weather conditions significantly restricted the activities that could be undertaken on site, which comprised of moving treatment bed 77 and some of the crushed concrete stockpile to create more space on site for treatment. On the 21st of January excavation recommenced in grid square H6 and I6, removing moderately impacted madeground and marl formation, this material was formed into treatment beds to the east of the site.

Week 46. Week Commencing 24th January 2011

Excavation of grid squares H6 and I6 continued through the week removing impacted marl and Gault clay to approximately 4m below ground level, the excavations were however halted on two days as the predominant wind direction was towards adjacent residents. Relocating of existing treatment beds and stockpiles was undertaken to create further space for newly created treatment beds. The majority of the treatment beds on site are to wet to be processed.

3.0 Environmental Monitoring Summary

The environmental monitoring locations detailed in the Environmental Permit deployment form for the site are highlighted in drawing D907_33C in Appendix A.

The detailed environmental monitoring data can be found in Appendix B, the following chapters summarise the finding from the monitoring undertaken by Vertase FLI Site Engineers.

3.1. Odour and VOC Emissions

Odour and VOC monitoring around the site boundary commenced on the 22nd March 2010 and has been undertaken twice daily at eight compass points around the site boundary, in the public access areas. Odour and VOC related observations in between the eight compass points around the site are also noted by the Vertase FLI representative undertaking the monitoring.

In addition to physical control via covers and management of activities odour controlling suppressants and masking agent are being used around the site boundary to mitigate the impact of odour migration off site. Initially two mobile telescopic misting fans were used on site and a full boundary misting system was also erected to supplement the mobile units, along with the addition of two further mobile units to focus specifically on the excavation.

Site generated odours including those from the remediation processes and the odour suppression systems observed during the monitoring rounds beyond the site boundary are listed in the environmental monitoring data spreadsheet in Appendix B.

The Vertase FLI Environmental Engineers and Site Management team have been working closely to prevent odours and VOC's generated by the remediation processes migrating off site, along with trying to achieve a fine balance of using a variety of odour control fragrance's at a variety of dilutions to reduce the impact of any odours detected off site.

The Environmental Engineers have logged the actions undertaken on site to reduce the impact of VOC/odours off site, these are noted in the environmental monitoring data in Appendix B. All mitigation measures have been in accordance with the actions stipulated in the deployment

form, including some additional actions to reduce the potential of odour nuisance e.g. repositioning of mobile odour control systems.

During the twice daily environmental monitoring a Photoionisation Detector (PID) has been used to record VOC's present beyond the site boundary. The PID will not function correctly in wet weather conditions, therefore due to the significant amount of snow fall and heavy rain during the reporting period this has prevented real-time monitoring on a number of days and data is missing from the environmental monitoring spreadsheet for this reason. During the reported period VOC's were not detected by the PID (Limit of detection of 0.1ppm) beyond the site boundary.

Long term passive VOC monitoring is carried out at eight compass point locations around the site boundary, in the public accessible areas, further monitoring locations are located within the centre of the waste water treatment works, on Church Road, Hauxton and Queens Close, Harston.

The results for the long term passive VOC monitoring carried out between 21/12/2010 and 20/01/2011 are reported in appendix C. The analysis for this monitoring period indicates that the majority of the VOC's detected are around the baseline, except for Tetrachloroethylene and Toluene which are on occasion slightly raised above the baseline values but are well below the levels considered to be within acceptable limits for published criteria.

The analysis for Church Road, Hauxton and Queens Close, Harston indicates there are some site related VOC's detected at these locations, but at levels that are considered to be within acceptable limits for published criteria.

The 28 day passive VOC monitoring results have been forwarded to the Health Protection Agency for review. The HPA have under taken independent risk assessment upon the data provided and have provided a positive non technical summary which is available on South Cambridgeshire District Councils website.

3.2. Dust Fibre and Particulate Emission

Both real time dust measurement and long term dust deposition monitoring has been undertaken around the site boundary at six compass point locations, north, east, south, west with two monitoring positions in the northeast (drawing D907_30C, Appendix A).

Real time airborne dust monitoring is undertaken as a minimum twice daily by an Environmental Engineer using a 'Dustmate' dust particle monitor around the site boundary as part of the environmental monitoring schedule, results are recorded in the environmental monitoring spreadsheet (Appendix B). The 'Dustmate' dust particle monitor will not function correctly in wet weather conditions, therefore due to the significant amount of snow fall during the reporting period this has prevented real-time dust monitoring on a number of days and data is missing from the environmental monitoring spreadsheet for this reason. Dust migration is however less likely in wet weather conditions.

Dust particle measurements at each monitoring location have varied, with the higher dust readings being generally at the locations adjacent to the heavily trafficked Cambridge Road (A10). The average Total Suspended Particulates (TSP) reading around the site is 100.52µg/m^3, the average PM10 dust reading around the site is 48.31µg/m^3. Where a potential for dust has been observed, on site dust suppression methods have been deployed immediately to reduce the generation of site dust and all haul routes are continually wetted to prevent dust release.

Directional dust deposition gauges at the six monitoring locations are analysed every fortnight for Effective Area Coverage (EAC) (percentage of dust deposition relating to the potential to cause nuisance), results generated by an external laboratory are presented in Appendix D.

Baseline dust monitoring undertaken between 19/02/2010 to 19/03/2010 (4 locations monitored) recorded a maximum dust deposition rate of 0.54%EAC at the western monitoring location.

Dust monitoring undertaken from the 10/01/2011 to 25/01/2011 (6 locations monitored) recorded a maximum dust deposition rate was 0.53%EAC at the west monitoring location. All other locations had a maximum dust deposition rate of 0.47%EAC, or less.

Dust deposition values of less than 2.5% are regarded as having a very low nuisance potential. Only when percentages rise from 2.5% – 5% EAC is dust considered to have a low nuisance causing potential. During the reported period dust, fibre and particle emissions have been low, and have not caused visual dusting off site.

3.3. Control of Mud and Debris

A pressure washer has been on site constantly to allow any maintenance or plant delivery vehicles leaving contaminated parts of the site to be washed down thoroughly first, as not to take potentially contaminated mud and debris through the clean zone and off site. The movement of vehicles between the contaminated and clean parts of the site is strictly controlled by the site management team.

3.4. Noise

Noise monitoring around the site boundary commenced on the 22nd March 2010 and has been undertaken twice daily as a minimum, recording findings at eight compass points around the site boundary in the public access areas (drawing D907_30C, Appendix A).

Site operations are restricted to 8am to 6pm and site noise levels are consistently at an average acceptable low background level of 64dB. Exceedance's of the 80dB threshold (stipulated in the Environmental Permit deployment document) have been recorded during the monitoring period, however traffic along the A10 has been identified as the source of the slightly elevated noise levels. Data is recorded in the environmental monitoring data spreadsheet, Appendix B.

3.5. Litter

All litter occurrences are removed from within the site, and off site around the boundary fence, and disposed of appropriately. Litter is generally low off site, and is well managed on site, by all site personnel. All recordings of the presence of litter are noted in the Environmental Monitoring Data spreadsheet in Appendix B.

4.0 Surface and Ground Water Condition

4.1. Surface Water Monitoring

As part of the environmental monitoring programme, the Riddy Brook located to the east of the site (Drawing D907_33C, Appendix A) is inspected daily as a minimum at two locations up and down stream for general observations, on any discolouration, sedimentation etc. The observations are recorded on the Environmental Monitoring Data (Appendix B). Throughout the monitoring period there have been no visual signs that the remediation works on site are having any impact on the Riddy Brook.

The water level within the Riddy Brook is monitored and recorded on a daily basis at a minimum of two locations, footbridge adjacent to Mill House (Riddy 1) and the most southerly footbridge over the Riddy Brook, adjacent to the eastern corner of the site (Riddy 4). Two further locations are also monitored, Riddy 2 at the footbridge over the Riddy Brook approximately 150m southeast of Mill House and the former fire exit bridge (Riddy 3), 210m southeast of Mill House. All the water level data is recorded in the main groundwater level data sheet in Appendix E. During the monitoring period there has been some change in levels along the Riddy Brook due which could be an effect of the recent heavy rain events.

4.2. Surface Water Sampling and Analysis

Upstream and downstream water samples from both the River Cam (Granta) and the Riddy Brook are taken on a monthly basis. The results for samples taken on 27th January 2011 and are presented in Appendix F.

The surface water analysis of the 27th January 2011 shows traces of Trichloroethylene (7 µg/l), Cis1,2-Dichloroethylene (3 µg/l), Tetrachloroethylene (2 µg/l) and Ethofumesate (0.2 µg/l) were detected in the downstream samples of the Riddy Brook. These trace levels of have been recorded in the baseline data collected prior to the commencement of the remediation project and are not related to a specific incident.

4.3. Groundwater Level Monitoring

Groundwater levels are recorded within at least 11 borehole locations onsite on a daily basis, to ensure the groundwater beneath the site remains in a static condition during the remediation works and does not pose a risk to surface and groundwater bodies beyond the site boundary.

During the initial excavation works on site very little groundwater has been encountered, the majority of excavations located in the northern parts of the site have exceeded a depth of 4m below current ground level and have penetrated the Gault Clay in parts.

The main source of water encountered during excavations has been discontinuous contaminated perched water present in the Made Ground. This water has been captured and treated in the Waste Water Treatment Works associated with the site.

From approximately 2-3m below ground level discontinuous thin sand and gravel bands have also produced some limited quantities of water, which have tended to dry up within 24 hours.

The groundwater levels measured at locations around the site are shown in drawing D907_31E, in appendix A. The groundwater levels are presented in Appendix E.

Groundwater contour plots are drawn up on a weekly basis to interpret the potential movement of the water beneath the site. Contour plots D907_138, D907_139, D907_140 and D907_141 (Appendix G) illustrate the weekly groundwater levels for the reported period.

The four contour plots constructed (Appendix G) illustrate that there have been some significant changes to groundwater levels within the boreholes on site, however due to the discontinuous nature of the geology on site and the depth of open excavation, the contour plots do not accurately depict groundwater level across the site.

There has been no recharge of groundwater in the central and northern part of the site where the main excavations have taken place, the base of excavations on site are approximately at 10.00mAOD and remain free of groundwater. There has not been any change to the pumping regime in this part of the site during the monitoring period.

4.4. Groundwater Sampling and Analysis

Groundwater samples from 11 monitoring locations on site are taken on a monthly basis. The results for samples taken on 1st February 2011 are presented in Appendix F.

The contaminant concentrations present in the samples taken on the 1st of February 2011 are similar to the baseline data collected during the summer of 2008, but there appears to be gradual reduction in concentration of the main contaminants in the groundwater samples.

5.0 Waste Water Treatment Plant

The Waste Water Treatment Plant (WWTP) is part of the former land holding of Bayer Cropscience and is part of that controlled by Harrow Estates. The WWTP was an integral part of the former Bayer Crop Science site, located to the west of the A10, specifically designed to treat and discharge liquid waste products derived from the production of agrochemicals (both herbicides and pesticides) and sewage from the facility.

The WWTP has been previously operated (until the 15th of March 2010) by Alpheus Environmental Ltd. to maintain the required discharge volume generated by the groundwater pumping systems on the main Bayer Cropscience site along the bentonite cut off wall and the high bay warehouse.

Vertase FLI have established a maintenance programme and control procedures to ensure the WWTP is operated within the constraints of the discharge consent. Essential system checks and improvements have been made to the plant to ensure it can treat the volume and concentrations of influent generated by the continued groundwater control and the contaminated water recovered during the remediation activities on the main site.

The composition of the water discharged to the River Cam (Granta) must not exceed the permitted levels in paragraphs 1.7.1, 1.8.1 and 1.8.2 of the discharge consent PR1NF/1744D01 Issued and regulated by the Environment Agency.

The treated effluent is sampled at the specified location as stipulated in the discharge consent. Vertase FLI also sample the influent to the WWTP, along with a sample taken after the primary carbon treatment, this is to assess the performance of main treatment process of the WWTP and highlight potential expiry of the primary carbon vessels.

The fortnightly samples are analytically tested for the water quality parameters and the chemical compounds specified in paragraph 1.7.1 of the discharge consent PR1NF/1744 D 01. The data is tabulated and presented in Appendix H along with the raw data from the laboratory reports.

Throughout the reporting period the WWTP has been successful in treating the compounds listed within paragraph 1.7.1 (consent PR1NF/1744D01) to acceptable levels for discharge to the River Cam (Granta) under the regulated discharge consent.

The Environment Agency carry out independent discharge monitoring at the WWTP on a monthly basis, during the reportable period Vertase FLI and Harrow Estates Plc have not been notified of any unacceptable effluent discharging to the River Cam (Granta) from the operating plant.

6.0 Contaminants Not Previously Identified

To fulfil the requirements of condition 4 and condition 9, Planning Condition Document ref:S/2307/06/f Issued 10/02/2010, Vertase FLI are continually undertaking soil characterisation sampling prior to remediation processes to identify the types and concentrations of contaminants present in the specific grid squares across the entire site.

The soil characterisation samples undergo a series of laboratory analyses consisting of targeted analysis, screening against known contaminants and a full GCMS scan to identify any contaminants not previously identified.

All characterisation samples analysed and found to contain previously unidentified contaminants are reported in accordance with condition 9 of the Planning Condition Document ref:S/2307/06/f Issued 10/02/2010.

From the commencement of site works (15/03/2010) to 30/01/2011, seventy four characterisation samples have been taken by Vertase FLI in partnership with Atkins to assess the contamination type and concentrations prior to remediation of the materials. Thirty five characterisation samples analysed contained a total of twenty three compounds / potential contaminants that had not been previously identified.

A summary table of the soil characterisation testing is presented in Appendix I, the previously unidentified compounds are listed here, with comments regarding the origin and likely usage on site.

The remediation project consultants Atkins continuously review the soil characterisation analysis and report previously unidentified contaminates in accordance with condition 9, Planning Condition Document ref:S/2307/06/f Issued 10/02/2010.

Appendix A

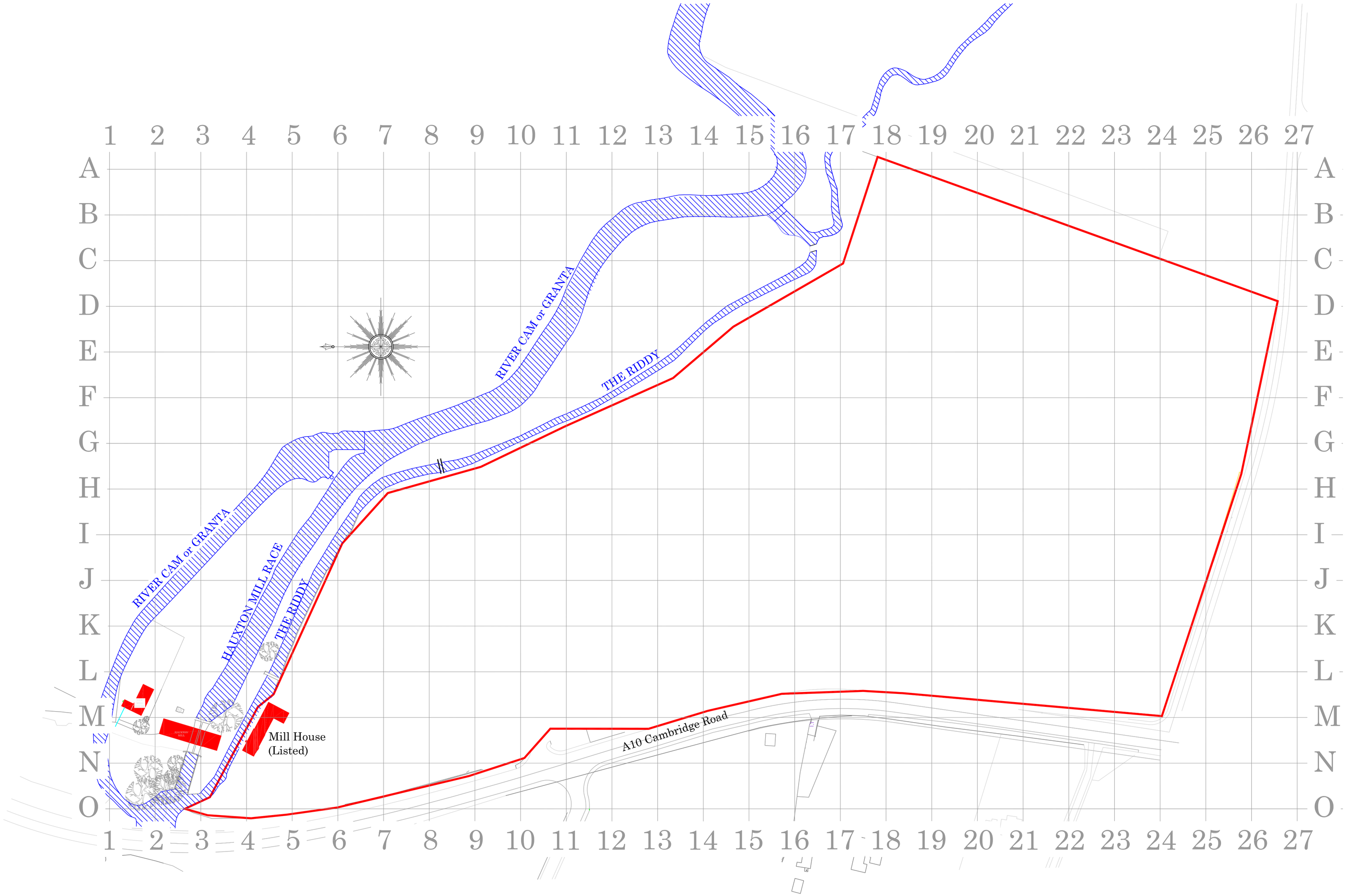
Drawings

A1

Legend

- Buildings to Remain
- Water Course
- Site Boundary

Drawing Base : Ref
LW/HAUX-002/2006



Rev.	Description	Revised By	Date
	FIRST ISSUE		21 April 2008

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Site Address:

Bayer Site
Hauxton
Cambridge

Rev:

