References

1. Environment Agency (2017), 'The Environment Agency's approach to groundwater protection', version 1.0, March 2017 (formerly contained within GP3).

1a. Environment Agency (2017), 'Land contamination groundwater compliance points: quantitative risk assessments', March 2017 (formerly contained within GP3).

2. The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.

    2a. The EQS for these substances are based on a "long term mean" or an "annual average (AA)" EQS.

    2b. For cadmium and its compounds the EQS values vary depending on the hardness of the water as specified in five class categories (Class 1: < 40 mg CaCO3/l, Class 2: 40 to < 50 mg CaCO3/l, Class 3: 50 to < 100 mg CaCO3/l, Class 4: 100 to < 200 mg CaCO3/l and Class 5: ≥ 200 mg CaCO3/l).

    2c. The EQS for Mercury and hexachlorobutadiene are based on a "maximum acceptable concentration (MAC)" EQS in absence of an "annual average (AA)" EQS.

    2d. The EQS for chlorine in saltwater is based on the 95th percentile concentration of total residual oxidant, which refers to the sum of all oxidising agents existing in water, expressed as available chlorine.

    2e. The recommended saltwater standard is derived using a safety factor of 100. Where the standard is failed, it is recommended that supporting evidence of ecological damage should be obtained before committing to expensive action.

    2f. EQS for total ammonia is as per Schedule 3, Part 1, Table 7 of of the above directions. EQS applies to river types 1, 2 and 4 and 6 (namely upland and low alkalinity). The EQS for a lowland and high alkalinity rivers (types 3, 5 and 7) is 600µg/l (0.6mg/l).

    2g. Note that the xylene EQS is an Environment Agency "operational" target and is not listed in the 2015 Directions:

    Additional information on the Metal Bioavailability Assessment Tool (M-BAT) is available at http://www.wfduk.org/resources/rivers-lakes-metal-bioavailability-assessment-tool-m-bat

3. The Water Supply (Water Quality) Regulations 2000 (SI 2000/3184), as amended by SI 2001/2885, SI 2002/2469, SI 2005/2035, SI 2007/2734 and SI 2010/991

    3a. Sum of chloroform, bromoform, dibromochloromethane and bromodichloromethane

    3b. Standard applies to individual pesticides except aldrin, dieldrin, heptachlor and heptachlor epoxide, for which a separate standard is defined.

4. The Private Water Supplies (England) Regulations 2016. SI 2016/618

5. GAC based on aquatic toxicity factors (ATF) for fresh and marine waters as determined within:

    5a: Review and Development of Shell Guideline Surface Water Ecology Criteria for BTEX (2013). Shell Health Report HE 13.044, Shell Global Solutions International BV. The Hague, Netherlands.

    5b: Review and Development of Shell Guideline Surface Water Ecology Criteria for Ether Oxygenates (2013). Shell Health Report HE 13.054, Shell Global Solutions International BV. The Hague, Netherlands.

    5c: Review and Development of Shell Guideline Surface Water Ecology Criteria for Naphthalene, 2-Methylnaphthalene and n-hexane (2013). Shell Health Report HE 13.064. November 11, 2013, Shell Global Solutions.

6. GSI Environmental, Universal Human Health Risk-Based Screening Level (RBSL) Tables for Shell Downstream Sites, October 2014. Target concentrations applicable to water intended or used for ingestion and other domestic uses within a residential setting – “Standard” residential exposure selected as best analogy for UK housing exposure.
7. World Health Organisation (WHO), 2008. Petroleum products in drinking-water. Background document for development of WHO guidelines for drinking water quality. WHO/SDE/WSH/05.08/123. World Health Organisation, Geneva.
8. Environment Agency, 2014. Land Contamination: Remedial Targets Methodology (RTM). Hydrogeological risk assessment guidance and tool to set targets to remediate (clean up) contaminated land or groundwater.
9. JAGDAG hazard substance determinations (January 2019): This list contains substances that are determined to be hazardous substances or non-hazardous pollutants for the purposes of the groundwater directive 2006/118/EC. https://www.wfduk.org/stakeholders/jagdag [accessed 1 February 2021]
The absence of an assessment or substance from the list means an assessment has not been completed and is therefore presented as ‘Not determined’. For further details on how substances are assessed, see the Joint Agencies Groundwater Directive Advisory Group (JAGDAG) ‘Methodology for the determination of hazardous substances in groundwater for the purposes of the groundwater directive 2006/118/EC’ which is available from the JAGDAG website. The methodology is a UK –wide framework that sets criteria for how to assess whether a substance is a hazardous substance in groundwater.
10. Minimum reporting values listed in Annex (J) of Horizontal Guidance Note H1 (H1 Environmental Risk Assessment Framework, Environment Agency, April 2010 v2.0). Note target concentration for xylenes is 0.003mg/l each for o-xylene and m/p xylene)
11. ATSDR 2005. Toxicological Profile for Naphthalene, 1-Methylnaphthalene and 2-Methylnaphthalene. Agency for Toxic Substances and Disease Registry, US Department of Health and Human Services.
12. ATSDR 2000. Toxicological Profile for Toluene. Agency for Toxic Substances and Disease Registry, US Department of Health and Human Services. September 2000.
13. ATSDR 2010. Toxicological Profile for Ethyl benzene. Agency for Toxic Substances and Disease Registry, US Department of Health and Human Services. November 2010.
14. Vetrano, 1993. Final report to ARCO Chemical Company in the odor and taste threshold studies performed with methyltertuary-butyl ether (MTBE) and ethyl tertiary-butyl ether (ETBE), Environ. Toxicol. Chem., 20, 1125-1132.
15. Shell, 2004. Toxicity Factors and Risk-Based Screening Levels for DIPE, ETBE, TAME and TBA. OG.04.50728, Shell Global Solutions, Houston, TX.
16. CL:AIRE, 2017. Petroleum Hydrocarbons in Groundwater: Guidance on assessing petroleum hydrocarbons using existing hydrogeological risk assessment methodologies. (Version 1.1, 29 March 2017).

DEFINITIONS AND SUBSTANCE CLASSIFICATIONS

Risks to surface waters:

When assessing risks to surface waters, the following list of definitions should be understood:

Priority substances (PS) are harmful substances originally identified under the Water Framework Directive (WFD) 2000/60/EC as substances 'presenting a significant risk to or via the aquatic environment' at a European level. Member States are required to incorporate the identified **PS** into their country-wide monitoring programmes. There are currently 33 **PS** defined within the Priority Substances Directive (2013/39/EU; Annex 1), with a further 12 additional substances due to come into force from 22 December 2018. Directive 2013/39/EU has been transposed into domestic legislation for England and Wales by The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015(2).

Under the umbrella of **PS**, there is a sub-set of substances identified as being "hazardous", and these are referred to as **Priority hazardous substances (PHS).** The list of **PHS** is defined at EU level within the Priority Substances Directive (2013/39/EU). The WFD defines hazardous substances as 'substances (or groups of substances) that are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances that give rise to an equivalent level of concern.' There are currently **21 PHS** (previously 15 PHS, with a further 6 substances added in 22 December 2018).

There is also another group of substances defined at EU level and which are referred to as **other pollutants (OP)** in Directive 2013/39/EU**.** These are additional substances which although not **priority substances**, have EQS which are identical to those laid down in the legislation which applied prior to 13 January 2009 (Directive 2008/105/EU). The **OP** are listed along with the **priority substance (PS)** within the Priority Substances Directive (2013/39/EU), and their associated EQS are also listed therein. There are 6 **OP** defined within the Priority Substances Directive (2013/39/EU).

In addition to the EU level substances, there are also a group of pollutants defined at a Member State level, referred to as **Specific pollutants (SP)**. These substances are pollutants which are released in significant quantities into water bodies in each of the individual European Member States. Under the WFD, Member States are required to set their own EQS for these substances. An indicative list of **SP** is given in Annex VIII of the WFD. Many of the substances categorised as **SP** in the UK were formerly List 2 substances under the old Groundwater Directive (80/68/EEC). The **SP** are defined within Part 2 (Table 1) of The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015(2).

