



Water-Data Report 2012

**06204070 WEST ROSEBUD CREEK AT EMERALD LAKE CAMPGROUND, NEAR ROSCOE, MT**

Upper Yellowstone Basin  
Stillwater Subbasin

LOCATION.--Lat 45°15'16", long 109°41'57" referenced to North American Datum of 1927, in SW ¼ sec.1, T.7 S., R.16 E., Stillwater County, MT,  
Hydrologic Unit 10070005, on left bank at Emerald Lake Campground, 1,000 ft upstream from Emerald Lake, 11.5 mi southwest of Roscoe, and at river  
mile 25.0.

DRAINAGE AREA.--66.3 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--June 2006 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,435 ft, referenced to National Geodetic Vertical Datum of 1929.

REMARKS.--Records are good. Flow is regulated by Mystic Lake (station number 06204000). U.S. Geological Survey satellite telemeter is located at the  
station. Several unpublished observations of water temperature and specific conductance were made during the year.

## Water-Data Report 2012

**06204070 WEST ROSEBUD CREEK AT EMERALD LAKE CAMPGROUND, NEAR ROSCOE, MT—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**  
**DAILY MEAN VALUES**

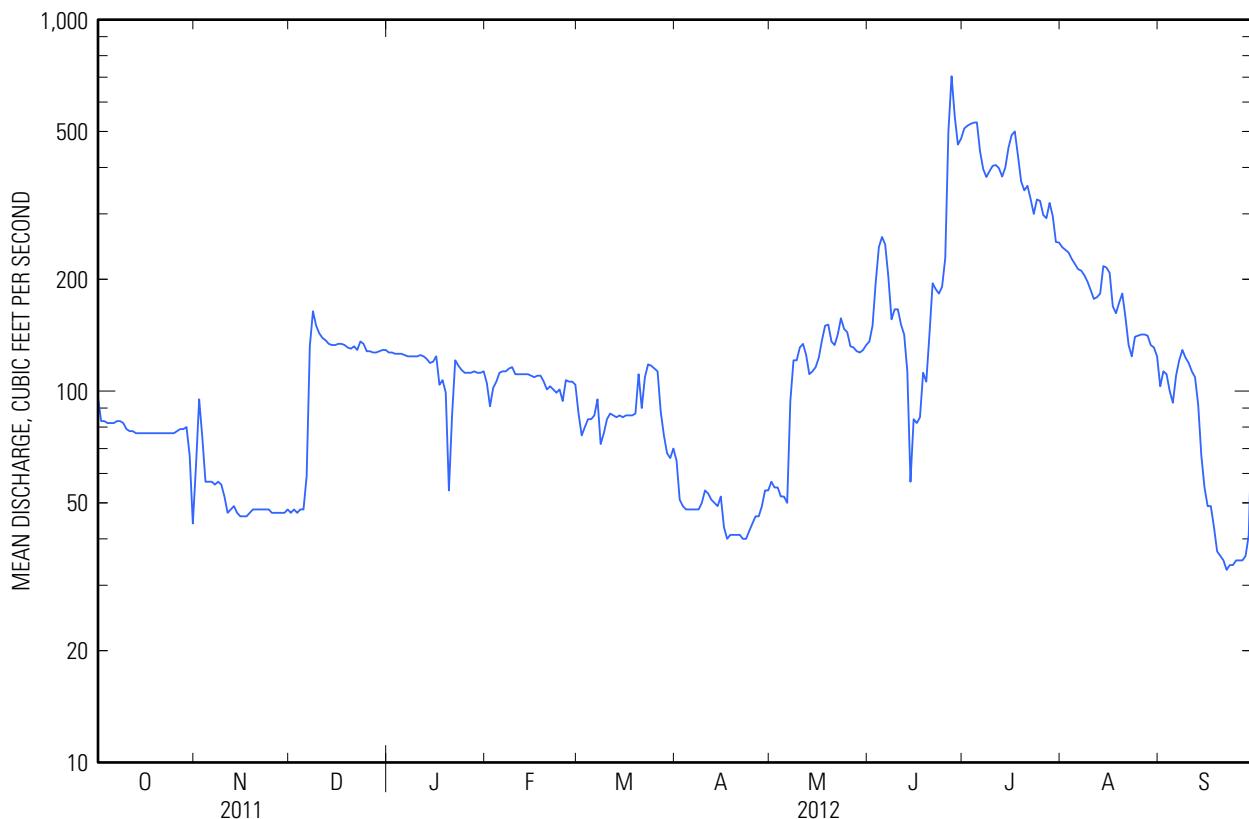
| <b>Day</b>   | <b>Oct</b> | <b>Nov</b> | <b>Dec</b> | <b>Jan</b> | <b>Feb</b> | <b>Mar</b> | <b>Apr</b> | <b>May</b> | <b>Jun</b> | <b>Jul</b> | <b>Aug</b> | <b>Sep</b> |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>1</b>     | 96         | 63         | 47         | 127        | 105        | 87         | 65         | 57         | 136        | 509        | 244        | 103        |
| <b>2</b>     | 83         | 95         | 48         | 127        | 91         | 76         | 51         | 55         | 150        | 518        | 240        | 113        |
| <b>3</b>     | 83         | 75         | 47         | 126        | 102        | 80         | 49         | 55         | 196        | 524        | 236        | 111        |
| <b>4</b>     | 82         | 57         | 48         | 126        | 106        | 84         | 48         | 52         | 244        | 528        | 227        | 100        |
| <b>5</b>     | 82         | 57         | 48         | 126        | 112        | 84         | 48         | 52         | 260        | 529        | 220        | 93         |
| <b>6</b>     | 82         | 57         | 59         | 125        | 113        | 86         | 48         | 50         | 248        | 442        | 213        | 110        |
| <b>7</b>     | 83         | 56         | 132        | 124        | 113        | 95         | 48         | 94         | 203        | 396        | 211        | 121        |
| <b>8</b>     | 83         | 57         | 164        | 124        | 115        | 72         | 48         | 121        | 156        | 377        | 205        | 129        |
| <b>9</b>     | 82         | 56         | 150        | 124        | 116        | 77         | 50         | 121        | 166        | 391        | 197        | 123        |
| <b>10</b>    | 79         | 52         | 143        | 124        | 111        | 84         | 54         | 131        | 166        | 404        | 187        | 119        |
| <b>11</b>    | 78         | 47         | 139        | 125        | 111        | 87         | 53         | 134        | 151        | 406        | 177        | 113        |
| <b>12</b>    | 78         | 48         | 137        | 124        | 111        | 86         | 51         | 125        | 142        | 398        | 179        | 109        |
| <b>13</b>    | 77         | 49         | 134        | 122        | 111        | 85         | 50         | 111        | 113        | 378        | 183        | 92         |
| <b>14</b>    | 77         | 47         | 133        | 119        | 111        | 86         | 49         | 113        | 57         | 400        | 217        | 67         |