Title: Blank Site Plan with Grid

Client: Harrow Estates

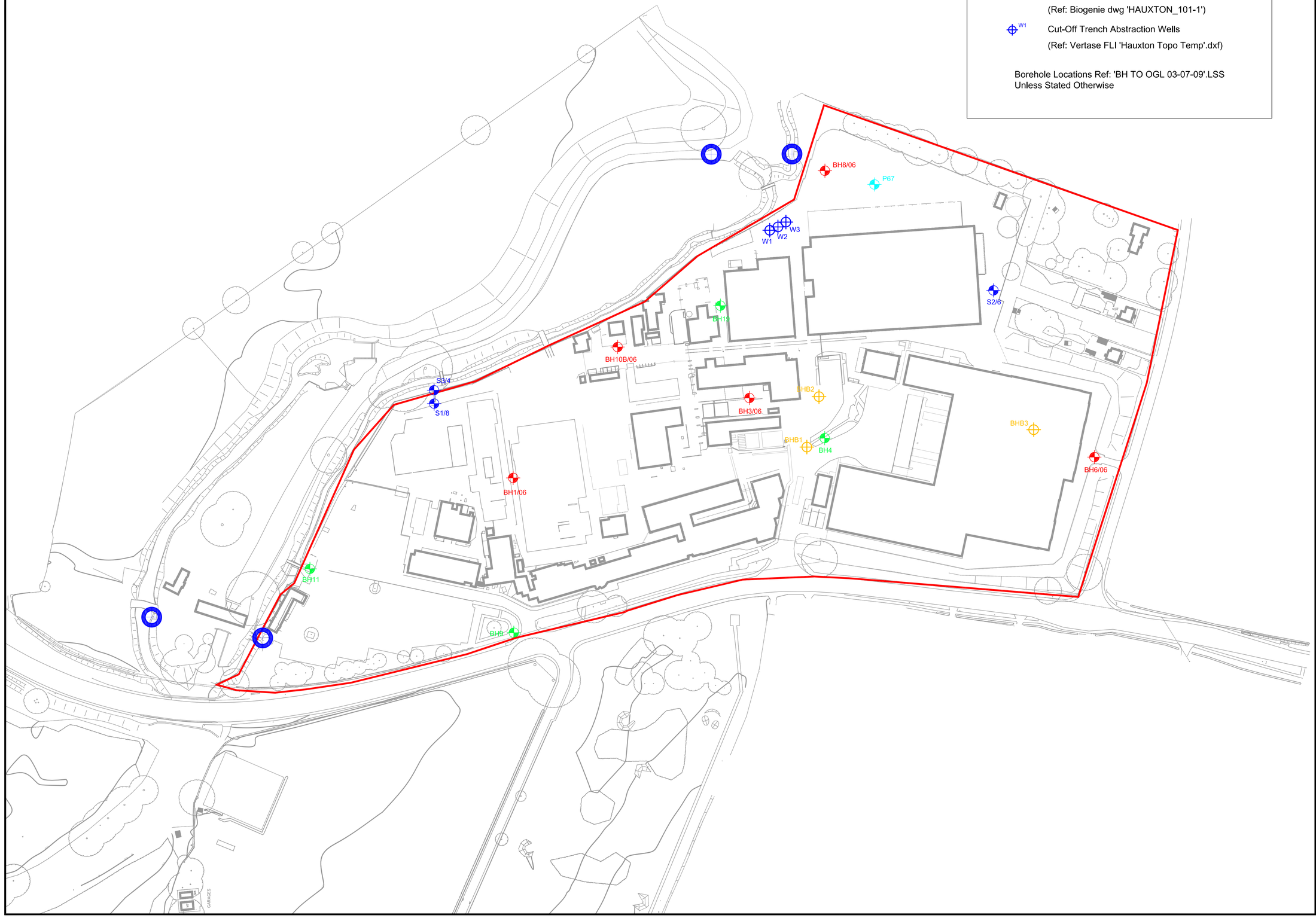
Drawn: JWH	Checked: MA	Approved: MA
Dwg: D907_07	Contract: 907BRI	Scale: 1:1000

A1

Legend

- BH1/06 — Atkins Exploratory Hole Location
- BH7 / P67 — Previous Borehole Location
- Water Sampling Location
- BHB1 — Biogenie Boreholes (Ref: Biogenie dwg 'HAUXTON_101-1')
- W1 — Cut-Off Trench Abstraction Wells (Ref: Vertase FLI 'Hauxton Topo Temp'.dxf)

Borehole Locations Ref: 'BH TO OGL 03-07-09'.LSS
Unless Stated Otherwise



Rev.	Description	Revised By	Date
E	BHB1,BHB2,BHB3, W1,W2,W3,BH3-06 & BH08-06 Added (BH3-06 & BH08-06 Ref:D907_31 Iss 0)	MRG	17-08-09
D	BH1 Removed & BH19 Added	MRG	07-07-08
C	BH1 Added	JWH	11 June 2008
B	BH5/06 Erased S2/6 Added	JWH	09 June 2008
A	Boreholes Erased	JWH	14 May 2008
	FIRST ISSUE		23 April 2008

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Site Address:
Bayer Site
Hauxton
Cambridge

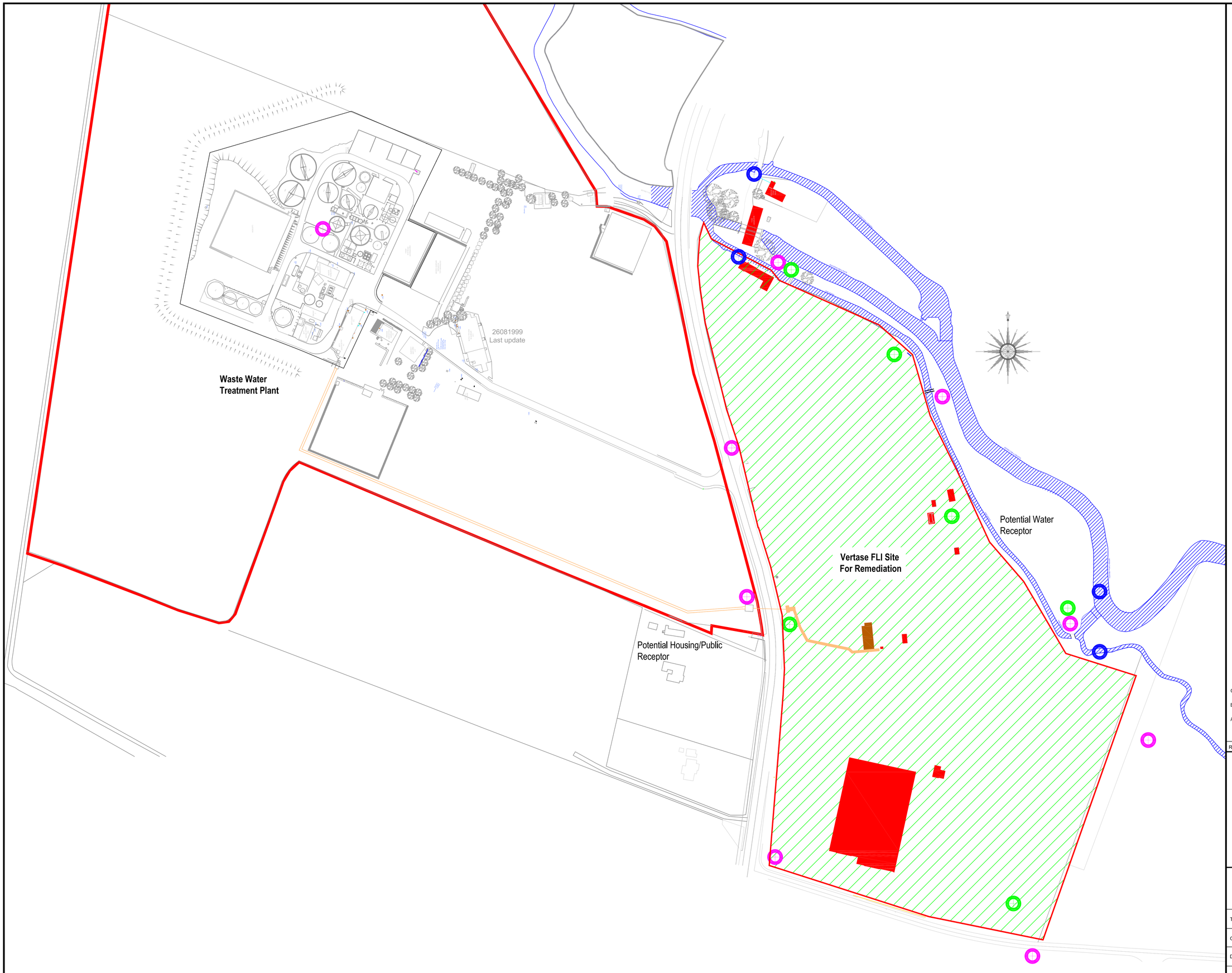
Rev: E

Title: Retained Boreholes for Monitoring & Reference

Client: Harrow Estates

Drawn: JWH	Checked: MA	Approved: MA
Dwg: D907_31	Contract: 907BRI	Scale: 1:1000

A1



Legend

- Sub-Station/Buildings to Remain
- Water Course
- Vertase FLI Site for Remediation
- Mobile Treatment Licence Boundary
- Site Effluent Sump and Ducting
- Diffusion Tubes /Monitoring Location
- Dust Monitoring Location
- Water Sampling Location

Drawing Base : Ref
LW/HAUX-002/2006

Rev.	Description	Revised By	Date
C	Dust Monitoring Locations Amended	MRG	14 July 08
B	Dust Monitoring Location Amended	JWH	09 June 08
A	Water Sampling Points Added Treatment Building Amended	JWH	15 May 2008
	FIRST ISSUE		21 April 2008

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Site Address:
Bayer Site
Hauxton
Cambridge

Rev: C

Title: Environmental Monitoring Plan

Client: Harrow Estates

Drawn: JWH	Checked: MA	Approved: MA
Dwg: D907_33	Contract: 907BRI	Scale: 1:1250

Appendix B

Environmental Monitoring Data

						ODOUR						DUST		NOISE	LITTER		RIDDY BROOK				METEOROLOGICAL AND ENVIRONMENTAL CONDITIONS						
Assessor	Date	Daily Activity	Boundary	Start Time	Finish Time	Detectability (Yes or No)	Intensity (1 to 9)	Quality (Description)	Hedonic Tone (-3 to +3)	Location Sensitivity (1 to 5)	Odour Source (1 to 5)	PID (ppm)	TSP	PM10	Average (dBa)	Present (Description)	Materials attracting scavengers	Inspection	Water Level (mAOD)	Complaints	Action Required	Wind Speed (1 to 9)	Wind Direction	Temp (C)	Description (Rain, Sun)	Cloud Cover (0 to 8)	Ground Conditions (Wet, dry)	General Notes
D Holman	04/01/2011	Preparing site for work	N	10.12	10.17	y	1	vegetation	0	2	5	0			57	no	no	Clear	9.199			0.5	E	0	cloudy	8	dry	
D Holman	04/01/2011	Preparing site for work	NE	10.08	10.11	y	1	chemical and rotting vegetation	0	2	5	0			56	no	no	Clear										
D Holman	04/01/2011	Preparing site for work	NE1	10.06	10.05													Clear										
D Holman	04/01/2011	Preparing site for work	E	9.54	9.59	y	1	vegetation	0	2	5	0			54	no	no	Clear	9.659									
D Holman	04/01/2011	Preparing site for work	SE	9.48	9.53	y	1	vegetation	0	2	5	0			53	no	no											
D Holman	04/01/2011	Preparing site for work	S	9.42	9.47	y	1	burning and vegetation	0	3	5	0			63	no	no											
D Holman	04/01/2011	Preparing site for work	SW	9.38	9.41	y	1	vegetation	0	4	5	0			75	no	no											
D Holman	04/01/2011	Preparing site for work	W	9.26	9.35	y	1	vegetation	0	4	5	0			79	no	no											
D Holman	04/01/2011	Preparing site for work	NW	10.18	10.23	y	1	vegetation	0	2	5	0			78	no	no											
D Holman	04/01/2011	Preparing site for work	N	15.12	15.17	y	1	vegetation	0	2	5	0			69	no	no	Clear	9.199			1	E	-0.5	cloudy	8	dry	
D Holman	04/01/2011	Preparing site for work	NE	15.06	15.11	y	2	chemical and exhaust fumes	-1	2	5	0			52	no	no	Clear										
D Holman	04/01/2011	Preparing site for work	NE1	15.00	15.05													Clear										
D Holman	04/01/2011	Preparing site for work	E	14.54	14.59	y	1	chemical and vegetation	0	2	5	0			53	no	no	Clear	9.659									
D Holman	04/01/2011	Preparing site for work	SE	14.48	14.53	y	1	vegetation	0	3	5	0			48	no	no											
D Holman	04/01/2011	Preparing site for work	S	14.42	14.47	y	1	vegetation	0	3	5	0			64	no	no											
D Holman	04/01/2011	Preparing site for work	SW	14.36	14.41	y	1	vegetation	0	4	5	0			74	no	no											
D Holman	04/01/2011	Preparing site for work	W	14.30	14.35	y	1	vegetation	0	4	5	0			79	no	no											
D Holman	04/01/2011	Preparing site for work	NW	15.18	15.23	y	1	vegetation	0	2	5	0			79	no	no											
D Holman	05/01/2011	Bed turning	N	10.42	10.47	y	1	chlorine and vegetation	0	2	2	0	126	56.6	59	no	no	Clear	9.199			4	N	0	sunny	0	dry	
D Holman	05/01/2011	Bed turning	NE	10.36	10.41	y	2	chemical and vegetation	0	2	3	0	95.8	86.2	59	no	no	Clear										
D Holman	05/01/2011	Bed turning	NE1	10.30	10.35								53.4	45.1				Clear										
D Holman	05/01/2011	Bed turning	E	10.24	10.29	y	1	chemical, sweet and vegetation	0	2	3	0	91.5	84.7	62	no	no	Clear	9.659									
D Holman	05/01/2011	Bed turning	SE	10.18	10.23	y	2	vegetation	0	3	3	0			57	no	no											
D Holman	05/01/2011	Bed turning	S	10.12	10.17	y	1	vegetation	0	3	1	0	49.1	34	64	no	no											
D Holman	05/01/2011	Bed turning	SW	10.06	10.11	y	1	vegetation	0	4	1	0			74	no	no											
D Holman	05/01/2011	Bed turning	W	10.00	10.05	y	1	vegetation	0	4	1	0	77.8	67.9	79	no	no											
D Holman	05/01/2011	Bed turning	NW	10.48	10.53	y	2	vegetation	0	2	1	0			78	no	no											
D Holman	05/01/2011	Bed turning	N	15.42	15.47	y	1	chlorine and vegetation	0	2	3	0	101.8	88.3	58	no	no	Clear	9.199			3	n	0	sunny	0	dry	
D Holman	05/01/2011	Bed turning	NE	15.36	15.41	y	1	chemical and vegetation	0	2	2	0	78.7	50.1	56	no	no	Clear										
D Holman	05/01/2011	Bed turning	NE1	15.30	15.35								47.3	28.9				Clear										
D Holman	05/01/2011	Bed turning	E	15.24	15.29	y	1	vegetation	0	2	1	0	67.1	53.1	60	no	no	Clear	9.659									
D Holman	05/01/2011	Bed turning	SE	15.18	15.23	y	2	vegetation	0	3	1	0			55	no	no											
D Holman	05/01/2011	Bed turning	S	15.12	15.17	y	1	vegetation	0	3	1	0	59.7	38.6	65	no	no											
D Holman	05/01/2011	Bed turning	SW	15.06	15.11	y	2	vegetation	0	4	1	0			74	no	no											
D Holman	05/01/2011	Bed turning	W	15.00	15.05	y	1	vegetation	0	4	1	0	61.6	55.3	79	no	no											
D Holman	05/01/2011	Bed turning	NW	15.48	15.53	y	1	vegetation	0	2	1	0			79	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	N	10.52	10.57	y	2	vegetation	0	2	1	0	157.7	26.5	57	no	no	clear	9.198			0.5	n		cloudy	8	damp	
D Holman	06/01/2011	excavating in grids/bed turning	NE	10.46	10.51	y	2	vegetation	0	2	1	0	71.2	62.6	60	no	no	clear										
D Holman	06/01/2011	excavating in grids/bed turning	NE1	10.40	10.45								112.5	91.6				clear										
D Holman	06/01/2011	excavating in grids/bed turning	E	10.34	10.39	y	2	vegetation	0	2	1	0	114.8	64.3	62	no	no	clear	9.644									
D Holman	06/01/2011	excavating in grids/bed turning	SE	10.38	10.33	y	3	vegetation	0	3	1	0			57	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	S	10.22	10.27	y	2	chemical and vegetation	0	3	1	0	211.4	103.6	64	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	SW	10.16	10.21	y	2	vegetation	0	4	1	0			74	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	W	10.10	10.15	y	1	vegetation	0	4	1	0	175.6	104.5	79	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	NW	10.58	11.03	y	1	vegetation	0	2	1	0			79	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	N	16.42	16.47	y	1	vegetation	0	2	5	0			61	no	no	clear	9.198			0.5	n		cloud/drizzle	8	damp	
D Holman	06/01/2011	excavating in grids/bed turning	NE	16.36	16.41	y	2	sweet fruit smell	0	2	5	0			63	no	no	clear										
D Holman	06/01/2011	excavating in grids/bed turning	NE1	16.30	16.35													clear										
D Holman	06/01/2011	excavating in grids/bed turning	E	16.24	16.29	y	2	decomposing vegetation	0	2	5	0			59	no	no	clear	9.644									
D Holman	06/01/2011	excavating in grids/bed turning	SE	16.18	16.23	y	1	vegetation	0	3	5	0			56	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	S	16.12	16.17	y	2	smoke/fire	-1	3	5	0			65	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	SW	16.06	16.11	y	2	smoke/fire	-1	4	5	0			75	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	W	16.00	16.05	y	2	vegetation	0	4	5	0			79	no	no											
D Holman	06/01/2011	excavating in grids/bed turning	NW	16.48	16.53	y	1	vegetation	0	2	5	0			60	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	N	9.42	9.47	y	2	vegetation	0	2	5	0			56	no	no	clear	9.198			2	NE	3	heavy rain	8	wet	
D Holman	07/01/2011	excavating in grids/bed turning	NE	9.36	9.41	y	2	vegetation	0	2	5				55	no	no	clear										
D Holman	07/01/2011	excavating in grids/bed turning	NE1	9.30	9.35													clear										
D Holman	07/01/2011	excavating in grids/bed turning	E	9.24	9.29	y	1	vegetation	0	2	5				56	no	no	clear	9.638									
D Holman	07/01/2011	excavating in grids/bed turning	SE	9.18	9.23	y	2	vegetation	0	3	5				64	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	S	9.12	9.17	y	2	vegetation	0	3	5				63	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	SW	9.06	9.11	y	1	vegetation	0	4	5				75	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	W	9.00	9.05	y	1	vegetation	0	4	5				80	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	NW	9.48	9.53	y	1	vegetation	0	2	5				80	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	N	13.42	13.47	y	1	vegetation	0	2	5				57	no	no	clear	9.198			2	N	4	heavy rain	8	wet	
D Holman	07/01/2011	excavating in grids/bed turning	NE	13.36	13.41	y	3	vegetation	0	2	5				54	no	no	clear										
D Holman	07/01/2011	excavating in grids/bed turning	NE1	13.30	13.35													clear										
D Holman	07/01/2011	excavating in grids/bed turning	E	13.24	13.29	y	2	vegetation	0	2	5				56	no	no	clear	9.638									
D Holman	07/01/2011	excavating in grids/bed turning	SE	13.18	13.23	y	2	vegetation	0	3	5				54	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	S	13.12	13.17	y	1	vegetation	0	3	5				65	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	SW	13.06	13.11	y	2	vegetation	0	4	5				74	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	W	13.00	13.05	y	2	vegetation	0	4	5				79	no	no											
D Holman	07/01/2011	excavating in grids/bed turning	NW	13.48	13.53	y	1	vegetation	0	2	5				79	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	N	9.42	9.47	y	2	vegetation and chemical	0	2	5	0	123.4	64.3	66	no	no	clear	9.199			3	NE	0	cloudy	8	dry	river cam plus Riddy cloudy upstream from E point
D Holman	10/01/2011	excavating in grids/bed turning	NE	9.36	9.41	y	3	chemical and earth	1	2	5	0	129.2	66.4	70	no	no	clear										
D Holman	10/01/2011	excavating in grids/bed turning	NE1	9.30	9.35								212.3	145.4				clear										
D Holman	10/01/2011	excavating in grids/bed turning	E	9.24	9.29	y	1	vegetation	0	2	5	0	104.3	100.5	56	no	no	clear	9.641									
D Holman	10/01/2011	excavating in grids/bed turning	SE	9.18	9.23	y	2	vegetation	0	3	5	0			55	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	S	9.12	9.17	y	1	vegetation	0	3	5	0	120.7	91.8	62	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	SW	9.06	9.11	y	1	vegetation	0	4	5	0			74	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	W	9.00	9.05	y	2	sweet chemical	0	4	5	0	33.9	14.5	79	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	NW	9.48	9.53	y	1	vegetation	0	2	5	0			79	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	N	16.42	16.47	y	2	vegetation	0	2	5	0			61	no	no	clear	9.199			4	ne	0	cloudy	8	dry	
D Holman	10/01/2011	excavating in grids/bed turning	NE	16.36	16.41	y	3	vegetation	0	2	5	0			59	no	no	clear										
D Holman	10/01/2011	excavating in grids/bed turning	NE1	16.30	16.35													clear										
D Holman	10/01/2011	excavating in grids/bed turning	E	16.24	16.29	y	2	vegetation and chemical	0	2	5	0			55	no	no	clear	9.641									
D Holman	10/01/2011	excavating in grids/bed turning	SE	16.18	16.23	y	2	vegetation	0	3	5	0			57	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	S	16.12	16.17	y	1	vegetation	0	3	5	0			64	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	SW	16.06	16.11	y	1	vegetation	0	4	5	0			73	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	W	16.00	16.05	y	2	vegetation	0	4	5	0			79	no	no											
D Holman	10/01/2011	excavating in grids/bed turning	NW	16.48	16.53	y	2	vegetation	0	2	5	0			79	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	N	10.42	10.47	y	3	wet vegetation	0	2	5	0	62.8	50.9	59	no	no	clear	9.189			4	wnw	3	cloudy	8	damp	
D Holman	11/01/2011	excavating in grids/bed turning	NE	10.36	10.41	y	2	wet vegetation and chemical	0	2	5	0	166.2	52.4	64	no	no	clear										
D Holman	11/01/2011	excavating in grids/bed turning	NE1	10.30	10.35								57.9	51.8				clear										
D Holman	11/01/2011	excavating in grids/bed turning	E	10.24	10.29	y	3	vegetation	0	2	5	0	51.3	27.2	58	no	no	clear	9.639									
D Holman	11/01/2011	excavating in grids/bed turning	SE	10.18	10.23	y	3	vegetation and chlorine	0	3	5	0			59	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	S	10.12	10.17	y	2	vegetation	0	3	5	0	110.2	56.5	64	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	SW	10.06	10.11	y	3	vegetation and car fumes	0	4	5	0			75	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	W	10.00	10.05	y	2	vegetation	0	4	5	0	99.5	22.2	80	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	NW	10.48	10.53	y	3	vegetation and exhaust fumes	0	2	5	0			80	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	N	15.42	15.47	y	2	vegetation	0	2	5	0	23.7	19.5	58	no	no	clear	9.189			4	wnw	3	cloudy	8	damp	
D Holman	11/01/2011	excavating in grids/bed turning	NE	15.36	15.41	y	2	vegetation and chlorine	0	2	5	0	32.5	20.4	64	no	no	clear										
D Holman	11/01/2011	excavating in grids/bed turning	NE1	15.30	15.35								58.8	8.7				clear										
D Holman	11/01/2011	excavating in grids/bed turning	E	15.24	15.29	y	2	vegetation	0	2	5	0	39.8	27	55	no	no	clear	9.639									
D Holman	11/01/2011	excavating in grids/bed turning	SE	15.18	15.23	y	2	vegetation and chlorine	0	3	5	0			54	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	S	15.12	15.17	y	3	vegetation and chlorine	0	3	5	0	59.8	34.6	63	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	SW	15.06	15.11	y	2	vegetation	0	4	5	0			75	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	W	15.00	15.05	y	2	vegetation	0	4	5	0	49.9	11.2	80	no	no											
D Holman	11/01/2011	excavating in grids/bed turning	NW	15.48	15.53	y	1	vegetation	0	2	5	0			80	no	no											
Stephenson	12/01/2011	excavating in grids/bed turning	N	9.01	9.06	n				2		0			56.5	no	no	cloudy	9.189	no	no	2.9	S	12	rain	8	wet	Dust mate on charge. No odour at church consistent with wind direction. Detected odour of odour control (linen 10m from point SE in adjacent field.
Stephenson	12/01/2011	excavating in grids/bed turning	NE	9.07	9.12	y	3	odour control fresh linen	3	2	5	0			54.2		no	cloudy		no	no							
Stephenson	12/01/2011	excavating in grids/bed turning	NE1	9.13	9.18													cloudy		no	no							
Stephenson	12/01/2011	excavating in grids/bed turning	E	9.19	9.24	y	4	odour control fresh linen	3	2	5	0			49.7	no	no	cloudy	9.638	no	no							
Stephenson	12/01/2011	excavating in grids/bed turning	SE	9.25	9.30	y	4	odour control fresh linen	3	3	5	0			53.1	no	no			no	no							
Stephenson	12/01/2011	excavating in grids/bed turning	S	9.33	9.38	n				3		0			53.4	no	no			no	no							
Stephenson	12/01/2011	excavating in grids/bed turning	SW	9.40	9.45	y	3	animal carcass	-2	4	5	0			67.4	no	no			no	no							
Stephenson	12/01/2011	excavating in grids/bed turning	W	9.46	8.51	y	4	wet veg	-1	4	5	0			73.3	no	no			no	no							
Stephenson	12/01/2011	excavating in grids/bed turning	NW	9.52	9.57	y	2	wet tarmac vegetation	0	2	5	0			76.2	no	no			no	no							
D Holman	12/01/2011	excavating in grids/bed turning	N	15.42	15.47	y	2	vegetation	0	2	5				59	no	no	clear	9.189			2	ssw	5	rain	8	wet	
D Holman	12/01/2011	excavating in grids/bed turning	NE	15.36	15.41	y	2	odour control	1	2	5				57	no	no	clear										
D Holman	12/01/2011	excavating in grids/bed turning	NE1	15.30	15.35													clear										
D Holman	12/01/2011	excavating in grids/bed turning	E	15.24	15.29	y	1	odour control and vegetation	0	2	3				56	no	no	clear	9.638									
D Holman	12/01/2011	excavating in grids/bed turning	SE	15.18	15.23	y	1	vegetation	0	3	5				59	no	no											
D Holman	12/01/2011	excavating in grids/bed turning	S	15.12	15.17	y	1	vegetation	0	3	5				64	no	no											
D Holman	12/01/2011	excavating in grids/bed turning	SW	15.06	15.11	y	1	vegetation	0	4	5				75	no	no											
D Holman	12/01/2011	excavating in grids/bed turning	W	15.00	15.05	y	2	vegetation	0	4	5				80	no	no											
D Holman	12/01/2011	excavating in grids/bed turning	NW	15.48	15.53	y	1	vegetation	0	2	5				80	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	N	9.42	9.47	y	1	vegetation	0	2	5	0	44.4	35.8	75	no	no	cloudy	10.789			3	nne	7	overcast	8	wet	Riddy and cam very high
D Holman	13/01/2011	excavating in grids/bed turning	NE	9.36	9.41	y	1	vegetation	0	2	5	0	6.9	4.4	61	no	no	cloudy										
D Holman	13/01/2011	excavating in grids/bed turning	NE1	9.30	9.35								13.1	9.7				cloudy										
D Holman	13/01/2011	excavating in grids/bed turning	E	9.24	9.29	y	1	vegetation	0	2	5	0	4.6	3.8	59	no	no	cloudy	11.609									
D Holman	13/01/2011	excavating in grids/bed turning	SE	9.18	9.23	y	1	vegetation	0	3	5	0			57	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	S	9.12	9.17	y	1	burning & vegetation	0	3	5	0	14.9	4.8	63	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	SW	9.06	9.11	y	1	dead animal and vegetation	-1	4	5	0			73	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	W	9.00	9.05	y	1	vegetation	0	4	5	0	85	12.6	80	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	NW	9.48	9.53	y	1	vegetation	0	2	5	0			79	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	N	15.42	15.47	y	1	vegetation	0	2	5	0			61	no	no	cloudy	10.789			3	ssw	11	overcast	8	wet	
D Holman	13/01/2011	excavating in grids/bed turning	NE	15.36	15.41	y	1	vegetation	0	2	5	0			58	no	no	cloudy				1		2		8	wet	
D Holman	13/01/2011	excavating in grids/bed turning	NE1	15.30	15.35													cloudy										
D Holman	13/01/2011	excavating in grids/bed turning	E	15.24	15.29	y	1	vegetation	0	2	5	0			57	no	no	cloudy	11.609									
D Holman	13/01/2011	excavating in grids/bed turning	SE	15.18	15.23	y	1	vegetation	0	3	5	0			59	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	S	15.12	15.17	y	1	vegetation	0	3	5	0			65	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	SW	15.06	15.11	y	1	vegetation	0	4	5	0			76	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	W	15.00	15.05	y	2	vegetation	0	4	5	0			81	no	no											
D Holman	13/01/2011	excavating in grids/bed turning	NW	15.48	15.53	y	1	vegetation	0	2	5	0			81	no	no											