Risks to groundwater:

When assessing risks to groundwater, the following definitions should be understood:

Under the requirements of the Groundwater Daughter Directive (2006/118/EU), the UK has published a list of substances it considers to be **hazardous substances** with respect to groundwater. In their advisory capacity to the government, this list has been derived by the UK Joint Agencies Groundwater Directive Advisory Group (JAGDAG), of which the Environment Agency is a member. The latest JAGDAG list of **hazardous substances** was published in January 2019(9) and the Environment Agency will use the updated list of hazardous substances from this date for all new activities that may lead to the discharge of hazardous substances to groundwater. The list is extensive and can be found in full at:

https://www.wfduk.org/stakeholders/jagdag

APPENDIX G
CONSIM INPUTS AND RESULTS

Project: Shell Whitemare Pool

Project Number: 355390

Project Details

Title: Shell Whitemare Pool

Project Number: 355390

Prepared By: L Aspinall

Date: 2022-03-11 16:54:19

Client Name: Shell

Comments:

Consim version 2.05

Simulation Level

Level 3a

Simulation Parameters

Iterations 1001

Timeslices:1, 2, 3, 4, 5, 10, 15, 20, 25, 50, 100, 250, 500, 750, 1000

Water Quality Standard

User Defined

Project: Shell Whitemare Pool

Project Number: 355390

Source

New Source 1

Infiltration

Infiltration [mm/year] TRIANGULAR(226,238,250)

Source Inventory:

Benzene

Aquifer Source Concentration [mg/l] SINGLE(0.193)

Organic

Toluene

Aquifer Source Concentration [mg/l] SINGLE(0.733)

Organic

Xylene

Aquifer Source Concentration [mg/l] SINGLE(1.916)

Organic

Project: Shell Whitemare Pool

Project Number: 355390

Aquifer Pathway

Thickness [m] UNIFORM(5.65,10.89)

Dry Bulk Density [g/cm³] UNIFORM(1.6,2.68)

Fraction of Organic Carbon [%] UNIFORM(0.0001,0.009)

Calculated Mixing Zone Thickness

Hydraulic Conductivity [m/s] LOGTRIANGULAR(6.6e-007,3.59e-006,4.28e-005)

Effective Porosity [fraction] UNIFORM(0.12,0.27)

Hydraulic Gradient TRIANGULAR(0.01,0.019,0.027)

Groundwater Flow Direction (degrees), 0.00

Longitudinal Dispersivity [m] SINGLE(5)

Lateral Dispersivity [m] SINGLE(0.5)

Contaminant Inventory

Benzene

koc [ml/g] TRIANGULAR(60.8,67.6,74.4) Calculate kd

Simulate Degradation in Dissolved Phase only

Halflife [years] TRIANGULAR(0.31,1.14,1.97)

Toluene

koc [ml/g] TRIANGULAR(184,204,224) Calculate kd

Simulate Degradation in Dissolved Phase only

Halflife [years] TRIANGULAR(0.15,0.36,0.58)

Xylene

koc [ml/g] TRIANGULAR(383.9,426.6,469.3) Calculate kd

Simulate Degradation in Dissolved Phase only

Halflife [years] TRIANGULAR(0.49,0.74,0.99)

Project: Shell Whitemare Pool

Project Number: 355390

Receptor

New Source 1 Receptor	X 40.000000	Y 35.000000
50m CP	X 20.000000	Y 80.000000
470m Monkton Burn	X 20.000000	Y 500.000000

Input Correlations

Hydraulic conductivity vs hydraulic gradient	1

Project: Shell Whitemare Pool

Project Number: 355390

Source Inventory:

Benzene

Aquifer Source Concentration [mg/l] SINGLE(0.193)

Toluene

Aquifer Source Concentration [mg/l] SINGLE(0.733)

Xylene

Aquifer Source Concentration [mg/l] SINGLE(1.916)

Benzene

Unretarded Travel Time to New Source 1 Receptor [years]

05% of values less than 0.0555654	10% of values less than 0.119775	25% of values less than 0.33319
50% of values less than 0.924821	75% of values less than 2.19009	90% of values less than 4.53786
Minimum 0.000671356ı 6.95052	Maximum 21.1292	
Mean 1.79801	SD 2.41048	Variance 5.8104

Retarded Travel Time to New Source 1 Receptor [years]

05% of values less than 0.0571315	10% of values less than 0.122032	25% of values less than 0.353629
50% of values less than 0.970198	75% of values less than 2.2663	90% of values less than 4.74686
Minimum 0.000674442ı 7.18138	Maximum 21.8415	
Mean 1.85818	SD 2.48571	Variance 6.17875

Toluene

Unretarded Travel Time to New Source 1 Receptor [years]

05% of values less than 0.0555654	10% of values less than 0.119775	25% of values less than 0.33319
50% of values less than 0.924821	75% of values less than 2.19009	90% of values less than 4.53786
Minimum 0.000671356ı 6.95052	Maximum 21.1292	
Mean 1.79801	SD 2.41048	Variance 5.8104

Retarded Travel Time to New Source 1 Receptor [years]

05% of values less than 0.0623922	10% of values less than 0.130459	25% of values less than 0.381307
50% of values less than 1.04864	75% of values less than 2.46088	90% of values less than 5.01902
Minimum 0.000681413ı 7.48938	Maximum 23.1975	
Mean 1.98052	SD 2.64329	Variance 6.98698

Xylene

Unretarded Travel Time to New Source 1 Receptor [years]

05% of values less than 0.0555654	10% of values less than 0.119775	25% of values less than 0.33319
50% of values less than 0.924821	75% of values less than 2.19009	90% of values less than 4.53786
Minimum 0.000671356ı 6.95052	Maximum 21.1292	
Mean 1.79801	SD 2.41048	Variance 5.8104

Retarded Travel Time to New Source 1 Receptor [years]

05% of values less than 0.069904	10% of values less than 0.140588	25% of values less than 0.41721
50% of values less than 1.1401	75% of values less than 2.68279	90% of values less than 5.44209
Minimum 0.000691503ı 8.36843	Maximum 25.4505	
Mean 2.17713	SD 2.90093	Variance 8.4154

Benzene

Concentration at New Source 1 Receptor [mg/l] - 1 years

05% of values less than 1.49E-008	10% of values less than 7.47493E-007	25% of values less than 0.000261014
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 8.18327E-017 0.193	Maximum 0.193	
Mean 0.101375	SD 0.0936352	Variance 0.00876755

Concentration at New Source 1 Receptor [mg/l] - 2 years

05% of values less than 1.17741E-006	10% of values less than 1.67555E-005	25% of values less than 0.00215103
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 4.50524E-015 0.193	Maximum 0.193	
Mean 0.105421	SD 0.0905113	Variance 0.0081923

Concentration at New Source 1 Receptor [mg/l] - 3 years

05% of values less than 3.16372E-006	10% of values less than 4.65174E-005	25% of values less than 0.00407742
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 5.83216E-015 0.193	Maximum 0.193	
Mean 0.107032	SD 0.089303	Variance 0.00797503

Concentration at New Source 1 Receptor [mg/l] - 4 years

05% of values less than 6.71851E-006	10% of values less than 6.12752E-005	25% of values less than 0.00480432
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.33513E-015 0.193	Maximum 0.193	
Mean 0.107636	SD 0.0888262	Variance 0.00789009

Concentration at New Source 1 Receptor [mg/l] - 5 years

05% of values less than 7.69921E-006	10% of values less than 6.86724E-005	25% of values less than 0.00508072
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.5253E-015n 0.193	Maximum 0.193	
Mean 0.107877	SD 0.088624	Variance 0.00785422

Concentration at New Source 1 Receptor [mg/l] - 10 years

05% of values less than 9.22967E-006	10% of values less than 7.26881E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64549E-015 0.193	Maximum 0.193	
Mean 0.108062	SD 0.0884536	Variance 0.00782405

Benzene

Concentration at New Source 1 Receptor [mg/l] - 15 years

05% of values less than 9.23037E-006	10% of values less than 7.26886E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64686E-015 0.193	Maximum 0.193	
Mean 0.108068	SD 0.0884481	Variance 0.00782307

Concentration at New Source 1 Receptor [mg/l] - 20 years

05% of values less than 9.23037E-006	10% of values less than 7.26886E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64688E-015 0.193	Maximum 0.193	
Mean 0.108068	SD 0.0884478	Variance 0.00782302

