DCWW

Analysis of Bala sludge

Date: 28/04/2025 Sample no. 8358319

Application rate (t/ha)	**250**
Application rate (t/acre)	**100.0**
pH	**6.9**
Dry solids (%)	**2.4**
Organic matter (%)	**50.8**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	1.17	%	0.28	69.9	0.01	1.5
Ammonium-N	256	mg/kg	0.01	1.5		
Phosphorus (P)	0.05	%	0.01	3.0		
Phosphate (P_2O_5)			0.03	6.7	0.0	3.4
Potassium (K)	0.01	%	0.00	0.5		
Potash (K_2O)			0.00	0.6	0.0	0.6
Magnesium (Mg)	1820	mg/kg	0.04	10.9		
Magnesium (MgO)			0.07	17.4	0.0	3.5
Sulphur (S)	4670	mg/kg	0.11	27.9		
Sulphur (SO_3)			0.28	69.8	0.0	7.0
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	162.0	mg/kg	3.9	0.97	15.00
Copper	26.0	mg/kg	0.62	0.16	7.50
Nickel	3.6	mg/kg	0.09	0.02	3.00
Lead	5.4	mg/kg	0.13	0.03	15.00
Cadmium	0.51	mg/kg	0.01	0.00	0.15
Chromium	2.8	mg/kg	0.07	0.02	15.00
Mercury	1.7	mg/kg	0.04	0.01	0.10
Arsenic	12.5	mg/kg	0.30	0.07	0.70
Aluminium	181000	mg/kg	4326	1081.5	
Iron	6200	mg/kg	148	37.0	

DCWW

Analysis of Cilfor sludge

Date: 28/04/2025 Sample no. 8358293

Application rate (t/ha)	**143**
Application rate (t/acre)	**57.2**
pH	**6.7**
Dry solids (%)	**4.7**
Organic matter (%)	**47.9**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.92	%	0.43	61.8	0.01	1.8
Ammonium-N	268	mg/kg	0.01	1.8		
Phosphorus (P)	0.42	%	0.20	28.5		
Phosphate (P_2O_5)			0.45	65.0	0.2	32.5
Potassium (K)	0.01	%	0.00	0.6		
Potash (K_2O)			0.00	0.7	0.0	0.6
Magnesium (Mg)	1200	mg/kg	0.06	8.1		
Magnesium (MgO)			0.09	12.9	0.0	2.6
Sulphur (S)	12200	mg/kg	0.57	82.0		
Sulphur (SO_3)			1.43	205.0	0.1	20.5
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	81.4	mg/kg	3.8	0.55	15.00
Copper	32.6	mg/kg	1.53	0.22	7.50
Nickel	31.8	mg/kg	1.49	0.21	3.00
Lead	2.8	mg/kg	0.13	0.02	15.00
Cadmium	0.31	mg/kg	0.01	0.00	0.15
Chromium	4.3	mg/kg	0.20	0.03	15.00
Mercury	0.9	mg/kg	0.04	0.01	0.10
Arsenic	9.4	mg/kg	0.44	0.06	0.70
Aluminium	230000	mg/kg	10810	1545.8	
Iron	5700	mg/kg	268	38.3	

DCWW

Analysis of Cilfor sludge

Date: 28/04/2025 Sample no. 8358293

Application rate (t/ha)	**70**
Application rate (t/acre)	**28.0**
pH	**6.7**
Dry solids (%)	**4.7**
Organic matter (%)	**47.9**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.92	%	0.43	30.2	0.01	0.9
Ammonium-N	268	mg/kg	0.01	0.9		
Phosphorus (P)	0.42	%	0.20	13.9		
Phosphate (P_2O_5)			0.45	31.8	0.2	15.9
Potassium (K)	0.01	%	0.00	0.3		
Potash (K_2O)			0.00	0.3	0.0	0.3
Magnesium (Mg)	1200	mg/kg	0.06	3.9		
Magnesium (MgO)			0.09	6.3	0.0	1.3
Sulphur (S)	12200	mg/kg	0.57	40.1		
Sulphur (SO_3)			1.43	100.3	0.1	10.0
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	81.4	mg/kg	3.8	0.27	15.00
Copper	32.6	mg/kg	1.53	0.11	7.50
Nickel	31.8	mg/kg	1.49	0.10	3.00
Lead	2.8	mg/kg	0.13	0.01	15.00
Cadmium	0.31	mg/kg	0.01	0.00	0.15
Chromium	4.3	mg/kg	0.20	0.01	15.00
Mercury	0.9	mg/kg	0.04	0.00	0.10
Arsenic	9.4	mg/kg	0.44	0.03	0.70
Aluminium	230000	mg/kg	10810	756.7	
Iron	5700	mg/kg	268	18.8	

