CAPITA

Radlett Strategic Rail Freight Interchange

Area 2

Addendum to Controlled Water Detailed Quantitative Risk Assessment

October 2017

Quality Management

Job No	CS/070751		
Project	Radlett Strategic Rail Freight Interchange – Area 2		
Location	North Orbital Road, Upper Colne Valley, Hertfordshire		
Title	Addendum to Controlled Water Detailed Quantitative Risk Assessment		
Client	Helioslough		
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Prepared by	Nicky Robinson	Signature (for file)	pp 
Reviewed by	Paul Edwards	Signature (for file)	
Authorised by	Neil Greenwood	Signature (for file)	

Revision Status / History

Rev	Date	Issue / Purpose/ Comment	Prepared	Reviewed	Authorised
-	20/10/17	-	NR	PE	NG

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Appendices

1. Introduction

1.1 Requirement

1.1.1 Helioslough Ltd (the Client) commissioned Capita Property and Infrastructure (Capita) to undertake a Controlled Waters Detailed Quantitative Risk Assessment (CWDQRA) for Area 2 of land in and around the former aerodrome, to the north of Radlett, Hertfordshire, hereafter referred to as the Site. A location plan is provided in Appendix A. The Site is proposed for redevelopment to a Strategic Rail Freight Interchange (SRFI), with a dog leg rail chord branching off from the adjacent Midland Mainline. An architect's drawing provided in Appendix A presents the proposed development plans as provided to Capita. The SRFI scheme is split into areas numbered 1 to 8, with the built development proposed at Areas 1 and 2 as shown in Figure 1, and country park enhancements at Areas 3 to 8. This CWDQRA concerns Area 2 only.

1.1.2 The DQRA was produced to respond to a request from Theresa Cory, Environment Agency (the Agency) Groundwater Officer made in a meeting of 26 July 2016. This addendum to the original DQRA was produced as a result of comments from the Environment Agency with respect to some of the input parameters used.

1.2 Background and Objectives

1.2.1 The objectives of this CWDQRA are to determine to what extent chemical substances identified on the Site may impact controlled waters receptors. It also predicts if these impacts will vary when the landfilled area is surcharged by earth mounds and what beneficial effects may result from reducing rainwater infiltration rates which will be a consequence of capping with raised mounds and an associated run-off water collection system.

1.2.2 Ground investigation works were undertaken at the Site by Capita in July and August 2016, comprising trial pits and exploratory boreholes. Data from this phase of works, supplemented by continuous groundwater level monitoring from 30 September to 28 October 2016, has been used to inform this report and provide a baseline for contaminant presence on the Site.

1.2.3 The Environment Agency provided comment on the August 2016 reports on 24 November 2016 in its capacity as a statutory consultee to the planning application for the development (Deborah Simons – Environment Agency to Ellie Dilks – St Albans District Council on 24th November 2016 EA Ref: NE/2016/125884/01-L01). This letter raised no objection to the reactive remedial strategy proposed in the reports for any newly found contamination and confirmed the requirement for groundwater monitoring and a verifications plan.

1.2.4 Prior to undertaking the original DQRA, Capita submitted two letters to the EA dated 7th October and 7th November 2016, setting out the proposed modelling approach and methodology. The Agency provided its response to the DQRA proposals in a letter of 30 December 2016 (Deborah Simons – Environment Agency to Ewan Parsons – Capita on 30 December 2016, EA Ref NE/2016/126049/0-L01). The Agency's comments were then addressed in the submitted DQRA (report reference: CS070751-CAP-00-XX-RP-Y-CWDQRA dated January 2017).

1.2.5 Additional comments and observations were received on 7th June 2017 (Deborah Simons - Environment Agency to Paul Edwards – Capita, EA Ref NE/2016/126049/03). A response to those observations was provided by Capita in a letter dated 14th June 2017 (Neil Greenwood – Capita to Deborah Simons – EA (Ref CS070751). This addendum report provides further clarity and commentary in respect of the Environment Agency's June 2017 observations.

1.3 Limitations

1.3.1 This report utilises ConSim 2.5 as the contaminant transport model. This model is industry standard to this type of work. Commenting on the assumptions or limitations of the modelling software is beyond the scope of this commission.

1.3.2 Site specific parameters were inferred from site works where possible. Where it was not possible to derive site specific parameters, referenced literature based sources were utilised to inform the model.

1.3.3 This report does not attempt to determine remedial targets for the Site. The scope of this report is to determine what impact the landfill source may have on proximal controlled waters receptors.

2. Changes to Original CW DQRA

2.1 Introduction

2.1.1 The design of the original controlled waters detailed quantitative risk assessment was to establish the impact of on-site soil concentrations on down gradient controlled waters receptors. Two key controlled waters receptors were identified;

- The down gradient River Colne.
- The down gradient groundwater abstraction point, believed to be related to a groundwater source protection zone (SPZ).

2.1.2 Modelling results have been screened against relevant Environment Quality Standards (EQS) and Drinking Water Standards (DWS), dependent on the receptor. DWS were used to screen the model results at the theoretical compliance point. Where there was not a relevant DWS for a contaminant, the EQS was used. EQS were used to screen the model results at the River Colne receptor point. Where there were no relevant EQS for a contaminant, the DWS was used.

2.1.3 The Ground Investigation, when supplemented by a second round of sampling/testing results, indicated that priority and priority hazardous substances (naphthalene, nickel, and anthracene) were present within the groundwater. It is not considered suitable to model these substances to the down gradient receptors, as their presence in the water environment should be reduced entirely. As such, these three contaminants have been simulated separately to the base of the unsaturated zone.

2.2 Model Parameters

2.2.1 In response to the Environment Agency comments the following parameters to the original DQRA model have been altered:

- Infiltration to the normal and squeezed models. A previous single value of 200 mm/year was used but based on Environment Agency data a range of values have now been entered as a triangular distribution with a minimum value of 200 mm/year, maximum value of 300 mm/year and a peak value of 284 mm/year.
- Thickness of the unsaturated zone. A previous single value of 5.19 m was used but a triangular distribution has now been entered with a minimum value of 2.8 m (BH52) and a maximum of 8.4 m (BH58) and a peak value of 4.85 m.

2.2.2 Additionally, retardation has been fully included in the transport of contaminants of concern (CoC) in the unsaturated and saturated zones. The partitional coefficients used within the modelling are included in Appendix B in the input parameter section. Priority and Priority Hazardous substances have been simulated to migrate to the base of the unsaturated zone only with no dilution within the aquifer.

Model Variants – Squeezing

2.2.3 Other than the changes mentioned in section 2.2 no additional changes were made in the squeezing model.

Model Variants – Capping

2.2.4 Other than the changes mentioned in section 2.2 no additional changes were made in the capping model.

Model Variants – Level 3a Modelling

2.2.5 Other than the changes mentioned in section 2.2 no additional changes were made in the Level 3a modelling.

3. Results

3.1 Regular Model

3.1.1 The 'regular infiltration' model was run over 1001 iterations, with concentrations modelled to the base of the unsaturated zone, the downstream theoretical compliance point and to the River Colne. Retardation and biodegradation was included, with biodegradation in the dissolved phase only.

3.1.2 The results of the modelling as output from the software are presented in full in Appendix B. It is considered suitable to analyse the 95th percentile (that is, the value for which 95% of the calculated concentrations will be below) results of the modelling, at both receptors.

3.1.3 Table 3-1 presents a summary of the Priority and Priority Hazardous substances calculated at the base of the unsaturated zone.

Table 3-1: 95th Percentile Calculated Concentrations for the Base of Unsaturated Zone

Contaminant	DWS (mg/l)	EQS (mg/l)	Calculated Concentration (mg/l) at Time slice (year)				No. > DWS *	No. > EQS *
			10(yr)	50(yr)	100(yr)	1000(yr)		
Naphthalene	N/A	0.002	0.000000	0.000000	0.000000	0.113582	-	1
Nickel	0.02	0.004	0.000000	0.000000	0.000000	0.000000	0	0
Anthracene	N/A	0.0001	0.000000	0.000000	0.000000	0.000000	-	0

* - Number above Drinking Water Standards and Environment Quality Standards columns relates to number of instances where the concentration was calculated above the standard at a specific time slice in the table. This analysis is used in all following tables.

3.1.4 It is noted from Table 3-1 that naphthalene, which is one of the Priority Hazardous and Priority Substances identified as a CoC for the Site, is found at concentrations greater than the EQS at the base of the unsaturated zone. To put the simulated concentrations into context, the maximum concentration of naphthalene detected in the Kesgrave Catchment subgroup was in BH52 at 13.3 μg/l. The maximum concentration in the Chalk was 2.38 μg/l in BH54, only slightly above the EQS of 2 μg/l.

3.1.5 It is noted that steps should be taken to reduce the migration of this substance to the groundwater.

3.1.6 Table 3-2 presents a summary of the CoC concentrations calculated at the downstream compliance point receptor.

Table 3-2: 95th Percentile Calculated Concentrations for the Groundwater Compliance Receptor

Contaminant	DWS (mg/l)	EQS (mg/l)	Calculated Concentration (mg/l) at Time slice (year)				No. > DWS*	No. > EQS*
			10(yr)	50(yr)	100(yr)	1000(yr)		
Boron	1	0.75	0.518473	0.0171823	4.8806E-005	0.00000	0	0
Copper	2	0.001	0.00000	0.00000	0.00000	0.00000	0	0
Zinc	N/A	0.0109	0.00000	0.00000	0.00000	0.00000	-	0
Fluoranthene	N/A	6.3E-6	0.00000	0.00000	0.00000	0.00000	-	0
TPH-CWG - Aromatic >C10-C12	0.01	N/A	0.00000	0.00000	0.00000	0.0095346	0	-
TPH-CWG - Aromatic >C12-C16	0.01	N/A	0.00000	0.00000	0.00000	0.00000	0	-
Ammoniacal Nitrogen as N	0.5	0.3	8.27808E-010	10.4132	54.5581	89.2671	3	3
Nitrite as N	0.5	N/A	0.00031	0.143967	0.167487	0.181078	0	-

3.1.7 Table 3-2 shows the calculated concentrations of the CoC at the downstream compliance point. These results are from the soils source and the Level 3a models. The concentrations at this receptor are assessed against DWS (where available, or the EQS in lieu of DWS).

3.1.8 It is noted from the table that only concentrations of ammoniacal nitrogen are above the relevant DWS. To put the simulated concentrations into context the highest concentration detected in the Chalk was in BH58 at 120 mg/l with an average concentration from the monitoring wells screened in the Chalk of 24 mg/l.

3.1.9 Table 3-3 presents a summary of the CoC concentrations calculated at the River Colne receptor.

Table 3-3: 95th Percentile Calculated Concentrations for the River Colne Receptor

Contaminant	DWS (mg/l)	EQS (mg/l)	Calculated Concentration (mg/l) at Time slice (year)				No. > DWS*	No. > EQS*
			10(yr)	50(yr)	100(yr)	1000(yr)		
Boron	1	0.75	0.298447	0.0172616	4.47341E-005	0.00000	0	0
Copper	2	0.001	0.00000	0.00000	0.00000	0.00000	0	0
Zinc	N/A	0.0109	0.00000	0.00000	0.00000	0.00000	-	0
Fluoranthene	N/A	6.3E-6	0.00000	0.00000	0.00000	0.00000	-	0
TPH-CWG - Aromatic >C10-C12	0.01	N/A	0.00000	0.00000	0.00000	0.004496	0	-
TPH-CWG – Aromatic >C12–C16	0.01	N/A	0.00000	0.00000	0.00000	0.00000	4	-
Ammoniacal Nitrogen as N	0.5	0.3	3.91627E-010	1.88535E-008	4.83485	82.4811	2	2
Nitrite as N	0.5	N/A	1.553E-012	0.0728063	0.133964	0.166822	0	0

3.1.10 Table 3-3 shows the calculated concentrations of the CoC at the River Colne. These results are from the soils source and the Level 3a models. The concentrations at the receptor are assessed against the EQS.

3.1.11 It is noted from the table that only concentrations of ammoniacal nitrogen are above the relevant EQS.

3.2 Model Variants – Squeezed Model

3.2.1 It was proposed to vary the input parameters to simulate 'squeezing' of the source zone as a result of the construction phase of works. It is not thought that the additional weight of construction or of the rail spur and acoustic bund would impact the unsaturated zone underlying the landfilled material. As a result, the effects of squeezing was not modelled for the Level 3a model variant.

3.2.2 Landfill squeezing was modelled by lowering the air filled porosity, and increasing the density of the landfilled material.

3.2.3 The model was run over 1001 iterations, with concentrations modelled to all three identified receptors.

3.2.4 Table 3-4 presents a summary of the Priority and Priority Hazardous substances calculated at the landfill receptor.

Table 3-4: 95th Percentile Calculated Concentrations for the Base of the Unsaturated Zone for Squeezed Model

Contaminant	DWS (mg/l)	EQS (mg/l)	Calculated Concentration (mg/l) at Time slice (year)				No. > DWS*	No. > EQS*
			10(yr)	50(yr)	100(yr)	1000(yr)		
Naphthalene	N/A	0.002	0.00000	0.00000	0.00000	0.167219	-	1
Nickel	0.02	0.004	0.00000	0.00000	0.00000	0.00000	0	0
Anthracene	N/A	0.0001	0.00000	0.00000	0.00000	0.00000	-	0

3.2.5 When the results in Table 3-4 are compared to those in Table 3-1, an increase in the calculated concentrations is noted for naphthalene at the 1000 year time slice.

3.2.6 Table 3-5 presents a summary of the CoC concentrations calculated at the downstream compliance point receptor.

Table 3-5: 95th Percentile Calculated Concentrations for the Groundwater Compliance Receptor Point for Squeezed Model

Contaminant	DWS (mg/l)	EQS (mg/l)	Calculated Concentration (mg/l) at Time slice (year)				No. > DWS*	No. > EQS*
			10(yr)	50(yr)	100(yr)	1000(yr)		
Boron	1	0.7500	0.62989	0.027898	9.3E-005	0.00000	0	0
Copper	2	0.0010	0.00000	0.00000	0.00000	0.00000	0	0
Zinc	N/A	0.0109	0.00000	0.00000	0.00000	0.00000	-	0
Fluoranthene	N/A	6.3E-6	0.00000	0.00000	0.00000	0.00000	-	0

TPH-CWG – Aromatic >C10–C12	N/A	0.01	0.00000	0.00000	0.00000	0.008849	-	0
TPH-CWG – Aromatic >C12 –C16	N/A	0.01	0.00000	0.00000	0.00000	0.00000	-	0

3.2.7 Table 3-5 shows the calculated concentrations of the CoC at the downstream compliance point. These results are from the soils source model only.

3.2.8 It is noted that the concentrations for boron have increased slightly for the 10, 50 and 100 year time slices but none are above the relevant DWS. Concentrations of Aromatic TPH C10-C12 have decreased slightly; this is considered to be due to an increase in the migration time to the receptor as concentrations of this speciated TPH are just beginning to break through. Concentrations remain below the relevant DWS.

3.2.9 Table 3-6 presents a summary of the CoC concentrations at the River Colne receptor.

Table 3-6: 95th Percentile Calculated Concentrations for the River Colne Receptor Point for Squeezed Model

Contaminant	DWS (mg/l)	EQS (mg/l)	Calculated Concentration (mg/l) at Time slice (year)				No. > DWS*	No. > EQS*
			10(yr)	50(yr)	100(yr)	1000(yr)		
Boron	1	0.75	0.344247	0.0240544	7.32E-005	0.0000	0	0
Copper	2	0.001	0.00000	0.00000	0.00000	0.00000	0	0
Zinc	N/A	0.0109	0.00000	0.00000	0.00000	0.00000	-	0
Fluoranthene	N/A	6.3E-6	0.00000	0.00000	0.00000	0.00000	-	0
TPH-CWG – Aromatic >C10–C12	N/A	0.01	0.00000	0.00000	0.00000	0.00541341	-	0
TPH-CWG – Aromatic >C12–C16	N/A	0.01	0.00000	0.00000	0.00000	0.00000	-	0

3.2.10 Table 3-6 shows the calculated concentrations of the CoC at the River Colne receptor. These results are from the soils source model only.

3.2.11 No concentrations were simulated above the relevant EQS.

3.2.12 Overall, it is considered that the effects of squeezing the landfill material will not serve to significantly increase the concentrations of non-priority contaminants at the receptors. The variance is considered a compounding effect of reducing the air filled porosity and increasing the density, increase the partitioning from soil to leachate phase.

3.2.13 In respect of Priority and Priority Hazardous substances, the concentrations of naphthalene are seen to increase.

3.3 Model Variants – Capping

3.3.1 It was proposed to vary the input parameters to simulate a capping layer with run off management being installed atop the source zone post construction. This was achieved by reducing the infiltration through the source zone.

3.3.2 The model was run over 1001 iterations with concentrations modelled to all three identified receptors.

3.3.3 Table 3-7 presents a summary of the Priority and Priority Hazardous substances calculated at the landfill receptor.

Table 3-7: 95th Percentile Calculated Concentrations for the Base of the Unsaturated Zone for Reduced Infiltration Model

Contaminant	DWS (mg/l)	EQS (mg/l)	Calculated Concentration (mg/l) at Time slice (year)				No. > DWS*	No. > EQS*
			10(yr)	50(yr)	100(yr)	1000(yr)		
Naphthalene	N/A	0.002	0.00000	0.00000	0.00000	0.00000	-	0
Nickel	0.02	0.004	0.00000	0.00000	0.00000	0.00000	0	0
Anthracene	N/A	1.0E-4	0.00000	0.00000	0.00000	0.00000	-	0

3.3.4 When the results in Table 3-7 are compared to those in Table 3-1, it is noted that there is no contaminant breakthrough in the 1000 year time slice for naphthalene.

3.3.5 Table 3-8 presents a summary of the CoC concentrations calculated at the downstream compliance point.

Table 3-8: 95th Percentile Calculated concentrations for the Groundwater Compliance Receptor for Reduced Infiltration Model

Contaminant	DWS (mg/l)	EQS (mg/l)	Calculated Concentration (mg/l) at Time slice (year)				No. > DWS*	No. > EQS*
			10(yr)	50(yr)	100(yr)	1000(yr)		
Boron	1	0.75	0.00000	0.264926	0.076383	3.36222E-012	0	0
Copper	2	0.001	0.00000	0.00000	0.00000	0.00000	0	0
Zinc	N/A	0.0109	0.00000	0.00000	0.00000	0.00000	-	0
Fluoranthene	N/A	6.3E-6	0.00000	0.00000	0.00000	0.00000	-	0
TPH-CWG – Aromatic >C10–C12	0.01	N/A	0.00000	0.00000	0.00000	0.00000	0	-
TPH-CWG – Aromatic >C12–C16	0.01	N/A	0.00000	0.00000	0.00000	0.00000	0	-
Ammoniacal Nitrogen as N	0.5	0.3	8.69858E-010	14.5468	62.8221	88.9192	3	3
Nitrite as N	0.5	N/A	0.000638	0.129791	0.15101	0.166273	0	0

3.3.6 Table 3-8 shows the calculated concentrations of the CoC at the downstream compliance point under reduced infiltration conditions, to simulate capping. The results are from the soils source and the Level 3a models. The concentrations at this receptor are assessed against the DWS (where available, or the EQS in lieu of DWS).

3.3.7 It is noted that only concentrations of ammoniacal nitrogen under reduced infiltration conditions are above the relevant DWS.

3.3.8 It is noted that the results of the Level 3a model (for ammoniacal nitrogen and nitrite) were not significantly affected by the reduction in infiltration with a minor decrease, as groundwater flow volumes are significantly greater than infiltrated volumes.

3.3.9 Table 3-9 presents a summary of the CoC concentrations calculated at the River Colne receptor.

Table 3-9: 95th Percentile Calculated Concentrations for the River Colne Receptor for Reduced Infiltration Model

Contaminant	DWS (mg/l)	EQS (mg/l)	Calculated Concentration (mg/l) at Time slice (year)				No. > DWS*	No. > EQS*
			10(yr)	50(yr)	100(yr)	1000(yr)		
Boron	1	0.75	0.0000	0.274677	0.0725454	3.48147E-012	0	0
Copper	2	0.001	0.00000	0.00000	0.00000	0.00000	0	0
Zinc	N/A	0.0109	0.00000	0.00000	0.00000	0.00000	-	0
Fluoranthene	N/A	6.3E-6	0.00000	0.00000	0.00000	0.00000	-	0
TPH-CWG – Aromatic >C10–C12	0.01	N/A	0.00000	0.00000	0.00000	0.00000	0	-
TPH-CWG – Aromatic >C12–C16	0.01	N/A	0.00000	0.00000	0.00000	0.00000	0	-
Ammoniacal Nitrogen as N	0.5	0.3	4.79448E-010	1.55542E-008	4.50857	82.3732	2	2
Nitrite as N	0.5	N/A	1.3953E-012	0.0729546	0.125804	0.154799	0	0

3.3.10 Table 3-9 shows the calculated concentrations of the CoC at the River Colne. These results are from the soils source and the Level 3a models. The concentrations at this receptor are assessed against the EQS.

3.3.11 It is noted that, under the reduced infiltration conditions, the concentrations are slightly reduced. Only ammoniacal nitrogen is shown to exceed the EQS; all other results for the CoC are below the relevant standard.

4. Summary

4.1 Summary

4.1.1 The contaminant transport model, ConSim, was used to simulate concentrations of the CoC to three distinct receptor locations. The first receptor was set at the base of the unsaturated zone; this receptor was to model Priority and Priority Hazardous Substances.

4.1.2 The second receptor was set at a theoretical down hydraulic compliance point, located approximately 50m to the south east of the Site; this location was to monitor the dissolved phase groundwater contaminants, with predicted concentrations screened against appropriate drinking water standards (DWS).

4.1.3 The third receptor was set at the down hydraulic gradient River Colne; with predicted concentrations at the river being screened against the relevant environmental quality standards (EQS), where appropriate.

4.1.4 The results of the modelling are summarised in Chapter 3, with the full results, as output by ConSim 2.5, presented as Appendix B. All results discussed below are for the 95th percentile calculated concentrations.

4.2 Regular Model

4.2.1 All CoCs were found to have concentrations that were below the relevant EQS or DWS with the exception of the following:

- Naphthalene at the base of the unsaturated zone at 1000 years onwards. To put the simulated concentrations into context, the maximum concentration of naphthalene detected in the Kesgrave Catchment subgroup was in BH52 at 13.3 μg/l. The maximum concentration in the Chalk was 2.38 μg/l in BH54, only slightly above the EQS of 2 μg/l.
- Ammoniacal nitrogen at the groundwater compliance point and the River Colne receptors for the majority of the simulated times.