Stephenson	14/01/2011	excavating in grids/bed turning	N	9.12	9.17	s				2		0			60	no	no	cloudy	10.789		no	no											no odours at church other than wet veg
Stephenson	14/01/2011	excavating in grids/bed turning	NE	9.18	9.23	y	2	veg and slight chemical odour	0	2	3	0			61	no	no	cloudy			no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	NE1	9.24	9.27													cloudy			no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	E	9.28	9.32	y	4	wet veg, ground flooded	-1	2	1	0			62.9	no	no	cloudy	11.609		no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	SE	9.34	9.39	s				3		0			58.5	no	no				no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	S	9.41	9.46	y	3	wet tarmac	-1	3	1	0			55.8	no	no				no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	SW	9.47	9.52	y	4	carcass	-3	4	1	0			73.5	no	no				no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	W	9.53	9.58	y	3	wet tarmac	-1	4	1	0			75.3	no	no				no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	NW	9.59	10.04	y	4	slurry	-2	3	1	0			76.4	no	no				no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	N	16.05	16.10	y	3	wet veg, ground flooded	0	2	1	0			68	no	no	cloudy	10.789		no	no	4	s	12	cloudy	8	wet					
Stephenson	14/01/2011	excavating in grids/bed turning	NE	16.11	16.16	y	3	wet veg and linen oc	0	2	1	0			54	no	no	cloudy			no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	NE1	16.17	16.22													cloudy			no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	E	16.23	16.28	y	4	wet veg	-1	2	1	0			52	no	no	cloudy	11.609		no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	SE	16.30	16.35	y	4	wet veg	-1	3	1	0			48	no	no				no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	S	16.38	16.43	y	3	wet tarmac and veg	-2	3	1	0			41	no	no				no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	SW	16.44	16.49	y	5	animal carcass	-3	4	1	0			69	no	no				no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	W	16.48	16.53	y	3	wet tarmac	0	4	1	0			71	no	no				no	no											
Stephenson	14/01/2011	excavating in grids/bed turning	NW	16.55	17.00	y	3	wet tarmac	-1	2	1	0			74	no	no				no	no											
D Holman	17/01/2011	excavating in grids/bed turning	N	10.02	10.07	y	1	vegetation	0	2	1				62	no	no	clear	9.299				0.5	SE	6	heavy rain	8	wet					
D Holman	17/01/2011	excavating in grids/bed turning	NE	9.56	10.01	y	1	vegetation	0	2	1				51	no	no	clear															
D Holman	17/01/2011	excavating in grids/bed turning	NE1	9.50	9.55													clear															
D Holman	17/01/2011	excavating in grids/bed turning	E	9.44	9.49	y	1	vegetation	0	2	1				62	no	no	clear	9.839														
D Holman	17/01/2011	excavating in grids/bed turning	SE	9.38	9.43	y	1	vegetation	0	3	1				52	no	no																
D Holman	17/01/2011	excavating in grids/bed turning	S	9.32	9.37	y	1	vegetation	0	3	1				46	no	no																
D Holman	17/01/2011	excavating in grids/bed turning	SW	9.26	9.31	y	1	vegetation and chlorine	-1	4	1				74	no	no																
D Holman	17/01/2011	excavating in grids/bed turning	W	9.20	9.25	y	2	traffic fumes	-1	4	1				80	no	no																
D Holman	17/01/2011	excavating in grids/bed turning	NW	10.08	10.23	y	1	vegetation	0	2	1				52	no	no																
D Holman	17/01/2011	excavating in grids/bed turning	N	15.42	15.47	y	1	vegetation	0	2	1				57	no	no	Clear	9.299				0.5	wnw	5	rain showers	8	wet					
D Holman	17/01/2011	excavating in grids/bed turning	NE	15.36	15.41	y	1	vegetation	0	2	1				55	no	no	Clear															
D Holman	17/01/2011	excavating in grids/bed turning	NE1	15.30	15.35													Clear															
D Holman	17/01/2011	excavating in grids/bed turning	E	15.24	15.29	y	1	vegetation	0	2	1				54	no	no	Clear	9.839														
D Holman	17/01/2011	excavating in grids/bed turning	SE	15.18	15.23	y	1	vegetation	0	3	1				58	no	no																
D Holman	17/01/2011	excavating in grids/bed turning	S	15.12	15.17	y	1	vegetation	0	3	1				64	no	no																
D Holman	17/01/2011	excavating in grids/bed turning	SW	15.06	15.11	y	1	vegetation	0	4	1				73	no	no																
D Holman	17/01/2011	excavating in grids/bed turning	W	15.00	15.05	y	1	vegetation	0	4	1				79	no	no																
D Holman	17/01/2011	excavating in grids/bed turning	NW	15.48	15.53	y	1	vegetation	0	4	1				79	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	N	9.12	9.17	y	1	vegetation	0	2	1	0			59	no	no	clear	9.519				1	nw	2	sunny spells	5	wet					
D Holman	18/01/2011	excavating in grids/bed turning	NE	9.06	9.11	y	1	vegetation	0	2	1	0			63	no	no	clear															
D Holman	18/01/2011	excavating in grids/bed turning	NE1	9.00	9.05													clear															
D Holman	18/01/2011	excavating in grids/bed turning	E	8.54	8.59	y	1	vegetation	0	2	1	0			58	no	no	clear	9.999														
D Holman	18/01/2011	excavating in grids/bed turning	SE	8.48	8.53	y	1	vegetation	0	3	1	0			54	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	S	8.42	8.47	y	1	vegetation	0	3	1	0			65	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	SW	8.36	8.41	y	1	vegetation	0	4	1	0			75	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	W	8.30	8.35	y	1	vegetation	0	4	1	0			80	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	NW	9.18	9.23	y	1	vegetation	0	2	1	0			80	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	N	17.47	17.47	y	1	vegetation	0	2	1	0			58	no	no	cloudy	9.519				0.5	w	6	clear	2	wet					
D Holman	18/01/2011	excavating in grids/bed turning	NE	17.36	17.41	y	2	vegetation and earth/crushed concrete	0	2	3	0			62	no	no	cloudy															
D Holman	18/01/2011	excavating in grids/bed turning	NE1	17.30	17.35													cloudy															
D Holman	18/01/2011	excavating in grids/bed turning	E	17.24	17.29	y	1	vegetation	0	2	1	0			57	no	no	cloudy	9.999														
D Holman	18/01/2011	excavating in grids/bed turning	SE	17.18	17.23	y	1	vegetation	0	3	1	0			56	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	S	17.12	17.17	y	1	vegetation	0	3	1	0			64	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	SW	17.06	17.11	y	1	vegetation	0	4	1	0			73	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	W	17.00	17.05	y	1	vegetation	0	4	1	0			79	no	no																
D Holman	18/01/2011	excavating in grids/bed turning	NW	17.48	17.53	y	1	vegetation	0	2	1	0			80	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	N	9.40	9.45	y	2	chemical and vegetation	0	2	2	0	187.9	79.7	59	no	no	cloudy	9.439				0.5	wsw	2	overcast	6	wet					
D Holman	19/01/2011	excavating in grids/bed turning	NE	9.46	9.51	y	3	earth/crushed concrete and detritus	0	2	2	0	188.6	86.4	59	no	no	cloudy															
D Holman	19/01/2011	excavating in grids/bed turning	NE1	9.52	9.57								279.6	183.2				cloudy															
D Holman	19/01/2011	excavating in grids/bed turning	E	9.58	10.03	y	2	Chlorine and vegetation	0	2	3	0	215	138.1	56	no	no	cloudy	9.849														
D Holman	19/01/2011	excavating in grids/bed turning	SE	10.04	10.09	y	1	vegetation	0	3	1	0			58	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	S	10.10	10.15	y	1	vegetation	0	3	1	0	96.4	53.6	64	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	SW	10.16	10.21	y	1	vegetation	0	4	1	0			73	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	W	10.22	10.27	y	1	vegetation	0	4	1	0	197.8	120.6	79	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	NW	10.28	10.33	y	1	vegetation	0	4	1	0			79	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	N	15.42	15.47	y	1	vegetation	0	2	1	0			62	no	no	cloudy	9.439				0.5	nnw	1	clear	3	wet					
D Holman	19/01/2011	excavating in grids/bed turning	NE	15.36	15.41	y	2	chemical and vegetation	0	2	2	0			63	no	no	cloudy															
D Holman	19/01/2011	excavating in grids/bed turning	NE1	15.30	15.35													cloudy															
D Holman	19/01/2011	excavating in grids/bed turning	E	15.24	15.29	y	1	vegetation	0	2	1	0			57	no	no	cloudy	9.849														
D Holman	19/01/2011	excavating in grids/bed turning	SE	15.18	15.23	y	1	earth/crushed concrete and vegetation	0	3	2	0			58	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	S	15.12	15.17	y	1	chlorine and vegetation	0	3	2	0			63	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	SW	15.06	15.11	y	1	vegetation	0	4	1	0			74	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	W	15.00	15.05	y	1	vegetation	0	4	1	0			79	no	no																
D Holman	19/01/2011	excavating in grids/bed turning	NW	15.48	15.53	s				2		0																					
D Holman	20/01/2011	excavating in grids/bed turning	N	9.00	9.05	y	2	wet vegetation	0	2	3	0			59	no	no	clear	9.329				1	nne	1	cloudy	8	wet					
D Holman	20/01/2011	excavating in grids/bed turning	NE	9.07	9.12	y	1	vegetation and chlorine	0	2	3	0			55	no	no	cloudy															
D Holman	20/01/2011	excavating in grids/bed turning	NE1	9.13	9.18													clear															
D Holman	20/01/2011	excavating in grids/bed turning	E	9.19	9.24	y	2	chemical and vegetation	0	2	3	0			51	no	no	clear	9.799														
D Holman	20/01/2011	excavating in grids/bed turning	SE	9.26	9.31	y	1	chemical and vegetation	0	3	2	0			47	no	no																
D Holman	20/01/2011	excavating in grids/bed turning	S	9.34	9.39	y	1	vegetation	0	3	1	0			53	no	no																
D Holman	20/01/2011	excavating in grids/bed turning	SW	9.42	9.47	y	1	vegetation	0	4	1	0			74	no	no																
D Holman	20/01/2011	excavating in grids/bed turning	W	9.48	9.53	y	2	vegetation	0	4	1	0			79	no	no																
D Holman	20/01/2011	excavating in grids/bed turning	NW	9.55	10.00	y	1	vegetation	0	2	1	0			78	no	no																
D Holman	21/01/2011	excavating in grids/bed turning	N	9.35	9.40	y	1	vegetation	0	2	1	0	23.9	23.1	59	no	no	clear	9.409				0.5	wnw	2	overcast	5	damp					
D Holman	21/01/2011	excavating in grids/bed turning	NE	9.41	9.46	y	1	exhaust fumes	0	2	2	0	148.7	66.4	55	no	no	clear															
D Holman	21/01/2011	excavating in grids/bed turning	NE1	9.47	9.52								137.2	63.2				clear															
D Holman	21/01/2011	excavating in grids/bed turning	E	9.53	9.58	y	2	hydrocarbon	-1	2	3	0	42.1	38.6	53	no	no	clear	9.689														
D Holman	21/01/2011	excavating in grids/bed turning	SE	10.00	10.05	y	1	vegetation and chlorine	0	3	3	0			46	no	no																
D Holman	21/01/2011	excavating in grids/bed turning	S	10.07	10.12	y	1	vegetation	0	3	1	0	95.6	48.7	63	no	no																
D Holman	21/01/2011	excavating in grids/bed turning	SW	10.13	10.18	y	1	vegetation	0	4	1	0			74	no	no																
D Holman	21/01/2011	excavating in grids/bed turning	W	10.19	10.24	y	2	vegetation	0	4	1	0	103.9	74.5	79	no	no																
D Holman	21/01/2011	excavating in grids/bed turning	NW	10.26	10.31	y	1	vegetation	0	2	1	0			79	no	no																
Stephenson	24/01/2011	excavating in grids/bed turning	N	8.36	8.41	s				2		0			68	no	no	clear	9.199		no	no											no odour at church
Stephenson	24/01/2011	excavating in grids/bed turning	NE	8.42	8.47	y	4	hydrocarbon solvent	0	2	5	0.1			54	no	no	clear			no	switched odour control on											
Stephenson	24/01/2011	excavating in grids/bed turning	NE1	8.48	8.53													clear			no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	E	8.54	8.59	s				2		0			64	no	no	clear	9.699		no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	SE	9.01	9.06	y	2	hydrocarbon odour?	0	3	3	0			56	no	no				no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	S	9.08	9.13	s				3		0			60	no	no				no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	SW	9.15	9.20	y	4	exhaust fumes	0	4	1	0			69	no	no				no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	W	9.21	9.26	y	3	exhaust fumes	0	4	1	0			74	no	no				no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	NW	9.27	9.32	s				2		0			78	no	no				no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	N	15.54	15.59	s				2		0	130	90	67	no	no	clear	9.199		no	no	0.5	nw		cloudy	8	damp	no odour at church				
Stephenson	24/01/2011	excavating in grids/bed turning	NE	16.00	16.05	y	4	hydrocarbons	1	2	5	0	98	4	63	no	no	clear			no	check on odour control											
Stephenson	24/01/2011	excavating in grids/bed turning	NE1	16.06	16.11								114	95				clear			no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	E	16.12	16.17	s				2		0			65	no	no	clear	9.699														
Stephenson	24/01/2011	excavating in grids/bed turning	SE	16.18	16.23	s				3					66	no	no																
Stephenson	24/01/2011	excavating in grids/bed turning	S	16.25	16.30	s				3		0	78	14	68	no	no				no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	SW	16.31	16.36	s				4		0			74	no	no				no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	W	16.37	16.42	s				4		0	99	21	71	no	no				no	no											
Stephenson	24/01/2011	excavating in grids/bed turning	NW	16.43	16.47	y	2	damp road and car fumes	0	2	3	0	71	33	75	no	no				no	no											
T Walker	25/01/2011	excavating in grids/bed turning	N	10.00	10.05	y	4	odour control	2	2	3	0	71	23	46	no	no	clear	9.199		no		3	nw	6	drizzle	8	wet	eastern zone has aroma of odour control and toxitcp				
T Walker	25/01/2011	excavating in grids/bed turning	NE	10.05	10.10	y	4	odour control	2	2	3	0	42	16	57			clear			no												
T Walker	25/01/2011	excavating in grids/bed turning	NE1	10.10	10.15								58	25				clear			no												
T Walker	25/01/2011	excavating in grids/bed turning	E	10.15	10.20	y	7	odour control/ice	1	2	3	0	121	40	61	no	no	clear	9.699		no												
T Walker	25/01/2011	excavating in grids/bed turning	SE	10.20	10.25	y	4	odour control	1	2	3	0			43	no	no				no												
T Walker	25/01/2011	excavating in grids/bed turning	S	10.25	10.30	s				3	1	0	94	32	47	no	no				no												
T Walker	25/01/2011	excavating in grids/bed turning	SW	10.30	10.35	s				4	1	0			39	no	no				no												
T Walker	25/01/2011	excavating in grids/bed turning	W	10.35	10.40	s				4	3	0	86	34	48	no	no				no												
T Walker	25/01/2011	excavating in grids/bed turning	NW	10.40	10.45	y	4	odour control	1	2	2	0			51	no	no				no												
T Walker	25/01/2011	excavating in grids/bed turning	N	16.00	16.05	y	5	odour control	2	2	3	0	140	17	58	no	no	clear	9.199		no		3	nw	9	rain	7	wet					
T Walker	25/01/2011	excavating in grids/bed turning	NE	16.05	16.10	y	5	odour control	2	2	3	0	101	22	61	no	no	clear			no												
T Walker	25/01/2011	excavating in grids/bed turning	NE1	16.10	16.15	s							127	36				clear			no												
T Walker	25/01/2011	excavating in grids/bed turning	E	16.15	16.20	y	6	odour control	2	2	3	0	128	24	57	no	no	clear	9.699		no												
T Walker	25/01/2011	excavating in grids/bed turning	SE	16.20	16.25	y	6	odour control	2	3	3	0			54	no	no				no												
T Walker	25/01/2011	excavating in grids/bed turning	S	16.25	16.30	s				3	3	0	114	31	43	no	no				no												
T Walker	25/01/2011	excavating in grids/bed turning	SW	16.35	16.40	s				4	1	0			28	no	no				no												
T Walker	25/01/2011	excavating in grids/bed turning	W	16.40	16.45	s				4	1	0			71	no	no				no												
T Walker	25/01/2011	excavating in grids/bed turning	W	16.40	16.45	s				4	1	0	97	42	54	no	no				no												
Stephenson	26/01/2011	excavating in grids/bed turning	N	8.42	8.47	s				2		0	58.2	69.3	65.4	no	no	clear	9.198		no		0	NE	4.4	clear	4	wet	no site odour at church - wet veg				
Stephenson	26/01/2011	excavating in grids/bed turning	NE	8.48	8.53	y	3	wet veg	0	2	3	0	96.5	53.2	74.9	no	no	clear			no												
Stephenson	26/01/2011	excavating in grids/bed turning	NE1	8.54	9.01								210	97.8				clear			no												
Stephenson	26/01/2011	excavating in grids/bed turning	E	9.02	9.07	s						0	46.1	89.1	63.8	no	no	clear	9.644		no												
Stephenson	26/01/2011	excavating in grids/bed turning	SE	9.08	9.13	y	3	wet vegetation	0	3	1	0			54.5	no	no				no												
Stephenson	26/01/2011	excavating in grids/bed turning	S	9.16	9.21	s				3	1	0	118	53.4	58.1	no	no				no												
Stephenson	26/01/2011	excavating in grids/bed turning	SW	9.22	9.27	y	5	wet vegetation and tarmac	-1	4	3	0			70.1	no	no				no												
Stephenson	26/01/2011	excavating in grids/bed turning	W	9.28	9.33	y	4	slight chemical odour/car fumes/wet asphalt	-1	4	2	0	27.2	29.6	74.3	no	no				no												
Stephenson	26/01/2011	excavating in grids/bed turning	NW	9.34	9.39	s				4	2	0			76.2	no	no				no												
T Walker	26/01/2011	excavating in grids/bed turning	N	13.30	13.35	s	1	no odour	0	2	1	0	47	36	56	no	no	clear	9.198		no		1.1	NNE	7.1	Rain	8	wet					
T Walker	26/01/2011	excavating in grids/bed turning	NE	13.35	13.40	s	1	no odour	0	2	1	0	135	20	29	no	no	some small foam			no												
T Walker	26/01/2011	excavating in grids/bed turning	NE1	13.35	13.40								98	35				clear			no												
T Walker	26/01/2011	excavating in grids/bed turning	E	13.40	13.45	s	1	no odour	0	2	1	0	23	29	37	no	no	clear	9.644		no												
T Walker	26/01/2011	excavating in grids/bed turning	SE	13.46	13.50	y	1	pesticide	-1	3	1	0			43	no	no				no												
T Walker	26/01/2011	excavating in grids/bed turning	S	13.50	13.55	y	3	pesticide/traffic fume	-1	3	1	0	7.8	7.3	49	no	no				no												
T Walker	26/01/2011	excavating in grids/bed turning	SW	13.55	14.00	s	1	no odour	0	4	1	0			67	no	no				no												
T Walker	26/01/2011	excavating in grids/bed turning	W	14.05	14.10	s	1	no odour	0	4	1	0	106	111	54	no	no				no												
T Walker	26/01/2011	excavating in grids/bed turning	NW	14.15	14.20	s	1	no odour	0	2	1	0			48	no	no				no												
T Walker	27/01/2011	excavating in grids/bed turning	N	9.30	9.35	s	1	no odour	0	2	1	0	28.3	36.5	57	no	no	clear	9.198		no		1.4	NW	1.5	dry	8	dry	church road has slight pesticide getting stronger over fine ex				
T Walker	27/01/2011	excavating in grids/bed turning	NE	9.35	9.40	s	1	no odour	0	2	1	0	36.1	57.9	58.1	no	no	clear			no												
T Walker	27/01/2011	excavating in grids/bed turning	NE1	9.40	9.45								58.7	97.1				clear			no												
T Walker	27/01/2011	excavating in grids/bed turning	E	9.45	9.50	s	1	no odour	0	2	1	0	24.6	33.6	67	no	no	clear	9.638		no												
T Walker	27/01/2011	excavating in grids/bed turning	SE	9.50	9.55	s	1	no odour	0	3	1	0			59	no	no				no												

