Supporting information

Risk and Pollutant Protective Concentration Level of Drilling waste paving Oil and Gas Field Well Site

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Table S1 Exposure concentration in compliance point in groundwater C_2 mg/L

Parameter symbol	Parameter description	Unit	Value	Source
GWCRa	daily groundwater consumption rate of adults	L/d	1	HJ 25.3
EDa	exposure duration of adults	a	24	
EFa	exposure frequency of adults	d/a	350	
BWa	average body weight of adults	kg	56.8	
ATnc	average time for non-carcinogenic effect	d	2190	
CGWERnc	exposure to contaminants drinking the groundwater	L/kg/d	0.07	Eq 1and 2
AHQ	acceptable hazard quotient for individual contaminant	dimension less	1	
RfDo	the reference dose of PH	mg/kg/d	0.1	HJ 25.3

Parameter symbol	Parameter description	Unit	Value	Source
WAF	groundwater allocation factor	dimension less	0.2	
C_2(PH)	Exposure concentration of PH in compliance point	mg/L	0.3	Eq 1

Where, HJ 25.3, Technical guidelines for risk assessment of soil contamination of land for Construction (HJ 25.3-2009)

Table S2 Exposure concentration of heavy metals in compliance point in groundwater C_2 mg/L

	Ni	Cu	Co	Zn	As	Se
Class III permissible limits of Groundwater Quality Standards (GB/T 14848-2017)	0.02	1	0.05	1	0.01	0.01
	Ag	Sb	Ba	Pb	Hg	Mo
Class III permissible limits of Groundwater Quality Standards (GB/T 14848-2017)	0.05	0.05	0.7	0.01	0.001	0.07