4.3 Squeezing Model

4.3.1 All CoCs were found to have concentrations that were below the relevant EQS or DWS with the exception of the following:

- Naphthalene at the base of the unsaturated zone at 1000 years onwards.
- Ammoniacal nitrogen exceeded the relevant DWS and EQS at the groundwater compliance point and the River Colne receptors for the majority of the simulated times. There was no change to the results from this squeezing model to the regular model since the input parameters changes made are only relevant to the partitioning of the CoCs in the soil and ammoniacal nitrogen was input as a groundwater concentration.

4.3.2 The separate model run to simulate the effects of the construction phase and acoustic bund on the contaminant profile (called the 'squeezed' model) found that the effects of squeezing the landfill material does not serve to significantly increase the concentrations of non-priority and priority contaminants at the receptors.

4.4 Capped Model

4.4.1 All CoCs were found to have concentrations that were below the relevant EQS or DWS with the exception of the following:

- Ammoniacal nitrogen at the groundwater compliance point and the River Colne receptors for the majority of the simulated times. Predicted concentrations were simulated to be marginally reduced under capped conditions.

4.4.2 The results indicate naphthalene no longer poses a significant risk to the groundwater body beneath the site in the capped scenario.

4.5 Recommendations

4.5.1 Reducing infiltration over landfilled areas in Area 2 indicates a beneficial reduction in concentrations of key contaminants modelled to the receptors. The implementation of the SRFI development therefore provides an opportunity to improve groundwater quality in the Chalk aquifer.

4.5.2 It is recognised that ConSim modelling does not model the flux of contaminants moving to the receptors. It is therefore recommended that the planned earthworks are applied as soon as reasonably practicable, as an improved landfill cap will serve to reduce the shorter term contaminant load at the receptors.

4.5.3 The DQRA has demonstrated that the installation of an enhanced landfill capping with surface water run off control would serve to reduce the inflow of precipitation to the landfill, thereby limiting the production of leachate. Whilst it is recognised that the construction phase may, locally, lead to short term impacts, it is considered that the installation of a capping layer would show important beneficial improvement, mitigating the impacts of the landfill long term on controlled waters.

4.5.4 The Capita contaminated land assessment and remedial strategy report already commits to a verification report being produced which needs to consider the groundwater condition. Verification activities at the site will include a comprehensive groundwater monitoring programme to encompass regular monitoring for a period before, during and after ground works. These have been described in the Areas 1 and 2 Geo-environmental Monitoring Proposals report drafted in August 2017. These monitoring proposals will serve to provide reassurance to both the developer and environmental regulators that groundwater conditions are kept under review throughout the development period.

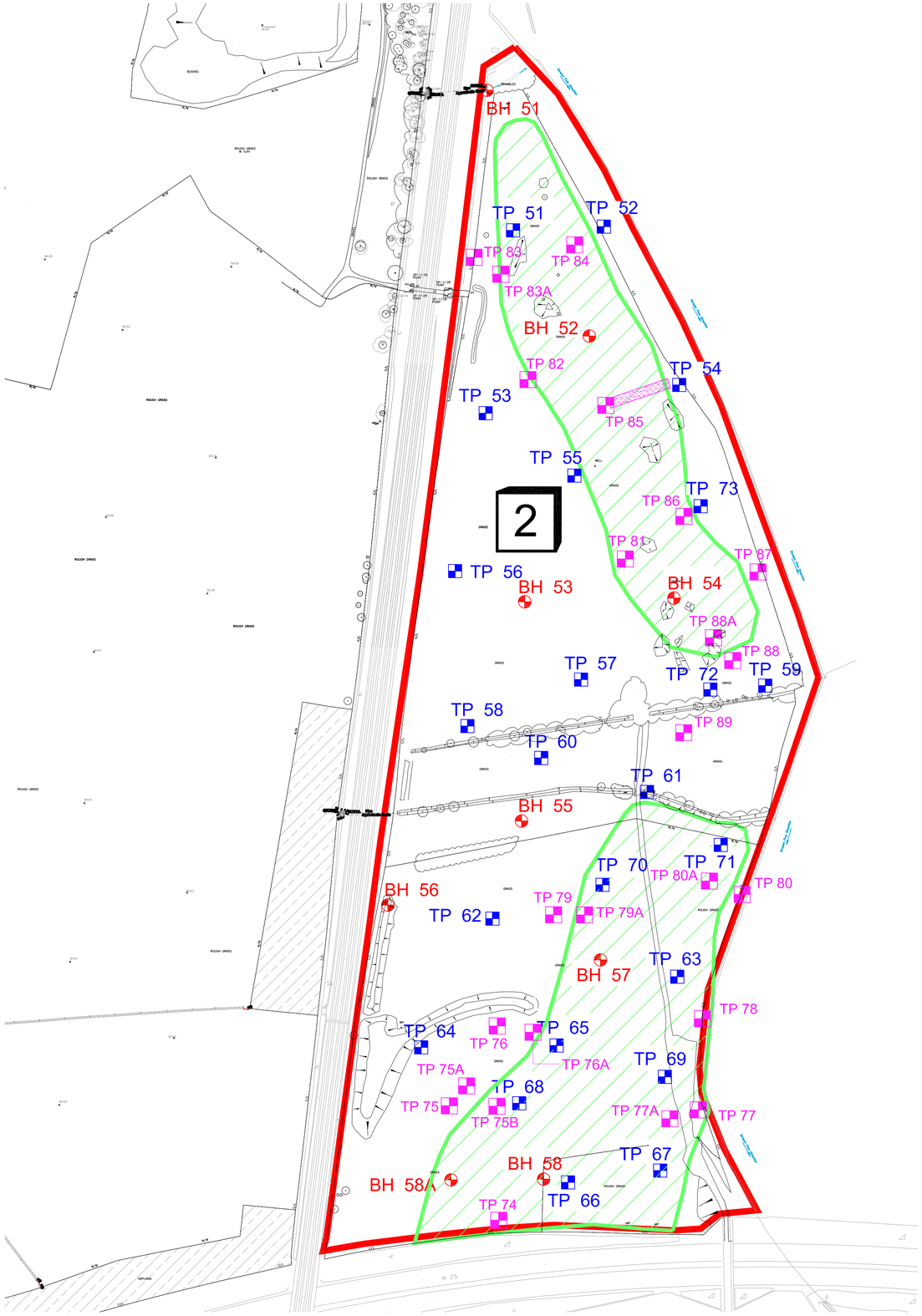
Appendix A
Drawings

018844-CA-0-GF-DR-S-516-P02 – Exploratory hole location Plan

CS070751-CAP-00-XX-DR-Y-CONTOUR – Groundwater Contour Plot

Architect's Development Layout

Site Location Plan



Legend

TP XX — Trial pits July 2016 (No`s. 51-73)

BH XX — Boreholes July 2016

Approx. extent of Landfill Sites

TP XX — Trial Pits October 2016 (No`s> 73-89)

WORK IN PROGRESS
For information Only

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

Refer to the relevant Construction (Design and Management) documentation where applicable.

It is assumed that all works on this drawing will be carried out by a competent contractor, working where appropriate to an approved method statement.

Rev	Date	By	Description	Rev' check
P02	16.11.16	AR	TP (74-89) LOCATIONS REVISED	GA
P01	12.11.16	AR	TP LOCATIONS REVISED	GA

Drawing status
PRELIMINARY

Client
heliosslough

Project
RADLETT SRFI
HERTFORDSHIRE

Drawing
EXPLORATORY HOLE LOCATION PLAN - AREA 2
TRIAL PITS
(ON TOPO PLAN)

Scale @ A1	Drawn	Checked
1:2000	NDH	NRB

Project No.	Date	Office
SS/018844	June 2016	WATFORD

Drawing Identifier — BS1192:2007 / Avanti

project	origin	zone	level	file type	role	number	Compliant revision
018844	-CA-	0	- GF -	DR	- S -	516	- P02

CAPITA
Property and infrastructure
Consulting Civil, Structural and Geo-environmental Engineers

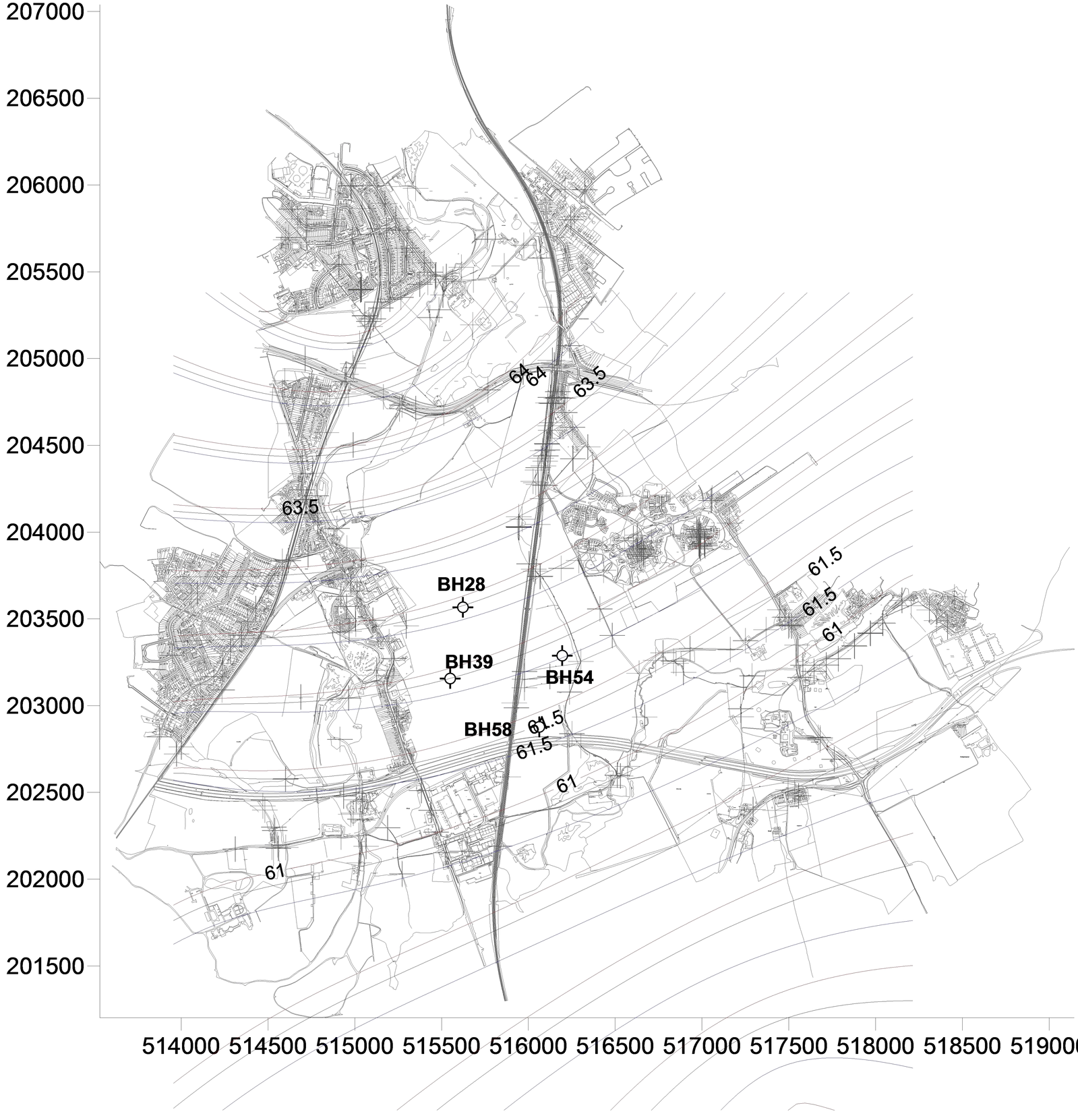
London Tele No: (+44) 0 20 7870 9300
Watford Tele No: (+44) 0 1923 817537
Manchester Tele No: (+44) 0 161 486 1521
Bristol Tele No: (+44) 0 1275 840831

Capita Property and Infrastructure Ltd.
Reg. office 71 Victoria Street, Westminster, London SW1H 0XA • No: 2016542
www.capita.co.uk/property

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

Refer to the relevant Construction (Design and Management) documentation where applicable.

It is assumed that all works on this drawing will be carried out by a competent contractor, working where appropriate to an approved method statement.



Legend

25/10/2016 0000hrs

10/10/2016 0000hrs

20/10/2016 1600hrs

P01 22/12/2016 EP DRAFT

Rev	Date	By	Description	Rev' check

Drawing status

PRELIMINARY

Client

heliosslough

Project

RADLETT SRFI
HERTFORDSHIRE

Drawing

GROUNDWATER CONTOUR PLOT

Scale @ A1	Drawn	Checked
NTS	EP	NG

Project No.	Date	Office
CS070751	22/12/16	EG

Drawing Identifier — BS1192:2007 / Avanti — Compliant

project	origin	zone	level	file type	role	number	revision
CS070751	CAP	00	XX	DR	Y	CONTOUR	

CAPITA

Property and infrastructure

Consulting Civil, Structural and Geo-environmental Engineers

London
Tele No: (+44) 0 20 7870 9300

Watford
Tele No: (+44) 0 1923 817537

Manchester
Tele No: (+44) 0 161 486 1521

Bristol
Tele No: (+44) 0 1275 840831

Capita Property and Infrastructure Ltd.
Reg. office 71 Victoria Street, Westminster, London SW1H 0XA • No: 2016542

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Ref:

N

KEY:

DEVELOPMENT SITE APPLICATION BOUNDARY

ASSOCIATED INFRASTRUCTURE AND COUNTRY PARK AREAS

AREAS SCHEDULE
Logistics Park Buildings (excluding Railport):
330,971sq.m. /
3,562,820sq.ft. GIA

Ancillary Railport buildings:
694sq.m. /
7,465sq. ft. GIA

TOTAL:
331,665sq.m. /
3,570,285sq.ft. GIA

PARKING
1602 car parking spaces total (1/207sq.m.) (including railport)

617 trailer spaces total (1/538sq.m.) (including railport)

0 50 100 200
Metres at scale 1:2500

DC1
Unit:
70,088sq.m. /
754,425sq.ft.
Mezzanine:
11,922sq.m. /
128,328sq.ft.
Office:
2,575sq.m. /
27,721sq.ft.
Hub offices (2 no.):
929sq.m /
10,000sq.ft.
VMU:
929sq.m /
10,000sq.ft.
Gatehouse: 24sq.m. /
262sq.ft.

Total:
86,467sq.m. /
930,736sq.ft. GIA

DC2
Unit:
44,129sq.m. /
475,001sq.ft.
Mezzanine:
7,585sq.m. /
81,645sq.ft.
Office:
2,845sq.m. /
30,625sq. ft.
Hub:
464sq.m. /
5,000sq.ft.
Gatehouse:
24sq.m. / 262sq.ft.

Total:
55,047sq.m. /
592,533sq.ft. GIA

DC3
Unit:
17,757sq.m. /
191,135sq.ft.
Mezzanine:
3,051sq.m. /
32,841sq.ft.
Office:
867sq.m. /
9,335sq.ft.
Hub: 464sq.m. /
5,000sq.ft.
Gatehouse:
24sq.m. / 262sq.ft.
Total:
22,163sq.m. /
238,573sq.ft.

DC4
Unit:
8,647sq.m. /
93,083sq.ft.
Mezzanine:
1,519sq.m. /
16,350sq.ft.
Office: 864sq.m
/ 9,308sq.ft.
Total:
11,030sq.m. /
118,921sq.ft.

DC5
Unit:
85,173sq.m. /
916,800sq.ft.
Mezzanine:
14,450sq.m. /
155,539sq.ft.
Office:
3,329sq.m. /
35,840sq.ft.
Hubs (2 no.):
929sq.m /10,000sq.ft.
VMU:
929sq.m /10,000sq.ft.
Gatehouse:
24sq.m. / 262sq.ft.

Total:
104,834sq.m. /
1,128,441sq.ft. GIA

DC6
Unit: 25,789sq.m. / 277,588sq. ft.
Mezzanine: 4,433sq.m. / 47,717sq.ft.
Office: 1,470sq.m. / 15,819sq.ft.
Hub: 464sq.m. / 5,000sq.ft.
Gatehouse: 24sq.m. / 262sq.ft.
Total:
32,180sq.m. /
346,386sq.ft. GIA

DC7
Unit: 15,069sq.m. / 162,212sq.ft.
Mezzanine: 2,650sq.m. / 28,524sq.ft.
Office: 1,043sq.m. / 11,232sq.ft.
Hub: 464sq.m. / 5,000sq.ft.
Gatehouse: 24sq.m. / 262sq.ft.
Total:
19,250sq.m. / 207,230sq.ft. GIA

Primary Sub
Railport egress and security
415 car parking spaces (1/207sq.m.)
3 storey office
Gatehouse
fuel & wash
VMU
Intermodal
Lorry Park (70 spaces)
16 car spaces
Railport Offices 362sq.m / 3,895 sq.ft.
Railport access and security
Railport Control Tower and driver amenities 332sq.m. / 3570sq. ft.
VMU 10k
fuel & wash
Sprinkler tanks and pump house
mezzanine over
2 st. hub
storey office
265 car parking spaces (1/207sq.m.)
107 car parking spaces (1/207sq.m.)
506 car parking spaces (1/207sq.m.)
53 car parking spaces (1/207sq.m.)
143 car parking spaces (1/207sq.m.)
bus gate
turning head
cycle/footway
M 25

Notes:

-.

Revision:

J NJ 26/09/2016
Graphical amendments to Development Site application boundary.

H NJ 15/09/2016
Graphical amendments to rail sidings.

G NJ 07/09/2016
Proposed landscape amended. General draughting updates.

F NJ 20/08/2016
Amendments to Intermodal area, car parking and blue boundary line. General updates to all disciplines.

E NJ 11/08/2016
Red line boundary amended in accordance with CGMS email 10.8.16.

D NJ 10/08/2016
Soakaways, landscape and by-pass layouts updated. Red line boundary amended in accordance with CGMS email 8.8.16.

C NJ 02/08/2016
Estate road updated with Capita laypout rec'd 01.08.16. Intermodal layout updated accordingly.

B NJ 29/07/2016
Proposed contours, soakaways, DC1 car park, proposed landscape updated.

A NJ 26/07/2016
Internal estate roads, vegetation and ponds updated .

heliosslough

Architects | Masterplanners

STEPHEN GEORGE & PARTNERS LLP

170 London Road
Leicester LE2 1ND

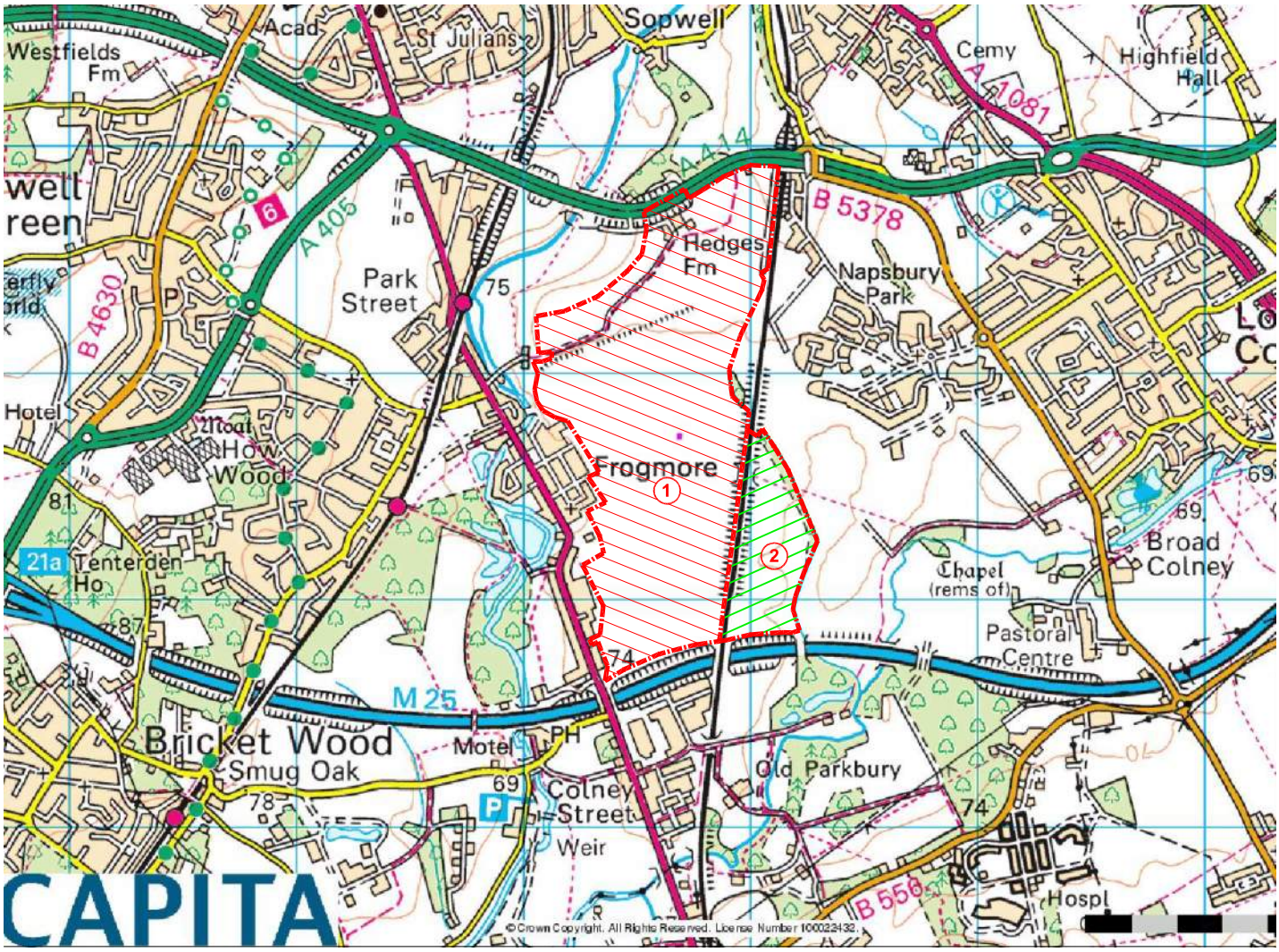
t: 0116 247 0557 f: 0116 254 1095
www.stephengeorge.co.uk

Radlett Strategic Railfreight Interchange

Masterplan

Drawing status:	Planning
CAD reference:	15-857 P002
Drawn:	NJ
Team:	NJ
Date:	24/07/2016
Scale:	1:2,500@ A1

