

Water-Data Report 2013

12214500 SUMAS RIVER NEAR SUMAS, WA

Puget Sound Basin
Fraser Subbasin

LOCATION.--Lat 48°58'30", long 122°15'00" referenced to North American Datum of 1927, in NW ¼ NE ¼ sec.11, T.4 N., R.4 E., Whatcom County, WA, Hydrologic Unit 17110001, on right bank, at Telegraph Road, 1.5 mi southeast of Sumas.

DRAINAGE AREA.--31.0 mi², revised for 2011

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1948 to September 1950, May to September 1955, January 2011 to September 2013.

GAGE.--Water stage recorder. Elevation of gage is arbitrary.

REMARKS.--No estimated daily discharges. Records good. U.S. Geological Survey satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 800 ft³/s, Dec. 28, 1949, gage height, 8.89 ft; minimum discharge, 9 ft³/s, Aug. 23, 2013.

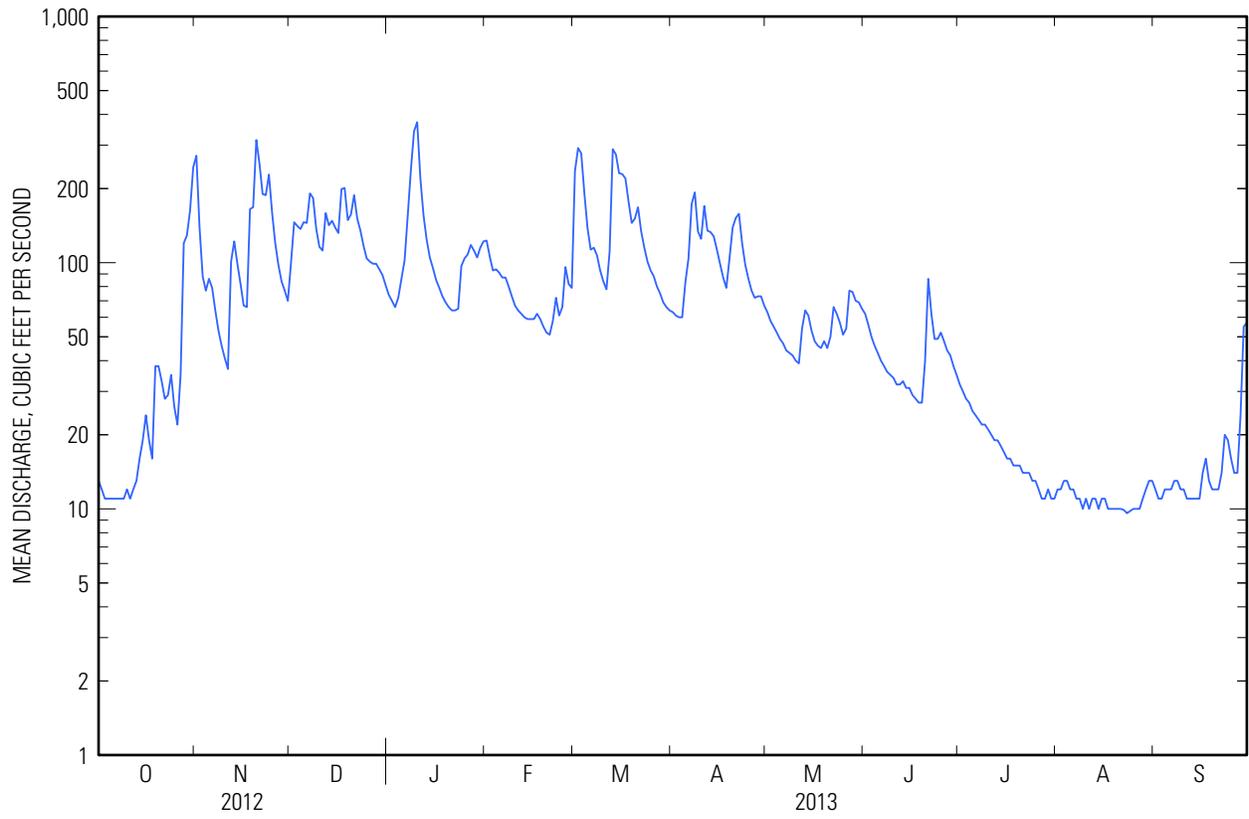
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 414 ft³/s, Jan. 10, gage height 13.12 ft; minimum discharge, 9.0 ft³/s, Aug. 23, gage height, 4.45 ft, minimum gage height, 4.33 ft Oct. 6.