Concentration at New Source 1 Receptor [mg/l] - 25 years

05% of values less than 9.23037E-006	10% of values less than 7.26886E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64688E-015 0.193	Maximum 0.193	
Mean 0.108068	SD 0.0884478	Variance 0.00782302

Concentration at New Source 1 Receptor [mg/l] - 50 years

05% of values less than 9.23037E-006	10% of values less than 7.26886E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64688E-015 0.193	Maximum 0.193	
Mean 0.108068	SD 0.0884478	Variance 0.00782302

Concentration at New Source 1 Receptor [mg/l] - 100 years

05% of values less than 9.23037E-006	10% of values less than 7.26886E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64688E-015 0.193	Maximum 0.193	
Mean 0.108068	SD 0.0884478	Variance 0.00782302

Concentration at New Source 1 Receptor [mg/l] - 250 years

05% of values less than 9.23037E-006	10% of values less than 7.26886E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64688E-015 0.193	Maximum 0.193	
Mean 0.108068	SD 0.0884478	Variance 0.00782302

Benzene

Concentration at New Source 1 Receptor [mg/l] - 500 years

05% of values less than 9.23037E-006	10% of values less than 7.26886E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64688E-015 0.193	Maximum 0.193	
Mean 0.108068	SD 0.0884478	Variance 0.00782302

Concentration at New Source 1 Receptor [mg/l] - 750 years

05% of values less than 9.23037E-006	10% of values less than 7.26886E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64688E-015 0.193	Maximum 0.193	
Mean 0.108068	SD 0.0884478	Variance 0.00782302

Concentration at New Source 1 Receptor [mg/l] - 1000 years

05% of values less than 9.23037E-006	10% of values less than 7.26886E-005	25% of values less than 0.00556062
50% of values less than 0.193	75% of values less than 0.193	90% of values less than 0.193
Minimum 6.64688E-015 0.193	Maximum 0.193	
Mean 0.108068	SD 0.0884478	Variance 0.00782302

Toluene

Concentration at New Source 1 Receptor [mg/l] - 1 years

05% of values less than 1.0713E-008	10% of values less than 5.16856E-007	25% of values less than 0.000236846
50% of values less than 0.0895179	75% of values less than 0.733	90% of values less than 0.733
Minimum 2.60755E-018 0.733	Maximum 0.733	
Mean 0.361827	SD 0.361161	Variance 0.130437

Concentration at New Source 1 Receptor [mg/l] - 2 years

05% of values less than 5.26129E-007	10% of values less than 8.02906E-006	25% of values less than 0.0010375
50% of values less than 0.123793	75% of values less than 0.733	90% of values less than 0.733
Minimum 6.54618E-015 0.733	Maximum 0.733	
Mean 0.365514	SD 0.358021	Variance 0.128179

Concentration at New Source 1 Receptor [mg/l] - 3 years

05% of values less than 9.51599E-007	10% of values less than 1.54358E-005	25% of values less than 0.00148697
50% of values less than 0.128749	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.43848E-015 0.733	Maximum 0.733	
Mean 0.366123	SD 0.357493	Variance 0.127801

Concentration at New Source 1 Receptor [mg/l] - 4 years

05% of values less than 1.18895E-006	10% of values less than 1.58544E-005	25% of values less than 0.00154281
50% of values less than 0.129156	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.60923E-015 0.733	Maximum 0.733	
Mean 0.36622	SD 0.357407	Variance 0.127739

Concentration at New Source 1 Receptor [mg/l] - 5 years

05% of values less than 1.21331E-006	10% of values less than 1.61691E-005	25% of values less than 0.0016628
50% of values less than 0.129202	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64142E-015 0.733	Maximum 0.733	
Mean 0.366236	SD 0.357392	Variance 0.127729

Concentration at New Source 1 Receptor [mg/l] - 10 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64906E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Toluene

Concentration at New Source 1 Receptor [mg/l] - 15 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64907E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Concentration at New Source 1 Receptor [mg/l] - 20 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64907E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Concentration at New Source 1 Receptor [mg/l] - 25 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64907E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Concentration at New Source 1 Receptor [mg/l] - 50 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64907E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Concentration at New Source 1 Receptor [mg/l] - 100 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64907E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Concentration at New Source 1 Receptor [mg/l] - 250 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64907E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Toluene

Concentration at New Source 1 Receptor [mg/l] - 500 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64907E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Concentration at New Source 1 Receptor [mg/l] - 750 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64907E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Concentration at New Source 1 Receptor [mg/l] - 1000 years

05% of values less than 1.21341E-006	10% of values less than 1.61695E-005	25% of values less than 0.00171037
50% of values less than 0.129208	75% of values less than 0.733	90% of values less than 0.733
Minimum 7.64907E-015 0.733	Maximum 0.733	
Mean 0.36624	SD 0.357388	Variance 0.127726

Xylene

Concentration at New Source 1 Receptor [mg/l] - 1 years

05% of values less than 2.60791E-008	10% of values less than 1.52804E-006	25% of values less than 0.000751875
50% of values less than 0.238449	75% of values less than 1.916	90% of values less than 1.916
Minimum 1.9512E-016n 1.916	Maximum 1.916	
Mean 0.907419	SD 0.931741	Variance 0.868142

Concentration at New Source 1 Receptor [mg/l] - 2 years

05% of values less than 2.78427E-006	10% of values less than 5.86236E-005	25% of values less than 0.0059234
50% of values less than 0.446574	75% of values less than 1.916	90% of values less than 1.916
Minimum 3.31879E-014 1.916	Maximum 1.916	
Mean 0.940598	SD 0.908125	Variance 0.824692

Concentration at New Source 1 Receptor [mg/l] - 3 years

05% of values less than 9.16041E-006	10% of values less than 0.000119735	25% of values less than 0.0118727
50% of values less than 0.504521	75% of values less than 1.916	90% of values less than 1.916
Minimum 4.64964E-014 1.916	Maximum 1.916	
Mean 0.952162	SD 0.899753	Variance 0.809555

Concentration at New Source 1 Receptor [mg/l] - 4 years

05% of values less than 1.55939E-005	10% of values less than 0.000257606	25% of values less than 0.015345
50% of values less than 0.518633	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.21537E-014 1.916	Maximum 1.916	
Mean 0.955934	SD 0.896858	Variance 0.804355

Concentration at New Source 1 Receptor [mg/l] - 5 years

05% of values less than 1.62074E-005	10% of values less than 0.00028844	25% of values less than 0.0170435
50% of values less than 0.5226	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.44856E-014 1.916	Maximum 1.916	
Mean 0.957207	SD 0.89583	Variance 0.802511

Concentration at New Source 1 Receptor [mg/l] - 10 years

05% of values less than 1.82747E-005	10% of values less than 0.000319513	25% of values less than 0.0179972
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61401E-014 1.916	Maximum 1.916	
Mean 0.95792	SD 0.895219	Variance 0.801416

Xylene

Concentration at New Source 1 Receptor [mg/l] - 15 years

05% of values less than 1.84537E-005	10% of values less than 0.00032409	25% of values less than 0.0179973
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61656E-014 1.916	Maximum 1.916	
Mean 0.957927	SD 0.895212	Variance 0.801404

Concentration at New Source 1 Receptor [mg/l] - 20 years

05% of values less than 1.84537E-005	10% of values less than 0.000324174	25% of values less than 0.0179973
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61661E-014 1.916	Maximum 1.916	
Mean 0.957927	SD 0.895212	Variance 0.801404

Concentration at New Source 1 Receptor [mg/l] - 25 years

05% of values less than 1.84537E-005	10% of values less than 0.000324175	25% of values less than 0.0179973
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61661E-014 1.916	Maximum 1.916	
Mean 0.957927	SD 0.895212	Variance 0.801404

Concentration at New Source 1 Receptor [mg/l] - 50 years

05% of values less than 1.84537E-005	10% of values less than 0.000324175	25% of values less than 0.0179973
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61661E-014 1.916	Maximum 1.916	
Mean 0.957927	SD 0.895212	Variance 0.801404

Concentration at New Source 1 Receptor [mg/l] - 100 years

05% of values less than 1.84537E-005	10% of values less than 0.000324175	25% of values less than 0.0179973
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61661E-014 1.916	Maximum 1.916	
Mean 0.957927	SD 0.895212	Variance 0.801404