| <b>15</b>    | 77         | 46         | 133        | 120        | 110        | 85         | 52         | 116        | 84         | 452        | 215        | 55         |
| <b>16</b>    | 77         | 46         | 134        | 124        | 109        | 86         | 43         | 123        | 82         | 489        | 208        | 49         |
| <b>17</b>    | 77         | 46         | 134        | 104        | 110        | 86         | 40         | 137        | 85         | 500        | 169        | 49         |
| <b>18</b>    | 77         | 47         | 133        | 107        | 110        | 86         | 41         | 150        | 112        | 430        | 162        | 43         |
| <b>19</b>    | 77         | 48         | 131        | 99         | 106        | 87         | 41         | 151        | 106        | 367        | 173        | 37         |
| <b>20</b>    | 77         | 48         | 130        | 54         | 101        | 111        | 41         | 136        | 142        | 347        | 183        | 36         |
| <b>21</b>    | 77         | 48         | 132        | 86         | 103        | 90         | 41         | 133        | 195        | 357        | 158        | 35         |
| <b>22</b>    | 77         | 48         | 129        | 121        | 101        | 109        | 40         | 142        | 188        | 329        | 133        | 33         |
| <b>23</b>    | 77         | 48         | 136        | 117        | 99         | 118        | 40         | 157        | 183        | 300        | 124        | 34         |
| <b>24</b>    | 77         | 48         | 134        | 114        | 101        | 117        | 42         | 147        | 191        | 328        | 140        | 34         |
| <b>25</b>    | 77         | 47         | 128        | 112        | 94         | 115        | 44         | 144        | 228        | 325        | 141        | 35         |
| <b>26</b>    | 78         | 47         | 128        | 112        | 107        | 113        | 46         | 132        | 501        | 298        | 142        | 35         |
| <b>27</b>    | 79         | 47         | 127        | 112        | 106        | 88         | 46         | 131        | 704        | 292        | 142        | 35         |
| <b>28</b>    | 79         | 47         | 127        | 113        | 106        | 76         | 49         | 128        | 549        | 321        | 141        | 36         |
| <b>29</b>    | 80         | 47         | 128        | 112        | 104        | 68         | 54         | 127        | 461        | 296        | 133        | 41         |
| <b>30</b>    | 67         | 48         | 129        | 112        | ---        | 66         | 54         | 129        | 478        | 252        | 131        | 85         |
| <b>31</b>    | 44         | ---        | 129        | 113        | ---        | 70         | ---        | 133        | ---        | 251        | 124        | ---        |
| <b>Total</b> | 2,419      | 1,572      | 3,651      | 3,575      | 3,095      | 2,740      | 1,426      | 3,587      | 6,677      | 12,134     | 5,555      | 2,175      |
| <b>Mean</b>  | 78.0       | 52.4       | 118        | 115        | 107        | 88.4       | 47.5       | 116        | 223        | 391        | 179        | 72.5       |
| <b>Max</b>   | 96         | 95         | 164        | 127        | 116        | 118        | 65         | 157        | 704        | 529        | 244        | 129        |
| <b>Min</b>   | 44         | 46         | 47         | 54         | 91         | 66         | 40         | 50         | 57         | 251        | 124        | 33         |
| <b>Ac-ft</b> | 4,800      | 3,120      | 7,240      | 7,090      | 6,140      | 5,430      | 2,830      | 7,110      | 13,240     | 24,070     | 11,020     | 4,310      |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2006 - 2012, BY WATER YEAR (WY)**

