



06 October 2023  
R3053-10-23

**Royal Docks Management Authority Ltd**  
King George V Lock  
Pierhead  
Fishguard Way  
London  
E16 2RG

SOCOTEC UK  
2<sup>nd</sup> Floor, Dowding House  
Coach and Horses Passage  
Lower Pantiles  
Tunbridge Wells  
Kent, TN2 5NP

Telephone: 01892 337800

**For the attention of Mr Will McKee,**

## **CUSTOM HOUSE, KING GEORGE V LOCK WATER SAMPLING, LABORATORY ANALYSIS AND BATHING WATER QUALITY ASSESSMENT**

### **1 Introduction**

In accordance with the Bathing Water Quality Sampling and testing programme, we present our site observations/measurements and laboratory analysis results for 3 October 2023.

### **2 Fieldwork**

Although field measurements are no longer required when reporting bathing water, SOCOTEC UK Ltd deem it prudent to continue this monitoring as it will indicate any abnormal characteristics associated with the water. On this occasion, in-situ parameters were not measured due to technical difficulties. Therefore, monitoring will continue at the next site visit in accordance with the requirements of the EC Directive concerning the quality of bathing water (76/160/EEC) and The Bathing Waters (Classification) Regulations (SI 1991 No.1597 & SI 2003 No.1238).

Samples were collected for laboratory analysis, from six pre-selected locations within the Royal Docks area as shown within Figure 1:

- RV1, RV2, RA3, RA5, KG7 & KG8.

Sampling was performed from a boat provided by RODMA, with samples retrieved from the centre of the water space within the docks and from approximately 0.3 m below surface level.

### **3 Results**

Laboratory analysis results sheets are appended at Appendix A.

### **4 Discussion**

The results of laboratory analysis for *Enterococci* and *E. Coli* have been compared to the mandatory values set out in Directive 2006/7/EC of the European Parliament and of the Council concerning the management of bathing water quality and United Kingdom Statutory instrument 2013 No 1675.



Comments have also been made comparing the field observations, measurements and Total Coliforms to former regulations “The Bathing Waters (Classification) Regulations 2013” (Statutory Instrument SI 1991 No. 1597, and SI 2003 No. 1238) and “European Community Council Directive of 8th December 1975 concerning the quality of bathing water” (76/160/EEC).

We have assumed that maintenance of the dock areas includes the routine removal of litter, leaves and other floating debris.

On this occasion all six locations met the thresholds for ‘Excellent Quality’ as published within Directive 2006/7/EC and Bathing Water Regulations 2013.

## 5 Recommendations

All locations sampled and tested **COMPLIED** with the guidance for water contact sports and bathing water quality deeming water **SUITABLE** for water contact sports or for bathing.

The next routine sampling and monitoring visit is provisionally scheduled for week commencing 6 November 2023.

We trust that we have interpreted your requirements correctly and will be pleased to discuss the matter further as necessary.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Anna'.

Anna Pierce  
Assistant Environmental Consultant  
[anna.pierce@socotec.com](mailto:anna.pierce@socotec.com)

A handwritten signature in black ink, appearing to read 'Mark Hurcomb'.

Mark Hurcomb  
Principal Environmental Consultant  
[mark.hurcomb@socotec.com](mailto:mark.hurcomb@socotec.com)

