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DEPARTMENT OF
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Record 1979/31



MISCELLANEOUS CHEMICAL, PETROGRAPHIC AND
MINERAGRAPHIC INVESTIGATIONS CARRIED OUT IN
THE GEOCHEMICAL LABORATORY

JANUARY-DECEMBER 1978

Compiled

by

J. FITZSIMMONS

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The miscellaneous chemical, petrographic, and mineragraphic investigations carried out in the geological laboratory, Bureau of Mineral Resources, during 1978 have been collected together and are presented in this Record as a numbered series of short reports.

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Laboratory Report No. 11

Zinc Content of Molonglo River Water

by

J. Fitzsimmons

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling ... 12. 1.78

Date of testing ... 2. 2.78

| Sampling points | Sp. Cond. (umho/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-----------------|------------------------|----|-------------------------|---------------------|------|
|-----------------|------------------------|----|-------------------------|---------------------|------|

Molonglo River at

| | | | | | |
|-------------------------------|-----|-----|------|------|---------|
| Burbong Weir (D2) (410705) | 642 | 8.5 | 0.03 | 0.13 | 0.004 M |
|-------------------------------|-----|-----|------|------|---------|

| | | | | | |
|----------------------|-----|-----|----|------|--|
| Honeysuckle Crk (F2) | 320 | 8.6 | ND | 0.03 | |
|----------------------|-----|-----|----|------|--|

Lake Burley Griffin at

| | | | | | |
|--------------------|-----|-----|------|------|----------|
| Scrivener Dam (H4) | 265 | 8.2 | 0.01 | 0.06 | 55.855 M |
|--------------------|-----|-----|------|------|----------|

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. Fitzsimmons

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling ... 25. 1. 78

Date of testing ... 2. 2. 78

| Sampling points | Sp. Cond. (umho/cm) | pH | Zn (ppm) 9dissolved) | Zn (ppm) Total) | Flow |
|--|------------------------|-----|-------------------------|--------------------|-----------|
| Molonglo River at Burbong Weir (D2) (410705) | 695 | 8.1 | 0.09 | 0.24 | 0.00 M |
| Honeysuckel Crk (F2) | 270 | 7.3 | 0.03 | 0.05 | |
| Lake Burley Griffin at Scrivener Dam (H4) | 260 | 8.7 | ND | ND | 555.975 M |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 33

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. Fitzsimmons

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | | |
|------------------|---|---------------|
| Date of sampling | - | 3.1. 78 |
| Sp. Cond. (20°C) | - | 5,200 umho/cm |
| pH | - | 8.9 |
| T.D.S. (180°C) | - | 3320 ppm |

Laboratory Report No. 14

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. Fitzsimmons

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | |
|------------------|-----------------|
| Date of sampling | - 2.2.78 |
| Date of testing | - 2.2.78 |
| Sp. Cond. (24°C) | - 5,150 umho/cm |
| pH | - 9.0 |
| T.D.S. (180°C) | - 3,100 ppm |

Laboratory Report No. 5

Zinc Content of Molonglo River Water

by

J. Fitzsimmons & T. Slezak

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling ... 8. 2. 78

Date of testing ... 10. 2. 78

| Sampling points | Sp. Cond. | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|-----------|-----|-------------------------|---------------------|----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 670 | 7.2 | 22.46 | 21.92 | 0.072 m |
| Honeysuckle Crk (F2) | 470 | 7.5 | 0.10 | 0.25 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 275 | 8.0 | ND | 0.01 | 555.99 m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. Fitzsimmons & T. Slezak

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Friffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling ... 14. 2. 78

Date of testing ... 15. 2. 78

| Sampling points | Sp. Cond. (umho/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|------------------------|------------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) | 650 | 7.3 | 16.06 | 16.18 | 0.042 m |
| Honeysuckle Crk (F2) | 378 | 7.7 | 0.08 | 0.3 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 275 | 8.4 | ND | 0.02 | 577.980 m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 7

Zinc Content of Molonglo River Water

by

J. Fitzsimmons & T. Slezak

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling 23/2/78

Date of testing 23/2/78

| Sampling points | Sp. Cond. (umho/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|------------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 715 | 7.6 | 9.02 | 8.92 | 0.00 m |
| Honeysuckle Crk (F2) | 460 | 7.4 | 0.02 | 0.05 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 282 | 8.3 | ND | ND | 555.954 m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 8

