

## Waste Interpretations – Pen Y Parc 2025

### DCWW

#### Analysis of Talybont Sludge

Date: 10/07/2025

Sample no. 8443884

Application rate (t/ha)	250
Application rate (t/acre)	100.0
pH	6.6
Dry solids (%)	6.8
Organic matter (%)	50.6

#### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.85	%	0.58	144.8	0.014	3.5
Ammonium-N	204	mg/kg	0.01	3.5		
Phosphorus (P)	0.17	%	0.12	29.2		
Phosphate (P <sub>2</sub> O <sub>5</sub> )			0.27	66.7	0.1	33.3
Potassium (K)	0.03	%	0.02	5.2		
Potash (K <sub>2</sub> O)			0.02	6.2	0.0	5.6
Magnesium (Mg)	640	mg/kg	0.04	10.9		
Magnesium (MgO)			0.07	17.4	0.0	4.4
Sulphur (S)	4730	mg/kg	0.32	80.4		
Sulphur (SO <sub>3</sub> )			0.80	201.0	0.1	20.1
Calcium (Ca)		mg/kg	0.0	0.0		

#### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	146.0	mg/kg	9.9	2.48	15.00
Copper	64.7	mg/kg	4.40	1.10	7.50
Nickel	20.5	mg/kg	1.39	0.35	3.00
Lead	18.3	mg/kg	1.24	0.31	15.00
Cadmium	0.43	mg/kg	0.03	0.01	0.15
Chromium	12.7	mg/kg	0.86	0.22	15.00
Mercury	0.3	mg/kg	0.02	0.01	0.10
Arsenic	18.8	mg/kg	1.28	0.32	0.70
Aluminium	70100	mg/kg	4767	1191.7	
Iron	5090	mg/kg	346	86.5	

# DCWW

## Analysis of Talybont Sludge

Date: 10/07/2025

Sample no. 8443884

Application rate (t/ha)	243
Application rate (t/acre)	97.2
pH	6.6
Dry solids (%)	6.8
Organic matter (%)	50.6

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.85	%	0.58	140.8	0.014	3.4
Ammonium-N	204	mg/kg	0.01	3.4		
Phosphorus (P)	0.17	%	0.12	28.4		
Phosphate (P2O5)			0.27	64.8	0.1	32.4
Potassium (K)	0.03	%	0.02	5.0		
Potash (K2O)			0.02	6.0	0.0	5.4
Magnesium (Mg)	640	mg/kg	0.04	10.6		
Magnesium (MgO)			0.07	16.9	0.0	4.2
Sulphur (S)	4730	mg/kg	0.32	78.2		
Sulphur (SO3)			0.80	195.4	0.1	19.5
Calcium (Ca)		mg/kg	0.0	0.0		

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	146.0	mg/kg	9.9	2.41	15.00
Copper	64.7	mg/kg	4.40	1.07	7.50
Nickel	20.5	mg/kg	1.39	0.34	3.00
Lead	18.3	mg/kg	1.24	0.30	15.00
Cadmium	0.43	mg/kg	0.03	0.01	0.15
Chromium	12.7	mg/kg	0.86	0.21	15.00
Mercury	0.3	mg/kg	0.02	0.00	0.10
Arsenic	18.8	mg/kg	1.28	0.31	0.70
Aluminium	70100	mg/kg	4767	1158.3	
Iron	5090	mg/kg	346	84.1	

# DCWW

## Analysis of Talybont Sludge

Date: 10/07/2025

Sample no. 8443884

Application rate (t/ha)	60
Application rate (t/acre)	24.0
pH	6.6
Dry solids (%)	6.8
Organic matter (%)	50.6

