

# Model Statistics, Data, and Plots

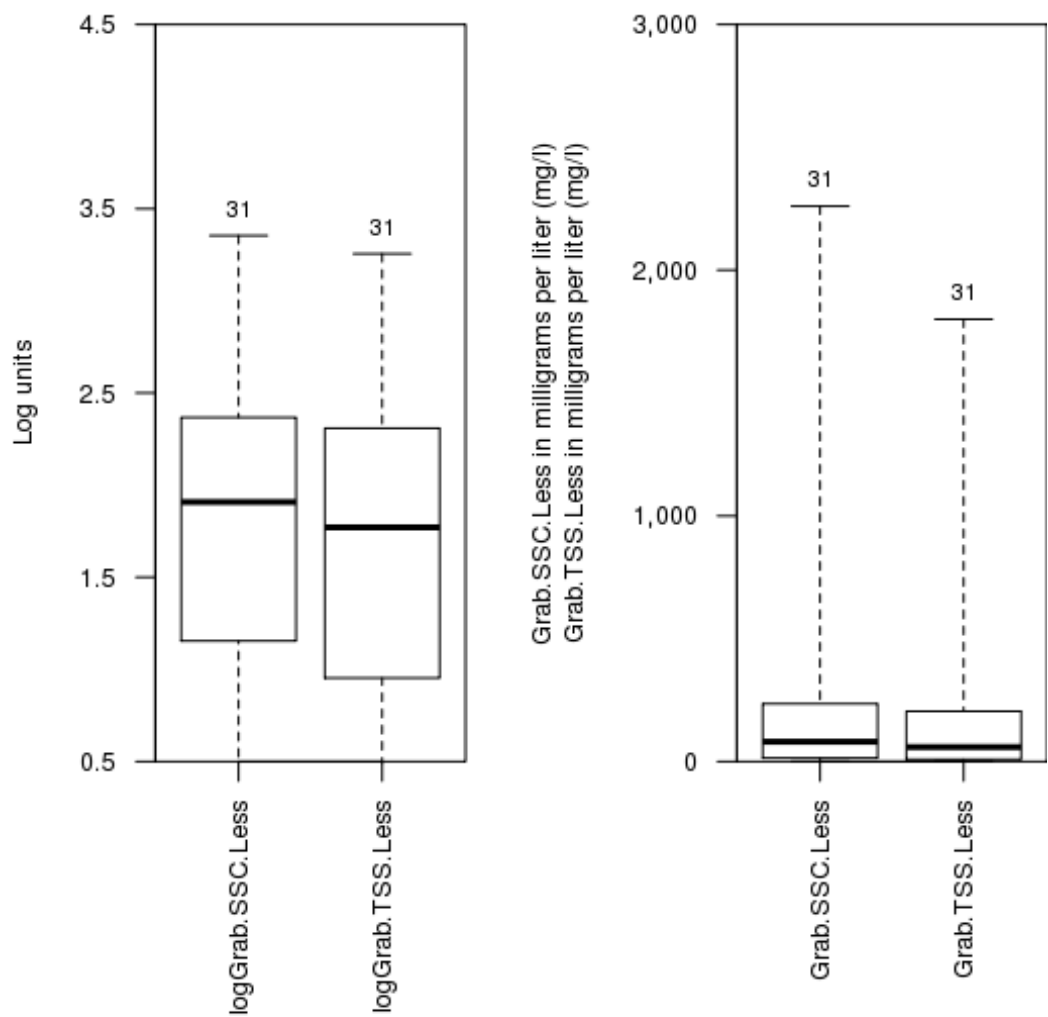
## Model

$\text{logGrab.SSC.Less} = + 1.06 * \text{logGrab.TSS.Less} - 0.0391$

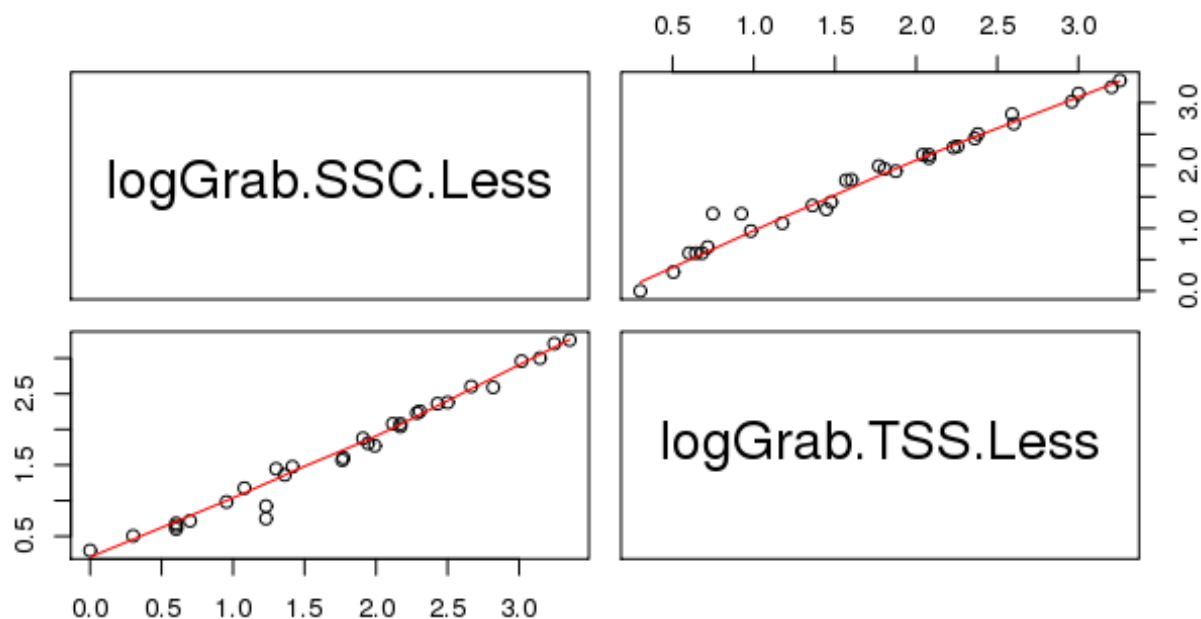
## Variable Summary Statistics

	logGrab.SSC.Less	Grab.SSC.Less	logGrab.TSS.Less	Grab.TSS.Less
Minimum	0.00	1	0.301	2.0
1st Quartile	1.08	12	0.924	8.4
Median	1.91	81	1.770	59.0
Mean	1.77	307	1.720	248.0
3rd Quartile	2.43	269	2.360	230.0
Maximum	3.35	2260	3.260	1800.0

## Box Plots



Exploratory Plots



Basic Model Statistics

Number of Observations	31
Standard error (RMSE)	0.145
Average Model standard percentage error (MSPE)	34.1
Coefficient of determination ( $R^2$ )	0.975
Adjusted Coefficient of Determination (Adj. $R^2$ )	0.974
Bias Correction Factor (BCF)	1.06

Explanatory Variables

	Coefficients	Standard Error	t value	Pr(> t )
(Intercept)	-0.0391	0.0596	-0.656	5.17e-01
logGrab.TSS.Less	1.0600	0.0312	33.900	7.24e-25