T Walker	27/01/2011	excavating in grids/bed turning	S	9.55	10.00	s	1	no odour	0	1	1	0	176	29.4	57	no	no			no	no										
T Walker	27/01/2011	excavating in grids/bed turning	SW	10.00	10.05	s	1	no odour	0	4	1	0			61	no	no			no	no										
T Walker	27/01/2011	excavating in grids/bed turning	W	10.05	10.10	s	1	no odour	0	4	1	0	72	32	58	no	no			no	no										
T Walker	27/01/2011	excavating in grids/bed turning	NW	10.10	10.15	s	1	no odour	0	2	1	0			77	no	no			no	no										
T Walker	27/01/2011	excavating in grids/bed turning	N	15.00	15.05	s	1	no odour	0	2	1	0	112	10	61	no	no	clear	0.198	no	no	1.8	nnw	4	dry	7	dry				
T Walker	27/01/2011	excavating in grids/bed turning	NE	15.05	15.10	s	1	no odour	0	2	1	0	67	53	67	no	no	clear		no	no										
T Walker	27/01/2011	excavating in grids/bed turning	NE1	15.10	15.15	s			0	1	1	0	43	28				clear		no	no										
T Walker	27/01/2011	excavating in grids/bed turning	E	15.15	15.20	s	1	no odour	0	2	1	0	23	31	54	no	no	clear	0.638	no	no										
T Walker	27/01/2011	excavating in grids/bed turning	SE	15.20	15.25	s	1	no odour	0	3	1	0			53	no	no			no	no										
T Walker	27/01/2011	excavating in grids/bed turning	S	15.25	15.30	y	3	pesticides	-1	3	3	0	36	11	68	no	no			no	no										
T Walker	27/01/2011	excavating in grids/bed turning	SW	15.30	15.35	y	4	pesticides	-2	4	3	0			60	no	no			no	no										
T Walker	27/01/2011	excavating in grids/bed turning	W	15.35	15.40	y	4	pesticides	-2	4	3	0	67	26	59	no	no			no	no										
T Walker	27/01/2011	excavating in grids/bed turning	NW	15.40	15.45	s	1	no odour	0	2	1	0			71	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	N	10.00	10.05	s	1	no odour	1	2	1	0	58.8	10	73	no	no	clear	0.199	no	no	1.5	nnw	2.4	dry	6	dry	moderate to strong pesticide smell on church road, no foggers on site, odour control currently being repaired			
T Walker	28/01/2011	excavating in grids/bed turning	NE	10.05	10.10	s	1	no odour	1	2	1	0	185	11	67	no	no	clear		no	no										
T Walker	28/01/2011	excavating in grids/bed turning	NE1	10.05	10.10	s			1	1	1	0	435	46				clear		no	no										
T Walker	28/01/2011	excavating in grids/bed turning	E	10.10	10.15	s	1	no odour	1	2	1	0	34	11	66	no	no	clear	0.641	no	no										
T Walker	28/01/2011	excavating in grids/bed turning	SE	10.15	10.20	y	4	church road pesticides	-2	3	3	0			69	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	S	10.20	10.25	y	4	church road pesticides	-2	3	3	0	310	226	67	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	SW	10.25	10.30	y	5	church road pesticides	-2	4	3	0			63	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	W	10.30	10.35	s	1	no odour	1	4	1	0	398	49	64	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	NW	10.35	10.40	s	1	no odour	1	2	1	0			62	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	N	14.00	14.05	y	2/3	TCE/Pesticides	-1	2	3	0	120	82	57	no	no	clear	0.199	no	no	1	nnw	9.8	sun/dry	3	dry	some slight toe odour from direct dig location. Pesticide smell on church road, in both cases odours were deemed not to be excessive no action was taken.			
T Walker	28/01/2011	excavating in grids/bed turning	NE	14.05	14.10	y	2	Pesticides	-1	2	3	0	46	11	62	no	no	clear		no	no										
T Walker	28/01/2011	excavating in grids/bed turning	NE1	14.05	14.10	s			1	1	1	0	147	53				clear		no	no										
T Walker	28/01/2011	excavating in grids/bed turning	E	14.10	14.15	s	1	no odour	0	2	1	0	266	84	61	no	no	clear	0.641	no	no										
T Walker	28/01/2011	excavating in grids/bed turning	SE	14.15	14.20	s	1	no odour	0	3	1	0			67	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	S	14.20	14.25	y	3	pesticides	-1	3	3	0	114	58	68	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	SW	14.25	14.30	y	3	pesticides	-2	4	3	0			71	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	W	14.35	14.40	y	3	pesticides	-2	4	3	0	58	21	47	no	no			no	no										
T Walker	28/01/2011	excavating in grids/bed turning	NW	14.40	14.45	s		no odour	0	2	1	0			41	no	no			no	no										

Appendix C

Long term Passive VOC Monitoring

gradko environmental
(A division of Gradko International Ltd.)
St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH
tel.: 01962 860331 fax: 01962 841339 e-mail:diffusion@gradko.co.uk

UKAS TESTING 2187

LABORATORY ANALYSIS REPORT

REPORT NUMBER	**GCMS 4613**
CUSTOMER	**Vertase FLI Ltd**
GRADKO LAB REFERENCE	**GMSF 0221-0231**
DATE SAMPLES RECEIVED	**31.01.11**
DESPATCH REF.NUMBER	**SOR005598**
JOB NUMBER	**907BR1/5302**
BOOKING IN REF.	**E 0587**

SEMI-QUANTITATIVE ANALYSIS FOR
TOP 10 VOC'S ON TENAX DIFFUSION TUBES BY GC/MS
Analysis has been carried out in accordance with in-house method GLM 13

Tube Number	**GRA 06590**
Exposure Time(mins)	**44570**
Sample ID	**North East**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Tetrachloroethylene	126.38	1.42
Toluene	106.25	1.19
m/p-Xylene	30.38	0.34
Benzene, 1,2,3-trichloro-4-methyl-	24.45	0.27
Benzene, 1,2-dichloro-	23.37	0.26
Benzene	17.19	0.19
o-Xylene	14.81	0.17
Benzonitrile	12.32	0.14
Trichloroethylene	12.09	0.14
Benzene, 1,4-dichloro-2-methyl-	10.06	0.11

Tube Number	**GRA 03726**
Exposure Time(mins)	**44570**
Sample ID	**East**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Tetrachloroethylene	104.75	1.18
Toluene	103.61	1.16
Benzene, 1,2,3-trichloro-4-methyl-	26.97	0.30

The Diffusion Tubes have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures calculations and assessments involving the exposure procedures and periods provided by the client are not within the scope of our UKAS accreditation. Those results obtained using exposure data shall be indicated by an asterisk. Any queries concerning the data in this report should be directed to the Laboratory Manager Gradko International Ltd.

REPORT OFFICIALLY CHECKED

Gradko International Ltd
This signature confirms the authenticity of these results
Signed.....
L. Gates, Laboratory Supervisor

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LABORATORY ANALYSIS REPORT

m/p-Xylene	23.32	0.26
Benzene	16.70	0.19
Benzene, 1,4-dichloro-2-methyl-	15.38	0.17
o-Xylene	11.26	0.13
Phenol	10.39	0.12
Undecane	10.35	0.12
Tridecane	7.12	0.08

Tube Number **GRA 06107**
Exposure Time(mins) **44565**
Sample ID **South East**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Tetrachloroethylene	70.74	0.79
Toluene	65.34	0.73
Benzene, 1,2,3-trichloro-4-methyl-	22.76	0.26
Tetradecane	22.66	0.25
m/p-Xylene	22.55	0.25
Benzene	20.86	0.23
o-Xylene	17.11	0.19
Phenol	10.67	0.12
Octane	10.15	0.11
Undecane	9.91	0.11

Tube Number **GRA 06402**
Exposure Time(mins) **44565**
Sample ID **South**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Toluene	46.55	0.52
Tetrachloroethylene	29.68	0.33
m/p-Xylene	17.60	0.20
Benzene	13.08	0.15
o-Xylene	11.16	0.13
Undecane	8.04	0.09
Benzonitrile	6.66	0.07

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LABORATORY ANALYSIS REPORT

Ethylbenzene	6.62	0.07
Phenol	6.61	0.07
Benzene, 1,2,4-trimethyl-	4.75	0.05

Tube Number	**GRA 05263**
Exposure Time(mins)	**44565**
Sample ID	**South West**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Toluene	85.38	0.96
Tetrachloroethylene	80.52	0.90
m/p-Xylene	30.01	0.34
Benzene	24.62	0.28
Dodecane	24.34	0.27
Heptane, 2,2,4,6,6-pentamethyl-	18.31	0.21
o-Xylene	15.42	0.17
Undecane	15.17	0.17
Tridecane	14.92	0.17
Pentadecane	13.55	0.15

Tube Number	**GRA 04299**
Exposure Time(mins)	**44560**
Sample ID	**West**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Tetrachloroethylene	79.43	0.89
Toluene	74.68	0.84
m/p-Xylene	28.68	0.32
Benzene	17.48	0.20
Tetradecane	15.77	0.18
o-Xylene	14.41	0.16
Phenol	10.25	0.11
Tridecane	9.68	0.11
Benzene, 1,2,3-trichloro-4-methyl-	9.57	0.11
Hexadecane	9.24	0.10

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LABORATORY ANALYSIS REPORT

Tube Number	**GRA 06429**
Exposure Time(mins)	**44555**
Sample ID	**North West**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Toluene	101.96	1.14
Tetrachloroethylene	82.30	0.92
m/p-Xylene	49.71	0.56
Benzene, 1,2,4-trimethyl-	25.30	0.28
o-Xylene	20.71	0.23
Benzene	20.03	0.22
Benzene, 1,2,3-trichloro-4-methyl-	17.93	0.20
Ethylbenzene	15.09	0.17
Pentadecane	13.86	0.16
Benzene, 1,4-dichloro-2-methyl-	13.18	0.15

Tube Number	**GRA 03718****
Exposure Time(mins)	**44575**
Sample ID	**North**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Tetrachloroethylene	64.77	0.73
Naphthalene	60.93	0.68
Toluene	55.85	0.63
Benzene	19.03	0.21
m/p-Xylene	17.85	0.20
Benzamide, N,N-dimethyl-	15.25	0.17
Pentadecane	14.16	0.16
o-Xylene	12.17	0.14
Phenol	10.87	0.12
Naphthalene, 2-methyl-	9.53	0.11

The Diffusion Tubes have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures calculations and assessments involving the exposure procedures and periods provided by the client are not within the scope of our UKAS accreditation. Those results obtained using exposure data shall be indicated by an asterisk. Any queries concerning the data in this report should be directed to the Laboratory Manager Gradko International Ltd.

