VOLAC/SENSIENT, FELINFACH: EPR/BP3135EB EFFLUENT TREATMENT PLANT (ARLA FOOD INGREDIENTS, FELINFACH)

Analysis of Liquid Sludge

Sample Name: ARLA 1 - TEN

Report No: 54017-26
Sample No: SLUR181192
Date: 22/05/2026

Application rate (t/ha)	**50.0**
Application rate (t/acre)	**20.2**
pH	**7.38**
Dry solids (%)	**0.64**

NUTRIENT CONTENT

			Total		Available	
	result	units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.03	%	0.3	15	0.1	3
Ammonium-N	71.6	mg/kg	0.1	4		
Phosphorus (P)	177	mg/kg	0.2	9		
Phosphate (P_2O_5)			0.4	20	0.2	12
Potassium (K)	273	mg/kg	0.3	14		
Potash (K_2O)			0.3	16	0.3	13
Magnesium (Mg)	39	mg/kg	0.0	2		
Magnesium (MgO)			0.1	3	0.0	0
Sulphur (S)	43.6	mg/kg	0.0	2		
Sulphur (SO_3)			0.1	5	0.0	1

POTENTIALLY TOXIC ELEMENTS

			Rate		Limit
	result	units	(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	0.50	mg/kg	0.50	0.03	15.00
Copper	0.20	mg/kg	0.20	0.01	7.50
Nickel	0.20	mg/kg	0.20	0.01	3.00
Lead	0.50	mg/kg	0.50	0.03	15.00
Cadmium	0.01	mg/kg	0.01	0.00	0.15
Chromium	0.20	mg/kg	0.20	0.01	15.00
Mercury	0.05	mg/kg	0.05	0.00	0.10

All results expressed on sample as received. The zinc, copper, nickel, lead, cadmium, chromium and mercury concentrations are less than the minimum level of detection, consequently, the calculated values will be less than those shown

VOLAC/SENSIENT, FELINFACH: EPR/BP3135EB EFFLUENT TREATMENT PLANT (ARLA FOOD INGREDIENTS, FELINFACH)

Analysis of Liquid Sludge

Sample Name: ARLA 1 - TEN

Report No: 54017-26
Sample No: SLUR181192
Date: 22/05/2026

Application rate (t/ha)	**100.0**
Application rate (t/acre)	**40.5**
pH	**7.38**
Dry solids (%)	**0.64**

NUTRIENT CONTENT

			Total		Available	
	result	**units**	**(kg/t)**	**(kg/ha)**	**(kg/t)**	**(kg/ha)**
Nitrogen (N)	0.03	%	0.3	30	0.1	6
Ammonium-N	71.6	mg/kg	0.1	7		
Phosphorus (P)	177	mg/kg	0.2	18		
Phosphate (P_2O_5)			0.4	41	0.2	24
Potassium (K)	273	mg/kg	0.3	27		
Potash (K_2O)			0.3	33	0.3	26
Magnesium (Mg)	39	mg/kg	0.0	4		
Magnesium (MgO)			0.1	6	0.0	1
Sulphur (S)	43.6	mg/kg	0.0	4		
Sulphur (SO_3)			0.1	11	0.0	2

POTENTIALLY TOXIC ELEMENTS

			Rate		Limit
	result	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	0.50	mg/kg	0.50	0.05	15.00
Copper	0.20	mg/kg	0.20	0.02	7.50
Nickel	0.20	mg/kg	0.20	0.02	3.00
Lead	0.50	mg/kg	0.50	0.05	15.00
Cadmium	0.01	mg/kg	0.01	0.00	0.15
Chromium	0.20	mg/kg	0.20	0.02	15.00
Mercury	0.05	mg/kg	0.05	0.01	0.10

All results expressed on sample as received. The zinc, copper, nickel, lead, cadmium, chromium and mercury concentrations are less than the minimum level of detection, consequently, the calculated values will be less than those shown

ANALYTICAL REPORT

Report Number	**54017-26**	**W138**	**RE-ORGANICS**	**Client**	**STEPSIDE AGRI**
Date Received	**22-MAY-2026**		**CONSULTING LTD**		**THE OLD CATTLE MART**
Date Reported	**03-JUN-2026**		**APPLE BARN**		**STATION ROAD**
Project	**LIQUID WASTE**		**ELTON LANE**		**CARDIGAN**
Reference	**STEPSIDE AGRI**		**NEWNHAM**		**SA43 3AD**
Order Number			**GLOS GL14 1JJ**		