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. FITZSIMMONS

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | | |
|------------------|---|-------------|
| Date of sampling | - | 1/3/78 |
| Date of testing | - | 1/3/78 |
| Sp. Cond. (25°C) | - | 5,700 uS/cm |
| pH | - | 8.9 |
| T.D.S. (180°C) | - | 3830 ppm |

Laboratory Report No. 9

Zinc Content of Molonglo River Water

by

J. FITZSIMMONS & T. SLEZAK

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling 8/3/78

Date of testing 8/3/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|----------|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | ..750..... | 7.7..... | 2.48..... | 3.13..... | 0.000M.. |
| Honeysuckle Crk (F2) | ..410..... | 7.7..... | 0.02..... | 0.02..... | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | ..298..... | 8.3..... | ND..... | 0.01..... | 555.915M. |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 10

Zinc Content of Molonglo River Water

by

J. Fitzsimmons

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples are listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling ..

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|--|----------------------|-----|-------------------------|---------------------|----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 71 | 6.7 | 0.05 | 0.55 | 1.028 M |
| Honeysuckle Crk (F2) | 80 | 6.9 | 0.03 | 0.41 | |
| Lake Burley Griffin at Scrivener Dam (H4) | 260 | 7.9 | ND | 0.05 | 555.926M |

Rising State sampling -

Burbong Weir (D2)

Date of Sampling 21.3.78

Date of Testing 23.3.78

Sp. cond.

| uS/cm | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------|-----|-------------------------|---------------------|--------|
| 50 | 6.7 | 0.09 | 1.04 | 2.84 M |
| 80 | 6.8 | 0.23 | 4.24 | 3.07 M |
| 64 | 6.6 | 0.09 | 0.83 | 3.27 M |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. Fitzsimmons

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 6.4.78

Date of testing 7.4.78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 155 | 8.7 | 0.26 | 0.63 | 0.35 M |
| Honeysuckle Crk (F2) | 200 | 7.6 | 0.11 | 0.56 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 180 | 7.4 | 0.01 | 0.07 | 555.934 M |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 12

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. Fitzsimmons

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | | |
|------------------|---|-------------|
| Date of sampling | - | 3/4/78 |
| Date of testing | - | 12/4/78 |
| Sp. Cond. (23°C) | - | 4,500 uS/cm |
| pH | - | 8.90 |
| T.D.S. (180°C) | - | 3150 ppm |

Zinc Content of Molonglo River Water

by

J. Fitzsimmons

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 17.4.78

Date of testing 18.4.78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 165 | 7.3 | 0.32 | 0.53 | 0.20 M |
| Honeysuckle Crk (F2) | 215 | 7.3 | 0.17 | 0.34 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 170 | 7.4 | 0.02 | 0.05 | 555.928 M |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 14

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. Fitzsimmons

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | |
|------------------|---------------|
| Date of sampling | - 1.5.78 |
| Date of testing | - 2.5.78 |
| Sp. Cond. (23°C) | - 4,820 uS/cm |
| pH | - 8.9 |
| T.D.S. (180°C) | - 3417 ppm |

Zinc Content of Molonglo River Water

by

J. Fitzsimmons

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 3.5.78

Date of testing 11.5.78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 175 | 7.7 | 0.30 | 0.50 | 0.128 M |
| Honeysuckle Crk (F2) | 275 | 7.0 | 0.10 | 0.40 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 150 | 5.4 | 0.02 | 0.25 | 555.930 M |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. Fitzsimmons

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling 18/5/78
Date of testing 24/5/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 244 | 7.5 | 0.35 | 0.41 | 0.124 M |
| Honeysuckle Crk (P2) | 308 | 7.3 | 0.14 | 0.18 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 164 | 7.5 | 0.02 | 0.05 | 555.930 M |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 17

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. FITZSIMMONS

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | | |
|------------------|---|-------------|
| Date of sampling | - | 1.6.78 |
| Date of testing | - | 3.6.78 |
| Sp. Cond. (21°C) | - | 4,600 uS/cm |
| pH | - | 8.6 |
| T.D.S. (180°C) | - | 3,068 ppm |

Zinc Content of Molonglo River Water

by

J. FITZSIMMONS

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 1/6/78

Date of testing .. 3/6/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 130 | 7.5 | 0.24 | 0.38 | 0.658 m |
| Honeysuckle Crk (F2) | 150 | 7.5 | 0.18 | 0.24 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 165 | 7.4 | ND | 0.05 | 555.936 m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. Fitzsimmons & T. Slezak

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling. 14/6/78

| Sampling points | Sp. Cond. uS/cm | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|--------------------|-----|-------------------------|---------------------|----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 140 | 7.4 | 0.29 | 0.36 | 0.442M |
| Honeysuckle Crk (F2) | 115 | 7.4 | 0.08 | 0.13 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 138 | 7.4 | 0.13 | 0.22 | 555.935M |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. Fitzsimmons & T. Slezak

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acieified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee and Mine Waste Pollution in the Molonglo River.