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LABORATORY ANALYSIS REPORT

Tube Number	**GRA 02551**
Exposure Time(mins)	**44560**
Sample ID	**WWTW**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Toluene	25.14	0.28
Benzene	18.23	0.20
Benzamide, N,N-dimethyl-	14.46	0.16
m/p-Xylene	14.10	0.16
Pentadecane	12.99	0.15
Tetrachloroethylene	11.82	0.13
o-Xylene	10.59	0.12
Octane	9.58	0.11
Phenol	8.77	0.10
Benzonitrile	6.63	0.07

Tube Number	**GRA 00951**
Exposure Time(mins)	**44535**
Sample ID	**Church Road**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Naphthalene	154.41	1.73
Toluene	79.41	0.89
m/p-Xylene	60.05	0.67
o-Xylene	25.22	0.28
Phenanthrene	20.36	0.23
Benzene	18.93	0.21
Ethylbenzene	16.25	0.18
Tetrachloroethylene	15.15	0.17
Pentadecane	14.10	0.16
Phenol	12.85	0.14

The Diffusion Tubes have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures calculations and assessments involving the exposure procedures and periods provided by the client are not within the scope of our UKAS accreditation. Those results obtained using exposure data shall be indicated by an asterisk. Any queries concerning the data in this report should be directed to the Laboratory Manager Gradko International Ltd.

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LABORATORY ANALYSIS REPORT

Tube Number	**GRA 07297**
Exposure Time(mins)	**44570**
Sample ID	**Queen's Close**

Top 10 VOC'S

Compounds	**ng on tube**	**ppb in air***
Toluene	96.47	1.08
m/p-Xylene	20.01	0.22
Benzene	18.25	0.20
o-Xylene	13.79	0.15
Benzonitrile	10.90	0.12
Pentadecane	9.60	0.11
Ethylbenzene	8.45	0.09
Octane	7.01	0.08
Furfural	6.88	0.08
Benzene, 1,2,4-trimethyl-	6.82	0.08

Comment: ** **Tube number on the diffusion record sheet was incorrect.**
Semi-quantitative results for ng on tube are calculated using toluene standards.

Analysts Name **M.Angelova** **Date of Analysis** **07.02.11**

Date of Report **09.02.11**

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L. Gates, Laboratory Supervisor

Appendix D

Directional Dust Monitoring

Chemtest
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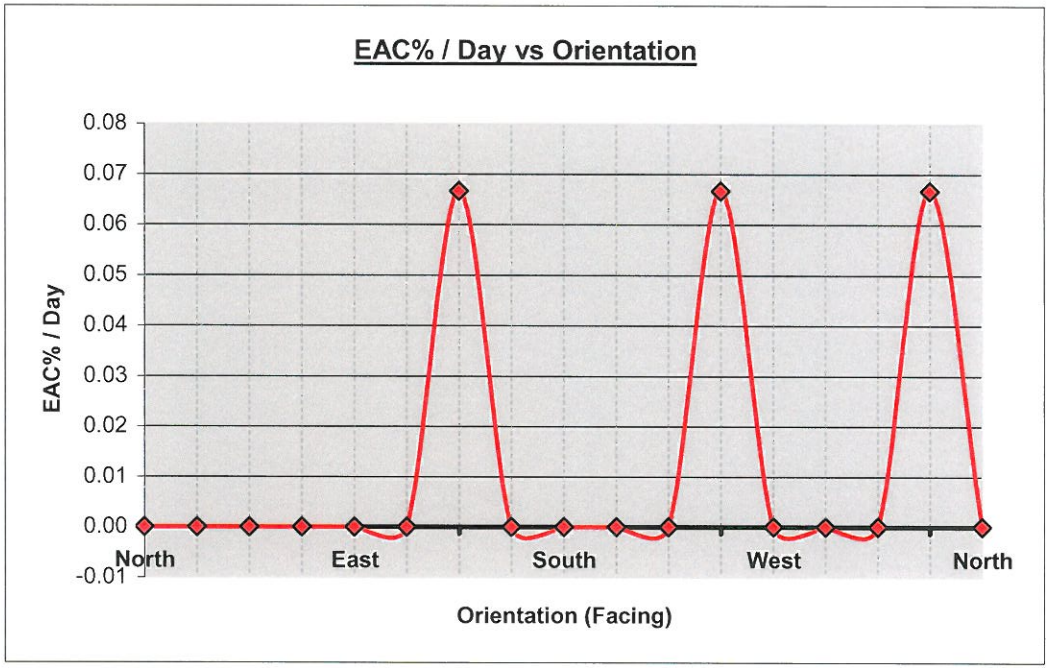
Sticky Pad Data

Gauge Number-North Location 907BRI

Sticky Pad Data

Date On 10/01/2011 Date Off 25/01/2011 Days = 15
Clean = 90

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	90	360	North	0.00
20	89	337		0.07
40	90	314		0.00
60	90	291		0.00
80	90	269	West	0.00
100	89	246		0.07
120	90	223		0.00
140	90	200		0.00
160	90	177	South	0.00
180	90	154		0.00
200	89	131		0.07
220	90	109		0.00
240	90	86	East	0.00
260	90	63		0.00
280	90	40		0.00
300	90	17		0.00
315	90	0	North	0.00



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Chemtest
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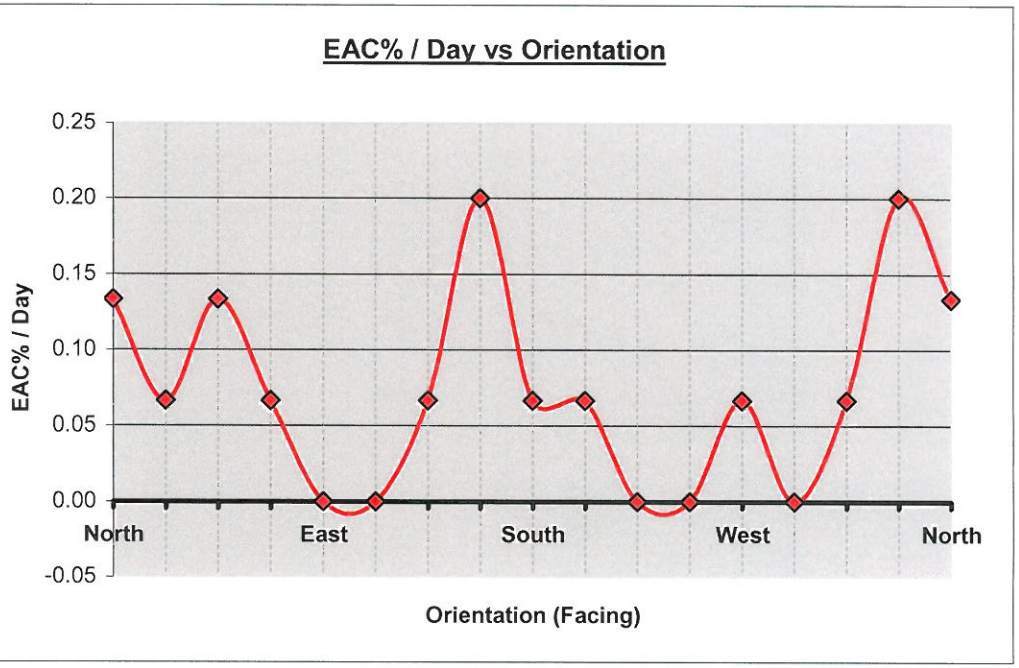
Sticky Pad Data

Gauge Number-East Location 907BRI

Sticky Pad Data

Date On 10/01/2011 Date Off 25/01/2011 Days = 15
Clean = 90

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	88	360	North	0.13
20	87	337		0.20
40	89	314		0.07
60	90	291		0.00
80	89	269	West	0.07
100	90	246		0.00
120	90	223		0.00
140	89	200		0.07
160	89	177	South	0.07
180	87	154		0.20
200	89	131		0.07
220	90	109		0.00
240	90	86	East	0.00
260	89	63		0.07
280	88	40		0.13
300	89	17		0.07
315	88	0	North	0.13



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

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Sticky Pad Data

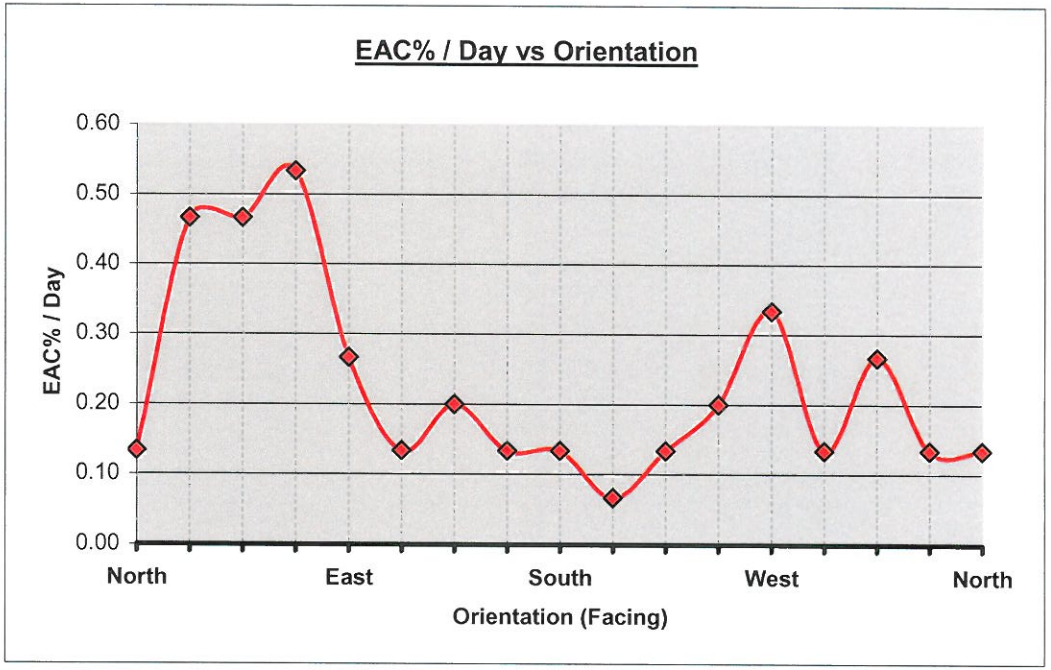
Gauge Number-West Location 907BRI

Sticky Pad Data

Date On 10/01/2011 Date Off 25/01/2011 Days = 15

Clean = 90

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	88	360	North	0.13
20	88	337		0.13
40	86	314		0.27
60	88	291		0.13
80	85	269	West	0.33
100	87	246		0.20
120	88	223		0.13
140	89	200		0.07
160	88	177	South	0.13
180	88	154		0.13
200	87	131		0.20
220	88	109		0.13
240	86	86	East	0.27
260	82	63		0.53
280	83	40		0.47
300	83	17		0.47
315	88	0	North	0.13



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
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Sticky Pad Data

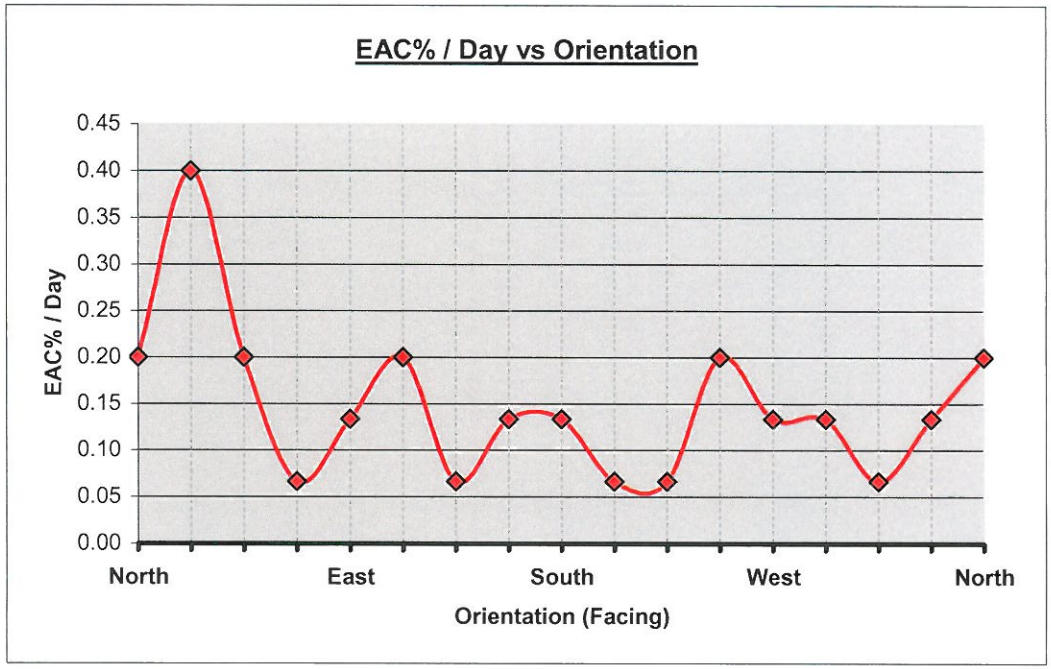
Gauge Number-NE1 Location 907BRI

Sticky Pad Data

Date On 10/01/2011 Date Off 25/01/2011 Days = #

Clean = 90

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	87	360	North	0.20
20	88	337		0.13
40	89	314		0.07
60	88	291		0.13
80	88	269	West	0.13
100	87	246		0.20
120	89	223		0.07
140	89	200		0.07
160	88	177	South	0.13
180	88	154		0.13
200	89	131		0.07
220	87	109		0.20
240	88	86	East	0.13
260	89	63		0.07
280	87	40		0.20
300	84	17		0.40
315	87	0	North	0.20



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Chemtest
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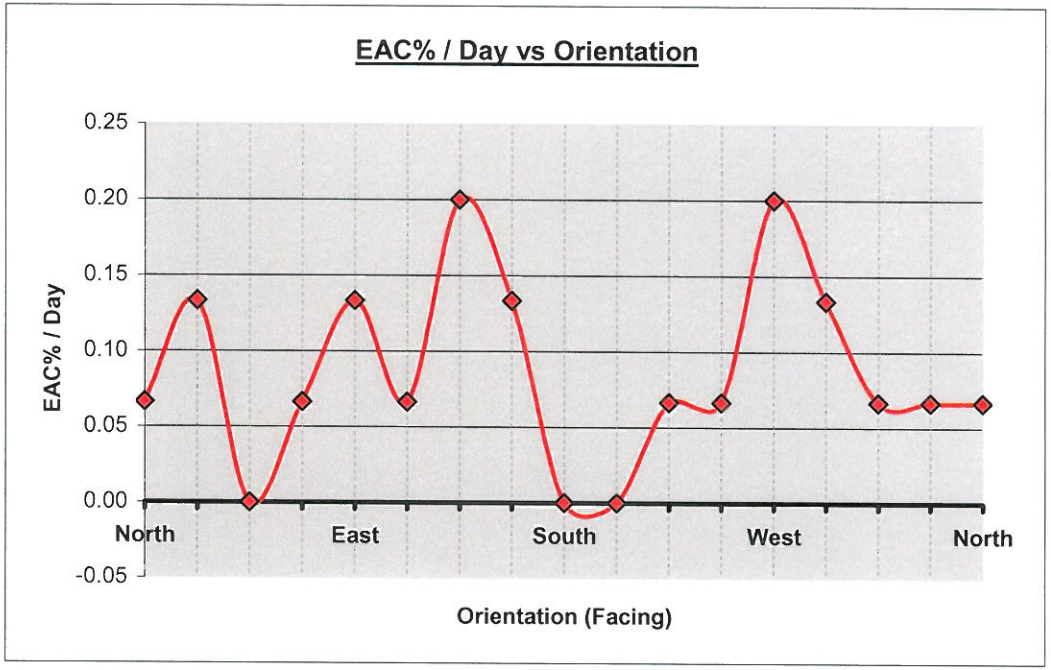
Sticky Pad Data

Gauge Number-NE2 Location 907BRI

Sticky Pad Data

Date On 10/01/2011 Date Off 25/01/2011 Days = 15
Clean = 90

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	89	360	North	0.07
20	89	337		0.07
40	89	314		0.07
60	88	291		0.13
80	87	269	West	0.20
100	89	246		0.07
120	89	223		0.07
140	90	200		0.00
160	90	177	South	0.00
180	88	154		0.13
200	87	131		0.20
220	89	109		0.07
240	88	86	East	0.13
260	89	63		0.07
280	90	40		0.00
300	88	17		0.13
315	89	0	North	0.07



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Chemtest
The right chemistry to deliver results

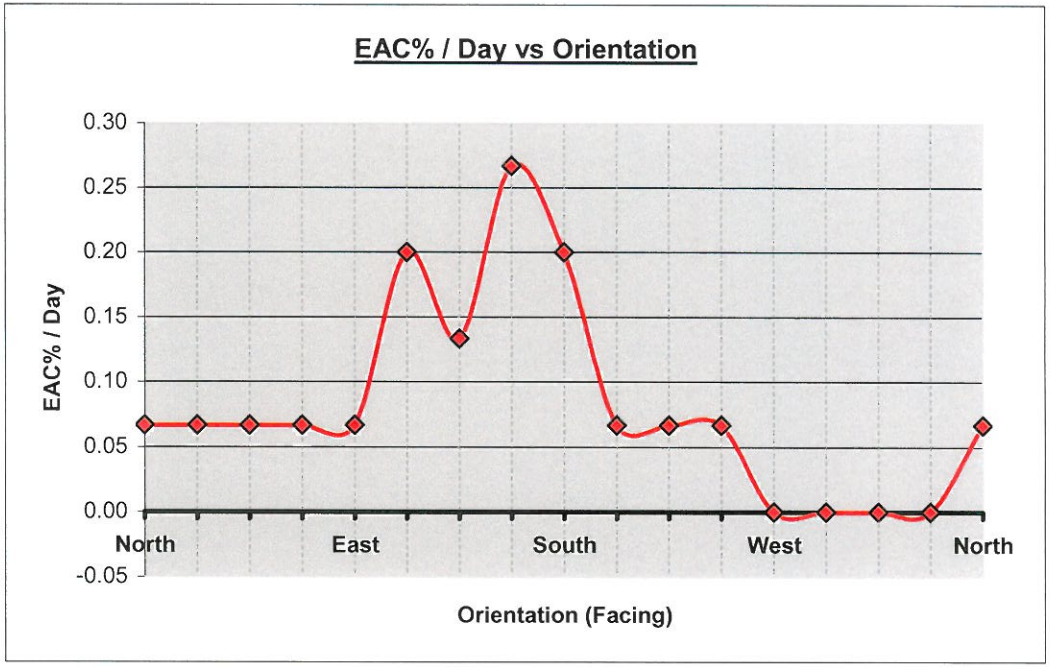
Sticky Pad Data

Gauge Number-South Location 907BRI

Sticky Pad Data

Date On 10/01/2011 Date Off 25/01/2011 Days = 15
Clean = 90

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	89	360	North	0.07
20	90	337		0.00
40	90	314		0.00
60	90	291		0.00
80	90	269	West	0.00
100	89	246		0.07
120	89	223		0.07
140	89	200		0.07
160	87	177	South	0.20
180	86	154		0.27
200	88	131		0.13
220	87	109		0.20
240	89	86	East	0.07
260	89	63		0.07
280	89	40		0.07
300	89	17		0.07
315	89	0	North	0.07