Laboratory Reference		**SLUR181192**	**SLUR181193**
Sample Reference		**ARLA 1 - TEN**	[redacted]
Determinand	**Unit**	**SLURRY/SLUDGE**	[redacted]
Oven Dry Solids	%	0.640	
Conductivity 1:6	uS/cm	457	
Total Kjeldahl Nitrogen	% w/w	0.03	
Nitrate Nitrogen	mg/kg	<10	
Ammonium Nitrogen	mg/kg	71.6	
Total Phosphorus (P)	mg/kg	177	
Total Potassium (K)	mg/kg	273	
Total Magnesium (Mg)	mg/kg	39.0	
Total Copper (Cu)	mg/kg	<0.2	
Total Zinc (Zn)	mg/kg	<0.5	
Total Sulphur (S)	mg/kg	43.6	
Total Calcium (Ca)	mg/kg	337	
Total Lead (Pb)	mg/kg	<0.5	
Total Cadmium (Cd)	mg/kg	<0.01	
Total Mercury (Hg)	mg/kg	<0.05	
Total Nickel (Ni)	mg/kg	<0.2	
Total Chromium (Cr)	mg/kg	<0.2	
Total Sodium (Na)	mg/kg	213	
pH 1:6 [Fresh]		7.38	
B.O.D. [fresh]	mg/l	903	
Oils,Fats and Grease	mg/kg	<200	

Notes

Analysis Notes

The sample submitted was of adequate size to complete all analysis requested.
The results as reported relate only to the item(s) submitted for testing.
The results are presented on an as received basis unless otherwise stipulated.

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ANALYTICAL NOTES

Report Number	**54017-26**	**W138**	**RE-ORGANICS**	**Client**	**STEPSIDE AGRI**
Date Received	**22-MAY-2026**		**CONSULTING LTD**		**THE OLD CATTLE MART**
Date Reported	**03-JUN-2026**		**APPLE BARN**		**STATION ROAD**
Project	**LIQUID WASTE**		**ELTON LANE**		**CARDIGAN**
Reference	**STEPSIDE AGRI**		**NEWNHAM**		**SA43 3AD**
Order Number			**GLOS GL14 1JJ**		

Notes

Reported by

Teresa Clyne

Natural Resource Management, a trading division of Cawood Scientific Ltd.
Coopers Bridge, Braziers Lane, Bracknell, Berkshire, RG42 6NS
Tel: 01344 886338
Fax: 01344 890972
email: enquiries@nrm.uk.com

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DWR CYMRU WELSH WATER - STRATA FLORIDA WTW

Analysis of liquid water clarification sludge

Sampling Point No: 100519
Sample ID: 8734195
Date: 25/03/2026

Application rate (t/ha)	**242.0**
Application rate (t/acre)	**97.9**
pH	**5.9**
Dry solids (%)	**2.11**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	1.18	0.02	%	0.2	60	0.0	6
Ammonium N	291	6.14	mg/kg	0.0	1		
Phosphorus (P)	5550	117.11	mg/kg	0.1	28		
Phosphate (P_2O_5)		0.00		0.3	65	0.1	13
Potassium (K)	826	17.43	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	361	7.62	mg/kg	0.0	2		
Magnesium (MgO)		0.00		0.0	3	0.0	1
Sulphur (S)	5900	124.49	mg/kg	0.1	30		
Sulphur (SO_3)		0.00		0.3	75	0.0	8

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	117	2.47	mg/kg	2.47	0.60	15.00	4%
Copper	74.1	1.56	mg/kg	1.56	0.38	7.50	5%
Nickel	48.4	1.02	mg/kg	1.02	0.25	3.00	8%
Lead	58.9	1.24	mg/kg	1.24	0.30	15.00	2%
Cadmium	1.04	0.02	mg/kg	0.02	0.01	0.15	4%
Chromium	40.8	0.86	mg/kg	0.86	0.21	15.00	1%
Arsenic	41.3	0.87	mg/kg	0.87	0.21	0.70	30%
Mercury	1.91	0.04	mg/kg	0.04	0.01	0.10	10%
Other Elements							
Iron	25200	531.72	mg/kg	531.72	129		
Aluminium	152000	3207.20	mg/kg	3207.20	776		

DWR CYMRU WELSH WATER - STRATA FLORIDA WTW

Analysis of liquid water clarification sludge

Sampling Point No: 100519
Sample ID: 8734195
Date: 25/03/2026

Application rate (t/ha)	**250.0**
Application rate (t/acre)	**101.2**
pH	**5.9**
Dry solids (%)	**2.11**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	1.18	0.02	%	0.2	62	0.0	6
Ammonium N	291	6.14	mg/kg	0.0	2		
Phosphorus (P)	5550	117.11	mg/kg	0.1	29		
Phosphate (P_2O_5)		0.00		0.3	67	0.1	13
Potassium (K)	826	17.43	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	361	7.62	mg/kg	0.0	2		
Magnesium (MgO)		0.00		0.0	3	0.0	1
Sulphur (S)	5900	124.49	mg/kg	0.1	31		
Sulphur (SO_3)		0.00		0.3	78	0.0	8