Concentration at New Source 1 Receptor [mg/l] - 250 years

05% of values less than 1.84537E-005	10% of values less than 0.000324175	25% of values less than 0.0179973
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61661E-014 1.916	Maximum 1.916	
Mean 0.957927	SD 0.895212	Variance 0.801404

Xylene

Concentration at New Source 1 Receptor [mg/l] - 500 years

05% of values less than 1.84537E-005	10% of values less than 0.000324175	25% of values less than 0.0179973
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61661E-014 1.916	Maximum 1.916	
Mean 0.957927	SD 0.895212	Variance 0.801404

Concentration at New Source 1 Receptor [mg/l] - 750 years

05% of values less than 1.84537E-005	10% of values less than 0.000324175	25% of values less than 0.0179973
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61661E-014 1.916	Maximum 1.916	
Mean 0.957927	SD 0.895212	Variance 0.801404

Concentration at New Source 1 Receptor [mg/l] - 1000 years

05% of values less than 1.84537E-005	10% of values less than 0.000324175	25% of values less than 0.0179973
50% of values less than 0.522657	75% of values less than 1.916	90% of values less than 1.916
Minimum 5.61661E-014 1.916	Maximum 1.916	
Mean 0.957927	SD 0.895212	Variance 0.801404

Benzene

Unretarded Travel Time to 50m CP [years]

05% of values less than 0.673075	10% of values less than 0.974904	25% of values less than 1.89316
50% of values less than 4.42514	75% of values less than 9.28971	90% of values less than 17.3903
Minimum 0.195868 than 24.3161	Maximum 62.9441	
Mean 7.33922	SD 8.34967	Variance 69.717

Retarded Travel Time to 50m CP [years]

05% of values less than 0.717286	10% of values less than 1.02109	25% of values less than 1.95368
50% of values less than 4.61722	75% of values less than 9.58427	90% of values less than 18.1196
Minimum 0.199978 than 25.2184	Maximum 65.0659	
Mean 7.58431	SD 8.59996	Variance 73.9593

Toluene

Unretarded Travel Time to 50m CP [years]

05% of values less than 0.673075	10% of values less than 0.974904	25% of values less than 1.89316
50% of values less than 4.42514	75% of values less than 9.28971	90% of values less than 17.3903
Minimum 0.195868	than 24.3161	Maximum 62.9441
Mean 7.33922	SD 8.34967	Variance 69.717

Retarded Travel Time to 50m CP [years]

05% of values less than 0.759557	10% of values less than 1.11085	25% of values less than 2.10262
50% of values less than 4.90965	75% of values less than 10.2157	90% of values less than 19.5528
Minimum 0.208267	than 26.9437	Maximum 69.1054
Mean 8.07989	SD 9.11774	Variance 83.1333

Xylene

Unretarded Travel Time to 50m CP [years]

05% of values less than 0.673075	10% of values less than 0.974904	25% of values less than 1.89316
50% of values less than 4.42514	75% of values less than 9.28971	90% of values less than 17.3903
Minimum 0.195868 than 24.3161	Maximum 62.9441	
Mean 7.33922	SD 8.34967	Variance 69.717

Retarded Travel Time to 50m CP [years]

05% of values less than 0.828646	10% of values less than 1.22616	25% of values less than 2.25998
50% of values less than 5.34037	75% of values less than 11.1582	90% of values less than 21.5391
Minimum 0.223666 than 30.2493	Maximum 75.817	
Mean 8.88321	SD 9.98559	Variance 99.7119

Benzene

Concentration at 50m CP [mg/l] - 1 years

05% of values less than 4.02952E-017	10% of values less than 4.57489E-016	25% of values less than 2.8149E-014
50% of values less than 4.63751E-007	75% of values less than 0.00367604	90% of values less than 0.0521644
Minimum 1.81233E-022 0.193	Maximum 0.193	
Mean 0.0209581	SD 0.0550591	Variance 0.00303151

Concentration at 50m CP [mg/l] - 2 years

05% of values less than 1.65982E-016	10% of values less than 9.22912E-015	25% of values less than 8.18421E-008
50% of values less than 0.000531586	75% of values less than 0.0326704	90% of values less than 0.102914
Minimum 1.81237E-022 0.193	Maximum 0.193	
Mean 0.0299224	SD 0.0567806	Variance 0.00322404

Concentration at 50m CP [mg/l] - 3 years

05% of values less than 5.68333E-014	10% of values less than 2.6242E-010	25% of values less than 1.13308E-005
50% of values less than 0.00379625	75% of values less than 0.0468618	90% of values less than 0.107244
Minimum 4.12472E-022 0.193	Maximum 0.193	
Mean 0.0341318	SD 0.0569109	Variance 0.00323885

Concentration at 50m CP [mg/l] - 4 years

05% of values less than 7.30997E-011	10% of values less than 4.30926E-008	25% of values less than 0.000108746
50% of values less than 0.00781539	75% of values less than 0.0501915	90% of values less than 0.107656
Minimum 4.12472E-022 0.193	Maximum 0.193	
Mean 0.0360855	SD 0.0565484	Variance 0.00319772

Concentration at 50m CP [mg/l] - 5 years

05% of values less than 4.03456E-009	10% of values less than 7.10609E-007	25% of values less than 0.000333237
50% of values less than 0.0109846	75% of values less than 0.0505717	90% of values less than 0.107656
Minimum 4.39265E-022 0.193	Maximum 0.193	
Mean 0.0370429	SD 0.0562606	Variance 0.00316526

Concentration at 50m CP [mg/l] - 10 years

05% of values less than 2.05277E-006	10% of values less than 2.5272E-005	25% of values less than 0.00110551
50% of values less than 0.0132171	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 7.40364E-014 0.193	Maximum 0.193	
Mean 0.0379539	SD 0.0558895	Variance 0.00312364

Benzene

Concentration at 50m CP [mg/l] - 15 years

05% of values less than 3.88816E-006	10% of values less than 3.9964E-005	25% of values less than 0.00118147
50% of values less than 0.0132182	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 1.04515E-011 0.193	Maximum 0.193	
Mean 0.0379884	SD 0.0558698	Variance 0.00312143

Concentration at 50m CP [mg/l] - 20 years

05% of values less than 4.4748E-006	10% of values less than 4.43636E-005	25% of values less than 0.00118153
50% of values less than 0.0132182	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 1.81233E-011 0.193	Maximum 0.193	
Mean 0.0379904	SD 0.0558685	Variance 0.00312129

Concentration at 50m CP [mg/l] - 25 years

05% of values less than 4.74388E-006	10% of values less than 4.45766E-005	25% of values less than 0.00118153
50% of values less than 0.0132182	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 1.81233E-011 0.193	Maximum 0.193	
Mean 0.0379906	SD 0.0558684	Variance 0.00312128

Concentration at 50m CP [mg/l] - 50 years

05% of values less than 4.89192E-006	10% of values less than 4.45812E-005	25% of values less than 0.00118153
50% of values less than 0.0132182	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 1.81233E-011 0.193	Maximum 0.193	
Mean 0.0379906	SD 0.0558684	Variance 0.00312127

Concentration at 50m CP [mg/l] - 100 years

05% of values less than 4.89192E-006	10% of values less than 4.45812E-005	25% of values less than 0.00118153
50% of values less than 0.0132182	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 1.81233E-011 0.193	Maximum 0.193	
Mean 0.0379906	SD 0.0558684	Variance 0.00312127

Concentration at 50m CP [mg/l] - 250 years

05% of values less than 4.89192E-006	10% of values less than 4.45812E-005	25% of values less than 0.00118153
50% of values less than 0.0132182	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 1.81233E-011 0.193	Maximum 0.193	
Mean 0.0379906	SD 0.0558684	Variance 0.00312127

Benzene

Concentration at 50m CP [mg/l] - 500 years

05% of values less than 4.89192E-006	10% of values less than 4.45812E-005	25% of values less than 0.00118153
50% of values less than 0.0132182	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 1.81233E-011 0.193	Maximum 0.193	
Mean 0.0379906	SD 0.0558684	Variance 0.00312127