DCWW

Analysis of Dolbenmaen sludge

Date: 28/04/2025 Sample no. 8358305

Application rate (t/ha)	**250**
Application rate (t/acre)	**100.0**
pH	**6.8**
Dry solids (%)	**2.6**
Organic matter (%)	**34.3**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.72	%	0.19	46.3	0.01	1.8
Ammonium-N	278	mg/kg	0.01	1.8		
Phosphorus (P)	0.24	%	0.06	15.7		
Phosphate (P_2O_5)			0.14	35.7	0.1	17.9
Potassium (K)	0.01	%	0.00	0.6		
Potash (K_2O)			0.00	0.7	0.0	0.6
Magnesium (Mg)	187	mg/kg	0.00	1.2		
Magnesium (MgO)			0.01	1.9	0.0	0.4
Sulphur (S)	16600	mg/kg	0.43	107.1		
Sulphur (SO_3)			1.07	267.7	0.1	26.8
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	349.0	mg/kg	9.0	2.25	15.00
Copper	22.1	mg/kg	0.57	0.14	7.50
Nickel	3.3	mg/kg	0.09	0.02	3.00
Lead	5.0	mg/kg	0.13	0.03	15.00
Cadmium	0.96	mg/kg	0.02	0.01	0.15
Chromium	2.6	mg/kg	0.07	0.02	15.00
Mercury	1.5	mg/kg	0.04	0.01	0.10
Arsenic	14.6	mg/kg	0.38	0.09	0.70
Aluminium	313000	mg/kg	8075	2018.9	
Iron	4960	mg/kg	128	32.0	

DCWW

Analysis of Dolbenmaen sludge

Date: 28/04/2025 Sample no. 8358305

Application rate (t/ha)	**220**
Application rate (t/acre)	**88.0**
pH	**6.8**
Dry solids (%)	**2.6**
Organic matter (%)	**34.3**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.72	%	0.19	40.8	0.01	1.6
Ammonium-N	278	mg/kg	0.01	1.6		
Phosphorus (P)	0.24	%	0.06	13.8		
Phosphate (P_2O_5)			0.14	31.4	0.1	15.7
Potassium (K)	0.01	%	0.00	0.5		
Potash (K_2O)			0.00	0.6	0.0	0.5
Magnesium (Mg)	187	mg/kg	0.00	1.1		
Magnesium (MgO)			0.01	1.7	0.0	0.3
Sulphur (S)	16600	mg/kg	0.43	94.2		
Sulphur (SO_3)			1.07	235.6	0.1	23.6
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	349.0	mg/kg	9.0	1.98	15.00
Copper	22.1	mg/kg	0.57	0.13	7.50
Nickel	3.3	mg/kg	0.09	0.02	3.00
Lead	5.0	mg/kg	0.13	0.03	15.00
Cadmium	0.96	mg/kg	0.02	0.01	0.15
Chromium	2.6	mg/kg	0.07	0.01	15.00
Mercury	1.5	mg/kg	0.04	0.01	0.10
Arsenic	14.6	mg/kg	0.38	0.08	0.70
Aluminium	313000	mg/kg	8075	1776.6	
Iron	4960	mg/kg	128	28.2	