|             | <b>Oct</b> | <b>Nov</b> | <b>Dec</b> | <b>Jan</b> | <b>Feb</b> | <b>Mar</b> | <b>Apr</b> | <b>May</b> | <b>Jun</b> | <b>Jul</b> | <b>Aug</b> | <b>Sep</b> |
|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Mean</b> | 88.0       | 102        | 84.3       | 84.1       | 87.0       | 62.7       | 40.4       | 99.0       | 247        | 464        | 220        | 113        |
| <b>Max</b>  | 121        | 181        | 118        | 115        | 113        | 88.4       | 50.7       | 130        | 277        | 814        | 323        | 152        |
| (WY)        | (2008)     | (2010)     | (2012)     | (2012)     | (2011)     | (2012)     | (2009)     | (2009)     | (2009)     | (2011)     | (2011)     | (2011)     |
| <b>Min</b>  | 74.3       | 52.4       | 67.0       | 63.7       | 62.4       | 41.9       | 29.1       | 42.5       | 221        | 304        | 166        | 72.5       |
| (WY)        | (2010)     | (2012)     | (2008)     | (2010)     | (2010)     | (2009)     | (2008)     | (2010)     | (2006)     | (2007)     | (2007)     | (2012)     |

**06204070 WEST ROSEBUD CREEK AT EMERALD LAKE CAMPGROUND, NEAR ROSCOE, MT—Continued****SUMMARY STATISTICS**

|                                 | <b>Calendar Year 2011</b> | <b>Water Year 2012</b> |        | <b>Water Years 2006 - 2012</b> |                   |
|---------------------------------|---------------------------|------------------------|--------|--------------------------------|-------------------|
| <b>Annual total</b>             | 67,848                    | 48,606                 |        |                                |                   |
| <b>Annual mean</b>              | 186                       | 133                    |        | 145                            |                   |
| <b>Highest annual mean</b>      |                           |                        |        | 187                            | 2011              |
| <b>Lowest annual mean</b>       |                           |                        |        | 121                            | 2007              |
| <b>Highest daily mean</b>       | 1,310                     | Jul 7                  | 704    | Jun 27                         | 1,310 Jul 7, 2011 |
| <b>Lowest daily mean</b>        | 25                        | Mar 13                 | 33     | Sep 22                         | 17 Apr 28, 2007   |
| <b>Annual seven-day minimum</b> | 28                        | Mar 12                 | 34     | Sep 21                         | 26 Apr 18, 2008   |
| <b>Maximum peak flow</b>        |                           |                        | 819    | Jun 27                         | 1,390 Jul 7, 2011 |
| <b>Maximum peak stage</b>       |                           |                        | 3.13   | Jun 27                         | 3.91 Jul 7, 2011  |
| <b>Annual runoff (ac-ft)</b>    | 134,600                   |                        | 96,410 |                                | 104,900           |
| <b>10 percent exceeds</b>       | 448                       |                        | 251    |                                | 306               |
| <b>50 percent exceeds</b>       | 109                       |                        | 111    |                                | 87                |
| <b>90 percent exceeds</b>       | 38                        |                        | 47     |                                | 40                |



## Water-Data Report 2012

**06204070 WEST ROSEBUD CREEK AT EMERALD LAKE CAMPGROUND, NEAR ROSCOE, MT—Continued****WATER-QUALITY RECORDS**

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1, 2010 to current year.

INSTRUMENTATION.--A Met-One water temperature thermistor is attached to bridge pier in the vicinity of pressure transducer orifice. Water temperature thermistor is interfaced to the Design Analysis H-350XL.

REMARKS.--Daily water temperature records are complete and rated excellent for the year. Several unpublished records of instantaneous water temperature and specific conductance were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum instantaneous, 16.1°C, August 28, 2012; minimum instantaneous, 0.2°C, January 31, 2011.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum instantaneous 16.1°C, Aug. 28, 2012; minimum instantaneous, 0.3°C, occurred four times, Nov. 8, 9, 13, and Dec. 4, 2011.

**TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

| <b>Day</b>     | <b>Max</b> | <b>Min</b> | <b>Mean</b> | <b>Max</b>      | <b>Min</b> | <b>Mean</b> | <b>Max</b> | <b>Min</b>      | <b>Mean</b> | <b>Max</b> | <b>Min</b> | <b>Mean</b>    |  |
|----------------|------------|------------|-------------|-----------------|------------|-------------|------------|-----------------|-------------|------------|------------|----------------|--|
| <b>October</b> |            |            |             | <b>November</b> |            |             |            | <b>December</b> |             |            |            | <b>January</b> |  |
| <b>1</b>       | 12.5       | 10.8       | 11.5        | 3.9             | 3.3        | 3.6         | 1.2        | 0.8             | 1.0         | 1.0        | 0.6        | 0.7            |  |
| <b>2</b>       | 12.0       | 11.2       | 11.5        | 3.6             | 2.7        | 3.1         | 1.2        | 0.6             | 0.9         | 1.4        | 1.0        | 1.2            |  |
| <b>3</b>       | 12.2       | 10.9       | 11.4        | 3.5             | 2.5        | 2.9         | 1.0        | 0.6             | 0.8         | 1.3        | 1.0        | 1.1            |  |
| <b>4</b>       | 12.0       | 10.8       | 11.3        | 3.0             | 2.1        | 2.7         | 0.8        | 0.3             | 0.6         | 1.6        | 1.1        | 1.4            |  |
| <b>5</b>       | 11.7       | 10.9       | 11.2        | 3.3             | 2.6        | 3.0         | 0.6        | 0.4             | 0.5         | 1.6        | 1.2        | 1.3            |  |
| <b>6</b>       | 11.0       | 10.1       | 10.6        | 2.7             | 0.9        | 1.5         | 0.8        | 0.5             | 0.6         | 1.2        | 0.8        | 0.9            |  |
| <b>7</b>       | 10.1       | 8.3        | 9.0         | 1.1             | 0.5        | 0.7         | 1.0        | 0.7             | 0.8         | 1.0        | 0.9        | 1.0            |  |
| <b>8</b>       | 8.7        | 7.9        | 8.3         | 0.8             | 0.3        | 0.5         | 1.1        | 0.9             | 1.0         | 1.3        | 0.9        | 1.1            |  |
| <b>9</b>       | 8.6        | 7.3        | 7.9         | 0.7             | 0.3        | 0.5         | 1.2        | 1.0             | 1.1         | 1.5        | 1.3        | 1.4            |  |
| <b>10</b>      | 8.2        | 7.1        | 7.6         | 1.9             | 0.7        | 1.4         | 1.3        | 1.1             | 1.2         | 1.6        | 1.0        | 1.4            |  |
| <b>11</b>      | 7.9        | 7.1        | 7.4         | 1.4             | 0.9        | 1.2         | 1.4        | 1.2             | 1.3         | 1.2        | 0.6        | 0.8            |  |
| <b>12</b>      | 7.3        | 6.3        | 6.7         | 1.1             | 0.5        | 0.8         | 1.3        | 1.0             | 1.1         | 1.2        | 0.8        | 0.9            |  |
| <b>13</b>      | 7.0        | 6.0        | 6.5         | 0.6             | 0.3        | 0.4         | 1.2        | 1.0             | 1.1         | 1.3        | 1.1        | 1.1            |  |