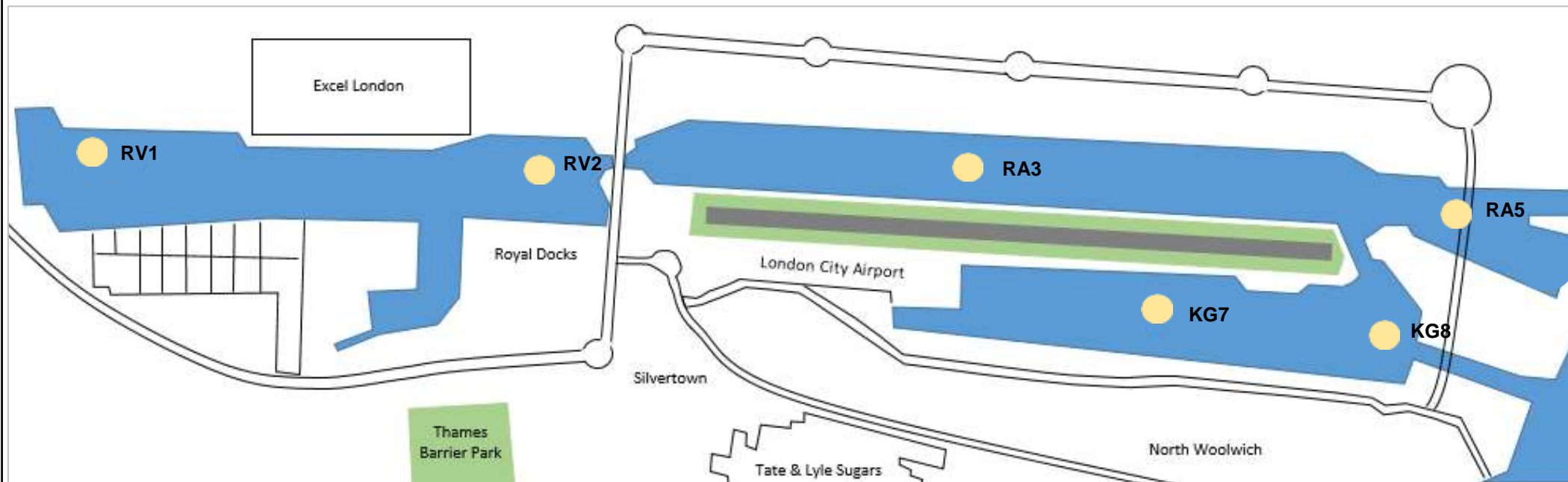
This Report has been prepared by SOCOTEC UK Limited with all reasonable skill and care, within the terms and conditions of the contract between SOCOTEC UK Limited and the Client (“Contract”) and within the limitations of the resources devoted to it by agreement with the Client. Any reliance upon the Report is subject to the Contract terms and conditions.

This Report is confidential between the Client and SOCOTEC UK Limited. SOCOTEC UK Limited accepts no responsibility whatsoever to third parties to whom this document, or any part thereof, is made known. Any such party relies upon the Report at their own risk. The Contracts (Rights of Third Parties) Act 1999 does not apply to this Report nor the Contract and the provisions of the said Act are hereby excluded.


This Report shall not be used for engineering or contractual purposes unless signed above by the author, checker and the approver for and on behalf of SOCOTEC UK Limited and unless the Report status is ‘Final’.

Unless specifically assigned or transferred within the terms and conditions of the Contract, SOCOTEC UK Limited asserts and retains all Copyright and other Intellectual Property Rights in and over the Report and its contents. The Report may not be copied or reproduced, in whole or in part, without the written authorisation from SOCOTEC UK Limited. SOCOTEC UK Limited shall not be liable for any use of the Report for any purpose other than that for which it was originally prepared.

Whilst every effort has been made to ensure the accuracy of the data supplied and any analysis interpretation derived from it, the possibility exists of variations in the ground and groundwater conditions around and between the exploratory positions. No liability can be accepted for any such variations in these conditions. Furthermore, any recommendations are specific to the development as detailed in this Report and no liability will be accepted should they be used for the design of alternative schemes without prior consultant with SOCOTEC UK Limited.



Legend to symbols:

-  Surface water samples collected by SOCOTEC



Title

Sample Location Plan

Project

RoDMA- Royal Docks

Project No

R3053

Figure No

Figure 1

**APPENDIX A**  
**ANALYTICAL LABORATORY RESULTS**

**ROYAL DOCKS MANAGEMENT AUTHORITY LTD**  
**BATHING WATER QUALITY SURVEY**  
**LOCATION: RV 1 (Royal Victoria Dock, West)**

**Date: 3 October 2023**

**Weather: Sun, wind**

**Time: 10:19**

On site Observations	Units	Result	SI 1991, No.1597 or Mandatory Value 76/160/EEC	Former Guideline Value 76/160/EEC	
Water Colour	~	Green / brown	No abnormal change	~	
Oil Film	mg/l	N/A	No visible film	0.3	
Lasting Form/Surfactants	mg/l	N/A	No lasting foam	0.3	
Phenolic Odour/Phenols	mg/l	N/A	No specific odour	<0.005	
Floatables	~	N/A	~	absence	
On site Measurements					
pH	~	N/A	6 to 9	~	
Electrical Conductivity (ACT)	µS/cm, 25°C	N/A	~	~	
Electrical Conductivity (SP)	µS/cm, 25°C	N/A	~	~	
Water Temperature	°C	N/A	~	~	
Ambient Temperature	°C	N/A	~	~	
Transparency (Secchi Depth) m	M	N/A	1*	2	
Dissolved Oxygen	mg/l	N/A	~	~	
Dissolved Oxygen Saturation	%	N/A	~	80 to 120	
Laboratory Analysis					
Total Coliforms	cfu per 100 ml <sup>1</sup>	18	10,000	500	
Directive 2006/7/EC and Bathing Water Regulations 2013					
Water Quality Assessment – LJ365			Excellent	Good	Sufficient
<i>E.Coli</i>	cfu per 100 ml <sup>1</sup>	8	<250	250-500	500
Intestinal <i>Enterococci</i>	cfu per 100 ml <sup>1</sup>	8	<100	100-200	185