Project no:	Dwg no:	Rev:
15-857	P002	J



Boundary Line of Area 1

Boundary Line of Area 2

Drawing status

FOR INFORMATION

Client

heliosloughh

Project

RADLETT SRFI
HERTORDSHIRE

Drawing

SITE LOCATION PLAN
AREAS 1 & 2

Scale @ A4	Drawn	Checked
NTS	AR	PE
Project No.	**Date**	**Office**
SS/018844	July, 2016	WATFORD

Drawing Identifier — BS1192:2007 / Avanti Compliant

project	origin	zone	level	file type	role	number	revision
018844	-CA-	0 -	G00 -	DSP -	SE -	506 -	P00

CAPITA

Property and infrastructure

Consulting Civil, Structural and Geo-environmental Engineers

London
Tele No: (+44) 0 20 7870 9300

Watford
Tele No: (+44) 0 1923 817537

Manchester
Tele No: (+44) 0 161 486 1521

Bristol
Tele No: (+44) 0 1275 840831

Capita Property and Infrastructure Ltd. www.capita.co.uk/property
Reg. office 71 Victoria Street, Westminster, London SW1H 0XA • No: 2018542

LEGEND

- Strategic Rail Freight Interchange Site Boundary
- Country Park Boundary
- (6) Land Parcel

0 100 250 500 1000 metres

NORTH

Rev	Date	By	Notes

Client

Helioslough Ltd

Project

Former Aerodrome Site, North Orbital

Drawing Title

Location Plan

Drawing Status

For Planning

Scale	Date	Drawn
1:25 000@A3	Dec'08	JG
Drawing No	**Checked**	**Approved**
394503-DSD-001	DG	RMK

CAPITA LOVEJOY

land planning by design

Capita Lovejoy
Level Seven, 52 Grosvenor Gardens,
Belgravia, London SW1W 0AU
Tel +44(0)20 7901 9911 Fax +44(0)20 7901 9901
enquiries@lovejoylondon.uk.com
www.capitalovejoy.co.uk
LONDON BIRMINGHAM

Appendix B

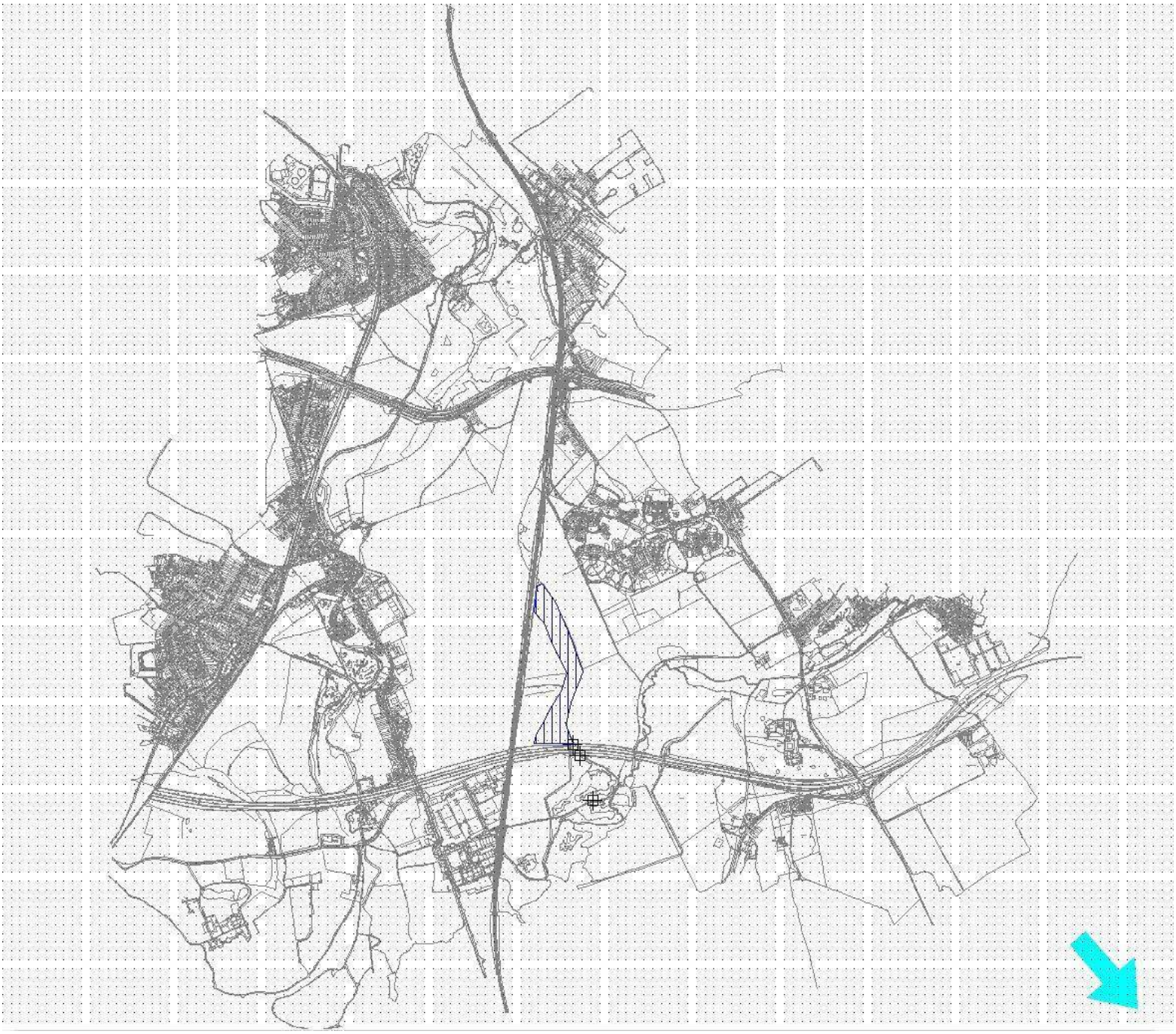
CONSIM Model Outputs

B.1 CONSIM Model (Digital File)

B.2 CONSIM Model Baseplan

B.3 CONSIM Model Inputs

B.4 CONSIM Model Results



Project: Radlett SFRI

Project Number: CS018904

Source Inventory:

Ammonium (NH4+)

Aquifer Source Concentration [mg/l] TRIANGULAR(0.015,24.5,120)

Nitrite

Aquifer Source Concentration [mg/l] TRIANGULAR(0.001,0.026906,0.25)

Ammonium (NH4+)

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 0.0526422	10% of values less than 0.0838978	25% of values less than 0.18923
50% of values less than 0.38209	75% of values less than 0.748062	90% of values less than 1.41675
Minimum 0.00750827an 2.36435	Maximum 13.2742	
Mean 0.683761	SD 1.04383	Variance 1.08958

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 33.0535	10% of values less than 46.4524	25% of values less than 90.7957
50% of values less than 189.425	75% of values less than 349.01	90% of values less than 712.847
Minimum 6.24723s than 1108.19	Maximum 4352.06	
Mean 315.411	SD 423.307	Variance 179189

Nitrite

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 0.0526422	10% of values less than 0.0838978	25% of values less than 0.18923
50% of values less than 0.38209	75% of values less than 0.748062	90% of values less than 1.41675
Minimum 0.00750827an 2.36435	Maximum 13.2742	
Mean 0.683761	SD 1.04383	Variance 1.08958

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 10.5244	10% of values less than 14.8071	25% of values less than 28.9267
50% of values less than 60.4243	75% of values less than 110.736	90% of values less than 226.732
Minimum 1.98342s than 352.332	Maximum 1387.22	
Mean 100.348	SD 134.715	Variance 18148.1

Ammonium (NH4+)

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 1.9141E-030	25% of values less than 2.01525E-018
50% of values less than 1.9361E-011	75% of values less than 4.2275E-010	90% of values less than 1.39496E-009
Minimum 0ues less than 0.000408934	Maximum 69.4576	
Mean 0.32584	SD 3.54484	Variance 12.5659

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 7.6551E-016	10% of values less than 1.89172E-014	25% of values less than 9.58675E-012
50% of values less than 4.73392E-010	75% of values less than 0.057106	90% of values less than 18.1764
Minimum 0ues less than 37.5531	Maximum 105.762	
Mean 5.49323	SD 16.2987	Variance 265.648

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 5.81088E-015	10% of values less than 1.42458E-013	25% of values less than 7.95881E-011
50% of values less than 0.000478052	75% of values less than 15.926	90% of values less than 47.2273
Minimum 2.70108E-024 67.9556	Maximum 113.326	
Mean 12.6092	SD 23.4138	Variance 548.207

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0.000131136	10% of values less than 0.00278251	25% of values less than 0.9275
50% of values less than 22.8897	75% of values less than 48.9995	90% of values less than 75.9676
Minimum 1.3339E-015n 90.003	Maximum 113.333	
Mean 29.6088	SD 29.837	Variance 890.25

Nitrite

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 4.03379E-022	10% of values less than 3.25674E-018	25% of values less than 6.87934E-015
50% of values less than 5.08896E-013	75% of values less than 3.87637E-009	90% of values less than 0.00509832
Minimum 0ues less than 0.0307312	Maximum 0.217212	
Mean 0.00523821	SD 0.0218385	Variance 0.000476918

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 5.93123E-017	10% of values less than 7.05584E-015	25% of values less than 8.27913E-012
50% of values less than 0.00156532	75% of values less than 0.0613687	90% of values less than 0.118959
Minimum 3.64421E-020 0.153412	Maximum 0.232605	
Mean 0.0357206	SD 0.0534843	Variance 0.00286057

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 1.15289E-014	10% of values less than 7.86915E-012	25% of values less than 3.3648E-005
50% of values less than 0.025789	75% of values less than 0.0859839	90% of values less than 0.134433
Minimum 1.03385E-019 0.17543	Maximum 0.232677	
Mean 0.0498333	SD 0.0588179	Variance 0.00345955

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 1.16219E-006	10% of values less than 1.41478E-005	25% of values less than 0.00311537
50% of values less than 0.0413205	75% of values less than 0.0981179	90% of values less than 0.150651
Minimum 8.66988E-009 0.181695	Maximum 0.232677	
Mean 0.0593965	SD 0.0602294	Variance 0.00362758

Ammonium (NH4+)

Unretarded Travel Time to River Colne [years]

05% of values less than 0.197307	10% of values less than 0.267967	25% of values less than 0.439486
50% of values less than 0.756643	75% of values less than 1.44359	90% of values less than 2.67767
Minimum 0.0825977ıan 3.95523	Maximum 19.9447	
Mean 1.26194	SD 1.64047	Variance 2.69114

Retarded Travel Time to River Colne [years]

05% of values less than 120.045	10% of values less than 153.23	25% of values less than 226.494
50% of values less than 377.289	75% of values less than 665.441	90% of values less than 1291.78
Minimum 64.4926s than 1779.69	Maximum 6539.07	
Mean 588.46	SD 666.004	Variance 443561

Nitrite

Unretarded Travel Time to River Colne [years]

05% of values less than 0.197307	10% of values less than 0.267967	25% of values less than 0.439486
50% of values less than 0.756643	75% of values less than 1.44359	90% of values less than 2.67767
Minimum 0.0825977ɲan 3.95523	Maximum 19.9447	
Mean 1.26194	SD 1.64047	Variance 2.69114

Retarded Travel Time to River Colne [years]

05% of values less than 38.1073	10% of values less than 48.826	25% of values less than 71.9008
50% of values less than 120.155	75% of values less than 211.595	90% of values less than 411.021
Minimum 20.483ss than 564.924	Maximum 2084.33	
Mean 187.208	SD 211.942	Variance 44919.2

Ammonium (NH4+)

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 4.17751E-025	75% of values less than 2.07387E-014	90% of values less than 1.81465E-010
Minimum 0ues less than 3.91627E-010	Maximum 1.11564E-009	
Mean 5.39744E-011	SD 1.64748E-010	Variance 2.7142E-020

Concentration at River Colne [mg/l] - 50 years

05% of values less than 1.62372E-027	10% of values less than 2.26013E-023	25% of values less than 6.7863E-019
50% of values less than 8.46875E-014	75% of values less than 3.11977E-010	90% of values less than 7.91694E-010
Minimum 0ues less than 1.88535E-008	Maximum 5.97835	
Mean 0.0060719	SD 0.188964	Variance 0.0357074

Concentration at River Colne [mg/l] - 100 years

05% of values less than 1.99031E-023	10% of values less than 1.05455E-021	25% of values less than 8.50162E-018
50% of values less than 1.51611E-012	75% of values less than 8.92838E-010	90% of values less than 0.0264499
Minimum 0ues less than 4.83485	Maximum 97.8845	
Mean 1.05478	SD 6.04318	Variance 36.52

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 4.88713E-014	10% of values less than 1.09798E-011	25% of values less than 1.43366E-007
50% of values less than 0.0130677	75% of values less than 29.3531	90% of values less than 63.9615
Minimum 7.20468E-025 82.4811	Maximum 113.325	
Mean 17.6195	SD 27.5586	Variance 759.477

Nitrite

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 2.57786E-023
50% of values less than 2.12238E-017	75% of values less than 3.86507E-013	90% of values less than 1.15751E-012
Minimum 0ues less than 1.55298E-012	Maximum 1.3641E-007	
Mean 1.36663E-010	SD 4.31151E-009	Variance 1.85891E-017

Concentration at River Colne [mg/l] - 50 years

05% of values less than 1.44231E-025	10% of values less than 9.09566E-024	25% of values less than 1.51494E-019
50% of values less than 3.5041E-013	75% of values less than 7.49957E-007	90% of values less than 0.0249022
Minimum 0ues less than 0.0728063	Maximum 0.223202	
Mean 0.00972426	SD 0.0319348	Variance 0.00101983

Concentration at River Colne [mg/l] - 100 years

05% of values less than 6.28336E-024	10% of values less than 8.49941E-021	25% of values less than 2.67939E-015
50% of values less than 1.10117E-008	75% of values less than 0.0147588	90% of values less than 0.0970367
Minimum 3.28394E-028 0.133964	Maximum 0.231779	
Mean 0.0224755	SD 0.0469406	Variance 0.00220342

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 8.22538E-015	10% of values less than 3.23255E-013	25% of values less than 1.95331E-009
50% of values less than 5.89547E-005	75% of values less than 0.0714254	90% of values less than 0.127816
Minimum 4.94661E-021 0.166822	Maximum 0.232677	
Mean 0.0387916	SD 0.0575321	Variance 0.00330995

Ammonium (NH4+)

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 0.0932057	10% of values less than 0.129441	25% of values less than 0.243818
50% of values less than 0.468522	75% of values less than 0.919211	90% of values less than 1.70977
Minimum 0.028256 than 2.61408	Maximum 14.7866	
Mean 0.814858	SD 1.16961	Variance 1.368

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 54.822	10% of values less than 73.5054	25% of values less than 124.591
50% of values less than 232.721	75% of values less than 423.752	90% of values less than 819.533
Minimum 20.6208s than 1234.2	Maximum 4847.95	
Mean 377.323	SD 473.457	Variance 224162

Nitrite

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 0.0932057	10% of values less than 0.129441	25% of values less than 0.243818
50% of values less than 0.468522	75% of values less than 0.919211	90% of values less than 1.70977
Minimum 0.028256 than 2.61408	Maximum 14.7866	
Mean 0.814858	SD 1.16961	Variance 1.368

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 17.4588	10% of values less than 23.3692	25% of values less than 39.5861
50% of values less than 74.1822	75% of values less than 134.94	90% of values less than 260.941
Minimum 6.54922s than 392.473	Maximum 1545.29	
Mean 120.042	SD 150.674	Variance 22702.8

Ammonium (NH4+)

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 9.3263E-023
50% of values less than 4.69592E-013	75% of values less than 2.35798E-010	90% of values less than 5.55433E-010
Minimum 0ues less than 8.27808E-010	Maximum 0.450921	
Mean 0.000451992	SD 0.0142522	Variance 0.000203126

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 8.36594E-017	10% of values less than 3.3061E-015	25% of values less than 2.19049E-012
50% of values less than 2.72086E-010	75% of values less than 3.94626E-006	90% of values less than 0.967003
Minimum 0ues less than 10.4132	Maximum 98.181	
Mean 2.0963	SD 9.36821	Variance 87.7634

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 1.11689E-015	10% of values less than 2.43391E-014	25% of values less than 1.81319E-011
50% of values less than 1.47957E-008	75% of values less than 2.63117	90% of values less than 30.5345
Minimum 2.31059E-026 54.5581	Maximum 112.764	
Mean 8.28026	SD 19.4815	Variance 379.529

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 3.22206E-005	10% of values less than 0.00076368	25% of values less than 0.291749
50% of values less than 18.2735	75% of values less than 47.255	90% of values less than 73.211
Minimum 4.01243E-016 89.2671	Maximum 113.331	
Mean 27.4622	SD 29.5653	Variance 874.108

Nitrite

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 3.90183E-026	10% of values less than 2.66573E-019	25% of values less than 1.18904E-015
50% of values less than 3.10864E-013	75% of values less than 1.32638E-012	90% of values less than 9.79475E-007
Minimum 0ues less than 0.000311492	Maximum 0.0928649	
Mean 0.000754548	SD 0.00571828	Variance 3.26987E-005

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 1.61295E-017	10% of values less than 5.90408E-016	25% of values less than 3.96574E-013
50% of values less than 2.37851E-005	75% of values less than 0.0393827	90% of values less than 0.104925
Minimum 1.10909E-021 0.143967	Maximum 0.229063	
Mean 0.028027	SD 0.0491527	Variance 0.00241599

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 2.53416E-015	10% of values less than 1.79165E-013	25% of values less than 1.76225E-006
50% of values less than 0.012499	75% of values less than 0.0734879	90% of values less than 0.12749
Minimum 2.6325E-020n 0.167487	Maximum 0.232677	
Mean 0.0427472	SD 0.0563928	Variance 0.00318015

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 3.18709E-007	10% of values less than 3.42233E-006	25% of values less than 0.00121146
50% of values less than 0.035342	75% of values less than 0.0947072	90% of values less than 0.148266
Minimum 2.29511E-009 0.181078	Maximum 0.232677	
Mean 0.0556427	SD 0.0599982	Variance 0.00359978

Aquifer Flow [m³/yr]

Landfill1

05% of values less than 75648.5	10% of values less than 101804	25% of values less than 179207
50% of values less than 341300	75% of values less than 552379	90% of values less than 735799
Minimum 17656.9s than 842244	Maximum 1.03568E+006	
Mean 383347	SD 237448	Variance 5.63815E+010

Project: Radlett SFRI

Project Number: CS018904

Project Details

Title: Radlett SFRI

Project Number: CS018904

Prepared By: EAP

Date: 2017-10-15 16:50:24

Client Name:

Comments:

Consim version 2.05

Simulation Level

Level 3a

Simulation Parameters

Iterations 1001

Timeslices:1, 10, 25, 50, 100, 500, 1000, 5000

Water Quality Standard

User Defined

Project: Radlett SFRI

Project Number: CS018904

Source

Landfill1

Infiltration

Infiltration [mm/year] TRIANGULAR(200,284,300)

Source Inventory:

Ammonium (NH4+)

Aquifer Source Concentration [mg/l] TRIANGULAR(0.015,24.5,120)

Inorganic

Nitrite

Aquifer Source Concentration [mg/l] TRIANGULAR(0.001,0.026906,0.25)

Inorganic

Aquifer Pathway

Thickness [m] SINGLE(50)
Dry Bulk Density [g/cm³] UNIFORM(1.5,1.84)
Calculated Mixing Zone Thickness
Hydraulic Conductivity [m/s] TRIANGULAR(5.367e-006,9.572e-005,0.000926)
Effective Porosity [fraction] UNIFORM(0.005,0.02)
Hydraulic Gradient SINGLE(0.001156)
Groundwater Flow Direction (degrees), 140.00
Longitudinal Dispersivity [m] SINGLE(5)
Lateral Dispersivity [m] SINGLE(0.5)

Contaminant Inventory

Ammonium (NH4+)
Partition Coefficient [ml/g] SINGLE(3.6)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(2190)

Nitrite
Partition Coefficient [ml/g] SINGLE(1.14)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Project: Radlett SFRI

Project Number: CS018904

Receptor

Landfill1 Receptor	X 516248.175377	Y 202826.381429
River Colne	X 516359.250514	Y 202507.049439
Downstream Compliance	X 516284.371465	Y 202763.214607

Input Correlations

No Correlations

Project: Radlett SFRI

Project Number: CS018904

Landfill1 - Boron

Concentration at Source [mg/l] - 10 years

05% of values less than 0.594574	10% of values less than 0.741754	25% of values less than 1.14894
50% of values less than 1.83138	75% of values less than 2.7091	90% of values less than 3.56402
Minimum 0.15175s than 3.97176	Maximum 6.61452	
Mean 2.01816	SD 1.12732	Variance 1.27085

Concentration at Source [mg/l] - 50 years

05% of values less than 0.000102585	10% of values less than 0.000246043	25% of values less than 0.00113155
50% of values less than 0.00480739	75% of values less than 0.013142	90% of values less than 0.0278363
Minimum 2.81872E-006 0.0461115	Maximum 0.178441	
Mean 0.0112927	SD 0.0182901	Variance 0.000334527

Concentration at Source [mg/l] - 100 years

05% of values less than 1.42123E-009	10% of values less than 8.91187E-009	25% of values less than 1.76557E-007
50% of values less than 2.7596E-006	75% of values less than 2.07746E-005	90% of values less than 9.07446E-005
Minimum 1.03499E-012 0.000232966	Maximum 0.00240479	
Mean 4.52623E-005	SD 0.000162552	Variance 2.64231E-008

Concentration at Source [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Copper

Concentration at Source [mg/l] - 10 years

05% of values less than 0.00144566	10% of values less than 0.00182837	25% of values less than 0.00243704
50% of values less than 0.00327511	75% of values less than 0.00430577	90% of values less than 0.00530339
Minimum 0.000801654า 0.00578278	Maximum 0.00680706	
Mean 0.00341127	SD 0.00129523	Variance 1.67763E-006

Concentration at Source [mg/l] - 50 years

05% of values less than 0.00144544	10% of values less than 0.00182819	25% of values less than 0.0024368
50% of values less than 0.00327459	75% of values less than 0.00430487	90% of values less than 0.00530266
Minimum 0.000801577า 0.00578202	Maximum 0.00680604	
Mean 0.00341073	SD 0.00129503	Variance 1.6771E-006

Concentration at Source [mg/l] - 100 years

05% of values less than 0.00144517	10% of values less than 0.00182795	25% of values less than 0.0024365
50% of values less than 0.00327395	75% of values less than 0.00430373	90% of values less than 0.00530175
Minimum 0.000801481า 0.00578108	Maximum 0.00680476	
Mean 0.00341007	SD 0.00129477	Variance 1.67644E-006

