

DWR CYMRU WELSH WATER - FELINDRE WTW

Analysis of liquid water clarification sludge

Sampling Point No: 77139

Sample ID: 8254051

Date: 24/01/2025

Application rate (t/ha)	250.0
Application rate (t/acre)	101.2
pH	7.1
Dry solids (%)	3.71

NUTRIENT CONTENT

	Dry Wt result	Wet Wt result	Units	Total		Available	
				(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.869	0.03	%	0.3	81	0.0	8
Ammonium N	164	6.08	mg/kg	0.0	2		
Phosphorus (P)	1590	58.99	mg/kg	0.1	15		
Phosphate (P ₂ O ₅)		0.00		0.1	34	0.0	7
Potassium (K)	732	27.16	mg/kg	0.0	7		
Potash (K ₂ O)		0.00		0.0	8	0.0	2
Magnesium (Mg)	1590	58.99	mg/kg	0.1	15		
Magnesium (MgO)		0.00		0.1	24	0.0	5
Sulphur (S)	5400	200.34	mg/kg	0.2	50		
Sulphur (SO ₃)		0.00		0.5	125	0.1	13

POTENTIALLY TOXIC ELEMENTS

	Dry Wt result	Wet Wt result	Units	Rate		Limit	% of Annual Addition Limit
				(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	247	9.16	mg/kg	9.16	2.29	15.00	15%
Copper	55.5	2.06	mg/kg	2.06	0.51	7.50	7%
Nickel	21	0.78	mg/kg	0.78	0.19	3.00	6%
Lead	48.5	1.80	mg/kg	1.80	0.45	15.00	3%
Cadmium	1.41	0.05	mg/kg	0.05	0.01	0.15	9%
Chromium	7.53	0.28	mg/kg	0.28	0.07	15.00	0%
Arsenic	47.9	1.78	mg/kg	1.78	0.44	0.70	63%
Mercury	1.09	0.04	mg/kg	0.04	0.01	0.10	10%
<u>Other Elements</u>							
Iron	29300	1087.03	mg/kg	1087.03	272		
Aluminium	151000	5602.10	mg/kg	5602.10	1401		

Sampling Point No:	77139	Location:	FELINDRE WTW SLUDGE TANKERING POINT
Date Sampled:	24/01/2025	Time Taken:	09:53
Laboratory:	ALS	Sample ID:	8254051
No. of Results:	20		
Sampling Reason:	WTW Sludge - Product Monitoring (SW_ME)		
Type:	WTW Sludge (SW)		

Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	1590	mg/kg		
288 Aluminium	151000	mg/kg		
357 Arsenic	47.9	mg/kg		
4620 pH	7.1	pH		
7774 Mercury	1.09	mg/kg	<	
8241 Volatile solids	37.9	%		
9233 Ammoniacal nitrogen	164	mg/kg	<	
9234 Sulphur	5400	mg/kg		
9271 Cadmium	1.41	mg/kg		
9272 Chromium	7.53	mg/kg		
9273 Copper	55.5	mg/kg		
9275 Nickel	21	mg/kg		
9276 Lead	48.5	mg/kg		
9277 Zinc	247	mg/kg		
9278 Iron	29300	mg/kg		
9281 % Dry solids	3.71	%		
9282 % Minerals	62.1	%		
9283 % K (dry weight)	0.0732	mg/kg		
9284 % P (dry weight)	0.159	%		
9285 % N (dry weight)	0.869	%		

Comments:

Signed:

Approved by:

Position:

Upper Limit