Concentration at 50m CP [mg/l] - 750 years

05% of values less than 4.89192E-006	10% of values less than 4.45812E-005	25% of values less than 0.00118153
50% of values less than 0.0132182	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 1.81233E-011 0.193	Maximum 0.193	
Mean 0.0379906	SD 0.0558684	Variance 0.00312127

Concentration at 50m CP [mg/l] - 1000 years

05% of values less than 4.89192E-006	10% of values less than 4.45812E-005	25% of values less than 0.00118153
50% of values less than 0.0132182	75% of values less than 0.0505942	90% of values less than 0.107656
Minimum 1.81233E-011 0.193	Maximum 0.193	
Mean 0.0379906	SD 0.0558684	Variance 0.00312127

Toluene

Concentration at 50m CP [mg/l] - 1 years

05% of values less than 2.54889E-021	10% of values less than 3.71918E-019	25% of values less than 1.46358E-015
50% of values less than 2.18724E-007	75% of values less than 0.00245742	90% of values less than 0.0691451
Minimum 4.45308E-030 0.733	Maximum 0.733	
Mean 0.0652574	SD 0.200185	Variance 0.0400742

Concentration at 50m CP [mg/l] - 2 years

05% of values less than 1.43149E-020	10% of values less than 3.01264E-016	25% of values less than 1.69723E-008
50% of values less than 0.000164457	75% of values less than 0.0182928	90% of values less than 0.119737
Minimum 4.45308E-030 0.733	Maximum 0.733	
Mean 0.0723705	SD 0.199619	Variance 0.0398476

Concentration at 50m CP [mg/l] - 3 years

05% of values less than 4.18934E-016	10% of values less than 8.91619E-012	25% of values less than 9.97948E-007
50% of values less than 0.000673059	75% of values less than 0.0238985	90% of values less than 0.122761
Minimum 4.45575E-030 0.733	Maximum 0.733	
Mean 0.0736729	SD 0.199394	Variance 0.0397579

Concentration at 50m CP [mg/l] - 4 years

05% of values less than 4.55038E-013	10% of values less than 6.57547E-010	25% of values less than 3.25085E-006
50% of values less than 0.000964076	75% of values less than 0.0255281	90% of values less than 0.12278
Minimum 4.59953E-028 0.733	Maximum 0.733	
Mean 0.0739206	SD 0.199326	Variance 0.0397308

Concentration at 50m CP [mg/l] - 5 years

05% of values less than 1.98728E-011	10% of values less than 5.38863E-009	25% of values less than 6.58785E-006
50% of values less than 0.0010628	75% of values less than 0.0255676	90% of values less than 0.12278
Minimum 8.45174E-026 0.733	Maximum 0.733	
Mean 0.0739744	SD 0.199309	Variance 0.0397239

Concentration at 50m CP [mg/l] - 10 years

05% of values less than 1.6065E-010	10% of values less than 3.3984E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 3.71588E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Toluene

Concentration at 50m CP [mg/l] - 15 years

05% of values less than 2.53103E-010	10% of values less than 3.71918E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 4.45278E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Concentration at 50m CP [mg/l] - 20 years

05% of values less than 2.5512E-010	10% of values less than 3.71918E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 4.45308E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Concentration at 50m CP [mg/l] - 25 years

05% of values less than 2.55127E-010	10% of values less than 3.71918E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 4.45308E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Concentration at 50m CP [mg/l] - 50 years

05% of values less than 2.55127E-010	10% of values less than 3.71918E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 4.45308E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Concentration at 50m CP [mg/l] - 100 years

05% of values less than 2.55127E-010	10% of values less than 3.71918E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 4.45308E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Concentration at 50m CP [mg/l] - 250 years

05% of values less than 2.55127E-010	10% of values less than 3.71918E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 4.45308E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Toluene

Concentration at 50m CP [mg/l] - 500 years

05% of values less than 2.55127E-010	10% of values less than 3.71918E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 4.45308E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Concentration at 50m CP [mg/l] - 750 years

05% of values less than 2.55127E-010	10% of values less than 3.71918E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 4.45308E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Concentration at 50m CP [mg/l] - 1000 years

05% of values less than 2.55127E-010	10% of values less than 3.71918E-008	25% of values less than 1.01834E-005
50% of values less than 0.00108183	75% of values less than 0.0255678	90% of values less than 0.12278
Minimum 4.45308E-019 0.733	Maximum 0.733	
Mean 0.0739903	SD 0.199303	Variance 0.0397217

Xylene

Concentration at 50m CP [mg/l] - 1 years

05% of values less than 3.00382E-017	10% of values less than 4.6662E-016	25% of values less than 3.66808E-014
50% of values less than 2.32224E-007	75% of values less than 0.00989373	90% of values less than 0.247869
Minimum 4.40373E-023 1.916	Maximum 1.916	
Mean 0.152218	SD 0.474798	Variance 0.225433

Concentration at 50m CP [mg/l] - 2 years

05% of values less than 3.68708E-017	10% of values less than 1.0261E-015	25% of values less than 5.88891E-008
50% of values less than 0.0012858	75% of values less than 0.177377	90% of values less than 0.594969
Minimum 1.04294E-022 1.916	Maximum 1.916	
Mean 0.215366	SD 0.48698	Variance 0.23715

Concentration at 50m CP [mg/l] - 3 years

05% of values less than 4.53055E-016	10% of values less than 6.0928E-011	25% of values less than 1.85879E-005
50% of values less than 0.0118512	75% of values less than 0.263279	90% of values less than 0.669247
Minimum 1.043E-022an 1.916	Maximum 1.916	
Mean 0.240284	SD 0.48784	Variance 0.237988

Concentration at 50m CP [mg/l] - 4 years

05% of values less than 2.61111E-012	10% of values less than 1.42182E-008	25% of values less than 0.000211241
50% of values less than 0.0253004	75% of values less than 0.282619	90% of values less than 0.671579
Minimum 1.043E-022an 1.916	Maximum 1.916	
Mean 0.249695	SD 0.486189	Variance 0.23638

Concentration at 50m CP [mg/l] - 5 years

05% of values less than 3.86249E-010	10% of values less than 2.74909E-007	25% of values less than 0.000762702
50% of values less than 0.0343436	75% of values less than 0.286608	90% of values less than 0.671741
Minimum 1.04338E-022 1.916	Maximum 1.916	
Mean 0.253524	SD 0.485054	Variance 0.235277

Concentration at 50m CP [mg/l] - 10 years

05% of values less than 1.32404E-006	10% of values less than 3.73153E-005	25% of values less than 0.002555
50% of values less than 0.0422772	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 4.83867E-015 1.916	Maximum 1.916	
Mean 0.256376	SD 0.483937	Variance 0.234195

Xylene

Concentration at 50m CP [mg/l] - 15 years

05% of values less than 2.83536E-006	10% of values less than 4.60042E-005	25% of values less than 0.00259224
50% of values less than 0.0423928	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 1.86166E-012 1.916	Maximum 1.916	
Mean 0.256428	SD 0.483911	Variance 0.23417

Concentration at 50m CP [mg/l] - 20 years

05% of values less than 3.14156E-006	10% of values less than 4.68411E-005	25% of values less than 0.00259229
50% of values less than 0.0423928	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 8.0463E-012n 1.916	Maximum 1.916	
Mean 0.256429	SD 0.483911	Variance 0.234169

Concentration at 50m CP [mg/l] - 25 years

05% of values less than 3.14157E-006	10% of values less than 4.68596E-005	25% of values less than 0.00259229
50% of values less than 0.0423928	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 1.02154E-011 1.916	Maximum 1.916	
Mean 0.256429	SD 0.483911	Variance 0.234169

Concentration at 50m CP [mg/l] - 50 years

05% of values less than 3.14157E-006	10% of values less than 4.68598E-005	25% of values less than 0.00259229
50% of values less than 0.0423928	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 1.043E-011an 1.916	Maximum 1.916	
Mean 0.256429	SD 0.483911	Variance 0.234169

Concentration at 50m CP [mg/l] - 100 years

05% of values less than 3.14157E-006	10% of values less than 4.68598E-005	25% of values less than 0.00259229
50% of values less than 0.0423928	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 1.043E-011an 1.916	Maximum 1.916	
Mean 0.256429	SD 0.483911	Variance 0.234169