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.00144035	10% of values less than 0.00182177	25% of values less than 0.00243021
50% of values less than 0.00326244	75% of values less than 0.00428914	90% of values less than 0.00527862
Minimum 0.00079975ลn 0.00576405	Maximum 0.00678188	
Mean 0.00339807	SD 0.0012902	Variance 1.66462E-006

Landfill1 - Naphthalene

Concentration at Source [mg/l] - 10 years

05% of values less than 0.052424	10% of values less than 0.0745264	25% of values less than 0.149629
50% of values less than 0.297113	75% of values less than 0.477849	90% of values less than 0.617269
Minimum 0.00708556an 0.690222	Maximum 0.856299	
Mean 0.32439	SD 0.204014	Variance 0.0416216

Concentration at Source [mg/l] - 50 years

05% of values less than 0.0435429	10% of values less than 0.0635579	25% of values less than 0.126137
50% of values less than 0.252839	75% of values less than 0.407982	90% of values less than 0.52804
Minimum 0.00585199an 0.58068	Maximum 0.756931	
Mean 0.275224	SD 0.173242	Variance 0.0300127

Concentration at Source [mg/l] - 100 years

05% of values less than 0.036711	10% of values less than 0.0524829	25% of values less than 0.102072
50% of values less than 0.205267	75% of values less than 0.334895	90% of values less than 0.4324
Minimum 0.00460751an 0.479251	Maximum 0.648777	
Mean 0.224571	SD 0.142478	Variance 0.0202999

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.000476962	10% of values less than 0.000809158	25% of values less than 0.0019603
50% of values less than 0.00487763	75% of values less than 0.0106592	90% of values less than 0.018793
Minimum 2.55229E-005 0.026146	Maximum 0.0658677	
Mean 0.00783197	SD 0.00855292	Variance 7.31524E-005

Landfill1 - Nickel

Concentration at Source [mg/l] - 10 years

05% of values less than 0.00171795	10% of values less than 0.00185211	25% of values less than 0.00218882
50% of values less than 0.0025652	75% of values less than 0.00293413	90% of values less than 0.00327338
Minimum 0.0013592ɹan 0.00346457	Maximum 0.00379264	
Mean 0.0025656	SD 0.00052489	Variance 2.7551E-007

Concentration at Source [mg/l] - 50 years

05% of values less than 0.00171755	10% of values less than 0.00185171	25% of values less than 0.00218844
50% of values less than 0.00256479	75% of values less than 0.00293338	90% of values less than 0.00327222
Minimum 0.00135876ɜn 0.00346311	Maximum 0.00379159	
Mean 0.00256496	SD 0.000524751	Variance 2.75364E-007

Concentration at Source [mg/l] - 100 years

05% of values less than 0.00171704	10% of values less than 0.00185114	25% of values less than 0.00218796
50% of values less than 0.00256426	75% of values less than 0.00293245	90% of values less than 0.0032711
Minimum 0.00135822ɜn 0.00346129	Maximum 0.00379028	
Mean 0.00256416	SD 0.000524577	Variance 2.75181E-007

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.00170706	10% of values less than 0.00184092	25% of values less than 0.0021767
50% of values less than 0.00254961	75% of values less than 0.00291646	90% of values less than 0.00325179
Minimum 0.00134846ɜn 0.00342866	Maximum 0.00376678	
Mean 0.00254985	SD 0.000521464	Variance 2.71925E-007

Landfill1 - Zinc

Concentration at Source [mg/l] - 10 years

05% of values less than 0.0219699	10% of values less than 0.0271466	25% of values less than 0.0385904
50% of values less than 0.0583077	75% of values less than 0.080911	90% of values less than 0.104615
Minimum 0.00967748an 0.113977	Maximum 0.137094	
Mean 0.061617	SD 0.028546	Variance 0.000814873

Concentration at Source [mg/l] - 50 years

05% of values less than 0.0219586	10% of values less than 0.0271334	25% of values less than 0.0385749
50% of values less than 0.0582779	75% of values less than 0.0808717	90% of values less than 0.10457
Minimum 0.00967359an 0.113927	Maximum 0.137016	
Mean 0.0615866	SD 0.0285321	Variance 0.000814082

Concentration at Source [mg/l] - 100 years

05% of values less than 0.0219443	10% of values less than 0.0271169	25% of values less than 0.0385555
50% of values less than 0.0582406	75% of values less than 0.0808225	90% of values less than 0.104514
Minimum 0.00966873an 0.113865	Maximum 0.13692	
Mean 0.0615487	SD 0.0285148	Variance 0.000813096

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.02169	10% of values less than 0.0267823	25% of values less than 0.0381107
50% of values less than 0.0575734	75% of values less than 0.0800463	90% of values less than 0.103446
Minimum 0.00958162an 0.112635	Maximum 0.135189	
Mean 0.06087	SD 0.028206	Variance 0.000795578

Landfill1 - Anthracene

Concentration at Source [mg/l] - 10 years

05% of values less than 0.0044412	10% of values less than 0.00563266	25% of values less than 0.00792247
50% of values less than 0.0125387	75% of values less than 0.0183278	90% of values less than 0.0238478
Minimum 0.00176077an 0.0262999	Maximum 0.0316166	
Mean 0.013604	SD 0.00683911	Variance 4.67735E-005

Concentration at Source [mg/l] - 50 years

05% of values less than 0.00431536	10% of values less than 0.00542498	25% of values less than 0.00762898
50% of values less than 0.0121408	75% of values less than 0.017632	90% of values less than 0.022979
Minimum 0.0016967an 0.0253717	Maximum 0.0308553	
Mean 0.0131293	SD 0.00659882	Variance 4.35444E-005

Concentration at Source [mg/l] - 100 years

05% of values less than 0.00414282	10% of values less than 0.00518166	25% of values less than 0.00729215
50% of values less than 0.0115512	75% of values less than 0.0167925	90% of values less than 0.0220539
Minimum 0.0016199an 0.0242483	Maximum 0.0299296	
Mean 0.0125604	SD 0.00631417	Variance 3.98687E-005

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.00179631	10% of values less than 0.00224522	25% of values less than 0.0032814
50% of values less than 0.00506932	75% of values less than 0.00758588	90% of values less than 0.0103706
Minimum 0.000597234an 0.0118576	Maximum 0.0172964	
Mean 0.00576122	SD 0.00313868	Variance 9.85134E-006

Landfill1 - Fluoranthene

Concentration at Source [mg/l] - 10 years

05% of values less than 6.41665E-005	10% of values less than 9.42259E-005	25% of values less than 0.000144151
50% of values less than 0.000226649	75% of values less than 0.000349461	90% of values less than 0.000440812
Minimum 7.11431E-006 0.000476128	Maximum 0.000600386	
Mean 0.000249417	SD 0.000130212	Variance 1.69552E-008

Concentration at Source [mg/l] - 50 years

05% of values less than 6.41586E-005	10% of values less than 9.42167E-005	25% of values less than 0.000144136
50% of values less than 0.000226625	75% of values less than 0.000349419	90% of values less than 0.000440734
Minimum 7.11345E-006 0.000476082	Maximum 0.000600319	
Mean 0.000249383	SD 0.000130195	Variance 1.69507E-008

Concentration at Source [mg/l] - 100 years

05% of values less than 6.41486E-005	10% of values less than 9.42033E-005	25% of values less than 0.000144118
50% of values less than 0.000226594	75% of values less than 0.000349367	90% of values less than 0.000440636
Minimum 7.11236E-006 0.000476025	Maximum 0.000600235	
Mean 0.000249341	SD 0.000130174	Variance 1.69452E-008

Concentration at Source [mg/l] - 1000 years

05% of values less than 6.39355E-005	10% of values less than 9.38465E-005	25% of values less than 0.000143787
50% of values less than 0.000226049	75% of values less than 0.000348429	90% of values less than 0.000438885
Minimum 7.09287E-006 0.000474795	Maximum 0.000598733	
Mean 0.000248582	SD 0.000129791	Variance 1.68457E-008

Landfill1 - TPH Aromatic C10-C12

Concentration at Source [mg/l] - 10 years

05% of values less than 0.0573051	10% of values less than 0.069496	25% of values less than 0.110245
50% of values less than 0.185663	75% of values less than 0.278007	90% of values less than 0.352665
Minimum 0.0319051	Mean 0.401384	Maximum 0.480496
Mean 0.201863	SD 0.107283	Variance 0.0115096

Concentration at Source [mg/l] - 50 years

05% of values less than 0.0531799	10% of values less than 0.0642645	25% of values less than 0.101815
50% of values less than 0.17151	75% of values less than 0.255307	90% of values less than 0.323258
Minimum 0.0300684	Mean 0.371899	Maximum 0.455956
Mean 0.186546	SD 0.0992581	Variance 0.00985216

Concentration at Source [mg/l] - 100 years

05% of values less than 0.0478817	10% of values less than 0.0583692	25% of values less than 0.0940471
50% of values less than 0.154794	75% of values less than 0.229587	90% of values less than 0.294365
Minimum 0.0279205	Mean 0.338671	Maximum 0.427036
Mean 0.169107	SD 0.0903048	Variance 0.00815496

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.00695813	10% of values less than 0.00916122	25% of values less than 0.0147173
50% of values less than 0.0258082	75% of values less than 0.0412672	90% of values less than 0.0626918
Minimum 0.00155517	Mean 0.0740623	Maximum 0.137457
Mean 0.0313887	SD 0.0223573	Variance 0.00049985

Landfill1 - TPH Aromatic C12-C16

Concentration at Source [mg/l] - 10 years

05% of values less than 0.0722842	10% of values less than 0.0837605	25% of values less than 0.109792
50% of values less than 0.15498	75% of values less than 0.21762	90% of values less than 0.26393
Minimum 0.0333576	Mean 0.291202	Maximum 0.361202
Mean 0.165594	SD 0.0692283	Variance 0.00479256

Concentration at Source [mg/l] - 50 years

05% of values less than 0.0696558	10% of values less than 0.0801028	25% of values less than 0.105335
50% of values less than 0.148991	75% of values less than 0.209136	90% of values less than 0.253478
Minimum 0.0318497	Mean 0.280054	Maximum 0.347508
Mean 0.159145	SD 0.0665223	Variance 0.00442522

Concentration at Source [mg/l] - 100 years

05% of values less than 0.0660412	10% of values less than 0.0764321	25% of values less than 0.100289
50% of values less than 0.141667	75% of values less than 0.198826	90% of values less than 0.239911
Minimum 0.0300604	Mean 0.267824	Maximum 0.331117
Mean 0.151455	SD 0.0633466	Variance 0.00401279

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.0238704	10% of values less than 0.0290812	25% of values less than 0.0398299
50% of values less than 0.0581087	75% of values less than 0.081736	90% of values less than 0.108265
Minimum 0.00879421	Mean 0.119674	Maximum 0.168898
Mean 0.0634627	SD 0.0300239	Variance 0.000901435

Landfill1 - Boron

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 3.81321	10% of values less than 3.85899	25% of values less than 3.98039
50% of values less than 4.19628	75% of values less than 4.47941	90% of values less than 4.83993
Minimum 3.7032ss than 5.0465	Maximum 5.45335	
Mean 4.276	SD 0.377929	Variance 0.14283

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 4.9296	10% of values less than 5.09582	25% of values less than 5.46507
50% of values less than 5.97347	75% of values less than 6.48485	90% of values less than 7.08844
Minimum 4.50337s than 7.48598	Maximum 8.61577	
Mean 6.03873	SD 0.772688	Variance 0.597047

Landfill1 - Copper

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 3.81321	10% of values less than 3.85899	25% of values less than 3.98039
50% of values less than 4.19628	75% of values less than 4.47941	90% of values less than 4.83993
Minimum 3.7032ss than 5.0465	Maximum 5.45335	
Mean 4.276	SD 0.377929	Variance 0.14283

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 455788	10% of values less than 461261	25% of values less than 475771
50% of values less than 501576	75% of values less than 535419	90% of values less than 578512
Minimum 442639s than 603202	Maximum 651833	
Mean 511105	SD 45173.4	Variance 2.04064E+009

Landfill1 - Naphthalene

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 3.81321	10% of values less than 3.85899	25% of values less than 3.98039
50% of values less than 4.19628	75% of values less than 4.47941	90% of values less than 4.83993
Minimum 3.7032ss than 5.0465	Maximum 5.45335	
Mean 4.276	SD 0.377929	Variance 0.14283

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 428.522	10% of values less than 433.667	25% of values less than 447.309
50% of values less than 471.571	75% of values less than 503.389	90% of values less than 543.904
Minimum 416.16ss than 567.117	Maximum 612.838	
Mean 480.53	SD 42.471	Variance 1803.79

Landfill1 - Nickel

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 3.81321	10% of values less than 3.85899	25% of values less than 3.98039
50% of values less than 4.19628	75% of values less than 4.47941	90% of values less than 4.83993
Minimum 3.7032ss than 5.0465	Maximum 5.45335	
Mean 4.276	SD 0.377929	Variance 0.14283

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 287583	10% of values less than 291036	25% of values less than 300192
50% of values less than 316473	75% of values less than 337827	90% of values less than 365016
Minimum 279287ss than 380595	Maximum 411279	
Mean 322486	SD 28502.5	Variance 8.12393E+008

Landfill1 - Zinc

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 3.81321	10% of values less than 3.85899	25% of values less than 3.98039
50% of values less than 4.19628	75% of values less than 4.47941	90% of values less than 4.83993
Minimum 3.7032ss than 5.0465	Maximum 5.45335	
Mean 4.276	SD 0.377929	Variance 0.14283

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 144139	10% of values less than 145869	25% of values less than 150458
50% of values less than 158619	75% of values less than 169321	90% of values less than 182949
Minimum 139980ss than 190757	Maximum 206136	
Mean 161632	SD 14285.6	Variance 2.0408E+008

Landfill1 - Anthracene

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 3.81321	10% of values less than 3.85899	25% of values less than 3.98039
50% of values less than 4.19628	75% of values less than 4.47941	90% of values less than 4.83993
Minimum 3.7032ss than 5.0465	Maximum 5.45335	
Mean 4.276	SD 0.377929	Variance 0.14283

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 2008.97	10% of values less than 2033.09	25% of values less than 2097.04
50% of values less than 2210.78	75% of values less than 2359.95	90% of values less than 2549.89
Minimum 1951.01s than 2658.72	Maximum 2873.07	
Mean 2252.78	SD 199.11	Variance 39644.6

Landfill1 - Fluoranthene

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 3.81321	10% of values less than 3.85899	25% of values less than 3.98039
50% of values less than 4.19628	75% of values less than 4.47941	90% of values less than 4.83993
Minimum 3.7032ss than 5.0465	Maximum 5.45335	
Mean 4.276	SD 0.377929	Variance 0.14283

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 6492.84	10% of values less than 6570.79	25% of values less than 6777.5
50% of values less than 7145.09	75% of values less than 7627.2	90% of values less than 8241.06
Minimum 6305.52s than 8592.79	Maximum 9285.54	
Mean 7280.84	SD 643.508	Variance 414103

Landfill1 - TPH Aromatic C10-C12

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 3.81321	10% of values less than 3.85899	25% of values less than 3.98039
50% of values less than 4.19628	75% of values less than 4.47941	90% of values less than 4.83993
Minimum 3.7032ss than 5.0465	Maximum 5.45335	
Mean 4.276	SD 0.377929	Variance 0.14283

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 899.589	10% of values less than 910.39	25% of values less than 939.029
50% of values less than 989.96	75% of values less than 1056.76	90% of values less than 1141.81
Minimum 873.636s than 1190.54	Maximum 1286.52	
Mean 1008.77	SD 89.1586	Variance 7949.26

Landfill1 - TPH Aromatic C12-C16

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 3.81321	10% of values less than 3.85899	25% of values less than 3.98039
50% of values less than 4.19628	75% of values less than 4.47941	90% of values less than 4.83993
Minimum 3.7032ss than 5.0465	Maximum 5.45335	
Mean 4.276	SD 0.377929	Variance 0.14283

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 1791.08	10% of values less than 1812.59	25% of values less than 1869.61
50% of values less than 1971.01	75% of values less than 2104.01	90% of values less than 2273.34
Minimum 1739.41s than 2370.37	Maximum 2561.47	
Mean 2008.46	SD 177.515	Variance 31511.7

Landfill1 - Boron

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 1.47747	10% of values less than 1.81094	25% of values less than 2.60777
50% of values less than 3.938	75% of values less than 5.49243	90% of values less than 6.96744
Minimum 0.529418 than 7.85568	Maximum 11.1196	
Mean 4.17518	SD 1.99647	Variance 3.9859

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0.000367912	10% of values less than 0.000771247	25% of values less than 0.00315608
50% of values less than 0.0117856	75% of values less than 0.0299583	90% of values less than 0.0590868
Minimum 1.20276E-005 0.0952208	Maximum 0.372478	
Mean 0.0241576	SD 0.0360406	Variance 0.00129892

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 4.92344E-009	10% of values less than 2.8559E-008	25% of values less than 4.73761E-007
50% of values less than 6.87022E-006	75% of values less than 4.72588E-005	90% of values less than 0.000190062
Minimum 4.86653E-012 0.00041348	Maximum 0.00442879	
Mean 9.0754E-005	SD 0.000314186	Variance 9.87126E-008

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Copper

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Naphthalene

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0.0049293	10% of values less than 0.00716075	25% of values less than 0.0158238
50% of values less than 0.0324406	75% of values less than 0.0579173	90% of values less than 0.0920776
Minimum 0.000568151า 0.115255	Maximum 0.246271	
Mean 0.0418819	SD 0.0352315	Variance 0.00124126

Landfill1 - Nickel

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Zinc

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Anthracene

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Fluoranthene

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - TPH Aromatic C10-C12

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0.0322046	75% of values less than 0.0940648	90% of values less than 0.148966
Minimum 0ues less than 0.169183	Maximum 0.235492	
Mean 0.0528178	SD 0.0612203	Variance 0.00374792

Landfill1 - TPH Aromatic C12-C16

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Boron

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0.0820092	10% of values less than 0.104853	25% of values less than 0.164748
50% of values less than 0.277011	75% of values less than 0.51595	90% of values less than 0.869371
Minimum 0.0159553	an 1.12478 Maximum 4.92802	
Mean 0.421167	SD 0.445978	Variance 0.198896

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 2.54946E-005	10% of values less than 5.99728E-005	25% of values less than 0.000247522
50% of values less than 0.000903533	75% of values less than 0.00239347	90% of values less than 0.0055507
Minimum 3.62481E-007 0.0101196	Maximum 0.0518598	
Mean 0.00234862	SD 0.00453956	Variance 2.06076E-005

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 4.0216E-010	10% of values less than 1.80468E-009	25% of values less than 3.86857E-008
50% of values less than 5.37242E-007	75% of values less than 3.60735E-006	90% of values less than 1.76898E-005
Minimum 5.06753E-013 4.18583E-005	Maximum 0.000325727	
Mean 7.93692E-006	SD 2.66397E-005	Variance 7.09674E-010

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0	es less than 0 Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Copper

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Naphthalene

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0.000317079	10% of values less than 0.000491305	25% of values less than 0.00106282
50% of values less than 0.00245252	75% of values less than 0.00506324	90% of values less than 0.00975829
Minimum 1.68661E-005 0.0128719	Maximum 0.0804577	
Mean 0.00415217	SD 0.00575083	Variance 3.3072E-005

Landfill1 - Nickel

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Zinc

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Anthracene

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Fluoranthene

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - TPH Aromatic C10-C12

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0.00211988	75% of values less than 0.00722805	90% of values less than 0.0160273
Minimum 0ues less than 0.0239089	Maximum 0.0662268	
Mean 0.00557272	SD 0.00926352	Variance 8.58127E-005

Landfill1 - TPH Aromatic C12-C16

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Boron

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 3.99748	10% of values less than 4.09999	25% of values less than 4.29755
50% of values less than 4.64052	75% of values less than 5.1518	90% of values less than 5.73384
Minimum 3.78214s than 6.31194	Maximum 12.1089	
Mean 4.83889	SD 0.803016	Variance 0.644834

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 6.09699	10% of values less than 6.50573	25% of values less than 7.43078
50% of values less than 8.95814	75% of values less than 12.2377	90% of values less than 17.626
Minimum 4.97722s than 22.6795	Maximum 89.4906	
Mean 10.9372	SD 6.2431	Variance 38.9762

Copper

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 3.99748	10% of values less than 4.09999	25% of values less than 4.29755
50% of values less than 4.64052	75% of values less than 5.1518	90% of values less than 5.73384
Minimum 3.78214s than 6.31194	Maximum 12.1089	
Mean 4.83889	SD 0.803016	Variance 0.644834

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 642166	10% of values less than 705144	25% of values less than 879960
50% of values less than 1.24644E+006	75% of values less than 1.99698E+006	90% of values less than 3.3864E+006
Minimum 491447s than 4.61124E+006	Maximum 1.63914E+007	
Mean 1.72774E+006	SD 1.42217E+006	Variance 2.02257E+012

Naphthalene

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 3.99748	10% of values less than 4.09999	25% of values less than 4.29755
50% of values less than 4.64052	75% of values less than 5.1518	90% of values less than 5.73384
Minimum 3.78214s than 6.31194	Maximum 12.1089	
Mean 4.83889	SD 0.803016	Variance 0.644834

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 442.692	10% of values less than 450.646	25% of values less than 468.197
50% of values less than 499.703	75% of values less than 544.554	90% of values less than 590.832
Minimum 423.819s than 611.468	Maximum 891.273	
Mean 511.263	SD 56.3897	Variance 3179.8

Nickel

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 3.99748	10% of values less than 4.09999	25% of values less than 4.29755
50% of values less than 4.64052	75% of values less than 5.1518	90% of values less than 5.73384
Minimum 3.78214s than 6.31194	Maximum 12.1089	
Mean 4.83889	SD 0.803016	Variance 0.644834

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 405179	10% of values less than 444916	25% of values less than 555216
50% of values less than 786449	75% of values less than 1.26001E+006	90% of values less than 2.13667E+006
Minimum 310082s than 2.90949E+006	Maximum 1.03422E+007	
Mean 1.09013E+006	SD 897325	Variance 8.05192E+011

Zinc

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 3.99748	10% of values less than 4.09999	25% of values less than 4.29755
50% of values less than 4.64052	75% of values less than 5.1518	90% of values less than 5.73384
Minimum 3.78214s than 6.31194	Maximum 12.1089	
Mean 4.83889	SD 0.803016	Variance 0.644834

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 203078	10% of values less than 222994	25% of values less than 278277
50% of values less than 394170	75% of values less than 631518	90% of values less than 1.0709E+006
Minimum 155415s than 1.45824E+006	Maximum 5.18353E+006	
Mean 546375	SD 449739	Variance 2.02266E+011