DCWW

Analysis of Eithinfynydd sludge

Date: 28/04/2025 Sample no. 8358299

Application rate (t/ha)	**250**
Application rate (t/acre)	**100.0**
pH	**6.4**
Dry solids (%)	**3.0**
Organic matter (%)	**54.6**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.98	%	0.29	73.1	0.01	1.5
Ammonium-N	203	mg/kg	0.01	1.5		
Phosphorus (P)	0.27	%	0.08	20.2		
Phosphate (P_2O_5)			0.18	46.0	0.1	23.0
Potassium (K)	0.02	%	0.01	1.5		
Potash (K_2O)			0.01	1.8	0.0	1.6
Magnesium (Mg)	356	mg/kg	0.01	2.7		
Magnesium (MgO)			0.02	4.3	0.0	0.9
Sulphur (S)	14700	mg/kg	0.44	109.9		
Sulphur (SO_3)			1.10	274.7	0.1	27.5
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	34.5	mg/kg	1.0	0.26	15.00
Copper	25.7	mg/kg	0.77	0.19	7.50
Nickel	2.9	mg/kg	0.09	0.02	3.00
Lead	4.4	mg/kg	0.13	0.03	15.00
Cadmium	0.31	mg/kg	0.01	0.00	0.15
Chromium	2.3	mg/kg	0.07	0.02	15.00
Mercury	1.3	mg/kg	0.04	0.01	0.10
Arsenic	10.1	mg/kg	0.30	0.08	0.70
Aluminium	204000	mg/kg	6100	1524.9	
Iron	1610	mg/kg	48	12.0	

DCWW

Analysis of Eithinfynydd sludge

Date: 28/04/2025 Sample no. 8358299

Application rate (t/ha)	**175**
Application rate (t/acre)	**70.0**
pH	**6.4**
Dry solids (%)	**3.0**
Organic matter (%)	**54.6**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.98	%	0.29	51.2	0.01	1.1
Ammonium-N	203	mg/kg	0.01	1.1		
Phosphorus (P)	0.27	%	0.08	14.1		
Phosphate (P_2O_5)			0.18	32.2	0.1	16.1
Potassium (K)	0.02	%	0.01	1.0		
Potash (K_2O)			0.01	1.3	0.0	1.1
Magnesium (Mg)	356	mg/kg	0.01	1.9		
Magnesium (MgO)			0.02	3.0	0.0	0.6
Sulphur (S)	14700	mg/kg	0.44	76.9		
Sulphur (SO_3)			1.10	192.3	0.1	19.2
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	34.5	mg/kg	1.0	0.18	15.00
Copper	25.7	mg/kg	0.77	0.13	7.50
Nickel	2.9	mg/kg	0.09	0.02	3.00
Lead	4.4	mg/kg	0.13	0.02	15.00
Cadmium	0.31	mg/kg	0.01	0.00	0.15
Chromium	2.3	mg/kg	0.07	0.01	15.00
Mercury	1.3	mg/kg	0.04	0.01	0.10
Arsenic	10.1	mg/kg	0.30	0.05	0.70
Aluminium	204000	mg/kg	6100	1067.4	
Iron	1610	mg/kg	48	8.4	

DCWW

Analysis of Garreglwyd sludge

Date: 28/04/2025 Sample no. 8358309

Application rate (t/ha)	**250**
Application rate (t/acre)	**100.0**
pH	**6.1**
Dry solids (%)	**4.5**
Organic matter (%)	**31.7**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.69	%	0.31	78.1	0.01	1.5
Ammonium-N	136.0	mg/kg	0.01	1.5		
Phosphorus (P)	0.13	%	0.06	14.9		
Phosphate (P_2O_5)			0.14	33.9	0.1	17.0
Potassium (K)	0.01	%	0.00	1.1		
Potash (K_2O)			0.01	1.4	0.0	1.2
Magnesium (Mg)	556	mg/kg	0.03	6.3		
Magnesium (MgO)			0.04	10.0	0.0	2.0
Sulphur (S)	2690	mg/kg	0.12	30.3		
Sulphur (SO_3)			0.30	75.8	0.0	7.6
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	441.0	mg/kg	19.9	4.97	15.00
Copper	28.9	mg/kg	1.30	0.33	7.50
Nickel	22.1	mg/kg	1.00	0.25	3.00
Lead	31.8	mg/kg	1.43	0.36	15.00
Cadmium	1.35	mg/kg	0.06	0.02	0.15
Chromium	14.8	mg/kg	0.67	0.17	15.00
Mercury	0.9	mg/kg	0.04	0.01	0.10
Arsenic	14.1	mg/kg	0.64	0.16	0.70
Aluminium	5310	mg/kg	239	59.9	
Iron	471000	mg/kg	21242	5310.5	

