Parameter	unit	Value	Justfication
Assumed Hydraulic conductivity of HstW	m/s	1.00E-05	reasonable conservative assumption based on HstW being a mix of clay and sand. No attenuation layers present
Assumed Hydraulic conductivity of KPG Aquifer	m/s	1.00E-04	based on professional judgement / literature values.
Hydraulic Gradient in Hist W	m/m	1.11E-03	
Hydraulic Gradient of KPG	m/m	1.11E-03	calculated from SI data
Thickness of waste below the rest groundwater level	m	5.00E+00	based on SI data and represents the max. thickness below resting water level.

Caq= (Ciw x Qiw) + (Cbq X Qaq) / (Qiw +Qaq)

Arsenic - Hazardous	**Unit**	**Value**	**Description**
Environmental Assessment Level for Arsenic	ug/l	5.00E+00	Table 1: UKTAG values for hazardous substances
Predicted Conc in Aquifer **(Caq)**	ug/l	3.64E-01	what you want to find out
concentration in waste assumed at edge of site **(Ciw)**	ug/l	1.80E+01	high conc, but actually in KPG, waste is less at 9. Notably highest As is upstream
Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad **(Qiw)**	m3/s	1.11E-08	
Background Conc in KPG **(Cbg)**	ug/l	4.00E-01	lowest observed concentration
Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer **(Qaq)**	m3/s	1.11E-07	

Lead - Hazardous	**Unit**	**Value**	**Description**
Environmental Assessment Level for Lead	ug/l	5.00E+00	Table 1: UKTAG values for hazardous substances
Predicted Conc in Aquifer **(Caq)**	ug/l	1.64E+00	what you want to find out
concentration in waste assumed at edge of site **(Ciw)**	ug/l	4.20E+00	high conc, from BH109 in waste / cross gradient
Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad **(Qiw)**	m3/s	1.11E-08	
Background Conc in KPG **(Cbg)**	ug/l	1.80E+00	
Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer **(Qaq)**	m3/s	1.11E-07	

Boron - Non Hazardous	**Unit**	**Value**	**Description**
Environmental Assessment Level for Boron	ug/l	2.00E+03	EQS Boron
Predicted Conc in Aquifer **(Caq)**	ug/l	7.45E+02	what you want to find out
concentration in waste assumed at edge of site **(Ciw)**	ug/l	1.50E+04	
Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad **(Qiw)**	m3/s	1.11E-08	
Background Conc in KPG **(Cbg)**	ug/l	8.20E+02	minimum cncentration observed
Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer **(Qaq)**	m3/s	1.11E-07	

Ammonium- Non Hazardous	**Unit**	**Value**	**Description**
Environmental Assessment Level for NH4	ug/l	2.00E+03	EQS 2
Predicted Conc in Aquifer **(Caq)**	ug/l	2.91E+01	what you want to find out
concentration in waste assumed at edge of site **(Ciw)**	ug/l	4.70E+03	
Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad **(Qiw)**	m3/s	1.11E-08	
Background Conc in KPG **(Cbg)**	ug/l	3.20E+01	minimum concentration observed at BH115, downstream
Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer **(Qaq)**	m3/s	1.11E-07	