| <b>14</b>      | 7.1        | 6.3        | 6.6         | 0.7             | 0.4        | 0.5         | 1.2        | 1.1             | 1.2         | 1.3        | 1.0        | 1.1            |  |
| <b>15</b>      | 7.7        | 6.8        | 7.2         | 1.0             | 0.5        | 0.8         | 1.2        | 1.0             | 1.1         | 1.1        | 0.9        | 1.0            |  |
| <b>16</b>      | 7.7        | 7.1        | 7.3         | 1.0             | 0.7        | 0.9         | 1.2        | 1.0             | 1.1         | 0.9        | 0.6        | 0.7            |  |
| <b>17</b>      | 7.6        | 6.6        | 7.1         | 1.4             | 0.8        | 1.1         | 1.5        | 1.2             | 1.3         | 0.7        | 0.4        | 0.6            |  |
| <b>18</b>      | 7.0        | 6.2        | 6.6         | 1.5             | 0.8        | 1.1         | 1.5        | 1.4             | 1.4         | 0.9        | 0.6        | 0.7            |  |
| <b>19</b>      | 6.8        | 6.0        | 6.4         | 1.2             | 0.7        | 1.0         | 1.4        | 1.1             | 1.3         | 1.2        | 0.9        | 1.1            |  |
| <b>20</b>      | 7.1        | 6.1        | 6.5         | 1.1             | 0.9        | 1.0         | 1.6        | 1.2             | 1.3         | 1.5        | 1.1        | 1.3            |  |
| <b>21</b>      | 7.2        | 6.6        | 6.9         | 1.6             | 1.1        | 1.3         | 1.6        | 0.9             | 1.2         | 1.6        | 1.2        | 1.4            |  |
| <b>22</b>      | 7.2        | 6.5        | 6.8         | 1.6             | 1.2        | 1.3         | 1.0        | 0.8             | 0.9         | 1.4        | 0.9        | 1.2            |  |
| <b>23</b>      | 7.1        | 6.5        | 6.8         | 1.8             | 1.4        | 1.5         | 1.0        | 0.8             | 0.9         | 1.1        | 0.9        | 1.0            |  |
| <b>24</b>      | 6.8        | 6.1        | 6.6         | 1.9             | 1.6        | 1.6         | 1.4        | 1.0             | 1.2         | 1.1        | 0.8        | 1.0            |  |
| <b>25</b>      | 6.1        | 5.5        | 5.9         | 1.8             | 1.2        | 1.5         | 1.4        | 1.3             | 1.4         | 1.1        | 0.8        | 1.0            |  |
| <b>26</b>      | 5.5        | 4.2        | 4.9         | 1.3             | 1.0        | 1.1         | 1.3        | 0.8             | 1.0         | 1.2        | 1.1        | 1.1            |  |
| <b>27</b>      | 4.3        | 3.5        | 3.9         | 1.7             | 1.3        | 1.5         | 1.1        | 0.8             | 0.9         | 1.1        | 0.8        | 1.0            |  |
| <b>28</b>      | 4.2        | 3.4        | 3.8         | 1.6             | 1.3        | 1.4         | 1.3        | 1.0             | 1.1         | 0.9        | 0.7        | 0.8            |  |
| <b>29</b>      | 3.8        | 3.0        | 3.4         | 1.8             | 1.3        | 1.5         | 1.3        | 0.7             | 1.2         | 1.0        | 0.8        | 0.9            |  |
| <b>30</b>      | 4.5        | 3.3        | 3.8         | 1.7             | 0.9        | 1.4         | 1.3        | 1.0             | 1.1         | 1.0        | 0.8        | 0.9            |  |
| <b>31</b>      | 4.9        | 3.8        | 4.2         | ---             | ---        | ---         | 1.3        | 0.6             | 1.0         | 1.2        | 0.9        | 1.0            |  |
| <b>Month</b>   | 12.5       | 3.0        | 7.3         | 3.9             | 0.3        | 1.4         | 1.6        | 0.3             | 1.1         | 1.6        | 0.4        | 1.0            |  |

