

**Total Dissolved Gas Saturation(%) - Average of  
12 Highest Hours, 24 Hours Average and 24 Hours High  
(Washington Calculation)**

Date 2/18/2019 5:15:10 PM

**Total Dissolved Gas Data at Upper Columbia Sites**

Date	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph				Chief J. Dnst				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
02/04									99.4	100.0	99.6	24	99.0	99.7	99.6	24									02/04
02/05									98.5	99.3	98.9	24	97.9	98.8	99.3	24									02/05
02/06									97.2	98.3	97.7	24	96.6	97.3	98.0	24									02/06
02/07									96.7	97.1	97.8	24	95.8	96.3	96.6	24									02/07
02/08									97.6	98.0	98.2	24	97.0	97.5	98.1	24									02/08
02/09									98.3	98.4	98.5	24	98.5	98.7	99.3	24									02/09
02/10									98.4	98.5	98.6	24	98.4	99.0	99.9	24									02/10
02/11									98.0	98.5	98.6	24	98.0	98.8	100.3	24									02/11
02/12									98.4	98.6	98.7	24	98.0	98.3	98.6	24									02/12
02/13									99.1	99.2	99.4	24	98.6	98.9	99.0	24									02/13
02/14									99.7	100.2	100.4	24	99.1	99.4	99.7	24									02/14
02/15									99.2	100.1	99.7	24	98.9	99.2	99.6	24									02/15
02/16									98.7	99.0	98.9	24	98.6	98.9	99.3	24									02/16
02/17									97.8	98.6	98.3	23	97.8	98.4	98.4	23									02/17

**Total Dissolved Gas Data at Upper Columbia Sites**

Date	Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr				Rock Island				Rock I. Tlwr				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
02/04	96.8	98.1	97.6	24	97.1	98.3	97.6	24	98.4	99.9	99.3	20	99.9	103.7	101.2	18	99.3	101.1	103.1	22	99.4	100.7	102.2	20	02/04
02/05	95.8	96.6	96.4	24	96.1	97.0	96.6	24	97.0	98.0	97.6	21	98.6	99.5	99.7	20	96.7	97.7	97.4	21	96.9	97.8	97.6	19	02/05
02/06	95.0	95.6	95.5	24	95.2	95.9	95.9	24	95.6	96.7	96.2	21	96.9	98.4	98.4	19	95.3	96.4	96.0	24	95.5	96.5	96.1	21	02/06
02/07	95.0	95.4	95.5	24	95.4	95.8	95.9	24	95.0	95.3	95.5	23	96.5	97.0	97.5	20	94.9	95.1	95.4	22	95.0	95.2	95.5	20	02/07
02/08	95.7	96.2	96.2	24	96.1	96.5	96.6	24	96.3	96.8	97.3	23	97.9	98.2	99.1	23	95.9	96.4	96.6	23	96.0	96.4	96.8	23	02/08
02/09	96.3	96.4	96.5	24	96.5	96.7	96.9	24	97.5	97.5	97.7	23	99.0	99.2	99.7	21	96.7	96.8	96.9	23	96.8	96.9	97.1	22	02/09
02/10	96.4	96.7	97.0	24	96.7	97.1	97.3	24	97.4	97.5	97.6	21	98.8	99.4	99.7	20	97.1	97.3	97.4	23	97.2	97.4	97.4	20	02/10
02/11	96.0	96.7	96.5	24	96.3	97.0	96.6	24	96.9	97.5	97.6	24	98.4	99.2	99.7	23	96.4	97.3	97.3	23	96.5	97.4	97.4	23	02/11
02/12	96.2	96.5	96.7	24	96.5	96.9	97.2	24	97.1	97.3	97.4	24	98.6	98.8	99.3	24	96.6	96.9	97.0	23	96.7	96.9	97.0	23	02/12
02/13	96.8	97.1	97.3	24	97.1	97.5	97.8	24	97.5	97.6	97.8	23	99.2	99.4	100.0	22	97.1	97.2	97.4	24	97.2	97.3	97.4	22	02/13
02/14	97.9	98.5	98.6	24	98.2	98.8	99.0	24	98.1	98.5	98.6	24	99.8	99.9	100.4	23	97.7	98.0	98.1	24	97.9	98.1	98.2	22	02/14
02/15	97.6	98.5	98.1	24	98.2	98.7	100.3	24	97.7	98.5	98.1	23	99.0	100.0	100.5	20	97.3	98.1	98.0	22	97.6	98.1	98.8	21	02/15
02/16	96.9	97.4	97.0	24	97.1	97.9	97.3	24	97.6	97.7	97.8	22	98.8	99.0	99.5	19	97.0	97.3	97.4	21	97.1	97.6	97.3	19	02/16
02/17	96.0	96.7	96.5	22	96.3	97.0	96.8	22	97.4	97.7	97.7	21	98.6	99.2	99.6	21	96.8	97.2	97.2	23	96.9	97.2	97.3	23	02/17