DCWW

Analysis of Garreglwyd sludge

Date: 28/04/2025 Sample no. 8358309

Application rate (t/ha)	**239**
Application rate (t/acre)	**95.6**
pH	**6.1**
Dry solids (%)	**4.5**
Organic matter (%)	**31.7**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.69	%	0.31	74.7	0.01	1.5
Ammonium-N	136.0	mg/kg	0.01	1.5		
Phosphorus (P)	0.13	%	0.06	14.2		
Phosphate (P_2O_5)			0.14	32.4	0.1	16.2
Potassium (K)	0.01	%	0.00	1.1		
Potash (K_2O)			0.01	1.3	0.0	1.2
Magnesium (Mg)	556	mg/kg	0.03	6.0		
Magnesium (MgO)			0.04	9.6	0.0	1.9
Sulphur (S)	2690	mg/kg	0.12	29.0		
Sulphur (SO_3)			0.30	72.5	0.0	7.2
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	441.0	mg/kg	19.9	4.75	15.00
Copper	28.9	mg/kg	1.30	0.31	7.50
Nickel	22.1	mg/kg	1.00	0.24	3.00
Lead	31.8	mg/kg	1.43	0.34	15.00
Cadmium	1.35	mg/kg	0.06	0.01	0.15
Chromium	14.8	mg/kg	0.67	0.16	15.00
Mercury	0.9	mg/kg	0.04	0.01	0.10
Arsenic	14.1	mg/kg	0.64	0.15	0.70
Aluminium	5310	mg/kg	239	57.2	
Iron	471000	mg/kg	21242	5076.9	

DCWW

Analysis of Gwastadgoed sludge

Date: 28/04/2025 Sample no.8358307

Application rate (t/ha)	**250**
Application rate (t/acre)	**100.0**
pH	**5.6**
Dry solids (%)	**6.0**
Organic matter (%)	**16.3**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.32	%	0.19	47.5	0.01	1.5
Ammonium-N	102	mg/kg	0.01	1.5		
Phosphorus (P)	0.17	%	0.10	25.2		
Phosphate (P_2O_5)			0.23	57.4	0.1	28.7
Potassium (K)	0.01	%	0.01	1.5		
Potash (K_2O)			0.01	1.8	0.0	1.6
Magnesium (Mg)	320	mg/kg	0.02	4.8		
Magnesium (MgO)			0.03	7.7	0.0	1.5
Sulphur (S)	10800	mg/kg	0.65	161.7		
Sulphur (SO_3)			1.62	404.3	0.2	40.4
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	163.0	mg/kg	9.8	2.44	15.00
Copper	2.0	mg/kg	0.12	0.03	7.50
Nickel	61.5	mg/kg	3.68	0.92	3.00
Lead	26.1	mg/kg	1.56	0.39	15.00
Cadmium	0.30	mg/kg	0.02	0.00	0.15
Chromium	1.2	mg/kg	0.07	0.02	15.00
Mercury	0.7	mg/kg	0.04	0.01	0.10
Arsenic	15.2	mg/kg	0.91	0.23	0.70
Aluminium	3230	mg/kg	193	48.4	
Iron	519000	mg/kg	31088	7772.0	