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	117	2.47	mg/kg	2.47	0.62	15.00	4%
Copper	74.1	1.56	mg/kg	1.56	0.39	7.50	5%
Nickel	48.4	1.02	mg/kg	1.02	0.26	3.00	9%
Lead	58.9	1.24	mg/kg	1.24	0.31	15.00	2%
Cadmium	1.04	0.02	mg/kg	0.02	0.01	0.15	4%
Chromium	40.8	0.86	mg/kg	0.86	0.22	15.00	1%
Arsenic	41.3	0.87	mg/kg	0.87	0.22	0.70	31%
Mercury	1.91	0.04	mg/kg	0.04	0.01	0.10	10%
Other Elements							
Iron	25200	531.72	mg/kg	531.72	133		
Aluminium	152000	3207.20	mg/kg	3207.20	802		

Dŵr Cymru Welsh Water

SAMPLE ANALYSIS REPORTS

SPT Number	SPT Description	Date Time Taken	Det Code	Det Description	Result Value	Result Qual	Units	Original Sample	PC
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	238	Magnesium	361	<	mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	288	Aluminium	152000		mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	357	Arsenic	41.3		mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	4620	pH	5.9		pH	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	7774	Mercury	1.91	<	mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	8241	Volatile solids	59.6		%	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9233	Ammoniacal nitrogen	291	<	mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9234	Sulphur	5900		mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9271	Cadmium	1.04	<	mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9272	Chromium	40.8	<	mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9273	Copper	74.1	<	mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9275	Nickel	48.4	<	mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9276	Lead	58.9	<	mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9277	Zinc	117	<	mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9278	Iron	25200		mg/kg	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9281	% Dry solids	2.11		%	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9282	% Minerals	40.4		%	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9283	% K (dry weight)	0.0826	<	%	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9284	% P (dry weight)	0.555	<	%	8734195	ME
100519	STRATA FLORIDA WTW SLUDGE TANKERING POINT	25/Mar/2026 12:03	9285	% N (dry weight)	1.18		%	8734195	ME

DWR CYMRU WELSH WATER - BONTGOCH WTW

Analysis of liquid water clarification sludge

Sampling Point No: 100521
Sample ID: 8734199
Date: 25/03/2026

Application rate (t/ha)	**86.0**
Application rate (t/acre)	**34.8**
pH	**6.0**
Dry solids (%)	**4.19**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.562	0.02	%	0.2	20	0.0	2
Ammonium N	146	6.12	mg/kg	0.0	1		
Phosphorus (P)	7850	328.92	mg/kg	0.3	28		
Phosphate (P_2O_5)		0.00		0.8	65	0.2	13
Potassium (K)	415	17.39	mg/kg	0.0	1		
Potash (K_2O)		0.00		0.0	2	0.0	0
Magnesium (Mg)	1070	44.83	mg/kg	0.0	4		
Magnesium (MgO)		0.00		0.1	6	0.0	1
Sulphur (S)	3060	128.21	mg/kg	0.1	11		
Sulphur (SO_3)		0.00		0.3	28	0.0	3

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	318	13.32	mg/kg	13.32	1.15	15.00	8%
Copper	37.2	1.56	mg/kg	1.56	0.13	7.50	2%
Nickel	24.3	1.02	mg/kg	1.02	0.09	3.00	3%
Lead	29.6	1.24	mg/kg	1.24	0.11	15.00	1%
Cadmium	1.27	0.05	mg/kg	0.05	0.00	0.15	3%
Chromium	27.7	1.16	mg/kg	1.16	0.10	15.00	1%
Arsenic	14.7	0.62	mg/kg	0.62	0.05	0.70	8%
Mercury	0.96	0.04	mg/kg	0.04	0.00	0.10	3%
Other Elements							
Iron	413000	17304.70	mg/kg	17304.70	1488		
Aluminium	5120	214.53	mg/kg	214.53	18		

DWR CYMRU WELSH WATER - BONTGOCH WTW

Analysis of liquid water clarification sludge

Sampling Point No: 100521
Sample ID: 8734199
Date: 25/03/2026

Application rate (t/ha)	**230.0**
Application rate (t/acre)	**93.1**
pH	**6.0**
Dry solids (%)	**4.19**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.562	0.02	%	0.2	54	0.0	5
Ammonium N	146	6.12	mg/kg	0.0	1		
Phosphorus (P)	7850	328.92	mg/kg	0.3	76		
Phosphate (P_2O_5)		0.00		0.8	173	0.2	35
Potassium (K)	415	17.39	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	1070	44.83	mg/kg	0.0	10		
Magnesium (MgO)		0.00		0.1	17	0.0	3
Sulphur (S)	3060	128.21	mg/kg	0.1	29		
Sulphur (SO_3)		0.00		0.3	74	0.0	7

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	318	13.32	mg/kg	13.32	3.06	15.00	20%
Copper	37.2	1.56	mg/kg	1.56	0.36	7.50	5%
Nickel	24.3	1.02	mg/kg	1.02	0.23	3.00	8%
Lead	29.6	1.24	mg/kg	1.24	0.29	15.00	2%
Cadmium	1.27	0.05	mg/kg	0.05	0.01	0.15	8%
Chromium	27.7	1.16	mg/kg	1.16	0.27	15.00	2%
Arsenic	14.7	0.62	mg/kg	0.62	0.14	0.70	20%
Mercury	0.96	0.04	mg/kg	0.04	0.01	0.10	9%
Other Elements							
Iron	413000	17304.70	mg/kg	17304.70	3980		
Aluminium	5120	214.53	mg/kg	214.53	49		