Concentration at 50m CP [mg/l] - 250 years

05% of values less than 3.14157E-006	10% of values less than 4.68598E-005	25% of values less than 0.00259229
50% of values less than 0.0423928	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 1.043E-011an 1.916	Maximum 1.916	
Mean 0.256429	SD 0.483911	Variance 0.234169

Xylene

Concentration at 50m CP [mg/l] - 500 years

05% of values less than 3.14157E-006	10% of values less than 4.68598E-005	25% of values less than 0.00259229
50% of values less than 0.0423928	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 1.043E-011an 1.916	Maximum 1.916	
Mean 0.256429	SD 0.483911	Variance 0.234169

Concentration at 50m CP [mg/l] - 750 years

05% of values less than 3.14157E-006	10% of values less than 4.68598E-005	25% of values less than 0.00259229
50% of values less than 0.0423928	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 1.043E-011an 1.916	Maximum 1.916	
Mean 0.256429	SD 0.483911	Variance 0.234169

Concentration at 50m CP [mg/l] - 1000 years

05% of values less than 3.14157E-006	10% of values less than 4.68598E-005	25% of values less than 0.00259229
50% of values less than 0.0423928	75% of values less than 0.287948	90% of values less than 0.671889
Minimum 1.043E-011an 1.916	Maximum 1.916	
Mean 0.256429	SD 0.483911	Variance 0.234169

Benzene

Unretarded Travel Time to 470m Monkton Burn [years]

05% of values less than 5.66052	10% of values less than 8.09942	25% of values less than 15.4394
50% of values less than 36.5794	75% of values less than 74.9066	90% of values less than 140.221
Minimum 1.88296s than 196.696	Maximum 482.674	
Mean 59.0571	SD 67.6646	Variance 4578.5

Retarded Travel Time to 470m Monkton Burn [years]

05% of values less than 5.8159	10% of values less than 8.25376	25% of values less than 16.0536
50% of values less than 38.0126	75% of values less than 77.3239	90% of values less than 145.322
Minimum 1.92247s than 200.977	Maximum 494.005	
Mean 61.0282	SD 69.6754	Variance 4854.66

Toluene

Unretarded Travel Time to 470m Monkton Burn [years]

05% of values less than 5.66052	10% of values less than 8.09942	25% of values less than 15.4394
50% of values less than 36.5794	75% of values less than 74.9066	90% of values less than 140.221
Minimum 1.88296	5 than 196.696	Maximum 482.674
Mean 59.0571	SD 67.6646	Variance 4578.5

Retarded Travel Time to 470m Monkton Burn [years]

05% of values less than 6.14678	10% of values less than 8.88301	25% of values less than 16.9501
50% of values less than 40.8489	75% of values less than 81.29	90% of values less than 153.403
Minimum 2.00215	5 than 216.429	Maximum 517.287
Mean 65.0073	SD 73.7992	Variance 5446.32

Xylene

Unretarded Travel Time to 470m Monkton Burn [years]

05% of values less than 5.66052	10% of values less than 8.09942	25% of values less than 15.4394
50% of values less than 36.5794	75% of values less than 74.9066	90% of values less than 140.221
Minimum 1.88296s than 196.696	Maximum 482.674	
Mean 59.0571	SD 67.6646	Variance 4578.5

Retarded Travel Time to 470m Monkton Burn [years]

05% of values less than 6.90051	10% of values less than 9.76106	25% of values less than 18.3368
50% of values less than 44.3997	75% of values less than 89.3431	90% of values less than 168.615
Minimum 2.1502ss than 240.033	Maximum 554.958	
Mean 71.4733	SD 80.7868	Variance 6526.51

Benzene

Concentration at 470m Monkton Burn [mg/l] - 1 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.12496E-025	75% of values less than 9.5318E-017	90% of values less than 1.24863E-014
Minimum 0ɹes less than 4.40584E-014	Maximum 1.46837E-007	
Mean 2.23529E-010	SD 5.23698E-009	Variance 2.74259E-017

Concentration at 470m Monkton Burn [mg/l] - 2 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 4.64935E-021	75% of values less than 1.66321E-016	90% of values less than 1.34864E-014
Minimum 0ɹes less than 6.55991E-014	Maximum 0.0294918	
Mean 6.09331E-005	SD 0.00128826	Variance 1.65962E-006

Concentration at 470m Monkton Burn [mg/l] - 3 years

05% of values less than 0	10% of values less than 0	25% of values less than 2.47948E-029
50% of values less than 8.19043E-021	75% of values less than 1.70039E-016	90% of values less than 2.83268E-014
Minimum 0ɹes less than 3.09864E-008	Maximum 0.0478427	
Mean 0.000222728	SD 0.00259255	Variance 6.72133E-006

Concentration at 470m Monkton Burn [mg/l] - 4 years

05% of values less than 0	10% of values less than 0	25% of values less than 4.89709E-029
50% of values less than 8.27711E-021	75% of values less than 2.0026E-016	90% of values less than 9.18133E-010
Minimum 0ɹes less than 3.60262E-005	Maximum 0.0478798	
Mean 0.000399292	SD 0.00323005	Variance 1.04332E-005

Concentration at 470m Monkton Burn [mg/l] - 5 years

05% of values less than 0	10% of values less than 0	25% of values less than 5.27794E-029
50% of values less than 8.27711E-021	75% of values less than 3.78077E-016	90% of values less than 7.16071E-007
Minimum 0ɹes less than 0.000758762	Maximum 0.0478798	
Mean 0.000544946	SD 0.00351007	Variance 1.23206E-005

Concentration at 470m Monkton Burn [mg/l] - 10 years

05% of values less than 0	10% of values less than 0	25% of values less than 6.31621E-029
50% of values less than 1.37727E-020	75% of values less than 1.09871E-007	90% of values less than 0.00113822
Minimum 0ɹes less than 0.00439653	Maximum 0.0478798	
Mean 0.000830078	SD 0.00377065	Variance 1.42178E-005

Benzene

Concentration at 470m Monkton Burn [mg/l] - 15 years

05% of values less than 0	10% of values less than 0	25% of values less than 2.38904E-028
50% of values less than 6.48741E-017	75% of values less than 6.98427E-006	90% of values less than 0.00124863
Minimum 0ɹes less than 0.00440584	Maximum 0.0478798	
Mean 0.000859605	SD 0.00377195	Variance 1.42276E-005

Concentration at 470m Monkton Burn [mg/l] - 20 years

05% of values less than 0	10% of values less than 0	25% of values less than 1.73019E-027
50% of values less than 1.3468E-012	75% of values less than 1.27194E-005	90% of values less than 0.00124863
Minimum 0ɹes less than 0.00440584	Maximum 0.0478798	
Mean 0.00086188	SD 0.00377161	Variance 1.42251E-005

Concentration at 470m Monkton Burn [mg/l] - 25 years

05% of values less than 0	10% of values less than 0	25% of values less than 1.1182E-025
50% of values less than 7.85695E-011	75% of values less than 1.66308E-005	90% of values less than 0.00124863
Minimum 0ɹes less than 0.00440584	Maximum 0.0478798	
Mean 0.000862068	SD 0.00377157	Variance 1.42248E-005

Concentration at 470m Monkton Burn [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 2.437E-018
50% of values less than 8.0091E-010	75% of values less than 1.66321E-005	90% of values less than 0.00124863
Minimum 0ɹes less than 0.00440584	Maximum 0.0478798	
Mean 0.0008621	SD 0.00377157	Variance 1.42247E-005

Concentration at 470m Monkton Burn [mg/l] - 100 years

05% of values less than 0	10% of values less than 7.92165E-028	25% of values less than 5.27892E-018
50% of values less than 8.27711E-010	75% of values less than 1.66321E-005	90% of values less than 0.00124863
Minimum 0ɹes less than 0.00440584	Maximum 0.0478798	
Mean 0.0008621	SD 0.00377157	Variance 1.42247E-005

Concentration at 470m Monkton Burn [mg/l] - 250 years

05% of values less than 0	10% of values less than 7.92165E-028	25% of values less than 5.27892E-018
50% of values less than 8.27711E-010	75% of values less than 1.66321E-005	90% of values less than 0.00124863
Minimum 0ɹes less than 0.00440584	Maximum 0.0478798	
Mean 0.0008621	SD 0.00377157	Variance 1.42247E-005