Anthracene

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 3.99748	10% of values less than 4.09999	25% of values less than 4.29755
50% of values less than 4.64052	75% of values less than 5.1518	90% of values less than 5.73384
Minimum 3.78214s than 6.31194	Maximum 12.1089	
Mean 4.83889	SD 0.803016	Variance 0.644834

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 2075.36	10% of values less than 2112.06	25% of values less than 2194.16
50% of values less than 2341.69	75% of values less than 2551.52	90% of values less than 2764.99
Minimum 1986.88s than 2866.59	Maximum 4169.05	
Mean 2395.79	SD 263.574	Variance 69471.5

Fluoranthene

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 3.99748	10% of values less than 4.09999	25% of values less than 4.29755
50% of values less than 4.64052	75% of values less than 5.1518	90% of values less than 5.73384
Minimum 3.78214s than 6.31194	Maximum 12.1089	
Mean 4.83889	SD 0.803016	Variance 0.644834

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 6707.39	10% of values less than 6825.66	25% of values less than 7091.27
50% of values less than 7567.5	75% of values less than 8246.1	90% of values less than 8934.83
Minimum 6421.43s than 9264.59	Maximum 13468.4	
Mean 7742.37	SD 851.38	Variance 724848

TPH Aromatic C10-C12

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 3.99748	10% of values less than 4.09999	25% of values less than 4.29755
50% of values less than 4.64052	75% of values less than 5.1518	90% of values less than 5.73384
Minimum 3.78214s than 6.31194	Maximum 12.1089	
Mean 4.83889	SD 0.803016	Variance 0.644834

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 929.324	10% of values less than 945.847	25% of values less than 982.54
50% of values less than 1048.73	75% of values less than 1142.99	90% of values less than 1238.66
Minimum 889.705s than 1283.63	Maximum 1868.25	
Mean 1072.96	SD 118.143	Variance 13957.7

TPH Aromatic C12-C16

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 3.99748	10% of values less than 4.09999	25% of values less than 4.29755
50% of values less than 4.64052	75% of values less than 5.1518	90% of values less than 5.73384
Minimum 3.78214s than 6.31194	Maximum 12.1089	
Mean 4.83889	SD 0.803016	Variance 0.644834

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 1850.28	10% of values less than 1883.02	25% of values less than 1956.2
50% of values less than 2087.76	75% of values less than 2274.93	90% of values less than 2465.19
Minimum 1771.4ss than 2555.7	Maximum 3717.17	
Mean 2135.99	SD 235.012	Variance 55230.5

Boron

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0.0594206	75% of values less than 0.241164	90% of values less than 0.487953
Minimum 0ues less than 0.679831	Maximum 1.89344	
Mean 0.162363	SD 0.235953	Variance 0.0556736

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 2.6685E-008	10% of values less than 7.69599E-007	25% of values less than 3.48468E-005
50% of values less than 0.00040634	75% of values less than 0.00200546	90% of values less than 0.00601307
Minimum 0ues less than 0.0123019	Maximum 0.422035	
Mean 0.00372057	SD 0.0194323	Variance 0.000377614

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 2.34337E-012	10% of values less than 7.74466E-011	25% of values less than 5.42431E-009
50% of values less than 1.5484E-007	75% of values less than 2.38046E-006	90% of values less than 1.47428E-005
Minimum 2.1934E-017n 4.55494E-005	Maximum 0.354663	
Mean 0.000363288	SD 0.0112096	Variance 0.000125655

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Copper

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Naphthalene

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 5.33211E-008	10% of values less than 8.64454E-007	25% of values less than 8.26385E-005
50% of values less than 0.000963606	75% of values less than 0.00323929	90% of values less than 0.00658506
Minimum 9.3891E-011n 0.010702	Maximum 0.0401307	
Mean 0.00258866	SD 0.00448882	Variance 2.01495E-005

Nickel

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Zinc

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Anthracene

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Fluoranthene

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

TPH Aromatic C10-C12

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0.00102361	90% of values less than 0.00622901
Minimum 0ues less than 0.0100054	Maximum 0.0597572	
Mean 0.00179214	SD 0.00460747	Variance 2.12287E-005

TPH Aromatic C12-C16

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Boron

Unretarded Travel Time to River Colne [years]

05% of values less than 4.18108	10% of values less than 4.3028	25% of values less than 4.57127
50% of values less than 5.01916	75% of values less than 5.66405	90% of values less than 6.4633
Minimum 3.89633s than 7.46082	Maximum 16.1506	
Mean 5.29746	SD 1.14267	Variance 1.3057

Retarded Travel Time to River Colne [years]

05% of values less than 7.50441	10% of values less than 8.16224	25% of values less than 9.52789
50% of values less than 11.881	75% of values less than 16.7359	90% of values less than 24.957
Minimum 6.11273s than 32.1127	Maximum 131.917	
Mean 14.8466	SD 9.33131	Variance 87.0733

Copper

Unretarded Travel Time to River Colne [years]

05% of values less than 4.18108	10% of values less than 4.3028	25% of values less than 4.57127
50% of values less than 5.01916	75% of values less than 5.66405	90% of values less than 6.4633
Minimum 3.89633s than 7.46082	Maximum 16.1506	
Mean 5.29746	SD 1.14267	Variance 1.3057

Retarded Travel Time to River Colne [years]

05% of values less than 1.0226E+006	10% of values less than 1.14003E+006	25% of values less than 1.43522E+006
50% of values less than 1.99176E+006	75% of values less than 3.13639E+006	90% of values less than 5.22514E+006
Minimum 768013s than 6.91739E+006	Maximum 2.446E+007	
Mean 2.7103E+006	SD 2.12635E+006	Variance 4.52137E+012

Naphthalene

Unretarded Travel Time to River Colne [years]

05% of values less than 4.18108	10% of values less than 4.3028	25% of values less than 4.57127
50% of values less than 5.01916	75% of values less than 5.66405	90% of values less than 6.4633
Minimum 3.89633s than 7.46082	Maximum 16.1506	
Mean 5.29746	SD 1.14267	Variance 1.3057

Retarded Travel Time to River Colne [years]

05% of values less than 455.751	10% of values less than 465.434	25% of values less than 485.707
50% of values less than 521.591	75% of values less than 571.491	90% of values less than 622.021
Minimum 432.937s than 660.667	Maximum 1094.45	
Mean 536.087	SD 69.5912	Variance 4842.94

Nickel

Unretarded Travel Time to River Colne [years]

05% of values less than 4.18108	10% of values less than 4.3028	25% of values less than 4.57127
50% of values less than 5.01916	75% of values less than 5.66405	90% of values less than 6.4633
Minimum 3.89633s than 7.46082	Maximum 16.1506	
Mean 5.29746	SD 1.14267	Variance 1.3057

Retarded Travel Time to River Colne [years]

05% of values less than 645215	10% of values less than 719307	25% of values less than 905559
50% of values less than 1.25671E+006	75% of values less than 1.97892E+006	90% of values less than 3.29683E+006
Minimum 484583s than 4.36456E+006	Maximum 1.54332E+007	
Mean 1.71008E+006	SD 1.34163E+006	Variance 1.79997E+012

Zinc

Unretarded Travel Time to River Colne [years]

05% of values less than 4.18108	10% of values less than 4.3028	25% of values less than 4.57127
50% of values less than 5.01916	75% of values less than 5.66405	90% of values less than 6.4633
Minimum 3.89633s than 7.46082	Maximum 16.1506	
Mean 5.29746	SD 1.14267	Variance 1.3057

Retarded Travel Time to River Colne [years]

05% of values less than 323384	10% of values less than 360519	25% of values less than 453868
50% of values less than 629867	75% of values less than 991839	90% of values less than 1.65238E+006
Minimum 242875s than 2.18752E+006	Maximum 7.73511E+006	
Mean 857093	SD 672426	Variance 4.52157E+011

Anthracene

Unretarded Travel Time to River Colne [years]

05% of values less than 4.18108	10% of values less than 4.3028	25% of values less than 4.57127
50% of values less than 5.01916	75% of values less than 5.66405	90% of values less than 6.4633
Minimum 3.89633s than 7.46082	Maximum 16.1506	
Mean 5.29746	SD 1.14267	Variance 1.3057

Retarded Travel Time to River Colne [years]

05% of values less than 2136.27	10% of values less than 2180.8	25% of values less than 2276.57
50% of values less than 2443.98	75% of values less than 2677.87	90% of values less than 2914.63
Minimum 2029.5ss than 3092.16	Maximum 5116.8	
Mean 2511.29	SD 324.824	Variance 105511

Fluoranthene

Unretarded Travel Time to River Colne [years]

05% of values less than 4.18108	10% of values less than 4.3028	25% of values less than 4.57127
50% of values less than 5.01916	75% of values less than 5.66405	90% of values less than 6.4633
Minimum 3.89633s than 7.46082	Maximum 16.1506	
Mean 5.29746	SD 1.14267	Variance 1.3057

Retarded Travel Time to River Colne [years]

05% of values less than 6904.05	10% of values less than 7047.9	25% of values less than 7357.33
50% of values less than 7897.59	75% of values less than 8653.88	90% of values less than 9418.93
Minimum 6559.1ss than 9990.52	Maximum 16528.6	
Mean 8115.11	SD 1048.95	Variance 1.10029E+006

TPH Aromatic C10-C12

Unretarded Travel Time to River Colne [years]

05% of values less than 4.18108	10% of values less than 4.3028	25% of values less than 4.57127
50% of values less than 5.01916	75% of values less than 5.66405	90% of values less than 6.4633
Minimum 3.89633s than 7.46082	Maximum 16.1506	
Mean 5.29746	SD 1.14267	Variance 1.3057

Retarded Travel Time to River Colne [years]

05% of values less than 956.646	10% of values less than 976.734	25% of values less than 1019.52
50% of values less than 1094.54	75% of values less than 1199.3	90% of values less than 1305.36
Minimum 908.808s than 1385.4	Maximum 2293.35	
Mean 1124.81	SD 145.665	Variance 21218.4

TPH Aromatic C12-C16

Unretarded Travel Time to River Colne [years]

05% of values less than 4.18108	10% of values less than 4.3028	25% of values less than 4.57127
50% of values less than 5.01916	75% of values less than 5.66405	90% of values less than 6.4633
Minimum 3.89633s than 7.46082	Maximum 16.1506	
Mean 5.29746	SD 1.14267	Variance 1.3057

Retarded Travel Time to River Colne [years]

05% of values less than 1904.59	10% of values less than 1944.3	25% of values less than 2029.69
50% of values less than 2178.95	75% of values less than 2387.49	90% of values less than 2598.57
Minimum 1809.4ss than 2756.95	Maximum 4562.28	
Mean 2238.98	SD 289.637	Variance 83889.8

Boron

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 2.49568E-006	90% of values less than 0.186926
Minimum 0ues less than 0.272847	Maximum 0.99572	
Mean 0.0448345	SD 0.109524	Variance 0.0119954

Concentration at River Colne [mg/l] - 50 years

05% of values less than 4.8192E-016	10% of values less than 3.33418E-014	25% of values less than 5.56238E-011
50% of values less than 1.90986E-006	75% of values less than 0.00109672	90% of values less than 0.00540652
Minimum 0ues less than 0.0122178	Maximum 0.469891	
Mean 0.00418195	SD 0.0272434	Variance 0.000742203

Concentration at River Colne [mg/l] - 100 years

05% of values less than 1.48361E-019	10% of values less than 1.65222E-017	25% of values less than 2.60434E-014
50% of values less than 7.01265E-010	75% of values less than 5.89229E-007	90% of values less than 8.82257E-006
Minimum 0ues less than 2.68114E-005	Maximum 0.00117248	
Mean 9.47194E-006	SD 5.96885E-005	Variance 3.56272E-009

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Copper

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Naphthalene

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 6.11797E-016	10% of values less than 3.63373E-014	25% of values less than 6.85877E-011
50% of values less than 1.60053E-006	75% of values less than 0.00171584	90% of values less than 0.00535891
Minimum 0ues less than 0.00910367	Maximum 0.0331944	
Mean 0.001765	SD 0.00384692	Variance 1.47988E-005

Nickel

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Zinc

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Anthracene

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Fluoranthene

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

TPH Aromatic C10-C12

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0.00201286
Minimum 0ues less than 0.00486379	Maximum 0.0152501	
Mean 0.000583843	SD 0.00192753	Variance 3.71538E-006

TPH Aromatic C12-C16

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Boron

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 4.05068	10% of values less than 4.14971	25% of values less than 4.36562
50% of values less than 4.73094	75% of values less than 5.27996	90% of values less than 5.88481
Minimum 3.80804s than 6.57665	Maximum 13.0253	
Mean 4.94287	SD 0.873946	Variance 0.763781

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 6.46027	10% of values less than 6.92542	25% of values less than 7.98176
50% of values less than 9.64742	75% of values less than 13.2008	90% of values less than 19.296
Minimum 5.43725s than 24.607	Maximum 99.1105	
Mean 11.8236	SD 6.9082	Variance 47.7233

Copper

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 4.05068	10% of values less than 4.14971	25% of values less than 4.36562
50% of values less than 4.73094	75% of values less than 5.27996	90% of values less than 5.88481
Minimum 3.80804s than 6.57665	Maximum 13.0253	
Mean 4.94287	SD 0.873946	Variance 0.763781

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 744437	10% of values less than 814408	25% of values less than 1.0201E+006
50% of values less than 1.43961E+006	75% of values less than 2.23822E+006	90% of values less than 3.79025E+006
Minimum 559571s than 5.09616E+006	Maximum 1.82209E+007	
Mean 1.95053E+006	SD 1.57279E+006	Variance 2.47367E+012

Naphthalene

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 4.05068	10% of values less than 4.14971	25% of values less than 4.36562
50% of values less than 4.73094	75% of values less than 5.27996	90% of values less than 5.88481
Minimum 3.80804s than 6.57665	Maximum 13.0253	
Mean 4.94287	SD 0.873946	Variance 0.763781

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 446.348	10% of values less than 453.959	25% of values less than 472.843
50% of values less than 505.035	75% of values less than 551.352	90% of values less than 598.016
Minimum 425.887s than 622.929	Maximum 937.342	
Mean 516.892	SD 59.0191	Variance 3483.26

Nickel

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 4.05068	10% of values less than 4.14971	25% of values less than 4.36562
50% of values less than 4.73094	75% of values less than 5.27996	90% of values less than 5.88481
Minimum 3.80804s than 6.57665	Maximum 13.0253	
Mean 4.94287	SD 0.873946	Variance 0.763781

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 469708	10% of values less than 513856	25% of values less than 643636
50% of values less than 908328	75% of values less than 1.41222E+006	90% of values less than 2.39148E+006
Minimum 353066s than 3.21545E+006	Maximum 1.14966E+007	
Mean 1.2307E+006	SD 992360	Variance 9.84779E+011

Zinc

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 4.05068	10% of values less than 4.14971	25% of values less than 4.36562
50% of values less than 4.73094	75% of values less than 5.27996	90% of values less than 5.88481
Minimum 3.80804s than 6.57665	Maximum 13.0253	
Mean 4.94287	SD 0.873946	Variance 0.763781

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 235420	10% of values less than 257547	25% of values less than 322593
50% of values less than 455256	75% of values less than 707805	90% of values less than 1.19861E+006
Minimum 176958s than 1.61158E+006	Maximum 5.76208E+006	
Mean 616828	SD 497371	Variance 2.47378E+011

Anthracene

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 4.05068	10% of values less than 4.14971	25% of values less than 4.36562
50% of values less than 4.73094	75% of values less than 5.27996	90% of values less than 5.88481
Minimum 3.80804s than 6.57665	Maximum 13.0253	
Mean 4.94287	SD 0.873946	Variance 0.763781

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 2092.48	10% of values less than 2128.02	25% of values less than 2216.02
50% of values less than 2367.25	75% of values less than 2582.81	90% of values less than 2797.94
Minimum 1996.54s than 2917.47	Maximum 4383.94	
Mean 2421.98	SD 275.768	Variance 76047.9

Fluoranthene

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 4.05068	10% of values less than 4.14971	25% of values less than 4.36562
50% of values less than 4.73094	75% of values less than 5.27996	90% of values less than 5.88481
Minimum 3.80804s than 6.57665	Maximum 13.0253	
Mean 4.94287	SD 0.873946	Variance 0.763781

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 6762.71	10% of values less than 6877.5	25% of values less than 7160.51
50% of values less than 7650.53	75% of values less than 8346.59	90% of values less than 9041.66
Minimum 6452.65s than 9428.78	Maximum 14162.3	
Mean 7826.89	SD 890.707	Variance 793360

TPH Aromatic C10-C12

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 4.05068	10% of values less than 4.14971	25% of values less than 4.36562
50% of values less than 4.73094	75% of values less than 5.27996	90% of values less than 5.88481
Minimum 3.80804s than 6.57665	Maximum 13.0253	
Mean 4.94287	SD 0.873946	Variance 0.763781

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 936.99	10% of values less than 952.93	25% of values less than 992.419
50% of values less than 1060.08	75% of values less than 1156.76	90% of values less than 1253.42
Minimum 894.036s than 1307.09	Maximum 1964.63	
Mean 1084.72	SD 123.623	Variance 15282.6

TPH Aromatic C12-C16

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 4.05068	10% of values less than 4.14971	25% of values less than 4.36562
50% of values less than 4.73094	75% of values less than 5.27996	90% of values less than 5.88481
Minimum 3.80804s than 6.57665	Maximum 13.0253	
Mean 4.94287	SD 0.873946	Variance 0.763781

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 1865.54	10% of values less than 1897.23	25% of values less than 1975.72
50% of values less than 2110.52	75% of values less than 2302.73	90% of values less than 2494.54
Minimum 1780.01s than 2601.07	Maximum 3908.79	
Mean 2159.34	SD 245.887	Variance 60460.2

Boron

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0.00134182	75% of values less than 0.196756	90% of values less than 0.388367
Minimum 0ues less than 0.59479	Maximum 1.84901	
Mean 0.132352	SD 0.213067	Variance 0.0453975

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 8.55697E-009	10% of values less than 2.46283E-007	25% of values less than 2.0441E-005
50% of values less than 0.000372583	75% of values less than 0.00198024	90% of values less than 0.00599262
Minimum 0ues less than 0.0136637	Maximum 0.730252	
Mean 0.00451722	SD 0.0302566	Variance 0.00091546

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 9.70211E-013	10% of values less than 3.71908E-011	25% of values less than 2.67543E-009
50% of values less than 1.48278E-007	75% of values less than 2.28353E-006	90% of values less than 1.44417E-005
Minimum 7.55586E-018 4.36741E-005	Maximum 0.215016	
Mean 0.000224858	SD 0.00679588	Variance 4.6184E-005

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Copper

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Naphthalene

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 1.62455E-008	10% of values less than 2.825E-007	25% of values less than 3.26711E-005
50% of values less than 0.000852433	75% of values less than 0.0030492	90% of values less than 0.00648406
Minimum 2.88634E-011 0.0109004	Maximum 0.0366714	
Mean 0.00245036	SD 0.0043325	Variance 1.87706E-005

Nickel

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Zinc

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Anthracene

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Fluoranthene

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

TPH Aromatic C10-C12

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 6.49113E-005	90% of values less than 0.005343
Minimum 0ues less than 0.00854244	Maximum 0.0376226	
Mean 0.00146803	SD 0.00389501	Variance 1.51711E-005

TPH Aromatic C12-C16

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Aquifer Flow [m³/yr]

Landfill1

05% of values less than 74249.8	10% of values less than 106157	25% of values less than 185326
50% of values less than 340666	75% of values less than 535371	90% of values less than 725655
Minimum 7893.66s than 815917	Maximum 1.02896E+006	
Mean 380575	SD 233874	Variance 5.46969E+010

Project: Radlett SFRI

Project Number: CS018904

Project Details

Title: Radlett SFRI

Project Number: CS018904

Prepared By: EAP

Date: 2017-10-15 15:18:18

Client Name:

Comments:

Consim version 2.05

Simulation Level

Level 3

Simulation Parameters

Iterations 1001

Timeslices:1, 10, 25, 50, 100, 500, 1000, 5000

Water Quality Standard

User Defined

Source

Landfill1
Dry Bulk Density [g/cm³] SINGLE(1.07)
Air Filled Porosity [fraction] SINGLE(0.16)
Water Filled Porosity [fraction] SINGLE(0.37)
Thickness [m] TRIANGULAR(2.1,4.195,6.2)
Fraction of Organic Carbon [%] SINGLE(1.24)
Contaminated Land
Declining Source Term

Overall Unsaturated Zone Thickness [m] SINGLE(5.19)

Infiltration

Infiltration [mm/year] TRIANGULAR(200,284,300)

Source Inventory:

Boron

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(0.4,2.29,8.1)
Inorganic
Partition Coefficient [ml/g] UNIFORM(0.027,0.083)
Maximum Solubility [mg/l] UNIFORM(20.1,63.5)

Copper

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(11,43.11,110)
Inorganic
Partition Coefficient [ml/g] SINGLE(15849)
Maximum Solubility [mg/l] SINGLE(293000)

Naphthalene

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(0.05,0.88,14)
Organic
koc [ml/g] SINGLE(1191) — Calculate kd
Henry's Law Constant SINGLE(0.00662) — Maximum Solubility [mg/l] SINGLE(32.9)

Nickel

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(13,25,39)
Inorganic
Partition Coefficient [ml/g] SINGLE(10000)
Maximum Solubility [mg/l] SINGLE(173000)

Zinc

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(37,174.28,710)
Inorganic
Partition Coefficient [ml/g] SINGLE(5012)
Maximum Solubility [mg/l] SINGLE(606000)

Anthracene

Measured as Total Concentration in Soil	Concentration [mg/kg] TRIANGULAR(0.1,0.42,2.3)
Organic	
koc [ml/g] SINGLE(5623)	Calculate kd
Henry's Law Constant SINGLE(0.000181)	Maximum Solubility [mg/l] SINGLE(0.073)

Fluoranthene

Measured as Total Concentration in Soil	Concentration [mg/kg] TRIANGULAR(0.1,2.71,11)
Organic	
Partition Coefficient [ml/g] SINGLE(18197)	
Henry's Law Constant SINGLE(6.29e-005)	Maximum Solubility [mg/l] UNIFORM(0.265,0.275)

TPH Aromatic C10-C12

Measured as Total Concentration in Soil	Concentration [mg/kg] TRIANGULAR(1,1.92,16)
Organic	
koc [ml/g] SINGLE(2512)	Calculate kd
Henry's Law Constant SINGLE(0.14)	Maximum Solubility [mg/l] SINGLE(25)