DCWW

Analysis of Gwastadgoed sludge

Date: 28/04/2025 Sample no.8358307

Application rate (t/ha)	**140**
Application rate (t/acre)	**56.0**
pH	**5.6**
Dry solids (%)	**6.0**
Organic matter (%)	**16.3**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.32	%	0.19	26.6	0.01	0.9
Ammonium-N	102	mg/kg	0.01	0.9		
Phosphorus (P)	0.17	%	0.10	14.1		
Phosphate (P_2O_5)			0.23	32.1	0.1	16.1
Potassium (K)	0.01	%	0.01	0.8		
Potash (K_2O)			0.01	1.0	0.0	0.9
Magnesium (Mg)	320	mg/kg	0.02	2.7		
Magnesium (MgO)			0.03	4.3	0.0	0.9
Sulphur (S)	10800	mg/kg	0.65	90.6		
Sulphur (SO_3)			1.62	226.4	0.2	22.6
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	163.0	mg/kg	9.8	1.37	15.00
Copper	2.0	mg/kg	0.12	0.02	7.50
Nickel	61.5	mg/kg	3.68	0.52	3.00
Lead	26.1	mg/kg	1.56	0.22	15.00
Cadmium	0.30	mg/kg	0.02	0.00	0.15
Chromium	1.2	mg/kg	0.07	0.01	15.00
Mercury	0.7	mg/kg	0.04	0.01	0.10
Arsenic	15.2	mg/kg	0.91	0.13	0.70
Aluminium	3230	mg/kg	193	27.1	
Iron	519000	mg/kg	31088	4352.3	

DCWW

Analysis of Llyn Conwy sludge

Date: 28/04/2025 Sample no. 8358323

Application rate (t/ha)	**250**
Application rate (t/acre)	**100.0**
pH	**5.7**
Dry solids (%)	**4.1**
Organic matter (%)	**32.6**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.59	%	0.24	61.2	0.01	1.5
Ammonium-N	149	mg/kg	0.01	1.5		
Phosphorus (P)	0.11	%	0.05	11.6		
Phosphate (P_2O_5)			0.11	26.5	0.1	13.3
Potassium (K)	0.01	%	0.00	1.0		
Potash (K_2O)			0.00	1.2	0.0	1.1
Magnesium (Mg)	353	mg/kg	0.01	3.6		
Magnesium (MgO)			0.02	5.8	0.0	1.2
Sulphur (S)	4260	mg/kg	0.18	43.9		
Sulphur (SO_3)			0.44	109.7	0.0	11.0
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	360.0	mg/kg	14.8	3.71	15.00
Copper	860.0	mg/kg	35.43	8.86	7.50
Nickel	32.3	mg/kg	1.33	0.33	3.00
Lead	56.6	mg/kg	2.33	0.58	15.00
Cadmium	1.16	mg/kg	0.05	0.01	0.15
Chromium	14.4	mg/kg	0.59	0.15	15.00
Mercury	1.0	mg/kg	0.04	0.01	0.10
Arsenic	25.6	mg/kg	1.05	0.26	0.70
Aluminium	3410	mg/kg	140	35.1	
Iron	448000	mg/kg	18458	4614.4	

DCWW

Analysis of Penybont sludge

Date: 28/04/2025 Sample no. 8358303

Application rate (t/ha)	**194**
Application rate (t/acre)	**77.6**
pH	**6.8**
Dry solids (%)	**2.7**
Organic matter (%)	**30.8**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.86	%	0.23	44.6	0.01	1.2
Ammonium-N	227	mg/kg	0.01	1.2		
Phosphorus (P)	0.55	%	0.15	28.4		
Phosphate (P_2O_5)			0.33	64.7	0.2	32.4
Potassium (K)	0.02	%	0.01	1.0		
Potash (K_2O)			0.01	1.2	0.0	1.1
Magnesium (Mg)	1070	mg/kg	0.03	5.6		
Magnesium (MgO)			0.05	8.9	0.0	1.8
Sulphur (S)	13000	mg/kg	0.35	67.6		
Sulphur (SO_3)			0.87	169.0	0.1	16.9
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	99.7	mg/kg	2.7	0.52	15.00
Copper	34.7	mg/kg	0.93	0.18	7.50
Nickel	7.9	mg/kg	0.21	0.04	3.00
Lead	4.8	mg/kg	0.13	0.03	15.00
Cadmium	0.35	mg/kg	0.01	0.00	0.15
Chromium	4.6	mg/kg	0.12	0.02	15.00
Mercury	1.5	mg/kg	0.04	0.01	0.10
Arsenic	47.7	mg/kg	1.28	0.25	0.70
Aluminium	217000	mg/kg	5816	1128.2	
Iron	9250	mg/kg	248	48.1	

