



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402834

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 11 - Piles Creek

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 9:30
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	0.2 mS/cm
Dissolved Oxygen	In Situ Testing	8.5 mg/L
pH	In Situ Testing	6.1 pH Units
Salinity	In Situ Testing	0.1 PSS
Temperature	In Situ Testing	11.1 °C
Turbidity	In Situ Testing	11.1 NTU
Wind Speed	In Situ Testing	1 Beaufort
Ammonia Nitrogen as N	CA13201	0.10 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	1 µg/L
Enterococci	CA22064	164 CFU/100mL
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	0.87 mg/L
Ortho-Phosphate (as P)	CA13200	0.03 mg/L
Thermotolerant Coliforms	CA22067	73 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	0.2 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	1.1 mg/L
Total Phosphorus	CA13200	0.04 mg/L
Total Suspended Solids (@ 105°C)	CA12119	2 mg/L

**Comments**

402834 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repr  
16/06/2009



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
Chemist



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402835

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 10 - Booker Bay

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 12:00
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	48.3 mS/cm
Dissolved Oxygen	In Situ Testing	6.4 mg/L
pH	In Situ Testing	7.9 pH Units
Salinity	In Situ Testing	31.1 PSS
Temperature	In Situ Testing	16.9 °C
Turbidity	In Situ Testing	0.5 NTU
Wind Speed	In Situ Testing	2 Beaufort
Ammonia Nitrogen as N	CA13201	<0.01 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	1 µg/L
Enterococci	CA22064	33 CFU/100mL
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	<0.01 mg/L
Ortho-Phosphate (as P)	CA13200	<0.01 mg/L
Thermotolerant Coliforms	CA22067	8 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	<0.1 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	<0.1 mg/L
Total Phosphorus	CA13200	<0.01 mg/L
Total Suspended Solids (@ 105°C)	CA12119	4 mg/L

**Comments**

402835 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repr  
16/06/2009



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
Chemist



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402836

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 09 - Cockle Creek

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 11:45
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	46.4 mS/cm
Dissolved Oxygen	In Situ Testing	6.9 mg/L
pH	In Situ Testing	7.9 pH Units
Salinity	In Situ Testing	29.7 PSS
Temperature	In Situ Testing	16.0 °C
Turbidity	In Situ Testing	0.9 NTU
Wind Speed	In Situ Testing	2 Beaufort
Ammonia Nitrogen as N	CA13201	0.01 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	1 µg/L
Enterococci	CA22064	113 CFU/100mL
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	<0.01 mg/L
Ortho-Phosphate (as P)	CA13200	<0.01 mg/L
Thermotolerant Coliforms	CA22067	165 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	<0.1 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	<0.1 mg/L
Total Phosphorus	CA13200	<0.01 mg/L
Total Suspended Solids (@ 105°C)	CA12119	3 mg/L

**Comments**

402836 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repr  
16/06/2009



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
Chemist



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402837

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 03 - Cockrone Lagoon

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 11:30
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	39.9 mS/cm
Dissolved Oxygen	In Situ Testing	5.0 mg/L
pH	In Situ Testing	7.2 pH Units
Salinity	In Situ Testing	25.0 PSS
Temperature	In Situ Testing	14.3 °C
Turbidity	In Situ Testing	28.3 NTU
Wind Speed	In Situ Testing	2 Beaufort
Ammonia Nitrogen as N	CA13201	0.16 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	2 µg/L
Enterococci	CA22064	509 CFU/100mL
Entrance Condition		Closed
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	<0.01 mg/L
Ortho-Phosphate (as P)	CA13200	0.02 mg/L
Thermotolerant Coliforms	CA22067	1800 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	2.3 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	2.3 mg/L
Total Phosphorus	CA13200	0.24 mg/L
Total Suspended Solids (@ 105°C)	CA12119	24 mg/L

#### Comments

402837 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repc  
 16/06/2009



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
 Chemist



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402838

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 05 - Kincumber Creek

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 11:15
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	45.1 mS/cm
Dissolved Oxygen	In Situ Testing	6.8 mg/L
pH	In Situ Testing	7.9 pH Units
Salinity	In Situ Testing	28.7 PSS
Temperature	In Situ Testing	15.0 °C
Turbidity	In Situ Testing	5.6 NTU
Wind Speed	In Situ Testing	2 Beaufort
Ammonia Nitrogen as N	CA13201	0.01 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	2 µg/L
Enterococci	CA22064	20 CFU/100mL
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	<0.01 mg/L
Ortho-Phosphate (as P)	CA13200	<0.01 mg/L
Thermotolerant Coliforms	CA22067	11 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	0.1 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	0.1 mg/L
Total Phosphorus	CA13200	<0.01 mg/L
Total Suspended Solids (@ 105°C)	CA12119	6 mg/L

**Comments**

402838 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repr  
16/06/2009



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
Chemist



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402839

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 04 - Avoca Lagoon

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 11:00
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	36.8 mS/cm
Dissolved Oxygen	In Situ Testing	6.9 mg/L
pH	In Situ Testing	7.8 pH Units
Salinity	In Situ Testing	22.9 PSS
Temperature	In Situ Testing	14.5 °C
Turbidity	In Situ Testing	18.2 NTU
Wind Speed	In Situ Testing	2 Beaufort
Ammonia Nitrogen as N	CA13201	0.11 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	8 µg/L
Enterococci	CA22064	10 CFU/100mL
Entrance Condition		Closed
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	0.02 mg/L
Ortho-Phosphate (as P)	CA13200	<0.01 mg/L
Thermotolerant Coliforms	CA22067	10 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	0.5 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	0.5 mg/L
Total Phosphorus	CA13200	0.03 mg/L
Total Suspended Solids (@ 105°C)	CA12119	24 mg/L

#### Comments

402839 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repc  
 16/06/2009



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
 Chemist



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402840

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 02 - Terrigal Lagoon

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 10:45
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	13.3 mS/cm
Dissolved Oxygen	In Situ Testing	7.0 mg/L
pH	In Situ Testing	7.8 pH Units
Salinity	In Situ Testing	7.6 PSS
Temperature	In Situ Testing	14.6 °C
Turbidity	In Situ Testing	7.3 NTU
Wind Speed	In Situ Testing	2 Beaufort
Ammonia Nitrogen as N	CA13201	<0.01 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	6 µg/L
Enterococci	CA22064	155 CFU/100mL
Entrance Condition		Closed
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	0.10 mg/L
Ortho-Phosphate (as P)	CA13200	<0.02 mg/L
Thermotolerant Coliforms	CA22067	190 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	0.4 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	0.5 mg/L
Total Phosphorus	CA13200	<0.02 mg/L
Total Suspended Solids (@ 105°C)	CA12119	4 mg/L

#### Comments

402840 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repc  
 16/06/2009

Limit of reporting raised for Phosphate due to sample matrix interferences.



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
 Chemist



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402841

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 01 - Wamberal Lagoon

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 10:30
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	12.7 mS/cm
Dissolved Oxygen	In Situ Testing	7.7 mg/L
pH	In Situ Testing	8.4 pH Units
Salinity	In Situ Testing	7.2 PSS
Temperature	In Situ Testing	14.9 °C
Turbidity	In Situ Testing	2.3 NTU
Wind Speed	In Situ Testing	1 Beaufort
Ammonia Nitrogen as N	CA13201	<0.01 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	4 µg/L
Enterococci	CA22064	28 CFU/100mL
Entrance Condition		Closed
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	<0.01 mg/L
Ortho-Phosphate (as P)	CA13200	<0.01 mg/L
Thermotolerant Coliforms	CA22067	38 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	0.5 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	0.5 mg/L
Total Phosphorus	CA13200	<0.01 mg/L
Total Suspended Solids (@ 105°C)	CA12119	2 mg/L

#### Comments

402841 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repc  
16/06/2009



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
Chemist





**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402842

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 06 - Erina Creek

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 9:55
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	32.3 mS/cm
Dissolved Oxygen	In Situ Testing	6.3 mg/L
pH	In Situ Testing	7.0 pH Units
Salinity	In Situ Testing	19.9 PSS
Temperature	In Situ Testing	14.3 °C
Turbidity	In Situ Testing	3.8 NTU
Wind Speed	In Situ Testing	1 Beaufort
Ammonia Nitrogen as N	CA13201	0.17 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	2 µg/L
Enterococci	CA22064	80 CFU/100mL
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	0.07 mg/L
Ortho-Phosphate (as P)	CA13200	0.02 mg/L
Thermotolerant Coliforms	CA22067	177 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	0.3 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	0.4 mg/L
Total Phosphorus	CA13200	0.02 mg/L
Total Suspended Solids (@ 105°C)	CA12119	5 mg/L