12214500 SUMAS RIVER NEAR SUMAS, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	13	272	100	74	123	235	63	63	62	32	12	12
2	12	139	146	70	106	292	61	58	56	30	12	11
3	11	88	141	66	93	278	60	55	50	28	13	11
4	11	77	137	72	94	191	60	52	46	27	13	12
5	11	86	146	86	91	138	83	49	43	25	12	12
6	11	79	145	102	87	113	104	47	40	24	12	12
7	11	64	191	155	87	115	173	44	38	23	11	13
8	11	53	183	238	80	107	193	43	36	22	11	13
9	11	46	137	342	73	93	134	42	35	22	10	12
10	12	41	116	372	67	84	125	40	34	21	11	12
11	11	37	112	221	64	78	170	39	32	20	10	11
12	12	101	159	156	62	111	135	54	32	19	11	11
13	13	122	142	124	60	289	133	64	33	19	11	11
14	16	99	148	105	59	275	128	61	31	18	10	11
15	19	82	139	95	59	231	113	53	31	17	11	11
16	24	67	132	85	59	229	99	48	29	16	11	14
17	19	66	199	79	62	220	87	46	28	16	10	16
18	16	165	201	73	59	177	79	45	27	15	10	13
19	38	168	149	69	55	145	104	48	27	15	10	12
20	38	315	157	66	52	151	139	45	40	15	10	12
21	33	253	188	64	51	168	152	50	86	14	10	12
22	28	190	151	64	58	134	158	66	62	14	9.9	14
23	29	188	135	65	72	115	120	62	49	14	9.6	20
24	35	228	117	97	61	101	98	57	49	13	9.8	19
25	26	160	104	104	66	93	86	51	52	13	10	16
26	22	120	101	108	96	88	77	54	48	12	10	14
27	35	98	99	118	82	80	72	77	44	11	10	14
28	120	84	99	112	79	75	73	76	42	11	11	24
29	129	77	94	105	---	69	73	70	38	12	12	55
30	163	70	89	115	---	66	67	69	35	11	13	57
31	244	---	81	122	---	64	---	65	---	11	13	---
Total	1,184	3,635	4,238	3,724	2,057	4,605	3,219	1,693	1,255	560	339.3	487
Mean	38.2	121	137	120	73.5	149	107	54.6	41.8	18.1	10.9	16.2
Max	244	315	201	372	123	292	193	77	86	32	13	57
Min	11	37	81	64	51	64	60	39	27	11	9.6	11
Ac-ft	2,350	7,210	8,410	7,390	4,080	9,130	6,380	3,360	2,490	1,110	673	966
Cfsm	1.23	3.91	4.41	3.88	2.37	4.79	3.46	1.76	1.35	0.58	0.35	0.52
In.	1.42	4.36	5.09	4.47	2.47	5.53	3.86	2.03	1.51	0.67	0.41	0.58

12214500 SUMAS RIVER NEAR SUMAS, WA—Continued



12214500 SUMAS RIVER NEAR SUMAS, WA—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

TURBIDITY: April 2011 to September 2013.

INSTRUMENTATION.--Turbidity sensor (FTS DTS-12) interfaced with a Data Collection Platform/Electronic Datalogger, with 15-minute recording interval, since April 2011. Any use of trade, product, or firm names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Government.

REMARKS.--

TURBIDITY: Records are good. No record Oct. 18-22, 25-26, 28, 30-31 and Feb. 10-11, and Jul. 5-30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

TURBIDITY: Maximum, >1,670 FNU, Jan. 30, 2012; Minimum, 2.6, Sept. 11, 2013.

EXTREMES FOR CURRENT YEAR.--

TURBIDITY: Maximum, >1,600 FNU, Nov. 20, and March 1, 2013; Minimum, 2.6, Sept. 11.