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Appendix E
Groundwater Level Data

Date	BH6/06	S3/4	BH4	BH10B/06	BH9	S1/8	BH11*	S2/6	BHB1	W1 (n)	W2	W3 (s)	Riddy 1	Riddy 2	Riddy 3	Riddy 4	V F12	V N3
04/01/2011	10.460	10.48	10.126	Covered	10.639	Lost	9.743	Covered	9.579	No Access	No Access	10.012	9.199	9.324	9.550	9.659	10.308	10.212
05/01/2011	10.420	10.46	10.129	Covered	10.639	Lost	9.693	Covered	9.53	No Access	No Access	9.965	9.199	9.334	9.550	9.659	10.278	10.202
06/01/2011	10.467	10.43	10.164	Covered	10.669	Lost	9.683	Covered	9.6	No Access	No Access	9.951	9.198	9.344	9.550	9.644	10.277	10.192
07/01/2011	10.368	10.406	10.108	Covered	10.669	Lost	9.683	Covered	9.56	No Access	No Access	9.899	9.198	9.324	9.550	9.638	10.227	10.218
10/01/2011	10.363	10.422	10.118	Covered	10.66	Lost	9.685	Covered	9.559	No Access	No Access	9.905	9.199	9.325	9.551	9.641	10.229	10.208
11/01/2011	10.348	10.398	10.054	Covered	10.627	Lost	9.659	Covered	9.509	No Access	No Access	9.827	9.189	9.323	9.549	9.639	10.109	10.198
12/01/2011	10.339	10.402	10.053	Covered	10.616	Lost	9.66	Covered	9.501	No Access	No Access	9.827	9.189	9.318	9.548	9.638	10.109	10.194
13/01/2011	12.270	11.86	12.794	Covered	12.039	Lost	11.143	12.533	12.2	12.37	12.44	12.51	10.789	11.094	11.160	11.609	12.048	11.422
14/01/2011	12.270	11.86	12.794	Covered	12.039	Lost	11.143	12.533	12.2	12.37	12.44	12.51	10.789	11.094	11.160	11.609	12.048	11.422
17/01/2011	10.110	10.69	10.354	Covered	10.569	Lost	9.833	10.523	9.76	10.32	10.3	10.26	9.299	9.354	9.600	9.839	10.308	10.062
18/01/2011	10.130	10.7	10.364	Covered	10.579	Lost	9.833	10.523	9.79	10.34	10.31	10.28	9.519	9.514	9.750	9.999	10.328	10.072
19/01/2011	10.110	10.63	10.364	Covered	10.579	Lost	9.833	Covered	9.69	No Access	No Access	10.15	9.439	9.474	9.610	9.849	10.328	10.102
20/01/2011	10.180	10.6	10.294	Covered	10.639	Lost	9.793	Covered	9.65	No Access	No Access	9.99	9.329	9.444	9.680	9.779	10.328	10.132
21/01/2011	10.260	10.56	10.234	Covered	10.639	Lost	9.813	Covered	9.61	No Access	No Access	10.03	9.409	9.514	9.510	9.689	10.308	10.142
24/01/2011	10.460	10.48	10.126	Covered	10.639	Lost	9.743	Covered	9.579	No Access	No Access	10.012	9.199	9.324	9.550	9.659	10.308	10.212
25/01/2011	10.420	10.46	10.129	Covered	10.639	Lost	9.693	Covered	9.53	No Access	No Access	9.965	9.199	9.334	9.550	9.659	10.278	10.202
26/01/2011	10.467	10.43	10.164	Covered	10.669	Lost	9.683	Covered	9.6	No Access	No Access	9.951	9.198	9.344	9.550	9.644	10.277	10.192
27/01/2011	10.368	10.406	10.108	Covered	10.669	Lost	9.683	Covered	9.56	No Access	No Access	9.899	9.198	9.324	9.550	9.638	10.227	10.218
28/01/2011	10.363	10.422	10.118	Covered	10.66	Lost	9.685	Covered	9.559	No Access	No Access	9.905	9.199	9.325	9.551	9.641	10.229	10.208

Appendix F
Surface Water Analysis Reports

Scientific Analysis Laboratories is a limited company registered in England and Wales (No 2514788) whose address is at Hadfield House, Hadfield Street, Manchester M16 9FE

Scientific Analysis Laboratories

Certificate of Analysis

Hadfield House
Hadfield Street
Cornbrook
Manchester
M16 9FE
Tel : 0161 874 2400
Fax : 0161 874 2468

Report Number: 226203-2

Date of Report: 04-Feb-2011

Customer: VertaseFLI Limited
19 Napier Court
Barlborough Links
Barlborough
S43 4PZ

Customer Contact: The Project Management

Customer Job Reference: 907 BRI
Date Job Received at SAL: 31-Jan-2011
Date Analysis Started: 31-Jan-2011
Date Analysis Completed: 04-Feb-2011

The results reported relate to samples received in the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs

UKAS TESTING
1549

Report checked and authorised by :
Amelia McVennon
Project Manager

Issued by :
Amelia McVennon
Project Manager

SAL Reference: 226203
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton Suite

				SAL Reference	**226203 001**	**226203 002**	**226203 003**	**226203 004**
				Customer Sample Reference	**Riddy Upstream**	**Cam Upstream**	**Riddy Downstream**	**Cam Downstream**
				Date Sampled	**27-JAN-2011**	**27-JAN-2011**	**27-JAN-2011**	**27-JAN-2011**
Determinand	**Method**	**Test Sample**	**LOD**	**Units**				
Electrical Conductivity	T7	AR	10	µS/cm	**890**	**880**	**910**	**870**
pH	T7	AR			**7.7**	**8.0**	**8.1**	**8.1**

SAL Reference: 226203
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton OP/ON Suite

				SAL Reference	**226203 001**	**226203 002**	**226203 003**	**226203 004**
				Customer Sample Reference	**Riddy Upstream**	**Cam Upstream**	**Riddy Downstream**	**Cam Downstream**
				Date Sampled	**27-JAN-2011**	**27-JAN-2011**	**27-JAN-2011**	**27-JAN-2011**
Determinand	**Method**	**Test Sample**	**LOD**	**Units**				
Dimefox	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1
Ethofumesate	T16	AR	0.1	µg/l	<0.1	<0.1	**0.2**	<0.1
Hempa	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1
Schradan	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1
Simazine	T16	AR	0.01	µg/l	<0.01	<0.01	<0.01	<0.01

SAL Reference: 226203
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton Phenoxy Acid Herbs Suite

				SAL Reference	**226203 001**	**226203 002**	**226203 003**	**226203 004**
				Customer Sample Reference	**Riddy Upstream**	**Cam Upstream**	**Riddy Downstream**	**Cam Downstream**
				Date Sampled	**27-JAN-2011**	**27-JAN-2011**	**27-JAN-2011**	**27-JAN-2011**
Determinand	**Method**	**Test Sample**	**LOD**	**Units**				
Dicamba	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1
Dichlorprop	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1
Mecoprop	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1

SAL Reference: 226203
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton SVOC Suite

				SAL Reference	**226203 001**	**226203 002**	**226203 003**	**226203 004**
				Customer Sample Reference	**Riddy Upstream**	**Cam Upstream**	**Riddy Downstream**	**Cam Downstream**
				Date Sampled	**27-JAN-2011**	**27-JAN-2011**	**27-JAN-2011**	**27-JAN-2011**
Determinand	**Method**	**Test Sample**	**LOD**	**Units**				
2,4,6-Trichlorophenol	T16	AR	10	µg/l	<10	<10	<10	<10
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	<10	<10	<10	<10
4-Chloro-2-methylphenol	T16	AR	10	µg/l	<10	<10	<10	<10
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	<10	<10	<10	<10
Phenol	T16	AR	10	µg/l	<10	<10	<10	<10

SAL Reference: 226203
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton VOC Suite

	SAL Reference	226203 001	226203 002	226203 003	226203 004
	Customer Sample Reference	Riddy Upstream	Cam Upstream	Riddy Downstream	Cam Downstream
	Date Sampled	27-JAN-2011	27-JAN-2011	27-JAN-2011	27-JAN-2011
Determinand	**Method** / **Test Sample** / **LOD** / **Units**				
1,2-Dichlorobenzene	T54 AR 1 µg/l	<1	<1	<1	<1
1,2-Dichloroethane	T54 AR 1 µg/l	<1	<1	<1	<1
Cis-1,2-Dichloroethylene	T54 AR 1 µg/l	<1	<1	**3**	<1
Cyclohexanone	T54 AR 10 µg/l	<10	<10	<10	<10
Tetrachloroethene	T54 AR 1 µg/l	<1	<1	**2**	<1
Toluene	T54 AR 1 µg/l	<1	<1	<1	<1
Trichloroethene	T54 AR 1 µg/l	<1	<1	**7**	<1
Vinyl chloride	T54 AR 1 µg/l	<1	<1	<1	<1
Xylene (Total)	T54 AR 1 µg/l	<1	<1	<1	<1

Index to symbols used in 226203-2

Value	Description
AR	As Received
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T7	Probe
T16	GC/MS
T54	GC/MS (Headspace)

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Electrical Conductivity	T7	AR	10	µS/cm	N	001-004
pH	T7	AR			U	001-004
Dimefox	T16	AR	0.1	µg/l	N	001-004
Ethofumesate	T16	AR	0.1	µg/l	N	001-004
Hempa	T16	AR	0.1	µg/l	N	001-004
Schradan	T16	AR	0.1	µg/l	N	001-004
Simazine	T16	AR	0.01	µg/l	N	001-004
Dicamba	T16	AR	0.1	µg/l	N	001-004
Dichlorprop	T16	AR	0.1	µg/l	N	001-004
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	N	001-004
Mecoprop	T16	AR	0.1	µg/l	N	001-004
2,4,6-Trichlorophenol	T16	AR	10	µg/l	U	001-004
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	N	001-004
4-Chloro-2-methylphenol	T16	AR	10	µg/l	N	001-004
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	U	001-004
Phenol	T16	AR	10	µg/l	U	001-004
1,2-Dichlorobenzene	T54	AR	1	µg/l	U	001-004
1,2-Dichloroethane	T54	AR	1	µg/l	U	001-004
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	U	001-004
Cyclohexanone	T54	AR	10	µg/l	N	001-004
Tetrachloroethene	T54	AR	1	µg/l	U	001-004
Toluene	T54	AR	1	µg/l	U	001-004
Trichloroethene	T54	AR	1	µg/l	U	001-004
Vinyl chloride	T54	AR	1	µg/l	U	001-004
Xylene (Total)	T54	AR	1	µg/l	U	001-004

Scientific Analysis Laboratories is a limited company registered in England and Wales (No 2514788) whose address is at Hadfield House, Hadfield Street, Manchester M16 9FE

Scientific Analysis Laboratories

Certificate of Analysis

Hadfield House
Hadfield Street
Cornbrook
Manchester
M16 9FE
Tel : 0161 874 2400
Fax : 0161 874 2468

Report Number: 226523-1

Date of Report: 08-Feb-2011

Customer: VertaseFLI Limited
19 Napier Court
Barlborough Links
Barlborough
S43 4PZ

Customer Contact: The Project Management

Customer Job Reference: 907 BRI
Date Job Received at SAL: 02-Feb-2011
Date Analysis Started: 02-Feb-2011
Date Analysis Completed: 08-Feb-2011

The results reported relate to samples received in the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs

UKAS TESTING
1549

Report checked and authorised by :
Amelia McVennon
Project Manager

Issued by :
Amelia McVennon
Project Manager

SAL Reference: 226523
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton Suite

	SAL Reference	226523 001	226523 002	226523 003	226523 004
	Customer Sample Reference	BH9	BH11	N3	S3/4
	Date Sampled	01-FEB-2011	01-FEB-2011	01-FEB-2011	01-FEB-2011
Determinand	**Method** / **Test Sample** / **LOD** / **Units**				
Electrical Conductivity	T7 / AR / 10 / µS/cm	**2200**	**1100**	**2000**	**3700**
pH	T7 / AR	**7.3**	**7.3**	**7.2**	**7.3**

SAL Reference: 226523
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton OP/ON Suite

	SAL Reference	226523 001	226523 002	226523 003	226523 004
	Customer Sample Reference	BH9	BH11	N3	S3/4
	Date Sampled	01-FEB-2011	01-FEB-2011	01-FEB-2011	01-FEB-2011
Determinand	**Method** / **Test Sample** / **LOD** / **Units**				
Dimefox	T16 / AR / 0.1 / µg/l	<0.1	<0.1	<0.1	<0.1
Ethofumesate	T16 / AR / 0.1 / µg/l	**12**	**23**	**6.0**	**2.8**
Hempa	T16 / AR / 0.1 / µg/l	<0.1	<0.1	<0.1	<0.1
Schradan	T16 / AR / 0.1 / µg/l	<0.1	<0.1	<0.1	**83**
Simazine	T16 / AR / 0.01 / µg/l	<0.01	**0.55**	<0.01	<0.01

SAL Reference: 226523
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton Phenoxy Acid Herbs Suite

	SAL Reference	226523 001	226523 002	226523 003	226523 004
	Customer Sample Reference	BH9	BH11	N3	S3/4
	Date Sampled	01-FEB-2011	01-FEB-2011	01-FEB-2011	01-FEB-2011
Determinand	**Method** / **Test Sample** / **LOD** / **Units**				
Dicamba	T16 / AR / 0.1 / µg/l	<0.1	<0.1	<0.1	<0.1
Dichlorprop	T16 / AR / 0.1 / µg/l	<0.1	<0.1	<0.1	**1.4**
Phenoxy Acetic acid herbicide: MCPA	T16 / AR / 0.1 / µg/l	<0.1	<0.1	<0.1	<0.1
Mecoprop	T16 / AR / 0.1 / µg/l	**35**	**6.2**	**29**	**63**

SAL Reference: 226523
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton SVOC Suite

	SAL Reference	226523 001	226523 002	226523 003	226523 004
	Customer Sample Reference	BH9	BH11	N3	S3/4
	Date Sampled	01-FEB-2011	01-FEB-2011	01-FEB-2011	01-FEB-2011
Determinand	**Method** / **Test Sample** / **LOD** / **Units**				
2,4,6-Trichlorophenol	T16 / AR / 10 / µg/l	<10	<10	<10	**20**
2-Methyl-4,6-dinitrophenol	T16 / AR / 10 / µg/l	<10	<10	<10	<10
4-Chloro-2-methylphenol	T16 / AR / 10 / µg/l	<10	<10	<10	**170**
Bis (2-chloroethyl) ether	T16 / AR / 10 / µg/l	**190**	**40**	**210**	**2500**
Phenol	T16 / AR / 10 / µg/l	<10	<10	<10	<10

SAL Reference: 226523
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton VOC Suite

	SAL Reference	226523 001	226523 002	226523 003	226523 004
	Customer Sample Reference	BH9	BH11	N3	S3/4
	Date Sampled	01-FEB-2011	01-FEB-2011	01-FEB-2011	01-FEB-2011
Determinand	**Method** / **Test Sample** / **LOD** / **Units**				
1,2-Dichlorobenzene	T54 / AR / 1 / µg/l	<1	<1	<1	<1
1,2-Dichloroethane	T54 / AR / 1 / µg/l	(13) <1	**(13) 3**	(13) <1	**(13) 1**
Cis-1,2-Dichloroethylene	T54 / AR / 1 / µg/l	<1	**1**	<1	**2**
Cyclohexanone	T54 / AR / 10 / µg/l	<10	<10	<10	<10
Tetrachloroethene	T54 / AR / 1 / µg/l	<1	<1	<1	<1
Toluene	T54 / AR / 1 / µg/l	<1	<1	<1	**110**
Trichloroethene	T54 / AR / 1 / µg/l	<1	<1	<1	<1
Vinyl chloride	T54 / AR / 1 / µg/l	<1	<1	<1	<1
Xylene (Total)	T54 / AR / 1 / µg/l	<1	<1	<1	**42**

Index to symbols used in 226523-1

Value	Description
AR	As Received
13	Results have been blank corrected.
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T54	GC/MS (Headspace)
T7	Probe
T16	GC/MS

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Electrical Conductivity	T7	AR	10	µS/cm	N	001-004
pH	T7	AR			U	001-004
Dimefox	T16	AR	0.1	µg/l	N	001-004
Ethofumesate	T16	AR	0.1	µg/l	N	001-004
Hempa	T16	AR	0.1	µg/l	N	001-004
Schradan	T16	AR	0.1	µg/l	N	001-004
Simazine	T16	AR	0.01	µg/l	N	001-004
Dicamba	T16	AR	0.1	µg/l	N	001-004
Dichlorprop	T16	AR	0.1	µg/l	N	001-004
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	N	001-004
Mecoprop	T16	AR	0.1	µg/l	N	001-004
2,4,6-Trichlorophenol	T16	AR	10	µg/l	U	001-004
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	N	001-004
4-Chloro-2-methylphenol	T16	AR	10	µg/l	N	001-004
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	U	001-004
Phenol	T16	AR	10	µg/l	U	001-004
1,2-Dichlorobenzene	T54	AR	1	µg/l	U	001-004
1,2-Dichloroethane	T54	AR	1	µg/l	U	001-004
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	U	001-004
Cyclohexanone	T54	AR	10	µg/l	N	001-004
Tetrachloroethene	T54	AR	1	µg/l	U	001-004
Toluene	T54	AR	1	µg/l	U	001-004
Trichloroethene	T54	AR	1	µg/l	U	001-004
Vinyl chloride	T54	AR	1	µg/l	U	001-004
Xylene (Total)	T54	AR	1	µg/l	U	001-004

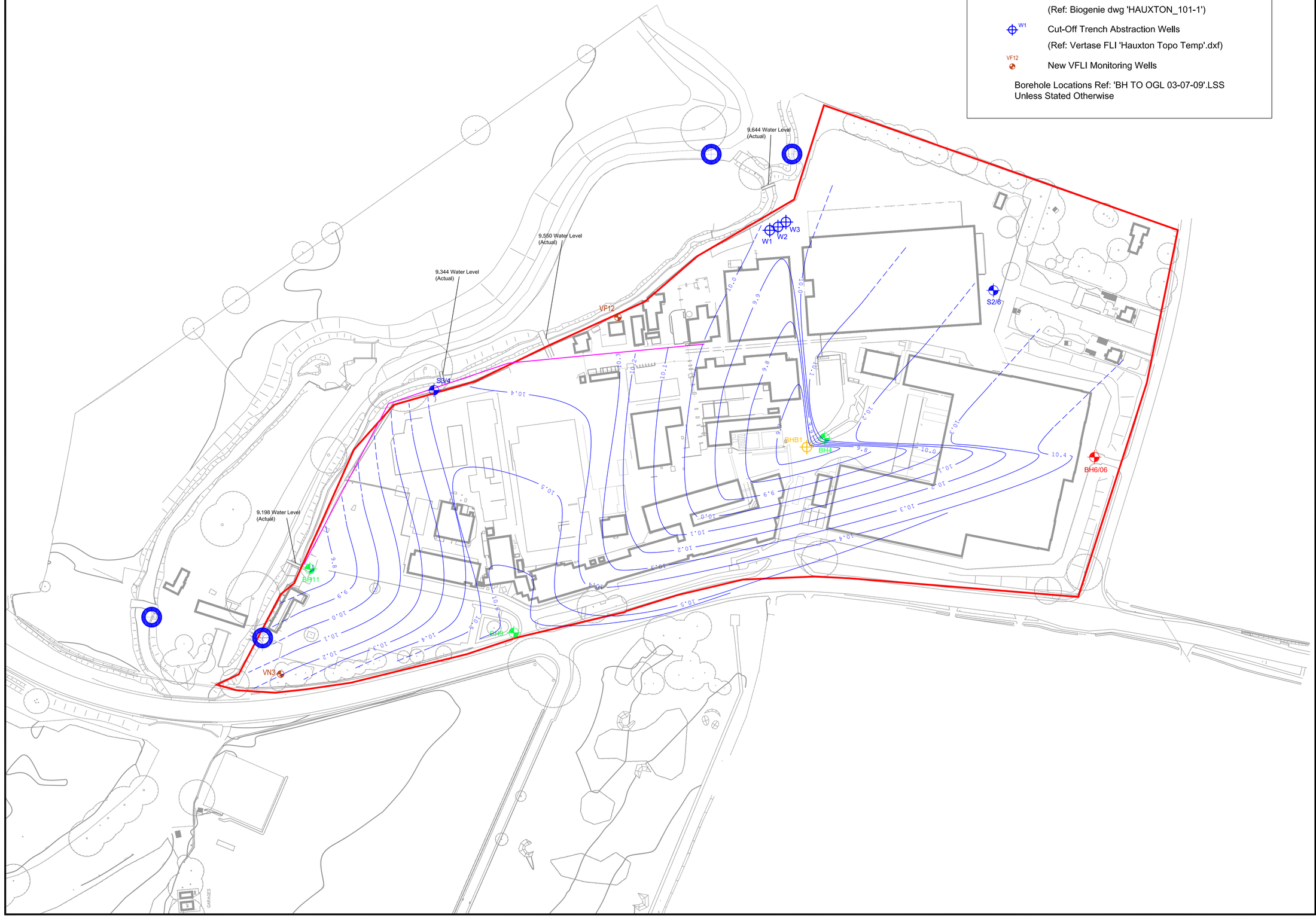
Appendix G
Groundwater Contour Plots

A1

Legend

- BH1/06 — Atkins Exploratory Hole Location
- BH7 P67 — Previous Borehole Location
- Water Sampling Location
- BHB1 — Biogenie Boreholes (Ref: Biogenie dwg 'HAUXTON_101-1')
- W1 — Cut-Off Trench Abstraction Wells (Ref: Vertase FLI 'Hauxton Topo Temp'.dxf)
- VF12 — New VFLI Monitoring Wells

Borehole Locations Ref: 'BH TO OGL 03-07-09'.LSS
Unless Stated Otherwise



Rev.	Description	Revised By	Date
	FIRST ISSUE		31-01-11

Vertase F.L.I.

