

\*4Recycling Ltd

<b>Sampling Point No:</b>	23600	<b>Location:</b>	BRYN COWLYD WTW - SLUDGE Byproduct
<b>Date Sampled:</b>	12/12/2025	<b>Time Taken:</b>	10:35
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8630910
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Product Monitoring (SW_ME)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	341	mg/kg		
288 Aluminium	2820	mg/kg		
357 Arsenic	21.5	mg/kg		
4620 pH	5.9	pH		
7774 Mercury	0.58	mg/kg	<	
8241 Volatile solids	34.3	%		
9233 Ammoniacal nitrogen	176	mg/kg	<	
9234 Sulphur	5470	mg/kg		
9271 Cadmium	0.64	mg/kg	<	
9272 Chromium	24.9	mg/kg	<	
9273 Copper	45.1	mg/kg	<	
9275 Nickel	31.7	mg/kg		
9276 Lead	35.9	mg/kg	<	
9277 Zinc	249	mg/kg		
9278 Iron	424000	mg/kg		
9281 % Dry solids	3.47	%		
9282 % Minerals	65.7	%		
9283 % K (dry weight)	0.0503	mg/kg	<	
9284 % P (dry weight)	0.338	%	<	
9285 % N (dry weight)	0.583	%		

## Comments:

## Signed:

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**Approved by:**

**Position:**

Upper Limit

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<b>Sampling Point No:</b>	798001	<b>Location:</b>	Bala Sludge
<b>Date Sampled:</b>	28/04/2025	<b>Time Taken:</b>	20:49
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8358319
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Investigation (SW_SI)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	1820	mg/kg		
288 Aluminium	181000	mg/kg		
357 Arsenic	12.5	mg/kg	<	
4620 pH	6.9	pH		
7774 Mercury	1.67	mg/kg	<	
8241 Volatile solids	50.8	%		
9233 Ammoniacal nitrogen	256	mg/kg	<	
9234 Sulphur	4670	mg/kg		
9271 Cadmium	0.51	mg/kg		
9272 Chromium	2.83	mg/kg	<	
9273 Copper	26	mg/kg		
9275 Nickel	3.58	mg/kg	<	
9276 Lead	5.41	mg/kg	<	
9277 Zinc	162	mg/kg		
9278 Iron	6200	mg/kg		
9281 % Dry solids	2.39	%		
9282 % Minerals	49.2	%		
9283 % K (dry weight)	0.0087	mg/kg	<	
9284 % P (dry weight)	0.0495	%		
9285 % N (dry weight)	1.17	%		

## Comments:

## Signed:

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**Approved by:**

**Position:**

Upper Limit

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<b>Sampling Point No:</b>	622914	<b>Location:</b>	CEFNI WTW SLUDGE
<b>Date Sampled:</b>	11/11/2025	<b>Time Taken:</b>	10:44
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8591164
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Product Monitoring (SW_ME)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	675	mg/kg		
288 Aluminium	712000	mg/kg		
357 Arsenic	17.5	mg/kg		
4620 pH	6.8	pH		
7774 Mercury	0.69	mg/kg	<	
8241 Volatile solids	37.0	%		
9233 Ammoniacal nitrogen	434	mg/kg		
9234 Sulphur	15200	mg/kg		
9271 Cadmium	0.76	mg/kg	<	
9272 Chromium	29.7	mg/kg	<	
9273 Copper	53.9	mg/kg	<	
9275 Nickel	35.2	mg/kg	<	
9276 Lead	42.8	mg/kg	<	
9277 Zinc	84.9	mg/kg	<	
9278 Iron	5070	mg/kg		
9281 % Dry solids	2.92	%		
9282 % Minerals	63.0	%		
9283 % K (dry weight)	0.0601	mg/kg	<	
9284 % P (dry weight)	0.403	%	<	
9285 % N (dry weight)	1.06	%		

