

City of Lancaster, Ohio  
Division of Water  
South Wellhead Protection Program  
Historical Groundwater Quality Data

| PARAMETERS                     | Units                  | MCL/SMCL/<br>ACTION LEVEL | MW-5   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
|--------------------------------|------------------------|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|                                |                        |                           | May-02 | Nov-02 | May-03 | Nov-03 | May-04 | Nov-04 | May-05 | Nov-05 | May-06 | Nov-06 | May-07 | Nov-07 | Jul-08 | Nov-08 | May-09 | Apr-15 | Apr-16 | Oct-17 | Oct-18 | Nov-19 | Nov-20 |  |
| <b>INORGANICS</b>              |                        |                           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
| MERCURY                        | ug/L                   | 2.0                       | ND     |        |  |
| ANTIMONY                       | ug/L                   | 6.0                       | ND     |        |  |
| ARSENIC                        | ug/L                   | 10.0                      | 46.9   | 79     | 56.3   | 66.9   | 46.5   | 74.4   | 56.2   | 64.2   | 59.2   | 57.4   | 50.4   | 57.1   | 55.6   | 56.8   | 58.2   | 28     | 40     | 34     | 35     | 35     | 40     |  |
| THALLIUM                       | ug/L                   | 2.0                       | ND     |        |  |
| BERYLLIUM                      | ug/L                   | 4.0                       | ND     |        |  |
| CADMIUM                        | ug/L                   | 5.0                       | ND     |        |  |
| CALCIUM                        | mg/L                   | --                        | 49.9   | 50.5   | 48.8   | 49.9   | 52.5   | 53.2   | 58.5   | 56.1   | 51.3   | 56.3   | 54.4   | 56.7   | 61.2   | 55.6   | 55.7   | 42     | 55.4   | 55.2   | 54.3   | 54.7   | 49.3   |  |
| CHROMIUM                       | ug/L                   | 100.0                     | ND     |        |  |
| COBALT                         | ug/L                   | --                        | ND     |        |  |
| COPPER                         | ug/L                   | 1000 (S) / 1300 (A)       | NA     | ND     | ND     | ND     | ND     | ND     | ND     |  |
| IRON                           | ug/L                   | 300 (S)                   | 2080   | 2370   | 2310   | 2310   | 2560   | 2140   | 1770   | 2750   | 2530   | 2460   | 1910   | 2630   | 2230   | 2270   | 2450   | ND     | ND     | ND     | ND     | ND     | 513    |  |
| LEAD                           | ug/L                   | 15 (AL)                   | ND     |  |
| MAGNESIUM                      | mg/L                   | --                        | 21.7   | 22.1   | 20.7   | 20.8   | 21.3   | 22.2   | 23.2   | 24.3   | 22.2   | 23.2   | 21.3   | 23.8   | 24.4   | 22.5   | 22.9   | 20     | 25.6   | 23.5   | 21.4   | 22.1   | 21     |  |
| MANGANESE                      | ug/L                   | 50 (S)                    | 120    | 82     | 73     | 72     | 94     | 78     | 111    | 93.9   | 85.9   | 85.4   | 127    | 88.4   | 142    | 115    | 95.3   | 67     | 66     | 69     | 100    | 83     | 73     |  |
| NICKEL                         | ug/L                   | --                        | ND     |  |
| SILVER                         | ug/L                   | 100 (S)                   | ND     | 4.4    | ND     |  |
| TIN                            | ug/L                   | --                        | ND     |  |
| VANADIUM                       | mg/L                   | --                        | ND     |  |
| ZINC                           | ug/L                   | 5000 (S)                  | ND     |  |
| NITRATE                        | mg/L                   | 10                        | 0.07   | ND     | ND     | 0.11   | ND     |  |
| NITRITE                        | mg/L                   | 1                         | ND     |  |
| CHLORIDE                       | mg/L                   | 250 (S)                   | 9      | 6      | 5      | 6      | 5      | 5      | 7      | 5.7    | 4      | 3.7    | 7.3    | 6      | 8.1    | 7.5    | 6.1    | 9.74   | 9.8    | 6.86   | 10.7   | 12.4   | 10     |  |
| C.O.D.                         | mg/L                   | --                        | ND     | 7      | 5      | ND     | ND     | ND     | 12     | ND     | ND     | ND     | ND     | 10     | ND     | 10.6   | ND     | ND     | ND     | 22.8   | 24.8   | ND     | 39.5   |  |
| NITROGEN, AMMONIA              | mg/L                   | --                        | 0.33   | 0.31   | 0.29   | 0.32   | 0.27   | 0.3    | 0.21   | ND     | ND     | ND     | ND     | ND     | ND     | 2      | 0.3    | 0.3    | 0.3    | 0.3    | 0.2    | 0.3    | 0.3    |  |
| CYANIDE                        | mg/L                   | 0.2                       | ND     |  |
| SELENIUM                       | ug/L                   | 50                        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ND     |  |
| SULFIDE                        | ug/L                   | --                        | ND     | 2.2    | ND     | ND     | ND     | ND     | ND     | 0.21   | ND     | ND     |  |
| <b>VOLATILE ORGANICS VOC'S</b> |                        |                           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
| Method 8260                    | ug/L                   | Varies                    | ND     |  |
| <b>PESTICIDES</b>              |                        |                           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
| Method 8081                    | ug/L                   | Varies                    | ND     |  |
| <b>HERBICIDES</b>              |                        |                           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
| Method 8151                    | ug/L                   | Varies                    | ND     |  |
| <b>FIELD PARAMETERS</b>        |                        |                           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
| STATIC WATER LEVEL             | * from reference point |                           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 23.76  | 23.24  | 24.73  | 25.13  | 25.3   | 26.2   |  |
| Temperature                    | °C                     |                           | 13.3   | 12.1   | 12.9   | 12.0   | 12.8   | 12.4   | 13.0   | NA     | 13.7   | 12.8   | 13.4   | 12.1   | 13.9   | 14.0   | 15.5   | 14.2   | 14.5   | 12.3   | 13.9   | 12.6   | 12.5   |  |
| pH                             | S.U.                   | 6.5-8.5 (S)               | 7.1    | 7.45   | 7.52   | 7.63   | 6.95   | 7.64   | 7.53   | NA     | 7.54   | 7.52   | 7.78   | 7.7    | 7.64   | 7.55   | 7.68   | 7.62   | 7.57   | 7.61   | 7.72   | 7.56   | 7.76   |  |
| Specific Conductance           | umhos/cm               | --                        | 380    | 408    | 383    | 4.5    | 410    | 428    | 314    | NA     | 387    | 368    | 397    | 387    | 161    | 417    | 420    | 397    | 429    | 407    | 411    | 422    | 414    |  |

(S) = Secondary Maximum Contaminant Level

(A) = Action Level

(O) = Ohio EPA Primary Maximum Contaminant Level

D = DETECTED

ND = NOT DETECTED

NA = NOT ANALYZED

NM = NOT MEASURED