Correlation Matrix

	Intercept	E.vars
Intercept	1.000	-0.899
E.vars	-0.899	1.000

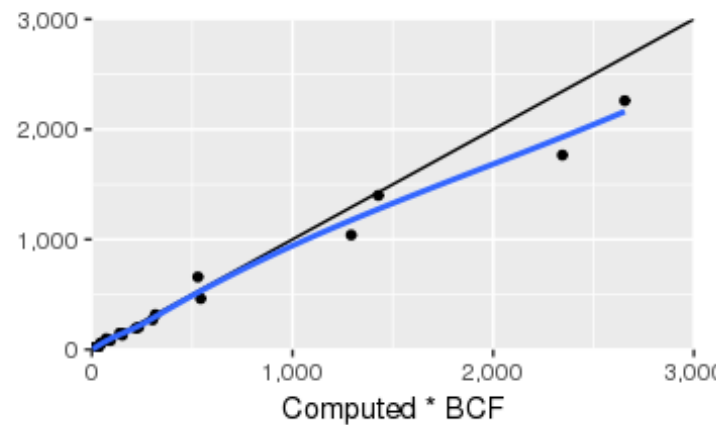
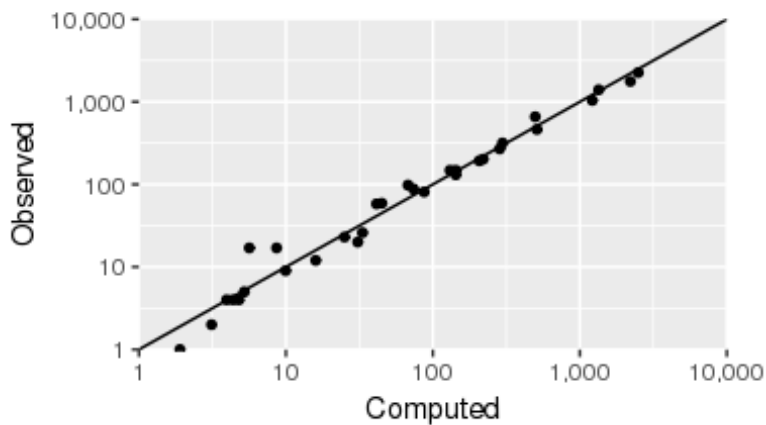
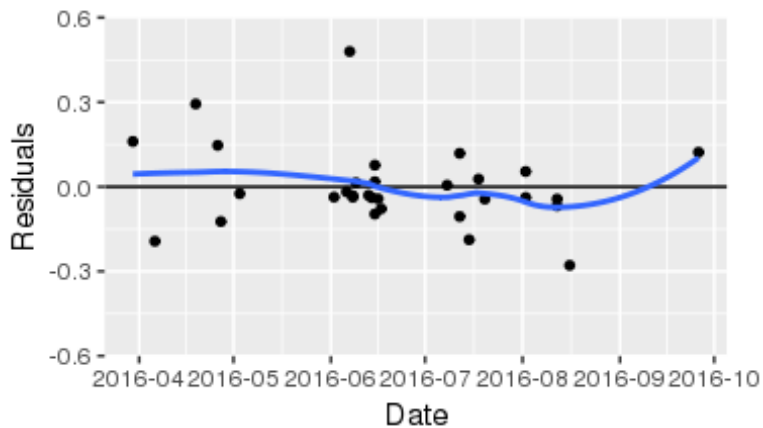
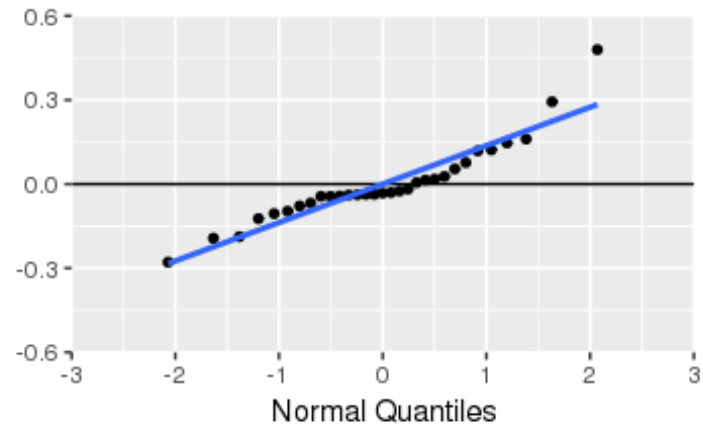
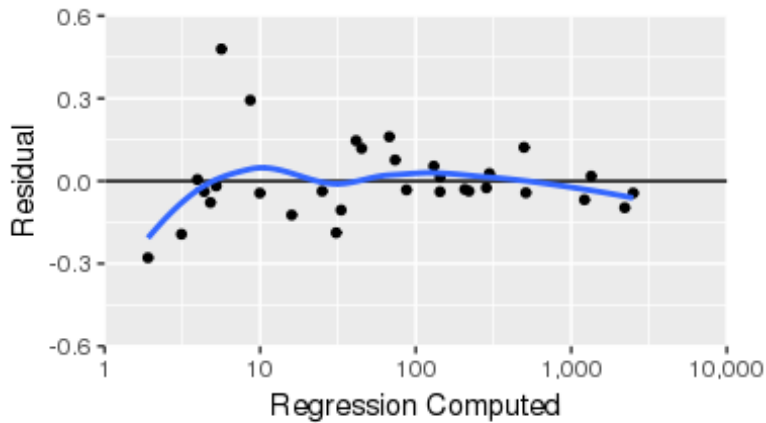
Outlier Test Criteria