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.85	%	0.58	34.8	0.014	0.8
Ammonium-N	204	mg/kg	0.01	0.8		
Phosphorus (P)	0.17	%	0.12	7.0		
Phosphate (P <sub>2</sub> O <sub>5</sub> )			0.27	16.0	0.1	8.0
Potassium (K)	0.03	%	0.02	1.2		
Potash (K <sub>2</sub> O)			0.02	1.5	0.0	1.3
Magnesium (Mg)	640	mg/kg	0.04	2.6		
Magnesium (MgO)			0.07	4.2	0.0	1.0
Sulphur (S)	4730	mg/kg	0.32	19.3		
Sulphur (SO <sub>3</sub> )			0.80	48.2	0.1	4.8
Calcium (Ca)		mg/kg	0.0	0.0		

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	146.0	mg/kg	9.9	0.60	15.00
Copper	64.7	mg/kg	4.40	0.26	7.50
Nickel	20.5	mg/kg	1.39	0.08	3.00
Lead	18.3	mg/kg	1.24	0.07	15.00
Cadmium	0.43	mg/kg	0.03	0.00	0.15
Chromium	12.7	mg/kg	0.86	0.05	15.00
Mercury	0.3	mg/kg	0.02	0.00	0.10
Arsenic	18.8	mg/kg	1.28	0.08	0.70
Aluminium	70100	mg/kg	4767	286.0	
Iron	5090	mg/kg	346	20.8	

# DCWW

## Analysis of Elan Valley Sludge

Date: 10/07/2025

Sample no. 8443903

Application rate (t/ha)	250
Application rate (t/acre)	100.0
pH	7.0
Dry solids (%)	4.5
Organic matter (%)	34.0

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.88	%	0.39	98.6	0.020	5.0
Ammonium-N	442	mg/kg	0.02	5.0		
Phosphorus (P)	0.36	%	0.16	41.0		
Phosphate (P2O5)			0.37	93.4	0.2	46.7
Potassium (K)	0.04	%	0.02	4.4		
Potash (K2O)			0.02	5.3	0.0	4.7
Magnesium (Mg)	719	mg/kg	0.03	8.1		
Magnesium (MgO)			0.05	12.9	0.0	3.2
Sulphur (S)	3860	mg/kg	0.17	43.4		
Sulphur (SO3)			0.43	108.6	0.0	10.9
Calcium (Ca)		mg/kg	0.0	0.0		

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	320.0	mg/kg	14.4	3.60	15.00
Copper	35.0	mg/kg	1.58	0.39	7.50
Nickel	22.9	mg/kg	1.03	0.26	3.00
Lead	62.9	mg/kg	2.83	0.71	15.00
Cadmium	0.49	mg/kg	0.02	0.01	0.15
Chromium	33.4	mg/kg	1.50	0.38	15.00
Mercury	0.5	mg/kg	0.02	0.01	0.10
Arsenic	45.6	mg/kg	2.05	0.51	0.70
Aluminium	4790	mg/kg	216	53.9	
Iron	404000	mg/kg	18180	4545.0	

# DCWW

## Analysis of Elan Valley Sludge

Date: 10/07/2025

Sample no. 8443903

Application rate (t/ha)	173
Application rate (t/acre)	69.2
pH	7.0
Dry solids (%)	4.5
Organic matter (%)	34.0

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.88	%	0.39	68.2	0.020	3.4
Ammonium-N	442	mg/kg	0.02	3.4		
Phosphorus (P)	0.36	%	0.16	28.3		
Phosphate (P2O5)			0.37	64.6	0.2	32.3
Potassium (K)	0.04	%	0.02	3.0		
Potash (K2O)			0.02	3.6	0.0	3.3
Magnesium (Mg)	719	mg/kg	0.03	5.6		
Magnesium (MgO)			0.05	9.0	0.0	2.2
Sulphur (S)	3860	mg/kg	0.17	30.1		
Sulphur (SO3)			0.43	75.1	0.0	7.5
Calcium (Ca)		mg/kg	0.0	0.0		