**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Max	---	---	---	---	---	---	---	---	---	---	---	---
Min	---	---	---	---	---	---	---	---	---	---	---	---

12214500 SUMAS RIVER NEAR SUMAS, WA—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	29	16	20
2	---	---	---	---	---	---	---	---	---	41	15	19
3	---	---	---	---	---	---	---	---	---	95	24	41
4	---	---	---	---	---	---	---	---	---	24	14	17
5	---	---	---	---	---	---	---	---	---	31	13	16
6	---	---	---	---	---	---	---	---	---	82	22	25
7	---	---	---	---	---	---	---	---	---	700	32	67
8	---	---	---	---	---	---	---	---	---	630	71	140
9	---	---	---	---	---	---	---	---	---	72	40	50
10	---	---	---	---	---	---	---	---	---	42	30	35
11	---	---	---	---	---	---	---	---	---	170	27	44
12	---	---	---	---	---	---	---	---	---	1,110	150	250
13	---	---	---	---	---	---	---	---	---	180	90	130
14	---	---	---	---	---	---	---	---	---	95	51	75
15	---	---	---	---	---	---	---	---	---	54	40	46
16	---	---	---	---	---	---	---	---	---	100	48	64
17	---	---	---	---	---	---	---	---	---	110	45	59
18	---	---	---	---	---	---	---	---	---	67	28	38
19	---	---	---	---	---	---	---	---	---	55	21	31
20	---	---	---	---	---	---	---	---	---	60	19	26
21	---	---	---	---	---	---	33	11	14	32	17	23
22	---	---	---	---	---	---	34	11	14	26	15	18
23	---	---	---	---	---	---	15	10	12	32	12	16
24	---	---	---	---	---	---	14	9.0	11	25	11	14
25	---	---	---	---	---	---	110	10	13	38	10	14
26	---	---	---	---	---	---	150	28	41	89	13	23
27	---	---	---	---	---	---	94	19	26	30	13	17
28	---	---	---	---	---	---	370	54	95	27	13	15
29	---	---	---	---	---	---	65	30	37	19	12	14
30	---	---	---	---	---	---	36	20	25	43	9.0	14
31	---	---	---	---	---	---	---	---	---	31	9.8	13
Max	---	---	---	---	---	---	---	---	---	1,110	150	250
Min	---	---	---	---	---	---	---	---	---	19	9.0	13

12214500 SUMAS RIVER NEAR SUMAS, WA—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	330	19	48	14	7.4	9.2	12	4.6	6.4	5.9	3.2	3.8
2	55	17	25	13	7.2	9.2	9.1	4.4	5.9	7.5	2.9	4.1
3	46	15	20	86	8.0	10	---	---	---	6.4	3.3	4.2
4	56	13	17	12	7.4	9.7	---	---	---	7.7	3.4	4.0
5	62	11	18	14	7.1	9.1	---	---	---	6.6	3.3	3.9
6	---	---	---	11	6.3	8.3	---	---	---	16	3.2	4.1
7	---	---	---	17	6.7	8.3	---	---	---	20	3.4	4.3
8	20	11	14	14	5.9	8.1	---	---	---	10	3.3	4.2
9	16	9.8	12	18	5.9	7.9	---	---	---	6.4	3.5	4.5
10	17	9.4	13	9.7	5.9	7.4	---	---	---	22	3.9	5.0
11	16	9.9	12	18	6.4	8.8	---	---	---	10	5.0	6.3
12	16	9.7	12	10	5.6	7.2	---	---	---	17	4.0	6.6
13	15	9.4	12	10	6.2	7.9	---	---	---	12	3.7	4.6
14	35	8.9	11	41	9.1	22	---	---	---	9.0	4.1	4.8
15	22	8.6	11	34	12	17	---	---	---	7.4	4.0	4.9
16	15	8.1	10	17	8.6	12	---	---	---	14	4.6	5.5
17	---	---	---	17	11	13	---	---	---	11	5.8	8.1
18	---	---	---	18	11	13	---	---	---	12	7.0	8.9
19	17	11	13	21	8.5	11	6.9	3.3	4.1	9.7	5.5	7.0
20	14	7.8	11	30	8.3	10	8.0	3.2	4.1	17	5.8	7.0
21	---	---	---	31	11	15	14	3.2	4.1	8.3	5.4	6.2
22	---	---	---	23	11	14	13	3.7	4.7	---	---	---
23	---	---	---	16	8.1	11	8.1	3.7	4.7	---	---	---
24	16	8.1	10	13	6.9	9.7	5.9	2.7	4.0	---	---	---
25	12	7.8	9.5	13	6.8	9.0	8.5	3.3	4.7	---	---	---
26	23	7.4	9.6	14	6.4	9.0	7.4	2.8	3.9	---	---	---
27	83	7.6	9.6	13	6.2	8.0	6.2	3.0	3.8	---	---	---
28	11	7.7	9.2	14	5.9	8.8	6.2	3.0	4.0	---	---	---
29	13	7.8	9.8	25	5.5	8.5	8.8	3.4	4.0	8.8	3.8	4.8
30	14	9.3	11	14	4.6	7.8	6.4	3.0	4.2	8.0	3.6	4.3
31	---	---	---	180	5.4	7.1	12	3.2	4.2	---	---	---
Max	---	---	---	180	12	22	---	---	---	---	---	---
Min	---	---	---	9.7	4.6	7.1	---	---	---	---	---	---