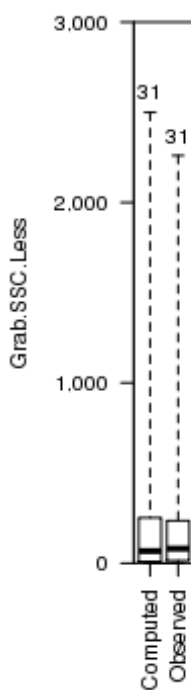
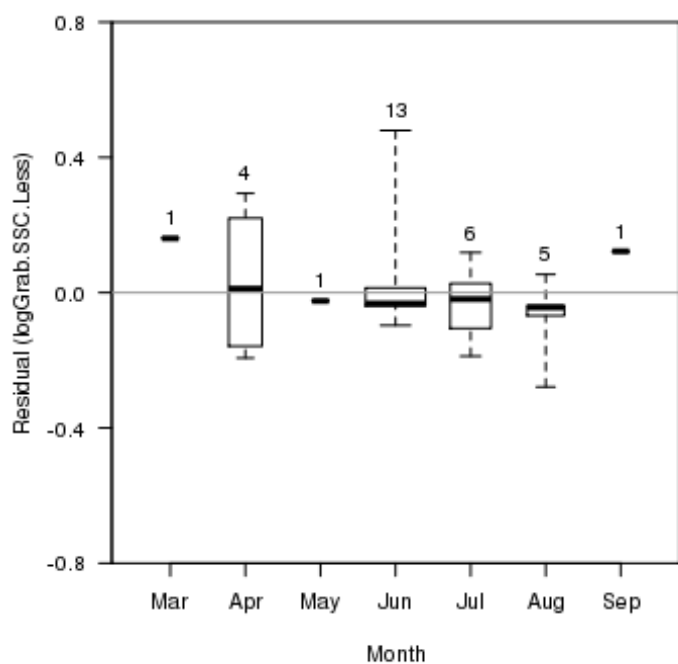
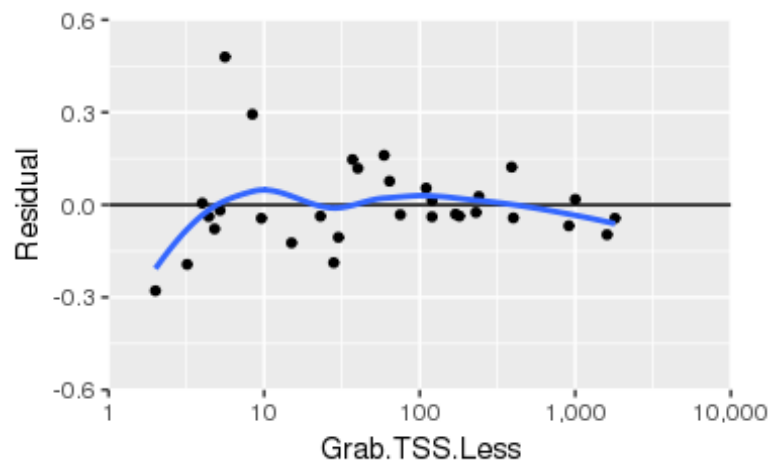
Leverage	Cook's D	DFFITS
0.0968	0.1057	0.3592

