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Monthly Reports of Water

Plant Monitorin 11330.A

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BIOS 1232 - MCB

MCB not BMO

orig (letterhd), plus 1 yellow (~~BMO readfile~~ ladder)
and a green for Sally's file.
Plus a green for Base Corr. Readfile
Plus 2 pink. 1 f/Ruth & 1 f/Carol.
Be sure to make copy of enclosure
for our files.

1 yellow ldr
2 green
2 pink

5000
MAIN

09 MAR 1987

Water Supply Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer; B. Frazelle,W/WW, X5988
Typist: S. Kolde 5 Mar 87

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: APRIL

Year: 1987

Total Number of Wells in System: 8

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

e	Total Raw Flow (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	BKWSH Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	1.721	1.839	19.5	228,000	0.29	20	1979	37	7.5	8.8		142	62	62	143	61	57	1.3	1.2	1.05
2	1.723	1.880	19.5	216,000	0.45	14	1981	32	7.6	8.7		154	60	60	147	60	56	1.0	1.2	0.97
3	1.837	2.019	20.0	180,000	0.31	21	2113	34	7.6	8.8		158	65	65	144	66	58	1.4	1.3	0.97
4	1.768	1.890	20.0	150,000	0.35	21	2033	33	7.7	8.8		144	65	63	144	64	63	1.4	1.4	0.97
5	1.630	1.843	18.0	120,000	0.41	19	1875	32	7.6	8.9		144	64	62	144	61	59	1.4	1.4	1.02
6	1.761	1.901	20.0	156,000	0.35	19	2025	33	7.6	8.9		147	67	66	142	64	62	1.4	1.2	1.00
7	1.786	2.166	20.0	76,200	0.49	19	2034	37	7.6	9.0		146	64	66	144	62	68	1.3	1.3	1.08
8	1.815	2.102	19.0	76,200	0.30	20	2087	38	7.7	9.0		146	62	66	141	61	63	1.3	1.3	1.00
9	1.882	2.112	21.0	342,900	0.30	20	2164	37	7.8	8.9		146	60	62	143	58	57	1.3	1.3	1.04
10	2.133	2.182	21.0	190,000	0.36	24	2509	43	7.6	8.8		146	67	64	145	65	61	1.3	1.3	1.04
11	2.336	2.149	24.0	266,000	0.32	25	2686	28	7.6	8.9		148	64	64	149	59	61	1.3	1.3	0.63
12	2.153	2.396	21.0	228,600	0.35	27	2476	32	7.7	8.8		144	58	59	146	56	57	1.1	1.1	0.80
13	2.672	2.353	24.0	270,000	0.24	26	3072	46	7.6	8.8		148	62	60	146	63	56	1.2	1.2	0.91
14	2.423	2.250	22.0	273,000	0.35	26	2786	47	7.5	8.9		148	63	64	152	60	62	1.3	1.2	1.03
15	1.944	1.759	17.5	216,000	0.36	22	2236	20	7.6	9.0		148	60	61	146	60	57	1.4	1.3	0.55
16	1.798	1.955	18.0	348,000	0.22	22	2248	24	7.7	9.0		152	58	59	144	56	55	1.4	1.3	0.64
17	1.823	2.029	17.0	180,000	0.36	20	2096	29	7.6	9.1		176	55	59	150	55	56	1.3	1.3	0.82
18	1.772	1.886	16.0	252,000	0.39	21	2038	30	7.7	8.9		150	61	62	146	64	55	1.4	1.4	0.90
19	1.900	1.944	17.0	240,000	0.40	22	2183	29	7.7	8.9		152	61	62	152	61	59	1.4	1.3	0.79
20	2.021	1.971	18.0	234,000	0.43	24	2324	34	7.7	8.8		148	66	65	148	64	63	1.4	1.3	0.87
21	2.166	2.088	19.0	302,000	0.33	25	2491	40	7.6	8.8		148	58	62	146	58	58	1.4	1.4	0.95
22	2.075	2.244	22.0	72,000	0.36	24	2386	48	7.7	8.8		156	65	63	155	58	57	1.4	1.3	1.20
23	1.847	2.201	17.0	144,000	0.28	20	2124	34	7.6	8.8		148	61	61	146	60	61	1.3	1.3	0.97
24	1.780	1.85[illegible]	16.0	114,000	0.37	19	2047	31	7.6	8.7		148	62	61	148	62	59	1.3	1.3	0.88
25	1.678	1.966	16.0	72,200	0.33	20	1930	34	7.6	8.8		149	62	60	144	57	57	1.4	1.3	0.90
26	1.720	1.852	17.0	72,000	0.30	19	1978	29	7.7	8.8		148	58	60	142	63	56	1.3	1.3	0.81
27	1.997	2.050	17.0	175,500	0.51	21	2239	33	7.6	8.9		152	58	58	146	54	55	1.3	1.3	0.83
28	1.744	2.011	16.0	90,000	0.36	20	2006	35	7.8	8.8		144	65	62	144	62	57	1.4	1.3	0.90
29	1.750	2.129	17.0	108,000	0.38	20	2012	28	7.7	8.9		148	60	63	144	57	57	1.4	1.3	0.85
30	1.931	2.216	18.0	90,000	0.38	17	2220	36	7.8	8.8		148	59	60	146	59	57	1.1	1.1	0.99
31																				
31	57.586	61.234	567.5	5,482,600	10.65	637	66400	1023	*****	265.8	0.0	4476	1852	1861	4379	1810	1759	39.6	38.5	27.45
	1.920	2.041	18.9	182,753	0.36	21	2213	34	7.6	8.9	0.0	149	62	62	146	60	59	1.3	1.3	0.92
	2.672	2.396	24.0	348,000	0.51															
	0.000	0.000	0.0	0	0.00															

5000
MAIN

07 JAN 1987

Water Supply Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operation Forms

11300
MAIN
08 OCT 1986

Water Supply Branch
Division of Health Services
P. O. Box 2091
Raleigh, NC 27602-2091

Gentlemen:

As requested, the attached forms concerning the operation of our water treatment facilities are enclosed.

For further assistance, please contact Mr. G. S. Johnson, Jr., Director of Utilities, Base Maintenance Division (Telephone 451-5161).

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of the Commanding General

Enclosures

0 +
1 green
1 yellow - Ladder w/snel
2 Pink
~~white for copy~~ TO

Writer: G. S. Johnson, Jr., Util Br, X5161
Typist: C. Kowalski, 8 Oct 86

YEAR 1956 NUMBER OF WELLS IN SYSTEM 6

DAY	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.085	7.5	[illegible]	N/A	N/A	N/A	N/A				140	0	.50				1.7	1.6	N/A	
2	.092	7.45	[illegible]								140	0	.50				1.7	1.6		
3	.089	7.15	7,000								160	52	.50				1.7	1.6		
4	.116	12	[illegible]								160	50	48				1.6	1.8		
5	.114	14	7,000								170	48	48				1.9	2.0		
6	.106	12	7,000								170	48	48				1.7	1.7		
7	.108	17	9,000								170	48	48				1.6	1.8		
8	.126	17	9,800								170	46	48				1.6	1.7		
9	.097	12	[illegible]								170	46	50				1.4	1.5		
10	.113	17	7,000	N/A	N/A	N/A					170	50	50				1.5	1.4		
11	.089	11	[illegible]	N/A	N/A	N/A					170	50	50				1.[illegible]	1.7		
12	.125	12	[illegible]	N/A	N/A	N/A					170	50	50				1.34	1.6		
13	.133	13	[illegible]	N/A	N/A	N/A					170	50	48				1.8	1.8		
14	.094	15	7,000	N/A	N/A	N/A					160	46	46				1.7	1.7		
15	.105	16.15	7,000	N/A	N/A	N/A					168	46	48				1.7	1.7		
16	.097	4.5	[illegible]	N/A	N/A	N/A					170	50	48				1.6	1.7		
17	.099	17.30	7,000	N/A	N/A	N/A					170	48	50				1.8	1.5		
18	.097	11	[illegible]	N/A	N/A	N/A					170	48	50				1.5	1.7		
19	.091	14	[illegible]	N/A	N/A	N/A					170	50	53				1.7	1.8		
20	.105	8.30	[illegible]	N/A	N/A	N/A					168	42	52				1.4	1.8		
21	.110	19.	8,000	N/A	N/A	N/A					170	47	47				1.5	1.7		
22	.118	17	7,000	N/A	N/A	N/A					180	50	50				1.5	1.5		
23	.107	18	11,000	N/A	N/A	N/A					180	50	48				1.5	1.6		
24	.183	13.15	[illegible]	N/A	N/A	N/A					178	50	48				1.5	1.7		
25	.114	17	8,000	N/A	N/A	N/A					180	50	48				1.0	1.0		
26	.109	14.5	7,000	N/A	N/A	N/A					180	50	48				1.2	1.3		
27	.111	[illegible]	[illegible]	N/A	N/A	N/A					180	50	47				1.2	1.4		
28	.123	17	10,000	N/A	N/A	N/A					170	50	48				1.6	1.7		
29	.123	17	10,000	N/A	N/A	N/A					176	48	46				1.6	2.0		
30	.123	17	10,000	N/A	N/A	N/A					170	50	48				1.5	1.6		
31																				
TOT	3.228	425	245,000							AVG.	169	44.1	48.7				1.5	1.6		
AVG	.107	14.1	8166																	
MAX	.126	17.0	12,000																	

SIGNED B. Frazell

CERTIFICATION: GRADE A NO. 1201

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H.		HARDNESS (mg/l			ALK (mg/l)			CHLORINE (mg/l)		FLUORIDE DELIVERED	REMARKS
									RAW	FINISHED	RAW	SOFTENER	DELIVERED	RAW	FILTER	DELIVERED	PLANT	DELIVERED		
1	2.0	24	0						7.7	8.8	160	57	59	158	59	56	1.2	1.1		
2	3.3	24	51,600						7.8	8.8	160	47	55	160	54	54	1.2	1.1		
3	3.3	24	40,800						7.8	9.0	167	58	60	155	44	50	1.1	1.1		
4	2.6	24	122,400						7.7	8.9	161	58	59	144	50	54	1.0	1.0		
5	2.7	24	0						7.8	9.0	160	60	63	141	56	58	1.1	1.1		
6	2.3	24	122,400						7.7	9.1	160	56	60	141	53	40	1.1	1.0		
7	2.1	24	0						7.8	9.0	160	60	61	142	56	54	1.0	1.0		
8	2.7	24	0						7.8	8.9	164	62	64	142	56	58	1.0	0.9		
9	2.4	24	33,600						7.9	8.8	160	62	64	147	54	57	1.1	1.0		
10	2.7	24	119,700						7.7	8.8	161	61	64	149	55	57	1.1	1.0		
11	2.8	24	0						7.6	9.8	160	61	63	154	54	57	1.1	1.0		
12	2.5	24	119,700						7.7	9.0	161	63	66	155	55	57	1.1	1.0		
13	2.0	24	0						7.6	9.0	161	61	62	155	56	55	1.1	1.1		
14	1.8	24	79,800						7.7	9.0	162	59	61	153	49	59	1.1	1.1		
15	2.5	24	0						7.8	9.0	162	58	61	154	48	56	1.0	1.0		
16	2.3	24	39,900						7.8	9.2	165	63	63	158	54	55	0.9	0.8		
17	2.5	24	79,800						7.6	8.8	161	63	65	160	54	55	1.1	0.9		
18	2.4	24	39,900						7.4	8.8	161	62	64	160	54	57	1.0	1.0		
19	2.4	24	79,800						7.6	8.8	171	60	62	154	50	56	1.0	1.0		
20	2.1	24	39,900						7.8	8.9	170	61	62	157	48	56	1.1	1.0		
21	2.2	24	79,800						7.7	8.9	170	61	64	158	49	57	1.1	1.0		
22	2.5	24	0						7.8	9.0	170	61	64	158	51	57	1.1	1.1		
23	2.2	24	79,800						7.8	9.1	171	60	60	157	45	55	1.1	1.0		
24	1.9	24	79,800						7.6	9.0	170	60	60	158	53	55	1.1	1.0		
25	2.8	24	39,900						7.6	9.3	170	60	60	156	55	56	1.0	1.0		
26	2.7	24	119,700						7.6	9.2	171	60	60	152	52	51	1.0	1.0		
27	2.3	24	0						7.6	9.2	170	60	60	151	51	50	1.0	1.0		
28	2.2	24	79,800						7.6	9.3	170	60	60	150	54	52	1.1	1.0		
29	2.7	24	0						7.6	8.9	170	58	60	154	54	54	1.1	1.0		
30	2.6	24	79,800						7.6	8.9	170	58	60	155	54	54	1.1	1.0		
31																				
TOT	73,500	720	1,550,800					AVG.	7.6	8.97	164	59.6	61.5	152.9	54.3	54.9	1.07	1.0		
AVG	2.45	24	51,693																	
MAX	3.3	24	122,400																	
	1.8	24	0																	

ENCL (1)

SIGNED [illegible]

CERTIFICATION: GRADE A NO. 1201

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H: RAW	p.H: FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) Clear well FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) ~~PLANT~~	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.583	12½	60,000						7.4	8.5	152	54	52	246	157	159		0.8		
2	.649	13½	0						7.7	8.6	168	58	51	261	178	178		0.8		
3	.666	17	60,000						7.5	8.5	158	57	53	262	167	165		0.8		
4	.667	14½	120,000						7.4	8.6	153	56	53	268	168	165		0.8		
5	.658	15½	0						7.4	8.6	153	55	52	274	166	174		0.8		
6	.647	15	60,000						7.5	8.5	156	55	53	276	165	178		0.7		
7	.773	19	120,000						7.5	8.5	154	57	53	258	167	172		0.8		
8	.674	16	0						7.5	8.4	157	54	54	274	171	181		0.7		
9	.684	16½	120,000						7.5	8.5	150	55	52	273	180	183		0.8		
10	.701	16	60,000						7.5	8.3	147	66	57	275	179	176		0.7		
11	.715	16½	0						7.5	8.4	146	57	51	271	164	169		0.8		
12	.699	16½	120,000						7.5	8.6	148	58	48	268	156	158		0.7		
13	.627	13½	60,000						7.6	8.6	150	60	52	276	163	166		0.7		
14	.630	13	0						7.6	8.6	153	58	53	275	168	171		0.7		
15	.650	14½	60,000						7.6	8.6	149	57	51	265	171	166		0.7		
16	.660	18½	120,000						7.6	8.6	152	59	50	271	175	175		0.8		
17	.708	16	0						7.6	8.6	155	58	55	268	173	173		0.8		
18	.636	12½	0						7.6	8.4	150	61	66	261	176	180		0.75		
19	.760	17½	180,000						7.6	8.5	153	56	59	266	158	173		0.76		
20	.605	13½	60,000						7.6	8.6	155	59	54	264	171	178		0.8		
21	.638	14	60,000						7.6	8.5	148	59	57	261	170	174		0.8		
22	.609	12½	0						7.5	8.5	167	58	56	270	151	162		0.8		
23	.663	14½	120,000						7.4	8.6	161	53	52	276	162	153		0.8		
24	.655	14½	0						7.4	8.5	159	59	55	273	159	158		0.7		
25	.728	18½	60,000						7.4	8.6	158	59	53	267	156	156		0.8		
26	.669	17½	180,000						7.6	8.5	151	57	55	256	152	168		0.7		
27	.626	17	0						7.6	8.6	158	58	52	277	172	166		0.7		
28	.678	17	0						7.5	8.6	157	60	55	263	174	156		0.8		
29	.653	17½	180,000						7.5	8.6	170	57	53	261	166	158		0.8		
30	.699	17½	0						7.4	8.5	168	59	53	262	155	155		0.72		
31																				
TOT	19.956	468	1,800,000					AVG.	7.5	8.5	145.5	57.6	53.6	267.2	166.3	168.2		0.75		
AVG	.665	15.6	60,000	—																
MAX	.773	19	120,000	—																
MIN	.583	12.5	60,000	—																

SIGNED [illegible]

CERTIFICATION: GRADE A NA

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l RAW	HARDNESS (mg/l TREATED SOFTENER	HARDNESS (mg/l DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	1.0	16	35,100	.28					7.75	8.74	134	65	64	185	79	66	1.0	.86		
2	0.03	3	NONE	.15					7.5	8.6	108	69	66	180	78	64	1.1	.8		
3	0.6	9	35,100	.26					7.6	9.07	185	58	64	193	69	66	1.3	.71		
4	1.2	18	35,100	.22					7.5	8.8	173	57	62	183	68	65	1.5	1.0		
5	1.0	19	35,100	.20					7.6	8.7	183	64	62	184	81	63	1.2	1.1		
6	1.0	18	35,100	.16					7.6	8.7	169	65	61	182	74	63	1.2	0.9		
7	1.2	17	35,100	.15					7.6	8.8	181	62	62	178	76	63	1.1	0.8		
8	1.0	18	35,100	.14					7.7	8.7	182	74	66	171	66	65	1.2	0.9		
9	1.0	18	35,100	.14					7.7	8.8	156	52	64	181	67	66	1.3	1.0		
10	.967	17	35,100	.21					7.6	8.7	182	59	48	181	67	50	1.1	0.9		
11	.945	18	35,100	.27					7.7	8.8	180	58	57	180	73	63	1.1	1.0		
12	1.023	18	35,100	.23					7.5	8.7	180	74	72	179	74	63	1.3	0.9		
13	1.093	19	35,100	.13					7.6	8.6	182	67	63	178	73	67	1.2	1.0		
14	1.2	19	35,100	.13					7.6	8.9	183	59	60	180	62	54	1.1	1.2		
15	1.3	19	35,100	.16					7.5	8.8	180	64	60	180	60	60	1.0	1.0		
16	1.0	17	35,100	.15					7.6	9.0	177	57	57	184	58	56	1.4	0.9		
17	1.1	18	35,100	.19					7.6	8.9	175	61	57	181	63	56	1.4	1.1	1.03	
18	1.1	21	35,100	.18					7.7	8.9	183	65	61	184	68	57	1.2	1.1	1.10	
19	1.3	21	35,100	.21					7.7	8.8	174	61	61	180	61	57	1.2	1.0	1.04	
20	.96	17	35,100	.15					7.5	8.8	165	62	57	174	61	61	1.2	1.0	1.02	
21	1.2	18	35,100	.46					7.6	8.9	158	65	65	182	69	66	1.0	0.9	.99	
22	1.0	17	35,100	.76					7.7	8.9	182	65	63	182	66	65	1.1	.7	.95	
23	1.0	14	35,100	.38					7.7	9.0	184	60	64	183	58	60	1.1	.8	.96	
24	.8	8	0	.58					7.7	8.9	184	58	61	182	56	56	1.2	.9	.98	
25	1.0	18	70,200	.25					7.5	8.8	185	84	72	182	69	69	1.2	.9	.91	
26	1.1	16	35,100	.25					7.6	8.8	188	59	79	192	59	73	1.2	1.0	.96	
27	1.1	18	35,100	.21					7.5	8.8	185	62	64	185	61	64	1.4	1.0	.91	
28	1.1	20	35,100	.55					7.5	8.9	186	62	60	183	61	60	1.2	1.0	.85	
29	1.4	20	35,100	.29					7.8	8.8	186	61	63	183	61	62	1.2	1.0	.86	
30	1.7	20	35,100	.24					7.8	8.9	184	60	59	187	60	60	1.0	1.0	.93	
31																				
TOT	30.3	509	1,017,900	768				AVG	7.6	8.8	175	63	62	182	67	62	1.2	0.9		
AVG	1.0	17	33,930	.26																
MAX	1.7	21	70,200	.76																
	.03	3	0	.13																

SIGNED B. Trogel

CERTIFICATION: GRADE A NO. 1201

DAY	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.56	16	28,600	NA	50	N/A					180	54	60				1.5	1.5	N/A	
2	.54	16	35,200	NA	50	N/A					180	60	63				1.4	1.4	N/A	
3	.56	14	33,000	NA	100	N/A					190	64	64				1.5	1.5	N/A	
4	.51	14	32,000	NA	100	N/A					190	58	59				1.6	1.5	N/A	
5	.52	15	35,200	NA	100	N/A					190	56	56				1.6	1.5	N/A	
6	.49	12	30,800	NA	50	N/A					190	58	58				1.5	1.6	N/A	
7	.48	13	30,800	NA	50	N/A					200	60	60				1.2	1.2	N/A	
8	.55	14	30,800	NA	50	N/A					200	60	60				1.1	1.2	N/A	
9	.55	15	35,200	NA	100	N/A					180	60	60				1.2	1.2	N/A	
10	.51	16	30,800	NA	50	NA					180	56	56				1.2	1.2	NA	
11	.60	16	33,000	N/A	100	N/A					180	54	54				1.3	1.3	N/A	
12	.48	16	[illegible]	N/A	50	N/A					180	52	52				1.3	1.3	N/A	
13	.74	19	35,200	N/A	100	N/A					190	42	42				1.2	1.2	N/A	
14	.66	17	35,200	N/A	100	N/A					160	52	52				1.3	1.3	N/A	
15	.54	14	33,000	N/A	100	N/A					180	52	52				1.3	1.3	N/A	
16	.57	16	[illegible]	NA	50	NA					186	52	54				1.4	1.3	NA	
17	.55	14	[illegible]	N-A	50	—NA					190	56	54				1.3	1.3	NA	
18	.58	14	[illegible]	N—A	100	—NA					194	58	60				1.4	1.4	NA	
19	.53	[illegible]	[illegible]	N—A	50	—NA					[illegible]	66	68				1.3	1.3	NA	
20	.49	14	[illegible]	N—A	50	—NA					182	70	74				[illegible]	[illegible]	NA	
21	.47	11	[illegible]	N—A	00	—NA					180	54	64				1.2	1.1	N—A	
22	.51	15	[illegible]	N—A	00	—NA					184	57	61				1.0	[illegible]	N-A	
23	.52	15	35,200	NA	50	NA					170	66	60				1.5	1.6	NA	
24	.48	14	30,800	NA	100	NA					190	62	62				1.6	1.6	NA	
25	.60	16	35,200	NA	50	NA					190	60	58				1.6	1.6	NA	
26	.49	15	35,200	NA	100	NA					195	58	58				1.5	1.5	NA	
27	.41	12	35,200	NA	50	NA					170	52	52				1.3	1.4	NA	
28	.67	15	33,000	NA	100	NA					160	52	52				1.2	1.3	NA	
29	.61	16	33,000	NA	100	NA					180	52	52				1.3	1.3	NA	
30	.51	15	35,200	NA	00	NA					180	52	41				1.3	1.4	NA	
31																				
TOT	16.32	440	975,800		2000.			AVG.			184	57	57				1.4	1.3		
AVG	.54	15	32,527																	
MAX	.74	19	35,200																	
[illegible]	.41	11	28,600																	

SIGNED [illegible]

CERTIFICATION: GRADE A NA 1701

	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER Cl_2	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.185	14	8,200	N/A	50	N/A	N/A	8	?	?	172	44	70	N/A	N/A	N/A	1.1	1.0	N/A	Low Detention Tanks
2	.203	13.5	8,200	—	50	—	—	8	?	?	166	50	62	—	—	—	1.1	1.0	—	Low Sand Pt.
3	.210	14	8,200	—	50	—	—	7	?	?	178	44	54	—	—	—	1.1	1.0	—	
4	.212	13	8,200	—	50	—	—	8	?	?	162	52	58	—	—	—	1.1	1.0	—	
5	.212	13	8,200	—	50	—	—	6	—	—	156	50	56	—	—	—	1.1	1.0	—	
6	.166	14	8,200	—	50	—	—	5	—	—	164	50	54	—	—	—	1.1	1.0	—	
7	.185	17	8,200	—	50	—	—	4	—	—	161	50	54	—	—	—	1.1	1.0	—	
8	.196	14	8,200	—	50	—	—	5	—	—	159	50	54	—	—	—	1.1	1.0	—	
9	.200	15	8,200	—	50	—	—	6	—	—	160	52	52	—	—	—	1.2	1.1	—	
0	.190	14	8,200	—	50	—	—	6	—	—	164	50	52	—	—	—	1.1	1.0	—	
1	.212	15	8,200	—	50	—	—	7	—	—	168	52	52	—	—	—	1.1	1.0	—	
2	.294	14	8,200	—	50	—	—	7	?	?	174	50	50	—	—	—	1.2	1.2	—	
3	.180	12.5	8,200	—	50	—	—	6	?	?	186	56	52	—	—	—	1.2	1.2	—	
4	.181	13	8,200	—	50	—	—	6	—	—	172	50	53	—	—	—	1.1	1.0	—	
5	.179	14	8,200	—	50	—	—	5	—	—	168	50	52	—	—	—	1.1	1.0	—	
6	.221	13	8,200	—	50	—	—	5	—	—	176	48	50	—	—	—	1.1	1.0	—	
7	.201	15	8,200	—	50	—	—	5	—	—	169	52	52	—	—	—	1.2	1.0	—	
8	.209	14	8,200	—	50	—	—	5	—	—	174	50	53	—	—	—	1.1	1.0	—	
9	.190	14	8,200	—	50	—	—	6	—	—	172	52	54	—	—	—	1.1	1.0	—	
0	.173	13	8,200	—	50	—	—	6	—	—	177	50	56	—	—	—	1.1	1.0	—	
1	.195	14	8,200	—	50	—	—	7	?	?	186	68	50	—	—	—	1.2	1.1	—	
2	.213	14	8,200	—	50	—	—	6	?	?	176	52	52	—	—	—	1.1	1.1	—	
3	.206	15.5	8,200	—	50	—	—	6	?	?	174	52	56	—	—	—	1.0	1.0	—	
4	.215	14.5	8,200	—	50	—	—	7	?	?	172	48	52	—	—	—	1.0	1.1	—	
5	.206	14.5	8,200	—	50	—	—	8	?	?	176	48	54	—	—	—	1.0	1.0	—	
6	.211	14	8,200	—	50	—	—	5	—	—	174	46	52	—	—	—	1.0	1.1	—	
7	.204	13	8,200	—	50	—	—	5	—	—	176	50	53	—	—	—	1.1	1.0	—	
8	.201	12	8,200	—	50	—	—	5	—	—	174	50	52	—	—	—	1.1	1.0	—	
9	.202	14	8,200	—	50	—	—	6	—	—	178	50	52	—	—	—	1.1	1.0	—	
0	.206	14	8,200	—	50	—	—	6	—	—	178	50	50	—	—	—	1.1	1.0	—	
OT	7.383	416	246,000		1500			182		AVG.	165	50.8	54.4				1.1	1.0		
G	.246	13.8	8,200																	
AX	.294	15	8,200																	
N	.166	11	8,200																	

SIGNED [illegible]

CERTIFICATION: GRADE A NO. 1201

5000
MAIN

Water Supply Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina, 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operation Forms

Writer: BM.Frazelle, Water, X1081
Typist: S. Kolde, 7 Oct 86

McB - orig
2 pinks
1 yellow stf } slf rdng
1 green } file
1 green my file
1 yellow Ruth

MONTH Sept PUBLIC WATER SYSTEM FOR: ONSLOW BEACH PWSID: 04-67-048

YEAR 1986 NUMBER OF WELLS IN SYSTEM 2

DAY	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.085	7.15	7,000	N/A	N/A	N/A	N/A				140	0	.50				1.7	1.6	N/A	
2	.092	7.45	7,000								140	0	.50				1.7	1.6		
3	.089	7.15	7,000								160	52	.50				1.7	1.6		
4	.116	12	9,000								160	50	48				1.6	1.8		
5	.114	14	7,000								170	48	48				1.9	2.0		
6	.106	12	7,000								170	48	48				1.7	1.7		
7	.108	17	9,000								170	48	48				1.6	1.8		
8	.126	17	9,800								170	46	48				1.6	1.7		
9	.097	12	11,000								170	46	50				1.4	1.5		
10	.113	17	7,000	N/A	N/A	N/A					170	50	50				1.5	1.4		
11	.089	11	7,000	N/A	N/A	N/A					170	50	50				1.4	1.7		
12	.125	12	9,000	N/A	N/A	N/A					170	50	50				1.4	1.6		
13	.133	13	9,000	N/A	N/A	N/A					170	50	48				1.8	1.8		
14	.094	15	7,000	N/A	N/A	N/A					160	46	46				1.7	1.7		
15	.105	16.15	7,000	N/A	N/A	N/A					168	46	48				1.7	1.7		
16	.097	9.45	7,000	N/A	N/A	N/A					170	50	48				1.6	1.7		
17	.099	17.30	7,000	N/A	N/A	N/A					170	48	50				1.8	1.5		
18	.097	11	7,000	N/A	N/A	N/A					170	48	50				1.5	1.7		
19	.091	14	7,000	N/A	N/A	N/A					170	50	53				1.7	1.8		
20	.105	9.30	7,000	N/A	N/A	N/A					168	42	52				1.4	1.8		
21	.110	19.	9,000	N/A	N/A	N/A					170	47	47				1.5	1.7		
22	.118	17	7,000	N/A	N/A	N/A					180	50	50				1.5	1.7		
23	.107	18	11,000	N/A	N/A	N/A					180	50	48				1.5	1.6		
24	.103	13.15	7,000	N/A	N/A	N/A					178	50	48				1.5	1.7		
25	.114	17	9,000	N/A	N/A	N/A					180	50	48				1.0	1.0		
26	.109	14.5	7,000	NA	NA	NA					180	50	48				1.2	1.3		
27	.111	[illegible]	9,000	NA	NA	NA					180	50	47				1.2	1.4		
28	.123	17	12,000	NA	NA	NA					170	50	48				1.6	1.7		
29	.123	17	10,000	NA	NA	NA					176	48	46				1.6	2.0		
30	.123	17	10,000	N/A	N/A	N/A					170	50	48				1.5	1.6		
31																				
										AVG.	169	44.1	48.7				1.5	1.6		
TOT	3.228	425	245,000																	
AVG	.107	14.1	8166																	
MAX	.126	17.0	12,000																	

SIGNED B. Frazell

CERTIFICATION: GRADE A NO. 1201

MONTH [illegible] PUBLIC WATER SYSTEM FOR: RIFLE RANGE PWSID: 04-67-046

YEAR 86 NUMBER OF WELLS IN SYSTEM 4

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER Cl_2	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARK
1	.185	14	8,200	N/A	50	N/A	N/A	8	?	?	172	44	70	N/A	N/A	N/A	1.1	1.0	N/A	Raw [illegible]
2	.203	13.5	8,200	—	50	—	—	8	?	?	166	50	62	—	—	—	1.1	1.0	—	Raw [illegible]
3	.210	14	8,200	—	50	—	—	7	?	?	178	44	54	—	—	—	1.1	1.0	—	
4	.212	13	8,200	—	50	—	—	8	?	?	162	52	58	—	—	—	1.1	1.0	—	
5	.212	13	8,200	—	50	—	—	6	—	—	156	50	56	—	—	—	1.1	1.0	—	
6	.166	14	8,200	—	50	—	—	5	—	—	164	50	54	—	—	—	1.1	1.0	—	
7	.185	11	8,200	—	50	—	—	4	—	—	161	50	54	—	—	—	1.1	1.0	—	
8	.196	14	8,200	—	50	—	—	5	—	—	159	50	54	—	—	—	1.1	1.0	—	
9	.200	15	8,200	—	50	—	—	6	—	—	160	52	52	—	—	—	1.2	1.1	—	
10	.190	14	8,200	—	50	—	—	6	—	—	164	50	52	—	—	—	1.1	1.0	—	
11	.212	15	8,200	—	50	—	—	7	—	—	168	52	52	—	—	—	1.1	1.0	—	
12	.294	14	8,200	—	50	—	—	7	?	?	174	50	50	—	—	—	1.2	1.2	—	
13	.180	13.5	8,200	—	50	—	—	6	?	?	186	56	52	—	—	—	1.2	1.2	—	
14	.181	13	8,200	—	50	—	—	6	—	—	172	50	53	—	—	—	1.1	1.0	—	
15	.179	14	8,200	—	50	—	—	5	—	—	168	50	52	—	—	—	1.1	1.0	—	
16	.221	13	8,200	—	50	—	—	5	—	—	176	48	50	—	—	—	1.1	1.0	—	
17	.201	15	8,200	—	50	—	—	5	—	—	169	52	52	—	—	—	1.2	1.0	—	
18	.209	14	8,200	—	50	—	—	5	—	—	174	50	53	—	—	—	1.1	1.0	—	
19	.190	14	8,200	—	56	—	—	6	—	—	172	52	54	—	—	—	1.1	1.0	—	
20	.173	13	8,200	—	50	—	—	6	—	—	172	50	76	—	—	—	1.1	1.0	—	
21	.195	14	8,200	—	50	—	—	7	?	?	186	68	50	—	—	—	1.2	1.0	—	
22	.213	14	8,200	—	50	—	—	6	?	?	176	60	52	—	—	—	1.4	1.1	—	
23	.206	13.5	8,200	—	50	—	—	6	?	?	174	52	56	—	—	—	1.2	1.0	—	
24	.215	14.5	8,200	—	50	—	—	7	?	?	172	48	52	—	—	—	1.0	1.1	—	
25	.206	14.5	8,200	—	50	—	—	8	?	?	176	48	54	—	—	—	1.0	1.2	—	
26	.211	14	8,200	—	50	—	—	5	—	—	174	46	52	—	—	—	1.0	1.1	—	
27	.209	13	8,200	—	50	—	—	5	—	—	176	50	53	—	—	—	1.1	1.0	—	
28	.201	15	8,200	—	50	—	—	5	—	—	174	50	52	—	—	—	1.1	1.0	—	
29	.202	14	8,200	—	50	—	—	6	—	—	178	50	52	—	—	—	1.1	1.0	—	
30	.206	14	8,200	—	50	—	—	6	—	—	178	50	50	—	—	—	1.1	1.0	—	
31																				
TOT	7.383	416	246,000		1500			182		AVG.	165	50.8	54.4				1.1	1.0		
AVG	.246	13.8	8,200																	
MAX	.294	15	8,200																	
[illegible]	[illegible]	[illegible]	[illegible]																	

SIGNED [illegible]

CERTIFICATION: GRADE A NO. 1201

MONTH SEPTEMBER

YEAR 1986

PUBLIC WATER SYSTEM FOR: COURTHOUSE BAY

PWSID: 04-67-047

NUMBER OF WELLS IN SYSTEM 5

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY)	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.56	16	28,600	NA	50	N/A					180	54	60				1.5	1.5	N/A	
2	.54	16	35,200	NA	50	N/A					180	60	63				1.4	1.4	N/A	
3	.56	14	33,000	NA	100	N/A					190	64	64				1.5	1.5	N/A	
4	.51	14	32,000	NA	100	N/A					190	58	59				1.6	1.5	N/A	
5	.52	15	35,200	NA	100	N/A					190	56	56				1.6	1.5	N/A	
6	.49	12	30,800	NA	50	N/A					190	58	58				1.5	1.6	N/A	
7	.48	13	30,800	NA	50	N/A					200	60	60				1.2	1.2	N/A	
8	.55	14	30,800	NA	50	N/A					200	60	60				1.1	1.2	N/A	
9	.55	15	35,200	NA	100	N/A					180	60	60				1.2	1.2	N/A	
10	.51	16	30,800	NA	50	NA					180	56	56				1.2	1.2	NA	
11	.60	16	33,000	N/A	100	N/A					180	54	54				1.3	1.3	N/A	
12	.48	16	28,600	N/A	50	N/A					180	52	52				1.3	1.3	N/A	
13	.74	19	35,200	N/A	100	N/A					190	42	42				1.2	1.2	N/A	
14	.66	17	35,200	N/A	100	N/A					160	52	52				1.3	1.3	N/A	
15	.58	14	33,000	N/A	100	N/A					180	52	52				1.3	1.3	N/A	
16	.57	16	30,800	NA	50	NA					186	52	54				1.4	1.3	NA	
17	.55	14	28,600	NA	50	NA					190	56	54				1.3	1.3	NA	
18	.58	14	33,000	N-A	100	NA					194	58	60				1.4	1.4	NA	
19	.53	16	30,800	N-A	50	NA					200	66	68				1.3	1.3	NA	
20	.49	14	30,800	N-A	50	NA					182	70	74				1.6	1.6	NA	
21	.47	11	28,600	N-A	00	NA					180	54	64				1.2	1.1	NA	
22	.51	15	35,200	N-A	00	NA					184	57	61				1.0	1.0	NA	
23	.52	15	35200	NA	50	NA					170	66	60				1.5	1.6	NA	
24	.48	14	30,800	NA	100	NA					190	62	62				1.6	1.6	NA	
25	.60	16	33,000	NA	50	NA					190	60	58				1.6	1.6	NA	
26	.49	15	35,200	NA	100	NA					195	58	58				1.5	1.5	NA	
27	.41	12	35,200	NA	50	NA					170	52	52				1.3	1.4	NA	
28	.67	15	33,000	NA	100	NA					160	52	52				1.2	1.3	NA	
29	.61	16	33,000	NA	100	NA					180	52	52				1.3	1.3	NA	
30	.51	15	35,200	NA	00	NA					180	52	41				1.3	1.4	NA	
31																				
TOT	16.32	440	975,800		2000.			AVG.			184	57	57				1.4	1.3		
AVG	.54	15	32,527																	
MAX	.74	19	35,200																	

SIGNED B. Frazell

CERTIFICATION: GRADE A NO 1701

MONTH September PUBLIC WATER SYSTEM FOR: HOLCOMB BLVD. PWSID: 04-67-043

YEAR 1986 NUMBER OF WELLS IN SYSTEM 8

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) TREATED SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	RE
1	1.0	16	35,100	.28					7.75	8.74	134	65	64	185	79	66	1.0	.86		
2	0.03	3	NONE	.15					7.5	8.6	108	69	66	180	78	64	1.1	.8		
3	0.6	9	35,100	.26					7.6	9.07	185	58	64	193	69	66	1.3	.71		
4	1.2	18	35,100	.22					7.5	8.8	173	57	62	183	68	65	1.5	1.0		
5	1.0	19	35,100	.20					7.6	8.7	183	64	62	184	81	63	1.2	1.1		
6	1.0	18	35,100	.16					7.6	8.7	169	65	61	182	74	63	1.2	0.9		
7	1.2	17	35,100	.15					7.6	8.8	181	62	62	178	76	63	1.1	0.8		
8	1.0	18	35,100	.14					7.7	8.7	182	74	66	171	66	65	1.2	0.9		
9	1.0	18	35,100	.14					7.7	8.8	156	52	64	181	67	66	1.3	1.0		
10	.967	17	35,100	.21					7.6	8.7	182	59	48	181	67	50	1.1	0.9		
11	.945	18	35,100	.27					7.7	8.8	180	58	57	180	73	63	1.1	1.0		
12	1.023	18	35,100	.23					7.5	8.7	180	74	72	179	74	63	1.3	0.9		
13	1.093	19	35,100	.13					7.6	8.6	182	67	63	178	73	67	1.2	1.0		
14	1.2	19	35,100	.13					7.6	8.9	183	59	60	180	62	54	1.1	1.2		
15	1.3	19	35,100	.16					7.5	8.8	180	64	60	180	60	60	1.0	1.0		
16	1.0	17	35,100	.15					7.6	9.0	177	57	57	184	58	56	1.4	0.9		
17	1.1	18	35,100	.19					7.6	8.9	175	61	57	181	63	56	1.4	1.1	1.03	
18	1.1	21	35,100	.18					7.7	8.9	183	65	61	184	68	57	1.2	1.1	1.10	
19	1.3	21	35,100	.21					7.7	8.8	174	61	61	180	61	57	1.2	1.0	1.04	
20	.96	17	35,100	.15					7.5	8.8	165	62	57	174	61	61	1.2	1.0	1.02	
21	1.2	18	35,100	.46					7.6	8.9	158	65	65	182	69	66	1.0	0.9	.99	
22	1.0	17	35,100	.76					7.7	8.9	182	65	63	182	66	65	1.1	.7	.95	
23	1.0	14	35,100	.38					7.7	9.0	184	60	64	183	58	60	1.1	.8	.96	
24	.8	8	0	.58					7.7	8.9	184	58	61	182	56	56	1.2	.9	.98	
25	1.0	18	70,200	.25					7.5	8.8	185	84	72	182	69	69	1.2	.9	.91	
26	1.1	16	35,100	.25					7.6	8.8	188	59	79	192	59	73	1.2	1.0	.96	
27	1.1	18	35,100	.21					7.5	8.8	185	62	64	185	61	64	1.4	1.0	.91	
28	1.1	20	35,100	.55					7.5	8.9	186	62	60	183	61	60	1.2	1.0	.85	
29	1.4	20	35,100	.29					7.8	8.8	186	61	63	182	61	62	1.2	1.0	.86	
30	1.7	20	35,100	.24					7.8	8.9	184	60	59	187	60	60	1.0	1.0	.93	
31																				
TOT	30.3	509	1,017,900	768				AVG	7.6	8.8	175	63	62	182	67	62	1.2	0.9		
AVG	1.0	17	33,930	.26																
MAX	1.7	21	70,200	.76																

SIGNED [illegible]

MONTH September

YEAR 1986

REPORT OF OPERATION

PUBLIC WATER SYSTEM FOR: MARINE CORPS AIR STATION PWSID: 04-67-042

NUMBER OF WELLS IN SYSTEM 25

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) Clear well FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) ~~PLANT~~	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARK
1	.583	12½	60,000						7.4	8.5	152	54	52	246	157	159		0.8		
2	.649	13½	0						7.7	8.6	168	58	51	261	178	178		0.8		
3	.666	17	60,000						7.5	8.5	158	57	53	262	167	165		0.6		
4	.667	14½	120,000						7.4	8.6	153	56	53	268	168	165		0.8		
5	.658	15½	0						7.4	8.6	153	55	52	274	166	174		0.8		
6	.647	15	60,000						7.5	8.5	156	55	53	276	165	178		0.7		
7	.773	19	120,000						7.5	8.5	154	57	53	258	167	172		0.8		
8	.674	16	0						7.5	8.4	157	54	54	274	171	181		0.7		
9	.684	16½	120,000						7.5	8.5	150	55	52	273	180	183		0.8		
10	.701	16	60,000						7.5	8.3	147	66	57	275	179	176		0.7		
11	.715	16½	0						7.5	8.4	146	57	51	271	164	169		0.8		
12	.699	16½	120,000						7.5	8.6	148	58	48	268	156	158		0.7		
13	.627	13½	60,000						7.6	8.6	150	60	52	276	163	166		0.7		
14	.630	13	0						7.6	8.6	153	58	53	275	168	171		0.7		
15	.650	14½	60,000						7.6	8.6	149	57	51	265	171	166		0.7		
16	.660	18½	120,000						7.6	8.6	152	59	50	271	175	175		0.8		
17	.708	16	0						7.6	8.6	155	58	55	268	173	173		0.8		
18	.636	12½	0						7.6	8.4	150	61	66	261	176	180		0.75		
19	.760	17½	180,000						7.6	8.5	153	56	59	266	158	173		0.76		
20	.605	13½	60,000						7.6	8.6	155	59	54	264	171	178		0.8		
21	.638	14	60,000						7.6	8.5	148	59	57	261	170	174		0.8		
22	.609	12½	0						7.5	8.5	167	58	56	270	151	162		0.8		
23	.663	14½	120,000						7.4	8.6	161	53	52	276	162	153		0.8		
24	.655	14½	0						7.4	8.5	159	59	55	273	159	158		0.7		
25	.728	18½	60,000						7.4	8.6	158	59	53	267	156	156		0.8		
26	.669	17½	180,000						7.6	8.5	151	57	55	256	152	168		0.7		
27	.626	17	0						7.6	8.6	158	58	52	277	172	166		0.7		
28	.678	17	0						7.5	8.6	157	60	55	263	174	156		0.8		
29	.653	17½	180,000						7.5	8.6	170	57	53	261	166	158		0.8		
30	.699	17½	0						7.4	8.5	168	59	53	262	155	155		0.72		
31																				
TOT	19.956	468	1,800,000					AVG.	7.5	8.5	145.5	57.6	53.6	267.2	166.3	168.2		0.75		
AVG	.665	15.6	60,000	—																
MAX	.773	19	120,000	—																
	.583	12.5	60,000	—																

SIGNED [illegible]

CERTIFICATION: GRADE 1 NO.

MONTH SEPT. PUBLIC WATER SYSTEM FOR: HADNOT POINT PWSID: 04-67-049

YEAR 1986 NUMBER OF WELLS IN SYSTEM 56

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l RAW	HARDNESS (mg/l SOFTENER	HARDNESS (mg/l DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARK
1	2.0	24	0						7.7	8.8	160	57	59	158	59	56	1.2	1.1		
2	3.3	24	81,600						7.8	8.8	160	47	55	160	54	54	1.2	1.1		
3	3.3	24	40,800						7.8	9.0	167	58	60	155	44	50	1.1	1.1		
4	2.6	24	122,400						7.7	8.9	161	58	59	144	50	54	1.0	1.0		
5	2.7	24	0						7.8	9.0	160	60	63	141	56	58	1.1	1.1		
6	2.3	24	122,400						7.7	9.1	160	56	60	141	53	46	1.1	1.0		
7	2.1	24	0						7.8	9.0	160	60	61	142	56	54	1.0	1.0		
8	2.7	24	0						7.8	8.9	164	62	64	142	56	58	1.0	0.9		
9	2.4	24	33,600						7.9	8.8	160	62	64	147	54	57	1.1	1.0		
10	2.7	24	119,700						7.7	8.8	161	61	64	149	55	57	1.1	1.0		
11	2.8	24	0						7.6	8.8	160	61	63	154	54	57	1.1	1.0		
12	2.5	24	119,700						7.7	9.0	161	63	66	155	55	57	1.1	1.0		
13	2.0	24	0						7.6	9.0	161	61	62	155	56	55	1.1	1.1		
14	1.8	24	79,800						7.7	9.0	162	59	61	155	49	59	1.1	1.1		
15	2.5	24	0						7.8	9.0	162	58	61	154	48	56	1.0	1.0		
16	2.3	24	39,900						7.8	9.2	165	63	63	158	54	55	0.9	0.8		
17	2.5	24	79,800						7.6	8.8	161	63	65	160	54	55	1.1	0.9		
18	2.4	24	39,900						7.4	8.8	161	62	64	160	54	57	1.0	1.0		
19	2.4	24	79,800						7.6	8.8	171	60	62	154	50	56	1.0	1.0		
20	2.1	24	39,900						7.8	8.9	170	61	62	157	48	56	1.1	1.0		
21	2.2	24	79,800						7.7	8.9	170	61	64	158	49	57	1.1	1.0		
22	2.5	24	0						7.8	9.0	170	61	64	158	51	57	1.1	1.1		
23	2.2	24	79,800						7.8	9.1	171	60	60	157	45	55	1.1	1.0		
24	1.9	24	79,800						7.6	9.0	170	60	60	158	53	55	1.1	1.0		
25	2.8	24	39,900						7.6	9.3	170	60	60	156	55	56	1.0	1.0		
26	2.7	24	119,700						7.6	9.2	171	60	60	152	52	51	1.0	1.0		
27	2.3	24	0						7.6	9.2	170	60	60	151	51	50	1.0	1.0		
28	2.2	24	79,800						7.6	9.3	170	60	60	150	54	52	1.1	1.0		
29	2.7	24	0						7.6	8.9	170	58	60	154	54	54	1.1	1.0		
30	2.6	24	79,800						7.6	8.9	170	58	60	155	54	54	1.1	1.0		
31																				
TOT	73,500	720	1,550,800					AVG.	7.6	8.97	164	59.6	61.5	152.9	54.3	54.9	1.07	1.0		
AVG	2.45	24	51,693																	
MAX	3.3	24	122,400																	

SIGNED [illegible]

ENCL (1)

CERTIFICATION: GRADE 1 NO. [illegible]

11300
MAIN

Water Supply Branch
Division of Health Services
P. O. Box 2091
Raleigh, NC 27602-2091

Gentlemen:

As requested, the attached forms concerning the operation of our water treatment facilities are enclosed.

For further assistance, please contact Mr. G. S. Johnson, Jr., Director of Utilities, Base Maintenance Division (Telephone 451-5161).

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of the Commanding General

Enclosures

Writer: G. S. Johnson, Jr., Util Br, X5161
Typist: S. Kolde, 5 Nov 86

MONTH October PUBLIC WATER SYSTEM FOR: MARINE CORPS AIR STATION PWSID: 04-67-042

YEAR 1986 NUMBER OF WELLS IN SYSTEM 25

	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY)	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) Clearwell FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) ~~PLANT~~	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.683	15	0						7.5	8.4	159	56	53	231	160	167		0.675		
2	.757	16½	120,000						7.6	8.35	160	63	54	266	165	156		0.683		
3	.663	17	0						7.6	8.44	156	68	52	226	153	153		0.833		
4	.641	13½	0						7.6	8.46	160	55	55	240	165	158		0.733		
5	.734	19	120,000						7.6	8.47	158	61	53	252	176	170		0.8		
6	.674	16½	60,000						7.5	8.75	160	63	56	256	172	170		0.791		
7	.732	16½	60,000						7.5	8.4	158	59	53	260	171	156		0.7		
8	.633	13	48,000						7.5	8.5	164	60	54	264	172	156		0.7		
9	.668	15	60,000						7.7	8.3	160	61	62	270	167	161		0.8		
10	.635	12½	0						7.4	8.4	156	58	56	270	164	159		0.7		
11	.617	12	60,000						7.4	8.3	170	61	56	284	170	166		0.7		
12	.631	15½	120,000						7.5	8.3	154	58	57	268	166	158		0.8		
13	.589	13	0						7.4	8.3	154	63	57	240	174	156		0.7		
14	.586	15½	60,000						7.6	8.2	159	70	73	274	187	187		0.76		
15	.672	18	60,000						7.6	8.4	142	62	66	268	161	190		0.73		
16	.718	18	60,000						7.8	8.6	140	56	57	240	161	177		0.7		
17	.689	16½	60,000						7.4	8.5	140	58	53	288	168	173		0.78		
18	.534	14	108,000						7.6	8.5	154	65	52	260	161	164		0.8		
19	.610	12½	0						7.4	8.5	144	60	53	266	159	155		0.78		
20	.585	16	60,000						7.5	8.5	174	61	51	258	163	162		0.76		
21	.601	14½	60,000						7.6	8.5	152	55	57	256	164	162		0.73		
22	.676	16	60,000						7.5	8.5	156	54	54	260	158	163		0.75		
23	.702	15	60,000						7.5	8.4	152	62	57	262	166	164		0.76		
24	.674	17	60,000						7.6	8.4	168	57	53	260	159	164		0.8		
25	.591	14½	60,000						7.4	8.5	173	60	57	253	165	166		0.8		
26	.605	15½	60,000						7.5	8.6	146	56	52	262	168	147		0.7		
27	.663	17½	60,000						7.6	8.6	148	53	56	262	159	157		0.83		
28	.597	15	60,000						7.6	8.6	150	57	54	260	164	162		0.7		
29	.653	14½	60,000						7.6	8.6	150	58	52	275	168	166		0.73		
30	.589	13	0						7.5	8.5	174	58	56	260	172	187		0.83		
31	.667	14½	120,000						7.6	8.7	166	59	58	272	165	173		0.80		
TOT	19.374	473	1,662,000																	
AVG	.624	15	53,612																	

SIGNED [illegible]

PUBLIC WATER SYSTEM FOR: HOLCOMB BLVD. PWSID: 04-67-041

YEAR 1986 NUMBER OF WELLS IN SYSTEM 7

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARK
1	1.129	19	35,100	.29					7.7	8.9	185	52	59	186	57	56	1.1	0.8	.87	
2	1.352	18	35,100	.25					7.6	8.9	185	71	65	180	71	59	1.0	0.8	.79	
3	1.403	24	35,100	.23					7.6	8.9	193	66	69	184	66	65	0.8	0.7	.73	
4	1.339	19	35,100	.19					7.6	8.8	183	67	66	181	64	64	1.2	0.8	.85	
5	1.237	19	35,100	.32					7.8	8.8	187	62	65	178	68	61	1.2	.9	.92	
6	1.429	20	35,100	.33					7.8	8.9	178	62	64	180	68	67	1.3	1.0		
7	1.282	16	35,100	.24					7.7	8.9	186	64	64	184	60	63	1.3	1.0	.92	
8	1.081	18	35,100	.28					7.7	8.9	184	60	59	182	60	62	1.2	0.9	.89	
9	.643	8	35,100	.33					7.6	8.9	180	57	58	180	57	55	1.2	0.8	.93	
10	1.080	16	35,100	.33					7.7	8.9	185	54	56	185	60	58	1.3	0.9	.91	
11	.837	15	35,100	.30					7.5	8.9	182	59	53	180	58	58	1.2	1.1	.89	
12	.955	15	35,100	.26					7.6	8.8	186	69	60	178	70	60	1.0	0.8	.94	
13	1.574	18	35,100	.17					7.6	9.0	182	51	53	175	56	55	1.3	0.9	.90	
14	1.199	21	35,100	.17					7.6	8.9	178	63	62	177	63	62	1.3	1.1	.95	
15	1.051	21	35,100	.20					7.9	8.9	186	62	63	178	65	59	1.3	1.1	.96	
16	1.197	22	35,100	.25					7.8	8.8	180	65	64	178	64	61	1.0	0.9	1.01	
17	1.056	18	35,100	.23					7.7	8.8	180	70	66	182	72	65	1.2	1.0	.99	
18	1.297	18	35,100	.16					7.8	8.8	178	65	65	174	67	67	1.3	1.0	.94	
19	1.084	16	35,100	.20					7.9	8.8	178	62	65	175	60	63	1.0	1.1	.97	
20	1.079	19	35,100	.24					7.8	8.8	180	63	69	178	67	70	1.1	1.0	.93	
21	1.204	18	35,100	.21					7.8	8.9	122	54	83	187	55	76	1.2	.9		
22	.914	16	35,100	.22					7.8	9.0	180	67	71	188	66	70	1.0	.9	.90	
23	—	0	—	—					—	—	—	—	—	—	—	—	—	—	—	
24	.677	10	—	.26					—	8.8	—	64	67	—	64	76	1.0	.9	1.11	
25	.958	20	35,100	.67					7.6	8.8	186	60	69	185	58	59	1.0	.8	1.07	
26	1.199	23	35,100	.34					7.6	8.8	160	60	56	185	60	56	1.1	0.9	1.01	
27	1.019	14	35,100	.75					7.6	8.9	187	62	62	185	64	64	1.2	0.9	.88	
28	1.134	13	35,100	1.25					7.7	8.9	180	56	58	184	58	60	1.3	1.0	.87	
29	1.152	19	35,100	1.37					7.6	8.7	182	64	60	181	62	61	1.2	1.0	.97	
30	.992	18	35,100	.90					7.5	8.8	176	60	62	180	62	62	1.1	1.0	1.00	
31	1.066	19	35,100	.31					7.6	8.9	182	73	68	176	64	62	1.1	0.9	1.00	
TOT	33.418	530	1,017,900	11.25					7.6	8.9	180	62	64	180	64	62	1.0	0.9	.90	
AVG	1.078	17	32,835	.36																
MAX	1.574	24	35,100	1.37																

SIGNED [illegible]

CERTIFICATION NUMBER [illegible]

TH 047 PUBLIC WATER SYSTEM FOR: RIFLE RANGE PWSID: 04-67-046

R 1986 NUMBER OF WELLS IN SYSTEM 4

TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER CL.	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
0.205	14	8,200		50			6			182	50	52				1.2	1.0		
0.277	18	8,200		50			6			184	50	52				1.1	1.1		
0.193	14	8,200		50			7			170	48	52				1.2	1.1		
0.212	13.5	8,200		50			6			172	48	50				1.2	1.1		
0.203	14	8,200		50			6			174	48	50				1.0	1.1		
0.226	14	8,200		50			6			178	50	51				1.0	1.1		
0.193	13	8,200		50			6			176	50	52				1.1	1.0		
0.169	14	8,200		50			5			170	48	52				1.2	1.1		
0.181	13	8,200		50			5			172	48	52				1.1	1.0		
0.175	14	8,200		50			5			176	50	50				1.1	1.0		
0.145	13	8,200		50			3			178	50	50				1.1	1.0		
0.167	12	8,200		50			5			176	52	50				1.0	1.0		
0.161	13	8,200		50			5			186	50	52				1.1	0.9		Change Wells
0.175	14	8,200		50			6			188	48	60				1.1	1.2		
0.154	13	8,200		50			5			186	48	52				1.0	1.3		
0.170	14	8,200		50			5			188	48	50				1.2	1.2		
0.161	15	8,200		50			5			186	50	52				1.0	1.2		
0.181	16	8,200		50			6			188	50	54				1.0	1.1		
0.264	17	8,200		50			9			186	50	52				1.0	1.1		
0.162	14	8,200		50			4			188	50	52				1.1	1.0		
0.169	14	8,200		50			5			188	50	52				1.1	1.0		
0.205	13	8,200		50			5			186	50	55				1.1	1.0		
0.189	14	8,200		50			5			186	50	55				1.1	1.0		
0.125	13	8,200		50			5			188	50	52				1.1	1.0		
0.179	12	8,200		50			5			186	50	52				1.1	1.0		
0.159	14	8,200		50			5			182	50	52				1.1	1.0		
0.191	13	8,200		50			5			178	50	52				1.1	1.0		
0.189	13	8,200		50			5			184	64	53				1.1	1.0		
0.181	14	8,200		50			5			178	63	54				1.1	1.0		
0.158	12	8,200		50			5			174	50	56				1.1	1.0		
0.187	14	8,200		50			4			178	54	58				1.1	1.0		
5.597	429	254,200		1550			170												
.180	14	8,200																	
.277	18	8,200																	

SIGNED [signature]

CERTIFICATION: GRADE A NO

MONTH OCTOBER PUBLIC WATER SYSTEM FOR: COURTHOUSE BAY PWSID: 04-67-047

YEAR 1986 NUMBER OF WELLS IN SYSTEM 5

	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER Cl_2	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
	.514	14	30,800		100			13			170	48	48				1.0	1.0		
	.587	14	39,600		50			15			180	54	56				1.3	1.2		
	.469	13	30,800		50			11			180	60	58				1.4	1.5		
	.491	13	33,000		50			14			190	58	58				1.5	1.4		
	.537	15	30,800		50			13			180	58	56				1.4	1.3		
	.677	16	35,200		50			17			190	56	54				1.4	1.3		
	.613	16	33,000		50			16			190	66	66				1.2	1.4		
	.560	14	30,800		50						190	62	58				1.4	1.4		
	.609	16	35,200		50						190	52	52				1.4	1.4		
	.505	14	33,000		50						190	50	50				1.4	1.4		
	.507	14	30,800		50						190	60	60				1.4	1.4		
	.520	14	33,000		100						200	52	50				1.2	1.2		
	.521	14	33,000		50			15			196	50	50				1.4	1.4		
	.547	15	35,200		50			13			188	48	50				1.4	1.5		
	.536	17	35,200		100			13			190	48	50				1.4	1.4		
	.573	14	30,800		50			10			194	48	50				1.3	1.3		
	.593	16	35,200		50			12			200	52	54				1.2	1.3		
	.591	14	32,600		50			11			180	48	50				1.3	1.3		
	.588	15	30,800		50			24			190	58	60				1.3	1.5		
	.684	19	35,200		50			17			200	60	60				1.6	1.5		
	.664	15	35,200		50						170	58	56				1.4	1.5		
	.702	17	33,000		50			12			180	60	62				1.4	1.5		
	.655	15	32,600		50			20			190	64	64				1.3	1.4		
	.610	14	30,800		50			16			190	60	62				1.3	1.4		
	.528	14	30,800		50			20			180	56	56				1.4	1.4		
	.563	13	33,000		50			13			190	56	56				1.3	1.3		
	.625	16	35,200		50			17			190	58	60				1.3	1.3		
	.600	14	35,200		00			22			190	62	60				1.3	1.4		
	.569	13	35,200		00			17			190	58	60				1.3	1.3		
	.508	12	35,200		00			13			190	56	58				1.4	1.3		
	.744	17	35,200		50			19			190	56	58				1.4	1.3		
	18.070	457	1,003,000		1450			343												
	.582	14	32,354																	

SIGNED [illegible]

H OCTOBER

R 1986

PUBLIC WATER SYSTEM FOR: ONSLOW BEACH PWSID: 04-67-048

NUMBER OF WELLS IN SYSTEM 2

TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
.134	17	7,000	N/A	N/A	N/A	N/A		NA	NA	180	48	48	N/A	NA	N/A	1.7	2.0	N/A	
.133	17	5,000	N/A	N/A	N/A	N/A		N/A	N/A	180	48	50	N/A	N/A	N/A	1.8	1.7	N/A	
.133	13	7,000	NA	NA	NA	NA		NA	NA	184	50	50	NA	NA	NA	1.5	1.5	NA	
.120	10	5,000	NA	NA	NA	NA		NA	NA	170	54	52	NA	NA	NA	1.1	1.6	NA	
.126	8	4,000	NA	NA	NA	NA		NA	NA	180	56	54	NA	NA	NA	1.2	1.3	NA	
.098	9	5,000	NA	NA	NA	NA		NA	NA	170	56	54	NA	NA	NA	1.4	1.7	NA	
.114	8	—	NA	NA	NA	NA		NA	NA	170	51	52	NA	NA	NA	1.4	1.8	NA	
.107	13	7,000	"	"	"	"		"	"	170	54	56	"	"	"	1.4	1.3	"	
.109	9	5,000	"	"	"	"		"	"	180	56	54	"	"	"	1.4	1.3	"	
.102	9	9,000	"	"	"	"		"	"	180	60	64	"	"	"	1.4	1.3	"	
.106	10	5,000	"	"	"	"		"	"	150	50	54	"	"	"	1.4	1.4	"	
.106	11	5,000	"	"	"	"		"	"	150	50	54	"	"	"	1.4	1.4	"	
.120	13	9,000	"	"	"	"		"	"	160	48	50	"	"	"	1.9	1.3	"	
.114	10	—	"	"	"	"		"	"	160	48	44	"	"	"	1.8	1.4	"	
.111	14	9,000	"	"	"	"		"	"	170	50	48	"	"	"	1.5	1.7	"	
.105	10	7,000	"	"	"	"		"	"	160	54	54	"	"	"	1.4	1.6	"	
.113	12	7,000	"	"	"	"		"	"	160	54	48	"	"	"	1.4	1.7	"	
.109	12	7,000	"	"	"	"		"	"	160	54	52	"	"	"	1.4	1.6	"	
.114	12	9,000	"	"	"	"		"	"	160	50	48	"	"	"	1.4	1.8	"	
.116	12	7,000	"	"	"	"		"	"	150	50	48	"	"	"	1.3	1.3	"	
.109	9	7,000	"	"	"	"		"	"	160	50	48	"	"	"	1.4	1.8	"	
.122	12	7,000	"	"	"	"		"	"	164	50	50	"	"	"	1.8	1.3	"	
.061	16	9000	"	"	"	"				160	50	54	"	"	"	1.8	1.3	"	
.066	9	5000	—	—	—	—		—	—	100	50	52	—	—	—	1.7	1.4	—	
.075	12	7000	—	—	—	—		—	—	158	48	50	—	—	—	1.8	1.4	—	
.086	5	7000	—	—	—	—	—	—	—	162	50	50	—	—	—	1.8	1.4	—	
.052	11	9000	—	—	—	—	—	—	—	180	56	58	—	—	—	1.7	1.4	—	
.049	8	5,000	—	—	—	—	—	—	—	190	58	57	—	—	—	1.5	1.4	—	
.082	8	7,000	—	—	—	—	—	—	—	160	50	58	—	—	—	1.5	1.4	—	
.060	10	16,000	—	—	—	—	—	—	—	160	56	58	—	—	—	1.8	1.5	—	
.044	7	7,000	—	—	—	—	—	—	—	180	50	56	—	—	—	1.8	1.5	—	
3.069	342	198,000																	
.098	11	6,225																	
.139	17	9,000																	

SIGNED [illegible]

CERTIFICATION [illegible]

REPORT OF OPERATION

MONTH October PUBLIC WATER SYSTEM FOR: HADNOT POINT PWSID: 04-67-049

YEAR 86 NUMBER OF WELLS IN SYSTEM 35

DATE	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	3.988	24	39,900						7.6	8.7	171	59	62	155	54	54	1.0	1.0	1.16	
2	3.657	24	39,900						8.4	8.8	164	60	61	155	50	54	1.0	0.9	1.15	
3	2.413	24	39,900						8.3	8.9	165	62	63	153	52	52	1.1	1.0	0.29	
4	2.222	24	39,900						8.2	8.8	160	58	61	153	52	53	1.1	1.0	0.18	
5	2.762	24	0						8.6	8.8	165	57	59	152	50	51	1.0	0.8	1.05	
6	2.069	24	79,800						8.5	8.8	165	56	60	155	52	51	1.1	1.0	1.08	
7	2.381	24	39,900						8.5	8.9	163	58	58	154	52	52	1.2	1.1	0.56	
8	2.619	24	79,800						8.6	8.8	165	59	59	155	51	51	1.1	1.1	0.92	
9	3.012	24	39,900						8.5	8.9	163	59	62	153	52	51	1.1	1.1	1.06	
10	2.381	24	79,800						8.5	8.8	165	58	60	155	53	52	1.0	1.1	1.11	
11	1.979	24	39,900						8.6	8.8	167	57	58	155	51	51	1.1	1.0	0.98	
12	1.868	24	39,900						8.6	8.8	166	57	58	153	50	52	1.1	1.0	0.71	
13	2.190	24	39,900						8.4	8.8	156	57	58	150	50	52	1.1	1.0	0.85	
14	2.502	24	39,900						8.4	8.6	158	61	59	155	50	51	1.1	1.0	1.08	
15	2.594	24	39,900						7.4	8.7	160	57	58	154	51	51	1.1	1.1	0.59	
16	2.513	24	79,800						7.6	8.7	160	57	58	156	52	50	1.1	1.0	0.91	
17	2.691	24	39,900						7.6	8.7	160	58	58	154	51	50	1.1	1.0	1.14	
18	2.142	24	79,800						7.5	8.7	161	58	58	155	50	50	1.1	1.0	1.08	
19	2.150	24	39,900						8.0	8.6	166	58	58	154	50	50	1.1	1.0	1.04	
20	2.685	24	39,900						8.0	8.8	166	60	60	153	52	52	1.1	1.0	1.06	
21	2.660	24	39,900						8.0	8.9	166	60	64	156	49	52	1.3	1.1	0.93	
22	3.197	24	79,800						8.6	8.9	148	59	60	135	47	49	1.1	1.1	0.93	
23	3.811	24	39,900						8.9	9.0	154	60	62	148	50	51	1.0	1.1	1.01	
24	3.858	24	119,700						7.6	9.0	154	60	63	148	50	54	1.0	1.0	1.06	
25	2.309	24	39,900						7.9	8.9	166	61	63	148	52	52	1.1	1.0	0.89	
26	2.400	24	79,800						8.1	8.9	156	56	58	144	53	51	1.1	1.0	0.95	
27	2.625	24	39,900						8.1	8.9	170	60	58	148	52	50	1.1	1.0	1.02	
28	2.794	24	79,800						7.9	8.9	168	58	60	152	51	52	1.1	1.0	1.05	
29	2.712	24	39,900						7.8	9.1	175	59	60	158	44	53	1.0	1.0	0.94	
30	2.850	24	79,800						7.6	8.9	174	58	60	160	49	53	1.1	1.0	1.44	
31	2.800	24	39,900						7.6	8.8	178	62	64	162	52	60	1.0	1.0	[illegible]	
TOT	82.933	24	1635900																	
AVG	2.675	24	52770																	
MAX	3.999	24	119,700																	

SIGNED [illegible]

CERTIFICATION NUMBER [illegible]

5000
MAIN

Water Supply Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operation Forms

Writer: B. M. Frazelle,Water,X1081
Typist: S. Kolde, 5 Jan 87

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: DECEMBER

Year: 1986

Total Number of Wells in System: 35

PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant

PWSID: 04-67-041

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	3.310	24.0	39,900		65			7.6	9.0	168	62	64	148	50	54	1.0	0.90	1.09
2	2.820	24.0	79,800		20			7.2	8.8	170	61	67	148	50	55	1.1	1.00	1.21
3	3.160	24.0	39,900		50			7.6	8.8	168	60	65	148	47	53	1.1	1.00	1.13
4	3.170	24.0	79,800		50			7.4	8.6	169	60	60	152	48	52	1.1	1.10	1.02
5	4.020	24.0	39,900		60			7.4	8.7	172	60	58	148	49	51	1.0	1.00	1.01
6	3.690	24.0	119,700		70			7.6	8.7	168	59	58	150	46	47	1.0	1.00	1.07
7	4.110	24.0	39,900		60			7.7	8.7	168	59	60	148	51	48	1.0	1.00	0.66
8	4.180	24.0	79,800		60			7.6	8.9	170	60	62	147	52	50	1.0	0.90	0.39
9	3.767	24.0	79,800		60			7.7	8.9	168	62	64	148	56	54	1.0	0.90	0.82
10	3.536	24.0	39,900		65			7.7	8.9	168	62	62	147	62	60	1.1	1.00	0.99
11	3.863	24.0	79,800		55			7.6	8.8	168	65	63	148	56	55	1.0	1.00	1.02
12	2.954	24.0	39,900		45			7.6	8.8	171	63	60	156	49	51	1.1	1.00	1.09
13	2.540	24.0	79,800		65			7.6	8.8	172	60	62	158	49	52	1.1	1.00	0.97
14	2.456	24.0	39,900		50			7.6	8.7	170	63	60	154	50	52	1.1	1.00	0.78
15	3.856	24.0	99,800		70			7.6	8.9	170	60	60	150	50	52	1.2	1.00	0.98
16	4.098	24.0	39,900		68			7.6	8.2	174	65	62	154	48	51	1.1	1.10	0.92
17	4.068	24.0	159,600		74			7.4	8.7	176	69	67	156	40	52	1.1	1.00	0.40
18	4.272	24.0	0		70			7.6	8.8	175	58	65	158	50	53	1.2	1.10	0.62
19	3.669	24.0	159,600		70			7.4	8.7	172	61	64	152	52	53	1.0	1.00	0.86
20	2.448	24.0	79,800		60			7.4	8.8	174	62	64	154	51	52	1.1	1.00	0.33
21	2.133	24.0	119,700		40			7.6	8.8	176	65	65	152	50	52	1.1	1.00	0.66
22	2.667	24.0	39,900		72			7.6	8.9	174	62	65	154	50	52	1.1	1.00	0.77
23	2.512	24.0	159,000		43			7.4	8.8	176	61	64	156	51	51	1.1	1.00	1.08
24	2.424	24.0	0		40			7.6	8.9	175	62	64	153	51	51	1.1	1.00	0.50
25	2.143	24.0	159,000		40			7.4	8.8	177	63	64	158	50	51	1.1	1.00	1.71
26	2.071	24.0	0		45			7.2	8.8	178	63	64	154	51	53	1.1	1.00	1.10
27	2.267	24.0	79,800		40			7.4	8.9	175	61	64	153	52	51	1.2	1.10	0.40
28	2.574	24.0	0		100			7.4	8.9	177	62	64	155	53	50	1.2	1.10	0.19
29	2.755	24.0	79,800		70			7.5	9.0	178	60	62	153	50	54	1.4	1.30	0.15
30	2.667	24.0	0		32			7.6	8.8	176	62	64	158	54	56	0.9	1.00	0.30
31	2.506	24.0	0		58			7.5	8.8	178	64	64	156	48	56	1.2	1.10	0.46
Total	96.706	744.0	2,053,700	0.00	1767	0.00	0.00	233.1	272.6	5351	1916	1951	4726	1566	1624	33.9	31.60	24.68
Avg	3.120	24.0	66,248	ERR	57	ERR	ERR	7.5	8.8	173	62	63	152	51	52	1.1	1.02	0.80
Max	4.272	24.0	159,600	ERR														
Min	2.071	24.0	0	ERR														

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICES

Report of Operation

Month: DECEMBER
Year: 1986
Total Number of Wells in System: 25

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water PlantPWSID: 04-67-042

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flourida Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	Re
1	0.593	10.5	0		10			7.4	8.6	156	59	56	269	156	157		0.67		
2	0.648	14.0	60,000		12			7.5	8.5	156	57	53	266	150	156		0.68		
3	0.570	13.0	120,000		15			7.5	8.4	160	56	53	268	146	144		0.73		
4	0.611	12.5	0		15			7.5	8.5	158	61	51	268	143	145		0.76		
5	0.615	13.0	48,000		20			7.5	8.5	154	59	54	274	142	147		0.75		
6	0.555	12.5	60,000		10			7.4	8.5	154	59	52	270	150	146		0.79		
7	0.535	13.5	60,000		10			7.5	8.4	160	60	54	272	144	151		0.75		
8	0.595	14.0	0		12			7.5	8.5	172	58	54	254	147	144		0.69		
9	0.625	14.5	60,000		10			7.5	8.6	190	59	53	256	149	150		0.79		
10	0.561	14.5	120,000		10			7.5	8.5	178	55	55	260	154	173		0.80		
11	0.582	13.5	0		20			7.3	8.5	176	58	61	260	155	153		0.78		
12	0.611	15.5	60,000		15			7.4	8.3	156	59	52	278	161	153		0.85		
13	0.556	11.0	60,000		12			7.6	8.3	156	58	58	274	143	150		0.78		
14	0.586	15.0	60,000		14			7.5	8.5	168	57	55	260	151	156		0.80		
15	0.611	13.5	0		15			7.6	8.6	156	56	53	268	157	150		0.83		
16	0.576	11.0	48,000		15			7.6	8.5	160	59	53	270	149	162		0.81		
17	0.540	12.0	0		15			7.7	8.4	160	65	61	260	169	152		0.70		
18	0.637	13.5	60,000		14			7.6	8.4	158	62	61	264	160	157		0.70		
19	0.698	16.0	0		16			7.5	8.6	160	60	51	260	160	160		0.70		
20	0.564	14.5	48,000		14			7.6	8.6	162	56	49	266	159	145		0.70		
21	0.592	12.0	60,000		17			7.6	8.6	158	58	53	268	148	148		0.82		
22	0.665	16.0	60,000		20			7.5	8.5	156	57	53	268	152	153		0.78		
23	0.559	13.0	60,000		16			7.5	8.6	154	57	51	264	154	150		0.80		
24	0.480	12.0	0		20			7.4	8.7	160	63	48	266	149	150		0.78		
25	0.488	10.0	60,000		20			7.4	8.5	156	59	50	268	153	150		0.71		
26	0.456	8.5	0		20			7.4	8.6	158	64	55	266	156	158		0.79		
27	0.470	11.0	0		20			7.5	8.6	156	60	57	264	150	161		0.80		
28	0.489	10.5	60,000		10			7.5	8.6	158	58	58	268	166	170		0.75		
29	0.620	13.5	60,000		10			7.5	8.6	160	60	58	270	157	164		0.77		
30	0.536	12.5	60,000		15			7.5	8.5	156	58	53	272	162	161		0.80		
31	0.711	16.0	48,000		20			7.6	8.5	146	62	49	274	164	153		0.81		
Total	17.935	402.5	1,332,000	0.00	462	0	0	232.6	264.0	4968	1829	1674	8265	4756	4769	0.0	23.67	0.00	
Avg	0.579	13.0	42,968	0.00	15	0	0	7.5	8.5	160	59	54	267	153	154	0.0	0.76	ERR	
Max	0.711	16.0	120,000	0.00															
Min	0.456	8.5	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Month: DECEMBER

Year: 1986

Total Number of Wells in System: 8

Report of Operation

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	
1	1.149	19.0	35,100	0.17	18			7.7	8.9	180	63	61	181	60	58	1.2	0.9	0.94	
2	0.878	17.0	35,100	0.17	16			7.7	8.8	178	56	56	175	48	47	1.2	1.0	0.95	
3	0.836	13.0	35,100	0.27	16			7.8	8.8	174	72	56	173	55	61	0.9	0.8	0.91	
4	1.111	16.0	35,100	0.59	16			7.7	8.8	175	89	72	175	58	53	1.1	0.9	0.80	
5	0.854	14.0	35,100	0.60	20			7.8	8.8	187	82	78	190	88	79	1.2	0.6	1.02	
6	0.875	15.0	35,100	0.51	16			7.8	9.3	183	56	60	179	54	72	1.7	0.9	0.84	
7	0.817	15.0	35,100	0.31	16			7.7	9.0	182	58	58	184	58	44	1.4	1.1	0.89	
8	0.777	13.0	35,100	0.26	14			7.5	9.0	160	48	54	185	56	46	1.1	1.0	0.89	
9	0.806	15.0	35,100	0.25	15			7.5	8.8	180	65	61	189	61	56	1.3	1.1	0.91	
10	0.810	19.0	35,100	0.29	17			7.6	8.8	180	61	60	184	56	57	1.1	1.2	0.89	
11	0.964	18.0	35,100	0.27	22			8.3	8.9	178	60	64	176	53	57	0.9	1.5	1.02	
12	1.067	18.0	35,100	0.27	21			7.5	8.9	180	58	59	176	55	54	1.0	1.0	1.04	
13	0.973	19.0	35,100	0.29	24			7.7	9.0	176	64	58	172	60	56	1.2	0.9	0.84	
14	1.155	19.0	35,100	0.46	18			7.6	9.0	170	62	61	179	56	60	1.2	0.9	0.78	
15	0.187	4.0	0	0.75	6			7.6	9.0	170	55	60	179	57	57	1.3	1.0	0.73	
16	0.000	0.0	0		0														PLANT
17	0.046	0.0	0		3														PLANT
18		0.0	0	0.00	0			0.0	0.0	0	0	0	0	0	0	0.0		0.00	
19	0.988	11.0	70,200	0.48	11			7.6	8.8	170	84	70	179	74	71	1.1	1.1	0.00	PLANT
20	1.028	12.0	35,100	1.36	18			7.7	9.1	188	60	66	187	62	66	1.3	0.9	0.33	
21	0.894	14.0	35,100	0.98	16			7.6	9.0	188	59	55	188	56	53	1.1	0.9	0.70	
22	0.985	15.0	35,100	0.53	14			7.5	8.9	186	60	58	184	55	57	1.2	1.1	1.06	
23	0.928	18.0	35,100	0.36	18			7.4	8.9	186	57	59	187	55	55	1.3	1.1	0.64	
24	0.923	14.0	35,100	0.36	14			7.5	8.8	186	67	62	186	63	56	1.4	1.1	0.61	
25	0.939	13.0	35,100	0.30	13			7.4	9.0	188	57	60	185	56	56	1.2	1.0	0.66	
26	0.960	14.0	35,100	0.26	18			7.6	8.9	184	58	58	178	54	54	1.0	0.8	0.66	
27	0.866	16.0	35,100	0.27	20			7.7	8.8	187	60	54	179	62	55	1.2	0.8	0.69	
28	0.909	15.0	35,100	0.24	19			7.5	8.8	184	60	59	188	51	54	1.1	0.8	0.75	
29	0.974	15.0	35,100	0.24	21			7.6	9.0	180	59	56	174	59	54	1.2	0.9	0.77	
30	0.914	16.0	35,100	0.20	16			7.7	8.8	188	74	66	184	66	66	1.1	0.9	0.82	
31	0.892	16.0		0.19	16			7.9	8.8	186	67	56	174	66	57	1.0	0.9	0.90	
Total	25.505	423.0	947,700	11.230	472	0	0	214.2	249.4	5054	1771	1697	5070	1654	1611	33.0	27.10	22.04	
Avg	0.823	13.6	30,571	0.362	15	0	0	6.9	8.0	163	57	55	164	53	52	1.1	0.87	0.71	
Max	1.155	19.0	70,200	1.360															
Min	0.000	0.0	0	0.000															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Month: DECEMBER

Year: 1986

Report of Operation

Total Number of Wells in System: 4

PUBLIC WATER SYSTEM FOR: Rifle Range Water Plant

PWSID: 04-67-046

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.167	12.0	8,200		5	50				170	50	52				1.1	1.00	
2	0.183	11.0	8,200		6	50				176	50	52				1.1	1.00	
3	0.182	11.0	8,200		5	50				180	50	50				1.1	1.00	
4	0.239	14.0	8,200		5	50				178	50	50				1.0	1.10	
5	0.166	13.0	8,200		5	50				180	50	52				1.0	1.10	
6	0.171	12.0	8,200		5	50				180	50	52				1.0	1.10	
7	0.163	13.0	8,200		5	50				176	52	53				1.0	1.10	
8	0.219	13.0	8,200		5	50				178	52	54				1.1	1.00	
9	0.211	14.0	8,200		5	50				180	54	56				1.1	1.00	
10	0.169	12.0	8,200		5	50				176	52	60				1.2	1.00	
11	0.187	11.0	8,200		6	50				178	50	57 *				1.1	1.00	
12	0.188	11.0	8,200	0.00	5	50				176	50	54				1.1	1.00	
13	0.188	11.0	8,200		5	50				178	52	54				1.1	1.00	
14	0.190	12.0	8,200		6	50				176	50	54				1.1	1.00	
15	0.210	4.0	0		2	0				176	50	50				1.1	1.00	
16	0.211	20.0	10,200		7	50				178	50	54				1.0	1.00	
17	0.223	12.0	8,200		7	50				176	50	54				1.0	1.00	
18	0.205	11.0	0		8	50				178	50	52				1.0	1.10	
19	0.155	12.0	0		5	50				176	50	52				1.0	1.10	
20	0.165	11.0	8,200		5	50				178	50	52				1.1	1.00	
21	0.167	10.0	0		5	50				176	50	52				1.2	1.00	
22	0.160	9.0	8,200		5	50				176	50	52				1.1	1.00	
23	0.191	10.0	0		5	50				178	50	52				1.1	1.00	
24	0.191	10.0	8,200		5	50				178	50	52				1.1	1.00	
25	0.190	11.0	8,200		5	50				176	50	52				1.1	1.00	
26	0.151	10.0	8,200		5	50				178	50	52				1.1	1.00	
27	0.150	10.0	8,200		5	50				176	50	52				1.1	1.00	
28	0.151	12.0	8,200		6	50				178	50	52				1.1	1.00	
29	0.150	13.0	8,200		5	50				176	50	52				1.1	1.00	
30	0.179	14.0	8,200		5	50				178	50	52				1.1	1.00	
31	0.151	13.0	8,200		5	50				174	50	52				1.1	1.00	
Total	5.623	362.0	215,200	0.00	163	1500	0	0.0	0.0	5488	1562	1636	0	0	0	33.5	31.60	0.00
Avg	0.181	11.7	6,942	0.00	5	48	ERR	ERR	ERR	177	50	53	ERR	ERR	ERR	1.1	1.02	ERR
Max	0.239	20.0	10,200	0.00														
Min	0.150	4.0	0	0.00														

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Month: DECEMBER

Year: 1986

Report of Operation

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	Rema
1	0.707	16.0	34,000		16	50				174	50	52				1.5	1.50		
2	0.582	15.0	35,200		18	50				160	50	48				1.4	1.50		
3	0.607	14.0	33,000		14	50				180	54	50				1.4	1.50		
4	0.657	19.0	33,000		19	50				170	54	50				1.3	1.30		
5	0.765	22.0	33,000		26	50				180	44	44				1.8	1.80		
6	0.602	19.0	33,000		13	50				180	46	46				1.5	1.50		
7	0.588	17.0	35,200		17	50				190	46	44				1.5	1.50		
8	0.578	16.0	33,000		16	50				190	46	44				1.5	1.50		
9	0.629	19.0	33,000		11	50				188	44	46				1.5	1.40		
10	0.592	17.0	35,200		16	50				190	46	46				1.4	1.40		
11	0.629	19.0	33,000		15	50				186	46	48				1.3	1.30		
12	0.576	16.0	35,200		17	50				188	46	48				1.4	1.40		
13	0.522	14.0	35,200		18	50				186	50	51				1.4	1.30		
14	0.521	15.0	35,200		18	50				190	50	52				1.4	1.30		
15	0.657	17.0	35,200		14	50				188	50	52				1.3	1.30		
16	0.632	16.0	35,200		18	50				190	52	52				1.3	1.40		
17	0.675	18.0	35,200		15	50				190	48	50				1.3	1.30		
18	0.560	17.0	35,200		11	50				188	48	48				1.3	1.20		
19	0.621	19.0	33,000		15	50				190	48	50				1.2	1.30		
20	0.478	14.0	33,000		15	50				188	50	50				1.3	1.30		
21	0.505	15.0	33,000		10	50				185	50	50				1.3	1.20		
22	0.548	14.0	33,000		20	50				150	50	50				1.4	1.40		
23	0.586	18.0	35,200		19	50				160	49	50				1.5	1.40		
24	0.492	14.0	30,800		12	50				168	48	50				1.5	1.40		
25	0.475	10.0	35,200		14	50				180	48	50				1.4	1.30		
26	0.460	10.0	33,000		7	50				170	50	50				1.4	1.30		
27	0.475	13.0	35,200		13	50				173	49	50				1.4	1.30		
28	0.460	11.0	30,800		9	50				172	49	50				1.4	1.30		
29	0.580	17.0	35,200		15	50				174	50	50				1.4	1.30		
30	0.503	16.0	33,000		16	50				190	50	48				1.0	1.00		
31	0.473	13.0	30,800		18	50				180	50	56				1.2	1.20		
Total	17.735	490.0	1,048,200	0.00	475	1550	0	0.0	0.0	5588	1511	1525	0	0	0	42.9	42.10	0.00	
Avg	0.572	15.8	33,813	0.00	15	50	ERR	ERR	ERR	180	49	49	ERR	ERR	ERR	1.4	1.36	ERR	
Max	0.765	22.0	35,200	0.00															
Min	0.460	10.0	30,800	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICES

Month: DECEMBER

Report of Operation

Year: 198[illegible]

Total Number of Wells in System: 2

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant

PWSID: 04-67-048

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.082	9.0	5,000		3			-	-	188	50	54	-	-	-	1.5	1.40	-
2	0.098	9.0	7,000		4			-	-	188	50	48	-	-	-	1.6	1.30	-
3	0.090	9.0	7,000		5			-	-	190	52	56	-	-	-	1.5	1.30	-
4	0.095	9.0	9,000		3			-	-	188	50	50	-	-	-	1.5	1.30	-
5	0.089	11.0	9,000		4			-	-	188	50	48	-	-	-	1.6	1.30	-
6	0.077	10.0	7,000		4			-	-	190	50	50	-	-	-	1.6	1.30	-
7	0.088	11.0	7,000		4			-	-	188	50	52	-	-	-	1.8	1.30	-
8	0.075	8.0	7,000		4			-	-	188	50	54	-	-	-	1.6	1.30	-
9	0.118	10.0	7,000		4			-	-	190	54	56	-	-	-	1.5	1.30	-
10	0.113	8.0	7,000		3			-	-	190	46	54	-	-	-	1.8	1.30	-
11	0.098	11.0	7,000		4			-	-	188	46	58	-	-	-	1.7	1.40	-
12	0.099	12.0	7,000		2			-	-	170	50	50	-	-	-	1.2	1.30	-
13	0.960	10.0	9,000		4			-	-	180	50	46	-	-	-	1.2	1.60	-
14	0.097	10.0	9,000		4			-	-	180	50	46	-	-	-	1.2	1.60	-
15	0.105	9.0	7,000		5			-	-	178	50	48	-	-	-	1.2	1.70	-
16	0.081	11.0	7,000		3			-	-	180	50	49	-	-	-	1.5	1.30	-
17	0.107	10.0	7,000		2			-	-	184	48	50	-	-	-	1.5	1.30	-
18	0.092	17.0	9,000		4			-	-	180	48	50	-	-	-	1.6	1.40	-
19	0.172	7.0	5,000		2			-	-	186	50	50	-	-	-	1.7	1.50	-
20	0.065	9.0	7,000		3			-	-	184	48	50	-	-	-	1.5	1.40	-
21	0.055	8.0	5,000		2			-	-	180	48	48	-	-	-	1.3	1.30	-
22	0.053	7.0	5,000		3			-	-	182	48	48	-	-	-	1.3	1.20	-
23	0.072	10.0	7,000		3			-	-	178	50	48	-	-	-	1.4	1.30	-
24	0.088	12.0	7,000		3			-	-	180	48	52	-	-	-	1.5	1.20	-
25	0.088	13.0	5,000		3			-	-	186	50	50	-	-	-	1.2	1.30	-
26	0.078	11.0	9,000		5			-	-	180	50	52	-	-	-	1.2	1.30	-
27	0.083	9.0	7,000		5			-	-	180	50	54	-	-	-	1.8	1.20	-
28	0.086	10.0	7,000		2			-	-	178	50	54	-	-	-	1.0	1.70	-
29	0.094	12.0	7,000		2			-	-	180	54	54	-	-	-	0.5	0.80	-
30	0.077	8.0	5,000		6			-	-	185	54	56	-	-	-	0.4	0.30	-
31	0.080	8.0	5,000		5			-	-	185	54	56	-	-	-	1.0	0.90	-
Total	3.655	308.0	215,000	0.00	110	0	0	0.0	0.0	5692	1548	1591	0	0	0	42.9	40.10	0.00
Avg	0.118	9.9	6,935	ERR	4	ERR	ERR	0.0	0.0	184	50	51	0	0	0	1.4	1.29	0.00
Max	0.960	17.0	9,000	ERR														
Min	0.053	7.0	5,000	ERR														

5000
MAIN

Water Supply Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer: B. M.Frazelle,W/WW, X5988
Typist: S. Kolde, 3 Feb 87

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: JANUARY

Year: 1987

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fl Deliver
1	0.444	14.0	33,000		12	50				180	56	46				1.6	1.8	
2	0.536	15.0	35,200		13	50				180	50	48				1.5	1.5	
3	0.445	14.0	35,200		10	50				180	50	50				1.3	1.1	
4	0.469	13.0	33,000		12	50				180	50	50				1.2	1.2	
5	0.539	14.0	33,000		13	50				180	50	50				1.3	1.3	
6	0.550	19.0	33,000		16	50				178	50	50				1.3	1.3	
7	0.670	21.0	35,200		18	50				174	52	54				1.3	1.3	
8	0.611	17.0	35,200		13	50				170	50	52				1.3	1.3	
9	0.704	18.0	33,000		23	50				180	50	48				1.4	1.4	
10	0.513	16.0	35,200		12	50				180	50	48				1.3	1.3	
11	0.547	14.0	30,800		13	50				186	50	48				1.4	1.4	
12	0.533	16.0	33,000		14	50				182	52	50				1.5	1.5	
13	0.633	17.0	35,200		18	50				184	50	52				1.6	1.6	
14	0.557	18.0	35,200		15	50				180	58	60				1.6	1.6	
15	0.693	17.0	33,000		15	50				186	50	50				1.5	1.4	
16	0.526	18.0	33,000		15	50				180	58	60				1.6	1.5	
17	0.510	13.0	33,000		15	50				178	54	54				1.5	1.4	
18	0.508	12.0	35,200		15	50				180	52	52				1.5	1.4	
19	0.517	12.0	33,000		10	50				176	52	54				1.4	1.4	
20	0.521	12.0	33,000		12	50				180	52	50				1.3	1.2	
21	0.645	16.0	33,000		16	50				180	50	50				1.2	1.2	
22	0.524	14.0	33,000		14	50				184	50	50				1.4	1.2	
23	0.574	14.0	33,000		14	50				180	52	50				1.4	1.3	
24	0.537	13.0	33,000		13	50				180	68	62				1.4	1.4	
25	0.564	13.0	33,000		16	50				180	56	56				1.6	1.5	
26	0.564	13.0	33,000		16	50				180	56	56				1.6	1.5	
27	0.610	15.0	33,000		12	50				186	52	50				1.2	1.3	
28	0.547	13.0	33,000		12	50				184	50	52				1.5	1.5	
29	0.505	14.0	33,000		15	50				180	50	50				1.2	1.1	
30	0.614	15.0	33,000		13	50				184	50	50				1.4	1.4	
31	0.476	12.0	35,200		9	50				170	60	54				1.2	1.2	
Total	17.186	462.0	1,040,600	0.00	434	1550	0	0.0	0.0	5582	1630	1606	0	0	0	43.5	42.5	
Avg	0.554	14.9	33,568	0.00	14	50	0	0.0	0.0	180	53	52	0	0	0	1.4	1.4	
Max	0.704	21.0	35,200	0.00														
Min	0.444	12.0	30,800	0.00														

ENCL (1)

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Month: JANUARY
Year: 1987
Total Number of Wells in System: 2

Report of Operation

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant PWSID: 04-67-048

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.072	8.0	9,000		2					160	48	50				1.3	1.0	
2	0.069	9.0	5,000		2					180	48	50				1.3	0.9	
3	0.077	10.0	14,000		3					180	48	50				1.2	1.0	
4	0.078	13.0	14,000		3					180	50	56				1.3	1.0	
5	0.069	9.0	7,000		3					180	50	54				1.2	1.6	
6	0.074	9.0	7,000		4					180	68	70				1.8	1.3	
7	0.083	7.0	7,000		3					160	66	50				1.0	0.8	
8	0.079	10.0	7,000		3					160	74	50				1.0	1.0	
9	0.720	7.0	9,000		3					180	80	50				0.9	1.7	
10	0.740	9.0	7,000		2					170	90	100				0.9	1.4	
11	0.830	7.0	7,000		3					180	98	96				1.0	1.0	
12	0.097	11.0	9,000		3					180	110	100				1.0	1.0	
13	0.070	9.0	9,000		4					190	110	100				1.0	1.0	
14	0.088	8.0	7,000		8					188	150	140				1.4	1.1	
15	0.063	12.0	9,000		5					190	150	130				1.6	1.1	
16	0.028	7.0	5,000		4					186	140	136				1.5	1.2	
17	0.032	8.0	7,000		2					180	160	150				1.4	1.2	
18	0.033	9.0	7,000		3					180	170	174				1.2	1.0	
19	0.360	10.0	7,000		4					186	180	184				1.2	1.1	
20	0.048	12.0	9,000		5					188	140	150				1.6	1.4	
21	0.053	9.0	7,000		7					186	64	110				1.8	1.6	
22	0.069	10.0	7,000		2					184	54	73				1.7	1.5	
23	0.068	9.0	7,000		3					188	62	70				1.8	1.5	
24	0.070	9.0	9,000		3					190	58	64				1.8	1.4	
25	0.069	10.0	9,000		2					188	52	54				1.8	1.4	
26	0.081	12.0	7,000		4					140	50	52				2.0	1.6	
27	0.072	11.0	9,000		5					150	44	46				1.9	1.5	
28	0.076	14.0	10,000		3					180	46	48				1.8	1.5	
29	0.085	12.0	9,000		4					180	44	48				1.8	1.5	
30	0.081	18.0	12,000		6					180	48	48				1.6	1.5	
31	0.076	7.0	10,000		2					188	50	50				1.6	1.5	
Total	4.510	305.0	258,000	0.00	110	0	0	0.0	0.0	5532	2602	2603	0	0	0	44.4	39.3	0.00
Avg	0.145	9.8	8,323	0.00	4	0	0	0.0	0.0	178	84	84	0	0	0	1.4	1.3	0.00
Max	0.830	18.0	14,000	0.00														
Min	0.028	7.0	5,000	0.00														

Month: JANUARY
Year: 1987
Total Number of Wells in System: 4

Report of Operation

PUBLIC WATER SYSTEM FOR: Rifle Range Water Plant

PWSID: 04-67-046

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.181	12.0	8,200		5	50				181	50	52				1.0	1.0	
2	0.162	11.0	8,200		5	50				178	50	52				1.1	1.0	
3	0.187	14.0	8,200		4	50				180	52	50				1.0	1.2	
4	0.177	12.0	8,200		5	50				176	52	52				1.0	1.2	
5	0.184	16.0	8,200		6	50				180	52	52				1.0	1.1	
6	0.172	13.0	8,200		5	50				180	50	52				1.1	1.0	
7	0.183	13.0	8,200		6	50				182	50	52				1.0	1.1	
8	0.190	15.0	8,200		7	50				180	52	52				1.0	1.1	
9	0.191	16.0	8,200		7	50				182	50	52				1.0	1.1	
10	0.189	17.0	8,200		6	50				180	50	52				1.1	1.0	
11	0.198	18.0	8,200		6	50				180	54	60				1.1	1.0	
12	0.214	18.0	8,200		8	50				178	56	60				1.1	1.0	
13	0.211	17.0	10,400		7	50				178	52	58				1.1	1.1	
14	0.212	17.0	8,200		7	50				176	56	62				1.1	1.1	
15	0.207	15.0	8,200		6	50				180	54	60				1.1	1.0	
16	0.188	16.0	10,400		7	50				178	50	52				1.1	1.0	
17	0.184	15.0	10,400		6	50				176	50	52				1.1	1.0	
18	0.164	16.0	10,400		5	50				178	50	52				1.1	1.0	
19	0.192	12.0	10,400		5	50				176	50	52				1.1	1.0	
20	0.190	13.0	10,400		5	50				178	50	52				1.1	1.0	
21	0.177	12.0	10,400		5	50				180	50	52				1.1	1.0	
22	0.183	16.0	10,400		5	50				176	50	52				1.1	1.0	
23	0.253	18.0	10,400		5	50				178	52	58				1.1	1.0	
24	0.181	12.0	10,400		5	50				178	52	54				1.1	1.0	
25	0.164	15.0	6,000		6	50				176	52	52				1.1	1.0	
26	0.214	16.0	8,200		7	50				176	52	54				1.1	1.0	
27	0.210	16.0	8,200		7	50				178	50	52				1.1	1.0	
28	0.270	17.0	10,400		4	50				175	50	52				1.1	1.0	
29	0.221	17.0	10,400		5	50				178	52	52				1.1	1.0	
30	0.215	15.0	8,200		5	50				176	50	52				1.1	1.0	
31	0.211	16.0	8,200		5	50				178	50	52				1.1	1.0	
Total	6.075	466.0	278,400	0.00	177	1550	0	0.0	0.0	5526	1590	1660	0	0	0	33.4	32.0	0.00
Avg	0.196	15.0	8,981	0.00	6	50	0	0.0	0.0	178	51	54	0	0	0	1.1	1.0	0.00
Max	0.270	18.0	10,400	0.00														
Min	0.162	11.0	6,000	0.00														

Month: JANUARY

Year: 1987

Total Number of Wells in System: 25

Report of Operation

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water PlantPWSID: 04-67-042

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.548	12.5	0		17			7.3	8.5	160	60	52	280	166	160		0.81	
2	0.634	14.5	120,000		20			7.4	8.4	148	67	53	268	163	161		0.77	
3	0.715	16.0	0		22			7.5	8.5	166	68	53	266	160	160		0.74	
4	0.683	12.5	60,000		21			7.4	8.4	174	72	53	288	161	165		0.76	
5	0.718	15.0	60,000		22			7.4	8.5	164	71	51	282	160	155		0.76	
6	0.617	14.0	60,000		19			7.4	8.4	170	68	54	272	158	157		0.73	
7	0.634	15.5	60,000		20			7.4	8.6	158	68	58	272	176	165		0.70	
8	0.804	18.0	60,000		25			7.5	8.6	166	68	64	274	180	162		0.76	
9	0.644	14.5	60,000	0.40	20			7.6	8.4	150	70	57	272	160	158		0.72	
10	0.673	14.0	60,000	0.43	21			7.5	8.4	158	66	58	270	142	154		0.80	
11	0.533	12.5	60,000	0.71	17			7.4	8.4	152	65	54	268	146	155		0.73	
12	0.631	14.0	60,000	0.52	20			7.7	8.4	154	65	54	276	151	147		0.78	
13	0.599	11.0	0	0.41	19			7.6	8.3	156	65	54	272	156	156		0.75	
14	0.606	13.0	60,000	0.66	19			7.5	8.4	158	60	52	274	160	152		0.73	
15	0.627	14.0	60,000	0.48	20			7.5	8.6	160	61	55	274	150	156		0.75	
16	0.578	13.0	60,000	0.39	18			7.6	8.5	158	63	62	268	147	165		0.79	
17	0.673	14.0	0	0.34	21			7.5	8.5	174	70	56	264	143	151		0.80	
18	0.510	13.0	60,000	0.33	16			7.5	8.5	160	66	53	268	155	180		0.80	
19	0.481	13.0	120,000	0.43	15			7.5	8.4	160	66	54	270	174	167		0.68	
20	0.535	14.0	0	0.57	14			7.5	8.5	158	70	55	282	169	186		0.80	
21	0.568	12.0	0	0.32	16			7.5	8.5	166	66	54	282	151	156		0.71	
22	0.609	14.0	0	0.56	16			7.5	8.5	162	70	58	274	155	155		0.81	
23	0.586	12.0	60,000	0.60	18			7.6	8.7	158	66	57	272	155	153		0.75	
24	0.555	12.0	0	0.62	15			7.5	8.6	160	73	53	276	158	159		0.81	
25	0.580	12.0	60,000	0.35	20			7.5	8.6	158	65	54	272	163	164		0.73	
26	0.810	20.0	60,000	0.59	24			7.6	8.6	160	69	57	274	162	155		0.80	
27	0.654	14.0	60,000	0.62	20			7.4	8.5	158	66	63	272	154	163		0.66	
28	0.637	12.5	60,000	0.37	20			7.4	8.2	158	75	66	270	177	158		0.69	
29	0.622	14.0	60,000	0.28	19			7.4	8.1	160	73	52	270	155	141		0.74	
30	0.609	15.5	60,000	0.39	19			7.4	8.2	160	62	53	272	152	152		0.76	
31	0.571	14.0	60,000	0.46	18			7.4	8.3	158	68	54	268	155	148		0.76	
Total	19.244	430.0	1,500,000	10.83	591	0	0	231.9	262.0	4962	2082	1723	8462	4914	4916	0.0	23.38	0.00
Avg	0.621	13.9	48,387	0.35	19	0	0	7.5	8.5	160	67	56	273	159	159	0.0	0.75	0.00
Max	0.810	20.0	120,000	0.71														
Min	0.481	11.0	0	0.00														

Month: JANUARY

Year: 1987

Total Number of Wells in System: 8

Report of Operation

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	
1	0.921	16.0	35,100	0.29	18			7.7	8.9	186	69	65	184	67	63	1.0	0.6	0.89	
2	0.934	17.0	35,100	0.28	20			7.6	9.0	188	63	64	180	54	61	1.2	0.9	0.93	
3	0.907	15.0	35,100	0.22	22			7.6	9.0	188	61	58	188	62	60	1.0	1.0	0.98	
4	1.053	14.0	35,100	0.22	22			7.6	8.7	188	67	64	182	67	51	0.7	0.9	0.90	
5	1.033	15.0	35,100	0.61	24			7.6	8.9	188	56	57	188	51	61	1.5	1.0	0.92	
6	0.905	13.0	35,100	0.79	20			7.6	9.0	186	61	60	186	57	56	1.4	1.1	0.92	
7	1.281	17.0	35,100	0.37	22			7.4	8.9	188	70	69	195	60	58	1.4	1.0	0.92	
8	1.451	20.0	35,100	0.38	34			7.4	8.8	196	65	69	189	65	64	1.3	1.0	1.02	
9	0.928	13.0	35,100	0.26	20			7.6	8.8	180	53	66	195	57	60	1.2	1.0	0.97	
10	0.918	14.0	35,100	0.23	18			7.7	8.9	184	65	59	190	63	58	1.2	1.2	1.00	
11	1.172	17.0	35,100	0.21	26			7.5	8.9	190	60	58	180	59	55	1.0	0.9	0.88	
12	0.979	17.0	35,100	0.24	20			7.5	8.9	189	62	58	180	62	58	1.2	0.9	0.99	
13	1.032	15.0	35,100	0.24	26			7.6	8.8	190	60	60	192	58	58	1.1	0.9	1.02	
14	0.948	14.0	35,100	0.18	18			7.5	8.9	194	59	59	194	57	54	1.1	0.9	0.77	
15	1.022	16.0	35,100	0.20	20			7.6	8.9	190	60	62	192	57	56	1.2	0.9	0.88	
16	0.928	14.0	35,100	0.21	20			7.6	8.8	185	60	59	185	58	54	1.2	0.9	0.96	
17	1.036	16.0	35,100	0.24	24			7.5	8.9	190	58	59	188	57	57	1.2	0.9	0.96	
18	1.005	15.0	35,100	0.25	22			7.7	8.7	188	59	57	188	57	55	1.2	0.9	0.85	
19	1.109	16.0	35,100	0.26	20			7.6	8.8	194	61	59	186	61	58	1.2	0.9	0.85	
20	1.049	15.0	35,100	0.24	24			7.6	8.8	180	62	59	190	62	58	1.0	0.8	0.84	
21	0.280	2.0	0	0.19	6			7.7	8.7	190	72	62	180	68	67	1.5	0.7	0.95	
22	0.743	11.0	35,100	0.24	16			7.6	8.7	190	68	68	181	66	65	1.2	0.9		PL
23	0.951	14.0	35,100	0.19	17			7.6	8.7	182	67	69	185	65	67	1.1	0.8	0.95	
24	1.091	15.0	35,100	0.27	19			7.7	8.7	186	65	65	187	62	65	1.1	0.8	1.06	
25	1.086	18.0	35,100	0.36	24			7.7	8.7	186	62	64	189	60	63	1.2	0.9	1.11	
26	0.338	5.0	0	0.43	12			0.0	8.9	0	64	65	0	58	64	1.0	0.9		PL
27	0.000	0.0	0	0.00	0			0.0	0.0	0	0	0	0	0	0	0.0	0.0	0.00	PL
28	0.000	0.0	0	0.00	0			0.0	0.0	0	0	0	0	0	0	0.0	0.0	0.00	PL
29	0.000	0.0	0	0.00	0			0.0	0.0	0	0	0	0	0	0	0.0	0.0	0.00	PL
30	0.473	12.0	35,100	0.42				7.8	9.0	185	54	64	185	44	61	1.1	0.7	0.00	
31	1.086	14.0	35,100	0.25	20			7.6	8.8	186	68	66	188	70	64	1.2	0.8	0.97	
Total	26.659	400.0	912,600	8.27	554	0	0	205.2	247.5	5067	1751	1744	5047	1684	1671	32.7	25.1	23.49	
Avg	0.860	12.9	29,439	0.27	18	0	0	6.6	8.0	163	56	56	163	54	54	1.1	0.8	0.76	
Max	1.451	20.0	35,100	0.79															
Min	0.000	0.0	0	0.00															

Month: JANUARY

Year: 1987

Total Number of Wells in System: 35

Report of Operation

PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant

PWSID: 04-67-041

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	
1	2.352	24.0	119,700		45			7.6	8.7	172	61	66	156	52	52	1.1	1.1	0.14	FLOUR
2	2.682	24.0	0		25			7.4	8.8	174	66	66	156	53	51	1.2	1.1	0.16	FLOUR
3	2.338	24.0	79,800		30			7.4	8.8	170	62	66	154	53	54	1.1	1.1	0.16	FLOUR
4	2.441	24.0	0		65			7.6	8.8	166	65	66	154	52	58	0.9	0.9	0.98	
5	3.436	24.0	79,800		45			7.6	8.8	170	66	68	154	54	56	1.0	1.0	0.74	
6	3.863	24.0	39,900		45			7.7	8.6	174	78	84	147	59	64	0.8	0.7	0.18	
7	4.021	24.0	119,700		60			7.6	8.8	170	65	74	148	54	55	0.9	0.8	0.89	
8	4.446	24.0	39,900		55			7.4	8.7	162	64	64	148	56	60	1.0	1.0	0.70	
9	3.669	24.0	119,700		60			7.5	8.8	164	61	65	150	57	61	1.0	0.9	0.87	
10	2.542	24.0	39,900		40			7.6	8.7	160	60	66	154	55	61	1.0	0.9	1.18	
11	2.694	24.0	39,900		50			7.5	8.8	170	62	66	156	56	61	1.0	0.9	1.30	
12	3.095	24.0	39,900		55			7.5	8.8	166	62	66	154	54	60	1.1	1.0	1.24	
13	2.880	24.0	79,800		60			7.4	8.8	166	58	62	152	52	57	1.1	1.0	1.10	
14	3.010	24.0	39,900		50			7.6	8.5	170	64	66	154	53	55	1.0	0.9	0.77	
15	3.137	24.0	79,800		55			7.6	8.6	168	63	66	144	55	62	1.0	0.9	0.87	
16	2.665	24.0	39,900		61			7.6	8.6	152	64	62	152	50	62	1.0	0.9	0.90	
17	2.380	24.0	79,800		58			7.4	8.6	166	62	62	146	50	62	1.0	0.9	0.55	
18	2.235	24.0	0	0.11	39			7.6	8.6	164	61	66	144	53	61	1.1	1.0	0.17	
19	2.360	24.0	39,900	0.60	36			7.4	8.7	166	60	66	146	53	60	1.1	1.0	0.39	
20	2.840	24.0	39,900	0.09	60			7.6	8.8	164	64	62	144	51	61	1.1	1.0	0.77	
21	3.430	24.0	39,900	0.13	67			7.5	8.8	167	62	68	147	52	52	1.2	1.0	0.56	
22	3.341	24.0	79,800	0.59	38			7.6	8.8	165	61	70	144	53	59	1.0	1.1	0.41	
23	2.972	24.0	79,800	0.61	65			7.4	8.6	162	60	64	155	50	52	1.0	1.0	0.88	
24	2.342	24.0	79,800	0.26	35			7.5	8.6	150	61	64	142	52	50	1.1	1.0	0.95	
25	2.375	24.0	0	0.21	35			7.4	8.5	150	61	62	143	51	52	1.1	1.0	1.20	
26	3.462	24.0	39,900	0.21	46			7.8	8.7	148	62	62	158	54	56	1.1	1.0	0.92	
27	4.104	24.0	39,900	0.21	62			7.6	8.7	174	62	62	155	56	62	1.0	0.9	0.99	
28	4.211	24.0	119,700	0.43	47			7.6	8.6	164	61	64	156	52	58	1.1	1.0	1.03	
29	4.348	24.0	39,900	0.37	70			7.6	8.6	172	60	63	154	52	55	1.0	1.0	1.16	
30	3.702	24.0	119,700	0.31	65			7.4	8.5	176	64	64	156	52	53	0.8	0.8	0.12	
31	2.406	24.0	39,900	0.26	55			7.4	8.5	168	62	64	150	53	55	1.0	0.8	0.14	
Total	95.779	744.0	1,795,500	4.39	1579	0	0	233.4	269.2	5130	1944	2036	4673	1649	1777	31.9	29.6	22.42	
Avg	3.090	24.0	57,919	0.14	51	0	0	7.5	8.7	165	63	66	151	53	57	1.0	1.0	0.72	
Max	4.446	24.0	119,700	0.61															
Min	2.235	24.0	0	0.00															

5000
MAIN

Water Supply Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

for the month of March 1987

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer: B. Frazelle,W/WW, X5988
Typist: S. Kolde, 5 Mar 87

Ron [illegible] [illegible] of ——

Month: FEBRUARY

Report of Operation

Year: 1987

Total Number of Wells in System: 2

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant

PWSID: 04-67-048

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluor Deliv
1	0.082	14.0	10,000		5						184	46	50				2.0	1.4	
2	0.082	14.0	7,000		2						180	48	50				1.6	1.1	
3	0.090	17.0	14,000		5						180	48	50				1.5	1.2	
4	0.081	18.0	14,000		8						180	48	50				1.5	1.3	
5	0.083	10.0	7,000		5						180	49	50				1.6	1.2	
6	0.090	11.0	7,000		3						178	50	50				1.0	1.0	
7	0.085	9.0	4,000		3						180	50	54				1.3	1.2	
8	0.038	11.0	7,000		6						180	43	48				1.4	0.9	
9	0.026	10.0	7,000		3						178	50	48				1.0	1.0	
10	0.028	11.0	12,000		2						180	48	50				2.0	1.1	
11	0.033	9.0	7,000		3						180	48	50				2.0	1.1	
12	0.067	8.0	5,000		3						182	48	50				1.9	1.2	
13	0.047	9.0	5,000		4						180	48	50				1.9	1.2	
14	0.046	8.0	4,000		3						176	48	50				1.8	1.2	
15	0.045	8.0	5,000		2						174	48	50				1.8	1.2	
16	0.051	8.0	7,000		5						176	48	48				1.7	1.2	
17	0.068	14.0	5,000		5						188	47	53				1.8	1.6	
18	0.082	18.0	7,000		5						174	63	52				1.4	1.2	
19	0.089	10.0	7,000		4						180	48	50				1.3	1.4	
20	0.084	9.0	7,000		4						187	44	50				1.8	1.5	
21	0.086	10.0	5,000		3						180	50	54				1.8	1.4	
22	0.089	9.0	5,000		5						180	48	50				1.6	1.1	
23	0.089	10.0	5,000		6						178	46	48				1.5	1.1	
24	0.081	8.0	7,000		6						178	46	48				1.5	1.1	
25	0.089	10.0	5,000		3						182	49	52				1.5	1.1	
26	0.099	9.0	5,000		3						180	48	50				1.4	1.1	
27	0.092	7.0	5,000		3						180	48	50				1.5	1.1	
28	0.091	7.0	9,000		3						180	48	50				1.3	1.0	
29																			
30																			
31																			
Total	2.013	296.0	194,000	0.00	112	0	0	0.0	0.0	0.0	5035	1353	1405	0	0	0	44.4	33.2	0.
Avg	0.072	10.6	6,929	0.00	4	0	0	0.0	0.0	0.0	180	48	50	0	0	0	1.6	1.2	0.
Max	0.099	18.0	14,000	0.00															
Min	0.000	0.0	0	0.00															

Year: 1987

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Water Pumped (MGD)	Hours Plant Oper	BKWSH Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.516	14.0	35,200		12	50					180	50	50				1.2	1.2	
2	0.540	15.0	35,200		15	50					184	50	50				1.4	1.4	
3	0.537	15.0	33,000		13	50					186	52	54				1.4	1.3	
4	0.643	18.0	33,000		17	50					180	52	52				1.2	1.1	
5	0.574	17.0	33,000		12	0					176	50	52				1.3	1.2	
6	0.503	14.0	38,000		14	50					180	52	54				1.4	1.4	
7	0.457	15.0	33,000		12	50					184	52	52				1.5	1.5	
8	0.495	14.0	30,800		13	50					182	50	52				1.3	1.3	
9	0.486	12.0	35,200		13	50					180	48	50				1.3	1.3	
10	0.605	17.0	33,000		16	50					180	48	48				1.3	1.2	
11	0.541	14.0	35,200		12	50					180	48	48				1.2	1.2	
12	0.452	15.0	35,200		15	50					182	48	48				1.0	1.1	
13	0.491	10.0	33,000		15	50					184	48	50				1.0	1.1	
14	0.431	8.0	30,800		13	50					180	48	50				1.4	1.2	
15	0.423	7.0	30,800		9	50					170	48	50				1.5	1.5	
16	0.616	12.0	35,200		18	50					180	50	50				1.5	1.5	
17	0.471	13.0	33,000		17	50					180	56	58				1.4	1.2	
18	0.462	14.0	35,200		14	50					184	52	50				1.3	1.3	
19	0.478	15.0	35,200		13	50					180	48	50				1.3	1.2	
20	0.520	16.0	35,200		14	50					180	48	50				1.2	1.2	
21	0.402	11.0	35,200		11	50					180	48	50				1.3	1.2	
22	0.425	12.0	35,200		16	50					180	48	50				1.4	1.3	
23	0.256	9.0	35,200		7	50					180	48	50				1.3	1.3	
24	0.358	11.0	35,200		13	50					180	50	50				1.3	1.3	
25	0.535	14.0	30,800		20	50					180	50	50				1.3	1.4	
26	0.560	14.0	30,800		15	50					180	52	50				1.6	1.6	
27	0.365	11.0	28,600		17	50					180	54	54				1.5	1.0	
28	0.382	11.0	33,000		7	50					180	52	52				1.2	1.3	
29																			
30																			
31																			
Total	13.524	368.0	942,200	0.00	383	1350	0	0.0	0.0	0.0	5052	1400	1424	0	0	0	37.0	35.8	0.00
Avg	0.483	13.1	33,650	0.00	14	48	0	0.0	0.0	0.0	180	50	51	0	0	0	1.3	1.3	0.00
Max	0.643	18.0	38,000	0.00															
Min	0.000	0.0	0	0.00															

Year: 1987

Total Number of Wells in System: 35

PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant

PWSID: 04-67-041

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	2.442	24	79,800	0.18	55	4195	64	7.6	8.3		164	61	64	156	54	61	1.1	1.0	1.04
2	2.125	24	0	0.19	48	4195	64	7.6	8.5		168	62	64	158	54	62	1.1	1.0	0.61
3	3.667	24	119,700	0.21	50	4195	64	7.8	8.6		174	62	64	156	55	60	1.2	0.9	0.97
4	4.102	24	0	0.27	65	4684	76	7.4	8.4		168	63	65	154	54	56	1.0	0.8	0.97
5	3.942	24	159,600	0.28	50	4062	70	7.4	8.5		168	64	66	156	56	58	1.1	1.0	0.91
6	4.162	24	0	0.24	35	4798	75	7.4	8.4		168	61	65	156	56	60	1.1	1.0	1.11
7	3.675	24	159,600	0.27	40	4573	71	7.4	8.5		170	60	66	156	55	61	1.2	1.1	0.92
8	3.778	24	0	0.20	45	4197	68	7.4	8.4		168	62	60	156	55	60	1.4	1.1	0.94
9	3.916	24	79,800	0.39	44	4863	78	7.4	8.4		168	62	62	154	56	60	1.1	1.1	0.92
10	4.166	24	0	0.35	86	4516	65	7.4	8.4		170	66	67	156	55	67	1.1	1.0	0.82
11	3.858	24	119,700	0.25	50	4218	69	7.6	8.5		168	59	68	150	54	55	1.1	1.0	0.80
12	4.345	24	0	0.21	55	4568	59	7.6	8.5		170	61	66	154	54	57	1.0	1.0	0.85
13	3.933	24	159,600	0.19	55	4335	90	7.4	8.5		168	61	66	156	54	60	1.0	0.9	0.90
14	3.386	24	39,900	0.22	50	3956	79	7.6	8.5		168	60	64	152	55	60	1.1	1.0	0.89
15	3.041	24	119,700	0.20	60	3448	68	7.4	8.4		170	62	60	150	55	60	1.1	1.0	0.86
16	2.941	24	0	0.28	60	3374	36	7.6	8.4		168	62	66	151	54	60	1.2	1.1	0.51
17	3.327	24	119,700	0.18	65	4095	48	7.5	8.5		170	60	66	150	52	60	1.0	1.0	0.76
18	3.988	24	39,900	0.34	70	5059	69	7.7	8.7		175	62	65	158	52	54	1.0	1.0	0.91
19	3.709	24	159,600	0.75	70	4820	65	7.7	8.6		173	67	67	162	55	56	1.1	0.9	0.91
20	3.117	24	39,900	0.41	50	3531	55	7.4	8.7		175	67	67	148	59	57	1.0	0.9	0.93
21	2.987	24	79,800	0.69	40	3153	56	7.2	8.6		173	62	68	143	51	57	1.0	1.0	0.97
22	2.844	24	0	0.11	40	3589	61	7.4	8.7		162	64	63	150	60	54	0.9	1.0	1.13
23	4.156	24	79,800	0.21	60	3550	82	7.3	8.9		162	64	64	157	58	60	1.0	1.0	1.18
24	4.442	24	39,900	0.13	50	4183	97	7.2	8.6		166	73	74	152	65	72	1.2	1.0	1.14
25	4.549	24	11,970	0.30	60	4730	107	7.2	8.5		180	65	73	154	63	66	1.0	1.0	1.12
26	4.780	24	29,900	0.40	65	4606	97	7.4	8.5		178	67	73	156	65	60	1.0	1.0	1.01
27	4.164	24	119,700	0.24	60	4621	80	7.2	8.5		174	68	82	152	61	63	1.0	1.0	0.89
28	2.903	24	39,900	0.28	55	3358	47	7.4	8.4		178	65	82	154	69	72	1.2	1.2	0.85
29																			
30																			
31																			
Total	102.445	672	1,797,470	7.97	1533	117472	1960	*****	238.4	0.0	4764	1772	1877	4307	1586	1688	30.3	28.0	25.82
Avg	3.659	24.0	64,195	0.28	55	4195	70	7.5	8.5	0.0	170	63	67	154	57	60	1.1	1.0	0.92
Max	4.780	24.0	159,600	0.75															
Min	0.000	0.0	0	0.00															

Year: 1987

Total Number of Wells in System: 8

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	
1	1.043	15.0	35,100	0.46	23		16	7.6	8.7		182	68	66	184	65	64	1.0	1.0	0.81	
2	0.904	15.0	35,100	0.35	18		14	7.5	8.8		182	72	71	181	64	62	0.9	0.7	0.81	
3	0.481	13.0	0	0.38	14		9	7.6	8.6		184	57	85	186	55	83	1.4	1.0	1.00	
4	0.000	0.0	0	0.00	0		0	0.0	0.0		0	0	0	0	0	0	0.0	0.0	0.00	PL
5	0.000	0.0	0	0.00	0		0	0.0	0.0		0	0	0	0	0	0	0.0	0.0	0.00	PL
6	0.000	0.0	0	0.00	0		0	0.0	0.0		0	0	0	0	0	0	0.0	0.0	0.00	PL
7	0.000	0.0	0	0.00	0		0	0.0	0.0		0	0	0	0	0	0	0.0	0.0	0.00	PL
8	0.000	0.0	0	0.00	0		0	0.0	0.0		0	0	0	0	0	0	0.0	0.0	0.00	PL
9																				PL
10																				PL
11																				PL
12																				PL
13																				PL
14																				PL
15																				PL
16																				PL
17																				PL
18																				PL
19																				PL
20	1.013	18.0	35,100	1.36	23		16	7.6	8.9	0.0	186	56	60	181	49	57	1.2	0.9	0.80	
21	0.978	14.0	35,100	0.70	23		14	7.6	8.7		188	60	59	187	61	56	1.2	0.9	0.73	
22	1.060	18.0	35,100	0.39	18		16	7.6	8.5		188	67	61	182	66	59	0.9	0.9	0.77	
23	0.484	7.0	35,100	0.44	10		8	7.6	8.9		182	61	63	184	57	59	1.1	0.6	0.81	
24																				PL
25																				PL
26																				PL
27																				PL
28	1.033	12.0	35,100	0.60			15	7.6	8.7		188	47	56	182	66	58	0.9	0.9	0.77	
29																				
30																				
31																				
Total	6.996	112.0	245,700	4.68	129	0	109	60.7	69.8	0.0	1480	488	521	1467	483	498	8.9	6.9	6.50	
Avg	0.874	14.0	30,712	0.58	16	0	14			0.0	185	61	65	183	60	62	1.1	0.9	0.81	
Max	1.060	18.0	35,100	1.36																
Min	0.000	0.0	0	0.00																

Month: FEBRUARY

Year: 1987

Total Number of Wells in System: 25

Report of Operation

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water Plant PWSID: 04-67-042

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.643	14.0	0	0.85	20	1215		7.4	8.3		182	67	57	255	148	151		0.8	0.79
2	0.709	16.5	108,000	0.80	22	1215		7.4	8.4		165	66	53	272	150	145		0.8	0.76
3	0.561	13.0	0	0.41	17	1215		7.6	8.4		164	63	55	280	150	149		0.8	0.75
4	0.646	15.0	0	0.74	20	1215		7.4	8.4		180	62	55	262	136	149		0.8	0.75
5	0.664	17.0	60,000	0.70	21	1215		7.5	8.5		182	58	54	267	148	151		0.7	0.74
6	0.575	15.0	120,000	0.66	18	992		7.4	8.5		160	61	52	270	148	146		0.9	0.83
7	0.573	13.0	60,000	0.49	18	1179		7.5	8.4		160	68	56	274	159	149		0.8	0.85
8	0.565	14.0	0	0.49	18	1022		7.4	8.4		156	59	60	274	151	155		0.9	0.78
9	0.596	14.0	120,000	0.49	18	1075		7.4	8.5		156	61	58	275	137	141		0.8	0.87
10	0.623	13.0	60,000	0.58	19	1174		7.4	8.4		164	61	52	270	147	148		0.8	0.81
11	0.573	13.0	0	0.55	18	1217		7.5	8.6		160	61	55	272	145	143		0.7	0.83
12	0.683	16.0	60,000	0.56	20	1233		7.4	8.4		158	58	58	264	160	160		0.7	0.82
13	0.650	16.0	120,000	0.69	20	1376		7.4	8.5		160	59	52	274	152	142		0.8	0.84
14	0.606	12.0	0	0.86	19	1138		7.4	8.5		160	57	53	274	157	147		0.6	0.83
15	0.596	13.0	0	0.48	18	1053		7.4	8.5		162	59	54	272	149	136		0.7	0.83
16	0.607	13.0	60,000	0.85	19	1064		7.4	8.4		162	58	55	258	157	142		0.7	0.87
17	0.671	14.5	120,000	0.63	20	1131		7.4	8.4		158	60	60	264	150	150		0.7	0.84
18	0.648	14.5	0	0.52	20	1493		7.4	8.4		162	61	54	270	148	147		0.8	0.87
19	0.674	15.0	60,000	0.52	21	1359		7.4	8.4		160	60	54	268	150	169		0.8	0.82
20	0.655	14.5	60,000	0.40	18	1247		7.4	8.5		162	62	54	270	150	165		0.8	0.85
21	0.600	13.5	60,000	0.57	18	1137		7.4	8.5		160	64	55	272	156	154		0.8	0.83
22	0.617	13.0	60,000	0.51	20	1264		7.5	8.6		162	66	55	268	153	150		0.9	0.84
23	0.642	12.0	0	0.49	20	1113		7.5	8.6		160	65	56	270	140	153		0.8	0.83
24	0.620	13.5	60,000	0.68	19	1513		7.5	8.5		162	56	55	272	146	144		0.8	0.81
25	0.590	12.5	60,000	0.55	18	1386		7.5	8.5		160	58	54	270	139	143		0.7	0.79
26	0.599	13.5	60,000	0.51	19	1152		7.5	8.5		162	59	55	262	145	144		0.8	0.78
27	0.587	14.0	48,000	0.43	18	1806		7.5	8.5		168	58	56	268	147	143		0.8	0.79
28	0.527	10.5	0	0.44	16	840		7.4	8.5		168	58	55	278	144	139		0.7	0.79
29																			
30																			
31																			
Total	17.300	388.5	1,356,000	16.45	532	34039	0	*****	237.0	0.0	4575	1705	1542	7545	4162	4155	0.0	21.7	22.79
Avg	0.618	13.9	48,429	0.59	19	1216	0	7.4	8.5	0.0	163	61	55	269	149	148	0.0	0.8	0.81
Max	0.709	17.0	120,000	0.86															
Min	0.000	0.0	0	0.00															

Year: 1987

Total Number of Wells in System: 4

PUBLIC WATER SYSTEM FOR: Rifle Range Water Plant

PWSID: 04-67-046

Date	Total Water Pumped (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.208	11.0	8,200		5	50					176	50	52				1.1	1.0	
2	0.125	8.0	18,000		6	50					176	50	52				1.1	1.0	
3	0.061	16.0	6,600		8	50					178	52	56				1.1	1.0	
4	0.100	17.0	6,600		5	50					176	52	52				1.0	1.0	
5	0.182	10.0	6,600		6	50					176	52	54				1.1	1.0	
6	0.172	13.0	8,200		5	50					178	52	56				1.1	1.0	
7	0.162	14.0	8,200		5	50					176	54	54				1.1	1.0	
8	0.185	14.0	8,200		5	50					176	52	56				1.1	1.0	
9	0.199	15.0	8,200		3	50					178	52	54				1.1	1.0	
10	0.207	14.0	8,200		3	50					178	52	50				0.8	0.9	
11	0.194	15.0	8,200		5	50					176	52	54				1.1	1.0	
12	0.159	14.0	8,200		5	50					178	52	54				1.1	1.0	
13	0.159	14.0	8,200		5	50					178	52	54				1.1	1.0	
14	0.174	13.0	8,200		5	50					178	54	56				1.1	1.0	
15	0.145	12.0	8,200		5	50					176	54	56				1.1	1.1	
16	0.151	10.0	6,000		7	50					178	56	52				1.0	1.1	
17	0.162	13.0	10,400		6	50					178	54	50				1.0	1.2	
18	0.183	14.0	8,200		6	50					176	54	50				1.0	1.2	
19	0.186	14.0	8,200		6	50					178	54	50				1.0	1.1	
20	0.173	15.0	8,200		4	50					174	54	54				1.1	1.0	
21	0.191	14.0	8,200		4	50					178	53	54				1.1	1.2	
22	0.188	13.0	8,200		4	50					180	50	54				1.1	1.0	
23	0.188	13.0	8,200		4	50					180	50	54				1.1	1.0	
24	0.213	14.0	8,200		6	50					178	52	58				1.1	1.1	
25	0.205	13.0	8,200		5	50					178	52	58				1.1	1.1	
26	0.207	14.0	8,200		5	50					180	52	54				1.0	1.1	
27	0.175	11.0	8,200		5	50					180	52	54				1.0	1.1	
28	0.173	11.0	8,200		5	50					178	52	50				1.0	1.1	
29																			
30																			
31																			
Total	4.827	369.0	234,600	0.00	143	1400	0	0.0	0.0	0.0	4970	1467	1502	0	0	0	29.7	29.3	0.00
Avg	0.172	13.2	8,379	0.00	5	50	0	0.0	0.0	0.0	178	52	54	0	0	0	1.1	1.0	0.00
Max	0.213	17.0	18,000	0.00															
Min	0.000	0.0	0	0.00															

5000
MAIN

Water Supply Branch
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities for the month of April 1987 are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer: B. Frazelle, X5988
Typist: S. Kolde, 4 May 87

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: APRIL

Year: 1987

Total Number of Wells in System: 8

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

Date	Total Raw (MSG)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	1.721	1.839	19.5	228,000	0.29	20	1979	37	7.5	8.8		142	62	62	145	61	57	1.3	1.2	1.05
2	1.723	1.880	19.5	216,000	0.45	14	1981	32	7.6	8.7		154	60	60	147	60	56	1.0	1.2	0.97
3	1.837	2.019	20.0	180,000	0.31	21	2113	34	7.6	8.8		158	65	65	144	66	58	1.4	1.3	0.97
4	1.768	1.890	20.0	150,000	0.35	21	2033	33	7.7	8.8		144	65	63	144	64	63	1.4	1.4	0.97
5	1.630	1.843	18.0	120,000	0.41	19	1875	32	7.6	8.9		144	64	62	144	61	59	1.4	1.4	1.02
6	1.761	1.901	20.0	156,000	0.35	19	2025	33	7.6	8.9		147	67	66	142	64	62	1.4	1.2	1.00
7	1.786	2.166	20.0	76,200	0.49	19	2054	37	7.6	9.0		146	64	66	144	62	68	1.3	1.3	1.08
8	1.815	2.102	19.0	76,200	0.30	20	2087	38	7.7	9.0		146	62	66	141	61	63	1.3	1.3	1.09
9	1.882	2.112	21.0	342,900	0.30	20	2164	37	7.8	8.9		146	60	62	143	58	57	1.3	1.3	1.04
10	2.133	2.182	21.0	190,000	0.36	24	2509	43	7.6	8.8		146	67	64	145	65	61	1.3	1.3	1.04
11	2.336	2.149	24.0	266,000	0.32	25	2686	28	7.6	8.9		148	64	64	149	59	61	1.3	1.3	0.63
12	2.153	2.396	21.0	228,600	0.35	27	2476	32	7.7	8.8		144	58	59	146	56	57	1.1	1.1	0.80
13	2.672	2.353	24.0	270,000	0.24	26	3072	46	7.6	8.8		148	62	60	146	63	56	1.2	1.2	0.91
14	2.423	2.250	22.0	273,000	0.35	26	2786	47	7.5	8.9		148	63	64	152	60	62	1.3	1.2	1.03
15	1.944	1.759	17.5	216,000	0.36	22	2236	20	7.6	9.0		148	60	61	146	60	57	1.4	1.3	0.55
16	1.798	1.955	18.0	348,000	0.22	22	2248	24	7.7	9.0		152	58	59	144	56	55	1.4	1.3	0.64
17	1.823	2.029	17.0	180,000	0.36	20	2096	29	7.6	9.1		176	55	59	150	55	56	1.3	1.3	0.82
18	1.772	1.886	16.0	252,000	0.39	21	2038	30	7.7	8.9		150	61	62	146	64	55	1.4	1.4	0.90
19	1.900	1.944	17.0	240,000	0.40	22	2185	29	7.7	8.9		152	61	62	152	61	59	1.4	1.3	0.79
20	2.021	1.971	18.0	234,000	0.43	24	2324	34	7.7	8.8		148	66	65	148	64	63	1.4	1.3	0.87
21	2.166	2.088	19.0	302,000	0.33	25	2491	40	7.6	8.8		148	58	62	146	58	58	1.4	1.4	0.95
22	2.075	2.244	22.0	72,000	0.36	24	2386	48	7.7	8.8		156	65	63	155	58	57	1.4	1.3	1.20
23	1.847	2.201	17.0	144,000	0.28	20	2124	34	7.6	8.8		148	61	61	146	60	61	1.3	1.3	0.97
24	1.780	1.851	16.0	114,000	0.37	19	2047	31	7.6	8.7		148	62	61	148	62	59	1.3	1.3	0.88
25	1.678	1.966	16.0	72,200	0.35	20	1930	34	7.6	8.8		149	62	60	144	57	57	1.4	1.3	0.90
26	1.720	1.852	17.0	72,000	0.30	19	1978	29	7.7	8.8		148	58	60	142	63	56	1.3	1.3	0.81
27	1.997	2.050	17.0	175,500	0.51	21	2239	33	7.6	8.9		152	58	58	146	54	55	1.3	1.3	0.83
28	1.744	2.011	16.0	90,000	0.36	20	2006	35	7.8	8.8		144	65	62	144	62	57	1.4	1.3	0.90
29	1.750	2.129	17.0	108,000	0.38	20	2012	28	7.7	8.9		148	60	63	144	57	57	1.4	1.3	0.85
30	1.931	2.216	18.0	90,000	0.38	17	2220	36	7.8	8.8		148	59	60	146	59	57	1.1	1.1	0.99
31																				
Total	57.586	61.234	567.5	5,482,600	10.65	637	66400	1023	*****	265.8	0.0	4476	1852	1861	4379	1810	1759	39.6	38.5	27.45
Avg	1.920	2.041	18.9	182,753	0.36	21	2213	34	7.6	8.9	0.0	149	62	62	146	60	59	1.3	1.3	0.92
Max	2.672	2.396	24.0	348,000	0.51															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: APRIL

Year: 1987

Total Number of Wells in System: 35

PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant

PWSID: 04-67-041

Date	Total Water Pumped Raw (MGD)	Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	4.050	3.687	24	39,900	0.24	40	4225	64	7.5	8.2		162	65	64	154	64	56	1.3	1.1	0.83
2	4.083	3.415	24	79,800	0.23	55	3982	76	7.4	8.2		160	64	68	155	63	61	1.2	1.1	0.97
3	3.669	3.605	24	79,800	0.21	40	4013	81	7.4	8.5		164	60	67	156	64	64	1.1	1.1	1.15
4	3.401	2.972	24	39,900	0.21	40	3959	63	7.5	8.4		166	58	63	156	62	64	1.1	1.0	0.97
5	3.211	3.682	24	79,800	0.22	50	3964	64	7.4	8.4		168	60	64	155	62	64	1.2	1.0	1.05
6	3.315	3.417	24	79,800	0.19	45	3970	72	7.4	8.4		170	58	60	158	62	60	1.2	1.0	1.13
7	3.677	3.677	24	0	0.23	30	4266	48	7.4	8.4		170	63	61	156	60	57	1.1	1.1	0.74
8	3.717	2.995	24	119,700	0.17	30	4417	71	7.4	8.4		170	72	72	158	64	62	1.1	1.1	1.02
9	3.833	3.059	24	0	0.23	50	4360	86	7.4	8.4		170	64	65	158	59	59	1.2	1.1	1.23
10	3.568	3.215	24	119,700	0.13	44	4014	78	7.5	8.6		168	60	62	160	56	56	1.1	1.1	0.95
11	3.741	3.126	24	0	0.16	36	3884	60	7.6	8.4		170	60	62	160	56	62	1.0	1.0	1.00
12	3.386	3.168	24	119,700	0.16	50	3964	60	7.6	8.4		170	60	62	160	58	64	1.0	1.0	0.95
13	3.162	3.649	24	119,700	0.20	50	4304	74	7.6	8.5		168	62	64	164	60	56	1.2	1.0	1.07
14	3.988	3.764	24	0	0.20	55	4370	69	7.5	8.5		170	59	64	166	59	57	1.2	1.1	0.91
15	4.011	3.650	24	119,700	0.18	50	4331	76	7.4	8.4		173	61	62	164	59	59	1.1	1.1	0.99
16	3.800	3.719	24	0	0.35	40	4312	73	7.4	8.5		170	61	62	166	61	60	1.1	1.0	1.01
17	3.640	3.425	24	119,700	0.33	40	2055	70	7.5	8.4		177	57	58	162	50	55	1.0	0:9	1.01
18	3.537	3.901	24	0	0.13	45	3260	76	7.3	8.5		173	61	60	160	50	54	1.1	1.0	1.21
19	3.513	1.737	24	119,700	0.14	45	3707	80	7.4	8.5		175	59	60	168	56	53	1.1	1.0	1.19
20	2.398	3.319	24	0	0.13	33	3775	78	7.6	8.4		173	61	60	165	56	53	1.1	1.1	1.07
21	3.482	2.885	24	119,700	0.15	48	4288	65	7.6	8.4		172	62	60	157	56	60	1.0	1.0	0.97
22	3.427	3.331	24	0	0.30	46	2394	76	7.6	8.6		170	62	60	158	56	60	1.0	1.0	1.09
23	3.582	3.428	24	119,700	0.21	40	2989	75	7.4	8.5		168	60	62	168	56	58	1.0	1.0	1.12
24	2.839	3.662	24	0	0.23	49	4409	58	7.5	8.6		172	60	62	168	60	60	1.0	1.0	1.10
25	3.868	2.156	24	119,700	0.22	53	3003	80	7.5	8.2		168	62	64	168	62	66	1.0	1.0	1.08
26	3.418	2.931	24	0	0.23	41	4029	68	7.5	8.1		166	61	65	158	51	58	1.0	1.0	1.05
27	3.391	3.312	24	119,700	0.26	35	4127	64	7.6	8.2		162	60	66	162	52	60	1.1	1.0	1.01
28	3.272.	3.389	24	39,900	0.27	40	3859	63	7.2	8.2		162	60	63	158	55	60	1.0	1.0	1.00
29	3.318	3.297	24	79,800	0.32	45	4200	69	7.2	8.0		164	59	60	158	56	57	1.1	1.0	0.94
30	3.807	3.449	24	39,900	0.23	50	4071	72	7.2	8.1		170	60	61	158	58	60	1.1	1.1	0.99
31																				
Total	102.832	99.022	720	1,875,300	6.46	1315	116501	2109	*****	251.3	0.0	5061	1831	1883	4814	1743	1775	32.8	31.0	30.80
Avg	3.428	3.301	24.0	62,510	0.22	44	3883	70	7.5	8.4	0.0	169	61	63	160	58	59	1.1	1.0	1.03
Max	4.083	3.901	24.0	119,700	0.35															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: APRIL

Year: 1987

Total Number of Wells in System: 25

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water Plant

PWSID: 04-67-042

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.567	0.643	14.0	0	0.49	20	1218		7.4	8.3		158	63	54	266	153	151		0.7	0.82
2	0.498	0.543	14.0	60,000	0.42	17	1406		7.3	8.3		162	61	54	274	148	147		0.8	0.83
3	0.470	0.633	15.0	120,000	0.40	20	1600		7.2	8.3		168	66	52	276	152	146		0.7	0.85
4	0.420	0.550	12.0	0	0.42	17	1005		7.4	8.2		178	68	55	282	156	151		0.7	0.87
5	0.322	0.509	13.0	0	0.41	16	1223		7.2	8.3		154	68	55	272	140	141		0.7	0.88
6	0.637	0.622	17.0	12,000	0.48	19	1848		7.4	8.4		180	73	55	274	135	129		0.7	0.77
7	0.627	0.559	14.0	48,000	0.41	17	1375		7.6	8.3		180	66	54	268	112	127		0.8	0.78
8	0.684	0.670	13.0	0	0.43	21	1248		7.6	8.3		188	74	57	270	160	141		0.8	0.80
9	0.765	0.690	18.0	120,000	0.50	21	1537		7.4	8.4		176	69	55	270	135	131		1.0	0.82
10	0.781	0.660	18.0	60,000	0.47	20	1864		7.5	8.4		174	65	54	264	118	118		0.8	0.79
11	0.584	0.556	14.0	0	0.43	17	1347		7.5	8.5		176	68	54	255	115	120		0.7	0.82
12	0.603	0.558	16.0	120,000	0.41	17	1588		7.5	8.5		180	61	54	258	123	130		0.8	0.78
13	0.664	0.628	18.0	60,000	0.44	19	1889		7.5	8.5		172	71	53	260	125	127		0.9	0.77
14	0.519	0.557	13.0	0	0.39	17	1779		7.3	8.5		180	66	53	254	125	120		0.9	0.79
15	0.611	0.561	16.0	60,000	0.71	17	1821		7.5	8.6		168	72	53	280	123	111		0.8	0.79
16	0.666	0.599	16.0	120,000	0.64	19	1976		7.5	8.5		160	67	69	266	152	168		0.8	0.88
17	0.576	0.604	14.5	0	0.51	19	1862		7.5	8.4		180	72	61	270	152	173		1.0	0.90
18	0.477	0.485	8.5	0	0.50	15	976		7.4	8.4		184	68	60	228	126	138		0.9	0.78
19	0.582	0.515	13.5	120,000	0.54	16	1288		7.4	8.4		172	69	86	274	131	129		0.8	0.83
20	0.494	0.531	14.5	60,000	0.57	16	1176		7.4	8.4		190	69	56	254	126	133		0.8	0.78
21	0.559	0.600	16.0	0	0.95	19	1440		7.4	8.4		176	60	53	268	127	130		0.8	0.75
22	0.482	0.556	14.0	60,000	0.50	21	1470		7.4	8.4		180	67	55	262	151	127		0.7	0.70
23	0.643	0.668	17.0	120,000	0.55	17	1530		7.4	8.5		190	67	53	258	131	120		0.8	0.79
24	0.504	0.522	14.5	0	0.50	16	1305		7.3	8.5		172	65	53	258	140	124		0.8	0.78
25	0.454	0.486	12.5	60,000	0.36	15	1125		7.4	8.5		184	69	50	266	138	126		0.8	0.79
26	0.457	0.479	14.0	108,000	0.35	15	1345		7.4	8.6		180	68	53	256	138	123		0.8	0.78
27	0.522	0.569	14.0	0	0.39	18	1260		7.5	8.5		174	64	53	260	134	125		0.8	0.77
28	0.482	0.546	15.0	0	0.44	17	1382		7.4	8.5		168	61	54	258	129	126		0.7	0.77
29	0.591	0.582	16.0	120,000	0.48	16	1242		7.4	8.5		168	62	52	260	127	128		0.8	0.75
30	0.600	0.689	18.5	60,000	0.71	21	1348		7.4	8.5		180	64	64	242	136	120		0.8	0.71
31																				
Total	16.841	17.370	443.5	1,488,000	14.80	535	43473	0	*****	252.8	0.0	5252	2003	1684	7903	4058	3980	0.0	23.7	23.92
Avg	0.561	0.579	14.8	49,600	0.49	18	1449	0	7.4	8.4	0.0	175	67	56	263	135	133	0.0	0.8	0.80
Max	0.781	0.690	18.5	120,000	0.95															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: APRIL

Year: 1987

Total Number of Wells in System: 4

PUBLIC WATER SYSTEM FOR: Rifle Range Water Plant

PWSID: 04-67-046

Date	Total Water Pumped Raw (MGD)	Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluorid Deliver
1	0.321	0.259	18.0	10,400		8	50					180	52	54				1.1	1.0	
2	0.367	0.272	14.0	10,400		14	50					180	52	54				1.1	1.0	
3	0.274	0.233	16.0	10,400		9	50					178	54	56				1.1	1.0	
4	0.371	0.271	17.0	10,400		10	50					180	52	54				1.1	1.0	
5	0.382	0.301	17.0	10,000		7	50					180	55	54				1.1	1.0	
6	0.292	0.231	17.0	20,400		6	50					178	52	54				1.1	1.0	
7	0.368	0.258	16.0	10,400		7	50					178	54	58				1.1	1.0	
8	0.372	0.287	17.0	10,400		7	50					180	52	54				1.2	1.0	
9	0.325	0.249	16.0	10,400		7	50					180	52	54				1.1	1.1	
10	0.244	0.179	15.0	8,200		7	50					178	50	52				1.0	1.1	
11	0.216	0.167	15.0	10,400		6	50					178	50	52				1.0	1.0	
12	0.203	0.156	11.0	8,200		5	50					176	50	52				1.0	1.0	
13	0.210	0.112	14.0	8,200		5	50					180	52	54				1.1	1.0	
14	0.291	0.180	15.0	8,200		5	50					178	52	53				1.1	1.0	
15	0.241	0.191	17.0	8,200		5	50					180	52	54				1.1	1.0	
16	0.215	0.186	16.0	10,400		5	50					178	52	54				1.0	1.1	
17	0.246	0.201	17.0	10,400		5	50					180	52	56				1.1	1.0	
18	0.168	0.146	14.0	10,400		5	50					180	52	56				1.1	1.0	
19	0.195	0.169	15.0	10,400		6	50					180	54	56				1.1	1.0	
20	0.247	0.182	15.0	8,200		6	50					182	54	56				1.1	1.0	
21	0.244	0.203	16.0	10,400		10	50					180	52	54				1.1	1.0	
22	0.272	0.199	15.0	8,200		7	50					180	52	54				1.1	1.0	
23	0.234	0.194	15.0	8,200		7	50					182	54	56				1.1	1.0	
24	0.206	0.154	16.0	8,200		5	50					180	52	54				1.1	1.0	
25	0.271	0.184	15.0	8,200		5	50					182	52	54				1.2	1.0	
26	0.279	0.195	15.0	8,200		4	50					180	52	54				1.0	1.2	
27	0.227	0.190	14.0	8,200		5	50					180	52	54				1.1	1.0	
28	0.230	0.190	14.0	8,200		4	50					180	52	54				1.1	1.0	
29	0.168	0.240	12.0	8,200		5	50					180	50	52				1.1	1.0	
30	0.386	0.227	18.0	8,200		5	50					178	50	54				1.1	1.0	
31																				
Total	8.065	6.206	460.0	288,600	0.00	192	1500	0	0.0	0.0	0.0	5386	1563	1627	0	0	0	32.7	30.5	0.00
Avg	0.269	0.207	15.3	9,620	0.00	6	50	0	0.0	0.0	0.0	180	52	54	0	0	0	1.1	1.0	0.00
Max	0.386	0.301	18.0	20,400	0.00															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: APRIL

Year: 1987

Total Number of Wells in System: 2

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant

PWSID: 04-67-048

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.116	0.092	10.0	9,000		4						180	50	52				1.6	1.4	
2	0.096	0.082	8.0	7,000		4						178	49	52				1.8	1.5	
3	0.113	0.112	8.0	7,000		2						180	50	50				1.5	1.5	
4	0.086	0.077	7.0	9,000		3						176	50	50				1.5	1.5	
5	0.115	0.083	9.5	7,000		4						180	56	53				1.0	1.5	
6	0.132	0.090	11.0	5,000		5						178	50	54				1.0	1.5	
7	0.282	0.156	21.0	9,000		6						182	45	50				1.7	1.6	
8	0.089	0.091	7.0	5,000		3						178	51	55				0.9	1.5	
9	0.144	0.096	11.0	7,000		5						174	50	56				1.2	1.4	
10	0.157	0.090	12.0	7,000		3						174	50	52				1.6	1.2	
11	0.097	0.098	8.0	5,000		3						176	48	50				1.3	1.2	
12	0.102	0.092	7.0	5,000		4						178	50	52				1.6	1.2	
13	0.102	0.093	8.0	5,000		3						182	53	51				1.5	1.4	
14	0.106	0.090	10.0	9,000		4						178	50	50				1.5	1.6	
15	0.145	0.100	11.0	5,000		4						178	50	50				1.2	1.5	
16	0.033	0.093	7.0	7,000		3						180	48	50				1.2	1.5	
17	0.090	0.089	6.0	5,000		3						180	50	52				1.3	1.6	
18	0.167	0.090	12.0	7,000		2						178	52	52				1.2	1.5	
19	0.085	0.091	6.0	5,000		4						178	52	54				1.2	1.5	
20	0.138	0.104	10.0	7,000		3						178	50	50				1.4	1.4	
21	0.073	0.083	7.0	2,000		2						178	56	54				1.4	1.1	
22	0.117	0.092	9.0	5,000		3						180	50	54				1.0	1.0	
23	0.101	0.099	9.0	0		3						180	48	50				1.1	1.5	
24	0.115	0.090	8.0	7,000		3						180	48	48				1.1	1.5	
25	0.140	0.089	10.0	9,000		2						182	48	50				1.8	1.4	
26	0.074	0.082	5.5	5,000		3						180	53	49				1.7	1.2	
27	0.101	0.099	9.0	0		3						180	48	50				1.1	1.5	
28	0.075	0.091	9.0	5,000		3						180	50	50				1.6	1.5	
29	0.108	0.106	10.0	5,000		3						170	50	48				1.4	1.4	
30	0.064	0.171	6.0	5,000		3						180	50	50				1.7	1.7	
31																				
Total	3.363	2.911	272.0	175,000	0.00	100	0	0	0.0	0.0	0.0	5356	1505	1538	0	0	0	41.1	42.8	0.00
Avg	0.112	0.097	9.1	5,833	0.00	3	0	0	0.0	0.0	0.0	179	50	51	0	0	0	1.4	1.4	0.00
Max	0.282	0.171	21.0	9,000	0.00															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: APRIL

Year: 1987

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.498	0.418	15.0	35,200		13	50					176	52	52				1.2	1.2	
2	0.577	0.482	16.0	30,800		13	50					180	52	54				1.2	1.2	
3	0.482	0.461	14.0	33,000		10	50					170	52	54				1.2	1.2	
4	0.390	0.351	11.0	30,800		10	50					174	50	52				1.2	1.2	
5	0.434	0.536	13.0	35,200		11	50					176	50	50				1.2	1.2	
6	0.606	0.512	18.5	30,800		19	50					180	50	51				1.4	1.4	
7	0.488	0.402	11.0	35,200		12	50					178	70	70				1.6	1.6	
8	0.402	0.517	12.0	35,200		10	50					180	68	68				1.1	1.1	
9	0.580	0.536	14.0	33,000		20	50					176	56	54				1.2	1.3	
10	0.543	0.514	13.0	30,800		12	0					174	54	56				1.4	1.4	
11	0.504	0.630	16.0	35,200		20	0					182	52	52				1.4	1.4	
12	0.512	0.458	12.0	33,000		20	0					180	50	50				1.5	1.5	
13	0.508	0.461	14.0	30,800		15	0					174	50	50				1.5	1.5	
14	0.570	0.460	16.0	30,800		21	0					180	50	50				1.4	1.4	
15	0.556	0.491	15.0	30,800		16	0					180	50	50				1.4	1.3	
16	0.517	0.443	13.0	35,200		11	0					180	50	50				1.4	1.3	
17	0.545	0.493	14.0	35,200		11	0					180	50	50				1.0	1.1	
18	0.409	0.364	16.0	35,200		10	0					180	50	50				1.2	1.2	
19	0.393	0.352	10.0	35,200		11	0					180	48	50				1.2	1.2	
20	0.560	0.492	15.0	35,200		18	0					178	50	50				1.4	1.4	
21	0.468	0.420	11.0	30,800		13	0					156	50	50				1.4	1.4	
22	0.567	0.529	15.0	35,200		16	0					170	50	50				1.5	1.5	
23	0.509	0.427	15.0	33,000		14	0					156	50	48				1.3	1.4	
24	0.573	0.531	16.0	33,000		17	0					160	48	48				1.3	1.3	
25	0.419	0.377	16.0	30,200		11	0					160	48	48				1.3	1.3	
26	0.444	0.396	10.0	35,200		13	0					170	48	48				1.3	1.3	
27	0.509	0.427	15.0	33,000		14	0					156	50	48				1.3	1.4	
28	0.504	0.468	16.0	35,200		18	50					164	48	50				1.1	1.1	
29	0.531	0.491	14.0	33,000		13	50					180	48	50				1.3	1.3	
30	0.575	0.624	20.0	35,200		20	50					160	48	50				1.4	1.3	
31																				
Total	15.173	14.063	426.5	1,000,400	0.00	432	600	0	0.0	0.0	0.0	5190	1542	1553	0	0	0	39.3	39.4	0.00
Avg	0.506	0.469	14.2	33,347	0.00	14	20	0	0.0	0.0	0.0	173	51	52	0	0	0	1.3	1.3	0.00
Max	0.606	0.630	20.0	35,200	0.00															
Min.	0.000	0.000	0.0	0	0.00															

5000
MAIN

Water Supply Branch
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities for the month of June 1987 are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer: B. Frazelle, W/WW, X5988
Typist: S.P.Kolde, 2 Jul 87

5000
MAIN

Water Supply Branch
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities for the month of March 1987 are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer: B. Frazelle, W/WW, X5988
Typist: P. Snodgrass, 2 Apr 87

N.C. DEPARTMENT OF HUMAN RESOURCES - - DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MARCH

Year: 1987

Total Number of Wells in System: 35

PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant

PWSID: 04-67-041

Date	Total Raw Water Pumped (MGD)	Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	2.875	2.293	24	79,900	0.19	35	2980	48	7.4	8.6		180	65	74	157	70	71	1.2	1.3	0.87
2	3.466	3.544	24	0	0.23	25	3006	57	7.4	8.7		174	71	78	154	66	65	1.0	1.1	0.84
3	3.826	3.421	24	79,900	0.16	50	3484	59	7.4	8.7		178	67	73	156	55	63	1.1	0.9	0.80
4	3.521	3.447	24	39,900	0.31	50	3711	51	7.4	8.2		178	64	69	156	60	62	1.2	1.1	0.75
5	3.512	3.412	24	79,800	0.34	50	2927	47	7.4	8.3		178	67	70	156	58	64	1.1	1.0	0.74
6	3.585	3.275	24	39,900	0.20	50	3971	35	7.2	8.4		172	60	67	156	53	61	1.1	1.1	0.58
7	3.089	2.909	24	79,800	0.24	40	3400	50	7.2	8.2		174	62	66	156	59	60	1.2	1.1	0.84
8	2.726	2.939	24	39,900	0.32	40	3049	54	7.2	8.2		174	60	65	156	58	61	1.1	1.1	1.04
9	3.821	3.281	24	39,900	0.23	45	3732	65	7.2	8.2		176	60	64	156	61	60	1.2	1.1	1.03
10	3.352	3.135	24	79,800	0.19	40	3414	48	7.2	8.2		176	75	69	160	61	64	1.2	1.1	0.76
11	3.415	3.150	24	39,900	0.12	30	4362	50	7.4	8.1		174	74	72	162	66	76	1.1	1.0	0.87
12	3.378	3.428	24	79,800	0.21	30	3784	58	7.4	8.3		176	65	72	156	59	72	1.1	1.0	0.89
13	3.313	3.201	24	39,900	0.17	60	3765	58	7.6	8.2		174	59	66	154	60	67	1.1	1.0	0.95
14	3.611	2.248	24	39,900	0.18	40	3949	61	7.4	8.3		176	59	59	156	60	65	1.1	0.9	1.08
15	3.386	2.854	24	79,800	0.19	40	3943	69	7.6	8.3		175	66	64	154	60	65	1.1	1.1	0.89
16	3.237	3.199	24	39,900	0.22	46	3312	65	7.6	8.3		166	66	62	156	60	64	1.1	1.1	0.63
17	3.246	3.248	24	0	0.20	39	3469	14	7.6	8.2		174	59	64	154	60	60	1.1	1.0	0.25
18	3.216	3.334	24	119,700	0.28	35	3438	45	7.6	8.2		176	60	64	154	59	62	1.1	1.1	0.82
19	3.586	3.613	24	0	0.21	35	3557	41	7.5	8.3		173	59	64	158	53	57	1.0	1.0	0.67
20	4.300	3.334	24	119,700	0.23	55	3907	76	7.5	8.4		166	63	67	156	58	60	1.0	0.7	1.19
21	4.176	3.310	24	0	0.26	30	3905	90	7.5	8.5		198	60	66	150	69	64	1.0	0.8	1.40
22	3.771	2.890	24	119,700	0.24	50	3950	41	7.5	8.5		172	59	64	126	53	61	1.2	1.0	0.73
23	3.540	3.940	24	0	0.26	40	4074	38	7.2	8.5		150	60	68	140	56	60	1.2	1.0	0.55
24	3.941	3.394	24	119,700	0.20	45	3933	46	7.4	8.4		154	60	64	155	62	62	1.2	1.1	0.61
25	3.747	3.630	24	0	0.23	45	3960	66	7.8	8.1		154	64	64	156	65	64	1.1	1.1	0.93
26	3.440	3.620	24	119,700	0.19	45	4075	63	7.8	8.4		156	60	64	156	60	60	1.1	1.0	0.95
27	4.080	3.600	24	0	0.23	50	4113	81	7.6	8.3		156	62	64	158	60	60	1.0	1.0	1.04
28	3.598	3.077	24	119,700	0.19	40	3979	28	7.4	8.2		160	60	64	157	60	62	1.1	1.0	0.42
29	3.279	3.072	24	0	0.24	54	3925	14	7.5	8.4		158	60	64	158	60	62	1.0	1.0	0.27
30	3.233	3.506	24	199,700	0.19	51	3951	57	7.4	8.3		158	59	63	156	60	63	1.1	1.0	0.56
31	3.276	3.641	24	79,800	0.21	45	3989	12	7.6	8.2		158	60	60	154	62	57	1.0	1.0	0.19
Total	108.542	100.945	744	1,875,700	6.86	1330	115014	1587	230.9	258.1	0.0	5264	1945	2054	4789	1863	1954	34.2	31.8	24.14
Avg	3.501	3.256	24.0	60,506	0.22	43	3710	51	7.4	8.3	0.0	170	63	66	154	60	63	1.1	1.0	0.78
Max	4.300	3.940	24.0	199,700	0.34															
Min	2.726	2.248	24.0	0	0.12															

N.C. DEPARTMENT OF HUMAN RESOURCES - - DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MARCH

Year: 1987

Total Number of Wells in System: 25

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water Plant

PWSID: 04-67-042

Date	Total Water Pumped Raw (MGD)	Total Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.339	0.523	12.0	60,000	0.60	16	1272		7.4	8.4		172	57	56	280	145	150		0.7	0.80
2	0.374	0.601	14.0	60,000	0.66	19	1330		7.4	8.4		174	59	57	268	147	148		0.8	0.79
3	0.508	0.795	16.0	60,000	0.49	25	1545		7.4	8.4		168	59	54	272	153	142		0.8	0.79
4	0.404	0.690	18.0	60,000	0.40	21	1405		7.4	8.6		170	57	53	270	147	149		0.8	0.82
5	0.452	0.695	14.5	60,000	0.54	22	1505		7.4	8.4		168	61	56	266	155	155		0.8	0.84
6	0.371	0.618	14.5	60,000	0.70	19	1375		7.4	8.3		164	58	59	278	145	146		0.8	0.80
7	0.278	0.479	10.5	0	0.68	15	1178		7.4	8.3		162	58	57	272	151	152		0.8	0.77
8	0.362	0.551	13.5	60,000	0.63	17	1465		7.4	8.5		158	61	56	278	143	145		0.8	0.81
9	0.296	0.501	12.0	60,000	0.66	16	1385		7.4	8.5		156	58	55	270	143	140		0.8	0.86
10	0.360	0.581	12.5	48,000	0.70	18	1366		7.3	8.4		160	64	55	276	146	141		0.8	0.78
11	0.332	0.593	12.0	0	0.65	18	1292		7.2	8.4		164	59	51	270	146	143		0.8	0.78
12	0.388	0.627	13.5	60,000	0.42	19	1357		7.3	8.4		160	62	55	264	148	151		0.8	0.81
13	0.602	0.592	14.5	60,000	0.47	18	1454		7.3	8.4		156	59	55	260	146	150		0.8	0.80
14	0.715	0.525	13.0	60,000	0.57	16	1326		7.3	8.5		162	56	55	262	151	159		0.9	0.79
15	0.698	0.534	13.0	60,000	0.44	17	1347		7.3	8.4		162	58	58	260	154	145		0.8	0.80
16	0.787	0.589	14.0	60,000	0.39	18	1386		7.4	8.4		158	56	54	266	145	140		0.7	0.80
17	0.656	0.579	12.0	0	0.40	18	1338		7.4	8.4		158	61	56	265	153	150		0.7	0.82
18	0.795	0.616	15.5	60,000	0.61	18	1441		7.3	8.3		160	68	53	264	151	147		0.8	0.81
19	0.935	0.668	18.0	120,000	0.69	21	2160		7.3	8.3		178	66	54	260	149	145		0.9	0.81
20	0.836	0.634	14.5	60,000	0.55	26	1625		7.3	8.4		164	67	54	266	148	144		0.8	0.85
21	0.526	0.472	9.5	0	0.46	16	820		7.3	8.4		162	63	55	270	145	140		0.8	0.88
22	0.594	0.507	9.0	60,000	0.63	18	870		7.4	8.5		160	64	55	268	139	142		0.8	0.89
23	0.657	0.556	11.5	60,000	0.85	20	1418		7.3	8.4		162	66	56	270	145	139		0.9	0.90
24	0.694	0.616	13.0	48,000	0.56	19	1248		7.3	8.4		160	59	56	268	133	138		0.8	0.85
25	0.754	0.682	18.0	0	0.60	21	1706		7.3	8.6		162	66	54	270	143	135		0.8	0.88
26	0.808	0.756	18.5	120,000	0.63	23	1665		7.4	8.5		170	67	56	274	154	146		0.8	0.86
27	0.535	0.536	14.5	48,000	0.57	17	1392		7.3	8.4		172	68	56	278	150	138		0.8	0.85
28	0.452	0.487	10.0	0	0.63	15	960		7.4	8.6		168	64	52	238	144	140		0.7	0.83
29	0.462	0.496	11.0	60,000	0.59	15	1104		7.4	8.6		168	66	51	272	147	139		0.7	0.80
30	0.479	0.527	12.0	60,000	0.60	16	1080		7.4	8.5		170	62	50	278	149	140		0.8	0.80
31	0.560	0.623	14.0	60,000	0.51	19	1277		7.4	8.5		172	68	54	272	157	145		0.8	0.85
Total	17.009	18.249	418.5	1,584,000	18.10	576	42092	0	227.9	261.5	0.0	5100	1917	1698	8325	4572	4484	0.0	24.5	25.52
Avg	0.549	0.589	13.5	51,097	0.58	19	1358	0	7.4	8.4	0.0	165	62	55	269	147	145	0.0	0.8	0.82
Max	0.935	0.795	18.5	120,000	0.85															
Min	0.278	0.472	9.0	0	0.40															

N.C. DEPARTMENT OF HUMAN RESOURCES - - DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MARCH

Year: 1987

Total Number of Wells in System: 8

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

	Total Water Pumped		Hours	Bkwsh Water		Chlorine	Lime	Flouride	pH			Hardness (mg/l)			Alkalinity (mg/l)			Free Chlorine (mg/l)		Fluoride
Date	Raw (MGD)	Delivered (MGD)	Plant Oper	Used (Gals)	Turbidity (NTU)	Used (lbs)	Used (lbs)	Used (lbs)	Raw	Finish	Deliver	Raw	Softener	Deliver	Raw	Filter	Deliver	Resid Plant	Deliver	Deliver
1	0.798	1.246	16.0	0	0.45	9	919	18	7.6	8.7		188	65	70	187	70	68	0.9	0.9	0.74
2	0.720	1.170	15.0	35,100	0.45	8	828	17	7.6	8.8		180	64	66	188	63	68	1.4	1.0	0.74
3	0.638	1.003	15.0	35,100	0.50	7	734	15	7.7	8.8		162	62	72	186	58	68	1.3	1.1	0.79
4	0.917	1.019	10.0	35,100	1.01	9	1055	15	7.7	8.7		182	54	60	187	59	63	1.1	1.1	0.78
5	1.779	1.362	17.0	35,100	1.03	21	2045	10	7.7	9.0		176	59	62	180	54	61	1.4	1.1	0.30
6	2.558	1.548	24.0	598,000	0.52	28	2943	28	7.6	8.9		156	59	59	146	57	56	1.3	1.3	0.58
7	2.018	1.571	19.0	364,000	1.25	20	2321	27	7.9	8.9		140	64	61	142	67	61	1.2	1.2	0.89
8	1.859	1.559	16.5	295,750	1.40	20	2138	28	7.9	8.9		140	58	60	134	58	57	1.3	1.2	0.95
9	1.934	1.636	16.5	117,000	0.63	19	2224	35	7.9	8.8		144	60	58	145	58	58	1.2	1.2	0.96
10	2.469	1.499	18.5	245,700	0.38	25	2839	47	7.7	8.9		140	61	60	150	55	55	1.2	1.2	1.01
11	1.487	1.563	18.0	140,400	0.29	17	1710	28	7.8	8.9		140	59	58	142	53	53	1.4	1.2	0.98
12	1.731	1.469	17.0	140,400	0.35	17	1990	29	7.7	8.8		140	57	59	142	56	58	1.3	1.2	0.88
13	1.433	1.517	14.0	35,100	0.37	14	1648	25	8.0	8.8		152	61	59	150	60	57	1.2	1.1	0.93
14	1.790	1.546	17.0	105,300	0.38	18	2058	32	7.6	8.7		150	59	60	150	58	59	1.2	1.1	0.95
15	2.122	1.777	15.0	70,200	0.29	23	2440	23	7.6	8.8		150	57	59	150	54	57	1.3	1.1	0.39
16	1.869	1.819	18.0	105,300	0.29	20	2149	20	7.7	8.7		148	59	59	153	55	56	1.3	1.2	0.58
17	1.921	1.946	19.0	89,600	0.40	17	2209	32	7.7	8.8		148	57	58	152	57	54	1.1	1.1	0.88
18	2.395	1.884	24.0	145,600	0.31	26	2754	18	7.5	8.7		148	62	60	140	63	58	1.3	1.2	0.88
19	2.821	1.856	19.0	100,800	0.34	33	3244	15	7.6	8.8		142	60	64	142	58	59	1.5	1.4	0.99
20	2.162	1.931	19.0	106,400	0.32	27	2486	40	7.5	8.7		148	60	64	143	59	61	1.5	1.3	0.97
21	2.558	1.946	17.0	56,000	0.24	30	2942	33	7.5	8.6		148	64	65	142	62	64	1.4	1.3	0.89
22	2.117	1.961	19.0	100,800	0.28	25	2435	36	7.6	8.6		152	59	63	148	60	60	1.4	1.3	0.95
23	2.098	2.062	24.0	78,400	0.22	23	2412	40	7.7	8.7		154	62	60	146	59	59	1.3	1.2	1.00
24	1.685	2.026	18.0	105,300	0.27	15	1939	32	7.6	8.7		152	62	64	142	64	63	1.1	1.2	0.98
25	2.055	1.716	19.0	105,300	0.18	17	2363	38	7.6	8.7		142	64	58	140	62	63	1.0	1.3	0.97
26	1.762	1.886	18.0	70,200	0.29	16	2026	31	7.6	8.6		150	52	60	160	53	62	1.0	1.1	0.91
27	1.631	1.662	17.0	70,200	0.26	18	1911	30	7.7	8.7		156	56	54	154	53	54	1.3	1.2	0.93
28	1.601	1.470	11.0	105,300	0.28	20	1841	26	7.5	8.8		158	60	61	145	56	53	1.3	1.4	0.93
29	1.781	1.912	20.0	105,300	0.23	19	2048	29	7.5	8.8		144	63	61	142	63	59	1.3	1.3	0.88
30	1.550	1.702	18.0	105,300	0.26	18	1783	28	7.6	8.7		144	59	59	140	58	59	1.4	1.3	0.87
31	1.796	1.687	20.0	358,400	0.35	22	2065	30	7.6	8.7		142	58	60	150	58	59	1.5	1.5	0.92
Total	56.055	50.951	548.5	4,060,450	13.82	601	64499	854	237.5	271.7	0.0	4716	1856	1893	4718	1820	1842	39.4	37.3	26.40
Avg	1.808	1.644	17.7	130,982	0.45	19	2081	28	7.7	8.8	0.0	152	60	61	152	59	59	1.3	1.2	0.85
Max	2.821	2.062	24.0	598,000	1.40															
Min	0.638	1.003	10.0	0	0.18															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MARCH

Year: 1987

Total Number of Wells in System: 4

PUBLIC WATER SYSTEM FOR: Rifle Range Water Plant

PWSID: 04-67-046

Date	Total Water Pumped Raw (MGD)	Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.232	0.173	15.0	8,200		5	50					176	52	53				1.1	1.0	
2	0.232	0.179	14.0	8,200		5	50					178	52	54				1.1	1.0	
3	0.211	0.175	15.0	8,200		5	50					180	52	53				1.1	0.9	
4	0.229	0.173	12.0	8,200		5	50					178	53	53				1.1	1.2	
5	0.229	0.179	13.0	8,200		5	50					180	54	52				1.1	1.0	
6	0.255	0.201	15.0	8,200		5	50					178	52	56				1.1	1.0	
7	0.201	0.162	13.0	8,200		5	50					178	52	54				1.2	1.0	
8	0.210	0.156	14.0	8,200		6	50					180	54	54				1.2	1.2	
9	0.277	0.194	17.0	10,400		5	50					178	50	52				1.1	1.2	
10	0.203	0.189	11.0	8,200		6	50					178	50	52				1.0	1.1	
11	0.268	0.183	12.0	8,200		5	50					180	50	52				1.0	1.1	
12	0.241	0.193	13.0	8,200		5	50					180	48	52				1.0	1.1	
13	0.205	0.168	14.0	8,200		5	50					178	52	50				0.8	0.9	
14	0.259	0.191	15.0	8,200		5	50					180	52	50				1.0	1.1	
15	0.252	0.205	14.0	8,200		5	50					180	50	52				1.1	1.0	
16	0.239	0.262	14.0	8,200		6	50					176	50	52				1.2	1.1	
17	0.209	0.214	15.0	8,200		6	50					178	50	54				1.1	1.0	
18	0.287	0.191	14.0	8,200		5	50					178	50	54				1.1	1.2	
19	0.218	0.221	13.0	8,200		5	50					180	50	54				1.1	1.2	
20	0.272	0.194	13.0	8,200		5	50					180	52	54				1.0	1.1	
21	0.247	0.169	14.0	8,200		6	50					178	52	54				1.0	1.1	
22	0.222	0.158	14.0	8,200		5	50					180	53	54				1.1	1.1	
23	0.231	0.186	13.0	8,200		5	50					176	52	54				1.1	1.0	
24	0.246	0.205	15.0	8,200		5	50					178	50	52				1.0	1.1	
25	0.276	0.201	14.0	8,200		5	50					180	52	54				1.1	1.0	
26	0.332	0.253	16.0	8,200		5	50					178	50	54				1.1	1.0	
27	0.330	0.265	17.0	8,200		6	50					178	50	56				1.2	1.1	
28	0.365	0.297	17.0	8,200		6	50					176	52	54				1.1	1.0	
29	0.279	0.234	17.0	8,200		6	50					178	54	54				1.1	1.0	
30	0.390	0.273	20.0	10,400		7	50					180	52	56				1.1	1.0	
31	0.346	0.260	17.0	8,200		8	50					178	52	54				1.1	1.0	
Total	7.993	6.304	450.0	258,600	0.00	168	1550	0	0.0	0.0	0.0	5534	1594	1653	0	0	0	33.5	32.8	0.00
Avg	0.258	0.203	14.5	8,342	0.00	5	50	0	0.0	0.0	0.0	179	51	53	0	0	0	1.1	1.1	0.00
Max	0.390	0.297	20.0	10,400	0.00															
Min	0.201	0.156	11.0	8,200	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MARCH