12214500 SUMAS RIVER NEAR SUMAS, WA—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[>, greater than]

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	October			November			December			January		
1	52	6.2	8.1	390	240	290	390	30	99	22	13	15
2	17	5.6	6.6	260	130	200	160	62	88	16	13	14
3	12	5.1	6.0	150	96	120	140	55	97	25	12	14
4	12	5.0	6.0	130	78	95	180	62	78	35	14	16
5	12	4.4	5.6	350	77	130	330	65	88	78	22	26
6	9.2	4.2	5.4	170	63	92	330	51	82	150	28	38
7	14	4.2	5.1	80	52	66	350	84	130	420	28	140
8	14	4.1	4.9	---	---	---	150	50	70	400	110	160
9	9.1	4.2	5.0	---	---	---	68	34	42	420	120	180
10	12	4.5	5.2	---	---	---	40	32	35	130	100	110
11	8.7	4.3	5.5	---	---	---	110	29	32	120	51	67
12	6.1	3.8	4.6	---	---	---	300	62	100	55	38	44
13	9.7	4.5	6.5	---	---	---	66	36	45	63	27	33
14	37	7.1	9.8	97	56	64	84	33	43	46	23	26
15	49	9.2	15	62	36	46	39	24	28	34	25	29
16	24	12	15	93	30	38	50	24	32	46	25	30
17	22	9.5	13	84	26	33	160	41	79	27	18	21
18	---	---	---	990	74	180	70	28	40	24	18	20
19	---	---	---	400	88	100	29	21	24	24	18	19
20	---	---	---	>1,600	230	370	260	23	63	29	17	22
21	---	---	---	280	160	250	180	31	50	46	25	40
22	---	---	---	380	120	150	34	24	26	42	30	35
23	190	28	36	200	100	110	63	22	26	49	29	36
24	190	63	100	270	90	160	23	19	21	390	49	170
25	---	---	---	90	56	68	24	17	19	430	77	160
26	---	---	---	59	44	51	26	17	19	230	69	88
27	360	16	26	78	38	45	36	17	24	140	53	71
28	---	---	---	58	32	38	44	16	20	130	41	60
29	570	190	250	44	30	33	29	15	17	80	34	39
30	---	---	---	37	26	30	28	15	17	290	36	130
31	---	---	---	---	---	---	48	14	16	310	120	160
Max	---	---	---	---	---	---	390	84	130	430	120	180
Min	---	---	---	---	---	---	23	14	16	16	12	14

12214500 SUMAS RIVER NEAR SUMAS, WA—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[>, greater than]

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	390	130	190	>1,600	79	800	21	18	20	15	9.6	11
2	150	62	98	510	270	340	32	18	20	12	8.6	10
3	69	50	57	510	170	260	32	17	19	11	7.8	9.1
4	93	49	58	180	95	130	24	15	18	11	7.5	8.6
5	57	42	46	110	64	81	100	24	41	11	6.7	8.0
6	72	39	46	94	57	62	190	40	54	15	6.4	7.6
7	120	39	54	97	58	67	440	88	130	10	6.3	7.5
8	44	29	34	71	45	53	360	70	120	9.3	6.4	7.4
9	32	24	26	63	36	42	84	46	58	8.9	6.4	7.3
10	---	---	---	43	31	35	190	40	47	8.5	6.6	7.1
11	---	---	---	34	27	30	320	66	110	9.1	6.8	7.4
12	41	21	25	680	28	57	67	38	48	53	7.2	16
13	56	22	27	1,150	270	680	160	38	50	45	21	27
14	34	20	22	460	150	270	180	34	46	33	18	23
15	32	21	24	220	130	160	38	30	32	20	12	14
16	68	21	22	1,200	120	300	32	24	27	14	10	12
17	46	27	37	420	120	200	25	19	22	14	10	12
18	32	21	25	160	76	110	21	17	19	15	10	11
19	23	19	21	110	54	66	120	19	43	27	15	20
20	23	17	20	230	55	87	420	56	95	22	12	15
21	28	17	19	350	65	100	200	60	78	40	13	17
22	270	28	41	68	44	56	130	41	58	60	30	43
23	300	39	67	57	36	42	42	26	31	36	22	26
24	41	24	28	46	31	36	29	21	24	23	18	19
25	280	24	33	56	28	31	72	18	23	19	12	15
26	410	43	65	52	28	32	29	14	18	35	13	15
27	72	30	38	89	24	27	18	14	16	74	34	46
28	79	26	31	73	27	34	29	14	17	61	28	35
29	---	---	---	37	21	25	29	14	18	51	25	35
30	---	---	---	24	19	22	16	10	11	65	26	32
31	---	---	---	24	18	20	---	---	---	160	24	28
Max	---	---	---	1,600	270	800	440	88	130	160	34	46
Min	---	---	---	24	18	20	16	10	11	8.5	6.3	7.1