Dŵr Cymru Welsh Water

SAMPLE ANALYSIS REPORT

SPT Number	SPT Description	Date Time Taken	Det Code	Det Description	Result Value	Result Qual	Units	Original Sample	PC
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	238	Magnesium	1070		mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	288	Aluminium	5120		mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	357	Arsenic	14.7		mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	4620	pH	6		pH	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	7774	Mercury	0.96	<	mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	8241	Volatile solids	33.9		%	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9233	Ammoniacal nitrogen	146	<	mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9234	Sulphur	3060		mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9271	Cadmium	1.27		mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9272	Chromium	27.7		mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9273	Copper	37.2	<	mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9275	Nickel	24.3	<	mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9276	Lead	29.6	<	mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9277	Zinc	318		mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9278	Iron	413000		mg/kg	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9281	% Dry solids	4.19		%	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9282	% Minerals	66.1		%	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9283	% K (dry weight)	0.0415	<	%	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9284	% P (dry weight)	0.785		%	8734199	ME
100521	BONTGOCH WTW SLUDGE TANKERING POINT	25/Mar/2026 12:05	9285	% N (dry weight)	0.562		%	8734199	ME

DWR CYMRU WELSH WATER - BRYNGWYN WTW

Analysis of liquid water clarification sludge

Sampling Point No: 79131
Sample ID: 8734207
Date: 25/03/2026

Application rate (t/ha)	**244.0**
Application rate (t/acre)	**98.7**
pH	**5.8**
Dry solids (%)	**2.22**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.7	0.02	%	0.2	38	0.0	4
Ammonium N	274	6.08	mg/kg	0.0	1		
Phosphorus (P)	5240	116.33	mg/kg	0.1	28		
Phosphate (P_2O_5)		0.00		0.3	65	0.1	13
Potassium (K)	781	17.34	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	562	12.48	mg/kg	0.0	3		
Magnesium (MgO)		0.00		0.0	5	0.0	1
Sulphur (S)	5740	127.43	mg/kg	0.1	31		
Sulphur (SO_3)		0.00		0.3	78	0.0	8

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	110	2.44	mg/kg	2.44	0.60	15.00	4%
Copper	70	1.55	mg/kg	1.55	0.38	7.50	5%
Nickel	45.8	1.02	mg/kg	1.02	0.25	3.00	8%
Lead	55.6	1.23	mg/kg	1.23	0.30	15.00	2%
Cadmium	1.06	0.02	mg/kg	0.02	0.01	0.15	4%
Chromium	38.6	0.86	mg/kg	0.86	0.21	15.00	1%
Arsenic	14.7	0.33	mg/kg	0.33	0.08	0.70	11%
Mercury	1.8	0.04	mg/kg	0.04	0.01	0.10	10%
Other Elements							
Iron	444000	9856.80	mg/kg	9856.80	2405		
Aluminium	2310	51.28	mg/kg	51.28	13		

DWR CYMRU WELSH WATER - BRYNGWYN WTW

Analysis of liquid water clarification sludge

Sampling Point No: 79131
Sample ID: 8734207
Date: 25/03/2026

Application rate (t/ha)	**250.0**
Application rate (t/acre)	**101.2**
pH	**5.8**
Dry solids (%)	**2.22**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.7	0.02	%	0.2	39	0.0	4
Ammonium N	274	6.08	mg/kg	0.0	2		
Phosphorus (P)	5240	116.33	mg/kg	0.1	29		
Phosphate (P_2O_5)		0.00		0.3	67	0.1	13
Potassium (K)	781	17.34	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	562	12.48	mg/kg	0.0	3		
Magnesium (MgO)		0.00		0.0	5	0.0	1
Sulphur (S)	5740	127.43	mg/kg	0.1	32		
Sulphur (SO_3)		0.00		0.3	80	0.0	8

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	110	2.44	mg/kg	2.44	0.61	15.00	4%
Copper	70	1.55	mg/kg	1.55	0.39	7.50	5%
Nickel	45.8	1.02	mg/kg	1.02	0.25	3.00	8%
Lead	55.6	1.23	mg/kg	1.23	0.31	15.00	2%
Cadmium	1.06	0.02	mg/kg	0.02	0.01	0.15	4%
Chromium	38.6	0.86	mg/kg	0.86	0.21	15.00	1%
Arsenic	14.7	0.33	mg/kg	0.33	0.08	0.70	12%
Mercury	1.8	0.04	mg/kg	0.04	0.01	0.10	10%
Other Elements							
Iron	444000	9856.80	mg/kg	9856.80	2464		
Aluminium	2310	51.28	mg/kg	51.28	13		