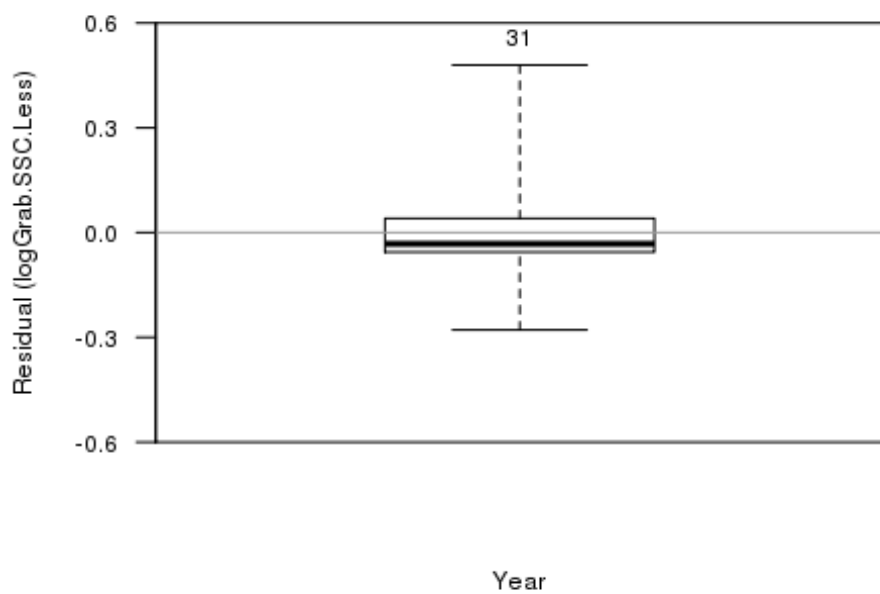
## Flagged Observations

	logGrab.SSC.Less	Estimate	Residual	Standard	Residual	Studentized	Residual	Leverage	Cook's D	DFFITS
6/15/2016 17:35	3.150	3.130	0.0178		0.130		0.128	0.1080	0.00102	0.0444
4/6/2016 15:35	0.301	0.494	-0.1930		-1.400		-1.420	0.0997	0.10900	-0.4740
8/12/2016 10:40	3.020	3.090	-0.0680		-0.494		-0.487	0.1030	0.01400	-0.1650
6/15/2016 9:05	3.250	3.340	-0.0968		-0.715		-0.709	0.1340	0.03950	-0.2790
8/11/2016 19:50	3.350	3.400	-0.0437		-0.324		-0.319	0.1410	0.00862	-0.1290
4/19/2016 12:40	1.230	0.937	0.2940		2.080		2.220	0.0611	0.14100	0.5670
6/7/2016 10:50	1.230	0.751	0.4800		3.430		4.370	0.0754	0.47900	1.2500
8/16/2016 9:40	0.000	0.279	-0.2790		-2.050		-2.180	0.1240	0.29800	-0.8200