**Total Dissolved Gas Saturation(%) - Average of  
12 Highest Hours, 24 Hours Average and 24 Hours High  
(Washington Calculation)**

**Total Dissolved Gas Data at Upper and Mid-Columbia Sites**

Date	Wanapum				Wanapum Tlwr				Priest Rapids				Priest R. Dnstr				Pasco				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
02/04	99.6	100.1	100.0	24	99.6	106.1	100.2	24	100.5	102.2	105.9	24	100.2	101.5	104.2	24					02/04
02/05	98.4	99.4	99.2	24	98.3	99.3	99.0	24	98.4	102.5	100.8	24	98.2	101.6	100.0	24					02/05
02/06	96.7	97.9	97.6	24	98.3	99.7	110.8	24	96.5	97.7	97.2	24	97.0	97.8	98.2	24					02/06
02/07	96.0	96.3	96.3	24	96.6	99.5	97.8	24	95.9	96.3	96.8	24	95.9	96.8	96.4	14					02/07
02/08	96.7	97.1	97.4	24	96.9	97.2	97.3	24	97.8	98.2	98.4	24				0					02/08
02/09	97.3	97.5	97.7	24	97.4	97.4	97.7	24	97.5	98.2	98.1	24				0					02/09
02/10	97.2	97.3	97.8	24	97.6	98.0	98.9	24	96.9	97.1	97.5	24				0					02/10
02/11	97.0	97.5	97.6	24	97.1	98.0	97.8	24	96.7	97.3	97.3	24				0					02/11
02/12	97.2	97.4	97.5	24	97.4	97.7	97.9	24	96.9	97.1	97.2	24				0					02/12
02/13	97.9	98.0	98.1	24	98.1	98.3	98.6	24	97.4	97.5	97.6	24				0					02/13
02/14	98.5	99.0	99.2	24	98.6	99.1	99.3	24	98.2	98.7	98.9	24				0					02/14
02/15	97.9	98.9	98.6	24	98.2	99.0	98.9	24	97.6	98.6	98.2	24				0					02/15
02/16	97.4	97.8	97.7	24	97.9	98.4	100.9	24	97.4	97.5	97.5	24				0					02/16
02/17	96.8	97.4	97.3	24	97.0	98.1	97.5	24	96.8	97.4	97.3	24				0					02/17

**Total Dissolved Gas Data at Snake and Clearwater Sites**

Date	Dworshak				Clrwr Peck				Anatone				Clrwr-Lewiston				Lower Granite				Lower G. Tlwr				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
02/04	103.4	103.9	104.8	24																	103.1	103.3	103.5	24	02/04
02/05	101.9	103.3	102.6	24																	101.3	102.7	101.9	24	02/05
02/06	101.0	101.7	102.4	24																	99.8	101.0	100.8	24	02/06
02/07	99.4	100.8	100.2	24																	98.7	99.2	99.4	24	02/07
02/08	99.6	100.2	100.7	24																	99.6	99.9	100.1	24	02/08
02/09	100.2	100.6	101.3	24																	100.2	100.5	100.8	24	02/09
02/10	100.5	101.4	102.3	24																	98.9	100.0	99.5	24	02/10
02/11	101.6	101.9	102.5	24																	98.1	98.8	98.9	24	02/11
02/12	100.6	101.7	104.6	24																	98.1	98.4	99.1	24	02/12
02/13	101.3	102.2	103.6	24																	99.1	99.3	100.1	24	02/13
02/14	101.2	102.4	103.3	24																	100.6	101.1	101.6	24	02/14
02/15	101.6	102.3	102.5	24																	100.6	101.0	101.4	24	02/15
02/16	101.3	101.8	102.7	24																	100.1	100.5	100.5	24	02/16
02/17	100.9	101.4	102.1	23																	99.2	99.9	100.0	23	02/17

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**Total Dissolved Gas Data at Lower Snake Sites**