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**TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

| <b>Day</b>      | <b>Max</b> | <b>Min</b> | <b>Mean</b> | <b>Max</b>   | <b>Min</b> | <b>Mean</b> | <b>Max</b> | <b>Min</b>   | <b>Mean</b> | <b>Max</b> | <b>Min</b> | <b>Mean</b> |
|-----------------|------------|------------|-------------|--------------|------------|-------------|------------|--------------|-------------|------------|------------|-------------|
| <b>February</b> |            |            |             | <b>March</b> |            |             |            | <b>April</b> |             |            |            | <b>May</b>  |
| <b>1</b>        | 1.4        | 1.1        | 1.2         | 1.6          | 1.1        | 1.3         | 6.6        | 5.0          | 5.5         | 7.2        | 5.2        | 6.0         |
| <b>2</b>        | 1.5        | 1.4        | 1.4         | 1.5          | 1.0        | 1.2         | 6.0        | 4.6          | 5.1         | 6.3        | 5.1        | 5.5         |
| <b>3</b>        | 1.8        | 1.1        | 1.3         | 1.4          | 1.1        | 1.3         | 6.3        | 4.2          | 5.1         | 6.2        | 5.0        | 5.6         |
| <b>4</b>        | 1.4        | 1.1        | 1.2         | 1.8          | 1.2        | 1.4         | 7.2        | 4.3          | 5.5         | 7.9        | 5.0        | 6.4         |
| <b>5</b>        | 1.4        | 1.1        | 1.2         | 2.0          | 1.4        | 1.6         | 5.8        | 4.4          | 5.4         | 8.0        | 5.7        | 6.4         |
| <b>6</b>        | 1.4        | 1.1        | 1.2         | 1.8          | 1.3        | 1.5         | 4.7        | 3.4          | 4.0         | 7.3        | 4.8        | 5.9         |
| <b>7</b>        | 1.4        | 1.1        | 1.2         | 1.6          | 1.0        | 1.2         | 4.8        | 2.3          | 3.5         | 6.9        | 5.3        | 6.2         |
| <b>8</b>        | 1.5        | 1.1        | 1.2         | 2.2          | 1.2        | 1.5         | 5.0        | 2.6          | 3.7         | 8.4        | 6.4        | 7.0         |
| <b>9</b>        | 1.6        | 1.3        | 1.4         | 2.3          | 1.6        | 1.8         | 5.4        | 3.2          | 4.2         | 8.6        | 6.6        | 7.5         |
| <b>10</b>       | 1.6        | 1.2        | 1.4         | 2.6          | 1.9        | 2.1         | 6.4        | 4.1          | 5.1         | 8.0        | 6.6        | 7.1         |
| <b>11</b>       | 1.4        | 1.1        | 1.2         | 2.7          | 2.1        | 2.3         | 7.3        | 5.2          | 6.2         | 6.8        | 6.2        | 6.5         |
| <b>12</b>       | 1.6        | 1.2        | 1.4         | 2.5          | 2.0        | 2.2         | 7.2        | 5.8          | 6.5         | 7.1        | 6.4        | 6.7         |
| <b>13</b>       | 1.8        | 1.4        | 1.6         | 2.4          | 1.7        | 2.0         | 7.3        | 5.0          | 5.9         | 8.8        | 6.5        | 7.5         |
| <b>14</b>       | 1.9        | 1.3        | 1.6         | 2.5          | 1.8        | 2.0         | 6.6        | 5.1          | 5.8         | 8.5        | 7.2        | 7.9         |