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	320.0	mg/kg	14.4	2.49	15.00
Copper	35.0	mg/kg	1.58	0.27	7.50
Nickel	22.9	mg/kg	1.03	0.18	3.00
Lead	62.9	mg/kg	2.83	0.49	15.00
Cadmium	0.49	mg/kg	0.02	0.00	0.15
Chromium	33.4	mg/kg	1.50	0.26	15.00
Mercury	0.5	mg/kg	0.02	0.00	0.10
Arsenic	45.6	mg/kg	2.05	0.35	0.70
Aluminium	4790	mg/kg	216	37.3	
Iron	404000	mg/kg	18180	3145.1	

# DCWW

## Analysis of Elan Valley Sludge

Date: 10/07/2025

Sample no. 8443903

Application rate (t/ha)	87
Application rate (t/acre)	34.8
pH	7.0
Dry solids (%)	4.5
Organic matter (%)	34.0

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.88	%	0.39	34.3	0.020	1.7
Ammonium-N	442	mg/kg	0.02	1.7		
Phosphorus (P)	0.36	%	0.16	14.3		
Phosphate (P <sub>2</sub> O <sub>5</sub> )			0.37	32.5	0.2	16.2
Potassium (K)	0.04	%	0.02	1.5		
Potash (K <sub>2</sub> O)			0.02	1.8	0.0	1.6
Magnesium (Mg)	719	mg/kg	0.03	2.8		
Magnesium (MgO)			0.05	4.5	0.0	1.1
Sulphur (S)	3860	mg/kg	0.17	15.1		
Sulphur (SO <sub>3</sub> )			0.43	37.8	0.0	3.8
Calcium (Ca)		mg/kg	0.0	0.0		

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	320.0	mg/kg	14.4	1.25	15.00
Copper	35.0	mg/kg	1.58	0.14	7.50
Nickel	22.9	mg/kg	1.03	0.09	3.00
Lead	62.9	mg/kg	2.83	0.25	15.00
Cadmium	0.49	mg/kg	0.02	0.00	0.15
Chromium	33.4	mg/kg	1.50	0.13	15.00
Mercury	0.5	mg/kg	0.02	0.00	0.10
Arsenic	45.6	mg/kg	2.05	0.18	0.70
Aluminium	4790	mg/kg	216	18.8	
Iron	404000	mg/kg	18180	1581.7	

# DCWW

## Analysis of Elan Valley Sludge

Date: 10/07/2025

Sample no. 8443903

Application rate (t/ha)	43
Application rate (t/acre)	17.2
pH	7.0
Dry solids (%)	4.5
Organic matter (%)	34.0

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.88	%	0.39	17.0	0.020	0.9
Ammonium-N	442	mg/kg	0.02	0.9		
Phosphorus (P)	0.36	%	0.16	7.0		
Phosphate (P <sub>2</sub> O <sub>5</sub> )			0.37	16.1	0.2	8.0
Potassium (K)	0.04	%	0.02	0.8		
Potash (K <sub>2</sub> O)			0.02	0.9	0.0	0.8
Magnesium (Mg)	719	mg/kg	0.03	1.4		
Magnesium (MgO)			0.05	2.2	0.0	0.6
Sulphur (S)	3860	mg/kg	0.17	7.5		
Sulphur (SO <sub>3</sub> )			0.43	18.7	0.0	1.9
Calcium (Ca)		mg/kg	0.0	0.0		

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	320.0	mg/kg	14.4	0.62	15.00
Copper	35.0	mg/kg	1.58	0.07	7.50
Nickel	22.9	mg/kg	1.03	0.04	3.00
Lead	62.9	mg/kg	2.83	0.12	15.00
Cadmium	0.49	mg/kg	0.02	0.00	0.15
Chromium	33.4	mg/kg	1.50	0.06	15.00
Mercury	0.5	mg/kg	0.02	0.00	0.10
Arsenic	45.6	mg/kg	2.05	0.09	0.70
Aluminium	4790	mg/kg	216	9.3	
Iron	404000	mg/kg	18180	781.7	

# DCWW

## Analysis of Llyswen sludge

Date: 20/06/2025

Sample no. 8420716

Application rate (t/ha)	250
Application rate (t/acre)	100.0
pH	7.3
Dry solids (%)	4.1
Organic matter (%)	31.7