Date of sampling. 28/6/78

Sampling points 30/6/78

| | Sp. Cond. uS/cm | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|--------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 155 | 7.4 | 0.26 | 0.30 | 0.478 M |
| Honeysuckle Crk (F2) | 115 | 7.3 | 0.05 | 0.08 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 105 | 7.2 | 0.06 | 0.08 | 555.938 M |

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. Fitzsimmons

A sample of water from Lake George, NSW, was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | | |
|------------------|---|-------------|
| Date of sampling | - | 3.7.78 |
| Date of testing | - | 11.7.78 |
| Sp. Cond. (25°C) | - | 2,900 uS/cm |
| pH | - | 7.9 |
| T.D.S. (180°C) | - | 1690 ppm |

Zinc Content of Molonglo River Water

by

J. Fitzsimmons, T. Slezak & D. Johnstone

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling 12.7.78
18.7.78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|------------------------------|----------------------|-----|-------------------------|---------------------|---------|
| Molonglo River at | | | | | |
| Burbon Weir (D2) (410705) | 160 | 7.6 | 0.23 | 0.29 | 0.416 |
| Honeysuckle Crk (F2) | 120 | 7.5 | 0.06 | 0.09 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 115 | 7.6 | 0.05 | 0.08 | 555.928 |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

ZINC CONTENT OF MOLONGLO RIVER WATER

by

J. Fitzsimmons & T. Shezak

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling 26/7/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|----------|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | ...160..... | 7.8..... | 0.30..... | 0.33..... | 0.534m. |
| Honeysuckle Crk (F2) | ...118..... | 7.4..... | 0.10..... | 0.14..... | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | ...120..... | 7.5..... | 0.05..... | 0.07..... | 555.946m. |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. Fitzsimmons

A sample of water from Lake George, N.S.W., was submitted A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | | |
|------------------|---|-------------|
| Date of sampling | - | 1/8/78 |
| Date of testing | - | 1/8/78 |
| Sp. Cond. (22°C) | - | 3,900 uS/cm |
| pH | - | 8.7 |
| T.D.S. (180°C) | - | 2,650 ppm |

Zinc Content of Molonglo River Water

by

J. Fitzsimmons & T. Slezak

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee and Mine Waste Pollution in the Molonglo River.

Date of sampling 9/8/78

Date of testing 15/8/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 260 | 8.3 | 0.20 | 0.25 | 0.365m |
| Honeysuckle Crk (F2) | 155 | 7.8 | 0.06 | 0.08 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 125 | 7.4 | 0.05 | 0.07 | 555.925m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. FITZSIMMONS

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling 23/8/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 250 | 7.2 | 0.19 | 0.27 | 0.185 M |
| Honeysuckle Crk (F2) | 125 | 7.6 | 0.03 | 0.05 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 115 | 8.3 | 0.04 | 0.06 | 555.93 m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. FITZSIMMONS

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

Date of sampling - 1/9/78

Sp. Cond. (23 °C) - 3,700 uS/cm

pH - 8.3

T.D.S. (180°C) - 2,675 ppm.

Laboratory Report No. 28

Zinc Content of Molonglo River Water

by

J. Fitzsimmons.

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling 7/9/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|----------------------|----------------------|-----|-------------------------|---------------------|--------|
| Rising stage samples | | | | | |
| Molonglo River at | | | | | |
| Burbong Weir (D2) | | | | | |
| (410705) | | | | | |
| time | | | | | |
| 18.20 | 85 | 7.8 | 0.12 | 0.64 | 1.74 m |
| 20.00 | 80 | 7.6 | 0.16 | 0.67 | 2.27 m |
| 21.30 | 80 | 7.5 | 0.17 | 1.03 | 1.86 m |
| 22.40 | 76 | 7.6 | 0.12 | 0.69 | 2.00 m |
| 23.10 | 75 | 7.7 | 0.20 | 0.98 | 2.13 m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 29

