

# SOUTH-CENTRAL ALASKA

## 15225996 SOLOMON GULCH TAILRACE NEAR VALDEZ

LOCATION.--Lat 61°05'01", long 146°18'10", in NE<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub> SW<sup>1</sup>/<sub>4</sub> sec. 16, T. 9 S., R. 6 W. (Valdez A-7 SE quad), Hydrologic Unit 19020201, within Valdez Corporate boundary, on left wingwall of tailrace pool of Copper Valley Electric Association powerhouse facility, 350 ft upstream from mouth at Solomon Gulch, and 3.8 mi southeast of Valdez.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--September 1986 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control until June 15, 2005 when gage was moved 70 feet downstream. Elevation of gage is 40 ft above sea level, from topographic map. Prior to May 20, 2005 at datum 5.00 ft. lower.

REMARKS.--Records fair except for estimated daily discharge, which is poor. Discharge shown herein is flow through the Solomon Gulch Power Plant turbines. Solomon Lake, 0.8 mi upstream, supplies water to the power-plant through two 48-in. diameter penstocks. Water for the fish hatchery, diverted upstream from the gage, is not included in these published daily values. Annual mean discharge for these diversions for 2005 water year was 10.6 ft<sup>3</sup>/s.

COOPERATION.--Records of daily discharge diverted to the fish hatchery are furnished by Valdez Fisheries Development Association. Copper Valley Electric Association provides tables of hourly power output through the turbines.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 293 ft<sup>3</sup>/s, January 2 and 3, 1992, gage height, \*3.04 ft, site and datum in use; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 260 ft<sup>3</sup>/s, October 19, gage height, \*3.00 ft, but may have been higher during period of missing record; no flow May 20 to June 1.

### DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199	78	83	82	97	71	99	93	e180	227	213	168
2	201	77	84	84	94	85	94	80	e200	220	213	193
3	201	90	76	72	103	83	80	100	e190	216	206	198
4	205	87	80	73	91	87	60	106	e210	218	210	198
5	193	91	83	85	80	95	55	109	e200	225	205	194
6	207	92	67	81	88	89	54	107	e200	222	196	204
7	207	81	60	80	81	100	50	99	e210	222	201	192
8	211	66	81	69	74	100	47	95	e200	222	201	202
9	207	74	87	75	68	97	45	109	e200	214	211	204
10	206	72	83	98	72	87	47	105	e210	220	211	187
11	212	65	81	96	67	79	50	76	e210	223	212	189
12	209	63	71	90	68	71	49	78	e200	215	213	203
13	213	59	76	110	70	70	48	101	e220	174	188	196
14	214	60	86	131	73	88	47	94	e210	210	204	193
15	176	66	80	80	69	94	45	83	e210	227	206	193
16	205	72	85	78	87	88	47	106	204	219	211	188
17	202	81	93	72	92	106	48	103	170	216	216	182
18	215	71	91	90	79	114	47	102	215	224	218	175
19	164	61	83	103	67	107	49	100	194	217	216	190
20	223	66	83	80	73	109	54	22	192	218	210	190
21	209	64	75	75	81	93	47	0.00	212	185	216	191
22	218	54	75	74	68	94	47	0.00	208	218	219	192
23	200	64	75	71	65	89	46	0.00	218	195	208	185
24	183	56	73	78	76	91	44	0.00	218	193	175	181
25	133	57	73	72	77	89	50	0.00	212	222	224	180
26	67	60	104	92	73	87	50	0.00	210	219	216	188
27	67	59	91	72	82	86	50	0.00	209	213	201	196
28	70	61	91	76	83	86	70	0.00	218	211	194	192
29	67	77	94	68	---	96	84	0.00	222	211	203	189
30	61	83	96	68	---	108	96	0.00	224	208	222	190
31	68	---	91	81	---	102	---	0.00	---	210	219	---
TOTAL	5413	2107	2551	2556	2198	2841	1699	1868.00	6176	6634	6458	5723
MEAN	175	70.2	82.3	82.5	78.5	91.6	56.6	60.3	206	214	208	191
MAX	223	92	104	131	103	114	99	109	224	227	224	204
MIN	61	54	60	68	65	70	44	0.00	170	174	175	168
AC-FT	10740	4180	5060	5070	4360	5640	3370	3710	12250	13160	12810	11350

CAL YR 2004 TOTAL 46081 MEAN 126 MAX 228 MIN 42 AC-FT 91400  
WTR YR 2005 TOTAL 46224 MEAN 127 MAX 227 MIN 0.00 AC-FT 91690

\* At prior datum 5 ft lower (WY 86-05) at site and datum then in use.  
e Estimated