Dŵr Cymru Welsh Water

SAMPLE ANALYSIS REPORT

SPT Number	SPT Description	Date Time Taken	Det Code	Det Description	Result Value	Result Qual	Units	Original Sample	PC
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	238	Magnesium	562		mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	288	Aluminium	2310		mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	357	Arsenic	14.7		mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	4620	pH	5.8		pH	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	7774	Mercury	1.8	<	mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	8241	Volatile solids	31.9		%	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9233	Ammoniacal nitrogen	274	<	mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9234	Sulphur	5740		mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9271	Cadmium	1.06		mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9272	Chromium	38.6	<	mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9273	Copper	70	<	mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9275	Nickel	45.8	<	mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9276	Lead	55.6	<	mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9277	Zinc	110	<	mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9278	Iron	444000		mg/kg	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9281	% Dry solids	2.22		%	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9282	% Minerals	68.1		%	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9283	% K (dry weight)	0.0781	<	%	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9284	% P (dry weight)	0.524	<	%	8734207	ME
79131	BRYNGWYN WTW SLUDGE TANKERING POINT	25/Mar/2026 12:07	9285	% N (dry weight)	0.7	<	%	8734207	ME

DWR CYMRU WELSH WATER - CAPEL DEWI WTW

Analysis of liquid water clarification sludge

Sampling Point No: 122055
Sample ID: 8734185
Date: 25/03/2026

Application rate (t/ha)	**133.0**
Application rate (t/acre)	**53.8**
pH	**6.4**
Dry solids (%)	**4.40**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.503	0.02	%	0.2	29	0.0	3
Ammonium N	140	6.16	mg/kg	0.0	1		
Phosphorus (P)	2640	116.16	mg/kg	0.1	15		
Phosphate (P_2O_5)		0.00		0.3	35	0.1	7
Potassium (K)	770	33.88	mg/kg	0.0	5		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	2050	90.20	mg/kg	0.1	12		
Magnesium (MgO)		0.00		0.1	20	0.0	4
Sulphur (S)	2670	117.48	mg/kg	0.1	16		
Sulphur (SO_3)		0.00		0.3	39	0.0	4

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	151	6.64	mg/kg	6.64	0.88	15.00	6%
Copper	35.2	1.55	mg/kg	1.55	0.21	7.50	3%
Nickel	23	1.01	mg/kg	1.01	0.13	3.00	4%
Lead	66.5	2.93	mg/kg	2.93	0.39	15.00	3%
Cadmium	1.07	0.05	mg/kg	0.05	0.01	0.15	4%
Chromium	32	1.41	mg/kg	1.41	0.19	15.00	1%
Arsenic	19.4	0.85	mg/kg	0.85	0.11	0.70	16%
Mercury	0.91	0.04	mg/kg	0.04	0.01	0.10	5%
Other Elements							
Iron	348000	15312.00	mg/kg	15312.00	2036		
Aluminium	9680	425.92	mg/kg	425.92	57		

Dŵr Cymru
Welsh Water

SAMPLE ANALYSIS REPORT

SPT Number	SPT Description	Date Time Taken	Det Code	Det Description	Result Value	Result Qual	Units	Original Sample	PC
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	238	Magnesium	2050		mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	288	Aluminium	9680		mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	357	Arsenic	19.4		mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	4620	pH	6.4		pH	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	7774	Mercury	0.91	<	mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	8241	Volatile solids	22.8		%	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9233	Ammoniacal nitrogen	140	<	mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9234	Sulphur	2670		mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9271	Cadmium	1.07		mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9272	Chromium	32		mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9273	Copper	35.2	<	mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9275	Nickel	23	<	mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9276	Lead	66.5		mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9277	Zinc	151		mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9278	Iron	348000		mg/kg	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9281	% Dry solids	4.4		%	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9282	% Minerals	77.2		%	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9283	% K (dry weight)	0.077		%	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9284	% P (dry weight)	0.264	<	%	8734185	ME
122055	Capel Dewi WTW Sludge Tankering Point	25/Mar/2026 11:58	9285	% N (dry weight)	0.503		%	8734185	ME

DWR CYMRU WELSH WATER - CEFN DRYSCOED WTW

Analysis of liquid water clarification sludge

Sampling Point No: 79186
Sample ID: 8734191
Date: 25/03/2026

Application rate (t/ha)	**243.0**
Application rate (t/acre)	**98.3**
pH	**5.7**
Dry solids (%)	**3.27**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.803	0.03	%	0.3	64	0.0	6
Ammonium N	187	6.11	mg/kg	0.0	1		
Phosphorus (P)	3570	116.74	mg/kg	0.1	28		
Phosphate (P_2O_5)		0.00		0.3	65	0.1	13
Potassium (K)	532	17.40	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	281	9.19	mg/kg	0.0	2		
Magnesium (MgO)		0.00		0.0	4	0.0	1
Sulphur (S)	11600	379.32	mg/kg	0.4	92		
Sulphur (SO_3)		0.00		0.9	230	0.1	23

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	75.2	2.46	mg/kg	2.46	0.60	15.00	4%
Copper	47.7	1.56	mg/kg	1.56	0.38	7.50	5%
Nickel	31.2	1.02	mg/kg	1.02	0.25	3.00	8%
Lead	37.9	1.24	mg/kg	1.24	0.30	15.00	2%
Cadmium	1.22	0.04	mg/kg	0.04	0.01	0.15	6%
Chromium	26.3	0.86	mg/kg	0.86	0.21	15.00	1%
Arsenic	46.3	1.51	mg/kg	1.51	0.37	0.70	53%
Mercury	1.23	0.04	mg/kg	0.04	0.01	0.10	10%
Other Elements							
Iron	6020	196.85	mg/kg	196.85	48		
Aluminium	182000	5951.40	mg/kg	5951.40	1446		

DWR CYMRU WELSH WATER - CEFN DRYSCOED WTW

Analysis of liquid water clarification sludge

Sampling Point No: 79186
Sample ID: 8734191
Date: 25/03/2026

Application rate (t/ha)	**250.0**
Application rate (t/acre)	**101.2**
pH	**5.7**
Dry solids (%)	**3.27**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.803	0.03	%	0.3	66	0.0	7
Ammonium N	187	6.11	mg/kg	0.0	2		
Phosphorus (P)	3570	116.74	mg/kg	0.1	29		
Phosphate (P_2O_5)		0.00		0.3	67	0.1	13
Potassium (K)	532	17.40	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	281	9.19	mg/kg	0.0	2		
Magnesium (MgO)		0.00		0.0	4	0.0	1
Sulphur (S)	11600	379.32	mg/kg	0.4	95		
Sulphur (SO_3)		0.00		0.9	237	0.1	24

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	75.2	2.46	mg/kg	2.46	0.61	15.00	4%
Copper	47.7	1.56	mg/kg	1.56	0.39	7.50	5%
Nickel	31.2	1.02	mg/kg	1.02	0.26	3.00	9%
Lead	37.9	1.24	mg/kg	1.24	0.31	15.00	2%
Cadmium	1.22	0.04	mg/kg	0.04	0.01	0.15	7%
Chromium	26.3	0.86	mg/kg	0.86	0.22	15.00	1%
Arsenic	46.3	1.51	mg/kg	1.51	0.38	0.70	54%
Mercury	1.23	0.04	mg/kg	0.04	0.01	0.10	10%
Other Elements							
Iron	6020	196.85	mg/kg	196.85	49		
Aluminium	182000	5951.40	mg/kg	5951.40	1488		

Dŵr Cymru
Welsh Water

SAMPLE ANALYSIS REPORT

SPT Number	SPT Description	Date Time Taken	Det Code	Det Description	Result Value	Result Qual	Units	Original Sample	PC
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	238	Magnesium	281		mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	288	Aluminium	182000		mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	357	Arsenic	46.3		mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	4620	pH	5.7		pH	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	7774	Mercury	1.23	<	mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	8241	Volatile solids	51.7		%	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9233	Ammoniacal nitrogen	187	<	mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9234	Sulphur	11600		mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9271	Cadmium	1.22		mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9272	Chromium	26.3	<	mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9273	Copper	47.7	<	mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9275	Nickel	31.2	<	mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9276	Lead	37.9	<	mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9277	Zinc	75.2	<	mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9278	Iron	6020		mg/kg	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9281	% Dry solids	3.27		%	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9282	% Minerals	48.3		%	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9283	% K (dry weight)	0.0532	<	%	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9284	% P (dry weight)	0.357	<	%	8734191	ME
79186	CEFN DRYSCOED WTW SLUDGE TANKERING POINT	25/Mar/2026 12:02	9285	% N (dry weight)	0.803		%	8734191	ME

DWR CYMRU WELSH WATER - CRAY WTW

Analysis of liquid water clarification sludge

Sampling Point No: 79114
Sample ID: 8734183
Date: 25/03/2026

Application rate (t/ha)	**241.0**
Application rate (t/acre)	**97.5**
pH	**6.0**
Dry solids (%)	**2.71**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.782	0.02	%	0.2	51	0.0	5
Ammonium N	226	6.12	mg/kg	0.0	1		
Phosphorus (P)	4340	117.61	mg/kg	0.1	28		
Phosphate (P_2O_5)		0.00		0.3	65	0.1	13
Potassium (K)	646	17.51	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	645	17.48	mg/kg	0.0	4		
Magnesium (MgO)		0.00		0.0	7	0.0	1
Sulphur (S)	3910	105.96	mg/kg	0.1	26		
Sulphur (SO_3)		0.00		0.3	64	0.0	6

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	130	3.52	mg/kg	3.52	0.85	15.00	6%
Copper	57.9	1.57	mg/kg	1.57	0.38	7.50	5%
Nickel	37.9	1.03	mg/kg	1.03	0.25	3.00	8%
Lead	46	1.25	mg/kg	1.25	0.30	15.00	2%
Cadmium	2.21	0.06	mg/kg	0.06	0.01	0.15	10%
Chromium	34.2	0.93	mg/kg	0.93	0.22	15.00	1%
Arsenic	55.9	1.51	mg/kg	1.51	0.37	0.70	52%
Mercury	1.49	0.04	mg/kg	0.04	0.01	0.10	10%
Other Elements							
Iron	422000	11436.20	mg/kg	11436.20	2756		
Aluminium	4260	115.45	mg/kg	115.45	28		

DWR CYMRU WELSH WATER - CRAY WTW

Analysis of liquid water clarification sludge

Sampling Point No: 79114
Sample ID: 8734183
Date: 25/03/2026

Application rate (t/ha)	**250.0**
Application rate (t/acre)	**101.2**
pH	**6.0**
Dry solids (%)	**2.71**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.782	0.02	%	0.2	53	0.0	5
Ammonium N	226	6.12	mg/kg	0.0	2		
Phosphorus (P)	4340	117.61	mg/kg	0.1	29		
Phosphate (P_2O_5)		0.00		0.3	67	0.1	13
Potassium (K)	646	17.51	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	645	17.48	mg/kg	0.0	4		
Magnesium (MgO)		0.00		0.0	7	0.0	1
Sulphur (S)	3910	105.96	mg/kg	0.1	26		
Sulphur (SO_3)		0.00		0.3	66	0.0	7

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	130	3.52	mg/kg	3.52	0.88	15.00	6%
Copper	57.9	1.57	mg/kg	1.57	0.39	7.50	5%
Nickel	37.9	1.03	mg/kg	1.03	0.26	3.00	9%
Lead	46	1.25	mg/kg	1.25	0.31	15.00	2%
Cadmium	2.21	0.06	mg/kg	0.06	0.01	0.15	10%
Chromium	34.2	0.93	mg/kg	0.93	0.23	15.00	2%
Arsenic	55.9	1.51	mg/kg	1.51	0.38	0.70	54%
Mercury	1.49	0.04	mg/kg	0.04	0.01	0.10	10%
Other Elements							
Iron	422000	11436.20	mg/kg	11436.20	2859		
Aluminium	4260	115.45	mg/kg	115.45	29		

Dŵr Cymru Welsh Water

SAMPLE ANALYSIS REPORT

SPT Number	SPT Description	Date Time Taken	Det Code	Det Description	Result Value	Result Qual	Units	Original Sample	PC
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	238	Magnesium	645		mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	288	Aluminium	4260		mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	357	Arsenic	55.9		mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	4620	pH	6		pH	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	7774	Mercury	1.49	<	mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	8241	Volatile solids	40.9		%	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9233	Ammoniacal nitrogen	226	<	mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9234	Sulphur	3910		mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9271	Cadmium	2.21		mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9272	Chromium	34.2		mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9273	Copper	57.9	<	mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9275	Nickel	37.9	<	mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9276	Lead	46	<	mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9277	Zinc	130		mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9278	Iron	422000		mg/kg	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9281	% Dry solids	2.71		%	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9282	% Minerals	59.1		%	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9283	% K (dry weight)	0.0646	<	%	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9284	% P (dry weight)	0.434	<	%	8734183	ME
79114	CRAY WTW SLUDGE TANKERING POINT	25/Mar/2026 11:57	9285	% N (dry weight)	0.782		%	8734183	ME

DWR CYMRU WELSH WATER - HIRWAUN WTW

Analysis of liquid water clarification sludge

Sampling Point No: 303551
Sample ID: 8707050
Date: 26/02/2026

Application rate (t/ha)	**244.0**
Application rate (t/acre)	**98.7**
pH	**5.9**
Dry solids (%)	**3.92**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.741	0.03	%	0.3	71	0.0	7
Ammonium N	156	6.12	mg/kg	0.0	1		
Phosphorus (P)	2950	115.64	mg/kg	0.1	28		
Phosphate (P_2O_5)		0.00		0.3	65	0.1	13
Potassium (K)	439	17.21	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.0	5	0.0	1
Magnesium (Mg)	735	28.81	mg/kg	0.0	7		
Magnesium (MgO)		0.00		0.0	12	0.0	2
Sulphur (S)	5780	226.58	mg/kg	0.2	55		
Sulphur (SO_3)		0.00		0.6	138	0.1	14

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	208	8.15	mg/kg	8.15	1.99	15.00	13%
Copper	50.7	1.99	mg/kg	1.99	0.48	7.50	6%
Nickel	25.8	1.01	mg/kg	1.01	0.25	3.00	8%
Lead	34.1	1.34	mg/kg	1.34	0.33	15.00	2%
Cadmium	1.31	0.05	mg/kg	0.05	0.01	0.15	8%
Chromium	34.4	1.35	mg/kg	1.35	0.33	15.00	2%
Arsenic	39.5	1.55	mg/kg	1.55	0.38	0.70	54%
Mercury	0.51	0.02	mg/kg	0.02	0.00	0.10	5%
Other Elements							
Iron	418000	16385.60	mg/kg	16385.60	3998		
Aluminium	3890	152.49	mg/kg	152.49	37		