- Bristol Head Office: Tel: 01275 397600 Fax: 01275 397601
- Sheffield Office: Tel: 01246 813289 Fax: 01246 812963
- Hertford Office: Tel: 01992 535757 Fax: 01992 535858
- Manchester Office: Tel: 01614 372708 Fax: 01614 376300

email: info@vertasefli.co.uk
www.vertasefli.com

Site Address:
Bayer Site
Hauxton
Cambridge

Rev:

Title: Ground Water Contours 06-01-11

Client: Harrow Estates

Drawn: MRG	Checked: MA	Approved: MA
Dwg: D907_138	Contract: 907 BRI	Scale: 1:1000

A1

Legend

- BH1/06 — Atkins Exploratory Hole Location
- BH7 P67 — Previous Borehole Location
- Water Sampling Location
- BHB1 — Biogenie Boreholes (Ref: Biogenie dwg 'HAUXTON_101-1')
- W1 — Cut-Off Trench Abstraction Wells (Ref: Vertase FLI 'Hauxton Topo Temp'.dxf)
- VF12 — New VFLI Monitoring Wells

Borehole Locations Ref: 'BH TO OGL 03-07-09'.LSS
Unless Stated Otherwise

11.609 Water Level (Actual)
11.160 Water Level (Actual)
11.094 Water Level (Actual)
10.789 Water Level (Actual)
W1 W2 W3
VF12
S3/4
S2/6
BH11
BH8
BHB1
BH4
BH6/06
VN3
GARAGES
12.5 12.6 12.7 12.5 12.4 12.6 12.3 12.2 11.3 11.4 11.5 11.6 11.7 11.8 11.9

Rev.	Description	Revised By	Date
	FIRST ISSUE		31-01-11

Vertase F.L.I.

- Bristol Head Office: Tel: 01275 397600 Fax: 01275 397601
- Sheffield Office: Tel: 01246 813289 Fax: 01246 812963
- Hertford Office: Tel: 01992 535757 Fax: 01992 535858
- Manchester Office: Tel: 01614 372708 Fax: 01614 376300

email: info@vertasefli.co.uk
www.vertasefli.com

Site Address:
Bayer Site
Hauxton
Cambridge

Rev:

Title: Ground Water Contours 13-01-11

Client: Harrow Estates

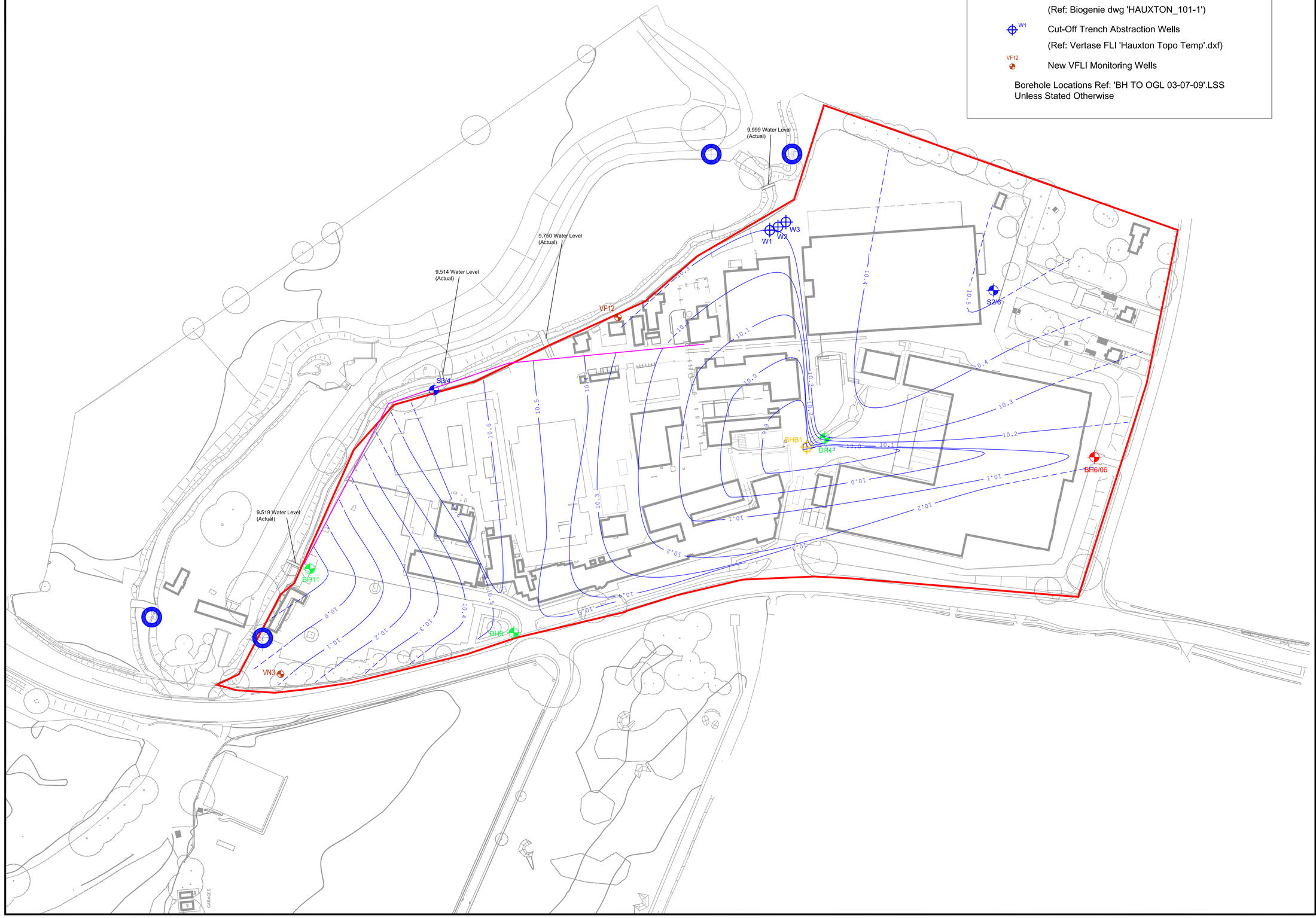
Drawn: MRG	Checked: MA	Approved: MA
Dwg: D907_139	Contract: 907 BRI	Scale: 1:1000

A1

Legend

- BH1/06 — Atkins Exploratory Hole Location
- BH7 P67 — Previous Borehole Location
- Water Sampling Location
- BHB1 — Biogenie Boreholes (Ref: Biogenie dwg 'HAUXTON_101-1')
- W1 — Cut-Off Trench Abstraction Wells (Ref: Vertase FLI 'Hauxton Topo Temp'.dxf)
- VF12 — New VFLI Monitoring Wells

Borehole Locations Ref: 'BH TO OGL 03-07-09'.LSS
Unless Stated Otherwise



Rev.	Description	Revised By	Date
	FIRST ISSUE		28-01-11

Vertase F.L.I.

- Bristol Head Office: Tel: 01275 397600 Fax: 01275 397601
- Sheffield Office: Tel: 01246 813289 Fax: 01246 812963
- Hertford Office: Tel: 01992 535757 Fax: 01992 535858
- Manchester Office: Tel: 01614 372708 Fax: 01614 376300

email: info@vertaseffli.co.uk
www.vertaseffli.com

Site Address:
Bayer Site
Hauxton
Cambridge

Rev:

Title: Ground Water Contours 18-01-11

Client: Harrow Estates

Drawn: MRG	Checked: MA	Approved: MA
Dwg: D907_140	Contract: 907 BRI	Scale: 1:1000

A1

Legend

- BH1/06 — Atkins Exploratory Hole Location
- BH7 P67 — Previous Borehole Location
- Water Sampling Location
- BHB1 — Biogenie Boreholes (Ref: Biogenie dwg 'HAUXTON_101-1')
- W1 — Cut-Off Trench Abstraction Wells (Ref: Vertase FLI 'Hauxton Topo Temp'.dxf)
- VF12 — New VFLI Monitoring Wells

Borehole Locations Ref: 'BH TO OGL 03-07-09'.LSS
Unless Stated Otherwise

9.638 Water Level (Actual)
9.550 Water Level (Actual)
9.324 Water Level (Actual)
9.198 Water Level (Actual)
W1 W2 W3
VF12
S2/6
S3/4
BH11
BH9
VN3
BHB1
BH4
BH6/06
GARAGES

Rev.	Description	Revised By	Date
	FIRST ISSUE		28-01-11

Vertase F.L.I.

- Bristol Head Office: Tel: 01275 397600 Fax: 01275 397601
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Site Address:
Bayer Site
Hauxton
Cambridge

Rev:

Title: Ground Water Contours 27-01-11

Client: Harrow Estates

Drawn: MRG	Checked: MA	Approved: MA
Dwg: D907_141	Contract: 907 BRI	Scale: 1:1000

Appendix H

Waste Water Treatment Plant Discharge Analysis

Water Quality Analysis of Effluent Discharge Sample

				Bromide	Chloride	Sulphate Ion	Suspended Solids (Total)	Ammoniacal Nitrogen	Biochemical Oxygen Demand	pH	Atrazine	Trietazine	Simazine	Total Atrazine, Trietazine and Simazine	Benazolin	2,3,6-TBA	Dicamba	Hempa	Schradan
Sample Taken	Report Date	Report Number	Sample Location	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		µg/l	µg/l	µg/l	ug/l	µg/l	µg/l	µg/l	µg/l	µg/l
Consented Levels				*50*	*3000*	*5000*	*45*	*15*	*30*	*na*	*Total of all three*			*250*	*50*	*20*	*50*	*274*	*135*
01/03/2010	17/03/2010	193447	Discharge Point	0.30	84.00	150.00	<10	<0.05	<3	8.4	<0.02	0.07	<0.01	0.07	<0.1	0.40	<0.1	<0.1	<0.1
30/03/2010	09/04/2010	195429	Discharge Point	0.40	110.00	180.00	<10	<0.05	<3	8.7	<0.01	<0.01	<0.01	0.00	<0.1	0.30	<0.1	0.40	<0.1
08/04/2010	13/04/2010	196139	T99 Circ	<1.0	110.00	190.00	<10	<0.05	<3	8.0	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	2.90	0.40
10/04/2010	19/04/2010	196379	T100 Circ	<1.0	110.00	190.00	<10	0.05	<3	7.9	<0.01	0.01	<0.01	0.01	<0.1	<0.1	<0.1	0.90	0.30
12/04/2010	21/04/2010	196517	T100 Circ	<1.0	1100.00	200.00	<10	<0.05	<3	8.2	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	1.50	<0.1
28/04/2010	19/05/2010	199291	Discharge Point	<1.0	130.00	200.00	<10	<0.05	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	5.10	1.50
07/05/2010	17/05/2010	199176	T99 Discharge	<1.0	110.00	200.00	<10	<0.05	6.6	8.2	<0.01	<0.01	<0.01	0.00	<0.2	3.00	<0.2	3.30	0.60
18/05/2010	01/06/2010	200382	Discharge Point	<1.0	180.00	280.00	<10	0.09	<3	8.0	<0.01	0.01	<0.01	0.01	0.60	5.20	0.20	6.30	3.80
28/05/2010	17/06/2010	201487	Discharge Point	<1.0	130.00	210.00	<10	<0.05	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	1.30	<0.1	4.30	1.10
15/06/2010	28/06/2010	203351	WTW Discharge	2.7	240.00	320.00	<10	0.05	<3	8.1	<0.01	0.02	<0.01	0.02	<0.1	2.40	0.2	4.10	1.00
01/07/2010	19/07/2010	205613	WWTW Discharge	3.3	290.00	370.00	13	0.07	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	0.40	<0.1	<0.1	<0.1
05/08/2010	16/08/2010	208693	WWTW Discharge	<1.0	160.00	300.00	<10	<0.05	<3	8.0	0.02	0.09	0.02	0.13	<0.5	0.40	<0.1	<0.1	<0.1
19/08/2010	26/08/2010	209961	WWTW Discharge	<0.1	160.00	260.00	<10	<0.05	<3	7.7	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	<0.1	<0.1
01/09/2010	09/09/2010	211356	WWTW Discharge	2.6	180.00	280.00	<10	<0.05	5	8.1	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	2.9	<0.1
16/09/2010	29/09/2010	212901	WWTW Discharge	<0.1	86.00	170.00	<10	0.08	<3	7.9	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	24	3.5
24/09/2010	04/10/2010	213745	WWTW Discharge	<0.1	160.00	340.00	35	<0.05	<3	8.0	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	24	0.6
08/10/2010	21/10/2010	215625	WWTW Discharge	<0.1	150.00	270.00	<10	<0.05	<3	8.2	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	52	2.2
21/10/2010	01/11/2010	216826	WWTW Discharge	<0.1	200.00	240.00	11	<0.05	<3	7.7	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	24	9.4
10/11/2010	22/11/2010	218850	WWTW Discharge	<0.1	81.00	120.00	<10	<0.05	<3	8.1	<0.01	0.03	<0.01	0.03	<0.1	0.7	<0.1	15	6.2
16/11/2010	23/11/2010	219447	WWTW Discharge	<0.1	150.00	160.00	<10	<0.05	<3	8.0	<0.01	<0.01	<0.01	0.00	<0.1	0.9	0.1	14	24
09/12/2010	23/12/2010	222558	WWTW Discharge	<0.2	64.00	120.00	<10	0.73	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	2.9	0.3	10	5.1
22/12/2010	13/01/2011	223307	WWTW Discharge	<0.1	66.00	100.00	<10	<0.05	<3	8.0	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	11	8.5
13/01/2011	25/01/2011	224623	WWTW Discharge	<0.2	92.00	140.00	<10	0.38	<3	7.6	<0.01	0.05	<0.01	0.05	<0.1	<0.1	0.1	15	6.5

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Scientific Analysis Laboratories

Certificate of Analysis

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Report Number: 224623-1

Date of Report: 25-Jan-2011

Customer: VertaseFLI Limited
19 Napier Court
Barlborough Links
Barlborough
S43 4PZ

Customer Contact: The Project Management

Customer Job Reference: 907BRI WWTW
Customer Purchase Order: 907BRI WWTW
Date Job Received at SAL: 14-Jan-2011
Date Analysis Started: 14-Jan-2011
Date Analysis Completed: 25-Jan-2011

The results reported relate to samples received in the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

Tests covered by this certificate were conducted in accordance with SAL SOPs

UKAS TESTING
1549

Report checked and authorised by :
Amelia McVennon
Project Manager

Issued by :
Amelia McVennon
Project Manager

SAL Reference: 224623
Customer Reference: 907BRI WWTW

Water Analysed as Water
Miscellaneous

	SAL Reference	224623 001	224623 002
	Customer Sample Reference	WWTW DISCHARGE	WWTW PRIMARY B

Determinand	Method	Test Sample	LOD	Units		
Ammoniacal nitrogen	T4	AR	50	µg/l	**380**	**220**
Biochemical Oxygen Demand	T7	AR	3000	µg/l	<3000	<3000
pH	T7	AR			**7.6**	**7.7**

SAL Reference: 224623
Customer Reference: 907BRI WWTW

Water Analysed as Water
Suite A

	SAL Reference	224623 001	224623 002
	Customer Sample Reference	WWTW DISCHARGE	WWTW PRIMARY B

Determinand	Method	Test Sample	LOD	Units		
Atrazine	T16	AR	0.01	µg/l	<0.01	**2.3**
Trietazine	T16	AR	0.01	µg/l	**0.05**	**2.5**

SAL Reference: 224623
Customer Reference: 907BRI WWTW

Water Analysed as Water
Suite B

	SAL Reference	224623 001	224623 002
	Customer Sample Reference	WWTW DISCHARGE	WWTW PRIMARY B

Determinand	Method	Test Sample	LOD	Units		
Benazolin	T16	AR	0.1	µg/l	<0.1	<0.1
2,3,6-TCB	T16	AR	0.1	µg/l	<0.1	<0.1

SAL Reference: 224623
Customer Reference: 907BRI WWTW

Water Analysed as Water
Suite C

	SAL Reference	224623 001	224623 002
	Customer Sample Reference	WWTW DISCHARGE	WWTW PRIMARY B

Determinand	Method	Test Sample	LOD	Units		
Bromide	T253	AR	100	µg/l	<200	**300**
Chloride	T253	AR	200	µg/l	**92000**	**92000**
Sulphate ion	T253	AR	100	µg/l	**140000**	**140000**
Suspended Solids (Total)	T2	AR	10000	µg/l	<10000	<10000

SAL Reference: 224623
Customer Reference: 907BRI WWTW

Water Analysed as Water
Suite D

	SAL Reference	224623 001	224623 002
	Customer Sample Reference	WWTW DISCHARGE	WWTW PRIMARY B

Determinand	Method	Test Sample	LOD	Units		
Dicamba	T16	AR	0.1	µg/l	**0.1**	**3.1**
Hempa	T16	AR	0.1	µg/l	**15**	**9.7**
Schradan	T16	AR	0.1	µg/l	**6.5**	**3.3**
Simazine	T16	AR	0.01	µg/l	<0.01	**0.63**

SAL Reference: 224623
Customer Reference: 907BRI WWTW

Water Analysed as Water
Suite E

	SAL Reference	224623 001	224623 002
	Customer Sample Reference	WWTW DISCHARGE	WWTW PRIMARY B