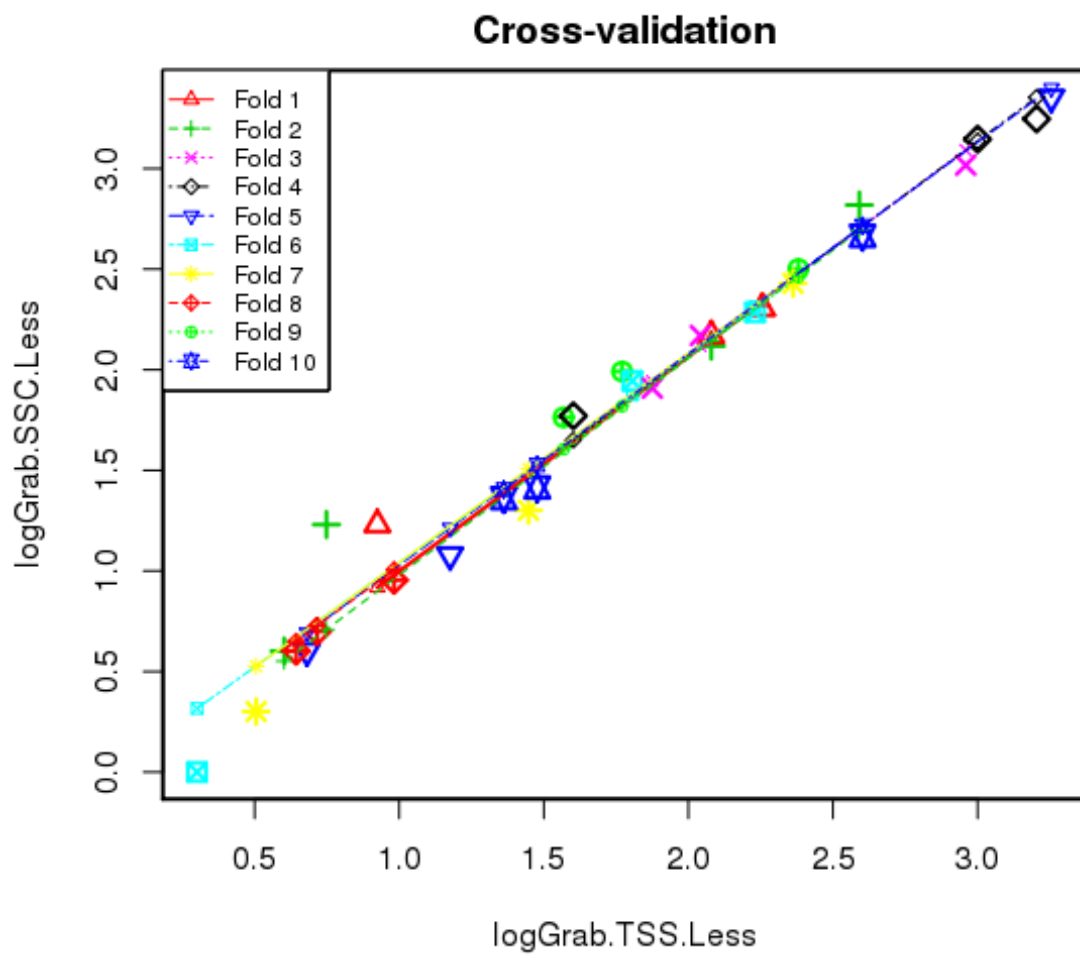
## Statistical Plots



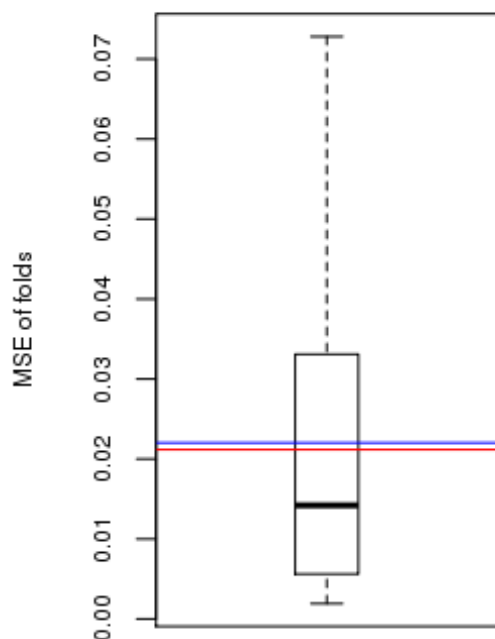




## Cross Validation



Minimum MSE of folds: 0.00192  
 Mean MSE of folds: 0.02200  
 Median MSE of folds: 0.01420  
 Maximum MSE of folds: 0.07280  
 (Mean MSE of folds) / (Model MSE): 1.04000