## Comments:

## Signed:

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**Approved by:**

**Position:**

Upper Limit

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<b>Sampling Point No:</b>	698007	<b>Location:</b>	CWELLYN WTW SLUDGE
<b>Date Sampled:</b>	11/11/2025	<b>Time Taken:</b>	10:39
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8591154
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Product Monitoring (SW_ME)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	589	mg/kg		
288 Aluminium	848000	mg/kg		
357 Arsenic	28.4	mg/kg		
4620 pH	6.8	pH		
7774 Mercury	0.58	mg/kg	<	
8241 Volatile solids	48.5	%		
9233 Ammoniacal nitrogen	310	mg/kg		
9234 Sulphur	7590	mg/kg		
9271 Cadmium	0.87	mg/kg		
9272 Chromium	24.9	mg/kg	<	
9273 Copper	76.2	mg/kg		
9275 Nickel	32.2	mg/kg		
9276 Lead	35.9	mg/kg	<	
9277 Zinc	226	mg/kg		
9278 Iron	7290	mg/kg		
9281 % Dry solids	3.42	%		
9282 % Minerals	51.5	%		
9283 % K (dry weight)	0.0504	mg/kg	<	
9284 % P (dry weight)	0.338	%	<	
9285 % N (dry weight)	1.47	%		

## Comments:

## Signed:

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**Approved by:**

**Position:**

Upper Limit

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<b>Sampling Point No:</b>	359181	<b>Location:</b>	DOLBENMAEN WTW SLUDGE
<b>Date Sampled:</b>	11/11/2025	<b>Time Taken:</b>	10:40
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8591156
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Product Monitoring (SW_ME)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	321	mg/kg		
288 Aluminium	1220000	mg/kg		
357 Arsenic	21.3	mg/kg		
4620 pH	7.0	pH		
7774 Mercury	0.60	mg/kg	<	
8241 Volatile solids	39.1	%		
9233 Ammoniacal nitrogen	384	mg/kg		
9234 Sulphur	9490	mg/kg		
9271 Cadmium	2.26	mg/kg		
9272 Chromium	26.0	mg/kg	<	
9273 Copper	47.1	mg/kg	<	
9275 Nickel	30.8	mg/kg	<	
9276 Lead	37.4	mg/kg	<	
9277 Zinc	319	mg/kg		
9278 Iron	5800	mg/kg		
9281 % Dry solids	3.30	%		
9282 % Minerals	60.9	%		
9283 % K (dry weight)	0.0525	mg/kg	<	
9284 % P (dry weight)	0.353	%	<	
9285 % N (dry weight)	1.12	%		

## Comments:

## Signed:

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**Approved by:**

**Position:**

Upper Limit

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<b>Sampling Point No:</b>	698194	<b>Location:</b>	GWASTADGOED WTW SLUDGE
<b>Date Sampled:</b>	11/11/2025	<b>Time Taken:</b>	10:42
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8591160
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Product Monitoring (SW_ME)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	360	mg/kg		
288 Aluminium	3360	mg/kg		
357 Arsenic	17.0	mg/kg		
4620 pH	6.3	pH		
7774 Mercury	0.49	mg/kg	<	
8241 Volatile solids	27.7	%		
9233 Ammoniacal nitrogen	149.2	mg/kg	<	
9234 Sulphur	5590	mg/kg		
9271 Cadmium	0.63	mg/kg		
9272 Chromium	21.0	mg/kg	<	
9273 Copper	38.1	mg/kg	<	
9275 Nickel	62.1	mg/kg		
9276 Lead	30.3	mg/kg	<	
9277 Zinc	249	mg/kg		
9278 Iron	2090000	mg/kg		
9281 % Dry solids	4.08	%		
9282 % Minerals	72.3	%		
9283 % K (dry weight)	0.0425	mg/kg	<	
9284 % P (dry weight)	0.285	%	<	
9285 % N (dry weight)	0.590	%		

## Comments:

## Signed:

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**Approved by:**

**Position:**

Upper Limit

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<b>Sampling Point No:</b>	698086	<b>Location:</b>	LLYN CONWY SLUDGE
<b>Date Sampled:</b>	12/12/2025	<b>Time Taken:</b>	10:37
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8630914
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Product Monitoring (SW_ME)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	396	mg/kg	<	
288 Aluminium	3090	mg/kg		
357 Arsenic	27.9	mg/kg		
4620 pH	5.8	pH		
7774 Mercury	0.41	mg/kg	<	
8241 Volatile solids	36.5	%		
9233 Ammoniacal nitrogen	126	mg/kg	<	
9234 Sulphur	5990	mg/kg		
9271 Cadmium	1.15	mg/kg	<	
9272 Chromium	44.9	mg/kg	<	
9273 Copper	81.4	mg/kg	<	
9275 Nickel	53.2	mg/kg	<	
9276 Lead	64.7	mg/kg	<	
9277 Zinc	317	mg/kg		
9278 Iron	437000	mg/kg		
9281 % Dry solids	4.89	%		
9282 % Minerals	63.5	%		
9283 % K (dry weight)	0.0908	mg/kg	<	
9284 % P (dry weight)	0.609	%	<	
9285 % N (dry weight)	0.595	%		