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. Fitzsimmons

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

Date of sampling - 29/9/78

Sp. Cond. (23°C) - 1110 uS/cm

pH - 8.3

T.D.S. (180°C) - 2246 ppm

Zinc Content of Molonglo River Water

by

J. Fitzsimmons

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling ... 27/9/78

Date of testing ... 10/10/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|------------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 232 | 8.8 | 0.11 | 0.23 | 0.677 m |
| Honeysuckle Crk (F2) | 120 | 8.6 | 0.03 | 0.10 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 100 | 7.6 | 0.03 | 0.05 | 555.950 m. |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. FITZSIMMONS

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 11/10/78

Date of testing .. 24/11/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|---------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 275 | 9.0 | 0.02 | 0.20 | 0.240 m |
| Honeysuckle Crk (F2) | 135 | 8.7 | ND | 0.06 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 127 | 9.0 | ND | 0.04 | 555.925 |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. FITZSIMMONS

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 25/10/78

Date of testing .. 22/11/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 265 | 8.6 | 0.04 | 0.19 | 0.172 m |
| Honeysuckle Crk (F2) | 150 | 8.5 | 0.01 | 0.05 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 145 | 8.9 | 0.01 | 0.05 | 555.920 m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 33

Zinc Content of Molonglo River Water

by

J. FITZSIMMONS

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 8/11/78

Date of testing .. 24/11/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 240 | 8.5 | 0.09 | 0.18 | 0.214 m |
| Honeysuckle Crk (F2) | 140 | 8.2 | 0.03 | 0.07 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 152 | 8.1 | 0.01 | 0.03 | 555.930 m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. FITZSIMMONS

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | | |
|------------------|---|-------------|
| Date of sampling | - | 1.11.78 |
| Date of testing | - | 22/11/78 |
| Sp. Conc. (30°C) | - | 4,000 uS/cm |
| pH | - | 9.3 |
| T.D.S. (180°C) | - | 2342 ppm |

Zinc Content of Molonglo River Water

by

J. FITZSIMMONS

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 22/11/78

Date of testing .. 24/11/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|-----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 205 | 8.6 | 0.12 | 0.17 | 0.210 m |
| Honeysuckle Crk (F2) | 110 | 8.4 | 0.02 | 0.05 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 140 | 8.1 | 0.01 | 0.03 | 555.930 m |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Laboratory Report No. 36

ANALYSIS OF LAKE GEORGE WATER SAMPLES

by

J. FITZSIMMONS

A sample of water from Lake George, N.S.W., was submitted by A.W. Schuett for determination of specific conductance, pH and total dissolved solids (180°C).

| | | |
|------------------|---|-------------|
| Date of sampling | - | 1/12/78 |
| Date of testing | - | 5/12/78 |
| Sp. Cond. (23°C) | - | 1,250 uS/cm |
| pH | - | 8.9 |
| T.D.S. (180°C) | - | 2465 ppm |

Zinc Content of Molonglo River Water

by

J. FITZSIMMONS

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 6/12/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 235 | 7.8 | 0.03 | 0.12 | 0.229M |
| Honeysuckle Crk (F2) | 125 | 7.5 | 0.03 | 0.06 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 155 | 7.9 | 0.01 | 0.04 | 555.931M |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.

Zinc Content of Molonglo River Water

by

J. FITZSIMMONS

The following results were obtained for the determination of specific conductance at 20°C, pH, dissolved zinc and total zinc on water samples as listed below from the Molonglo River/Lake Burley Griffin system. All samples were acidified with hydrochloric acid prior to the determination of total zinc.

Samples were collected by the Department of Housing and Construction for the Joint Government Technical Committee on Mine Waste Pollution in the Molonglo River.

Date of sampling .. 20/12/78

Date of testing .. 22/12/78

| Sampling points | Sp. Cond. (uS/cm) | pH | Zn (ppm) (dissolved) | Zn (ppm) (Total) | Flow |
|-------------------------------|----------------------|-----|-------------------------|---------------------|----------|
| Molonglo River at | | | | | |
| Burbong Weir (D2) (410705) | 260 | 8.0 | 0.03 | 0.15 | 0.112M |
| Honeysuckle Crk (F2) | 110 | 7.9 | ND | 0.02 | |
| Lake Burley Griffin at | | | | | |
| Scrivener Dam (H4) | 160 | 8.1 | 0.02 | 0.09 | 555.930M |

Bracketed numbers are Department of Housing and Construction stream gauge reference numbers.