Red line - Model MSE

Blue line - Mean MSE of folds

## Model-Calibration Data Set

0	Date	logGrab.SSC.Less	logGrab.TSS.Less	Grab.SSC.Less	Grab.TSS.Less	Computed logGrab.SSC.Less	Computed Grab.SSC.Less	Residual	Normal Quantiles	Censored Values
1	2016-04-27	1.08	1.18	12	15	1.2	16.9	-0.123	-1.2	--
2	2016-07-18	2.5	2.38	317	240	2.47	316	0.0271	0.596	--
3	2016-06-15	3.15	3	1400	1000	3.13	1430	0.0178	0.502	--
4	2016-06-02	2.31	2.26	202	180	2.34	234	-0.0367	-0.0804	--
5	2016-05-03	2.43	2.36	269	230	2.45	303	-0.0246	0.161	--
6	2016-06-16	2.67	2.6	463	400	2.71	543	-0.0426	-0.413	--
7	2016-06-14	2.12	2.08	131	120	2.16	152	-0.0388	-0.327	--
8	2016-06-13	2.29	2.23	193	170	2.32	220	-0.0302	0.0804	--
9	2016-07-15	1.3	1.45	20	28	1.49	32.8	-0.188	-1.38	--
10	2016-04-06	0.301	0.505	2	3.2	0.494	3.32	-0.193	-1.63	--
11	2016-06-17	0.602	0.681	4	4.8	0.68	5.09	-0.0781	-0.801	--
12	2016-06-09	2.17	2.08	148	120	2.16	152	0.0142	0.413	--
13	2016-08-02	2.17	2.04	148	110	2.12	139	0.0541	0.695	--
14	2016-08-12	3.02	2.96	1040	910	3.09	1290	-0.068	-0.695	--
15	2016-06-15	3.25	3.2	1770	1600	3.34	2350	-0.0968	-0.917	--
16	2016-08-12	3.35	3.26	2260	1800	3.4	2660	-0.0437	-0.502	--
17	2016-03-30	1.99	1.77	98	59	1.83	71.9	0.161	1.38	--
18	2016-06-08	1.36	1.36	23	23	1.4	26.6	-0.0369	-0.161	--

19	2016-04-26	1.76	1.57	58	37	1.62	44	0.147	1.2	--
20	2016-06-15	1.94	1.81	88	64	1.87	78.4	0.0766	0.801	--
21	2016-04-19	1.23	0.924	17	8.4	0.937	9.19	0.294	1.63	--
22	2016-06-06	0.699	0.716	5	5.2	0.717	5.54	-0.0179	0.243	--
23	2016-07-12	1.41	1.48	26	30	1.52	35.2	-0.105	-1.05	--
24	2016-07-08	0.602	0.602	4	4	0.597	4.2	0.0055	0.327	--
25	2016-07-12	1.77	1.6	59	40	1.65	47.7	0.118	0.917	--
26	2016-07-20	0.954	0.982	9	9.6	0.998	10.6	-0.0437	-0.596	--
27	2016-08-02	0.602	0.643	4	4.4	0.64	4.64	-0.0382	-0.243	--
28	2016-06-07	1.23	0.748	17	5.6	0.751	5.99	0.48	2.07	--
29	2016-08-16	0	0.301	1	2	0.279	2.02	-0.279	-2.07	--
30	2016-09-26	2.82	2.59	659	390	2.7	528	0.122	1.05	--
31	2016-06-08	1.91	1.88	81	75	1.94	92.7	-0.0321	0	--

Definitions

Grab.SSC.Less: Suspended sediment concentration (SSC) in mg/l (80154)  
Grab.TSS.Less: Total suspended solids in mg/l (00530)

App Version 1.0