<sup>1</sup> Colony forming units (cfu) per 100 ml

### Summary

On this occasion the water complied with the Former Guideline Value and the SI 1991, No.1597 or Mandatory Value 76/160/EEC. Under the Directive 2006/7/EC and Bathing water Regulations 2013, *E.Coli* and Intestinal *Enterococci* were within the threshold for 'Excellent'.

### Conclusion

The water in this location complied with guidance and is SUITABLE for water contact sports and bathing water.

### Notes

We have assumed that maintenance of the dock areas includes the routine removal of litter, leaves and other floating debris. Items marked with an asterisk allow for exceedance of the limits on the basis of exceptional geographical or meteorological conditions.

**ROYAL DOCKS MANAGEMENT AUTHORITY LTD  
BATHING WATER QUALITY SURVEY**

**LOCATION: RV 2 (Royal Victoria Dock, East)**

**Date: 3 October 2023**

**Weather: Sun, wind**

**Time: 10:10**

On site Observations	Units	Result	SI 1991, No.1597 or Mandatory Value 76/160/EEC	Former Guideline Value 76/160/EEC	
Water Colour	~	Green	No abnormal change	~	
Oil Film	mg/l	N/A	No visible film	0.3	
Lasting Form/Surfactants	mg/l	N/A	No lasting foam	0.3	
Phenolic Odour/Phenols	mg/l	N/A	No specific odour	<0.005	
Floatables	~	Vegetation	~	absence	
<b>On site Measurements</b>					
pH	~	N/A	6 to 9	~	
Electrical Conductivity (ACT)	µS/cm, 25°C	N/A	~	~	
Electrical Conductivity (SP)	µS/cm, 25°C	N/A	~	~	
Water Temperature	°C	N/A	~	~	
Ambient Temperature	°C	N/A	~	~	
Transparency (Secchi Depth) m	M	N/A	1*	2	
Dissolved Oxygen	mg/l	N/A	~	~	
Dissolved Oxygen Saturation	%	N/A	~	80 to 120	
<b>Laboratory Analysis</b>					
Total Coliforms	cfu per 100 ml <sup>1</sup>	22	10,000	500	
<b>Directive 2006/7/EC and Bathing Water Regulations 2013</b>					
<b>Water Quality Assessment – LJ366</b>			<b>Excellent</b>	<b>Good</b>	<b>Sufficient</b>
<i>E.Coli</i>	cfu per 100 ml <sup>1</sup>	12	<250	250-500	500
Intestinal <i>Enterococci</i>	cfu per 100 ml <sup>1</sup>	12	<100	100-200	185

<sup>1</sup> Colony forming units (cfu) per 100 ml

### Summary

On this occasion the water complied with the Former Guideline Value and the SI 1991, No.1597 or Mandatory Value 76/160/EEC. Under the Directive 2006/7/EC and Bathing water Regulations 2013, *E.Coli* and Intestinal *Enterococci* were within the threshold for 'Excellent'.

### Conclusion

The water in this location complied with guidance and is SUITABLE for water contact sports and bathing water.

### Notes

We have assumed that maintenance of the dock areas includes the routine removal of litter, leaves and other floating debris. Items marked with an asterisk allow for exceedance of the limits on the basis of exceptional geographical or meteorological conditions

**ROYAL DOCKS MANAGEMENT AUTHORITY LTD**  
**BATHING WATER QUALITY SURVEY**  
**LOCATION: RA 3 (Royal Albert Dock, West)**