DCWW

Analysis of Penybont sludge

Date: 28/04/2025 Sample no. 8358303

Application rate (t/ha)	**95**
Application rate (t/acre)	**38.0**
pH	**6.8**
Dry solids (%)	**2.7**
Organic matter (%)	**30.8**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.86	%	0.23	21.8	0.01	0.6
Ammonium-N	227	mg/kg	0.01	0.6		
Phosphorus (P)	0.55	%	0.15	13.9		
Phosphate (P_2O_5)			0.33	31.7	0.2	15.8
Potassium (K)	0.02	%	0.01	0.5		
Potash (K_2O)			0.01	0.6	0.0	0.5
Magnesium (Mg)	1070	mg/kg	0.03	2.7		
Magnesium (MgO)			0.05	4.4	0.0	0.9
Sulphur (S)	13000	mg/kg	0.35	33.1		
Sulphur (SO_3)			0.87	82.7	0.1	8.3
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	99.7	mg/kg	2.7	0.25	15.00
Copper	34.7	mg/kg	0.93	0.09	7.50
Nickel	7.9	mg/kg	0.21	0.02	3.00
Lead	4.8	mg/kg	0.13	0.01	15.00
Cadmium	0.35	mg/kg	0.01	0.00	0.15
Chromium	4.6	mg/kg	0.12	0.01	15.00
Mercury	1.5	mg/kg	0.04	0.00	0.10
Arsenic	47.7	mg/kg	1.28	0.12	0.70
Aluminium	217000	mg/kg	5816	552.5	
Iron	9250	mg/kg	248	23.6	

DCWW

Analysis of Penycefn sludge

Date: 28/04/2025 Sample no. 8358301

Application rate (t/ha)	**250**
Application rate (t/acre)	**100.0**
pH	**6.4**
Dry solids (%)	**2.8**
Organic matter (%)	**40.0**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	1.34	%	0.37	92.5	0.01	1.5
Ammonium-N	220.0	mg/kg	0.01	1.5		
Phosphorus (P)	0.31	%	0.08	21.1		
Phosphate (P_2O_5)			0.19	48.1	0.1	24.1
Potassium (K)	0.01	%	0.00	0.6		
Potash (K_2O)			0.00	0.7	0.0	0.6
Magnesium (Mg)	489	mg/kg	0.01	3.4		
Magnesium (MgO)			0.02	5.4	0.0	1.1
Sulphur (S)	12800	mg/kg	0.35	88.3		
Sulphur (SO_3)			0.88	220.8	0.1	22.1
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	78.2	mg/kg	2.2	0.54	15.00
Copper	40.4	mg/kg	1.12	0.28	7.50
Nickel	3.1	mg/kg	0.09	0.02	3.00
Lead	4.7	mg/kg	0.13	0.03	15.00
Cadmium	0.34	mg/kg	0.01	0.00	0.15
Chromium	2.5	mg/kg	0.07	0.02	15.00
Mercury	1.5	mg/kg	0.04	0.01	0.10
Arsenic	43.1	mg/kg	1.19	0.30	0.70
Aluminium	178000	mg/kg	4913	1228.2	
Iron	4360	mg/kg	120	30.1	

DCWW

Analysis of Penycefn sludge

Date: 28/04/2025 Sample no. 8358301

Application rate (t/ha)	**169**
Application rate (t/acre)	**67.6**
pH	**6.4**
Dry solids (%)	**2.8**
Organic matter (%)	**40.0**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	1.34	%	0.37	62.5	0.01	1.0
Ammonium-N	220.0	mg/kg	0.01	1.0		
Phosphorus (P)	0.31	%	0.08	14.3		
Phosphate (P_2O_5)			0.19	32.5	0.1	16.3
Potassium (K)	0.01	%	0.00	0.4		
Potash (K_2O)			0.00	0.5	0.0	0.4
Magnesium (Mg)	489	mg/kg	0.01	2.3		
Magnesium (MgO)			0.02	3.6	0.0	0.7
Sulphur (S)	12800	mg/kg	0.35	59.7		
Sulphur (SO_3)			0.88	149.3	0.1	14.9
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	78.2	mg/kg	2.2	0.36	15.00
Copper	40.4	mg/kg	1.12	0.19	7.50
Nickel	3.1	mg/kg	0.09	0.01	3.00
Lead	4.7	mg/kg	0.13	0.02	15.00
Cadmium	0.34	mg/kg	0.01	0.00	0.15
Chromium	2.5	mg/kg	0.07	0.01	15.00
Mercury	1.5	mg/kg	0.04	0.01	0.10
Arsenic	43.1	mg/kg	1.19	0.20	0.70
Aluminium	178000	mg/kg	4913	830.3	
Iron	4360	mg/kg	120	20.3	

