



Your Ref: DP3733BK

Our Ref: 49428/332510236/3512/CBH/VKR/AREA 2 GW & LEACHATE/R250

31<sup>st</sup> January 2025

PPC Team  
Natural Resources Wales  
Rivers House  
Fortran Road  
St Mellons Business Park  
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CF3 0EY

**Attn: Luke Burton**

Dear Luke,

**Re: DP3733BK – Docksway Disposal Site. Latest Area 2 Groundwater and Leachate Quality Monitoring Report, Round 250, December 2024.**

Please find enclosed the results of the groundwater and leachate quality monitoring undertaken at Area 2 of Docksway Disposal Site. Groundwater and leachate monitoring is required quarterly at the site in order to comply with Conditions 3.6.1 and 3.6.2 of the Environmental Permit (DP3733BK). This report includes discussion of results obtained from monitoring during December 2024.

We enclose with this letter report, the laboratory analytical certificates.

#### Field Observations

Details of the field testing of the Area 2 groundwater and leachate samples during Round 250 are presented in Table 1, together with depths to groundwater and leachate.

**Table 1** Field testing Results and Observations – December 2024

Monitoring Point	Dates Monitored	Depth to Groundwater/ Leachate (m)	pH	Electrical Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature ( $^{\circ}\text{C}$ )	Dissolved Oxygen (%)
GW06_39	Destroyed					
GW07_40	10/12/2024	5.07	7.3	980	11.6	38.8
GW12_30	10/12/2024	4.17	7.4	2145	11.8	45.3
GW09_31	10/12/2024	5.72	7.5	1340	11.0	35.7
GW03_09	10/12/2024	8.02	7.5	554	10.4	56.0
GW09_32	Defective					
GW12_33	10/12/2024	7.89	7.7	970	9.6	50.3
GW06_34	09/12/2024	7.19	7.6	6601	10.1	68.8
GW09_35	09/12/2024	7.52	7.7	8995	11.6	41.0
GW06_36	09/12/2024	7.44	8.1	8139	10.7	63.2
GW06_37	09/12/2024	7.59	7.7	11780	10.0	45.6
GW06_13	09/12/2024	7.50	7.4	9917	10.5	34.8
GW12_38	09/12/2024	7.79	6.9	2025	10.5	71.4
GW06_14a	09/12/2024	4.25	6.9	17680	11.4	33.1

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Monitoring Point	Dates Monitored	Depth to Groundwater/ Leachate (m)	pH	Electrical Conductivity ( $\mu\text{S}/\text{cm}$ )	Temperature ( $^{\circ}\text{C}$ )	Dissolved Oxygen (%)
LF08_07 (leachate)	04/12/2024	15.89	7.7	9077	20.7	5.2
C1A (leachate)	04/12/2024	23.36	Not sampled, dip level only			
C1B (leachate)	04/12/2024	21.29	Not sampled, dip level only			
C1E (leachate)	04/12/2024	23.85	Not sampled, dip level only			
C1D (leachate)	Unable to access					
C2A (leachate)	04/12/2024	13.35	Not sampled, dip level only			
C2B (leachate)	Unable to dip and sample due to obstruction in well					
C2C (leachate)	04/12/2024	23.68	7.6	19770	25.2	3.8
C3A (leachate)	04/12/2024	15.17	Not sampled, dip level only			
C3B (leachate)	04/12/2024	19.15	7.7	19440	25.4	3.0
C4A (leachate)	04/12/2024	10.89	Not sampled, dip level only			
C4B (leachate)	04/12/2024	15.09	7.4	20040	22.6	6.8

## Groundwater Laboratory Testing Results

### Compliance Levels

The agreed Control Levels and Compliance Limits for Area 2 'priority contaminants' are reproduced in Tables 2 and 3 below.

**Table 2** PPC Permit Compliance Levels for Emissions to Groundwater (Hazardous Substances)

Monitoring Well	Benzene	Naphthalene	Xylene	Arsenic
	Compliance Limit	Compliance Limit	Compliance Limit	Compliance Limit
	$\mu\text{g}/\text{l}$	$\mu\text{g}/\text{l}$	$\mu\text{g}/\text{l}$	$\mu\text{g}/\text{l}$
GW03_09	2	5	3	35
GW06_13	2	5	3	50
GW06_14a	2	5	3	25
GW06_34	2	5	3	65
GW06_36	2	5	3	30
GW06_37	2	5	3	60
GW06_39	2	5	3	50
GW07_40	2	5	3	35
GW09_31	13	5	3	80
GW09_32	3	5	3	30
GW09_35	2	5	3	50
GW12_30	1	1	1	160
GW12_33	1	1	1	560
GW12_38	1	1	1	26

**Table 3** PPC Permit Compliance Levels for Emissions to Groundwater (Non-Hazardous Substance)

Monitoring Well	Nickel		Potassium		Ammoniacal Nitrogen	
	Control Level	Compliance Limit	Control Level	Compliance Limit	Control Level	Compliance Limit
	µg/l	µg/l	mg/l	mg/l	mg/l	mg/l
GW03_09	8	10	160	180	30	35
GW06_13	12	14	100	110	30	35
GW06_14a	12	14	160	180	53	60
GW06_34	12	14	310	350	30	35
GW06_36	8	10	100	110	20	23
GW06_37	8	10	100	110	30	35
GW06_39	26.4	30	100	110	20	23
GW07_40	8	10	39.6	45	20	23
GW09_31	8	10	100	110	50	50
GW09_32	8	10	160	180	50	50
GW09_35	8	10	100	110	30	35
GW12_30	25	30	35	40	10	12
GW12_33	5	6	50	55	15	18
GW12_38	25	30	65	70	10	12

### Priority Contaminants

#### Hazardous Substances (formally List I Substances)

All of the hazardous substances specified as “priority contaminants” in the Area 2 Hydrogeological Risk Assessment and monitored in groundwater samples from compliance wells in December 2024 were recorded below the Compliance Limits.

#### Non-Hazardous Substances

None of the non-hazardous substances agreed as “priority contaminants” exceeded the well specific Control and Compliance Limits in the groundwater sampled during Round 250.

### Leachate Measurements and Laboratory Test Results

Leachate levels were recorded at C1A, C1B, C1E, C2A, C2C, C3A, C3B, C4A, C4B and LF08\_07 in December 2024 and the leachate head levels are indicated to be as follows:

**Table6** Leachate Levels – December 2024

Monitoring Location	Leachate Head (m)
C1A	1.99
C1B	1.63
C1E	0.81
C2A	1.75
C2C	1.92
C3A	1.98
C3B	1.80
C4A	1.96
C4B	1.95
LF08_07 (Cell 1)	0.60

All of the ten locations monitored were below the permitted level of 2m. Monitoring points C1D and C2B were unable to be dipped.

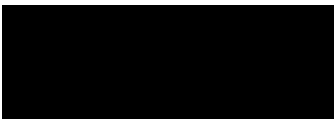
Leachate Removed

During October to December 2024, a total of 6,050,780kg of Leachate was removed from Area 2 (Cells 1 to 4 combined).

Concluding Remarks

Stantec will continue to monitor and comment on the groundwater quality and leachate within subsequent reports. If you have any questions regarding the data, then please do not hesitate to contact us.

Yours sincerely,



**Technical Director – Geoenvironmental Services**  
on behalf of Stantec UK Ltd

Encls: Laboratory Certificates

CC: [Redacted] – NCC (Docksway Disposal Site)  
[Redacted] – NCC