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.90	%	0.37	92.8	0.00	0.1
Ammonium-N	6	mg/kg	0.00	0.1		
Phosphorus (P)	0.10	%	0.04	10.0		
Phosphate (P <sub>2</sub> O <sub>5</sub> )			0.09	22.8	0.0	11.4
Potassium (K)	0.09	%	0.04	9.5		
Potash (K <sub>2</sub> O)			0.05	11.4	0.0	10.3
Magnesium (Mg)	2990	mg/kg	0.12	30.7		
Magnesium (MgO)			0.20	49.2	0.0	12.3
Sulphur (S)	4660	mg/kg	0.19	47.9		
Sulphur (SO <sub>3</sub> )			0.48	119.7	0.0	12.0
Calcium (Ca)		mg/kg	0.0	0.0		

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	154.0	mg/kg	6.3	1.58	15.00
Copper	38.4	mg/kg	1.58	0.39	7.50
Nickel	16.9	mg/kg	0.69	0.17	3.00
Lead	9.5	mg/kg	0.39	0.10	15.00
Cadmium	0.23	mg/kg	0.01	0.00	0.15
Chromium	11.7	mg/kg	0.48	0.12	15.00
Mercury	1.0	mg/kg	0.04	0.01	0.10
Arsenic	16.9	mg/kg	0.69	0.17	0.70
Aluminium	124000	mg/kg	5096	1274.1	
Iron	22900	mg/kg	941	235.3	

# DCWW

## Analysis of Llyswen sludge

Date: 20/06/2025

Sample no. 8420716

Application rate (t/ha)	178
Application rate (t/acre)	71.2
pH	7.3
Dry solids (%)	4.1
Organic matter (%)	31.7

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.90	%	0.37	66.1	0.00	0.0
Ammonium-N	6	mg/kg	0.00	0.0		
Phosphorus (P)	0.10	%	0.04	7.1		
Phosphate (P <sub>2</sub> O <sub>5</sub> )			0.09	16.2	0.0	8.1
Potassium (K)	0.09	%	0.04	6.8		
Potash (K <sub>2</sub> O)			0.05	8.1	0.0	7.3
Magnesium (Mg)	2990	mg/kg	0.12	21.9		
Magnesium (MgO)			0.20	35.0	0.0	8.7
Sulphur (S)	4660	mg/kg	0.19	34.1		
Sulphur (SO <sub>3</sub> )			0.48	85.2	0.0	8.5
Calcium (Ca)		mg/kg	0.0	0.0		

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	154.0	mg/kg	6.3	1.13	15.00
Copper	38.4	mg/kg	1.58	0.28	7.50
Nickel	16.9	mg/kg	0.69	0.12	3.00
Lead	9.5	mg/kg	0.39	0.07	15.00
Cadmium	0.23	mg/kg	0.01	0.00	0.15
Chromium	11.7	mg/kg	0.48	0.09	15.00
Mercury	1.0	mg/kg	0.04	0.01	0.10
Arsenic	16.9	mg/kg	0.69	0.12	0.70
Aluminium	124000	mg/kg	5096	907.2	
Iron	22900	mg/kg	941	167.5	

## DCWW

### Analysis of Court Farm Sludge Cake

Date: 31/03/2025

Sample no. MANU170886

Application rate (t/ha)	208
Application rate (t/acre)	83.2
pH	7.1
Dry solids (%)	20.2
Organic matter (%)	14.5

#### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.59	%	1.19	247.9	0.006	1.2
Ammonium-N	28.5	mg/kg	0.01	1.2		
Phosphorus (P)	0.14	%	0.29	60.3		
Phosphate (P2O5)			0.66	137.6	0.3	68.8
Potassium (K)	0.06	%	0.13	26.8		
Potash (K2O)			0.15	32.1	0.1	28.9
Magnesium (Mg)	1483	mg/kg	0.30	62.3		
Magnesium (MgO)			0.48	99.7	0.1	24.9
Sulphur (S)	1119	mg/kg	0.23	47.0		
Sulphur (SO3)			0.57	117.5	0.1	11.8
Calcium (Ca)	14527	mg/kg	2.9	610.4		

#### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	50.2	mg/kg	10.1	2.11	15.00
Copper	21.2	mg/kg	4.28	0.89	7.50
Nickel	25.2	mg/kg	5.09	1.06	3.00
Lead	7.9	mg/kg	1.60	0.33	15.00
Cadmium	0.38	mg/kg	0.08	0.02	0.15
Chromium	30.3	mg/kg	6.12	1.27	15.00
Mercury	0.1	mg/kg	0.02	0.00	0.10
Arsenic	14.7	mg/kg	2.97	0.62	0.70
Aluminium	4810	mg/kg	972	202.1	
Iron	413246	mg/kg	83476	17362.9	

## DCWW

### Analysis of Court Farm Sludge Cake

Date: 31/03/2025

Sample no. MANU170886

Application rate (t/ha)	98
Application rate (t/acre)	39.2
pH	7.1
Dry solids (%)	20.2
Organic matter (%)	14.5

#### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.59	%	1.19	116.8	0.006	0.6
Ammonium-N	28.5	mg/kg	0.01	0.6		
Phosphorus (P)	0.14	%	0.29	28.4		
Phosphate (P <sub>2</sub> O <sub>5</sub> )			0.66	64.8	0.3	32.4
Potassium (K)	0.06	%	0.13	12.6		
Potash (K <sub>2</sub> O)			0.15	15.1	0.1	13.6
Magnesium (Mg)	1483	mg/kg	0.30	29.4		
Magnesium (MgO)			0.48	47.0	0.1	11.7
Sulphur (S)	1119	mg/kg	0.23	22.2		
Sulphur (SO <sub>3</sub> )			0.57	55.4	0.1	5.5
Calcium (Ca)	14527	mg/kg	2.9	287.6		

#### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	50.2	mg/kg	10.1	0.99	15.00
Copper	21.2	mg/kg	4.28	0.42	7.50
Nickel	25.2	mg/kg	5.09	0.50	3.00
Lead	7.9	mg/kg	1.60	0.16	15.00
Cadmium	0.38	mg/kg	0.08	0.01	0.15
Chromium	30.3	mg/kg	6.12	0.60	15.00
Mercury	0.1	mg/kg	0.02	0.00	0.10
Arsenic	14.7	mg/kg	2.97	0.29	0.70
Aluminium	4810	mg/kg	972	95.2	
Iron	413246	mg/kg	83476	8180.6	

## DCWW

### Analysis of Court Farm Sludge Cake

Date: 31/03/2025

Sample no. MANU170886

Application rate (t/ha)	49
Application rate (t/acre)	19.6
pH	7.1
Dry solids (%)	20.2
Organic matter (%)	14.5

#### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.59	%	1.19	58.4	0.006	0.3
Ammonium-N	28.5	mg/kg	0.01	0.3		
Phosphorus (P)	0.14	%	0.29	14.2		
Phosphate (P <sub>2</sub> O <sub>5</sub> )			0.66	32.4	0.3	16.2
Potassium (K)	0.06	%	0.13	6.3		
Potash (K <sub>2</sub> O)			0.15	7.6	0.1	6.8
Magnesium (Mg)	1483	mg/kg	0.30	14.7		
Magnesium (MgO)			0.48	23.5	0.1	5.9
Sulphur (S)	1119	mg/kg	0.23	11.1		
Sulphur (SO <sub>3</sub> )			0.57	27.7	0.1	2.8
Calcium (Ca)	14527	mg/kg	2.9	143.8		

#### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	50.2	mg/kg	10.1	0.50	15.00
Copper	21.2	mg/kg	4.28	0.21	7.50
Nickel	25.2	mg/kg	5.09	0.25	3.00
Lead	7.9	mg/kg	1.60	0.08	15.00
Cadmium	0.38	mg/kg	0.08	0.00	0.15
Chromium	30.3	mg/kg	6.12	0.30	15.00
Mercury	0.1	mg/kg	0.02	0.00	0.10
Arsenic	14.7	mg/kg	2.97	0.15	0.70
Aluminium	4810	mg/kg	972	47.6	
Iron	413246	mg/kg	83476	4090.3	

## DCWW

### Analysis of Court Farm Sludge Cake

Date: 31/03/2025

Sample no. MANU170886

Application rate (t/ha)	24
Application rate (t/acre)	9.6
pH	7.1
Dry solids (%)	20.2
Organic matter (%)	14.5

#### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.59	%	1.19	28.6	0.006	0.1
Ammonium-N	28.5	mg/kg	0.01	0.1		
Phosphorus (P)	0.14	%	0.29	7.0		
Phosphate (P <sub>2</sub> O <sub>5</sub> )			0.66	15.9	0.3	7.9
Potassium (K)	0.06	%	0.13	3.1		
Potash (K <sub>2</sub> O)			0.15	3.7	0.1	3.3
Magnesium (Mg)	1483	mg/kg	0.30	7.2		
Magnesium (MgO)			0.48	11.5	0.1	2.9
Sulphur (S)	1119	mg/kg	0.23	5.4		
Sulphur (SO <sub>3</sub> )			0.57	13.6	0.1	1.4
Calcium (Ca)	14527	mg/kg	2.9	70.4		

#### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Amount		Limit
			(g/tonne)	(kg/ha)	(kg/ha/yr)
Zinc	50.2	mg/kg	10.1	0.24	15.00
Copper	21.2	mg/kg	4.28	0.10	7.50
Nickel	25.2	mg/kg	5.09	0.12	3.00
Lead	7.9	mg/kg	1.60	0.04	15.00
Cadmium	0.38	mg/kg	0.08	0.00	0.15
Chromium	30.3	mg/kg	6.12	0.15	15.00
Mercury	0.1	mg/kg	0.02	0.00	0.10
Arsenic	14.7	mg/kg	2.97	0.07	0.70
Aluminium	4810	mg/kg	972	23.3	
Iron	413246	mg/kg	83476	2003.4	

## Analysis of Biogen Digestate

Date: 12/08/2025

Sample no. BP ST 12/08/25

Application rate (t/ha)	23
Application rate (t/acre)	9.2
pH	8.8
Dry solids (%)	6.55
Organic matter content (%)	3.5
conductivity (µS/cm)	

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	1.07	%	10.70	246.1	8.08	185.8
Ammonium-N	8077	mg/kg	8.08	185.8		
Phosphorus (P)	724	mg/kg	0.72			
Phosphate (P <sub>2</sub> O <sub>5</sub> )			1.65	38.0	0.83	19.0
Potassium (K)	3911	mg/kg	3.91			
Potash (K <sub>2</sub> O)			4.69	107.9	4.22	97.1
Magnesium (Mg)	38.4	mg/kg	0.04			
Magnesium (MgO)			0.06	1.4	0.01	0.3
Sulphur (S)	612	mg/kg	0.61			
Sulphur (SO <sub>3</sub> )			1.53	35.2	0.31	7.0

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Rate		Limit
			(g/tonne)	( kg/ha)	(kg/ha/yr)
Zinc	14.4	mg/kg	14.4	0.33	15.00
Copper	2.91	mg/kg	2.9	0.07	7.50
Nickel	2.50	mg/kg	2.5	0.06	3.00
Lead	0.50	mg/kg	0.5	0.01	15.00
Cadmium	0.03	mg/kg	0.0	0.00	0.15
Chromium	0.94	mg/kg	0.9	0.02	15.00
Mercury	0.05	mg/kg	0.1	0.00	0.10

## Analysis of Biogen Digestate

Date: 12/08/2025

Sample no. BP ST 12/08/25

Application rate (t/ha)	19
Application rate (t/acre)	7.6
pH	8.8
Dry solids (%)	6.55
Organic matter content (%)	3.5
conductivity (µS/cm)	