Benzene

Concentration at 470m Monkton Burn [mg/l] - 500 years

05% of values less than 0	10% of values less than 7.92165E-028	25% of values less than 5.27892E-018
50% of values less than 8.27711E-010	75% of values less than 1.66321E-005	90% of values less than 0.00124863
Minimum 0ɹes less than 0.00440584	Maximum 0.0478798	
Mean 0.0008621	SD 0.00377157	Variance 1.42247E-005

Concentration at 470m Monkton Burn [mg/l] - 750 years

05% of values less than 0	10% of values less than 7.92165E-028	25% of values less than 5.27892E-018
50% of values less than 8.27711E-010	75% of values less than 1.66321E-005	90% of values less than 0.00124863
Minimum 0ɹes less than 0.00440584	Maximum 0.0478798	
Mean 0.0008621	SD 0.00377157	Variance 1.42247E-005

Concentration at 470m Monkton Burn [mg/l] - 1000 years

05% of values less than 0	10% of values less than 7.92165E-028	25% of values less than 5.27892E-018
50% of values less than 8.27711E-010	75% of values less than 1.66321E-005	90% of values less than 0.00124863
Minimum 0ɹes less than 0.00440584	Maximum 0.0478798	
Mean 0.0008621	SD 0.00377157	Variance 1.42247E-005

Toluene

Concentration at 470m Monkton Burn [mg/l] - 1 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 1.19446E-022	90% of values less than 5.48621E-018
Minimum 0ɹes less than 2.46061E-016	Maximum 1.92084E-008	
Mean 2.304E-011	SD 6.19102E-010	Variance 3.83287E-019

Concentration at 470m Monkton Burn [mg/l] - 2 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 1.20074E-022	90% of values less than 6.24544E-018
Minimum 0ɹes less than 3.75338E-016	Maximum 0.00281031	
Mean 4.47493E-006	SD 9.98409E-005	Variance 9.96821E-009

Concentration at 470m Monkton Burn [mg/l] - 3 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 1.20074E-022	90% of values less than 3.28051E-017
Minimum 0ɹes less than 2.98719E-010	Maximum 0.00480395	
Mean 1.74176E-005	SD 0.000220157	Variance 4.84693E-008

Concentration at 470m Monkton Burn [mg/l] - 4 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 1.79002E-022	90% of values less than 1.26695E-012
Minimum 0ɹes less than 3.34901E-007	Maximum 0.0079862	
Mean 3.13721E-005	SD 0.000323176	Variance 1.04443E-007

Concentration at 470m Monkton Burn [mg/l] - 5 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 0	75% of values less than 5.65417E-022	90% of values less than 1.23584E-009
Minimum 0ɹes less than 5.58222E-006	Maximum 0.00806251	
Mean 3.96925E-005	SD 0.000347625	Variance 1.20843E-007

Concentration at 470m Monkton Burn [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 5.30648E-013	90% of values less than 5.36177E-007
Minimum 0ɹes less than 2.46059E-005	Maximum 0.00806276	
Mean 4.43897E-005	SD 0.000358152	Variance 1.28273E-007

Toluene

Concentration at 470m Monkton Burn [mg/l] - 15 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 4.92519E-025	75% of values less than 1.03802E-011	90% of values less than 5.48621E-007
Minimum 0ɹes less than 2.46061E-005	Maximum 0.00806276	
Mean 4.44025E-005	SD 0.000358151	Variance 1.28272E-007

Concentration at 470m Monkton Burn [mg/l] - 20 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 2.71422E-022	75% of values less than 1.20074E-011	90% of values less than 5.48621E-007
Minimum 0ɹes less than 2.46061E-005	Maximum 0.00806276	
Mean 4.44026E-005	SD 0.000358151	Variance 1.28272E-007

Concentration at 470m Monkton Burn [mg/l] - 25 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.12793E-021	75% of values less than 1.20074E-011	90% of values less than 5.48621E-007
Minimum 0ɹes less than 2.46061E-005	Maximum 0.00806276	
Mean 4.44026E-005	SD 0.000358151	Variance 1.28272E-007

Concentration at 470m Monkton Burn [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 1.12793E-021	75% of values less than 1.20074E-011	90% of values less than 5.48621E-007
Minimum 0ɹes less than 2.46061E-005	Maximum 0.00806276	
Mean 4.44026E-005	SD 0.000358151	Variance 1.28272E-007

Concentration at 470m Monkton Burn [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 1.12793E-021	75% of values less than 1.20074E-011	90% of values less than 5.48621E-007
Minimum 0ɹes less than 2.46061E-005	Maximum 0.00806276	
Mean 4.44026E-005	SD 0.000358151	Variance 1.28272E-007

Concentration at 470m Monkton Burn [mg/l] - 250 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.12793E-021	75% of values less than 1.20074E-011	90% of values less than 5.48621E-007
Minimum 0ɹes less than 2.46061E-005	Maximum 0.00806276	
Mean 4.44026E-005	SD 0.000358151	Variance 1.28272E-007

Toluene

Concentration at 470m Monkton Burn [mg/l] - 500 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.12793E-021	75% of values less than 1.20074E-011	90% of values less than 5.48621E-007
Minimum 0ɹes less than 2.46061E-005	Maximum 0.00806276	
Mean 4.44026E-005	SD 0.000358151	Variance 1.28272E-007

Concentration at 470m Monkton Burn [mg/l] - 750 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.12793E-021	75% of values less than 1.20074E-011	90% of values less than 5.48621E-007
Minimum 0ɹes less than 2.46061E-005	Maximum 0.00806276	
Mean 4.44026E-005	SD 0.000358151	Variance 1.28272E-007

Concentration at 470m Monkton Burn [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 1.12793E-021	75% of values less than 1.20074E-011	90% of values less than 5.48621E-007
Minimum 0ɹes less than 2.46061E-005	Maximum 0.00806276	
Mean 4.44026E-005	SD 0.000358151	Variance 1.28272E-007

Xylene

Concentration at 470m Monkton Burn [mg/l] - 1 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 3.17172E-029	75% of values less than 2.64871E-017	90% of values less than 9.84499E-015
Minimum 0ɹes less than 7.06967E-014	Maximum 1.57235E-008	
Mean 1.74049E-011	SD 4.99746E-010	Variance 2.49746E-019

Concentration at 470m Monkton Burn [mg/l] - 2 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.07467E-023	75% of values less than 3.49394E-017	90% of values less than 9.84499E-015
Minimum 0ɹes less than 7.6554E-014	Maximum 0.0859845	
Mean 0.000147447	SD 0.003286	Variance 1.07978E-005

Concentration at 470m Monkton Burn [mg/l] - 3 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.53182E-023	75% of values less than 3.49394E-017	90% of values less than 1.11787E-014
Minimum 0ɹes less than 1.04785E-010	Maximum 0.218694	
Mean 0.000663362	SD 0.0104335	Variance 0.000108858

Concentration at 470m Monkton Burn [mg/l] - 4 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.53182E-023	75% of values less than 3.49394E-017	90% of values less than 3.89252E-012
Minimum 0ɹes less than 3.46082E-006	Maximum 0.219773	
Mean 0.0012515	SD 0.0126786	Variance 0.000160747

Concentration at 470m Monkton Burn [mg/l] - 5 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 1.53182E-023	75% of values less than 3.90986E-017	90% of values less than 2.14169E-008
Minimum 0ɹes less than 0.000390511	Maximum 0.219773	
Mean 0.00169126	SD 0.0138243	Variance 0.000191112

Concentration at 470m Monkton Burn [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 1.60106E-023	75% of values less than 3.5818E-009	90% of values less than 0.000788185
Minimum 0ɹes less than 0.00706966	Maximum 0.219773	
Mean 0.00228003	SD 0.0144002	Variance 0.000207366

Xylene

Concentration at 470m Monkton Burn [mg/l] - 15 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 9.8431E-021	75% of values less than 1.32526E-006	90% of values less than 0.000984498
Minimum 0ɹes less than 0.00706967	Maximum 0.219773	
Mean 0.00230787	SD 0.0143994	Variance 0.000207344

Concentration at 470m Monkton Burn [mg/l] - 20 years

05% of values less than 0	10% of values less than 0	25% of values less than 0
50% of values less than 8.93544E-016	75% of values less than 3.20635E-006	90% of values less than 0.000984499
Minimum 0ɹes less than 0.00706967	Maximum 0.219773	
Mean 0.0023089	SD 0.0143993	Variance 0.00020734