12214500 SUMAS RIVER NEAR SUMAS, WA—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[>, greater than]

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	41	20	26	18	10	12	7.5	3.1	3.8	6.2	3.3	3.8
2	23	16	18	16	10	12	7.4	3.4	4.0	11	3.2	3.7
3	21	13	16	12	7.5	9.3	15	3.4	4.0	7.8	3.3	4.1
4	18	11	14	14	8.2	10	5.0	3.1	3.6	6.6	3.3	3.7
5	17	11	12	---	---	---	5.5	3.1	3.6	6.3	2.9	3.4
6	24	10	12	---	---	---	6.5	3.1	3.7	5.8	2.8	3.2
7	26	9.7	11	---	---	---	9.2	3.0	3.7	4.7	3.1	3.4
8	13	8.8	10	---	---	---	10	2.9	3.7	4.9	3.0	3.5
9	14	7.9	9.6	---	---	---	4.0	2.9	3.4	4.7	2.9	3.2
10	13	7.7	8.9	---	---	---	12	2.8	3.6	14	2.8	3.2
11	12	7.6	9.6	---	---	---	5.7	3.1	3.4	6.0	2.6	3.1
12	11	7.7	9.2	---	---	---	4.3	2.9	3.4	10	2.9	3.2
13	13	8.1	9.5	---	---	---	6.9	2.7	3.3	5.6	2.8	3.3
14	12	7.2	8.7	---	---	---	17	3.1	3.7	6.9	2.9	3.6
15	10	6.7	8.3	---	---	---	4.7	3.1	3.5	6.6	3.0	3.5
16	12	7.1	8.6	---	---	---	10	2.9	3.5	12	3.8	5.8
17	11	6.8	7.9	---	---	---	6.7	3.0	3.4	8.8	4.9	6.5
18	11	6.9	8.5	---	---	---	6.2	3.0	3.2	7.7	3.7	4.2
19	14	6.8	8.4	---	---	---	8.2	3.0	3.2	7.9	3.1	3.6
20	93	9.7	13	---	---	---	6.4	2.9	3.3	6.3	3.2	3.5
21	600	71	140	---	---	---	5.3	2.8	3.1	3.9	2.9	3.3
22	75	33	44	---	---	---	7.3	2.7	3.1	25	3.4	5.0
23	36	22	26	---	---	---	6.4	2.7	3.2	26	8.8	14
24	75	24	27	---	---	---	8.2	2.7	3.4	31	12	18
25	50	24	33	---	---	---	7.8	2.9	3.4	14	7.3	8.7
26	39	20	24	---	---	---	4.2	2.7	3.1	12	5.4	7.0
27	26	15	18	---	---	---	11	2.8	3.1	14	4.9	6.2
28	23	15	18	---	---	---	6.9	2.9	3.5	70	6.7	29
29	21	14	17	---	---	---	10	3.5	4.1	1,120	65	140
30	20	12	14	---	---	---	6.7	3.8	4.4	---	---	---
31	---	---	---	4.6	3.1	3.5	6.8	3.6	4.0	---	---	---
Max	600	71	140	---	---	---	17	3.8	4.4	---	---	---
Min	10	6.7	7.9	---	---	---	4.0	2.7	3.1	---	---	---