**Date: 3 October 2023**

**Weather: Sun, wind**

**Time: 10:04**

On site Observations	Units	Result	SI 1991, No.1597 or Mandatory Value 76/160/EEC	Former Guideline Value 76/160/EEC	
Water Colour	~	Green	No abnormal change	~	
Oil Film	mg/l	N/A	No visible film	0.3	
Lasting Form/Surfactants	mg/l	N/A	No lasting foam	0.3	
Phenolic Odour/Phenols	mg/l	N/A	No specific odour	<0.005	
Floatables	~	N/A	~	absence	
On site Measurements					
pH	~	N/A	6 to 9	~	
Electrical Conductivity (ACT)	µS/cm, 25°C	N/A	~	~	
Electrical Conductivity (SP)	µS/cm, 25°C	N/A	~	~	
Water Temperature	°C	N/A	~	~	
Ambient Temperature	°C	N/A	~	~	
Transparency (Secchi Depth) m	M	N/A	1*	2	
Dissolved Oxygen	mg/l	N/A	~	~	
Dissolved Oxygen Saturation	%	N/A	~	80 to 120	
Laboratory Analysis					
Total Coliforms	cfu per 100 ml <sup>1</sup>	34	10,000	500	
Directive 2006/7/EC and Bathing Water Regulations 2013					
Water Quality Assessment – LJ367			Excellent	Good	Sufficient
<i>E.Coli</i>	cfu per 100 ml <sup>1</sup>	18	<250	250-500	500
Intestinal <i>Enterococci</i>	cfu per 100 ml <sup>1</sup>	19	<100	100-200	185

<sup>1</sup> Colony forming units (cfu) per 100 ml

### Summary

On this occasion the water complied with the Former Guideline Value and the SI 1991, No.1597 or Mandatory Value 76/160/EEC. Under the Directive 2006/7/EC and Bathing water Regulations 2013, *E.Coli* and Intestinal *Enterococci* were within the threshold for 'Excellent'.

### Conclusion

The water in this location complied with guidance and is SUITABLE for water contact sports and bathing water.

### Notes

We have assumed that maintenance of the dock areas includes the routine removal of litter, leaves and other floating debris. Items marked with an asterisk allow for exceedance of the limits on the basis of exceptional geographical or meteorological conditions.

**ROYAL DOCKS MANAGEMENT AUTHORITY LTD**  
**BATHING WATER QUALITY SURVEY**

**LOCATION: RA 5 (Royal Albert Dock, East)**

**Date: 3 October 2023**

**Weather: Sun, wind**

**Time: 09:54**

On site Observations	Units	Result	SI 1991, No.1597 or Mandatory Value 76/160/EEC	Former Guideline Value 76/160/EEC	
Water Colour	~	Green	No abnormal change	~	
Oil Film	mg/l	N/A	No visible film	0.3	
Lasting Form/Surfactants	mg/l	N/A	No lasting foam	0.3	
Phenolic Odour/Phenols	mg/l	N/A	No specific odour	<0.005	
Floatables	~	N/A	~	absence	
<b>On site Measurements</b>					
pH	~	N/A	6 to 9	~	
Electrical Conductivity (ACT)	µS/cm, 25°C	N/A	~	~	
Electrical Conductivity (SP)	µS/cm, 25°C	N/A	~	~	
Water Temperature	°C	N/A	~	~	
Ambient Temperature	°C	N/A	~	~	
Transparency (Secchi Depth) m	M	N/A	1*	2	
Dissolved Oxygen	mg/l	N/A	~	~	
Dissolved Oxygen Saturation	%	N/A	~	80 to 120	
<b>Laboratory Analysis</b>					
Total Coliforms	cfu per 100 ml <sup>1</sup>	180	10,000	500	
<b>Directive 2006/7/EC and Bathing Water Regulations 2013</b>					
<b>Water Quality Assessment – LJ368</b>			<b>Excellent</b>	<b>Good</b>	<b>Sufficient</b>
<i>E.Coli</i>	cfu per 100 ml <sup>1</sup>	53	<250	250-500	500
Intestinal <i>Enterococci</i>	cfu per 100 ml <sup>1</sup>	38	<100	100-200	185

<sup>1</sup> Colony forming units (cfu) per 100 ml

### Summary

On this occasion the water complied with and the SI 1991, No.1597 or Mandatory Value 76/160/EEC. Under the Directive 2006/7/EC and Bathing water Regulations 2013, *E.Coli* and Intestinal *Enterococci* were within the threshold for 'Excellent'.

### Conclusion

The water in this location complied with guidance and is SUITABLE for water contact sports and bathing water.

### Notes

We have assumed that maintenance of the dock areas includes the routine removal of litter, leaves and other floating debris. Items marked with an asterisk allow for exceedance of the limits on the basis of exceptional geographical or meteorological conditions.