DCWW

Analysis of Rhiwgoch sludge

Date: 28/04/2025 Sample no. 8358297

Application rate (t/ha)	**225**
Application rate (t/acre)	**90.0**
pH	**6.2**
Dry solids (%)	**4.4**
Organic matter (%)	**30.9**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.62	%	0.27	61.0	0.01	1.4
Ammonium-N	139	mg/kg	0.01	1.4		
Phosphorus (P)	0.29	%	0.13	28.4		
Phosphate (P_2O_5)			0.29	64.8	0.1	32.4
Potassium (K)	0.01	%	0.00	1.0		
Potash (K_2O)			0.01	1.2	0.0	1.1
Magnesium (Mg)	437	mg/kg	0.02	4.3		
Magnesium (MgO)			0.03	6.9	0.0	1.4
Sulphur (S)	3100	mg/kg	0.14	30.7		
Sulphur (SO_3)			0.34	76.7	0.0	7.7
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	299.0	mg/kg	13.2	2.96	15.00
Copper	16.7	mg/kg	0.73	0.17	7.50
Nickel	15.9	mg/kg	0.70	0.16	3.00
Lead	27.7	mg/kg	1.22	0.27	15.00
Cadmium	0.87	mg/kg	0.04	0.01	0.15
Chromium	14.7	mg/kg	0.65	0.15	15.00
Mercury	0.9	mg/kg	0.04	0.01	0.10
Arsenic	11.5	mg/kg	0.51	0.11	0.70
Aluminium	5030	mg/kg	221	49.8	
Iron	464000	mg/kg	20416	4593.6	

DCWW

Analysis of Rhiwgoch sludge

Date: 28/04/2025 Sample no. 8358297

Application rate (t/ha)	**113**
Application rate (t/acre)	**45.2**
pH	**6.2**
Dry solids (%)	**4.4**
Organic matter (%)	**30.9**

NUTRIENT CONTENT

			Total		Available	
TOTALS	**result**	**units**	**(kg/tonne)**	**(kg/ha)**	**(kg/tonne)**	**(kg/ha)**
Nitrogen (N)	0.62	%	0.27	30.6	0.01	0.7
Ammonium-N	139	mg/kg	0.01	0.7		
Phosphorus (P)	0.29	%	0.13	14.3		
Phosphate (P_2O_5)			0.29	32.5	0.1	16.3
Potassium (K)	0.01	%	0.00	0.5		
Potash (K_2O)			0.01	0.6	0.0	0.5
Magnesium (Mg)	437	mg/kg	0.02	2.2		
Magnesium (MgO)			0.03	3.5	0.0	0.7
Sulphur (S)	3100	mg/kg	0.14	15.4		
Sulphur (SO_3)			0.34	38.5	0.0	3.9
Calcium (Ca)		mg/kg	0.0	0.0		

POTENTIALLY TOXIC ELEMENTS

			Amount		Limit
TOTALS	**result**	**units**	**(g/tonne)**	**(kg/ha)**	**(kg/ha/yr)**
Zinc	299.0	mg/kg	13.2	1.49	15.00
Copper	16.7	mg/kg	0.73	0.08	7.50
Nickel	15.9	mg/kg	0.70	0.08	3.00
Lead	27.7	mg/kg	1.22	0.14	15.00
Cadmium	0.87	mg/kg	0.04	0.00	0.15
Chromium	14.7	mg/kg	0.65	0.07	15.00
Mercury	0.9	mg/kg	0.04	0.00	0.10
Arsenic	11.5	mg/kg	0.51	0.06	0.70
Aluminium	5030	mg/kg	221	25.0	
Iron	464000	mg/kg	20416	2307.0	