| <b>15</b>       | 1.7        | 1.1        | 1.3         | 2.9          | 1.9        | 2.3         | 6.3        | 5.1          | 5.6         | 10.4       | 8.2        | 8.9         |
| <b>16</b>       | 1.5        | 1.1        | 1.3         | 2.9          | 2.1        | 2.4         | 7.1        | 4.7          | 5.6         | 10.8       | 9.0        | 9.8         |
| <b>17</b>       | 1.6        | 1.2        | 1.4         | 3.4          | 2.6        | 2.8         | 6.7        | 4.8          | 5.5         | 10.3       | 8.9        | 9.3         |
| <b>18</b>       | 1.7        | 1.4        | 1.5         | 3.4          | 2.7        | 3.0         | 6.1        | 4.7          | 5.3         | 9.0        | 7.5        | 8.1         |
| <b>19</b>       | 1.7        | 1.3        | 1.5         | 3.3          | 2.4        | 2.8         | 6.8        | 4.8          | 5.5         | 7.7        | 6.9        | 7.2         |
| <b>20</b>       | 1.6        | 1.2        | 1.3         | 2.4          | 1.3        | 1.7         | 7.6        | 4.6          | 5.7         | 8.6        | 7.2        | 7.8         |
| <b>21</b>       | 1.5        | 1.3        | 1.4         | 2.2          | 1.0        | 1.5         | 8.0        | 5.7          | 6.6         | 10.3       | 8.1        | 9.1         |
| <b>22</b>       | 1.6        | 1.1        | 1.5         | 2.8          | 1.7        | 2.3         | 10.5       | 6.4          | 8.2         | 9.8        | 8.3        | 9.2         |
| <b>23</b>       | 1.6        | 1.1        | 1.4         | 3.5          | 2.5        | 3.0         | 11.0       | 7.7          | 9.2         | 8.4        | 7.1        | 7.8         |
| <b>24</b>       | 1.5        | 1.1        | 1.3         | 3.9          | 3.1        | 3.4         | 11.8       | 8.4          | 9.5         | 7.8        | 6.8        | 7.2         |
| <b>25</b>       | 1.5        | 1.1        | 1.3         | 4.2          | 3.5        | 3.8         | 11.9       | 8.4          | 9.8         | 7.1        | 5.2        | 6.3         |
| <b>26</b>       | 1.4        | 1.0        | 1.1         | 4.7          | 3.2        | 3.9         | 10.2       | 9.0          | 9.5         | 5.2        | 4.8        | 4.9         |
| <b>27</b>       | 1.5        | 1.1        | 1.3         | 3.2          | 2.4        | 2.9         | 9.2        | 5.8          | 7.4         | 5.6        | 4.9        | 5.2         |
| <b>28</b>       | 1.5        | 1.2        | 1.4         | 3.6          | 2.5        | 3.1         | 5.8        | 5.0          | 5.3         | 6.4        | 5.0        | 5.6         |
| <b>29</b>       | 1.6        | 1.1        | 1.3         | 4.4          | 2.8        | 3.5         | 6.8        | 4.6          | 5.4         | 7.8        | 5.7        | 6.6         |
| <b>30</b>       | ---        | ---        | ---         | 4.8          | 3.2        | 3.9         | 6.8        | 4.7          | 5.6         | 8.2        | 7.1        | 7.4         |
| <b>31</b>       | ---        | ---        | ---         | 6.3          | 4.1        | 5.0         | ---        | ---          | ---         | 8.2        | 7.0        | 7.6         |
| <b>Month</b>    | 1.9        | 1.0        | 1.3         | 6.3          | 1.0        | 2.4         | 11.9       | 2.3          | 6.0         | 10.8       | 4.8        | 7.1         |