**ROYAL DOCKS MANAGEMENT AUTHORITY LTD**  
**BATHING WATER QUALITY SURVEY**  
**LOCATION: KG 7 (King George V Dock, West)**

**Date: 3 October 2023**

**Weather: Sun, wind**

**Time: 09:48**

On site Observations	Units	Result	SI 1991, No.1597 or Mandatory Value 76/160/EEC	Former Guideline Value 76/160/EEC	
Water Colour	~	Blue / green	No abnormal change	~	
Oil Film	mg/l	N/A	No visible film	0.3	
Lasting Form/Surfactants	mg/l	N/A	No lasting foam	0.3	
Phenolic Odour/Phenols	mg/l	N/A	No specific odour	<0.005	
Floatables	~	N/A	~	absence	
On site Measurements					
pH	~	N/A	6 to 9	~	
Electrical Conductivity (ACT)	µS/cm, 25°C	N/A	~	~	
Electrical Conductivity (SP)	µS/cm, 25°C	N/A	~	~	
Water Temperature	°C	N/A	~	~	
Ambient Temperature	°C	N/A	~	~	
Transparency (Secchi Depth) m	M	N/A	1*	2	
Dissolved Oxygen	mg/l	N/A	~	~	
Dissolved Oxygen Saturation	%	N/A	~	80 to 120	
Laboratory Analysis					
Total Coliforms	cfu per 100 ml <sup>1</sup>	230	10,000	500	
Directive 2006/7/EC and Bathing Water Regulations 2013					
Water Quality Assessment – LJ369			Excellent	Good	Sufficient
<i>E.Coli</i>	cfu per 100 ml <sup>1</sup>	47	<250	250-500	500
Intestinal <i>Enterococci</i>	cfu per 100 ml <sup>1</sup>	4	<100	100-200	185

<sup>1</sup> Colony forming units (cfu) per 100 ml

### Summary

On this occasion the water complied with the Former Guideline Value and the SI 1991, No.1597 or Mandatory Value 76/160/EEC. Under the Directive 2006/7/EC and Bathing water Regulations 2013, *E.Coli* and Intestinal *Enterococci* were within the threshold for 'Excellent'.

### Conclusion

The water in this location complied with guidance and is SUITABLE for water contact sports and bathing water.

### Notes

We have assumed that maintenance of the dock areas includes the routine removal of litter, leaves and other floating debris. Items marked with an asterisk allow for exceedance of the limits on the basis of exceptional geographical or meteorological conditions

**ROYAL DOCKS MANAGEMENT AUTHORITY LTD**  
**BATHING WATER QUALITY SURVEY**  
**LOCATION: KG 8 (King George V Dock, East)**

**Date: 3 October 2023**

**Weather: Sun, wind**

**Time: 10:38**

On site Observations	Units	Result	SI 1991, No.1597 or Mandatory Value 76/160/EEC	Former Guideline Value 76/160/EEC	
Water Colour	~	Blue	No abnormal change	~	
Oil Film	mg/l	N/A	No visible film	0.3	
Lasting Form/Surfactants	mg/l	N/A	No lasting foam	0.3	
Phenolic Odour/Phenols	mg/l	N/A	No specific odour	<0.005	
Floatables	~	Scum	~	absence	
<b>On site Measurements</b>					
pH	~	N/A	6 to 9	~	
Electrical Conductivity (ACT)	µS/cm, 25°C	N/A	~	~	
Electrical Conductivity (SP)	µS/cm, 25°C	N/A	~	~	
Water Temperature	°C	N/A	~	~	
Ambient Temperature	°C	N/A	~	~	
Transparency (Secchi Depth) m	M	N/A	1*	2	
Dissolved Oxygen	mg/l	N/A	~	~	
Dissolved Oxygen Saturation	%	N/A	~	80 to 120	
<b>Laboratory Analysis</b>					
Total Coliforms	cfu per 100 ml <sup>1</sup>	170	10,000	500	
<b>Directive 2006/7/EC and Bathing Water Regulations 2013</b>					
<b>Water Quality Assessment – W19 – LJ370</b>			<b>Excellent</b>	<b>Good</b>	<b>Sufficient</b>
<i>E.Coli</i>	cfu per 100 ml <sup>1</sup>	71	<250	250-500	500
Intestinal <i>Enterococci</i>	cfu per 100 ml <sup>1</sup>	7	<100	100-200	185

<sup>1</sup> Colony forming units (cfu) per 100 ml

### Summary

On this occasion the water complied with the Former Guideline Value and the SI 1991, No.1597 or Mandatory Value 76/160/EEC. Under the Directive 2006/7/EC and Bathing water Regulations 2013, *E.Coli* and Intestinal *Enterococci* were within the threshold for 'Excellent'.

### Conclusion

The water in this location complied with guidance and is SUITABLE for water contact sports and bathing water.

### Notes

We have assumed that maintenance of the dock areas includes the routine removal of litter, leaves and other floating debris. Items marked with an asterisk allow for exceedance of the limits on the basis of exceptional geographical or meteorological conditions.