



Water-Data Report 2008

**06324710 POWDER RIVER AT BROADUS, MT**

Powder Basin  
Middle Powder Subbasin

LOCATION.--Lat 45°25'37", long 105°24'05" referenced to North American Datum of 1927, in NE ¼ NE ¼ SE ¼ sec.3, T.5 S., R.51 E., Powder River County, MT, Hydrologic Unit 10090207, on right bank, 40 ft downstream from bridge on U.S. highway 212, 0.4 mi downstream from Doyle Creek, 1.0 mi south of Broadus, and 7.0 mi upstream from Little Powder River.

DRAINAGE AREA.--8,748 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1976 to September 1992, June 1995, July 2005 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: March 1976 to September 1979.

SUSPENDED-SEDIMENT DISCHARGE: October 1975 to September 1978, March 1979 to September 1992 (seasonal records only).

GAGE.--None. Elevation at sampling site is 3,016 ft, referenced to the National Geodetic Vertical Datum of 1929.

REMARKS--The water-quality sample collected at this site was made in conjunction with aquatic ecology samples collected for an interagency task group studying the effects of coal-bed natural gas development. Additional information is available at <http://wy.water.usgs.gov/projects/atg/index.htm>.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum daily observed 34.0°C, July 12, 1976; minimum daily, 0.0°C, many days during winter.

SEDIMENT CONCENTRATION: Maximum daily mean, 44,100 mg/L, July 29, 1977; minimum daily mean, 16 mg/L, Sept. 27, 1981.

SEDIMENT LOAD: Maximum daily, 1,570,000 tons, May 31, 1978; minimum daily, 0.64 tons, Aug. 7, 1988.

**WATER-QUALITY DATA**

**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 1 of 2

Date	Time	Instantaneous discharge, ft <sup>3</sup> /s (00061)	Turbidity white light, 90+/-30 corrctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
Jul													
31...	1620	222	100	680	8.1	114	8.4	2,230	30.0	26.5	610	143	60.3

06324710 POWDER RIVER AT BROADUS, MT—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 2 of 2

<b>Date</b>	<b>Potas- sium, water, fltrd, mg/L (00935)</b>	<b>Sodium adsorp- tion ratio (00931)</b>	<b>Sodium, water, fltrd, mg/L (00930)</b>	<b>Alka- linity, wat flt end lab, mg/L as CaCO3 (29801)</b>	<b>Chlor- ide, water, fltrd, mg/L (00940)</b>	<b>Fluor- ide, water, fltrd, mg/L (00950)</b>	<b>Silica, water, fltrd, mg/L (00955)</b>	<b>Sulfate water, fltrd, mg/L (00945)</b>	<b>Residue water, fltrd, sum of consti- tuents mg/L (70301)</b>	<b>Residue water, fltrd, tons/ acre-ft (70303)</b>	<b>Residue water, dis- solved, tons/d (70302)</b>
<b>Jul</b>											
<b>31...</b>	8.81	4.5	253	220	130	.48	8.46	777	1,510	2.06	907