Little Goose					L. Goose Tlwr				Lower Mon.				Lwr. Mon. Tlwr				Ice Harbor				Tlwr Ice Harbor				
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
02/04					101.4	101.7	101.9	24					100.6	101.2	101.1	24					100.2	101.3	101.0	24	02/04
02/05					99.7	101.0	100.3	24					99.3	100.3	100.4	24					98.8	99.6	99.4	24	02/05
02/06					98.2	99.3	98.8	24					97.8	99.0	98.5	24					97.5	98.5	98.2	24	02/06
02/07					97.6	98.0	98.2	24					97.1	97.4	97.6	24					97.0	97.3	98.5	24	02/07
02/08					98.6	99.1	99.4	24					98.1	98.4	98.6	24					97.7	98.0	98.6	24	02/08
02/09					99.6	99.8	100.0	24					98.9	99.3	100.5	24					98.4	98.6	99.2	24	02/09
02/10					98.8	99.4	99.1	24					98.3	98.6	98.9	24					97.9	98.3	98.4	24	02/10
02/11					98.8	98.9	99.2	24					98.8	99.1	100.8	24					98.0	98.3	98.8	24	02/11
02/12					99.0	99.3	99.8	24					99.1	100.0	106.4	24					98.2	98.5	98.9	24	02/12
02/13					99.5	99.6	99.8	24					99.2	99.6	102.2	24					98.6	98.9	99.5	24	02/13
02/14					100.3	100.7	101.1	24					99.8	100.2	100.8	24					99.2	99.7	100.5	24	02/14
02/15					99.4	100.4	99.9	24					98.9	100.0	99.4	24					98.4	99.4	99.1	24	02/15
02/16					98.9	99.1	99.3	24					98.6	98.8	99.8	24					98.1	98.4	99.1	24	02/16
02/17					97.9	98.8	98.6	23					97.8	98.5	98.3	23					97.6	98.2	98.9	23	02/17

**Total Dissolved Gas Data at Mid-Columbia Sites**

McNary-Wash.					Tlwr McNary				John Day				Tlwr John Day				The Dalles				Dnstr T. Dalles				
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
02/04					101.1	103.3	103.2	24					101.1	101.7	101.5	24					99.9	100.8	100.6	24	02/04
02/05					98.5	99.3	98.8	24					99.6	100.6	100.3	24					98.3	99.5	98.9	24	02/05
02/06					97.0	98.2	97.8	24					98.1	99.2	98.7	24					97.0	98.0	97.5	24	02/06
02/07					96.0	96.5	96.2	24					97.5	97.7	97.9	24					96.5	96.8	96.8	24	02/07
02/08					96.7	97.2	97.7	24					98.5	98.8	99.5	24					97.5	98.1	98.2	24	02/08
02/09					98.5	98.9	99.2	24					99.2	99.6	99.9	24					98.2	98.5	98.6	24	02/09
02/10					98.3	98.6	99.2	24					99.1	99.4	99.7	24					97.6	97.9	98.3	24	02/10
02/11					98.4	98.9	99.1	24					98.7	99.5	99.5	24					97.7	98.0	98.0	24	02/11
02/12					98.6	98.9	99.0	24					98.4	98.5	98.7	24					98.0	98.2	98.4	24	02/12
02/13					98.9	99.0	99.1	24					98.9	99.0	99.2	24					98.4	98.5	98.7	24	02/13
02/14					99.3	99.5	99.8	24					99.5	99.8	100.0	23					98.5	98.8	99.1	24	02/14
02/15					98.6	99.4	99.0	24					99.4	99.7	99.9	24					97.7	98.6	98.1	24	02/15
02/16					98.1	98.4	98.5	24					99.0	99.6	99.7	24					97.5	97.7	97.8	24	02/16
02/17					97.6	98.1	97.9	23					98.4	98.9	99.0	23					97.1	97.7	97.6	23	02/17

**Total Dissolved Gas Saturation(%) - Average of  
12 Highest Hours, 24 Hours Average and 24 Hours High  
(Washington Calculation)**

**Total Dissolved Gas Data at Mid-Columbia Sites**

Date	Bonneville				Warrendale				Camas\Washug.				Cascade Isld.				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
02/04					101.6	102.6	102.8	24									02/04
02/05					99.9	101.8	100.9	24									02/05
02/06					98.7	99.9	99.6	24									02/06
02/07					98.4	99.1	99.6	24									02/07
02/08					99.4	100.5	101.4	24									02/08
02/09					100.0	100.5	100.7	24									02/09
02/10					99.7	100.5	101.1	24									02/10
02/11					99.5	100.5	100.1	24									02/11
02/12					99.1	99.5	100.0	24									02/12
02/13					99.9	100.7	101.3	24									02/13
02/14					101.2	101.7	102.2	24									02/14
02/15					101.1	101.7	101.6	24									02/15
02/16					99.5	101.0	100.0	24									02/16
02/17					98.9	99.5	99.3	23									02/17

Hours used in calculating values:

