

OPHIR WATER QUALITY MONITORING ANNUAL REPORT 2007

Included in this report will be all the water quality data I have gathered on the Howard Fork since I have started monitoring summer 2004 with the cooperatively owned YSI water quality meter. Most flows are estimates or gauge readings. The HF-Ames and Waterfall Creek, and later HF above Carribeau are actual flow measurements with a Marsh-McBurney flowmeter. Leigh Sullivan, San Miguel Watershed Coalition

SAMPLING LOCATION 2004	DATE	FLOW	TIME	TEMP	COND	DO%	DO	PH
HF-AMES	6/9	34.12	12:50	7.95	.371	78.7	9.29	7.71
HF-E OPHIR	6/7	1.2 g	11:41	6.75	.381	73.4	8.96	7.39
HF-ABOVE CARB	6/7	1.3 g	12:08	7.11	.297	73.1	8.84	7.38
HF-BELOW CARB	6/7	.88 g	12:01	7.13	.375	76.1	9.11	7.37
CARBONERO	6/7		12:17	11.73	1.15	73.1	7.93	7.24
WATERFALL	6/7		11:24	5.38	.192	74.6	9.3	7.86

SAMPLING LOCATION 2004	DATE	FLOW	TIME	TEMP	COND	DO%	DO	PH
HF-AMES	6/23	24.06	11:33	7.01	.464	81.6	9.89	7.88
HF-E OPHIR	6/21	.85 g	12:12	5.84	.490	77.5	9.61	7.4
HF-ABOVE CARB	6/21	1.06 g	12:36	5.76	.389	78.1	9.74	7.47
HF-BELOW CARB	6/21	.78 g	12:30	6.08	.476	77.5	9.64	7.42
CARBONERO	6/21		12:41	6.6	1.258	76.8	9.4	7.11
WATERFALL	6/21	18.9	1:56	4.68	.206	77.7	10.0	7.88

SAMPLING LOCATION 2004	DATE	FLOW	TIME	TEMP	COND	DO%	DO	PH
HOWARD FORK	7/20	35.46	12:01	9.46	.526	97.0	9.93	7.97
HF-E OPHIR	7/21	.57 g	10:00	6.85	.667	82.0	9.98	7.41
HF-ABOVE CARB	7/21	.68 g	10:30	7.07	.509	83.0	10.04	7.46
HF-BELOW CARB	7/21	.62 g	10:20	7.07	.603	81.8	9.9	7.53
CARBONERO	7/21		10:35	8.87	1.210	83.0	9.57	7.76
WATERFALL	7/21	11.25	11:25	7.08	.258	85.4	10.34	8.07

SAMPLING LOCATION 2004	DATE	FLOW	TIME	TEMP	COND	DO%	DO	PH
HF-AMES	8/16	3.91	1:09	9.54	.509	80.1	9.12	8.14
HF-E OPHIR	8/19	.4 g	1:19	7.87	.860	75.3	8.87	7.49
HF-ABOVE CARB	8/19	.54 g	1:34	7.47	.678	75.3	9.05	7.52
HF-BELOW CARB	8/19	.57 g	1:46	7.69	.755	76.0	9.10	7.48
CARBONERO	8/19	< 1	1:34	8.05	1.23	77.6	9.07	7.76
WATERFALL	8/19	3.22	12:03	5.59	.373	75.7	9.51	8.09

SAMPLING LOCATION 2004	DATE	FLOW	TIME	TEMP	COND	DO% #s lo- probs?	DO	PH
HF-AMES	9/22	33.91	1:43	5.74	.556	13.86	17.3	7.89
HF-E OPHIR	9/23	.55 g	10:25	3.15	.676	91.2	1.220	7.56
HF-ABOVE CARB	9/23	.68 g	10:55	3.68	.523	89.7	11.89	7.53
HF-BELOW CARB	9/23	.65 g	10:41	3.51	.587	88.6	11.74	7.58
CARBONERO	9/23	<1 cfs	11:00	5.17	1.284	101.29	12.85	7.89
WATERFALL	9/23	13.05	11:58	3.94	.328	91.3	11.98	8.07

SAMPLING LOCATION	DATE 2005	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi	Ph-port
HF-EOPHIR	5/26	1.28g	12:24	5.7C	.373	108.5	13.58	7.43	7.54
HF-ABOVE CARB	5/26	1.5g	12:57	5.83	.320	108.7	13.57	7.43	7.75
HF-BELOW C	5/26	.94g	12:46	5.86	.335	108.3	13.53	7.46	7.78
CARBONERO	5/26	2-3 cfs	1:04	13.75	.882	109.1	11.28	7.42	7.59
WATERFALL	5/26	15.8	1:52	4.65	.202	109.2	14.06	7.52	8.08
HF-BELOW CARRIBEAU	5/23	Too hi	3:27	7.67	.360	107.5	12.82	7.63	7.76
HF-AMES	5/23	Too hi	3:11	8.78	.391	111.0	12.9	7.72	7.94
HF-BELOW WF	5/23	Too hi	3:39	5.79	.332	108.2	13.53	7.61	7.78
SAMPLING LOCATION	DATE 2005	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi	Ph-port
HF-EOPHIR	6/23	1.28 g	11:06	5.82	.383	94.1	11.32	7.23	
HF-ABOVE CARB	6/23	1.68 g	11:34	5.53	.311	97.4	12.3	7.27	
HF-BELOW C	6/23	.92 g	11:27	5.68	.369	94.6	12.0	7.32	
CARBONERO	6/23	2-3.0	11:41	7.73	1.23	85.0	10/09	7.18	
WATERFALL	6/23	59.0	12:22	4.74	.168	93.9	12.08	7.21	
HF-BELOW CARRIBEAU	6/22	Hi- 150?	11:43	6.74	.324	113.3	13.83	7.16	
HF-AMES	6/22	Hi-250	12:03	7.28	.335	118.3	14.33	7.18	
HFBELOWWFALL- ABOVE CARRIBE	6/22	400?	11:35	6.33	.306	205.1	12.73	7.17	

SAMPLING LOCATION	DATE 2005	FLOW	TIME	TEMP	COND	DO%#s lo-probs?	Doprobs?	PH Ysi	Ph-port
HF-EOPHIR	7/21	.73 g	10:57	7.34	.606	.4	.05	7.1	
HF-ABOVE CARB	7/21	.57g	11:17	7.44	.560	.4	.05	7.18	
HF-BELOW C	7/21	.96g	11:24	7.59	.458	.4	.05	7.2	
CARBONERO	7/21	2-3	11:30	9.16	1.216	.5	.06	7.2	
WATERFALL	7/21	15.99	12:15	7.66	.221	.7	.08	7.23	
HF-BELOW CARRIBEAU	7/21	39-40	12:51	8.78	.493	.8	.10	7.35	
HF-BELOW PENSTOCK	7/20	24.51	1:17	10.65	.460	.8	.10	7.33	
HFBELOWWFALL-ABOVE CARRIBE	7/21	38.47	12:34	8.5	.467	.7	.08	7.31	

SAMPLING LOCATION	DATE 2005	FLOW	TIME	TEMP	COND	DO% Probs?	DO	PH Ysi
HF-EOPHIR	8/18	.6g/16	11:35	7.36	.711	35.3	4.27	7.42
HF-ABOVE CARB	8/18	.68g/11	12:01	7.43	.554	40.7	4.89	7.44
HF-BELOW C	8/18	.57g/15	11:54	10.53	1.011	32.9	3.63	7.44
CARBONERO	8/18	3-4	12:05	9.66	1.214	41.9	4.79	7.48
WATERFALL	8.18	9.55	1:51	7.97	.303	56.2	6.69	7.47
HF-BELOW CARRIBEAU	8/18	27	2:25	10.14	.604	65.1	7.33	7.56
HF-AMES	8/17	10.10	1:57	9.8	.536	63.4	7.18	7.48
HFBELOWWFALL-ABOVE CARRIBE	8/18	26.38	2:10	9.43	.583	64.9	7.42	7.57

SAMPLING LOCATION	DATE 2005	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	9/8	.38g/9	11:03	7.67	.849	33.9	3.96	7.2
HF-ABOVE CARB	9/8	.5g/6	11:30	7.56	.677	61.9	7.45	7.27
HF-BELOW C	9/8	.46g/8	11:22	7.71	.758	42.3	4.93	7.28
CARBONERO	9/8	1-2	11:40	8.14	1.23	65.9	7.77	7.34
WATERFALL	9/8	5.83	12:52	7.11	.386	80.2	9.7	7.38
HF-BELOW CARRIBEAU	9/8	16-17?	13:26	9.37	.736	105.2	12.00	7.31
HF-AMES	9/9	8.27	1:07	9.08	.603	91.6	10.54	7.62
HF-BELOW WFALL, ABOVE CARRIBEAU	9/8	16.15	1:43	8.64	.729	105.2	12.24	7.32

SAMPLING LOCATION	DATE 2006	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	5/22	.8 g	9:50	4.7	.479	74.9	32.9	7.57
HF-ABOVE CARB	5/22	1.2 g	10:25	4.75	.391	121.6	46.1	7.52
HF-BELOW C	5/22	.7 g	10:15	4.69	.416	116.2	43.1	7.67
CARBONERO	5/22	1-2	10:35	7.57	1.138	119.1	47.1	7.70
WATERFALL	5/22	25.96	12:07	5.03	.222	101.8	27.7	8.05
HF-BELOW CARRIBEAU	5/22	60ish	12:50	6.84	.408	101.	25.7	7.76
HF-AMES	5/24	High	1:35	8.68	.416	28.1	9.4	7.93
HF-BELOW WFALL, ABOVE CARRIBEAU	5/22	63.5	12:32	6.24	.383	113.1	27.7	7.84

SAMPLING LOCATION	DATE 2006	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	6/22	.53g	11:15	6.98	.626	129.	10.4	7.41
HF-ABOVE CARB	6/22	.84g	11:38	7.03	.468	291.8	19.6	7.56
HF-BELOW C	6/22	.57g	11:32	7.29	.568	286.	18.6	7.57
CARBONERO	6/22	1-1.5	11:43	8.67	.948	317.1	20.6	7.62
WATERFALL	6/22	12.36	2:40	6.59	.225	320.3	19.6	8.02
HF-BELOW CARRIBEAU	6/22	30ish	3:15	8.89	.502	352.8	21.6	7.71
HF-AMES	6/21	22.85	1:05	9.06	.479	167.6	11.4	7.93
HF-BELOW WFALL, ABOVE CARRIBEAU	6/22	27.74	2:55	8.19	.476	353.9	21.6	7.78

SAMPLING LOCATION	DATE 2006	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	7/17	.48g/14	10:35	8.66	.693	376.6	31.8	7.39
HF-ABOVE CARB	7/17	.78g/10	10:59	8.83	.531	384.6	30.8	7.51
HF-BELOW C	7/17	.52g/14	10:52	8.83	.610	382.4	31.8	7.69
CARBONERO	7/17	2-3	11:05	11.0	1.14	369.2	30.8	7.87
WATERFALL	7/20	10.13	2:10	8.51	.258	232.4	15.5	8.03
HF-BELOW CARRIBEAU	7/20	25	2:40	10.48	.563	209.4	15.5	7.74
HF-BELOW PENSTOCK	7/18	32.47	12:05	10.61	.566	185.2	12.4	7.93
HF-BELOW WFALL, ABOVE CARRIBEAU	7/20	24.94	2:30	9.76	.544	209.3	14.5	7.78
GAMEBIRD ADIT	7/14	<1	12:03	7.93	1.235		34.9	7.45
WFALL INTAKE	7/14	11-12	12:30	7.24	.245		32.9	8.00

SAMPLING LOCATION	DATE 2006	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	8/10	46g.11.5	11:10	8.71	.810	140.1	32.9	7.43
HF-ABOVE CARB	8/10	.84g 11	11:40	9.08	.631	132.2	28.8	7.50
HF-BELOW C	8/10	.5g 9.5	11:30	9.18	.721	128.3	29.8	7.34
CARBONERO	8/10	1.5	11:45	13.24	7.34	120.9	27.7	8.05
WATERFALL	8/14	9.59	2:00	8.85	.346	123.7	27.7	8.33
HF-BELOW CARRIBEAU	8/14	23.0	2:30	10.5	.683	128.9	28.8	7.71
HF-AMES	8/16	9.38	12:25	9.8	.625	92.6	17.5	8.07
HF-BELOW WFALL, ABOVE CARRIBEAU	8/14	21.3	2:20	10.32	.662	132.1	30.8	7.86
GAMEBIRD ADIT	8/9	<1	12:22	7.92	1.43	123.6	38.0	7.62
WFALL INTAKE	8/9	<9	12:22	7.95	.342	138.9	33.9	8.09

SAMPLING LOCATION	DATE 2006	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	9/11	.42g	2:30	10.22	.837	148.7	30.8	7.47
HF-ABOVE CARB	9/11	.8g	2:50	9.89	.671	173.0	36.9	7.44
HF-BELOW C	9/11	/2g	2:40	10.24	.742	174.6	36.9	7.59
CARBONERO	9/11	1-2	3:00	13.28	1.26	170.6	36.9	7.96
WATERFALL	9/20	3.65	10:30	3.33	.396	137.2	9.22	7.69
HF-BELOW CARRIBEAU	9/11	19-20	3:05	10.51	.736	230.0	35.9	7.81
HF-AMES	9/12	5.87	2:35	9.36	.605	126.4	25.7	8.03
HF-BELOW WFALL, ABOVE CARRIBEAU	9/11	18.61	3:25	10.05	.727	193.5	31.8	7.89
GAMEBIRD ADIT	9/10		2:04	7.92	1.33	139.5	39.0	7.64
WFALL INTAKE	9/10		2:51	6.29	.392	155.1	33.9	8.02

SAMPLING LOCATION	DATE 2007	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	5/23	.82g	11:50	2.78	.573	110.1	5.3	8.17
HF-ABOVE CARB	5/23	1.26g	12:30	2.71	.479	116.1	5.3	7.45
HF-BELOW C	5/23	.56g	12:20	2.62	.504	121.5	5.3	7.61
CARBONERO	5/23	2-3 cfs	12:40	2.69	1.367	12.7	5.3	7.37
WATERFALL	5/23	17.49	1:45	2.17	.281	112.4	5.3	7.96
HF-BELOW CARRIBEAU	5/23	50ish	3:30	4.45	.515	167.6	5.3	7.8
HF-AMES	5/25	18.27	1:55	7.12	.571	6.4	1.2	7.8
HF-BELOW WFALL, ABOVE CARRIBEAU	5/23	50ish	1:50	3.96	.498	151.2	6.3	7.68
GAMEBIRD ADIT	5/25	1-2ish	11:35	7.84	.939	78.7	4.3	7.40
WFALL INTAKE	5/25	12ish	11:55	3.76	.319	84.5	4.3	8.08

SAMPLING LOCATION	DATE 2007	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	6/12	.98g	1:25	4.88	.526	70.7	4.3	7.03
HF-ABOVE CARB	6/12	1.4g	1:50	4.35	.419	44.7	3.2	7.13
HF-BELOW C	6/12	.88g	1:45	4.52	.483	36.8	3.2	7.13
CARBONERO	6/12	4-5	2:00	5.07	1.38	17.3	2.2	6.8
WATERFALL	6/13	24.34	2:15	6.75	.247	99.9	2.2	7.78
HF-BELOW CARRIBEAU	6/11	50ish	3:00	7.07	.440	73.0	8.8	7.36
HF-AMES	6/14	76ish	1:30	9.16	.467	101.9	3.2	7.59
HF-BELOW WFALL, ABOVE CARRIBEAU	6/13	72.87	1:50	8.69	.460	99.9	3.2	7.29
GAMEBIRD ADIT	6/13	2-3	12:15	7.91	1.489	88.1	.2	7.28
WFALL INTAKE	6/13	22	11:50	5.17	.248	66.6	.2	7.7

SAMPLING LOCATION	DATE 2007	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	7/11	.59g(26)	11:10	7.9	.718	61.3	3.2	7.16
HF-ABOVE CARB	7/11	1.2g(20)	11:35	7.65	.538	60.6	3.2	7.34
HF-BELOW C	7/11	.86g(25)	11:30	7.74	.671	59.6	3.2	7.31
CARBONERO	7/11	3-5	11:45	8.16	1.36	58.7	4.3	7.11
WATERFALL	7/11	15.2	2:15	5.95	.280	57.7	3.2	7.56
HF-BELOW CARRIBEAU	7/10	45	1:25	9.55	.578	59.7	4.3	7.48
HF-BELOW PENSTOCK	7/12	24.58	2:50	8.98	.560	14.2	3.2	7.7
HF-BELOW WFALL, ABOVE CARRIBEAU	7/10	41.57	1:40	9.26	.547	62.8	4.3	7.3
GAMEBIRD ADIT	7/11	1-2	11:50	7/83	1.465	12.8	2.2	7.31
WFALL INTAKE	7/11	15-20	12:10	6.26	.285	25.2	2.2	7.61

SAMPLING LOCATION	DATE 2007	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	8/9	.69g	11:10	7.37	.609	63.1	5.3	7.21
HF-ABOVE CARB	8/9	1.25g	11:40	7.42	.478	63.6	4.3	7.47
HF-BELOW C	8/9	.88g	11:32	7.36	.555	67.4	5.3	7.55
CARBONERO	8/9	4-5	11:45	9.23	1.25	137.2	8.4	7.46
WATERFALL	8/9	14.5	12:50	8.32	.306	67.6	4.3	7.81
HF-BELOW CARRIBEAU	8/7	70-75	14:00	8.04	.476	70.6	5.3	7.48
HF-AMES	8/14	10.83	11:28	9.27	.579	67.2	6.3	7.82
HF-BELOW WFALL, ABOVE CARRIBEAU	8/10	36.05	2:25	10.52	.538	71.6	2.2	7.42
GAMEBIRD ADIT	8/10	1-2	11:48	7.83	1.283	68.3	2.2	7.37
WFALL INTAKE	8/10	10ish	11:25	6.36	.322	71.7	2.2	7.55

SAMPLING LOCATION	DATE 2007	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	9/6	.42g	11:20	9.15	.903	70.6	8.4	7.06
HF-ABOVE CARB	9/6	.98g	11:47	8.89	.724	74.2	8.4	7.46
HF-BELOW C	9/6	.78g	11:40	9.05	.815	71.9	8.4	7.42
CARBONERO	9/6	2-3	11:55	11.62	1.332	71.5	7.3	7.76
WATERFALL	9/13	2.41	1:45	7.41	.488	71.8	8.4	7.82
HF-BELOW CARRIBEAU	9/7	18-20	1:55	10.54	.807	72.8	10.4	7.65
HF-AMES	9/10	21.17	1:15	9.66	.759	91.1	14.5	7.84
HF-BELOW WFALL, ABOVE CARRIBEAU	9/13	15.65	2:10	8.96	.807	90.0	11.4	7.47
GAMEBIRD ADIT	9/5	<1	12:35	7.94	1.425	57.6	8.4	7.24
WFALL INTAKE	9/5	2-3	12:57	7.31	.461	99.3	10.4	7.69

SAMPLING LOCATION	DATE 2007	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	10/4/07	.42g	11:15	5.18	.780	63.3	20.6	6.94
HF-ABOVE CARB	10/4	.94g	11:38	5.49	.629	70.5	20.6	7.3
HF-BELOW C	10/4	.78g	11:32	5.39	.695	69.8	20.6	7.19
CARBONERO	10/4	3-5	11:43	6.39	1.206	68.4	9.6	7.6
HF-BELOW CARRIBEAU	10/2	2:40	30-35	7.9	.664	69.1	20.6	7.69
HF-BELOW WFALL, ABOVE CARRIBEAU	10/2	2:20	25-30	7.4	.640	67.8	20.6	7.55
GAMEBIRD ADIT	10/3	12:23		7.75	.716	53.5	19.6	7.42
WFALL INTAKE	10/3	11:58		4.86	.400	70.3	21.6	6.64

SAMPLING LOCATION	DATE 2007	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	11/27	.32g	1:50	1.4	1.193	79.4	16.5	7.68
HF-ABOVE CARB	11/27	.7gice	1:25	1.55	.978	72.3	16.5	7.52
HF-BELOW C	11/27	.6gice	1:15	1.62	1.058	69.5	16.5	7.22
CARBONERO	11/27	2-3	1:30	.3	1.553	72.8	16.5	7.78
HF-BELOW CARRIBEAU	11/9	10-12	2:30	4.09	.993	85.8	9.8	7.59
HF-BELOW WFALL, ABOVE CARRIBEAU	11/9	8-10	2:50	3.5	.97	76	9.7	?
GAMEBIRD ADIT	11/28	1-2	1:25	7.57	1.555	71.4	17.5	7.59
WFALL INTAKE	11/28		1:00	3.15	.595	85	18.6	7.67
WFALL BRIDGE	11/28		2:05	.94	.604	101.4	20.6	7.94

SAMPLING LOCATION	DATE 2007	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	12/15	.5gice		.09	1.217	69.1	13.5	6.95
HF-ABOVE CARB	12/15	Ice	10:50	-.07	1.054	81.6	12.4	7.49
HF-BELOW C	12/15	Ice	10:40	.64	1.101	74.5	13.5	7.63
CARBONERO	12/15	Ice		.74	1.589	90.1	14.5	7.64
WATERFALL	12/14		12:50	.47	.648	69	14.5	7.76
HF-BELOW CARRIBEAU	12/6	10-12	4:10	2.25	1.101	75	10.1	7.61
HF-BELOW WFALL, ABOVE CARRIBEAU	12/6	10-12	4:25	2.07	1.082	69.4	16.5	7.54
GAMEBIRD ADIT	12/6	1	1:30	7.62	1.637	75	19.6	7.62
WFALL INTAKE	12/14		2:15	2.26	.626	67.8	18.6	8.03

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	1/20	.5g	1:35	1.27	1.009	70.2	9.72	7.61
HF-ABOVE CARB	1/20	.4g?Ice	1:00	1.43	.853	63.1	8.8	7.43
HF-BELOW C	1/20	Ice	12:45	1.37	.900	61.5	8.61	7.06
CARBONERO	1/20	1-2	1:00	2.13	1.092	67.9	9.16	7.69
WATERFALL	1/19/08	3-5	Noon	.69	.539	63.9	9.14	7.82
HF-BELOW CARRIBEAU	1/18	10-15	11:55	.85	.917	73	9.49	7.69
HF-BELOW WFALL, ABOVE CARRIBEAU	1/18	8-10	12:15	.38	.901	72	10.09	7.22
GAMEBIRD ADIT	1/19		1:25	7.56	1.282	72	6.21	7.57
WFALL INTAKE	1/19		12:40	2.63	.308	65.4	8.6	7.75

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	2/10	.4g	1:45	2.05	1.106	72.2	9.93	7.51
HF-ABOVE CARB	2/10	Ice	12:25	2.09	.856	71.3	9.98	7.75
HF-BELOW C	2/10	.6g	12:35	2.06	.896	76.6	10.33	7.66
CARBONERO	2/10	Ice	12:05	2.7	1.299	74.1	9.94	7.76
WATERFALL	2/9	Ice	11:55	1.27	.560	69.2	9.78	7.88
HF-BELOW CARRIBEAU	2/9	Ice 8?	3:15	.56	.901	71	10.3	7.66
HF-BELOW WFALL, ABOVE CARRIBEAU	2/9	Ice	2:50	1.05	.915	75	10.6	7.66
GAMEBIRD ADIT	2/9	1?	1:15	7.68	1.272	57.6	6.82	7.72
WFALL INTAKE	2/9	Ice	1:30	2.98	.554	70.5	9.48	7.87

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	2/29	.23g	12:30	2.18	1.054	80.6	10.89	7.63
HF-ABOVE CARB	2/29	.5ice	11:55	2.62	.887	66.9	9.07	7.36
HF-BELOW C	2/29	.55g	12:05	2.55	.917	76.9	10.35	7.52
CARBONERO	3/7	<1	11:50	3.47	1.35	30.2	4.1	7.77
WATERFALL	3/1	3ish	11:05	1.61	.592	58.5	8.13	7.6
HF-BELOW CARRIBEAU	3/1	8-9	3:30	3.32	.950	91	12.25	7.61
HF-BELOW WFALL, ABOVE CARRIBEAU	3/1	8-9	3:50	2.64	.932	84.5	11.01	7.58
GAMEBIRD ADIT	3/1	<1	12:25	8.	1.283	79	9.2	7.61
WFALL INTAKE	3/1	2-3	11:45	3.34	.584	78.3	10.65	7.79

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	4/4/08	.2g	1:05	3.41	1.003	105.3	13.98	7.79
HF-ABOVE CARB	4/4	.6g	12:40	3.72	.852	79.1	10.57	7.73
HF-BELOW C	4.4	.55g	12:45	3.64	.886	101.6	13.5	7.62
CARBONERO	4/4	.5	12:30	5.83	1.108	77.6	9.66	7.46
WATERFALL	4/3	3?	11:50	1.56	.536	71.3	9.94	7.98
HF-BELOW CARRIBEAU	4/3	15?	3:40	4.71	.908	79.8	10.01	7.65
HF-BELOW WFALL, ABOVE CARRIBEAU	4/3	15?	3:55	4.02	.890	76	10.01	7.65
GAMEBIRD ADIT	4/3	.5	1:10	8.2	1.232	68	7.62	7.66
WFALL INTAKE	4/3	2-3?	12:25	2.96	.574	74.1	9.93	7.94

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	5/10	.44g	1:10	4.88	.817	47.9	5.97	6.79
HF-ABOVE CARB	5/10	.9g	12:30	3.91	.697	55.8	7.3	6.75
HF-BELOW C	5/10	.74g	12:40	3.99	.719	54.8	7.09	6.59
CARBONERO	5/10	<1	12:25	3.05	1.2	59.2	7.88	7.2
WATERFALL	5/12	5-8	Noon	3.7	.36	77.8	10.2	7.88
HF-BELOW CARRIBEAU	5/12	20?	3:45	8.1	.667	80	9.55	7.28
HF-BELOW WFALL, ABOVE CARRIBEAU	5/12	20?	4:05	7.54	.649	79.4	9.52	7.01
GAMEBIRD ADIT	5/12	.5?	1:15	8.44	1.236	61.1	7.62	7.42
WFALL INTAKE	5/12	3-4	12:40	3.42	.372	76.8	10.16	7.6

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	6/04	1.3g	2:05	4.69	.369	70.1	9.07	7.24
HF-ABOVE CARB	6/4	1.6g	1:40	4.6	.309	69.2	8.92	6.62
HF-BELOW C	6/4	1.1g	1:30	4.64	.332	70.9	9.14	6.42
CARBONERO	6/4	1-2	1:45	6.6	.834	74.4	9.11	6.79
WATERFALL	6/5	12-15	1:40	3.03	.230	62.1	8.36	7.69
HF-BELOW CARRIBEAU	6/9	25-30	3:00	8.2	.358	76.9	9.04	7.38
HF-BELOW WFALL, ABOVE CARRIBEAU	6/9	25-30	3:20	7.87	.343	76.2	9.04	7.38
GAMEBIRD ADIT	6/9	.5?	12:40	8.22	1.258	54	6.33	7.32
WFALL INTAKE	6/9	12-15	12:15	3.84	.217	70.0	9.22	7.68

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	7/3	.96g 17cfs?	1:22	8.26	.460	69.3	8.16	7.48
HF-ABOVE CARB	7/3	1.1g 12-15cfs?	12:45	7.27	.35	76.7	9.24	7.49
HF-BELOW C	7/3	.84g,14cfs?	1:00	7.46	.452	68.2	8.17	7.52
CARBONERO	7/3	1-2	12:38	9.12	1.150	78.6	9	7.22
WATERFALL	7/11	27.3	12:30	7.55	.186	77.7	9.29	7.84
HF-BELOW CARRIBEAU	7/7	35-40?	2:05	8.49	.388	51	6	7.53
HF-below WF, above Carrib.	7/7	35-40	2:20	8.29	.361	36	4.23	7.44
GAMEBIRD adit	7/7	.5?	12:10	8.46	1.233	68	7.92	7.33
WFALL INTAKE	7/7	10-12	11:12	5.37	.185	84.2	10.5	7.07

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	8/6	.76g 12?	11:00	7.82	.636	78.9	9.34	7.55
HF-ABOVE CARB	8/6	.66g 10?	11:30	7.77	.502	79.6	9.5	7.7
HF-BELOW C	8/6	.68g 11?	11:20	8.15	.598	78.7	9.27	7.81
CARBONERO	8/6	1?	11:35	10.05	1.106	80.6	9.04	7.72
WATERFALL	8/11	6.3	12:45	8.11	.291	91.1	10.74	8.05
HF-BELOW CARRIBEAU	8/5	15?	2:25	8.83	.587	84.3	9.76	7.61
CARRIB.ADIT	8/11	3-4	1:15	6.45	1.114	80.6	9.91	7.8
C.ADIT AT HF	8/11	3-4	1:20	8.88	.879	83.5	10.27	7.48

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	9/2	.55g- 12?	1:05	8.7	.609	116/6	13/5	8.42
HF-ABOVE CARB	9/2	.65g-7- 10?	12:40	7.78	.479	98.8	12.	7.96
HF-BELOW C	9/2	.6g	12:30	8.04	.552	94.8	11.22	7.41
CARBONERO	9/2	3-4?	12:50	12.26	1.042	87.5	9.33	7.77
WATERFALL	9/9	3.23	1:00	5.6	.357	80.4	10.11	7.95
HF-BELOW CARRIBEAU	9/8	15?	2:10	9.06	.624	79.	9.	7.38
HF-BELOW WFALL, ABOVE CARRIBEAU	9/9	15.74	1:30	7.21	.602	70.4	8.49	7.69
GAMEBIRD ADIT	9/8	1?	12:40	8.13	1.111	55	6.5	7.44
WFALL INTAKE	9/9	4?	12:10	4.93	.346	84.8	10.84	7.86

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	9/29	.34g10?	1:45	7.61	.770	129.	15.4	8.11
HF-ABOVE CARB	9/29	.35g7?	1:18	6.8	.623	239.9	29.9	7.91
HF-BELOW C	9/29	.45g9?	1:08	7.13	.720	166.9	20.02	8.24
CARBONERO	9/29	2?	1:25	9.02	1.076	145.6	16.64	7.74
WATERFALL	10/3	2.59	12:37	4.87	.373	63.9	8.18	8.05
HF-BELOW CARRIBEAU	10/6	10?	1:55	7.34	.681	103.5	12.22	7.09
HF-BELOW WFALL, ABOVE CARRIBEAU	10/6	8-10	2:40	7.15	.656	55.1	6.6	6.85
GAMEBIRD ADIT	10/6	<.5	11:55	7.79	1.086	60.7	7.2	7.03
WFALL INTAKE	10/3	5?	11:55	4.92	.376	68.3	8.72	7.92

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	11/19	.26g	12:38	1.85	1.155	104.9	14.78	7.74
HF-ABOVE CARB	11/19	.26g	12:08	2.47	.957	84.7	11.41	7.25
HF-BELOW C	11/19	.5g	12:00	2.59	1.032	84.7	11.41	7.25
CARBONERO	11/19	2?	12:15	6.53	1.468	104.9	11.59	7.51
WATERFALL	11/17	2-3	1:15	2.36	.587	100.3	13.52	8.51
HF-BELOW CARRIBEAU	11/24	12-14	2:40	1.25	1.042	124	17.15	6.86
HF-BELOW WFALL, ABOVE CARRIBEAU	11/24	11-13	3:40	.95	1.01	70.9	7.09	6.72
GAMEBIRD ADIT	11/24	1-2	11:50	7.61	1.478	84.3	10.5	6.96
WFALL INTAKE	11/17	2-3	12:45	4.5	.567	104.7	13.49	8.35

SAMPLING LOCATION	DATE 2008	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	12/3	.27g 8	12:55	.98	1.352	85	12.07	7.65
HF-ABOVE CARB	12/3	.26g3-4	1:15	1.15	1.08	83.1	11.84	8.34
HF-BELOW C	12/3	6-7	12:30	2.01	1.263	74.3	10.32	8.16
CARBONERO	12/3	2?	12:10	.63	1.723	61.	8.79	7.98
WATERFALL	12/2	3?	1:55	1.79	.693	102	14.33	8.47
HF-BELOW CARRIBEAU	12/8	10-12	3:20	1.39	1.2	79.	11.6	6.68
CARRIB.ADIT	12/8	2-3	2:30	5.66	1.505	53.	6.6	6.53
C.ADIT AT HF	12/8	1-2	2:45	6.0	1.6	60	7	6.6
HF-below WF, above Carrib.	12/8	9-10	3:00	1.1	1.166	79	11.6	6.73

GAMEBIRD adit	12/8	1?	11:40	7.44	1.71	46.3	5.6	7.01
WFALL INTAKE	12/2	3?	1:20	4.2	.685	76.	9.96	8.34
SM below Beaver	12/4	70?	5:20	.33	.593	76.4	11.04	8.27
HF above Swamp	12/11	3-4	1:00	.71	.806	10.9	1.5	6.94
HF below Swamp	12/11	5-6	1:10	.44	.806	9.1	1.3	6.95

SAMPLING LOCATION	DATE 2009	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	1/9	6-7	12:35	1.54	1.13	1.3	9.99	.26
HF-ABOVE CARB	1/9	4-5	1:15	1.61	.954	81.5	11.36	7.81
HF-BELOW C	1/9	5-6	1:02	1.39	.996	82.1	11.43	7.13
CARBONERO	1/9	1	1:25	1.21	1.492	79.5	11.03	7.09
WATERFALL	1/22	Ice	11:45	1.19	.032	56.	7.36	8.42
HF-BELOW CARRIBEAU	1/22	8-10	4:45	1.75	1.012	62	9.6	7.92
CARRIB.ADIT	1/22	3?	3:50	2.3	1.03	73	10	7.52
C.ADIT AT HF	1/22	3?	4:30	4.24	1.12	74.3	9.66	7.51
HF-below WF, above Carrib.	1/22	8-10	4:20	5.9	1.25	71.5	8.8	7.92
GAMEBIRD adit	1/22	1?	1:00	7.61	1.416	49.4	5.9	7.73
WFALL INTAKE	1/22	Ice	12:20	1.19	.637	54.	7.4	8.42

SAMPLING LOCATION	DATE 2009	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	2/8	.2g-5?	12:48	2.04	1.135	88	12.2	8.02
HF-ABOVE CARB	2/8	.2g-3?	1:20	1.94	.95	96.3	13.3	7.8
HF-BELOW C	2/8	4?	1:30	1.82	.996	99.4	13.9	7.67
CARBONERO	2/8	<1	1:13	.79	.025	77.8	11	7.86
WATERFALL	2/8	?ice	11:50	1.28	.629			7.86
HF-BELOW CARRIBEAU	2/13	11?	3:45	2.56	1.04	91	12.7	7.5
CARRIB.ADIT	2/13	3?	4:15	5.85	1.242	64	7.9	7.03
C.ADIT AT HF	2/13	2?	4:25	3.59	1.108	58.3	7.7	6.96
HF-below WF, above Carrib.	2/13	9-10	4:45	.85	1.023	60	8.5	7.15
GAMEBIRD adit	2/13	<1	1:00	7.71	1.397	67	8.06	7.04
WFALL INTAKE	2/13	3?	12:25	2.24	.619	67.4	9.23	7.86

SAMPLING LOCATION	DATE 2009	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	3/1	.18g-5	12:45	2.42	1.156	49.5	6.48	7.77
HF-ABOVE CARB	3/1	.19g-5	1:15	3.3	97.1	56.7	7.54	7.77
HF-BELOW C	3/1	Ice7?	1:25	3.14	1.01	60.4	8.68	7.68
CARBONERO	3/1	1?	1:10	4.9	1.48	47.3	6.08	7.95
WATERFALL	3/7	Ice	1:32	.14	.593	151.	22	8.6
HF-BELOW CARRIBEAU	3/13	10-12	2:35	6.	.964	74.	9	7.3
CARRIB.ADIT	3/13	5	2:00	6.	.925	78	10.05	7.16
C.ADIT AT HF	3/13	Ice	2:45	4.93	1.0	62	6.63	7.12
HF-below WF, above Carrib.	3/13	7?	2:35	5.	1.12	59	7.33	7.3
GAMEBIRD adit	3/13	1.5-2	11:25	8	1.245	64	7.75	7.6
WFALL INTAKE	3/7	3?	1:00	.2	.019	88.3	12.83	8.2

SAMPLING LOCATION	DATE 2009	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	4/3	.18g	2:25	2.74	.969	77.1	9.2	8.47
HF-ABOVE CARB	4/3	.2g	1:50	2.62	.835	66.2	8.82	8.15
HF-BELOW C	4/3	Snow	2:00	2.47	.880	92.5	12.6	8.02
CARBONERO	4/3	Snow	1:40	.97	1.307	71.6	10.15	8.6
WATERFALL	4/6	Snow	2:25	1.43	.568	64.1	8.99	8.78
HF-BELOW CARRIBEAU	4/8	14?	1:50	7	.866	71	8.7	7.8
CARRIB.ADIT	4/8	3?	2:15	7	1.08	63	7.8	7.5
C.ADIT AT HF	4/8	2-3	2:25	5.79	.962	86.9	10.89	7.37
HF-below WF, above Carrib.	4/8	12?	2:45	4	.849	69	9	7.8
GAMEBIRD adit	4/8	<1	11:30	8	1.209	61	6.1	8.6
WFALL INTAKE	4/8	2-3	1:50	4.86	.555	71.2	9.1	8.53

SAMPLING LOCATION	DATE 2009	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	5/1	.75g 13-14	1:30	5.53	.559	72.	9.06	8.58
HF-ABOVE CARB	5/1	.8g 11	1:05	4.51	.459	68.3	8.79	8.71
HF-BELOW C	5/1	.6g 12	1:15	4.84	.493	68.1	8.72	8.78
CARBONERO	5/1	1-2	12:55	8.91	.760	67.4	7.67	8.28
WATERFALL	5/3	6-7	1:35	2.32	.306	70.4	9.64	8.42
HF-BELOW CARRIBEAU	5/26	40	2:30	6	.423	72	8.8	7.08
CARRIB.ADIT	5/26	3	2:05	6	1.078	60	6	6.8
C.ADIT AT HF	5/26	3	1:50	6.49	.642	90.3	12.3	8.83

HF-below WF, above Carrib.	5/26	35	1:30	6	.407	65	8.6	8.7
GAMEBIRD adit	5/26	<1	11:10	8.	1.204	70	8.2	8.4
WFALL INTAKE	5/3	7-8	1:00	2.1	.311	63.7	8.77	8.12

HF-EOPHIR	6/3	18-1.g	1:00	6.06	.495	69.3	8.61	7.68
HF-ABOVE CARB	6/16	18-20	1:25	7	.482	89	10.75	7.51
HF-BELOW C	6/16	20-.8g	12:50	7	.529	72	8.8	7.7
CARBONERO	6/3	2-3	12:20	6.98	1.108	72.5	8.77	7.6
WATERFALL	6/15	15.52	5:20	4.65	.215	71.4	9.2	8.08
HF-BELOW CARRIBEAU	6/16	32-35	3:10	8	.447	81	9.7	7.3
CARRIB.ADIT	6/16	3-4	2:40	8	1.035	71	8.79	7.09
C.ADIT AT HF	6/3	2-3	12:20	6.98	1.108	72.5	8.77	7.6
HF-below WF, above Carrib.	6/16	30-32	2:20	6	.417	74	7.4	7.6
GAMEBIRD adit	6/16	1	12:10	9	1.155	67	7.7	7.5
WFALL INTAKE	6/16	8-10	11:45	5.07	.205	74	9.45	7.71

HF-EOPHIR	6/3	18-1.g	1:00	6.06	.495	69.3	8.61	7.68
HF-ABOVE CARB	6/16	18-20	1:25	7	.482	89	10.75	7.51
HF-BELOW C	6/16	20-.8g	12:50	7	.529	72	8.8	7.7
CARBONERO	6/3	2-3	12:20	6.98	1.108	72.5	8.77	7.6
WATERFALL	6/15	15.52	5:20	4.65	.215	71.4	9.2	8.08
HF-BELOW CARRIBEAU	6/16	32-35	3:10	8	.447	81	9.7	7.3
CARRIB.ADIT	6/16	3-4	2:40	8	1.035	71	8.79	7.09
C.ADIT AT HF	6/3	2-3	12:20	6.98	1.108	72.5	8.77	7.6
HF-below WF, above Carrib.	6/16	30-32	2:20	6	.417	74	7.4	7.6
GAMEBIRD adit	6/16	1	12:10	9	1.155	67	7.7	7.5
WFALL INTAKE	6/16	8-10	11:45	5.07	.205	74	9.45	7.71

HF-EOPHIR	7/3	18-20	12:32	8.08	.510	71.8	8.48	7.53
HF-ABOVE CARB	7/3	12-15	12:00	7.47	.38	72.	8.58	7.25
HF-BELOW C	7/3	15-18	12:15	7.86	.469	58	6.83	7.15
CARBONERO	7/3	2-3	11:50	11.55	1.089	74.	8.03	6.8
WATERFALL	7/10	16.98	11:35	5.86	.243	74.8	9.23	7
HF-BELOW CARRIBEAU	7/13	30-35	2:20	8.64	.505	80.5	9.43	7.31
CARRIB.ADIT	7/13	2-3	2:45	6.27	1.089	74.	9.18	6.8
C.ADIT AT HF	7/13	2-3	2:55	9.28	.873	66.1	7.55	6.89
HF-below WF, above Carrib.	7/13	25-28	3:05	9.16	.476	78.5	9.02	7.1
GAMEBIRD adit	7/13	<1	12:15	7.78	1.236	65.	7.5	7.0
WFALL INTAKE	7/10	15-18	12:00	5.67	.25	74.2	9.34	7.93

HF-EOPHIR								
HF-ABOVE CARB								
HF-BELOW C								
CARBONERO								
WATERFALL								
HF-BELOW CARRIBEAU	8/10	18	2:00	11.2	.645	64	7.01	7.44
CARRIB.ADIT	8/10	2-3	2:20	6.28	.990	59	7.4	6.27
C.ADIT AT HF	8/10	2.5-3	2:30	7.85	.927	44	5.34	6.69
HF-below WF, above Carrib.	8/10	14-15	2:40	11.5	.623	75	8	6.93
GAMEBIRD adit	8/10	.5	11:45	8.13	1.183	64	7.5	6.93
WFALL INTAKE	8/10	7-8	11:20	6.17	.328	70.5	8.74	7.22

HF-EOPHIR	9/3	9-10	12:27	8.91	.935	99.8	11.57	7.12
HF-ABOVE CARB	9/3	8-9	12:00	7.77	.752	89.8	10.67	7.02
HF-BELOW C	9/3	1.1g-9	12:07	8.13	.837	102.9	12.16	7.32
CARBONERO	9/3	1.5-2	11:55	7.85	1.268	105	12.54	6.64
WATERFALL	9/14	3-4	11:15	6.15	.453	70	7.53	7.23
HF-BELOW CARRIBEAU	9/14	11-12	2:30	7.68	.835	69.2	8.2	7.32
CARRIB.ADIT	9/14	1.5-2	2:50	6.13	1.157	60.8	7.52	6.73
C.ADIT AT HF	9/14	1.5-2	3:00	7.83	.975	60.3	7.14	6.77
HF-below WF, above Carrib.	9/14	9-10	2:00	7.57	.808	71	8.5	7.25
GAMEBIRD adit	9/14	.25	11:30	7.79	1.367	69	4.97	7.58
WFALL INTAKE	9/14	3-4	11:15	6.15	.453	57.2	7.1	7.23

HF-EOPHIR .35g	10/4	10?	11:20	4.43	.973	88.6	11.58	6.46
HF-ABOVE CARB.4g	10/4	6?	11:52	4.28	.801	59.	7.65	7.34
HF-BELOW C .9g	10/4	8?	11:42	4.16	.862	70.1	9.17	7.19
CARBONERO	10/4	1.5?	11:58	2.93	1.378	65.5	8.83	7.39
WATERFALL	10/8	4.43	12:15	3.68	.451	95.	12.56	7.86
HF-BELOW CARRIBEAU	10/12	10	2:30	6.6	.804	68	8.3	7.42
CARRIB.ADIT	10/12	2.	2:50	5.95	1.073	57	7.4	6.91
C.ADIT AT HF	10/12	2.	3:00	6.34	.886	74.4	9.17	6.9
HF-above Carrib.	10/12	8-9	3:10	6.4	.776	65	8.2	7.31
GAMEBIRD adit	10/12	.5	12:30	7.83	1.209	58.	7.	7.6
WFALL INTAKE	10/8	5?	11:45	4.89	.425	83.5	10.68	7.5

SAMPLING LOCATION	DATE 2009	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	11/12	.27g 7	12:30	3.64	.909	72	9.5	7.07
HF-ABOVE CARB	11/12	.09g 5	12:05	3.21	.749	74.2	9.9	6.3
HF-BELOW C	11/12	.7g 6	12:12	3.2	.801	73.6	9.8	6.64
CARBONERO	11/12	1.5	11:50	2.34	1.204	65.3	9.32	5.7
WATERFALL	11/11	2?	11:25	2.33	.457	72.9	10.03	7.61
HF-BELOW CARRIBEAU	11/11	8-10	2:20	4.95	.8	96.6	12.4	7.6
CARRIB.ADIT	11/11	1.5-2	2:40	5.91	1.03	98.2	11.96	7.6
C.ADIT AT HF	11/11	1.5-2	2:50	5.61	.865	99	12.56	7.26
HF-below WF, above Carrib.	11/11	8-10	3:00	4.95	.776	101	13.2	7.34
GAMEBIRD adit	11/11	.5	12:15	7.66	1.17	60	7.04	7.44
WFALL INTAKE	11/11	3?	11:55	4.5	.449	78.4	10.13	7.72

SAMPLING LOCATION	DATE 2009	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	12/2/09	.26g	1:20	1.175	.943	51.5	6.46	7.34
HF-ABOVE CARB	12/2/09	.1g	12:40	1.64	.784	70.2	9.78	6.65
HF-BELOW C	12/2	.95g	12:50	1.41	.837	73.6	10.3	7.42
CARBONERO	12/2	Ice	12:30	.64	1.193	73.	10.44	7.56
WATERFALL	12/1	Ice	Ice	Ice	Ice	Ice	Ice	Ice
HF-BELOW CARRIBEAU	12/1	9-10	2:45	1.0	.851	66	10	7.33
CARRIB.ADIT	12/1	.5	3:10	5.77	1.053	63	8	6.98
C.ADIT AT HF	12/1	1	3:20	2.45	.906	55.6	7.58	7.42
HF-below WF,	12/1	8-9	3:30	.99	.827	66	10	7.17

above Carrib.								
GAMEBIRD adit	12/1	.25	12:20	7.56	1.195	65	8	7.75
WFALL INTAKE	12/1	3	11:45	3.57	.496	70.6	9.35	8.17

SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	1/23	5-6	12:40	1.08	.041	64.3	9.12	7.38
HF-ABOVE CARB	1/23	3-4	1:20	.83	.865	53.	7.5	7.4
HF-BELOW C	1/23	4-5	1:45	.97	.894	53	7.49	7.56
CARBONERO	1/23	Ice	1:10	.79	1.328	48.6	6.9	7.54
WATERFALL	1/15/10	Ice	10:57	-.2	.575	96.6	14.2	7.1
HF-BELOW CARRIBEAU	1/15	11-12	2:00	1.05	.935	57	7.95	7.5
CARRIB.ADIT	1/15	1.5-2	2:30	5.71	1.12	55	6.88	7.01
C.ADIT AT HF	1/15	1.5-2	2:45	2.14	.935	53.1	7.3	7.08
HF-below WF, above Carrib.	1/15	9-10	3:00	-.29	.899	49	7.18	7.24
WFALL INTAKE	1/15	5-6	11:35	2.73	.559	82	11.15	7.65

SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	2/28/10	.22g-5	12:32	2.4	.713	56.1	7.66	7.21
HF-ABOVE CARB	2/28	2-3	1:05	1.5	.578	51.5	7.02	7.13
HF-BELOW C	2/28	3.5?	1:17	2.39	.630	65	8.91	7.09
CARBONERO	2/28	.5?	12:55	1.33	.931	52.1	7.31	7.41
WATERFALL	2/27	Ice	11:25	.49	.420	68.4	12.9	6.94
HF-BELOW CARRIBEAU	2/27	10?	2:30	2.53	.658	65	9	7.24
CARRIB.ADIT	2/27	2?	3:10	5.65	.776	42.8	6.87	6.87
C.ADIT AT HF	2/27	1.5?	3:28	3.47	.680	44	5.8	6.92
HF-below WF, above Carrib.	2/27	8?	3:40	1.57	.653	46.1	6.32	7.01
WFALL INTAKE	2/27	Ice	12:00	2.89	.494	64.8	8.74	7.38
Victor adit	2/28	1.5	12:23	6.5	1.055	42.2	5.1	7.04

SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	3/13	4-5	12:20	2.97	.916	68.1	9.28	7.74
HF-ABOVE CARB	3/13	3?	12:50	3.04	.768	78.4	10.51	7.66
HF-BELOW C	3/13	3.5	1:00	2.87	.799	77.6	10.43	7.56
CARBONERO	3/13	.5	12:45	1.19	1.172	76.4	10.77	7.73
WATERFALL	3/12	Ice	10:25	-.27	.547	89.5	13.17	8.25
HF-BELOW CARRIBEAU	3/12	10?	1:35	3.58	.84	77.3	10	7.96
CARRIB.ADIT	3/12	1.5	2:10	5.86	.993	74.5	9.27	7.63
C.ADIT AT HF	3/12	1.5	2:25	4.06	.870	78.	9.07	7.63
HF-below WF, above Carrib.	3/12	9?	2:35	2.23	.831	75.3	10.28	7.63
WFALL INTAKE	3/12	3?	11:10	3.14	.533	98.3	13.1	8.01
Victor adit	3/13	1	12:10	6.57	1.334	74.2	9.07	7.63

SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	4/29	5?	1:25	1.76	.780	87	12.09	8.44
HF-ABOVE CARB	4/29	4?	2:00	.89	.608	82.	11.76	8.77
HF-BELOW C	4/29	4.5	2:10	.96	.661	84.	11.86	8.11
CARBONERO	4/29	.25	1:50	-.3	.885	84.	12.36	8.6
WATERFALL	4/30	2?	10:45	.56	.381	90.9	13.07	8.56
HF-BELOW CARRIBEAU	4/30	10?	2:00	3.72	.694	76.2	9.9	7.87
CARRIB.ADIT	4/30	1.5	2:30	5.83	1.045	64.4	8.12	8.02
C.ADIT AT HF	4/30	1.5	2:40	3.65	.767	69.3	9.14	7.58
HF-below WF, above Carrib.	4/30	7-8	2:50	3.38	.868	68.6	9.11	7.56
WFALL INTAKE	4/30	2.5-3	11:30	2.57	.389	86.8	11.75	8.03
Victor adit	4/29	.25	1:15	6.4	1.381	56.1	6.86	7.86
Ferric oxide	4/29	.25	2:30	6.19	1.342	90.9	13.07	8.56

SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	5/18/10	12-14 .7g	12:10	4.65	.782	63.7	8.36	7.95
HF-ABOVE CARB	5/21	8-10 1.65g	11:40	3.73	.26	74.1	9.15	7.66
HF-BELOW C	5/18	9-11	11:45	5.8	.702	55.	7.27	8.01
CARBONERO	5/18	1-1.5	11:30	4.45	1.279	66.	8.12	7.68
WATERFALL	5/21	4-5	11:00	3.85	.409	86.8	11.2	7.82
HF-BELOW CARRIBEAU	5/21	15-17	1:30	9.68	.669	73.	8.3	7.78
CARRIB.ADIT	5/21	1.5	1:50	6.69	1.432	57	6.9	7.32
C.ADIT AT HF	5/21	1.5-2	2:00	8.9	.794	63.7	7.37	7.35
HF-below WF, above Carrib.	5/21	14-15	2:10	8.84	.642	53	6.03	7.54
WFALL INTAKE	5/21	4-5	11:40	3.98	.409	61	7.92	8.06
Victor adit	5/18	1.	12:20	6.59	1.939	45.6	5.56	7.73
Ferric oxide	5/18	1.5	12:00	7.06	1.867	52.9	6.41	7.65

SAMPLING LOCATION	DATE	FLOW	TIME	TEMP	COND	DO	DO	PH
HF-EOPHIR	6/3/10	1.1g 12-15	1:15	5.53	.542	66.4	8.88	7.38
HF-ABOVE CARB	6/3	3.5g 8	12:45	5.02	.45	50.4	6.24	7.11
HF-BELOW C	6/3	9?	12:57	5.04	.496	87.5	10.98	7.3
CARBONERO	6/3	.5	12:40	6.7	1.324	60	8.05	6.92
Carb adit	6/1	.5g	12:20	2.87	1.75	53.9	6.3	4.85
WATERFALL	6/15	8?	10:50	3.66	.278	70.9	9.1	8.17
HF-BELOW CARRIBEAU	6/15	30-35	2:05	9.55	.568	73	8	7.49
CARRIB.ADIT	6/15	1.5-2	1:40	6.48	1.192	74	9	7.02
C.ADIT AT HF	6/15	3	1:50	8.88	.765	120	13.8	7.3
HF-below WF, above Carrib.	6/15	25-30	1:20	8.44	.547	69.2	8.09	7.64
WFALL INTAKE	6/15	10-12	11:20	4.69	.281	88	10.9	7.89
Victor adit	6/3	.5	1:22	6.63	1.945	41.5	4.94	7.1
Ferric oxide	6/3	.5	1:32	7.29	1.899	48.4	5.78	7.24

SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	7/1	20-22	12:55	7.26	.662	68.3	8.3	7.52
HFABOVECARB	7/1	15 2.9g	12:20	6.76	.508	67.1	8.18	7.52
HF-BELOW C	7/1	17 .8g	12:30	6.84	.63	66.	8.16	7.61
CARB-PASS RD	7/1	1.5	12:15	7.02	1.209	64.	7.82	7.27
WATERFALL	7/2	5-6	12:05	7.47	.217	63.4	7.66	8.06
HF-BELOW CARRIBEAU	7/12	20-25	12:50	10.2	.621	66.8	7.4	7.57
CARRIB.ADIT	7/12	1.5-2	1:10	6.41	1.188	76.8	9.46	7.1
C.ADIT AT HF	7/12	2?	1:15	8.93	.951	54.3	6.27	7.05
HF-above Carrib.	7/12	18-20	1:25	10.23	.614	70.6	7.68	7.17
WFALLINTAKE	7/12	8-10	11:00	5.63	.312	69.4	7.8	7.8
Victor adit	7/1	.25	1:05	6.63	1.645	30.2	3.6	7.2
Ferric oxide	7/1	.5	12:45	7.12	1.572	20.9	2.49	7.41
SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR.65g	8/3	15-18	11:43	8.03	.694	89.7	10.89	7.57
HFABOVECARB	8/3	6-7	11:15	7.32	.576	49.3	5.87	7.64
HF-BELOW C	8/3	9-10	11:22	7.47	.645	92.2	11.41	7.59
CARB-PASS RD	8/3	2	11:05	8.12	1.192	109.4	13.01	7.48
WATERFALL	8/4	5-6	11:10	7.04	.301	72.7	8.79	7.93
HF-BELOW CARRIBEAU	8/9	23-25	1:30	9.76	.654	74.5	8.45	7.55
CARRIB.ADIT	8/9	2	1:50	6.16	1.169	67	8.5	7.01
C.ADIT AT HF	8/9	2+	2:00	8.0	.924	46	5.18	7.22
HF-above Carrib.	8/9	18-20	2:10	9.72	.627	49	5.5	7.26
WFALLINTAKE	8/9	10-12	11:30	6.06	.343	54	6.68	7.67
Victor adit	8/3	1-2	11:50	6.61	1.663	44.9	5.3	7.29
Ferric oxide	8/3	.75	11:35	7.18	1.587	75.2	9.05	7.35
HF-EOPHIR.34g	9/5	8-9	12:50	8.97	.897	61.3	6.83	7.85
HFABOVECARB	9/5	5-6	12:16	8.33	.716	55.	5.37	7.91
HF-BELOW CARB .4g	9/5	.4g	12:27	8.42	.793	56.7	6.5	7.77
CARB-PASS RD	9/5	2	12:10	9.01	1.269	64.3	7.53	7.39
WATERFALL	9/10	1.63	1:05	6.8	.449	95.5	11.65	8.02
HF-BELOW CARRIBEAU	9/14	15-17	1:05	9.39	.752	93.6	10.7	8.56
CARRIB.ADIT	9/14	1.5	1:30	6.11	1.143	72.9	9.02	7.01
C.ADIT AT HF	9/14	1.5-2	1:40	8.87	1.049	79.1	9.24	6.53
HF-above Carrib.	9/14	12-15	1:55	9.76	.807	74.1	8.38	7.26
WFALLINTAKE	9/11	4-5	11:45	5.78	.428	64.3	8.06	7.88
Victor adit	9/5	.5	12:55	6.58	1.669	18.4	2.18	7.63
Ferric oxide	9/5	1	12:41	7.34	1.587	44.3	5.26	7.67

SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR .34g	10/3	5-6	11:48	6.44	.953	65.7	8.06	7.56
HFABOVECARB	10/3	3-4	11:15	5.79	.77	54.4	6.84	7.6
HF-BELOW C	10/3	4-5	11:22	5.89	.842	92.6	11.52	7.65
CARB-PASS RD	10/3	.75	11:05	6.55	1.278	82.6	10.4	7.28
WATERFALL	10/7	1.69	1:30	5.88	.475	44.6	5.53	8.21
HF-BELOW CARRIBEAU	10/12	12-15	1:45	7.6	1.301	80.9	9.64	7.56
CARRIB.ADIT	10/12	2	2:05	6.0	1.856	83.2	10.2	7.4
C.ADIT AT HF	10/12	2	2:15	7.7	1.421	83.2	9.91	7.51
HF-above Carrib.	10/12	8-9	2:15	8.0	1.276	83.2	9.92	7.56
WFALLINTAKE	10/7	2-3	12:50	5.37	.461	71.1	8.92	8.07
Victor adit	10/3	.5	11:55	6.58	1.662	16.7	2.04	7.36
Ferric oxide	10/3	.25	11:40	7.33	1.582	38.1	4.54	7.49

SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR.34g	11/9	8-9	12:00	1.67	1.483	46.4	5.53	7.6
HFABOVECARB	11/10	8	12:00	.98	1.317	54.6	7.74	7.53
HF-BELOW C	11/10	9-10	11:30	.78	1.488	48.5	6.9	7.62
CARB-PASS RD	11/9	1.5	11:20	-.33	1.949	39.2	5.79	7.09
WATERFALL								
HF-BELOW CARRIBEAU	11/10	12-14	1:00	1.55	1.357	47.4	6.4	7.6
CARRIB.ADIT	11/10	1.5-2	1:30	5.8	1.765	50.6	6.9	7.25
C.ADIT AT HF	11/10	1.5-2	1:35	2.16	1.394	54.6	7.48	7.24
HF-above Carrib.	11/10	10-12	1:50	.81	1.323	50.7	7.2	7.31
WFALLINTAKE								
Victor adit	11/9	.5	12:08	6.48	2.479	46.4	5.53	7.4
Ferric oxide	11/9	.75	11:50	6.17	2.365	56.9	7.91	7.6

SAMPLING LOCATION	DATE 2010	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	12/1	7-8	1:20	.63	1.527	56.5	8.02	8.44
HFABOVECARB	12/1	5-6	12:36	.67	1.283	68.1	9.72	8.28
HF-BELOW C	12/1	6-7	12:50	.59	1.345	67.4	9.93	8.19
CARB-PASS RD	12/1	1.5	12:30	.44	2.034	70	10.03	8.6
WATERFALL	12/3	Ice	12:50	2.05	.805	88.8	12.34	7.75
HF-BELOW CARRIBEAU	12/7	12-15	2:00	1.4	.874	69	10	7.82
CARRIB.ADIT	12/7	1-1.5	2:25	5.78	1.099	67	8.3	7.28
C.ADIT AT HF	12/7	1.5	2:40	1.04	.907	52.9	7.29	7.31
HF-above Carrib.	12/7	5-6	2:50	1.45	.856	72	10	7.38
WFALLINTAKE	12/7	8-10	11:50	3.42	.489	62	8.15	8.17
Victor adit	12/1	1	1:28	6.48	2.423	45.6	5.32	7.94
Ferric oxide	12/1	.75	1:10	6.33	1.25	63.	7.75	8.3

SAMPLING LOCATION	DATE 2011	FLOW	TIME	TEMP	COND	DO%	DO	PH Ysi
HF-EOPHIR	1/14	4-6	2:05	1.54	.986	43.5	6.08	7.98
HFABOVECARB	1/14	2-3	1:22	1.52	.651	70	9.8	8.51
HF-BELOW C	1/14	3-4	1:35	1.46	.86	75	10.48	8.7
CARB-PASS RD	1/14	1.5	1:15	111	1.256	75.6	10.9	8.58
WATERFALL	1/15	ICE	12:39	.97	.552	72.7	10.31	7.77
HF-BELOW CARRIBEAU	1/16	9-11	1:15	2.27	.914	83	11.63	7.73
CARRIB.ADIT	1/16	1.5	1:45	5.82	1.103	92.3	11.6	7.36
C.ADIT AT HF	1/16	Ice	1:50	2.23	.932	98.7	13.48	7.21
HF-above Carrib.	1/16	4-5	2:05	1.68	.891	78.2	10.89	7.34
WFALLINTAKE	1/16	1.5-2	11:10	2.78	.53	72	9.73	7.75
Victor adit	1/14	.25	2:17	6.48	1.45	34.6	4.28	7.91
Ferric oxide	1/14	1.5	1:58	6.5	1.4	50.8	6.2	8.26