Concentration at 470m Monkton Burn [mg/l] - 25 years

05% of values less than 0	10% of values less than 0	25% of values less than 3.52168E-030
50% of values less than 9.71296E-014	75% of values less than 3.49394E-006	90% of values less than 0.000984499
Minimum 0ɹes less than 0.00706967	Maximum 0.219773	
Mean 0.00230894	SD 0.0143993	Variance 0.000207339

Concentration at 470m Monkton Burn [mg/l] - 50 years

05% of values less than 0	10% of values less than 0	25% of values less than 3.28228E-022
50% of values less than 1.53182E-012	75% of values less than 3.49394E-006	90% of values less than 0.000984499
Minimum 0ɹes less than 0.00706967	Maximum 0.219773	
Mean 0.00230894	SD 0.0143993	Variance 0.000207339

Concentration at 470m Monkton Burn [mg/l] - 100 years

05% of values less than 0	10% of values less than 0	25% of values less than 6.97437E-022
50% of values less than 1.53182E-012	75% of values less than 3.49394E-006	90% of values less than 0.000984499
Minimum 0ɹes less than 0.00706967	Maximum 0.219773	
Mean 0.00230894	SD 0.0143993	Variance 0.000207339

Concentration at 470m Monkton Burn [mg/l] - 250 years

05% of values less than 0	10% of values less than 0	25% of values less than 6.97437E-022
50% of values less than 1.53182E-012	75% of values less than 3.49394E-006	90% of values less than 0.000984499
Minimum 0ɹes less than 0.00706967	Maximum 0.219773	
Mean 0.00230894	SD 0.0143993	Variance 0.000207339

Xylene

Concentration at 470m Monkton Burn [mg/l] - 500 years

05% of values less than 0	10% of values less than 0	25% of values less than 6.97437E-022
50% of values less than 1.53182E-012	75% of values less than 3.49394E-006	90% of values less than 0.000984499
Minimum 0ɹes less than 0.00706967	Maximum 0.219773	
Mean 0.00230894	SD 0.0143993	Variance 0.000207339

Concentration at 470m Monkton Burn [mg/l] - 750 years

05% of values less than 0	10% of values less than 0	25% of values less than 6.97437E-022
50% of values less than 1.53182E-012	75% of values less than 3.49394E-006	90% of values less than 0.000984499
Minimum 0ɹes less than 0.00706967	Maximum 0.219773	
Mean 0.00230894	SD 0.0143993	Variance 0.000207339

Concentration at 470m Monkton Burn [mg/l] - 1000 years

05% of values less than 0	10% of values less than 0	25% of values less than 6.97437E-022
50% of values less than 1.53182E-012	75% of values less than 3.49394E-006	90% of values less than 0.000984499
Minimum 0ɹes less than 0.00706967	Maximum 0.219773	
Mean 0.00230894	SD 0.0143993	Variance 0.000207339

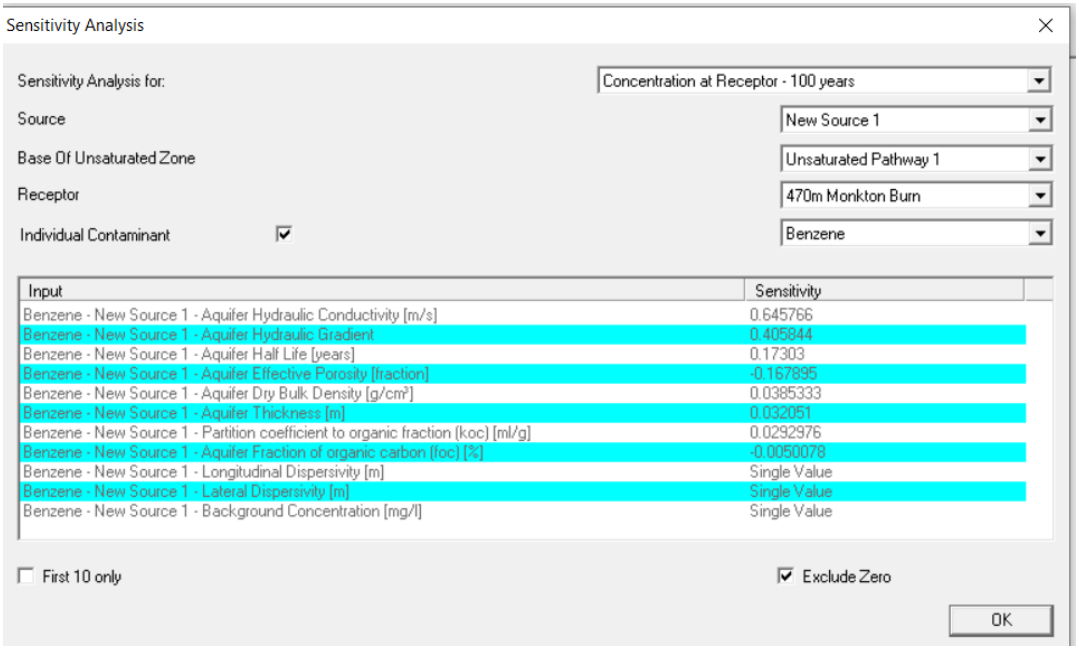
Aquifer Flow [m³/yr]

New Source 1

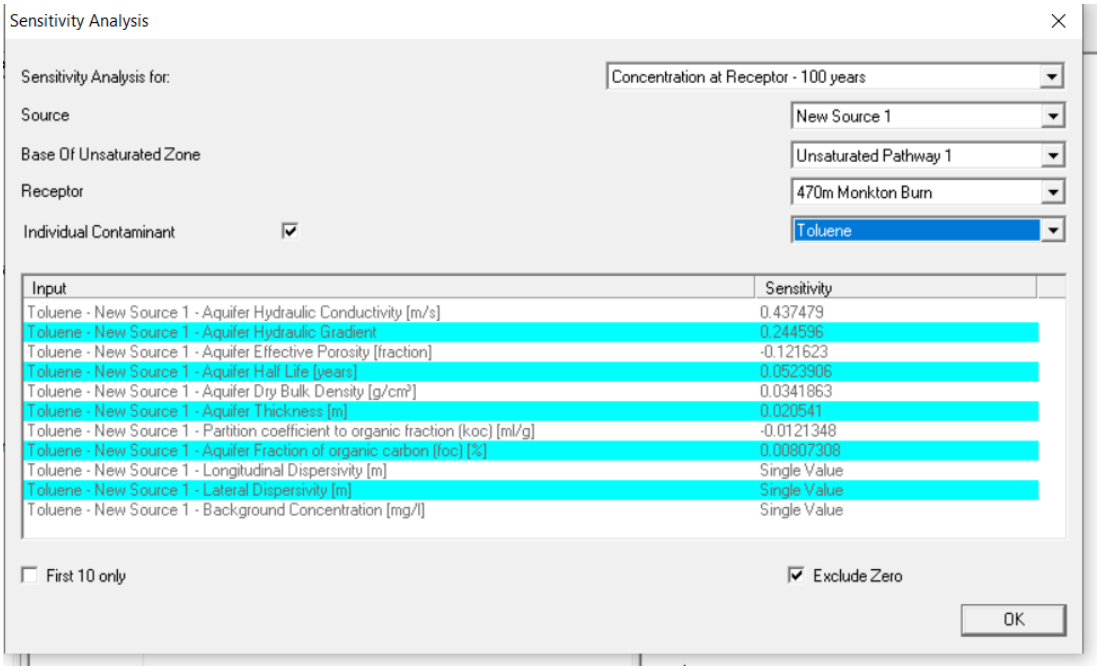
05% of values less than 147.318	10% of values less than 215.926	25% of values less than 355.674
50% of values less than 558.512	75% of values less than 1023.26	90% of values less than 1727.95
Minimum 61.4525ვ than 2283.21	Maximum 4688.69	
Mean 799.387	SD 695.439	Variance 483636

APPENDIX H
SENSITIVITY ANALYSIS RESULTS

Sensitivity analysis benzene



Sensitivity analysis toluene



Sensitivity analysis xylene