Dŵr Cymru Welsh Water

SAMPLE ANALYSIS REPORT

SPT Number	SPT Description	Date Time Taken	Det Code	Det Description	Result Value	Result Qual	Units	Original Sample	PC
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	238	Magnesium	735		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	288	Aluminium	3890		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	357	Arsenic	39.5		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	4620	pH	5.9		pH	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	7774	Mercury	0.51	<	mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	8241	Volatile solids	36.9		%	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9233	Ammoniacal nitrogen	156	<	mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9234	Sulphur	5780		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9271	Cadmium	1.31		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9272	Chromium	34.4		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9273	Copper	50.7		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9275	Nickel	25.8	<	mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9276	Lead	34.1		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9277	Zinc	208		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9278	Iron	418000		mg/kg	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9281	% Dry solids	3.92		%	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9282	% Minerals	63.1		%	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9283	% K (dry weight)	0.0439	<	%	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9284	% P (dry weight)	0.295	<	%	8707050	ME
303551	HIRWAUN WTW SLUDGE TANKERING POINT	26/Feb/2026 10:17	9285	% N (dry weight)	0.741		%	8707050	ME

DWR CYMRU WELSH WATER - LLECHRYD WTW

Analysis of liquid water clarification sludge

Sampling Point No: 100504
Sample ID: 8734197
Date: 25/03/2026

Application rate (t/ha)	**97.0**
Application rate (t/acre)	**39.3**
pH	**6.2**
Dry solids (%)	**5.57**

NUTRIENT CONTENT

				Total		Available	
	Dry Wt result	Wet Wt result	Units	(kg/t)	(kg/ha)	(kg/t)	(kg/ha)
Nitrogen (N)	0.747	0.04	%	0.4	40	0.0	4
Ammonium N	110	6.13	mg/kg	0.0	1		
Phosphorus (P)	4900	272.93	mg/kg	0.3	26		
Phosphate (P_2O_5)		0.00		0.6	61	0.1	12
Potassium (K)	818	45.56	mg/kg	0.0	4		
Potash (K_2O)		0.00		0.1	5	0.0	1
Magnesium (Mg)	2230	124.21	mg/kg	0.1	12		
Magnesium (MgO)		0.00		0.2	20	0.0	4
Sulphur (S)	2590	144.26	mg/kg	0.1	14		
Sulphur (SO_3)		0.00		0.4	35	0.0	3

POTENTIALLY TOXIC ELEMENTS

				Rate		Limit	% of Annual Addition Limit
	Dry Wt result	Wet Wt result	Units	(g/tonne)	(kg/ha)	(kg/ha/yr)	
Zinc	217	12.09	mg/kg	12.09	1.17	15.00	8%
Copper	40.4	2.25	mg/kg	2.25	0.22	7.50	3%
Nickel	28.4	1.58	mg/kg	1.58	0.15	3.00	5%
Lead	30.3	1.69	mg/kg	1.69	0.16	15.00	1%
Cadmium	0.94	0.05	mg/kg	0.05	0.01	0.15	3%
Chromium	27.5	1.53	mg/kg	1.53	0.15	15.00	1%
Arsenic	18.1	1.01	mg/kg	1.01	0.10	0.70	14%
Mercury	0.73	0.04	mg/kg	0.04	0.00	0.10	4%
Other Elements							
Iron	199000	11084.30	mg/kg	11084.30	1075		
Aluminium	10300	573.71	mg/kg	573.71	56		

Dŵr Cymru
Welsh Water

SAMPLE ANALYSIS REPORT

SPT Number	SPT Description	Date Time Taken	Det Code	Det Description	Result Value	Result Qual	Units	Original Sample	PC
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	238	Magnesium	2230		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	288	Aluminium	10300		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	357	Arsenic	18.1		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	4620	pH	6.2		pH	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	7774	Mercury	0.73	<	mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	8241	Volatile solids	38.3		%	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9233	Ammoniacal nitrogen	110	<	mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9234	Sulphur	2590		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9271	Cadmium	0.94		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9272	Chromium	27.5		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9273	Copper	40.4		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9275	Nickel	28.4		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9276	Lead	30.3		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9277	Zinc	217		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9278	Iron	199000		mg/kg	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9281	% Dry solids	5.57		%	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9282	% Minerals	61.7		%	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9283	% K (dry weight)	0.0818		%	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9284	% P (dry weight)	0.49		%	8734197	ME
100504	LLECHRYD WTW SLUDGE TANKERING POINT	25/Mar/2026 12:04	9285	% N (dry weight)	0.747		%	8734197	ME