TPH Aromatic C12-C16

Measured as Total Concentration in Soil	Concentration [mg/kg] TRIANGULAR(2,6.65,23)
Organic	
koc [ml/g] SINGLE(5012)	Calculate kd
Henry's Law Constant SINGLE(0.053)	Maximum Solubility [mg/l] SINGLE(5.8)

Unsaturated Pathway: Unsaturated Pathway 1

Active
Porous Medium
Thickness [m] TRIANGULAR(3.7,5.16,6.2)
Dry Bulk Density [g/cm³] SINGLE(1.81)
Vertical Dispersivity [m] SINGLE(0.561)
Fraction of Organic Carbon [%] SINGLE(1.24)
Water Filled Porosity [fraction] SINGLE(0.24)
Unsaturated Conductivity [m/s] UNIFORM(9e-008,5e-005)

Unsaturated Pathway Contaminants

Boron
Partition Coefficient [ml/g] UNIFORM(0.027,0.083)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Copper
Partition Coefficient [ml/g] SINGLE(15849)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Naphthalene
koc [ml/g] SINGLE(1191) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(550)

Nickel
Partition Coefficient [ml/g] SINGLE(10000)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Zinc
Partition Coefficient [ml/g] SINGLE(5012)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Anthracene
koc [ml/g] SINGLE(5623) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(4000)

Fluoranthene
koc [ml/g] SINGLE(18197) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(4000)

TPH Aromatic C10-C12

koc [ml/g] SINGLE(2512) Calculate kd

Simulate Degradation in Dissolved Phase only

Halflife [years] SINGLE(258)

TPH Aromatic C12-C16

koc [ml/g] SINGLE(5012) Calculate kd

Simulate Degradation in Dissolved Phase only

Halflife [years] SINGLE(3800)

Aquifer Pathway

Thickness [m] SINGLE(50)
Dry Bulk Density [g/cm³] UNIFORM(1.5,1.84)
Fraction of Organic Carbon [%] SINGLE(0.033)
Calculated Mixing Zone Thickness
Hydraulic Conductivity [m/s] TRIANGULAR(5.367e-006,9.572e-005,0.000926)
Effective Porosity [fraction] UNIFORM(0.005,0.02)
Hydraulic Gradient SINGLE(0.001156)
Groundwater Flow Direction (degrees), 140.00
Longitudinal Dispersivity [m] SINGLE(5)
Lateral Dispersivity [m] SINGLE(0.5)

Contaminant Inventory

Boron
Partition Coefficient [ml/g] UNIFORM(0.027,0.083)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Copper
Partition Coefficient [ml/g] SINGLE(15849)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Naphthalene
koc [ml/g] SINGLE(1191) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(550)

Nickel
Partition Coefficient [ml/g] SINGLE(10000)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Zinc
Partition Coefficient [ml/g] SINGLE(5012)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Anthracene
koc [ml/g] SINGLE(5623) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(4000)

Fluoranthene

koc [ml/g] SINGLE(18197) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(4000)

TPH Aromatic C10-C12

koc [ml/g] SINGLE(2512) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(258)

TPH Aromatic C12-C16

koc [ml/g] SINGLE(5012) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(3800)

Project: Radlett SFRI

Project Number: CS018904

Receptor

Landfill1 Receptor	X 516248.175377	Y 202826.381429
River Colne	X 516359.250514	Y 202507.049439
Downstream Compliance	X 516284.371465	Y 202763.214607

Input Correlations

No Correlations

Project: Radlett SFRI

Project Number: CS018904

Source Inventory:

Ammonium (NH4+)

Aquifer Source Concentration [mg/l] TRIANGULAR(0.015,24.5,120)

Nitrite

Aquifer Source Concentration [mg/l] TRIANGULAR(0.001,0.026906,0.25)

Ammonium (NH4+)

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 0.0520237	10% of values less than 0.083518	25% of values less than 0.161925
50% of values less than 0.363728	75% of values less than 0.727842	90% of values less than 1.3994
Minimum 0.0143864ɲan 2.07673	Maximum 10.3433	
Mean 0.621303	SD 0.832639	Variance 0.693287

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 31.85	10% of values less than 45.9956	25% of values less than 86.8145
50% of values less than 180.186	75% of values less than 353.958	90% of values less than 668.431
Minimum 6.17578s than 998.687	Maximum 9346.1	
Mean 307.163	SD 455.06	Variance 207080

Nitrite

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 0.0520237	10% of values less than 0.083518	25% of values less than 0.161925
50% of values less than 0.363728	75% of values less than 0.727842	90% of values less than 1.3994
Minimum 0.0143864ɲan 2.07673	Maximum 10.3433	
Mean 0.621303	SD 0.832639	Variance 0.693287

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 10.1049	10% of values less than 14.6627	25% of values less than 27.5993
50% of values less than 57.2589	75% of values less than 112.698	90% of values less than 212.743
Minimum 1.96549s than 317.356	Maximum 2966.67	
Mean 97.6928	SD 144.611	Variance 20912.4

Ammonium (NH4+)

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 9.63342E-019
50% of values less than 1.91335E-011	75% of values less than 4.44875E-010	90% of values less than 4.50841E-008
Minimum 0ues less than 0.00286353	Maximum 52.3878	
Mean 0.260433	SD 2.72468	Variance 7.42388

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 1.97726E-015	10% of values less than 4.0237E-014	25% of values less than 8.6809E-012
50% of values less than 4.01404E-010	75% of values less than 0.236677	90% of values less than 23.2174
Minimum 0ues less than 43.1103	Maximum 104.207	
Mean 6.26392	SD 16.9417	Variance 287.02

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 1.42015E-014	10% of values less than 5.29473E-013	25% of values less than 8.34948E-011
50% of values less than 0.000712531	75% of values less than 20.6252	90% of values less than 56.0693
Minimum 0ues less than 73.9514	Maximum 107.914	
Mean 14.0476	SD 24.7116	Variance 610.664

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0.000339496	10% of values less than 0.00720404	25% of values less than 1.15808
50% of values less than 22.4476	75% of values less than 51.058	90% of values less than 77.9539
Minimum 2.45482E-016 89.6509	Maximum 116.328	
Mean 30.1793	SD 30.5489	Variance 933.234

Nitrite

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 1.71402E-020	10% of values less than 4.66156E-018	25% of values less than 7.35494E-015
50% of values less than 5.20635E-013	75% of values less than 6.12508E-008	90% of values less than 0.00549241
Minimum 0ues less than 0.0322366	Maximum 0.218559	
Mean 0.00499805	SD 0.020875	Variance 0.000435765

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 1.06172E-016	10% of values less than 6.14104E-015	25% of values less than 1.28842E-011
50% of values less than 0.00200536	75% of values less than 0.0552281	90% of values less than 0.110482
Minimum 0ues less than 0.143557	Maximum 0.226027	
Mean 0.0333181	SD 0.0499225	Variance 0.00249225

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 4.72813E-015	10% of values less than 1.5687E-012	25% of values less than 4.20405E-005
50% of values less than 0.0217168	75% of values less than 0.0774618	90% of values less than 0.126885
Minimum 1.61669E-025 0.161941	Maximum 0.226854	
Mean 0.0455291	SD 0.0547544	Variance 0.00299805

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 1.64222E-006	10% of values less than 2.28885E-005	25% of values less than 0.00288831
50% of values less than 0.0386367	75% of values less than 0.0927113	90% of values less than 0.141001
Minimum 7.57779E-019 0.170053	Maximum 0.237309	
Mean 0.0550365	SD 0.056502	Variance 0.00319248

Ammonium (NH4+)

Unretarded Travel Time to River Colne [years]

05% of values less than 0.197447	10% of values less than 0.245442	25% of values less than 0.396877
50% of values less than 0.711424	75% of values less than 1.45183	90% of values less than 2.57692
Minimum 0.0890858an 3.69	Maximum 14.4534	
Mean 1.18863	SD 1.43219	Variance 2.05116

Retarded Travel Time to River Colne [years]

05% of values less than 119.385	10% of values less than 148.032	25% of values less than 212.165
50% of values less than 359.593	75% of values less than 678.765	90% of values less than 1197.59
Minimum 74.9737s than 1709.69	Maximum 13059.9	
Mean 577.461	SD 718.911	Variance 516833

Nitrite

Unretarded Travel Time to River Colne [years]

05% of values less than 0.197447	10% of values less than 0.245442	25% of values less than 0.396877
50% of values less than 0.711424	75% of values less than 1.45183	90% of values less than 2.57692
Minimum 0.0890858an 3.69	Maximum 14.4534	
Mean 1.18863	SD 1.43219	Variance 2.05116

Retarded Travel Time to River Colne [years]

05% of values less than 37.9761	10% of values less than 47.0171	25% of values less than 67.4969
50% of values less than 114.153	75% of values less than 215.967	90% of values less than 380.366
Minimum 23.9105s than 544.419	Maximum 4145.52	
Mean 183.675	SD 228.524	Variance 52223.3

Ammonium (NH4+)

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.89661E-024	75% of values less than 1.66567E-013	90% of values less than 2.35155E-010
Minimum 0ues less than 4.79448E-010	Maximum 1.06599E-009	
Mean 6.47915E-011	SD 1.76748E-010	Variance 3.12398E-020

Concentration at River Colne [mg/l] - 50 years

05% of values less than 3.65479E-026	10% of values less than 5.54609E-023	25% of values less than 7.04992E-019
50% of values less than 8.47857E-014	75% of values less than 3.85793E-010	90% of values less than 8.23732E-010
Minimum 0ues less than 1.55542E-008	Maximum 0.271681	
Mean 0.000711374	SD 0.011318	Variance 0.000128097

Concentration at River Colne [mg/l] - 100 years

05% of values less than 5.74654E-023	10% of values less than 1.71256E-021	25% of values less than 7.57488E-018
50% of values less than 6.85489E-013	75% of values less than 1.07179E-009	90% of values less than 0.0744376
Minimum 0ues less than 4.50857	Maximum 90.5769	
Mean 1.39566	SD 7.77727	Variance 60.4859

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 3.13044E-013	10% of values less than 2.17091E-011	25% of values less than 1.46254E-007
50% of values less than 0.00917236	75% of values less than 35.8359	90% of values less than 70.0573
Minimum 2.74487E-025 82.3732	Maximum 115.166	
Mean 19.8844	SD 29.4439	Variance 866.945

Nitrite

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 2.05689E-023
50% of values less than 1.97188E-017	75% of values less than 4.59694E-013	90% of values less than 1.06882E-012
Minimum 0ues less than 1.3953E-012	Maximum 1.23099E-009	
Mean 2.19976E-012	SD 4.378E-011	Variance 1.91669E-021

Concentration at River Colne [mg/l] - 50 years

05% of values less than 5.63023E-025	10% of values less than 2.59105E-023	25% of values less than 2.02652E-019
50% of values less than 3.77752E-013	75% of values less than 5.28147E-006	90% of values less than 0.0291007
Minimum 0ues less than 0.0729546	Maximum 0.226014	
Mean 0.00992934	SD 0.0306186	Variance 0.000937497

Concentration at River Colne [mg/l] - 100 years

05% of values less than 9.72554E-024	10% of values less than 3.58495E-021	25% of values less than 9.65543E-015
50% of values less than 9.37023E-009	75% of values less than 0.0170807	90% of values less than 0.0867824
Minimum 0ues less than 0.125804	Maximum 0.226027	
Mean 0.0215598	SD 0.0439353	Variance 0.00193031

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 2.71163E-014	10% of values less than 9.20517E-013	25% of values less than 1.87944E-009
50% of values less than 5.37024E-005	75% of values less than 0.0667771	90% of values less than 0.119646
Minimum 9.56602E-027 0.154799	Maximum 0.228756	
Mean 0.0368451	SD 0.0538772	Variance 0.00290275

Ammonium (NH4+)

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 0.090019	10% of values less than 0.125169	25% of values less than 0.218002
50% of values less than 0.445583	75% of values less than 0.886735	90% of values less than 1.71591
Minimum 0.0368213ıan 2.4171	Maximum 11.2753	
Mean 0.74994	SD 0.954571	Variance 0.911206

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 54.5524	10% of values less than 71.6108	25% of values less than 119.487
50% of values less than 219.457	75% of values less than 428.098	90% of values less than 787.279
Minimum 25.7794s than 1125.75	Maximum 10188.2	
Mean 368.451	SD 509.471	Variance 259561

Nitrite

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 0.090019	10% of values less than 0.125169	25% of values less than 0.218002
50% of values less than 0.445583	75% of values less than 0.886735	90% of values less than 1.71591
Minimum 0.0368213ɲan 2.4171	Maximum 11.2753	
Mean 0.74994	SD 0.954571	Variance 0.911206

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 17.3247	10% of values less than 22.7632	25% of values less than 37.9715
50% of values less than 69.7846	75% of values less than 136.057	90% of values less than 249.973
Minimum 8.2107ss than 357.53	Maximum 3233.96	
Mean 117.189	SD 161.913	Variance 26215.9

Ammonium (NH4+)

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 2.90476E-023
50% of values less than 6.9049E-013	75% of values less than 2.73725E-010	90% of values less than 6.45117E-010
Minimum 0ues less than 8.69858E-010	Maximum 0.0118599	
Mean 2.06309E-005	SD 0.000401351	Variance 1.61083E-007

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 2.04737E-016	10% of values less than 8.62431E-015	25% of values less than 2.7028E-012
50% of values less than 2.35516E-010	75% of values less than 2.72669E-005	90% of values less than 2.20546
Minimum 0ues less than 14.5468	Maximum 98.2272	
Mean 2.48518	SD 10.3445	Variance 107.008

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 2.31574E-015	10% of values less than 6.65091E-014	25% of values less than 1.91693E-011
50% of values less than 4.46578E-008	75% of values less than 5.14884	90% of values less than 38.8135
Minimum 0ues less than 62.8221	Maximum 107.427	
Mean 9.74312	SD 20.9106	Variance 437.254

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 6.04258E-005	10% of values less than 0.00173838	25% of values less than 0.322994
50% of values less than 17.7217	75% of values less than 48.901	90% of values less than 77.1979
Minimum 7.42601E-017 88.9192	Maximum 115.181	
Mean 28.1076	SD 30.4924	Variance 929.785

Nitrite

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 1.33578E-023	10% of values less than 3.62433E-019	25% of values less than 1.31503E-015
50% of values less than 2.96132E-013	75% of values less than 1.4299E-012	90% of values less than 2.23514E-006
Minimum 0ues less than 0.000638169	Maximum 0.107322	
Mean 0.000945558	SD 0.00735921	Variance 5.4158E-005

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 2.92497E-017	10% of values less than 9.48502E-016	25% of values less than 6.12217E-013
50% of values less than 3.92394E-005	75% of values less than 0.0355769	90% of values less than 0.0982442
Minimum 0ues less than 0.129791	Maximum 0.226027	
Mean 0.0262469	SD 0.0460142	Variance 0.0021173

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 6.4418E-016	10% of values less than 1.09243E-013	25% of values less than 2.61513E-006
50% of values less than 0.011043	75% of values less than 0.0671081	90% of values less than 0.117874
Minimum 1.07704E-028 0.15101	Maximum 0.226853	
Mean 0.0392897	SD 0.0524822	Variance 0.00275439

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 4.93552E-007	10% of values less than 7.47218E-006	25% of values less than 0.00117918
50% of values less than 0.0308627	75% of values less than 0.0873384	90% of values less than 0.134126
Minimum 2.293E-019an 0.166273	Maximum 0.237309	
Mean 0.0513274	SD 0.0558186	Variance 0.00311572

Aquifer Flow [m³/yr]

Landfill1

05% of values less than 74703.4	10% of values less than 109419	25% of values less than 191069
50% of values less than 349110	75% of values less than 565696	90% of values less than 754183
Minimum 15817.4s than 844638	Maximum 996786	
Mean 393294	SD 240738	Variance 5.79546E+010

Project: Radlett SFRI

Project Number: CS018904

Project Details

Title: Radlett SFRI

Project Number: CS018904

Prepared By: EAP

Date: 2017-10-15 19:40:17

Client Name:

Comments:

Consim version 2.05

Simulation Level

Level 3a

Simulation Parameters

Iterations 1001

Timeslices:1, 10, 25, 50, 100, 500, 1000, 5000

Water Quality Standard

User Defined

Project: Radlett SFRI

Project Number: CS018904

Source

Landfill1

Infiltration

Infiltration [mm/year] SINGLE(60)

Source Inventory:

Ammonium (NH4+)

Aquifer Source Concentration [mg/l] TRIANGULAR(0.015,24.5,120)

Inorganic

Nitrite

Aquifer Source Concentration [mg/l] TRIANGULAR(0.001,0.026906,0.25)

Inorganic

Project: Radlett SFRI

Project Number: CS018904

Aquifer Pathway

Thickness [m] SINGLE(50)

Dry Bulk Density [g/cm³] UNIFORM(1.5,1.84)

Calculated Mixing Zone Thickness

Hydraulic Conductivity [m/s] TRIANGULAR(5.367e-006,9.572e-005,0.000926)

Effective Porosity [fraction] UNIFORM(0.005,0.02)

Hydraulic Gradient SINGLE(0.001156)

Groundwater Flow Direction (degrees), 140.00

Longitudinal Dispersivity [m] SINGLE(5)

Lateral Dispersivity [m] SINGLE(0.5)

Contaminant Inventory

Ammonium (NH4+)

Partition Coefficient [ml/g] SINGLE(3.6)

Simulate Degradation in Dissolved Phase only

Halflife [years] SINGLE(2190)

Nitrite

Partition Coefficient [ml/g] SINGLE(1.14)

Simulate Degradation in Dissolved Phase only

Halflife [years] SINGLE(1e+030)

Project: Radlett SFRI

Project Number: CS018904

Receptor

Landfill1 Receptor	X 516248.175377	Y 202826.381429
River Colne	X 516359.250514	Y 202507.049439
Downstream Compliance	X 516284.371465	Y 202763.214607

Input Correlations

No Correlations

Project: Radlett SFRI

Project Number: CS018904

Landfill1 - Boron

Concentration at Source [mg/l] - 10 years

05% of values less than 2.1347	10% of values less than 2.70902	25% of values less than 3.99454
50% of values less than 6.08683	75% of values less than 8.37857	90% of values less than 10.4966
Minimum 0.865806 than 11.7077	Maximum 14.7492	
Mean 6.36	SD 2.94655	Variance 8.68213

Concentration at Source [mg/l] - 50 years

05% of values less than 0.444552	10% of values less than 0.544682	25% of values less than 0.904175
50% of values less than 1.44611	75% of values less than 2.24008	90% of values less than 3.19779
Minimum 0.153107 than 3.71317	Maximum 5.75961	
Mean 1.68279	SD 1.01172	Variance 1.02358

Concentration at Source [mg/l] - 100 years

05% of values less than 0.038748	10% of values less than 0.063636	25% of values less than 0.130241
50% of values less than 0.277484	75% of values less than 0.485163	90% of values less than 0.767313
Minimum 0.0066551 an 0.959411	Maximum 1.78652	
Mean 0.351655	SD 0.291578	Variance 0.0850175

Concentration at Source [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 2.21641E-014	75% of values less than 2.01261E-012	90% of values less than 4.24816E-011
Minimum 0 es less than 1.26609E-010	Maximum 1.52579E-009	
Mean 2.80527E-011	SD 1.26027E-010	Variance 1.58828E-020

Landfill1 - Copper

Concentration at Source [mg/l] - 10 years

05% of values less than 0.00143873	10% of values less than 0.00182771	25% of values less than 0.00249118
50% of values less than 0.00330483	75% of values less than 0.00441113	90% of values less than 0.00524201
Minimum 0.000864221า 0.00575308	Maximum 0.00678237	
Mean 0.00346315	SD 0.00130596	Variance 1.70553E-006

Concentration at Source [mg/l] - 50 years

05% of values less than 0.00143869	10% of values less than 0.00182761	25% of values less than 0.0024911
50% of values less than 0.00330464	75% of values less than 0.00441097	90% of values less than 0.00524185
Minimum 0.000864196า 0.00575293	Maximum 0.00678213	
Mean 0.00346303	SD 0.00130591	Variance 1.70541E-006

Concentration at Source [mg/l] - 100 years

05% of values less than 0.00143864	10% of values less than 0.00182749	25% of values less than 0.002491
50% of values less than 0.00330441	75% of values less than 0.00441077	90% of values less than 0.00524164
Minimum 0.000864166า 0.00575275	Maximum 0.00678184	
Mean 0.00346287	SD 0.00130586	Variance 1.70526E-006

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.00143773	10% of values less than 0.00182522	25% of values less than 0.00248921
50% of values less than 0.00330023	75% of values less than 0.0044072	90% of values less than 0.00523791
Minimum 0.00086362ลn 0.00574941	Maximum 0.00677662	
Mean 0.00346012	SD 0.00130483	Variance 1.70258E-006

Landfill1 - Naphthalene

Concentration at Source [mg/l] - 10 years

05% of values less than 0.0541351	10% of values less than 0.0769904	25% of values less than 0.153017
50% of values less than 0.310967	75% of values less than 0.482388	90% of values less than 0.664926
Minimum 0.00677761an 0.736627	Maximum 0.884763	
Mean 0.337979	SD 0.212634	Variance 0.045213

Concentration at Source [mg/l] - 50 years

05% of values less than 0.0525483	10% of values less than 0.0741785	25% of values less than 0.147488
50% of values less than 0.299334	75% of values less than 0.467789	90% of values less than 0.638933
Minimum 0.00658946an 0.70693	Maximum 0.861926	
Mean 0.325649	SD 0.204827	Variance 0.041954

Concentration at Source [mg/l] - 100 years

05% of values less than 0.0500852	10% of values less than 0.0707248	25% of values less than 0.140364
50% of values less than 0.286829	75% of values less than 0.447959	90% of values less than 0.610764
Minimum 0.00636161an 0.677024	Maximum 0.834207	
Mean 0.310899	SD 0.195566	Variance 0.0382462

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.0205826	10% of values less than 0.0290323	25% of values less than 0.0594591
50% of values less than 0.125077	75% of values less than 0.194664	90% of values less than 0.270607
Minimum 0.00337658an 0.304419	Maximum 0.463926	
Mean 0.137474	SD 0.0916238	Variance 0.00839493

Landfill1 - Nickel

Concentration at Source [mg/l] - 10 years

05% of values less than 0.00171506	10% of values less than 0.00187263	25% of values less than 0.00217594
50% of values less than 0.00255871	75% of values less than 0.00297014	90% of values less than 0.00328356
Minimum 0.00134356an 0.00344042	Maximum 0.00387001	
Mean 0.00257123	SD 0.000526622	Variance 2.7733E-007