Determinand	Method	Test Sample	LOD	Units		
TVC at 22 C after 3 days	T34	AR	10	cfu/ml	**42000**	**42000**
TVC at 37°C after 2 days	T34	AR	10	cfu/ml	**3000**	**4000**

Index to symbols used in 224623-1

Value	Description
AR	As Received
W	Analysis was performed at another SAL laboratory
S	Analysis was subcontracted
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T7	Probe
T16	GC/MS
T253	IC(EID299)
T4	Colorimetry
T2	Grav
T34	Micro

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Ammoniacal nitrogen	T4	AR	50	µg/l	U	001-002
Biochemical Oxygen Demand	T7	AR	3000	µg/l	N	001-002
pH	T7	AR			U	001-002
Atrazine	T16	AR	0.01	µg/l	N	001-002
Trietazine	T16	AR	0.01	µg/l	N	001-002
Benazolin	T16	AR	0.1	µg/l	N	001-002
2,3,6-TCB	T16	AR	0.1	µg/l	N	001-002
Bromide	T253	AR	100	µg/l	WU	001-002
Chloride	T253	AR	200	µg/l	WU	001-002
Sulphate ion	T253	AR	100	µg/l	WU	001-002
Suspended Solids (Total)	T2	AR	10000	µg/l	WN	001-002
Dicamba	T16	AR	0.1	µg/l	N	001-002
Hempa	T16	AR	0.1	µg/l	N	001-002
Schradan	T16	AR	0.1	µg/l	N	001-002
Simazine	T16	AR	0.01	µg/l	N	001-002
TVC at 22 C after 3 days	T34	AR	10	cfu/ml	SN	001-002
TVC at 37°C after 2 days	T34	AR	10	cfu/ml	SN	001-002

Appendix I
Soil Characterisation Results Summary

Results Received	Reported to SCDC	Grid square	Contaminant	Concentration (µg/kg)	Likely use/origin
12.04.2010	06.05.2010	K15	VOC/SVOC peaks detected		
12.04.2010	06.05.2010	K16	Series of Aromatic Hydrocarbons circa C_{13}-C_{16}	17,000	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
15.04.2010	06.05.2010 (09.06.2010)	J16	2(1-methylpropyl)-phenol	10,000	Encountered and assessed during site investigation, not a priority contaminant
			2,6-bis(1-methylpropyl)-phenol	100,000	Commonly used in the manufacture of specialty surfactants used as wetting agents for agrochemicals.
			2,6-bis(1,1-dimethylethyl)-4-(1-methylpropyl)-phenol	6,000	Commonly used as an antioxidant and stabiliser, also used in oils used in industrial applications.
			Unidentified branched aromatic alcohol, C_{14}	240,000	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by
			Unidentified branched aromatic alcohol, C_{18}	290,000	
15.04.2010	06.05.2010	K14	Phenanthrene	4,100	Encountered and assessed during site investigation, concentration below target value
			Fluoranthene	4,800	
			Pyrene	3,900	
			Benzo(b/k)Fluoranthene	2,200	
07.05.2010	24.05.2010	K9	Dodecanoic acid (Lauric acid), isooctyl ester	2,400	Lauric acid - main acid in coconut oil and palm kernel oil, is non-toxic and safe to handle, is used in many soaps, shampoos and body butters.
			Unidentified Aliphatic Hydrocarbon circa C_{30}	2,300	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
07.05.2010	24.05.2010 (09.06.2010)	L8	2,4-Dichloro-o-cresol	9,000	Potential herbicide degradation product
			Bis(2-ethylhexyl) maleate	3,800	Commonly used as an intermediate in hydrogenation or acetylation reactions, possibly used in agrochemicals manufacture
			Cyclo octaatomic sulphur	2,800	S_8 is the most common form of sulphur in the solid state, widely used in insecticide and fungicide manufacture
			Dodecanoic acid (Lauric acid), isooctyl ester	7,400	Lauric acid - main acid in coconut oil and palm kernel oil, is non-toxic and safe to handle, is used in many soaps, shampoos and body butters.

			Unidentified aromatic hydrocarbon containing O and Cl circa C_7	8,400	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
07.05.2010	24.05.2010	L9	Unidentified Aliphatic Hydrocarbon circa C_{30}	2,300	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
13.05.2010	24.05.2010	H8	No VOC/SVOC peaks detected		
13.05.2010	24.05.2010 (09.06.2010)	H9	1,2-bis(2,4,6-trichlorophenoxy)ethane	6,900	Potential Prochloraz degradation product
			Prochloraz	9,100	Fungicide
			Unidentified aromatic hydrocarbon containing Cl circa C_8	9,400	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
			Unidentified aromatic amine containing Cl circa C_{11}	2,100	
13.05.2010	24.05.2010	I7	No SVOC peaks detected		
13.05.2010	24.05.2010 (09.06.2010)	I9	2,4-Dichloro-o-cresol	29,000	Potential herbicide degradation product
			2,3,6-Trichlorotoluene	47,000	
			1-(2-Chloroethoxy)-2-(o-Tolyloxy)-ethane	20,000	
			Unidentified aromatic alcohol containing Cl circa C_7	25,000	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
			Unidentified aromatic hydrocarbon containing O circa C_{16-18}	12,000	
13.05.2010	24.05.2010	J7	No VOC/SVOC peaks detected		
20.05.2010	24.05.2010	J8	No VOC/SVOC peaks detected		
26.05.2010		J9	No VOC/SVOC peaks detected		
04.06.2010	16.06.2010 (09.06.2010)	H7	Dichloromethyl phenol	2,100	Same as 2,4-Dichloro-o-cresol (I9)
05.05.2010	16.06.2010 (09.06.2010)	K7	1,2-bis(2,4,6-trichlorophenoxy)ethane	2400.0	As for H9
05.05.2010	16.06.2010	K8	No VOC/SVOC peaks detected		
18.06.2010	29.06.2010	I8	2-methyl phenol	5,500	Encountered and assessed during site investigation, not a priority contaminant
			1,2-dichlorobenzene	3,600	Contaminant of concern, already included in the standard validation suite
17.06.2010	29.06.2010 (09.06.2010)	K10	2,4-Dichloro-o-cresol	550,000	As for I9 and H7
22.06.2010		L10	Cyclo octaatomic sulphur	16,000	As for L8 - Sulphur
			Dichloromethyl phenol	1,800,000	As for 2,4-Dichloro-o-cresol (I9, H7, K10)
			Naphthalene	4,600,000	Encountered and assessed during site investigation, not a priority contaminant
			2-methylnaphthalene	3,900,000	

20.07.2010	21.07.2010	K10 NAPL	1-methylnaphthalene *CAS 90-12-0*	2,400,000	More toxic than 2-methylnaphthalene, must be assessed separately
			Dinoseb *CAS 88-85-7*	68,000,000	2-(1-methylpropyl)-4,6-dinitro- phenol - herbicide and insecticide. Yellow crystalline solid.
21.07.2010	22.07.2010	J10	Dichloromethyl phenol	24,000	As for 2,4-Dichloro-o-cresol (I9, H7, K10)
			1-(2-Chloroethoxy)-2-(o-Tolyloxy)-ethane *CAS 21120-80-9*	13,000	Same as I9
			1,2,4-Trichlorobenzene	28,000	Encountered and assessed during site investigation, not a priority contaminant
			Trichlorobenzene	32,000	
			2-Chlorotoluene	60,000	
			Trichloro toluene isomer	48,000	Same as I9
			Trichloro benzenamine isomer	11,000	Potential herbicide degradation product
			2,3-Dichlorotoluene *CAS 32768-54-0*	290,000	
21.07.2010	22.07.2010	L11	Dichloromethyl phenol	5,000	As for 2,4-Dichloro-o-cresol (I9, H7, K10, J10)
28.07.2010	02.08.2010	H10	2,4-Dichloro-o-cresol *CAS 1570-65-6*	10,000	As for I9, H7, K10, J10, L11
			Trichloro toluene isomers	58,000	Same as I9, J10
			Dichlorotoluene isomer	52,000	6 possible isomers, but very little data, using surrogate.
			2-Chlorotoluene	39,000	Encountered and assessed during site investigation, not a priority contaminant
			Trichlorobenzene	350,000	
28.07.2010	02.08.2010	I10	2,4-Dichloro-o-cresol *CAS 1570-65-6*	5,000	As for I9, H7, K10, J10, L11, H10
			Trichloro toluene isomers	24,000	Same as I9, J10, H10
03.08.2010	04.08.2010	L12	2,4-Dichloro-o-cresol *CAS 1570-65-6*	7,000	As for I9, H7, K10, J10, L11, H10, I10
03.08.2010	04.08.2010	L13	No VOC/SVOC peaks detected		
03.08.2010	04.08.2010	K12	2,4-Dichloro-o-cresol *CAS 1570-65-6*	7,000	As for I9, H7, K10, J10, L11, H10, I10, L12
03.08.2010	04.08.2010	K13 sand & gravel	Cyclo octaatomic sulphur	68,000	As for L8, L10 - Sulphur
05.08.2010	N/A	K13 chalk	2,4-Dichloro-o-cresol CAS 1570-65-6	650,000	As for I9, H7, K10, J10, L11, H10, I10, L12, K12
			Trichloro toluene isomers	1,140,000	Same as I9, J10, H10, I10
			1-(2-Chloroethoxy)-2-(o-Tolyloxy)-ethane CAS 21120-80-9	140,000	Same as I9 and J10
			Dichlorotoluene isomer	99,000	Same as J10, H10
			2-Chlorotoluene	12,000	Encountered and assessed during site investigation, not a priority contaminant
05.08.2010	N/A	K11	2,4-Dichloro-o-cresol CAS 1570-65-6	22,000	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13
05.08.2010	N/A	J11	2,4-Dichloro-o-cresol CAS 1570-65-6	220,000	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13
			Trichloro toluene isomers	376,000	Same as I9, J10, H10, I10, K13

			Dinoseb CAS 88-85-7	90,000	Same as K10
			Dichlorotoluene isomer	18,000	Same as H10, K13
			2-Chlorotoluene	13,000	Encountered and assessed during site investigation, not a priority contaminant
12.08.2010	17.08.2010	J12	2-chloro Benzenemethanol CAS 17849-38-6	620	Potential agrochemical synthesis ingredient - further investigation is required
			2-Chlorobenzalazine CAS 5328-80-3	5,900	
			2,4-Dichloro-o-cresol CAS 1570-65-6	2,000	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11
			2(1-methylpropyl)-phenol	610	Encountered and assessed during site investigation, not a priority contaminant
12.08.2010	N/A	J13	2,4-Dichloro-o-cresol CAS 1570-65-6	3,400	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12
24.08.2010	25.08.2010	J14	Total Petroleum Hydrocarbons (C5-C12)	43,000	Encountered and assessed during site investigation, not a priority contaminant
			1,3,5-Trimethylbenzene CAS 108-67-8	1,600	Encountered and assessed during site investigation, not a priority contaminant
			1,2,4-Trimethylbenzene CAS 95-63-6	600	
			1,2,3-Trimethylbenzene CAS 526-73-8	700	Isomers encountered and assessed during site investigation, quantitative risk assessment not required
			1-Ethyl-2-Methylbenzene CAS 611-14-3	500	Potential agrochemical synthesis ingredient - further investigation is required
25.08.2010	N/A	I13	1-methylnaphthalene CAS 90-12-0	100	Same as K10NAPL
			Phenanthrene	200	Encountered and assessed during site investigation, not a priority contaminant
			Fluoranthene	300	
			Pyrene	300	
			Benzo(b/k)Fluoranthene	200	
01.09.2010	N/A	I14	Trichloro methyl benzene (trichloro toluene)	400	Same as I9, J10, H10, I10, K13, J11
01.09.2010	N/A	I15	Dichlorocresol	2600	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12
			Dichlorophenoxybutyric acid	6300	Herbicide encountered and assessed during site investigation, similar to MCPA and Mecoprop which are higher risk substances, therefore not a priority contaminant
01.09.2010	N/A	H14	No VOC/SVOC peaks detected		
01.09.2010	N/A	H15	No VOC/SVOC peaks detected		
03.09.2010	N/A	I11	Dichlorocresol	3,300	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15
			Trichloro methyl benzene (trichloro toluene)	1,000	Same as I9, J10, H10, I10, K13, J11, I14
			Prochloraz CAS 67747-09-5	800	Same as H9
03.09.2010	N/A	I12	1-methylnaphthalene CAS 90-12-0	40,000	Same as K10NAPL, I13

			Dibenzofuran	24,000	Encountered and assessed during site investigation, not a priority contaminant
			Phenanthrene	60,000	
			Fluoranthene	29,000	
			Acenaphthene	31,000	
24.09.2010	N/A	J15	Methylpropyl phenol	340	Encountered and assessed during site investigation, not a priority contaminant
24.09.2010	28.09.2010	H13	Oxathiane 4,4-dioxide CAS 107-61-9	220	
	N/A		Trichloro methyl benzene (trichloro toluene)	230	Same as I9, J10, H10, I10, K13, J11, I14, I11
			Dichloromethylphenol	2100	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11
			1-(2-Chloroethoxy)-2-(o-Tolyloxy)-ethane CAS 21120-80-9	470	Same as I9, J10, K13
01.10.2010	N/A	H11	No VOC/SVOC peaks detected		
01.10.2010	05.10.2010	H12	Indane CAS 496-11-7	3700000	2-ring hydrocarbon
	N/A		Ethyltoluene (ethyl methyl benzene) isomer	4500000	As J14
			Bis methylpropyl phenol isomer	980000	As J16
			1,3,5-Trimethylbenzene	3900000	Encountered and assessed during site investigation, not a priority contaminant
			1,2,4-Trimethylbenzene	10000000	
			1,2,3-Trimethylbenzene	3100000	
22.10.2010 (216017)	25.10.2010	G12	Nicotine	6400	Natural insecticide
	N/A		Dichloromethyl phenol	2900	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11, H13
			Methylpropyl phenol	9400	Encountered and assessed during site investigation, not a priority contaminant
			Schradan	1200	Contaminant of concern, already included in the standard validation suite
22.10.2010 (216017)	N/A	G13	1-methylnaphthalene CAS 90-12-0	170	Same as K10NAPL, I13, I12
			Isophorone CAS 78-59-1	530	Encountered and assessed during site investigation, not a priority contaminant
			Naphthalene	690	
			2-methylnaphthalene	270	
			Phenanthrene	410	
			Fluoranthene	380	
			Pyrene	310	
22.10.2010 (216017)	N/A	G14	No VOC/SVOC peaks detected		
29.10.2010 (216821)	N/A	H17	No VOC/SVOC peaks detected		
29.10.2010 (216821)	N/A	G17	No VOC/SVOC peaks detected		
01.11.2010 (216817)	30.11.2010	G10	Dibromochloromethane CAS 124-48-1	300	Risk Assessment
	N/A		Dichloromethyl phenol	1300	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11, H13, G12

			Isophorone	7100	Encountered and assessed during site investigation, not a priority contaminant
			Benzyl Chloride (1-chloro-2-methylbenzene CAS 95-49-8)	200	
			Methylpropyl phenol	7100	
			3,3,5-trimethyl cyclohexanone	700	
01.11.2010 (216817)	N/A	G11	Dichloromethyl phenol	2300	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11, H13, G12, G10
			Trichloro methyl benzene (trichloro toluene)	2400	Same as I9, J10, H10, I10, K13, J11, I14, I11, H13
			1-Methyl naphthalene	760	Same as K10NAPL, I13, I12, G13
			2-methyl phenol	800	Encountered and assessed during site investigation, not a priority contaminant
			Methylpropyl phenol	22000	
			2-Methylnaphthalene	1500	
			2,4,5-Trichlorophenol	360	
			Chloroform	500	
			1,2-dibromoethane	700	
			EthylBenzene	1800	
			1,4-Dichlorobenzene	700	
			1,2,3-Trichlorobenzene	2000	
01.11.2010 (216817)	30.11.2010	G15	Ethyl methyl phenol	18000	Risk Assessment
			Dimethyl naphthalene	59000	Risk Assessment
	N/A		Dichloromethyl phenol	2400	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11, H13, G12, G10, G11
			1-Methyl naphthalene	26000	Same as K10NAPL, I13, I12, G13
			1-ethyl-3-methyl benzene (ethyl toluene)	600	As J14, H12
			Ethyltoluene	300	
			Isophorone	37000	Encountered and assessed during site investigation, not a priority contaminant
			Naphthalene	43000	
			Methylpropyl phenol	30000	
			2-Methylnaphthalene	21000	
			Phenanthrene	110000	
			Fluoranthene	69000	
			1,3,5-Trimethylbenzene	900	
			1,2,4-Trimethylbenzene	1600	
			1,2,3-Trimethylbenzene	400	
08.11.2010 (217789)	N/A	M7	No VOC/SVOC peaks detected		
08.11.2010 (217789)	N/A	M8	2-methyl phenol	11,000	Encountered and assessed during site investigation, not a priority contaminant
08.11.2010 (217793)	N/A	M6	No VOC/SVOC peaks detected		
08.11.2010 (217793)	N/A	N6	No VOC/SVOC peaks detected		
08.11.2010 (217795)	N/A	L5	No VOC/SVOC peaks detected		
08.11.2010 (217795)	N/A	M4	No VOC/SVOC peaks detected		

08.11.2010 (217797)	N/A	M5	No VOC/SVOC peaks detected		
08.11.2010 (217797)	N/A	N4	No VOC/SVOC peaks detected		
08.11.2010 (217797)	N/A	N5	No VOC/SVOC peaks detected		
08.11.2010 (217800)	N/A	M9	No VOC/SVOC peaks detected		
18.11.2010 (218834)	N/A	I6	No VOC/SVOC peaks detected		
23.11.2010 (219458)	N/A	L4	No VOC/SVOC peaks detected		
23.11.2010 (219456)	N/A	N3	No VOC/SVOC peaks detected		
20.01.2011 (224432)	N/A	F11	No VOC/SVOC peaks detected		
20.01.2011 (224432)	N/A	F12	No VOC/SVOC peaks detected		
20.01.2011 (224432)	24.01.2011	F13	Total Petroleum Hydrocarbons (C8-C14)	16000	Controlled Waters risk assessment required, Human Health risk assessment previously actioned
20.01.2011 (224432)	24.01.2011	E12	Total Petroleum Hydrocarbons (C8-C14)	28000	Controlled Waters risk assessment required, Human Health risk assessment previously actioned
	N/A		1-Ethyl-2-Methylbenzene (o-ethyl toluene) CAS 611-14-3	300	As J14, H12, G15
			1,2,4-Trimethylbenzene	700	Encountered and assessed during site investigation, not a priority contaminant
20.01.2011 (224432)	24.01.2011	E13	DDD	4100	Pesticide Risk Assessment Required.
	N/A		m/p ethyl toluene	1200	Encountered and assessed during site investigation, not a priority contaminants
			m-ethyl toluene:1-ethyl-3-methylbenzene, CAS 620-14-4		
			p-ethyl toluene: 1-ethyl-4-methylbenzene, CAS 622-96-8		
	24.01.2011		Total Petroleum Hydrocarbons (C8-C13)	73000	Controlled Waters risk assessment required, Human Health risk assessment previously actioned
	N/A		2,6-bis(1-methylpropyl)-phenol	5000	As J16, H12
			DDT	3200	Encountered and assessed during site investigation, not a priority contaminant
			4-(1-methylpropyl)phenol	2700	
			2(1-methylpropyl)-phenol	12000	
			1,2,3-trimethylbenzene	600	
			1,3,5-trimethylbenzene	1700	
			1,2,4-trimethylbenzene	3000	
			p-Isopropyltoluene	400	