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	1.07	%	10.70	203.3	8.08	153.5
Ammonium-N	8077	mg/kg	8.08	153.5		
Phosphorus (P)	724	mg/kg	0.72			
Phosphate (P <sub>2</sub> O <sub>5</sub> )			1.65	31.4	0.83	15.7
Potassium (K)	3911	mg/kg	3.91			
Potash (K <sub>2</sub> O)			4.69	89.2	4.22	80.3
Magnesium (Mg)	38.4	mg/kg	0.04			
Magnesium (MgO)			0.06	1.2	0.01	0.2
Sulphur (S)	612	mg/kg	0.61			
Sulphur (SO <sub>3</sub> )			1.53	29.1	0.31	5.8

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Rate		Limit
			(g/tonne)	( kg/ha)	(kg/ha/yr)
Zinc	14.4	mg/kg	14.4	0.27	15.00
Copper	2.91	mg/kg	2.9	0.06	7.50
Nickel	2.50	mg/kg	2.5	0.05	3.00
Lead	0.50	mg/kg	0.5	0.01	15.00
Cadmium	0.03	mg/kg	0.0	0.00	0.15
Chromium	0.94	mg/kg	0.9	0.02	15.00
Mercury	0.05	mg/kg	0.1	0.00	0.10

## Analysis of Biogen Digestate

Date: 12/08/2025

Sample no. BP ST 12/08/25

Application rate (t/ha)	9
Application rate (t/acre)	3.6
pH	8.8
Dry solids (%)	6.55
Organic matter content (%)	3.5
conductivity (µS/cm)	

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	1.07	%	10.70	96.3	8.08	72.7
Ammonium-N	8077	mg/kg	8.08	72.7		
Phosphorus (P)	724	mg/kg	0.72			
Phosphate (P <sub>2</sub> O <sub>5</sub> )			1.65	14.9	0.83	7.4
Potassium (K)	3911	mg/kg	3.91			
Potash (K <sub>2</sub> O)			4.69	42.2	4.22	38.0
Magnesium (Mg)	38.4	mg/kg	0.04			
Magnesium (MgO)			0.06	0.6	0.01	0.1
Sulphur (S)	612	mg/kg	0.61			
Sulphur (SO <sub>3</sub> )			1.53	13.8	0.31	2.8

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Rate		Limit
			(g/tonne)	( kg/ha)	(kg/ha/yr)
Zinc	14.4	mg/kg	14.4	0.13	15.00
Copper	2.91	mg/kg	2.9	0.03	7.50
Nickel	2.50	mg/kg	2.5	0.02	3.00
Lead	0.50	mg/kg	0.5	0.00	15.00
Cadmium	0.03	mg/kg	0.0	0.00	0.15
Chromium	0.94	mg/kg	0.9	0.01	15.00
Mercury	0.05	mg/kg	0.1	0.00	0.10

## Analysis of Welsh Water Organic Energy Digestate

Date: 08/09/2025

Sample no. DT 08/09/2025

Application rate (t/ha)	29
Application rate (t/acre)	11.6
pH	8.5
Dry solids (%)	6.21
Organic matter content (%)	3.5
conductivity (µS/cm)	

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.85	%	8.50	246.5	5.63	163.2
Ammonium-N	5628	mg/kg	5.63	163.2		
Phosphorus (P)	915	mg/kg	0.92			
Phosphate (P <sub>2</sub> O <sub>5</sub> )			2.09	60.5	1.04	30.2
Potassium (K)	3055	mg/kg	3.06			
Potash (K <sub>2</sub> O)			3.67	106.3	3.30	95.7
Magnesium (Mg)	84.5	mg/kg	0.08			5.0
Magnesium (MgO)			0.14	3.9	0.03	0.8
Sulphur (S)	491	mg/kg	0.49			
Sulphur (SO <sub>3</sub> )			1.23	35.6	0.25	7.1

