



GOSFORD CITY COUNCIL

NSW, AUSTRALIA

Request Number: EF800204

Nalco Representative: David Supierz

Laboratory Report:

401462

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/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 | 08-May-2009 7:50 |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 0.3 mS/cm |
| Dissolved Oxygen | In Situ Testing | 8.7 mg/L |
| pH | In Situ Testing | 7.3 pH Units |
| Salinity | In Situ Testing | 0.1 PSS |
| Temperature | In Situ Testing | 12.8 °C |
| Turbidity | In Situ Testing | 31.9 NTU |
| Wind Speed | In Situ Testing | 0 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.33 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 3 µg/L |
| Enterococci | CA22064 | 3300 CFU/100mL |
| Nitrite + Nitrate as N (NO _x) | CA13202 | 0.41 mg/L |
| Ortho-Phosphate (as P) | CA13200 | 0.02 mg/L |
| Thermotolerant Coliforms | CA22067 | 905 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.7 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 1.1 mg/L |
| Total Phosphorus | CA13200 | 0.11 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 23 mg/L |

Comments

Date: 22/May/2009

Authorised by:



Lynette M Emmett
Chemist



GOSFORD CITY COUNCIL

NSW, AUSTRALIA

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Laboratory Report:

401463

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/2009

WATER ANALYSIS

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

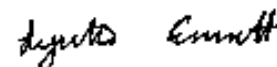
Sample Taken From: 10 - Booker Bay

| <u>Analyte</u> | <u>Test Method</u> | <u>Result</u> |
|--|--------------------|-------------------|
| Date and Time of Sampling | In Situ Testing | 08-May-2009 10:50 |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 50.0 mS/cm |
| Dissolved Oxygen | In Situ Testing | 7.7 mg/L |
| pH | In Situ Testing | 8.0 pH Units |
| Salinity | In Situ Testing | 32.5 PSS |
| Temperature | In Situ Testing | 19.8 °C |
| Turbidity | In Situ Testing | <0.1 NTU |
| Wind Speed | In Situ Testing | 1 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.03 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 1 µg/L |
| Enterococci | CA22064 | 7 CFU/100mL |
| Nitrite + Nitrate as N (NO _x) | CA13202 | 0.01 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.01 mg/L |
| Thermotolerant Coliforms | CA22067 | <2 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.2 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 0.2 mg/L |
| Total Phosphorus | CA13200 | <0.01 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 6 mg/L |

Comments

Date: 22/May/2009

Authorised by:



Lynette M Emmett
Chemist



GOSFORD CITY COUNCIL

NSW, AUSTRALIA

Request Number: EF800204

Nalco Representative: David Supierz

Laboratory Report:

401464

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/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 | 08-May-2009 10:3: |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 48.6 mS/cm |
| Dissolved Oxygen | In Situ Testing | 6.9 mg/L |
| pH | In Situ Testing | 7.9 pH Units |
| Salinity | In Situ Testing | 31.4 PSS |
| Temperature | In Situ Testing | 19.4 °C |
| Turbidity | In Situ Testing | <0.1 NTU |
| Wind Speed | In Situ Testing | 0 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.03 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 1 µg/L |
| Enterococci | CA22064 | 15 CFU/100mL |
| Nitrite + Nitrate as N (NO _x) | CA13202 | <0.01 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.01 mg/L |
| Thermotolerant Coliforms | CA22067 | 54 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | <0.1 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | <0.1 mg/L |
| Total Phosphorus | CA13200 | <0.01 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 6 mg/L |

Comments

Date: 22/May/2009

Authorised by:



Lynette M Emmett
Chemist



GOSFORD CITY COUNCIL

NSW, AUSTRALIA

Request Number: EF800204

Nalco Representative: David Supierz

Laboratory Report:

401465

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/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 | 08-May-2009 10:0: |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 18.0 mS/cm |
| Dissolved Oxygen | In Situ Testing | 7.5 mg/L |
| pH | In Situ Testing | 8.2 pH Units |
| Salinity | In Situ Testing | 10.5 PSS |
| Temperature | In Situ Testing | 18.2 °C |
| Turbidity | In Situ Testing | 2.9 NTU |
| Wind Speed | In Situ Testing | 1 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.05 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | <1 µg/L |
| Enterococci | CA22064 | 11 CFU/100mL |
| Entrance Condition | | Closed |
| Nitrite + Nitrate as N (NO _x) | CA13202 | <0.01 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.01 mg/L |
| Thermotolerant Coliforms | CA22067 | 11 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.7 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 0.7 mg/L |
| Total Phosphorus | CA13200 | <0.01 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 2 mg/L |

Comments

Date: 22/May/2009

Authorised by:



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NSW, AUSTRALIA

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Nalco Representative: David Supierz

Laboratory Report:

401466

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/2009

WATER ANALYSIS

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

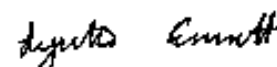
Sample Taken From: 05 - Kincumber Creek

| <u>Analyte</u> | <u>Test Method</u> | <u>Result</u> |
|--|--------------------|------------------|
| Date and Time of Sampling | In Situ Testing | 08-May-2009 9:40 |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 47.5 mS/cm |
| Dissolved Oxygen | In Situ Testing | 5.8 mg/L |
| pH | In Situ Testing | 7.6 pH Units |
| Salinity | In Situ Testing | 30.6 PSS |
| Temperature | In Situ Testing | 17.6 °C |
| Turbidity | In Situ Testing | 12.8 NTU |
| Wind Speed | In Situ Testing | 1 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.05 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 5 µg/L |
| Enterococci | CA22064 | 20 CFU/100mL |
| Nitrite + Nitrate as N (NO _x) | CA13202 | <0.01 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.01 mg/L |
| Thermotolerant Coliforms | CA22067 | 227 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.3 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 0.3 mg/L |
| Total Phosphorus | CA13200 | <0.01 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 17 mg/L |

Comments

Date: 22/May/2009

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GOSFORD CITY COUNCIL

NSW, AUSTRALIA

Request Number: EF800204

Nalco Representative: David Supierz

Laboratory Report:

401467

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/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 | 08-May-2009 9:25 |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 16.2 mS/cm |
| Dissolved Oxygen | In Situ Testing | 7.9 mg/L |
| pH | In Situ Testing | 8.7 pH Units |
| Salinity | In Situ Testing | 9.4 PSS |
| Temperature | In Situ Testing | 17.8 °C |
| Turbidity | In Situ Testing | 2.1 NTU |
| Wind Speed | In Situ Testing | 1 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.04 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 2 µg/L |
| Enterococci | CA22064 | <2 CFU/100mL |
| Entrance Condition | | Closed |
| Nitrite + Nitrate as N (NO _x) | CA13202 | <0.01 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.01 mg/L |
| Thermotolerant Coliforms | CA22067 | 11 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.7 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 0.7 mg/L |
| Total Phosphorus | CA13200 | <0.01 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 2 mg/L |

Comments

Date: 22/May/2009

Authorised by:



Lynette M Emmett
Chemist



GOSFORD CITY COUNCIL

NSW, AUSTRALIA

Request Number: EF800204

Nalco Representative: David Supierz

Laboratory Report:

401468

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/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 | 08-May-2009 9:10 |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 29.0 mS/cm |
| Dissolved Oxygen | In Situ Testing | 6.5 mg/L |
| pH | In Situ Testing | 7.6 pH Units |
| Salinity | In Situ Testing | 17.7 PSS |
| Temperature | In Situ Testing | 18.4 °C |
| Turbidity | In Situ Testing | 5.6 NTU |
| Wind Speed | In Situ Testing | 1 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.05 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 1 µg/L |
| Enterococci | CA22064 | 11 CFU/100mL |
| Entrance Condition | | Closed |
| Nitrite + Nitrate as N (NO _x) | CA13202 | 0.02 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.01 mg/L |
| Thermotolerant Coliforms | CA22067 | 118 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.3 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 0.3 mg/L |
| Total Phosphorus | CA13200 | <0.01 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 6 mg/L |

Comments

Date: 22/May/2009

Authorised by:



Lynette M Emmett
Chemist



GOSFORD CITY COUNCIL

NSW, AUSTRALIA

Request Number: EF800204

Nalco Representative: David Supierz

Laboratory Report:

401469

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/2009

WATER ANALYSIS

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

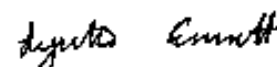
Sample Taken From: 01 - Wamberal Lagoon

| <u>Analyte</u> | <u>Test Method</u> | <u>Result</u> |
|--|--------------------|------------------|
| Date and Time of Sampling | In Situ Testing | 08-May-2009 8:55 |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 15.6 mS/cm |
| Dissolved Oxygen | In Situ Testing | 7.4 mg/L |
| pH | In Situ Testing | 8.8 pH Units |
| Salinity | In Situ Testing | 9.1 PSS |
| Temperature | In Situ Testing | 18.3 °C |
| Turbidity | In Situ Testing | 1.4 NTU |
| Wind Speed | In Situ Testing | 0 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.03 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 1 µg/L |
| Enterococci | CA22064 | 10 CFU/100mL |
| Entrance Condition | | Closed |
| Nitrite + Nitrate as N (NO _x) | CA13202 | <0.01 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.01 mg/L |
| Thermotolerant Coliforms | CA22067 | 11 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.6 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 0.6 mg/L |
| Total Phosphorus | CA13200 | <0.01 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 2 mg/L |

Comments

Date: 22/May/2009

Authorised by:



Lynette M Emmett
Chemist



GOSFORD CITY COUNCIL

NSW, AUSTRALIA

Request Number: EF800204

Nalco Representative: David Supierz

Laboratory Report:

401470

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/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 | 08-May-2009 8:25 |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 47.1 mS/cm |
| Dissolved Oxygen | In Situ Testing | 5.8 mg/L |
| pH | In Situ Testing | 7.7 pH Units |
| Salinity | In Situ Testing | 30.3 PSS |
| Temperature | In Situ Testing | 18.2 °C |
| Turbidity | In Situ Testing | 1.4 NTU |
| Wind Speed | In Situ Testing | 1 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.05 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 2 µg/L |
| Enterococci | CA22064 | 5 CFU/100mL |
| Nitrite + Nitrate as N (NO _x) | CA13202 | <0.01 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.01 mg/L |
| Thermotolerant Coliforms | CA22067 | 8 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.2 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 0.2 mg/L |
| Total Phosphorus | CA13200 | <0.01 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 4 mg/L |

Comments

Date: 22/May/2009

Authorised by:



Lynette M Emmett
Chemist



GOSFORD CITY COUNCIL

NSW, AUSTRALIA

Request Number: EF800204

Nalco Representative: David Supierz

Laboratory Report:

401471

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/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 | 08-May-2009 8:10 |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 42.7 mS/cm |
| Dissolved Oxygen | In Situ Testing | 6.0 mg/L |
| pH | In Situ Testing | 6.9 pH Units |
| Salinity | In Situ Testing | 27.1 PSS |
| Temperature | In Situ Testing | 18.1 °C |
| Turbidity | In Situ Testing | 77.1 NTU |
| Wind Speed | In Situ Testing | 0 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.21 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 7 µg/L |
| Enterococci | CA22064 | 70 CFU/100mL |
| Nitrite + Nitrate as N (NO _x) | CA13202 | 0.03 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.02 mg/L |
| Thermotolerant Coliforms | CA22067 | 49 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.4 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 0.4 mg/L |
| Total Phosphorus | CA13200 | <0.02 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 5 mg/L |

Comments

401471 Limit of reporting raised for Phosphate due to sample matrix interference.



Date: 22/May/2009

Authorised by:

Lynette M Emmett
Chemist



GOSFORD CITY COUNCIL

NSW, AUSTRALIA

Request Number: EF800204

Nalco Representative: David Supierz

Laboratory Report:

401472

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

20/May/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 | 08-May-2009 11:10 |
| Depth | In Situ Testing | 0.1 m |
| Conductivity | In Situ Testing | 48.0 mS/cm |
| Dissolved Oxygen | In Situ Testing | 7.2 mg/L |
| pH | In Situ Testing | 7.9 pH Units |
| Salinity | In Situ Testing | 30.9 PSS |
| Temperature | In Situ Testing | 18.4 °C |
| Turbidity | In Situ Testing | 0.5 NTU |
| Wind Speed | In Situ Testing | 1 Beaufort |
| Ammonia Nitrogen as N | CA13201 | 0.04 mg/L |
| BOD (5-Day) | CA11048 | <2 mg/L |
| Chlorophyll a | CA13428 | 1 µg/L |
| Enterococci | CA22064 | 10 CFU/100mL |
| Nitrite + Nitrate as N (NO _x) | CA13202 | <0.01 mg/L |
| Ortho-Phosphate (as P) | CA13200 | <0.01 mg/L |
| Thermotolerant Coliforms | CA22067 | 21 CFU/100mL |
| Total Kjeldahl Nitrogen | CA13203 | 0.1 mg/L |
| Total Nitrogen as N (TKN + NO _x) | CA11130 | 0.1 mg/L |
| Total Phosphorus | CA13200 | <0.01 mg/L |
| Total Suspended Solids (@ 105°C) | CA12119 | 5 mg/L |

Comments

Date: 22/May/2009

Authorised by:



Lynette M Emmett
Chemist

**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

Request Number: EF800204**Nalco Representative:** David Supierz**Laboratory Report:**

401473

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

12/May/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

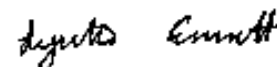
CA22064

<2 CFU/100mL

Thermotolerant Coliforms

CA22067

<2 CFU/100mL

Comments**Date:** 22/May/2009**Authorised by:**Lynette M Emmett
Chemist

**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

Request Number: EF800204**Nalco Representative:** David Supierz**Laboratory Report:**

401474

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

12/May/2009

WATER ANALYSIS

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

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

Enterococci

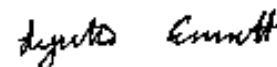
CA22064

<2 CFU/100mL

Thermotolerant Coliforms

CA22067

<2 CFU/100mL

Comments**Date:** 22/May/2009**Authorised by:**Lynette M Emmett
Chemist

**GOSFORD CITY COUNCIL**

NSW, AUSTRALIA

Request Number: EF800204**Nalco Representative:** David Supierz**Laboratory Report:**

401475

Date Sampled:

08/May/2009

Date Received:

08/May/2009

Date Completed:

08/May/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

1.43 m

High Tide Time

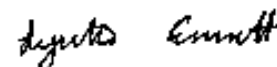
07:30

Rainfall For Preceding 48 Hours

0.2 mm

Rainfall For Preceding 7 Days

16.4 mm

Comments**Date:** 22/May/2009**Authorised by:**Lynette M Emmett
Chemist