Concentration at Source [mg/l] - 50 years

05% of values less than 0.00171496	10% of values less than 0.00187249	25% of values less than 0.00217584
50% of values less than 0.00255859	75% of values less than 0.00296998	90% of values less than 0.00328341
Minimum 0.00134345an 0.00344027	Maximum 0.00386982	
Mean 0.00257109	SD 0.000526593	Variance 2.773E-007

Concentration at Source [mg/l] - 100 years

05% of values less than 0.00171483	10% of values less than 0.00187232	25% of values less than 0.00217572
50% of values less than 0.00255843	75% of values less than 0.00296978	90% of values less than 0.00328322
Minimum 0.0013433ɔan 0.00344008	Maximum 0.00386959	
Mean 0.00257091	SD 0.000526557	Variance 2.77262E-007

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.00171253	10% of values less than 0.00186917	25% of values less than 0.00217282
50% of values less than 0.00255558	75% of values less than 0.00296602	90% of values less than 0.00327977
Minimum 0.0013407ɔan 0.0034366	Maximum 0.00386543	
Mean 0.00256766	SD 0.000525909	Variance 2.7658E-007

Landfill1 - Zinc

Concentration at Source [mg/l] - 10 years

05% of values less than 0.0217862	10% of values less than 0.0267652	25% of values less than 0.0386693
50% of values less than 0.0567957	75% of values less than 0.0826812	90% of values less than 0.105238
Minimum 0.00796182an 0.115425	Maximum 0.139775	
Mean 0.0620765	SD 0.0293384	Variance 0.00086074

Concentration at Source [mg/l] - 50 years

05% of values less than 0.0217832	10% of values less than 0.0267629	25% of values less than 0.0386631
50% of values less than 0.0567902	75% of values less than 0.0826684	90% of values less than 0.105228
Minimum 0.00796101an 0.115413	Maximum 0.139759	
Mean 0.0620695	SD 0.0293351	Variance 0.000860545

Concentration at Source [mg/l] - 100 years

05% of values less than 0.0217793	10% of values less than 0.02676	25% of values less than 0.0386553
50% of values less than 0.0567834	75% of values less than 0.0826523	90% of values less than 0.105215
Minimum 0.00796001an 0.115398	Maximum 0.13974	
Mean 0.0620608	SD 0.0293309	Variance 0.000860303

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.0217254	10% of values less than 0.0267077	25% of values less than 0.038526
50% of values less than 0.0566184	75% of values less than 0.0823629	90% of values less than 0.104991
Minimum 0.00794193an 0.11513	Maximum 0.139395	
Mean 0.061904	SD 0.0292566	Variance 0.000855949

Landfill1 - Anthracene

Concentration at Source [mg/l] - 10 years

05% of values less than 0.00417269	10% of values less than 0.00517073	25% of values less than 0.00774257
50% of values less than 0.0124893	75% of values less than 0.0182998	90% of values less than 0.0243706
Minimum 0.00155664an 0.0267467	Maximum 0.0318568	
Mean 0.0135614	SD 0.00707122	Variance 5.00022E-005

Concentration at Source [mg/l] - 50 years

05% of values less than 0.00412743	10% of values less than 0.00513758	25% of values less than 0.00766103
50% of values less than 0.0124017	75% of values less than 0.0181743	90% of values less than 0.0241743
Minimum 0.00154557an 0.0265895	Maximum 0.0316176	
Mean 0.0134531	SD 0.00701533	Variance 4.92149E-005

Concentration at Source [mg/l] - 100 years

05% of values less than 0.00407641	10% of values less than 0.00509116	25% of values less than 0.00756234
50% of values less than 0.0122569	75% of values less than 0.017987	90% of values less than 0.0239598
Minimum 0.00153184an 0.0263713	Maximum 0.0313211	
Mean 0.013319	SD 0.00694627	Variance 4.82507E-005

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.00347287	10% of values less than 0.00426987	25% of values less than 0.00631102
50% of values less than 0.0101324	75% of values less than 0.0151639	90% of values less than 0.0199839
Minimum 0.00130451an 0.0219485	Maximum 0.0267036	
Mean 0.011131	SD 0.00584006	Variance 3.41063E-005

Landfill1 - Fluoranthene

Concentration at Source [mg/l] - 10 years

05% of values less than 6.70254E-005	10% of values less than 9.83287E-005	25% of values less than 0.000149297
50% of values less than 0.000230307	75% of values less than 0.000338363	90% of values less than 0.000441033
Minimum 1.77201E-005 0.000488545	Maximum 0.000592236	
Mean 0.000250775	SD 0.000129254	Variance 1.67066E-008

Concentration at Source [mg/l] - 50 years

05% of values less than 6.70235E-005	10% of values less than 9.83263E-005	25% of values less than 0.000149293
50% of values less than 0.000230297	75% of values less than 0.000338355	90% of values less than 0.000441023
Minimum 1.77197E-005 0.000488532	Maximum 0.000592218	
Mean 0.000250767	SD 0.00012925	Variance 1.67056E-008

Concentration at Source [mg/l] - 100 years

05% of values less than 6.70212E-005	10% of values less than 9.83234E-005	25% of values less than 0.000149289
50% of values less than 0.000230284	75% of values less than 0.000338346	90% of values less than 0.00044101
Minimum 1.77192E-005 0.000488516	Maximum 0.000592196	
Mean 0.000250758	SD 0.000129245	Variance 1.67044E-008

Concentration at Source [mg/l] - 1000 years

05% of values less than 6.69798E-005	10% of values less than 9.82703E-005	25% of values less than 0.000149215
50% of values less than 0.000230144	75% of values less than 0.000338174	90% of values less than 0.000440784
Minimum 1.77102E-005 0.000488229	Maximum 0.0005918	
Mean 0.000250584	SD 0.000129158	Variance 1.66818E-008

Landfill1 - TPH Aromatic C10-C12

Concentration at Source [mg/l] - 10 years

05% of values less than 0.0583362	10% of values less than 0.0725063	25% of values less than 0.107001
50% of values less than 0.181617	75% of values less than 0.268512	90% of values less than 0.355259
Minimum 0.0347217	an 0.398494	Maximum 0.501444
Mean 0.197843	SD 0.106213	Variance 0.0112812

Concentration at Source [mg/l] - 50 years

05% of values less than 0.0572207	10% of values less than 0.0711002	25% of values less than 0.104954
50% of values less than 0.178487	75% of values less than 0.263629	90% of values less than 0.349178
Minimum 0.0339489	an 0.391352	Maximum 0.49419
Mean 0.19434	SD 0.104309	Variance 0.0108804

Concentration at Source [mg/l] - 100 years

05% of values less than 0.0559127	10% of values less than 0.0692512	25% of values less than 0.102433
50% of values less than 0.174884	75% of values less than 0.259317	90% of values less than 0.340578
Minimum 0.0329424	an 0.383212	Maximum 0.485271
Mean 0.190053	SD 0.101989	Variance 0.0104018

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.0373067	10% of values less than 0.0460761	25% of values less than 0.0694025
50% of values less than 0.117902	75% of values less than 0.174188	90% of values less than 0.234639
Minimum 0.0191633	an 0.260014	Maximum 0.349624
Mean 0.127722	SD 0.0693885	Variance 0.00481476

Landfill1 - TPH Aromatic C12-C16

Concentration at Source [mg/l] - 10 years

05% of values less than 0.0688974	10% of values less than 0.0843752	25% of values less than 0.112892
50% of values less than 0.161876	75% of values less than 0.218151	90% of values less than 0.275179
Minimum 0.0328125	an 0.298927	Maximum 0.357796
Mean 0.169547	SD 0.0708526	Variance 0.00502009

Concentration at Source [mg/l] - 50 years

05% of values less than 0.0683586	10% of values less than 0.083655	25% of values less than 0.11167
50% of values less than 0.160589	75% of values less than 0.216194	90% of values less than 0.272214
Minimum 0.032575	than 0.296679	Maximum 0.354124
Mean 0.168025	SD 0.0702137	Variance 0.00492996

Concentration at Source [mg/l] - 100 years

05% of values less than 0.0676093	10% of values less than 0.0827633	25% of values less than 0.110222
50% of values less than 0.158994	75% of values less than 0.213758	90% of values less than 0.268916
Minimum 0.0322806	an 0.293824	Maximum 0.349586
Mean 0.166143	SD 0.0694264	Variance 0.00482002

Concentration at Source [mg/l] - 1000 years

05% of values less than 0.0552228	10% of values less than 0.0686168	25% of values less than 0.0909258
50% of values less than 0.126942	75% of values less than 0.173431	90% of values less than 0.22061
Minimum 0.0274138	an 0.242681	Maximum 0.299088
Mean 0.135802	SD 0.0571456	Variance 0.00326562

Landfill1 - Boron

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 18.516	10% of values less than 18.516	25% of values less than 18.516
50% of values less than 18.516	75% of values less than 18.516	90% of values less than 18.516
Minimum 18.516ss than 18.516	Maximum 18.516	
Mean 18.516	SD 2.58245E-006	Variance 6.66905E-012

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 22.6021	10% of values less than 23.0214	25% of values less than 24.2955
50% of values less than 26.1212	75% of values less than 28.1209	90% of values less than 29.323
Minimum 22.3195s than 29.7387	Maximum 30.1015	
Mean 26.184	SD 2.26777	Variance 5.14277

Landfill1 - Copper

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 18.516	10% of values less than 18.516	25% of values less than 18.516
50% of values less than 18.516	75% of values less than 18.516	90% of values less than 18.516
Minimum 18.516ss than 18.516	Maximum 18.516	
Mean 18.516	SD 2.58245E-006	Variance 6.66905E-012

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 2.2132E+006	10% of values less than 2.2132E+006	25% of values less than 2.2132E+006
50% of values less than 2.2132E+006	75% of values less than 2.2132E+006	90% of values less than 2.2132E+006
Minimum 2.2132E+006ı 2.2132E+006	Maximum 2.2132E+006	
Mean 2.2132E+006	SD 0.442028	Variance 0.195389

Landfill1 - Naphthalene

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 18.516	10% of values less than 18.516	25% of values less than 18.516
50% of values less than 18.516	75% of values less than 18.516	90% of values less than 18.516
Minimum 18.516ss than 18.516	Maximum 18.516	
Mean 18.516	SD 2.58245E-006	Variance 6.66905E-012

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 2080.8	10% of values less than 2080.8	25% of values less than 2080.8
50% of values less than 2080.8	75% of values less than 2080.8	90% of values less than 2080.8
Minimum 2080.8ss than 2080.8	Maximum 2080.8	
Mean 2080.8	SD 0.000460111	Variance -2.11702E-007

Landfill1 - Nickel

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 18.516	10% of values less than 18.516	25% of values less than 18.516
50% of values less than 18.516	75% of values less than 18.516	90% of values less than 18.516
Minimum 18.516ss than 18.516	Maximum 18.516	
Mean 18.516	SD 2.58245E-006	Variance 6.66905E-012

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 1.39643E+006	10% of values less than 1.39643E+006	25% of values less than 1.39643E+006
50% of values less than 1.39643E+006	75% of values less than 1.39643E+006	90% of values less than 1.39643E+006
Minimum 1.39643E+0061.39643E+006	Maximum 1.39643E+006	
Mean 1.39643E+006	SD 0.303848	Variance -0.0923237

Landfill1 - Zinc

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 18.516	10% of values less than 18.516	25% of values less than 18.516
50% of values less than 18.516	75% of values less than 18.516	90% of values less than 18.516
Minimum 18.516ss than 18.516	Maximum 18.516	
Mean 18.516	SD 2.58245E-006	Variance 6.66905E-012

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 699902	10% of values less than 699902	25% of values less than 699902
50% of values less than 699902	75% of values less than 699902	90% of values less than 699902
Minimum 699902ss than 699902	Maximum 699902	
Mean 699902	SD 0.0783445	Variance 0.00613786

Landfill1 - Anthracene

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 18.516	10% of values less than 18.516	25% of values less than 18.516
50% of values less than 18.516	75% of values less than 18.516	90% of values less than 18.516
Minimum 18.516ss than 18.516	Maximum 18.516	
Mean 18.516	SD 2.58245E-006	Variance 6.66905E-012

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 9755.05	10% of values less than 9755.05	25% of values less than 9755.05
50% of values less than 9755.05	75% of values less than 9755.05	90% of values less than 9755.05
Minimum 9755.05s than 9755.05	Maximum 9755.05	
Mean 9755.05	SD 0.00137998	Variance -1.90435E-006

Landfill1 - Fluoranthene

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 18.516	10% of values less than 18.516	25% of values less than 18.516
50% of values less than 18.516	75% of values less than 18.516	90% of values less than 18.516
Minimum 18.516ss than 18.516	Maximum 18.516	
Mean 18.516	SD 2.58245E-006	Variance 6.66905E-012

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 31527.6	10% of values less than 31527.6	25% of values less than 31527.6
50% of values less than 31527.6	75% of values less than 31527.6	90% of values less than 31527.6
Minimum 31527.6s than 31527.6	Maximum 31527.6	
Mean 31527.6	SD 0.00560968	Variance -3.14685E-005

Landfill1 - TPH Aromatic C10-C12

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 18.516	10% of values less than 18.516	25% of values less than 18.516
50% of values less than 18.516	75% of values less than 18.516	90% of values less than 18.516
Minimum 18.516ss than 18.516	Maximum 18.516	
Mean 18.516	SD 2.58245E-006	Variance 6.66905E-012

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 4368.18	10% of values less than 4368.18	25% of values less than 4368.18
50% of values less than 4368.18	75% of values less than 4368.18	90% of values less than 4368.18
Minimum 4368.18s than 4368.18	Maximum 4368.18	
Mean 4368.18	SD 0.000712254	Variance -5.07305E-007

Landfill1 - TPH Aromatic C12-C16

Unretarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 18.516	10% of values less than 18.516	25% of values less than 18.516
50% of values less than 18.516	75% of values less than 18.516	90% of values less than 18.516
Minimum 18.516ss than 18.516	Maximum 18.516	
Mean 18.516	SD 2.58245E-006	Variance 6.66905E-012

Retarded Travel Time to Base of Unsaturated Zone Unsaturated Pathway 1 [years]

05% of values less than 8697.07	10% of values less than 8697.07	25% of values less than 8697.07
50% of values less than 8697.07	75% of values less than 8697.07	90% of values less than 8697.07
Minimum 8697.07s than 8697.07	Maximum 8697.07	
Mean 8697.07	SD 0.00113824	Variance -1.29558E-006

Landfill1 - Boron

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 1.19934	10% of values less than 1.47206	25% of values less than 2.19368
50% of values less than 3.3788	75% of values less than 4.85813	90% of values less than 6.28222
Minimum 0.483207than 7.07302	Maximum 9.70722	
Mean 3.65247	SD 1.82454	Variance 3.32893

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0.142658	10% of values less than 0.201737	25% of values less than 0.353358
50% of values less than 0.661824	75% of values less than 1.07418	90% of values less than 1.60917
Minimum 0.0341536an 1.97234	Maximum 3.23316	
Mean 0.788308	SD 0.556495	Variance 0.309687

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 5.52654E-014	75% of values less than 4.24967E-012	90% of values less than 8.16941E-011
Minimum 0ues less than 2.2518E-010	Maximum 2.64998E-009	
Mean 5.23503E-011	SD 2.29088E-010	Variance 5.24812E-020

Landfill1 - Copper

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Naphthalene

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Nickel

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Zinc

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Anthracene

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Fluoranthene

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - TPH Aromatic C10-C12

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - TPH Aromatic C12-C16

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Base of Unsaturated Zone Unsaturated Pathway 1 [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Boron

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ɹes less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0.0147466	10% of values less than 0.0195231	25% of values less than 0.0321845
50% of values less than 0.0585088	75% of values less than 0.11707	90% of values less than 0.215323
Minimum 0.00351898ɜn 0.307434	Maximum 1.34795	
Mean 0.0969601	SD 0.117458	Variance 0.0137964

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0.00186884	10% of values less than 0.0027854	25% of values less than 0.00575573
50% of values less than 0.0111982	75% of values less than 0.0246036	90% of values less than 0.0482753
Minimum 0.000385947ר 0.0697963	Maximum 0.326951	
Mean 0.0213293	SD 0.0306761	Variance 0.000941021

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 9.7708E-016	75% of values less than 7.23781E-014	90% of values less than 1.90639E-012
Minimum 0ɹes less than 5.49144E-012	Maximum 2.01691E-010	
Mean 1.63789E-012	SD 9.85578E-012	Variance 9.71365E-023

Landfill1 - Copper

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Naphthalene

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Nickel

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Zinc

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Anthracene

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - Fluoranthene

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - TPH Aromatic C10-C12

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Landfill1 - TPH Aromatic C12-C16

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Diluted Concentration [mg/l] Unsaturated Pathway 1 - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Boron

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 18.5753	10% of values less than 18.5972	25% of values less than 18.6813
50% of values less than 18.876	75% of values less than 19.2251	90% of values less than 19.8229
Minimum 18.5254s than 20.3773	Maximum 39.9028	
Mean 19.1221	SD 1.00742	Variance 1.01489

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 24.4	10% of values less than 25.4179	25% of values less than 27.2454
50% of values less than 29.808	75% of values less than 32.7815	90% of values less than 37.7439
Minimum 22.9579s than 42.3576	Maximum 136.427	
Mean 31.2124	SD 7.47803	Variance 55.921

Copper

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 18.5753	10% of values less than 18.5972	25% of values less than 18.6813
50% of values less than 18.876	75% of values less than 19.2251	90% of values less than 19.8229
Minimum 18.5254s than 20.3773	Maximum 39.9028	
Mean 19.1221	SD 1.00742	Variance 1.01489

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 2.35388E+006	10% of values less than 2.41142E+006	25% of values less than 2.60267E+006
50% of values less than 2.99856E+006	75% of values less than 3.75054E+006	90% of values less than 5.03108E+006
Minimum 2.22761E+0066.01006E+006	Maximum 3.35762E+007	
Mean 3.49941E+006	SD 1.79978E+006	Variance 3.2392E+012

Naphthalene

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 18.5753	10% of values less than 18.5972	25% of values less than 18.6813
50% of values less than 18.876	75% of values less than 19.2251	90% of values less than 19.8229
Minimum 18.5254s than 20.3773	Maximum 39.9028	
Mean 19.1221	SD 1.00742	Variance 1.01489

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 2084.36	10% of values less than 2085.84	25% of values less than 2090.65
50% of values less than 2100.71	75% of values less than 2119.68	90% of values less than 2152.39
Minimum 2081.17s than 2176.91	Maximum 2879.94	
Mean 2113.3	SD 45.5761	Variance 2077.18

Nickel

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 18.5753	10% of values less than 18.5972	25% of values less than 18.6813
50% of values less than 18.876	75% of values less than 19.2251	90% of values less than 19.8229
Minimum 18.5254s than 20.3773	Maximum 39.9028	
Mean 19.1221	SD 1.00742	Variance 1.01489

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 1.4852E+006	10% of values less than 1.52151E+006	25% of values less than 1.64218E+006
50% of values less than 1.89196E+006	75% of values less than 2.36643E+006	90% of values less than 3.17439E+006
Minimum 1.40552E+0063.79208E+006	Maximum 2.11851E+007	
Mean 2.20798E+006	SD 1.13558E+006	Variance 1.28954E+012

Zinc

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 18.5753	10% of values less than 18.5972	25% of values less than 18.6813
50% of values less than 18.876	75% of values less than 19.2251	90% of values less than 19.8229
Minimum 18.5254s than 20.3773	Maximum 39.9028	
Mean 19.1221	SD 1.00742	Variance 1.01489

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 744391	10% of values less than 762588	25% of values less than 823067
50% of values less than 948260	75% of values less than 1.18606E+006	90% of values less than 1.59102E+006
Minimum 704458s than 1.9006E+006	Maximum 1.0618E+007	
Mean 1.10665E+006	SD 569152	Variance 3.23934E+011

Anthracene

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 18.5753	10% of values less than 18.5972	25% of values less than 18.6813
50% of values less than 18.876	75% of values less than 19.2251	90% of values less than 19.8229
Minimum 18.5254s than 20.3773	Maximum 39.9028	
Mean 19.1221	SD 1.00742	Variance 1.01489

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 9771.59	10% of values less than 9778.38	25% of values less than 9800.81
50% of values less than 9847.47	75% of values less than 9935.85	90% of values less than 10086.4
Minimum 9756.75s than 10201.4	Maximum 13448.4	
Mean 9906.24	SD 211.66	Variance 44799.9

Fluoranthene

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 18.5753	10% of values less than 18.5972	25% of values less than 18.6813
50% of values less than 18.876	75% of values less than 19.2251	90% of values less than 19.8229
Minimum 18.5254s than 20.3773	Maximum 39.9028	
Mean 19.1221	SD 1.00742	Variance 1.01489

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 31581	10% of values less than 31602.8	25% of values less than 31675.3
50% of values less than 31825.7	75% of values less than 32111.1	90% of values less than 32596.8
Minimum 31533.1s than 32968	Maximum 43432.1	
Mean 32015.6	SD 682.858	Variance 466296

TPH Aromatic C10-C12

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 18.5753	10% of values less than 18.5972	25% of values less than 18.6813
50% of values less than 18.876	75% of values less than 19.2251	90% of values less than 19.8229
Minimum 18.5254s than 20.3773	Maximum 39.9028	
Mean 19.1221	SD 1.00742	Variance 1.01489

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 4375.61	10% of values less than 4378.67	25% of values less than 4388.74
50% of values less than 4409.65	75% of values less than 4449.36	90% of values less than 4517.04
Minimum 4368.95s than 4568.55	Maximum 6029.96	
Mean 4436.06	SD 95.0786	Variance 9039.93

TPH Aromatic C12-C16

Unretarded Travel Time to Landfill1 Receptor [years]

05% of values less than 18.5753	10% of values less than 18.5972	25% of values less than 18.6813
50% of values less than 18.876	75% of values less than 19.2251	90% of values less than 19.8229
Minimum 18.5254s than 20.3773	Maximum 39.9028	
Mean 19.1221	SD 1.00742	Variance 1.01489

Retarded Travel Time to Landfill1 Receptor [years]

05% of values less than 8711.82	10% of values less than 8717.88	25% of values less than 8737.88
50% of values less than 8779.5	75% of values less than 8858.3	90% of values less than 8992.6
Minimum 8698.58s than 9095.08	Maximum 11991.4	
Mean 8831.9	SD 188.763	Variance 35631.6

Boron

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 2.24715E-007	10% of values less than 6.20379E-006	25% of values less than 0.00161774
50% of values less than 0.0299536	75% of values less than 0.076815	90% of values less than 0.174818
Minimum 0ues less than 0.274677	Maximum 0.906135	
Mean 0.0658129	SD 0.104976	Variance 0.0110199