Water-Data Report 2012

**06204070 WEST ROSEBUD CREEK AT EMERALD LAKE CAMPGROUND, NEAR ROSCOE, MT—Continued**

# TEMPERATURE, WATER, DEGREES CELSIUS

## WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

| Day          | Max  | Min  | Mean | Max  | Min  | Mean | Max    | Min  | Mean | Max       | Min  | Mean |
|--------------|------|------|------|------|------|------|--------|------|------|-----------|------|------|
|              | June |      |      | July |      |      | August |      |      | September |      |      |
| 1            | 9.3  | 7.8  | 8.5  | 13.1 | 11.0 | 12.2 | 14.6   | 13.6 | 14.1 | 14.6      | 13.5 | 13.9 |
| 2            | 10.1 | 8.5  | 9.2  | 13.1 | 11.7 | 12.4 | 14.6   | 13.3 | 14.0 | 14.6      | 13.1 | 13.7 |
| 3            | 9.8  | 8.0  | 8.8  | 13.9 | 11.6 | 12.7 | 14.2   | 12.9 | 13.5 | 14.6      | 13.2 | 13.8 |
| 4            | 10.0 | 8.0  | 9.1  | 13.4 | 12.0 | 12.7 | 13.9   | 12.2 | 12.8 | 14.0      | 13.0 | 13.5 |
| 5            | 9.9  | 8.4  | 9.0  | 12.6 | 11.4 | 11.7 | 14.3   | 13.0 | 13.7 | 14.0      | 12.6 | 13.1 |
| 6            | 9.2  | 7.3  | 8.1  | 13.1 | 11.3 | 12.1 | 14.2   | 13.3 | 13.8 | 13.4      | 12.5 | 12.8 |
| 7            | 9.1  | 7.0  | 7.7  | 12.8 | 11.8 | 12.2 | 14.9   | 13.2 | 14.1 | 13.1      | 12.1 | 12.7 |
| 8            | 10.3 | 8.4  | 9.2  | 13.9 | 11.8 | 12.6 | 15.2   | 13.8 | 14.3 | 13.3      | 12.3 | 13.0 |
| 9            | 9.5  | 8.4  | 9.0  | 14.3 | 12.3 | 13.2 | 14.9   | 14.0 | 14.4 | 13.9      | 12.7 | 13.3 |
| 10           | 8.4  | 6.2  | 6.9  | 14.0 | 12.2 | 13.1 | 14.4   | 13.6 | 13.9 | 14.3      | 12.8 | 13.4 |
| 11           | 9.0  | 5.9  | 7.3  | 13.7 | 12.3 | 12.9 | 14.2   | 13.2 | 13.6 | 13.8      | 12.6 | 13.3 |
| 12           | 10.7 | 8.1  | 9.3  | 14.4 | 12.2 | 13.2 | 14.7   | 13.5 | 14.0 | 12.6      | 11.7 | 12.2 |
| 13           | 11.5 | 9.4  | 10.3 | 14.1 | 12.5 | 13.2 | 15.2   | 13.8 | 14.3 | 12.2      | 11.2 | 11.7 |
| 14           | 12.0 | 9.0  | 10.2 | 13.8 | 12.8 | 13.3 | 14.8   | 13.7 | 14.3 | 12.5      | 11.0 | 11.7 |
| 15           | 11.0 | 9.4  | 10.3 | 14.8 | 13.0 | 13.9 | 14.3   | 13.1 | 13.6 | 13.1      | 11.0 | 11.9 |
| 16           | 12.0 | 9.5  | 10.6 | 14.4 | 13.2 | 13.6 | 13.9   | 12.6 | 13.1 | 12.3      | 11.3 | 11.8 |
| 17           | 12.4 | 9.8  | 10.8 | 14.7 | 12.8 | 13.7 | 14.3   | 13.2 | 13.8 | 12.4      | 10.8 | 11.5 |
| 18           | 12.6 | 10.5 | 11.1 | 15.1 | 13.2 | 14.1 | 14.4   | 13.6 | 14.1 | 13.2      | 10.8 | 11.8 |
| 19           | 12.5 | 10.5 | 11.3 | 14.9 | 13.2 | 14.1 | 14.3   | 13.6 | 14.0 | 12.7      | 10.9 | 11.7 |
| 20           | 10.7 | 9.2  | 10.1 | 14.7 | 13.3 | 13.9 | 14.2   | 13.7 | 13.9 | 12.9      | 11.3 | 11.9 |
| 21           | 10.9 | 9.2  | 9.8  | 15.3 | 13.5 | 14.3 | 15.2   | 13.2 | 14.2 | 13.1      | 11.3 | 12.1 |
| 22           | 11.2 | 10.0 | 10.6 | 15.2 | 13.5 | 14.3 | 15.0   | 14.1 | 14.5 | 13.1      | 11.5 | 12.2 |
| 23           | 11.9 | 10.2 | 10.9 | 15.0 | 13.4 | 14.2 | 15.9   | 13.9 | 14.7 | 13.1      | 11.5 | 12.2 |
| 24           | 14.0 | 10.7 | 12.1 | 14.8 | 13.7 | 14.3 | 15.3   | 14.1 | 14.6 | 13.0      | 11.6 | 12.2 |
| 25           | 13.4 | 11.3 | 12.3 | 14.5 | 13.5 | 14.0 | 14.2   | 13.7 | 13.9 | 12.7      | 11.6 | 12.0 |
| 26           | 12.6 | 11.0 | 11.8 | 14.4 | 13.3 | 13.8 | 14.0   | 13.2 | 13.6 | 12.3      | 11.1 | 11.6 |
| 27           | 12.2 | 10.2 | 11.2 | 14.2 | 13.4 | 13.7 | 15.0   | 13.1 | 14.0 | 12.2      | 10.6 | 11.2 |
| 28           | 12.6 | 10.3 | 11.4 | 14.7 | 12.7 | 13.6 | 16.1   | 13.9 | 14.9 | 12.6      | 10.6 | 11.2 |
| 29           | 12.7 | 10.6 | 11.7 | 14.5 | 13.2 | 13.8 | 15.7   | 14.2 | 14.9 | 12.1      | 10.8 | 11.3 |
| 30           | 13.1 | 11.2 | 12.1 | 15.1 | 13.1 | 14.0 | 15.1   | 14.3 | 14.7 | 11.7      | 10.9 | 11.2 |
| 31           | ---  | ---  | ---  | 14.9 | 13.4 | 14.0 | 14.6   | 13.9 | 14.3 | ---       | ---  | ---  |
| <b>Month</b> | 14.0 | 5.9  | 10.0 | 15.3 | 11.0 | 13.4 | 16.1   | 12.2 | 14.1 | 14.6      | 10.6 | 12.3 |