**Comments**

402842 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repr  
16/06/2009



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
Chemist



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402843

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 07 - Narara Creek

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 9:40
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	26.1 mS/cm
Dissolved Oxygen	In Situ Testing	6.6 mg/L
pH	In Situ Testing	6.3 pH Units
Salinity	In Situ Testing	15.9 PSS
Temperature	In Situ Testing	12.5 °C
Turbidity	In Situ Testing	6.4 NTU
Wind Speed	In Situ Testing	1 Beaufort
Ammonia Nitrogen as N	CA13201	0.25 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	2 µg/L
Enterococci	CA22064	191 CFU/100mL
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	0.11 mg/L
Ortho-Phosphate (as P)	CA13200	<0.03 mg/L
Thermotolerant Coliforms	CA22067	200 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	0.4 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	0.5 mg/L
Total Phosphorus	CA13200	<0.03 mg/L
Total Suspended Solids (@ 105°C)	CA12119	4 mg/L

#### Comments

402843 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repr  
 16/06/2009  
 Limit of reporting raised for Phosphate due to sample matrix interferences.



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
 Chemist



**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230

**Nalco Representative:** David Supierz

**Laboratory Report:**

402844

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

17/Jun/2009

### WATER ANALYSIS

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 08 - Woy Woy Creek

<u>Analyte</u>	<u>Test Method</u>	<u>Result</u>
Date and Time of Sampling	In Situ Testing	09-Jun-2009 12:20
Depth	In Situ Testing	0.1 m
Conductivity	In Situ Testing	45.1 mS/cm
Dissolved Oxygen	In Situ Testing	7.3 mg/L
pH	In Situ Testing	7.9 pH Units
Salinity	In Situ Testing	28.8 PSS
Temperature	In Situ Testing	16.2 °C
Turbidity	In Situ Testing	0.3 NTU
Wind Speed	In Situ Testing	2 Beaufort
Ammonia Nitrogen as N	CA13201	0.01 mg/L
BOD	EXTERNAL	<2 mg/L
Chlorophyll a	CA13428	1 µg/L
Enterococci	CA22064	16 CFU/100mL
Nitrite + Nitrate as N (NO <sub>x</sub> )	CA13202	<0.01 mg/L
Ortho-Phosphate (as P)	CA13200	<0.01 mg/L
Thermotolerant Coliforms	CA22067	11 CFU/100mL
Total Kjeldahl Nitrogen	CA13203	<0.1 mg/L
Total Nitrogen as N (TKN + NO <sub>x</sub> )	CA11130	<0.1 mg/L
Total Phosphorus	CA13200	<0.01 mg/L
Total Suspended Solids (@ 105°C)	CA12119	3 mg/L

#### Comments

402844 External BOD Analysis: NATA Registration Number: 825. Report number: ES0908384. Repr  
16/06/2009



**Date:** 18/Jun/2009

**Authorised by:**

Lynette M Emmett  
Chemist

**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230**Nalco Representative:** David Supierz**Laboratory Report:**

402845

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

12/Jun/2009

**WATER ANALYSIS**

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 13 - Field Blank**Analyte****Test Method****Result**

Enterococci

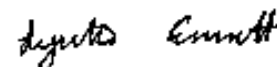
CA22064

&lt;2 CFU/100mL

Thermotolerant Coliforms

CA22067

&lt;2 CFU/100mL

**Comments****Date:** 18/Jun/2009**Authorised by:**Lynette M Emmett  
Chemist

**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230**Nalco Representative:** David Supierz**Laboratory Report:**

402846

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

12/Jun/2009

**WATER ANALYSIS**

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 12 - Trip Blank**Analyte****Test Method****Result**

Enterococci

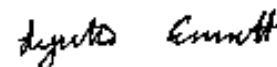
CA22064

&lt;2 CFU/100mL

Thermotolerant Coliforms

CA22067

&lt;2 CFU/100mL

**Comments****Date:** 18/Jun/2009**Authorised by:**Lynette M Emmett  
Chemist

**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

**Request Number:** EF800230**Nalco Representative:** David Supierz**Laboratory Report:**

402847

**Date Sampled:**

09/Jun/2009

**Date Received:**

09/Jun/2009

**Date Completed:**

10/Jun/2009

**WATER ANALYSIS**

The sample was analysed as received, the results being as follows:

**Sample Taken From:** 14 - Information**Analyte****Test Method****Result**

High Tide Level

1.28 m

High Tide Time

09:15

Rainfall For Preceding 48 Hours

1.6 mm

Rainfall For Preceding 7 Days

18.4 mm

**Comments****Date:** 18/Jun/2009**Authorised by:**Lynette M Emmett  
Chemist