## Comments:

## Signed:

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 Approved by:

Position:

Upper Limit

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<b>Sampling Point No:</b>	698028	<b>Location:</b>	MYNYDD LLANDEGAI SLUDGE
<b>Date Sampled:</b>	11/11/2025	<b>Time Taken:</b>	10:43
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8591162
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Product Monitoring (SW_ME)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	587	mg/kg		
288 Aluminium	922000	mg/kg		
357 Arsenic	21.2	mg/kg		
4620 pH	7.0	pH		
7774 Mercury	0.50	mg/kg	<	
8241 Volatile solids	50.1	%		
9233 Ammoniacal nitrogen	151.4	mg/kg	<	
9234 Sulphur	6070	mg/kg		
9271 Cadmium	0.61	mg/kg		
9272 Chromium	21.4	mg/kg	<	
9273 Copper	88.2	mg/kg		
9275 Nickel	25.3	mg/kg	<	
9276 Lead	30.8	mg/kg	<	
9277 Zinc	125	mg/kg		
9278 Iron	4290	mg/kg		
9281 % Dry solids	4.01	%		
9282 % Minerals	49.9	%		
9283 % K (dry weight)	0.0432	mg/kg	<	
9284 % P (dry weight)	0.362	%		
9285 % N (dry weight)	1.06	%		

## Comments:

## Signed:

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**Approved by:**

**Position:**

Upper Limit

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<b>Sampling Point No:</b>	698181	<b>Location:</b>	Penybont WTW SLUDGE
<b>Date Sampled:</b>	11/11/2025	<b>Time Taken:</b>	10:36
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8591150
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Product Monitoring (SW_ME)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	1190	mg/kg		
288 Aluminium	1070000	mg/kg		
357 Arsenic	40.4	mg/kg		
4620 pH	6.8	pH		
7774 Mercury	0.70	mg/kg	<	
8241 Volatile solids	40.6	%		
9233 Ammoniacal nitrogen	214.4	mg/kg	<	
9234 Sulphur	10200	mg/kg		
9271 Cadmium	0.77	mg/kg	<	
9272 Chromium	30.2	mg/kg	<	
9273 Copper	54.7	mg/kg	<	
9275 Nickel	35.8	mg/kg	<	
9276 Lead	43.5	mg/kg	<	
9277 Zinc	121	mg/kg		
9278 Iron	12100	mg/kg		
9281 % Dry solids	2.84	%		
9282 % Minerals	59.4	%		
9283 % K (dry weight)	0.0610	mg/kg	<	
9284 % P (dry weight)	0.498	%		
9285 % N (dry weight)	0.800	%		

## Comments:

## Signed:

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**Approved by:**

**Position:**

Upper Limit

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<b>Sampling Point No:</b>	618214	<b>Location:</b>	RHIW GOCH WTW SLUDGE
<b>Date Sampled:</b>	11/11/2025	<b>Time Taken:</b>	10:36
<b>Laboratory:</b>	ALS	<b>Sample ID:</b>	8591148
<b>No. of Results:</b>	20		
<b>Sampling Reason:</b>	WTW Sludge - Product Monitoring (SW_ME)		
<b>Type:</b>	WTW Sludge (SW)		

## Sample Results



Code	Result	Units	Qualifier	Lower Limit
238 Magnesium	174	mg/kg	<	
288 Aluminium	5170	mg/kg		
357 Arsenic	8.6	mg/kg		
4620 pH	5.7	pH		
7774 Mercury	0.46	mg/kg	<	
8241 Volatile solids	34.9	%		
9233 Ammoniacal nitrogen	139.1	mg/kg	<	
9234 Sulphur	7960	mg/kg		
9271 Cadmium	0.50	mg/kg	<	
9272 Chromium	19.7	mg/kg	<	
9273 Copper	35.7	mg/kg	<	
9275 Nickel	23.3	mg/kg	<	
9276 Lead	28.4	mg/kg	<	
9277 Zinc	185	mg/kg		
9278 Iron	2070000	mg/kg		
9281 % Dry solids	4.39	%		
9282 % Minerals	65.1	%		
9283 % K (dry weight)	0.0398	mg/kg	<	
9284 % P (dry weight)	0.577	%		
9285 % N (dry weight)	0.577	%		

## Comments:

## Signed:

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**Approved by:**

**Position:**

Upper Limit

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