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 1.59607E-007	10% of values less than 2.80448E-006	25% of values less than 0.000443628
50% of values less than 0.00570523	75% of values less than 0.016302	90% of values less than 0.0418469
Minimum 0ues less than 0.0725454	Maximum 0.530258	
Mean 0.0171271	SD 0.0386646	Variance 0.00149495

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.62073E-016	75% of values less than 2.09154E-014	90% of values less than 7.1095E-013
Minimum 0ues less than 3.48147E-012	Maximum 1.59135E-010	
Mean 1.1409E-012	SD 7.82227E-012	Variance 6.1188E-023

Copper

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Naphthalene

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Nickel

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Zinc

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Anthracene

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Fluoranthene

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

TPH Aromatic C10-C12

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

TPH Aromatic C12-C16

Concentration at Landfill1 Receptor [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Landfill1 Receptor [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Boron

Unretarded Travel Time to River Colne [years]

05% of values less than 18.7162	10% of values less than 18.7742	25% of values less than 18.9217
50% of values less than 19.2397	75% of values less than 19.8259	90% of values less than 20.7998
Minimum 18.5972s than 21.6217	Maximum 49.3476	
Mean 19.6393	SD 1.54604	Variance 2.39023

Retarded Travel Time to River Colne [years]

05% of values less than 26.2915	10% of values less than 27.3855	25% of values less than 29.647
50% of values less than 32.5889	75% of values less than 37.5363	90% of values less than 45.7895
Minimum 23.7496s than 52.2301	Maximum 183.583	
Mean 35.4963	SD 11.2555	Variance 126.686

Copper

Unretarded Travel Time to River Colne [years]

05% of values less than 18.7162	10% of values less than 18.7742	25% of values less than 18.9217
50% of values less than 19.2397	75% of values less than 19.8259	90% of values less than 20.7998
Minimum 18.5972s than 21.6217	Maximum 49.3476	
Mean 19.6393	SD 1.54604	Variance 2.39023

Retarded Travel Time to River Colne [years]

05% of values less than 2.72518E+006	10% of values less than 2.85072E+006	25% of values less than 3.17145E+006
50% of values less than 3.79495E+006	75% of values less than 5.08826E+006	90% of values less than 6.80261E+006
Minimum 2.53545E+0068.65828E+006	Maximum 4.74267E+007	
Mean 4.60332E+006	SD 2.81315E+006	Variance 7.9138E+012

Naphthalene

Unretarded Travel Time to River Colne [years]

05% of values less than 18.7162	10% of values less than 18.7742	25% of values less than 18.9217
50% of values less than 19.2397	75% of values less than 19.8259	90% of values less than 20.7998
Minimum 18.5972s than 21.6217	Maximum 49.3476	
Mean 19.6393	SD 1.54604	Variance 2.39023

Retarded Travel Time to River Colne [years]

05% of values less than 2093.65	10% of values less than 2096.89	25% of values less than 2105.14
50% of values less than 2120.66	75% of values less than 2153.85	90% of values less than 2196.26
Minimum 2088.99s than 2244.25	Maximum 3232.85	
Mean 2141.19	SD 71.191	Variance 5068.16

Nickel

Unretarded Travel Time to River Colne [years]

05% of values less than 18.7162	10% of values less than 18.7742	25% of values less than 18.9217
50% of values less than 19.2397	75% of values less than 19.8259	90% of values less than 20.7998
Minimum 18.5972s than 21.6217	Maximum 49.3476	
Mean 19.6393	SD 1.54604	Variance 2.39023

Retarded Travel Time to River Colne [years]

05% of values less than 1.71947E+006	10% of values less than 1.79868E+006	25% of values less than 2.00105E+006
50% of values less than 2.39445E+006	75% of values less than 3.21047E+006	90% of values less than 4.29215E+006
Minimum 1.59976E+0065.46299E+006	Maximum 2.99241E+007	
Mean 2.90449E+006	SD 1.77497E+006	Variance 3.15051E+012

Zinc

Unretarded Travel Time to River Colne [years]

05% of values less than 18.7162	10% of values less than 18.7742	25% of values less than 18.9217
50% of values less than 19.2397	75% of values less than 19.8259	90% of values less than 20.7998
Minimum 18.5972s than 21.6217	Maximum 49.3476	
Mean 19.6393	SD 1.54604	Variance 2.39023

Retarded Travel Time to River Colne [years]

05% of values less than 861808	10% of values less than 901509	25% of values less than 1.00294E+006
50% of values less than 1.20011E+006	75% of values less than 1.6091E+006	90% of values less than 2.15123E+006
Minimum 801808s than 2.73806E+006	Maximum 1.4998E+007	
Mean 1.45574E+006	SD 889615	Variance 7.91415E+011

Anthracene

Unretarded Travel Time to River Colne [years]

05% of values less than 18.7162	10% of values less than 18.7742	25% of values less than 18.9217
50% of values less than 19.2397	75% of values less than 19.8259	90% of values less than 20.7998
Minimum 18.5972s than 21.6217	Maximum 49.3476	
Mean 19.6393	SD 1.54604	Variance 2.39023

Retarded Travel Time to River Colne [years]

05% of values less than 9815.15	10% of values less than 9829.97	25% of values less than 9867.82
50% of values less than 9940.77	75% of values less than 10093.2	90% of values less than 10293.4
Minimum 9792.98s than 10511.4	Maximum 15079.4	
Mean 10036	SD 330.789	Variance 109421

Fluoranthene

Unretarded Travel Time to River Colne [years]

05% of values less than 18.7162	10% of values less than 18.7742	25% of values less than 18.9217
50% of values less than 19.2397	75% of values less than 19.8259	90% of values less than 20.7998
Minimum 18.5972s than 21.6217	Maximum 49.3476	
Mean 19.6393	SD 1.54604	Variance 2.39023

Retarded Travel Time to River Colne [years]

05% of values less than 31721.8	10% of values less than 31769.5	25% of values less than 31891.3
50% of values less than 32127.7	75% of values less than 32618.3	90% of values less than 33267.4
Minimum 31649.9s than 33971.4	Maximum 48689.3	
Mean 32434.3	SD 1067.3	Variance 1.13912E+006

TPH Aromatic C10-C12

Unretarded Travel Time to River Colne [years]

05% of values less than 18.7162	10% of values less than 18.7742	25% of values less than 18.9217
50% of values less than 19.2397	75% of values less than 19.8259	90% of values less than 20.7998
Minimum 18.5972s than 21.6217	Maximum 49.3476	
Mean 19.6393	SD 1.54604	Variance 2.39023

Retarded Travel Time to River Colne [years]

05% of values less than 4395.12	10% of values less than 4401.81	25% of values less than 4418.88
50% of values less than 4451.37	75% of values less than 4520.2	90% of values less than 4609.69
Minimum 4385.24s than 4708.14	Maximum 6763.84	
Mean 4494.32	SD 148.566	Variance 22071.8

TPH Aromatic C12-C16

Unretarded Travel Time to River Colne [years]

05% of values less than 18.7162	10% of values less than 18.7742	25% of values less than 18.9217
50% of values less than 19.2397	75% of values less than 19.8259	90% of values less than 20.7998
Minimum 18.5972s than 21.6217	Maximum 49.3476	
Mean 19.6393	SD 1.54604	Variance 2.39023

Retarded Travel Time to River Colne [years]

05% of values less than 8750.66	10% of values less than 8763.88	25% of values less than 8797.65
50% of values less than 8862.66	75% of values less than 8998.65	90% of values less than 9177.11
Minimum 8730.9ss than 9371.47	Maximum 13446.3	
Mean 8947.62	SD 295	Variance 87025

Boron

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 3.15437E-015	25% of values less than 1.46569E-010
50% of values less than 4.62515E-005	75% of values less than 0.0455571	90% of values less than 0.128661
Minimum 0ues less than 0.220423	Maximum 0.682792	
Mean 0.0422713	SD 0.0864868	Variance 0.00747997

Concentration at River Colne [mg/l] - 100 years

05% of values less than 2.54646E-015	10% of values less than 8.83571E-014	25% of values less than 2.51806E-010
50% of values less than 3.16441E-005	75% of values less than 0.010267	90% of values less than 0.0366042
Minimum 0ues less than 0.0748563	Maximum 1.09447	
Mean 0.015323	SD 0.0544833	Variance 0.00296843

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 9.202E-021	75% of values less than 1.04299E-015	90% of values less than 1.90923E-013
Minimum 0ues less than 2.07806E-012	Maximum 1.96436E-010	
Mean 8.94096E-013	SD 8.25281E-012	Variance 6.81089E-023

Copper

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Naphthalene

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Nickel

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Zinc

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Anthracene

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Fluoranthene

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

TPH Aromatic C10-C12

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

TPH Aromatic C12-C16

Concentration at River Colne [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at River Colne [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Boron

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 18.6082	10% of values less than 18.6435	25% of values less than 18.7386
50% of values less than 18.964	75% of values less than 19.3689	90% of values less than 19.998
Minimum 18.5468s than 20.6475	Maximum 42.0443	
Mean 19.2394	SD 1.12329	Variance 1.26179

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 24.8959	10% of values less than 25.9741	25% of values less than 27.7898
50% of values less than 30.4569	75% of values less than 33.7798	90% of values less than 39.4115
Minimum 23.1374s than 44.4385	Maximum 147.119	
Mean 32.1838	SD 8.27019	Variance 68.3961

Copper

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 18.6082	10% of values less than 18.6435	25% of values less than 18.7386
50% of values less than 18.964	75% of values less than 19.3689	90% of values less than 19.998
Minimum 18.5468s than 20.6475	Maximum 42.0443	
Mean 19.2394	SD 1.12329	Variance 1.26179

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 2.44931E+006	10% of values less than 2.52156E+006	25% of values less than 2.75177E+006
50% of values less than 3.17139E+006	75% of values less than 4.05295E+006	90% of values less than 5.45935E+006
Minimum 2.31849E+0066.55434E+006	Maximum 3.67167E+007	
Mean 3.74971E+006	SD 2.0136E+006	Variance 4.05459E+012

Naphthalene

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 18.6082	10% of values less than 18.6435	25% of values less than 18.7386
50% of values less than 18.964	75% of values less than 19.3689	90% of values less than 19.998
Minimum 18.5468s than 20.6475	Maximum 42.0443	
Mean 19.2394	SD 1.12329	Variance 1.26179

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 2086.74	10% of values less than 2088.61	25% of values less than 2094.42
50% of values less than 2104.96	75% of values less than 2127.5	90% of values less than 2162.48
Minimum 2083.49s than 2190.49	Maximum 2959.96	
Mean 2119.62	SD 50.983	Variance 2599.27

Nickel

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 18.6082	10% of values less than 18.6435	25% of values less than 18.7386
50% of values less than 18.964	75% of values less than 19.3689	90% of values less than 19.998
Minimum 18.5468s than 20.6475	Maximum 42.0443	
Mean 19.2394	SD 1.12329	Variance 1.26179

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 1.54541E+006	10% of values less than 1.59099E+006	25% of values less than 1.73625E+006
50% of values less than 2.00101E+006	75% of values less than 2.55723E+006	90% of values less than 3.44461E+006
Minimum 1.46287E+0064.1355E+006	Maximum 2.31666E+007	
Mean 2.36591E+006	SD 1.27049E+006	Variance 1.61415E+012

Zinc

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 18.6082	10% of values less than 18.6435	25% of values less than 18.7386
50% of values less than 18.964	75% of values less than 19.3689	90% of values less than 19.998
Minimum 18.5468s than 20.6475	Maximum 42.0443	
Mean 19.2394	SD 1.12329	Variance 1.26179

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 774570	10% of values less than 797415	25% of values less than 870218
50% of values less than 1.00291E+006	75% of values less than 1.2817E+006	90% of values less than 1.72645E+006
Minimum 733200s than 2.07272E+006	Maximum 1.16111E+007	
Mean 1.1858E+006	SD 636771	Variance 4.05477E+011

Anthracene

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 18.6082	10% of values less than 18.6435	25% of values less than 18.7386
50% of values less than 18.964	75% of values less than 19.3689	90% of values less than 19.998
Minimum 18.5468s than 20.6475	Maximum 42.0443	
Mean 19.2394	SD 1.12329	Variance 1.26179

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 9782.76	10% of values less than 9791.29	25% of values less than 9818.32
50% of values less than 9867.7	75% of values less than 9971.83	90% of values less than 10136.4
Minimum 9767.45s than 10265.3	Maximum 13818.2	
Mean 9935.67	SD 236.799	Variance 56073.6

Fluoranthene

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 18.6082	10% of values less than 18.6435	25% of values less than 18.7386
50% of values less than 18.964	75% of values less than 19.3689	90% of values less than 19.998
Minimum 18.5468s than 20.6475	Maximum 42.0443	
Mean 19.2394	SD 1.12329	Variance 1.26179

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 31617.1	10% of values less than 31644.6	25% of values less than 31731.8
50% of values less than 31891.1	75% of values less than 32226.1	90% of values less than 32758.9
Minimum 31567.6s than 33174.5	Maximum 44624.1	
Mean 32110.5	SD 763.978	Variance 583663

TPH Aromatic C10-C12

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 18.6082	10% of values less than 18.6435	25% of values less than 18.7386
50% of values less than 18.964	75% of values less than 19.3689	90% of values less than 19.998
Minimum 18.5468s than 20.6475	Maximum 42.0443	
Mean 19.2394	SD 1.12329	Variance 1.26179

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 4380.6	10% of values less than 4384.44	25% of values less than 4396.66
50% of values less than 4418.76	75% of values less than 4465.66	90% of values less than 4539.28
Minimum 4373.77s than 4597.28	Maximum 6196.36	
Mean 4449.27	SD 106.367	Variance 11313.9

TPH Aromatic C12-C16

Unretarded Travel Time to Downstream Compliance [years]

05% of values less than 18.6082	10% of values less than 18.6435	25% of values less than 18.7386
50% of values less than 18.964	75% of values less than 19.3689	90% of values less than 19.998
Minimum 18.5468s than 20.6475	Maximum 42.0443	
Mean 19.2394	SD 1.12329	Variance 1.26179

Retarded Travel Time to Downstream Compliance [years]

05% of values less than 8721.78	10% of values less than 8729.38	25% of values less than 8753.51
50% of values less than 8797.53	75% of values less than 8890.44	90% of values less than 9037.15
Minimum 8708.13s than 9152.13	Maximum 12321.3	
Mean 8858.14	SD 211.182	Variance 44597.8

Boron

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 4.39832E-008	10% of values less than 1.50642E-006	25% of values less than 0.000530603
50% of values less than 0.0261717	75% of values less than 0.073201	90% of values less than 0.171218
Minimum 0ues less than 0.264926	Maximum 0.93279	
Mean 0.0616365	SD 0.0993216	Variance 0.00986479

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 5.09313E-008	10% of values less than 9.59327E-007	25% of values less than 0.000172252
50% of values less than 0.00519969	75% of values less than 0.0157415	90% of values less than 0.0432296
Minimum 0ues less than 0.076383	Maximum 0.63247	
Mean 0.0172037	SD 0.0425623	Variance 0.00181155

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.02065E-016	75% of values less than 1.45277E-014	90% of values less than 6.12413E-013
Minimum 0ues less than 3.36222E-012	Maximum 1.29816E-010	
Mean 1.09829E-012	SD 7.25957E-012	Variance 5.27013E-023

Copper

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Naphthalene

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Nickel

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Zinc

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Anthracene

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Fluoranthene

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

TPH Aromatic C10-C12

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

TPH Aromatic C12-C16

Concentration at Downstream Compliance [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Concentration at Downstream Compliance [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 0	90% of values less than 0
Minimum 0ues less than 0	Maximum 0	
Mean 0	SD 0	Variance 0

Aquifer Flow [m³/yr]

Landfill1

05% of values less than 83237.5	10% of values less than 111894	25% of values less than 195850
50% of values less than 334435	75% of values less than 552710	90% of values less than 761107
Minimum 13963›ss than 846103	Maximum 1.02568E+006	
Mean 388873	SD 237278	Variance 5.63008E+010

Project: Radlett SFRI

Project Number: CS018904

Project Details

Title: Radlett SFRI

Project Number: CS018904

Prepared By: EAP

Date: 2017-10-15 16:09:19

Client Name:

Comments:

Consim version 2.05

Simulation Level

Level 3

Simulation Parameters

Iterations 1001

Timeslices:1, 10, 25, 50, 100, 500, 1000, 5000

Water Quality Standard

User Defined

Source

Landfill1
Dry Bulk Density [g/cm³] SINGLE(1.07)
Air Filled Porosity [fraction] SINGLE(0.16)
Water Filled Porosity [fraction] SINGLE(0.37)
Thickness [m] TRIANGULAR(2.1,4.195,6.2)
Fraction of Organic Carbon [%] SINGLE(1.24)
Contaminated Land
Declining Source Term

Overall Unsaturated Zone Thickness [m] SINGLE(5.19)

Infiltration

Infiltration [mm/year] SINGLE(60)

Source Inventory:

Boron

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(0.4,2.29,8.1)
Inorganic
Partition Coefficient [ml/g] UNIFORM(0.027,0.083)
Maximum Solubility [mg/l] UNIFORM(20.1,63.5)

Copper

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(11,43.11,110)
Inorganic
Partition Coefficient [ml/g] SINGLE(15849)
Maximum Solubility [mg/l] SINGLE(293000)

Naphthalene

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(0.05,0.88,14)
Organic
koc [ml/g] SINGLE(1191) — Calculate kd
Henry's Law Constant SINGLE(0.00662) — Maximum Solubility [mg/l] SINGLE(32.9)

Nickel

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(13,25,39)
Inorganic
Partition Coefficient [ml/g] SINGLE(10000)
Maximum Solubility [mg/l] SINGLE(173000)

Zinc

Measured as Total Concentration in Soil — Concentration [mg/kg] TRIANGULAR(37,174.28,710)
Inorganic
Partition Coefficient [ml/g] SINGLE(5012)
Maximum Solubility [mg/l] SINGLE(606000)

Anthracene

Measured as Total Concentration in Soil	Concentration [mg/kg] TRIANGULAR(0.1,0.42,2.3)
Organic	
koc [ml/g] SINGLE(5623)	Calculate kd
Henry's Law Constant SINGLE(0.000181)	Maximum Solubility [mg/l] SINGLE(0.073)

Fluoranthene

Measured as Total Concentration in Soil	Concentration [mg/kg] TRIANGULAR(0.1,2.71,11)
Organic	
Partition Coefficient [ml/g] SINGLE(18197)	
Henry's Law Constant SINGLE(6.29e-005)	Maximum Solubility [mg/l] UNIFORM(0.265,0.275)

TPH Aromatic C10-C12

Measured as Total Concentration in Soil	Concentration [mg/kg] TRIANGULAR(1,1.92,16)
Organic	
koc [ml/g] SINGLE(2512)	Calculate kd
Henry's Law Constant SINGLE(0.14)	Maximum Solubility [mg/l] SINGLE(25)

TPH Aromatic C12-C16

Measured as Total Concentration in Soil	Concentration [mg/kg] TRIANGULAR(2,6.65,23)
Organic	
koc [ml/g] SINGLE(5012)	Calculate kd
Henry's Law Constant SINGLE(0.053)	Maximum Solubility [mg/l] SINGLE(5.8)

Unsaturated Pathway: Unsaturated Pathway 1

Active
Porous Medium
Thickness [m] TRIANGULAR(3.7,5.16,6.2)
Dry Bulk Density [g/cm³] SINGLE(1.81)
Vertical Dispersivity [m] SINGLE(0.561)
Fraction of Organic Carbon [%] SINGLE(1.24)
Water Filled Porosity [fraction] SINGLE(0.24)
Unsaturated Conductivity [m/s] UNIFORM(9e-008,5e-005)

Unsaturated Pathway Contaminants

Boron
Partition Coefficient [ml/g] UNIFORM(0.027,0.083)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Copper
Partition Coefficient [ml/g] SINGLE(15849)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Naphthalene
koc [ml/g] SINGLE(1191) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(550)

Nickel
Partition Coefficient [ml/g] SINGLE(10000)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Zinc
Partition Coefficient [ml/g] SINGLE(5012)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Anthracene
koc [ml/g] SINGLE(5623) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(4000)

Fluoranthene
koc [ml/g] SINGLE(18197) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(4000)

TPH Aromatic C10-C12

koc [ml/g] SINGLE(2512) Calculate kd

Simulate Degradation in Dissolved Phase only

Halflife [years] SINGLE(258)

TPH Aromatic C12-C16

koc [ml/g] SINGLE(5012) Calculate kd

Simulate Degradation in Dissolved Phase only

Halflife [years] SINGLE(3800)

Aquifer Pathway

Thickness [m] SINGLE(50)
Dry Bulk Density [g/cm³] UNIFORM(1.5,1.84)
Fraction of Organic Carbon [%] SINGLE(0.033)
Calculated Mixing Zone Thickness
Hydraulic Conductivity [m/s] TRIANGULAR(5.367e-006,9.572e-005,0.000926)
Effective Porosity [fraction] UNIFORM(0.005,0.02)
Hydraulic Gradient SINGLE(0.001156)
Groundwater Flow Direction (degrees), 140.00
Longitudinal Dispersivity [m] SINGLE(5)
Lateral Dispersivity [m] SINGLE(0.5)

Contaminant Inventory

Boron
Partition Coefficient [ml/g] UNIFORM(0.027,0.083)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Copper
Partition Coefficient [ml/g] SINGLE(15849)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Naphthalene
koc [ml/g] SINGLE(1191) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(550)

Nickel
Partition Coefficient [ml/g] SINGLE(10000)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Zinc
Partition Coefficient [ml/g] SINGLE(5012)
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(1e+030)

Anthracene
koc [ml/g] SINGLE(5623) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(4000)

Fluoranthene

koc [ml/g] SINGLE(18197) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(4000)

TPH Aromatic C10-C12

koc [ml/g] SINGLE(2512) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(258)

TPH Aromatic C12-C16

koc [ml/g] SINGLE(5012) Calculate kd
Simulate Degradation in Dissolved Phase only
Halflife [years] SINGLE(3800)

Project: Radlett SFRI

Project Number: CS018904

Receptor

Landfill1 Receptor	X 516248.175377	Y 202826.381429
River Colne	X 516359.250514	Y 202507.049439
Downstream Compliance	X 516284.371465	Y 202763.214607

Input Correlations

No Correlations

CAPITA

Capita Property and Infrastructure Limited
Capita Symonds House
Wood Street
East Grinstead
West Sussex
RH19 1UU

Tel +44 (0)1342 327161
Fax+44 (0)1342 315 927

www.capitaproperty.co.uk