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Rate		Limit
			(g/tonne)	( kg/ha)	(kg/ha/yr)
Zinc	11.4	mg/kg	11.4	0.33	15.00
Copper	1.62	mg/kg	1.6	0.05	7.50
Nickel	1.38	mg/kg	1.4	0.04	3.00
Lead	0.50	mg/kg	0.5	0.01	15.00
Cadmium	0.03	mg/kg	0.0	0.00	0.15
Chromium	0.48	mg/kg	0.5	0.01	15.00
Mercury	0.05	mg/kg	0.1	0.00	0.10

## Analysis of Welsh Water Organic Energy Digestate

Date: 08/09/2025

Sample no. DT 08/09/2025

Application rate (t/ha)	15
Application rate (t/acre)	6.0
pH	8.5
Dry solids (%)	6.21
Organic matter content (%)	3.5
conductivity (µS/cm)	

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.85	%	8.50	127.5	5.63	84.4
Ammonium-N	5628	mg/kg	5.63	84.4		
Phosphorus (P)	915	mg/kg	0.92			
Phosphate (P <sub>2</sub> O <sub>5</sub> )			2.09	31.3	1.04	15.6
Potassium (K)	3055	mg/kg	3.06			
Potash (K <sub>2</sub> O)			3.67	55.0	3.30	49.5
Magnesium (Mg)	84.5	mg/kg	0.08			5.0
Magnesium (MgO)			0.14	2.0	0.03	0.4
Sulphur (S)	491	mg/kg	0.49			
Sulphur (SO <sub>3</sub> )			1.23	18.4	0.25	3.7

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Rate		Limit
			(g/tonne)	( kg/ha)	(kg/ha/yr)
Zinc	11.4	mg/kg	11.4	0.17	15.00
Copper	1.62	mg/kg	1.6	0.02	7.50
Nickel	1.38	mg/kg	1.4	0.02	3.00
Lead	0.50	mg/kg	0.5	0.01	15.00
Cadmium	0.03	mg/kg	0.0	0.00	0.15
Chromium	0.48	mg/kg	0.5	0.01	15.00
Mercury	0.05	mg/kg	0.1	0.00	0.10

## Analysis of Welsh Water Organic Energy Digestate

Date: 08/09/2025

Sample no. DT 08/09/2025

Application rate (t/ha)	7
Application rate (t/acre)	2.8
pH	8.5
Dry solids (%)	6.21
Organic matter content (%)	3.5
conductivity (µS/cm)	

### NUTRIENT CONTENT

TOTALS	result	units	Total		Available	
			(kg/tonne)	( kg/ha)	(kg/tonne)	( kg/ha)
Nitrogen (N)	0.85	%	8.50	59.5	5.63	39.4
Ammonium-N	5628	mg/kg	5.63	39.4		
Phosphorus (P)	915	mg/kg	0.92			
Phosphate (P <sub>2</sub> O <sub>5</sub> )			2.09	14.6	1.04	7.3
Potassium (K)	3055	mg/kg	3.06			
Potash (K <sub>2</sub> O)			3.67	25.7	3.30	23.1
Magnesium (Mg)	84.5	mg/kg	0.08			5.0
Magnesium (MgO)			0.14	0.9	0.03	0.2
Sulphur (S)	491	mg/kg	0.49			
Sulphur (SO <sub>3</sub> )			1.23	8.6	0.25	1.7

### POTENTIALLY TOXIC ELEMENTS

TOTALS	result	units	Rate		Limit
			(g/tonne)	( kg/ha)	(kg/ha/yr)
Zinc	11.4	mg/kg	11.4	0.08	15.00
Copper	1.62	mg/kg	1.6	0.01	7.50
Nickel	1.38	mg/kg	1.4	0.01	3.00
Lead	0.50	mg/kg	0.5	0.00	15.00
Cadmium	0.03	mg/kg	0.0	0.00	0.15
Chromium	0.48	mg/kg	0.5	0.00	15.00
Mercury	0.05	mg/kg	0.1	0.00	0.10