Year: 1987

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	BKWSM Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.511	0.440	12.0	33,000		12	50					180	54	52				1.0	1.0	
2	0.576	0.476	14.0	30,000		16	50					180	52	50				1.2	1.2	
3	0.661	0.570	17.0	30,800		20	50					182	54	52				1.5	1.4	
4	0.535	0.409	14.0	35,200		12	50					180	56	56				1.5	1.5	
5	0.445	0.396	12.0	33,000		14	50					184	58	58				1.4	1.4	
6	0.590	0.481	15.0	35,200		13	50					178	56	56				1.0	1.0	
7	0.445	0.401	10.0	30,800		10	50					176	52	52				1.2	1.2	
8	0.616	0.553	17.0	33,000		12	50					160	50	50				1.2	0.9	
9	0.600	0.480	16.0	33,000		10	50					178	50	50				1.2	1.2	
10	0.569	0.471	14.0	35,200		20	50					180	52	52				1.4	1.4	
11	0.450	0.412	12.0	35,200		15	50					175	50	52				1.1	1.1	
12	0.412	0.450	12.0	35,200		15	50					175	50	52				1.1	1.1	
13	0.480	0.582	14.0	33,000		15	0					180	48	50				1.1	1.1	
14	0.403	0.499	12.0	30,800		15	50					182	50	56				1.1	1.1	
15	0.371	0.413	10.0	33,000		10	50					180	52	54				1.1	1.0	
16	0.371	0.434	10.0	30,800		10	50					178	50	52				1.1	1.0	
17	0.452	0.397	12.0	30,800		19	50					180	50	50				1.2	1.1	
18	0.564	0.407	14.0	35,200		11	50					180	52	50				1.4	1.5	
19	0.530	0.491	14.0	30,800		20	50					182	50	50				1.4	1.3	
20	0.534	0.397	14.0	35,200		12	50					180	52	54				1.3	1.2	
21	0.542	0.485	14.0	35,200		15	50					180	54	54				1.3	1.2	
22	0.494	0.410	12.0	30,800		12	50					182	54	52				1.4	1.2	
23	0.482	0.417	13.0	30,800		13	50					180	50	52				1.3	1.2	
24	0.658	0.524	16.0	33,000		18	50					186	50	50				1.2	1.2	
25	0.471	0.396	12.0	30,800		13	50					180	54	52				1.6	1.0	
26	0.591	0.561	14.0	30,800		18	50					180	52	50				1.1	1.2	
27	0.502	0.636	17.0	30,800		13	50					186	50	50				1.0	1.0	
28	0.526	0.460	14.0	30,800		15	50					180	50	50				1.0	1.0	
29	0.418	0.485	13.0	33,000		12	50					170	50	48				1.2	1.2	
30	0.680	0.583	18.0	35,200		18	50					160	50	50				1.3	1.3	
31	0.469	0.415	16.0	30,800		14	50					170	52	52				1.2	1.2	
Total	15.948	14.531	424.0	1,011,200	0.00	442	1500	0	0.0	0.0	0.0	5524	1604	1608	0	0	0	38.1	36.4	0.00
Avg	0.514	0.469	13.7	32,619	0.00	14	48	0	0.0	0.0	0.0	178	52	52	0	0	0	1.2	1.2	0.00
Max	0.680	0.636	18.0	35,200	0.00															
Min	0.371	0.396	10.0	30,000	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MARCH

Year: 1987

Total Number of Wells in System: 2

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant

PWSID: 04-67-048

Date	Total Water Pumped Raw (MGD)	Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.153	0.084	11.0	9,000		3						180	48	50				1.3	1.1	
2	0.133	0.101	10.0	9,000		5						178	48	50				1.3	1.1	
3	0.149	0.083	10.0	7,000		4						180	48	55				1.3	0.9	
4	0.114	0.092	9.0	7,000		3						180	44	52				1.2	0.9	
5	0.155	0.090	11.0	6,000		2						178	74	55				1.5	1.0	
6	0.136	0.086	10.0	6,000		2						180	54	50				1.1	1.1	
7	0.136	0.085	10.0	6,000		3						176	54	50				1.2	1.1	
8	0.146	0.095	11.0	7,000		5						178	46	56				1.0	1.1	
9	0.125	0.096	10.0	6,000		4						178	56	55				1.5	1.1	
10	0.134	0.091	10.0	7,000		3						178	50	59				0.9	1.1	
11	0.147	0.094	9.0	6,000		3						176	50	56				1.1	1.2	
12	0.100	0.102	10.0	6,000		5						178	50	56				1.1	1.2	
13	0.088	0.137	9.0	7,000		2						174	52	56				1.6	1.5	
14	0.096	0.127	9.0	7,000		3						172	50	54				1.7	1.3	
15	0.092	0.108	8.0	5,000		5						176	50	52				1.5	1.3	
16	0.101	0.163	11.0	7,000		6						174	50	50				1.2	1.2	
17	0.127	0.093	9.0	5,000		4						176	50	48				1.2	1.1	
18	0.102	0.081	9.0	7,000		3						178	52	52				1.8	1.4	
19	0.086	0.087	10.0	7,000		2						180	60	68				1.2	1.1	
20	0.086	0.081	6.0	5,000		3						176	64	70				1.3	1.2	
21	0.070	0.082	5.0	6,000		3						184	60	68				1.2	1.1	
22	0.115	0.086	9.0	5,000		2						182	66	73				1.3	1.1	
23	0.098	0.073	7.0	5,000		2						180	56	64				1.2	1.2	
24	0.090	0.083	7.0	6,000		2						178	51	62				1.8	1.2	
25	0.074	0.080	6.0	5,000		3						178	52	58				1.6	1.2	
26	0.082	0.120	9.0	5,000		2						182	54	56				1.5	1.1	
27	0.092	0.099	8.0	5,000		2						180	48	50				1.3	1.1	
28	0.096	0.096	9.0	7,000		4						180	50	60				1.5	1.2	
29	0.101	0.090	8.0	7,000		3						180	50	54				1.4	1.3	
30	0.129	0.097	8.0	9,000		3						182	50	52				1.4	1.2	
31	0.106	0.090	8.0	7,000		4						182	48	53				2.0	1.4	
Total	3.459	2.972	276.0	199,000	0.00	100	0	0	0.0	0.0	0.0	5534	1635	1744	0	0	0	42.2	36.1	0.00
Avg	0.112	0.096	8.9	6,419	0.00	3	0	0	0.0	0.0	0.0	179	53	56	0	0	0	1.4	1.2	0.00
Max	0.155	0.163	11.0	9,000	0.00															
Min	0.070	0.073	5.0	5,000	0.00															

5000
MAIN

Water Supply Branch
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities for the month of May 1987 are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer: B. Frazelle, W/WW, X5988
Typist:SP. Kolde, 3 Jun 87

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Written: B. Fuzzelle, W/6, X5598
Typist: P. Kolde, 2 Gun 07

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MAY

Year: 1987

Total Number of Wells in System: 39

PUBLIC WATER SYSTEM FOR: Hadnot Pt. Water Plant

PWSID: 0467-041-A

	Total Water Pumped		Hours	Bkwsh Water		Chlorine	Lime	Flouride	pH			Hardness (mg/l)			Alkalinity (mg/l)			Free Chlorine (mg/l)		Fluoride
e	Raw (MGD)	Delivered (MGD)	Plant Oper	Used (Gals)	Turbidity (NTU)	Used (lbs)	Used (lbs)	Used (lbs)	Raw	Finish	Deliver	Raw	Softener	Deliver	Raw	Filter	Deliver	Resid Plant	Deliver	Deliver
1	3.636	3.305	24.0	79,800	0.27	45	4063	77	7.2	8.5		172	59	63	158	56	58	1.1	1.0	1.11
2	3.161	2.913	24.0	39,900	0.23	40	3812	60	7.2	8.6		170	60	62	158	57	58	1.1	1.0	0.98
3	2.964	2.826	24.0	79,800	0.27	40	2935	56	7.2	8.6		172	58	60	158	54	56	1.0	1.0	0.99
4	3.412	3.073	24.0	0	0.28	50	3485	66	7.2	8.6		174	58	58	158	56	56	1.1	1.0	1.01
5	3.725	3.120	24.0	119,700	0.25	56	3726	73	7.2	8.2		172	65	60	158	56	57	1.0	1.0	1.03
6	3.098	3.179	24.0	0	0.22	63	3679	59	7.4	8.3		174	60	60	156	54	56	1.1	1.0	1.01
7	3.699	3.278	24.0	119,700	0.27	60	3438	67	7.4	8.5		172	60	60	154	56	56	1.1	1.0	0.96
8	3.502	3.550	24.0	0	0.22	39	3354	67	7.6	8.6		174	58	60	156	56	56	1.1	1.0	1.01
9	3.035	2.794	24.0	79,800	0.21	42	2538	59	7.6	8.5		152	60	60	154	58	60	1.1	1.0	1.00
0	3.056	2.880	24.0	0	0.20	35	3098	59	7.6	8.6		174	60	60	154	54	54	1.1	1.0	1.00
1	3.412	3.412	24.0	79,800	0.21	43	3468	56	7.4	8.5		176	60	60	154	56	50	1.1	1.0	0.96
2	4.054	3.198	24.0	79,800	0.20	45	3492	57	7.6	8.6		174	60	60	154	56	54	1.1	1.0	0.99
3	3.632	3.365	24.0	39,900	0.19	70	3769	69	7.2	8.5		182	61	63	158	50	57	1.0	0.9	0.99
4	3.345	3.097	24.0	79,800	0.16	60	3720	60	7.3	8.4		174	60	64	158	55	57	1.0	1.0	1.01
5	3.552	3.135	24.0	39,900	0.16	55	3723	70	7.2	8.5		178	58	61	160	50	54	1.1	1.0	1.03
6	2.396	2.914	24.0	79,880	0.19	60	3678	65	7.2	8.4		174	60	60	158	54	54	1.0	0.9	1.01
7	2.600	2.410	24.0	39,900	0.32	65	2453	51	7.2	8.4		170	62	62	180	60	56	1.0	1.0	1.03
8	3.564	3.311	24.0	39,900	0.22	61	3862	65	7.2	8.4		156	60	60	172	60	54	1.1	1.0	0.75
9	4.048	3.547	24.0	79,800	0.28	57	3796	61	7.2	8.4		174	60	61	158	55	58	1.0	1.0	0.80
0	3.883	3.341	24.0	39,900	0.17	45	3693	56	7.2	8.4		170	60	62	156	56	56	1.1	1.0	0.76
1	3.546	3.504	24.0	79,900	0.17	50	3519	80	7.2	8.4		172	60	62	160	52	56	1.1	1.0	1.12
2	3.663	3.293	24.0	39,900	0.13	35	3129	71	7.2	8.4		170	60	62	162	60	58	1.0	1.0	1.02
3	2.702	3.357	24.0	79,800	0.18	45	3003	62	7.4	8.4		174	61	63	158	59	56	1.1	1.0	0.97
4	2.765	2.734	24.0	39,900	0.21	30	2850	60	7.4	8.4		174	60	64	162	59	60	1.0	1.0	1.15
5	2.923	2.890	24.0	39,900	0.17	36	2943	61	7.2	8.4		172	60	62	162	56	60	1.1	1.1	1.06
6	3.560	3.261	24.0	39,900	0.17	76	2062	75	7.4	8.1		174	80	70	164	89	64	0.9	0.9	1.10
7	3.766	3.502	24.0	79,000	0.13	50	2197	78	7.2	7.6		178	71	98	164	104	131	1.2	1.1	1.02
8	3.724	3.539	24.0	39,900	0.13	55	3359	61	7.2	8.1		178	59	77	162	52	75	1.1	1.0	0.85
9	3.754	3.660	24.0	79,800	0.20	55	3374	65	7.2	8.4		174	60	64	160	54	62	1.1	1.0	0.90
0	3.783	3.239	24.0	39,900	0.14	55	3364	97	7.2	8.4		172	60	64	162	54	60	1.1	1.1	1.34
1	3.471	3.177	24.0	79,800	0.19	55	3510	69	7.2	8.4		174	60	62	160	55	60	1.1	1.0	1.04
tal	101.960	95.627	744.0	1,675,180	6.15	1518	99582	1963	*****	252.1	0.0	5172	1830	1902	4788	1748	1799	32.0	30.0	29.96
vg	3.289	3.085	24.0	54,038	0.20	49	3212	63	7.1	8.1	0.0	167	59	61	154	56	58	1.0	1.0	0.97
ax	4.054	3.660	24.0	119,700	0.32															
in	0.000	0.000	24.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MAY

Year: 1987

Total Number of Wells in System: 25

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water Plant

PWSID: 04-67-042

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	BKWSH Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.497	0.551	14.0	0	0.42	17	1136		7.4	8.4		172	68	56	268	117	103		0.8	0.80
2	0.510	0.541	14.0	120,000	0.52	17	1678		7.4	8.3		168	74	57	264	120	114		0.7	0.80
3	0.601	0.656	15.0	0	0.34	20	1363		7.4	8.3		172	72	60	264	125	125		0.8	0.82
4	0.518	0.562	15.0	60,000	0.54	17	1498		7.2	8.4		180	69	57	250	122	126		0.8	0.75
5	0.653	0.640	16.0	60,000	0.36	19	1375		7.4	8.4		188	75	55	254	120	120		0.8	0.76
6	0.599	0.601	19.0	60,000	0.81	19	1669		7.4	8.4		180	72	60	248	119	117		0.8	0.78
7	0.438	0.519	17.0	60,000	0.55	16	1364		7.4	8.4		180	70	61	240	134	127		0.8	0.86
8	0.538	0.548	14.0	60,000	0.59	17	1285		7.3	8.3		182	72	57	247	130	124		0.8	0.84
9	0.521	0.504	15.0	60,000	0.58	16	1357		7.4	8.4		180	69	55	245	132	128		0.7	0.83
10	0.516	0.520	14.0	60,000	0.50	16	1171		7.4	8.4		180	68	54	250	134	121		0.7	0.80
11	0.643	0.652	19.0	60,000	0.32	29	1901		7.4	8.4		180	68	54	280	129	126		0.8	0.79
12	0.529	0.559	17.0	60,000	0.62	17	1479		7.4	8.5		185	66	56	255	119	111		0.8	0.83
13	0.572	0.595	16.0	60,000	0.33	18	1526		7.4	8.6		186	59	52	260	118	107		0.9	0.76
14	0.588	0.612	17.0	60,000	0.51	25	1466		7.5	8.5		192	69	61	256	125	118		0.9	0.75
15	0.546	0.567	17.0	120,000	0.53	18	1580		7.8	8.6		184	68	56	250	120	119		0.9	0.78
16	0.524	0.542	14.5	0	0.34	17	1436		7.5	8.7		203	79	60	251	130	125		0.8	0.85
17	0.628	0.636	17.5	60,000	0.55	20	1648		7.5	8.5		182	84	57	258	128	144		0.8	0.80
18	0.616	0.640	17.0	60,000	0.63	20	1566		7.5	8.6		184	68	56	262	132	126		0.8	0.80
19	0.650	0.717	17.5	60,000	0.32	19	1575		7.5	8.5		182	66	54	264	116	117		0.8	0.79
20	0.549	0.559	15.0	60,000	0.50	17	1350		7.5	8.4		184	67	56	260	126	125		0.8	0.80
21	0.495	0.507	14.5	60,000	0.77	16	1305		7.3	8.3		182	63	58	258	134	118		0.8	0.81
22	0.540	0.542	15.5	60,000	0.51	17	1395		7.3	8.4		190	64	55	256	111	112		0.8	0.79
23	0.499	0.481	15.5	60,000	0.46	15	1485		7.4	8.7		178	63	54	256	116	110		0.8	0.77
24	0.489	0.486	13.5	60,000	0.57	15	1215		7.4	8.6		190	65	57	257	110	115		0.8	0.78
25	0.508	0.513	15.0	60,000	0.58	16	1365		7.4	8.6		192	65	55	252	104	109		0.8	0.75
26	0.555	0.588	17.5	0	0.38	18	1583		7.5	8.6		182	61	55	262	114	112		0.8	0.79
27	0.527	0.549	13.0	60,000	0.46	17	1433		7.5	8.6		184	66	55	258	114	112		0.7	0.83
28	0.722	0.689	18.5	120,000	0.50	21	1971		7.6	8.6		198	65	60	250	114	116		0.7	0.89
29	0.620	0.583	16.5	60,000	0.58	18	1648		7.5	8.5		190	63	60	266	113	114		0.9	0.78
30	0.690	0.575	17.5	120,000	0.60	18	1558		7.5	8.5		186	68	54	250	114	116		0.9	0.80
31	0.598	0.593	16.0	0	0.59	18	1835		7.6	8.6		188	66	54	256	108	106		0.8	0.78
Total	17.479	17.827	493.5	1,800,000	16.06	563	46236	0	xxxxx	263.0	0.0	3704	2112	1751	7947	3748	3663	0.0	24.5	24.76
Avg	0.564	0.575	15.9	58,065	0.52	18	1491	0	7.4	8.5	0.0	184	68	56	256	121	118	0.0	0.8	0.80
Max	0.722	0.717	19.0	120,000	0.81															
Min	0.438	0.481	13.0	0	0.32															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MAY

Year: 1987

Total Number of Wells in System: 4

PUBLIC WATER SYSTEM FOR: Rifle Range

PWSID: 04-67-047

Date	Total Water Pumped Raw (MGD)	Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.270	0.185	13.0	6,400		5	50					176	50	54				1.0	1.1	
2	0.255	0.189	13.0	10,200		5	50					178	52	50				1.1	1.0	
3	0.201	0.166	15.0	8,200		5	50					176	52	54				1.1	1.0	
4	0.268	0.191	14.0	8,200		5	50					178	52	54				1.1	1.2	
5	0.252	0.192	14.0	8,200		5	50					180	50	52				1.1	1.2	
6	0.298	0.214	13.0	8,200		5	50					174	50	54				1.1	1.2	
7	0.288	0.222	14.0	8,200		5	50					176	50	52				1.1	1.3	
8	0.380	0.254	16.0	8,200		7	50					178	50	50				1.0	1.1	
9	0.222	0.170	13.0	8,200		4	0					176	50	50				1.1	1.0	
10	0.267	0.183	14.0	8,200		6	0					176	50	50				1.1	1.0	
11	0.263	0.192	12.0	10,400		6	0					178	52	54				1.2	1.0	
12	0.276	0.203	15.0	8,200		6	50					182	50	52				1.1	1.0	
13	0.280	0.205	11.0	6,400		5	50					184	50	52				1.1	1.0	
14	0.250	0.192	13.0	6,400		5	50					182	50	52				1.1	1.0	
15	0.234	0.156	14.0	8,200		5	50					184	50	52				1.1	1.0	
16	0.260	0.183	9.0	8,200		6	50					184	50	50				1.2	1.1	
17	0.283	0.189	12.0	8,200		6	50					182	52	50				1.0	1.1	
18	0.230	0.196	11.0	8,200		5	50					182	50	50				1.1	1.1	
19	0.313	0.220	14.0	8,200		6	50					180	50	50				1.1	1.0	
20	0.261	0.177	12.0	8,200		4	50					182	50	50				1.1	1.0	
21	0.258	0.198	13.0	8,200		6	50					180	50	50				1.1	1.0	
22	0.192	0.145	10.0	8,200		3	50					180	50	50				1.1	1.0	
23	0.239	0.168	13.0	8,200		4	50					180	50	50				1.1	1.0	
24	0.214	0.159	10.0	8,200		3	50					180	50	50				1.1	1.0	
25	0.206	0.144	12.0	8,200		6	50					182	50	52				1.1	1.0	
26	0.211	0.157	11.0	8,200		5	50					180	50	52				1.1	1.0	
27	0.225	0.174	12.0	8,200		5	50					182	50	52				1.1	1.0	
28	0.195	0.181	9.0	8,200		5	50					180	53	54				1.1	1.0	
29	0.258	0.176	14.0	8,200		5	50					178	50	50				1.1	1.1	
30	0.204	0.155	15.0	8,200		5	50					180	50	50				1.1	1.1	
31	0.287	0.177	13.0	8,200		5	50					182	50	52				1.0	1.1	
													0							
Total	7.840	5.713	394.0	253,000	0.00	158	1400	0	0.0	0.0	0.0	5572	0	1594	0	0	0	33.9	32.7	0.00
Avg	0.253	0.184	12.7	8,161	0.00	5	45	0	0.0	0.0	0.0	180	50	51	0	0	0	1.1	1.1	0.00
Max	0.380	0.254	16.0	10,400	0.00															
Min	0.192	0.144	9.0	6,400	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MAY

Year: 1987

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.546	0.500	16.0	35,200		20	50					140	50	50				1.7	1.6	
2	0.449	0.449	12.0	35,200		18	50					170	49	50				1.5	1.5	
3	0.498	0.448	14.0	33,000		17	50					168	48	50				1.4	1.4	
4	0.610	0.547	15.0	33,000		21	50					140	48	48				1.5	1.5	
5	0.424	0.395	12.0	33,000		17	50					168	48	48				1.5	1.5	
6	0.410	0.362	12.0	35,200		14	50					165	46	46				1.4	1.4	
7	0.560	0.535	15.0	33,000		15	50					162	44	44				1.4	1.4	
8	0.534	0.468	14.0	33,000		10	50					164	48	48				1.4	1.3	
9	0.402	0.370	10.0	35,200		10	50					160	46	48				1.3	1.3	
10	0.420	0.370	10.0	33,000		10	50					165	48	50				1.3	1.2	
11	0.486	0.521	15.0	33,000		13	50					160	48	48				1.2	1.2	
12	0.465	0.419	11.0	33,000		13	50					168	48	48				1.4	1.2	
13	0.458	0.403	12.0	28,600		10	50					168	46	46				1.4	1.3	
14	0.592	0.506	16.0	35,200		20	50					160	48	46				1.5	1.4	
15	0.428	0.355	10.0	32,200		11	50					168	48	46				1.5	1.4	
16	0.414	0.358	11.0	30,800		9	50					172	46	48				1.4	1.3	
17	0.437	0.374	10.0	30,800		11	50					168	46	48				1.4	1.3	
18	0.532	0.472	13.0	33,000		17	50					170	47	47				1.4	1.3	
19	0.465	0.401	12.0	28,600		11	50					180	48	48				1.2	1.2	
20	0.591	0.511	15.0	30,800		13	50					166	48	48				1.2	1.2	
21	0.506	0.415	12.0	33,000		15	50					170	48	48				1.2	1.2	
22	0.466	0.382	11.0	33,000		14	50					140	46	46				1.4	1.4	
23	0.546	0.445	14.0	36,800		16	50					130	46	46				1.5	1.5	
24	0.432	0.355	9.0	33,000		12	50					140	46	46				1.5	1.5	
25	0.446	0.376	10.0	30,800		10	50					150	46	46				1.5	1.5	
26	0.455	0.395	12.0	33,000		8	50					146	48	48				1.3	1.3	
27	0.467	0.406	14.0	33,000		15	50					150	48	50				1.2	1.2	
28	0.641	0.577	19.0	35,200		12	50					150	50	50				1.2	1.2	
29	0.661	0.431	18.0	35,200		14	50					154	50	50				1.4	1.3	
30	0.485	0.395	14.0	33,000		10	50					152	50	50				1.4	1.4	
31	0.382	0.357	12.0	35,200		12	50					148	50	50				1.2	1.3	
Total	15.208	13.298	400.0	1,026,000	0.00	418	1550	0	0.0	0.0	0.0	4912	1476	1485	0	0	0	42.8	41.7	0.00
Avg	0.491	0.429	12.9	33,097	0.00	13	50	0	0.0	0.0	0.0	158	48	48	0	0	0	1.4	1.3	0.00
Max	0.661	0.577	19.0	36,800	0.00															
Min	0.382	0.355	9.0	28,600	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MAY

Year: 1987

Total Number of Wells in System: 2

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant

PWSID: 04-67-048

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.136	0.091	11.0	7,000		6						180	50	50				1.7	1.8	
2	0.098	0.085	6.0	5,000		4						170	50	50				1.7	1.7	
3	0.107	0.071	8.0	5,000		3						180	50	50				1.5	1.5	
4	0.116	0.088	8.0	5,000		3						184	48	50				1.4	1.5	
5	0.131	0.081	9.0	5,000		4						180	55	56				1.5	1.5	
6	0.112	0.086	8.0	5,000		2						180	50	54				1.0	1.6	
7	0.105	0.076	8.0	5,000		3						182	49	53				1.7	1.0	
8	0.128	0.086	9.0	5,000		3						176	50	64				1.4	1.0	
9	0.099	0.081	8.0	5,000		4						170	60	56				1.2	1.1	
10	0.117	0.084	9.0	7,000		5						164	56	56				1.6	1.2	
11	0.149	0.089	10.0	7,000		3						170	50	50				1.3	1.2	
12	0.087	0.084	6.0	5,000		3						170	50	50				1.5	1.5	
13	0.131	0.093	10.0	5,000		3						168	50	52				1.7	1.5	
14	0.105	0.082	8.0	7,000		3						170	50	52				1.8	1.5	
15	0.103	0.081	8.0	7,000		3						176	50	50				1.8	1.5	
16	0.112	0.082	7.0	7,000		2						180	50	48				1.7	1.5	
17	0.113	0.087	8.0	5,000		3						178	50	48				1.8	1.4	
18	0.106	0.087	7.0	5,000		2						186	50	51				1.7	1.4	
19	0.101	0.076	6.0	5,000		3						186	50	52				1.6	1.5	
20	0.099	0.082	6.0	7,000		2						180	50	50				1.6	1.5	
21	0.130	0.100	9.0	7,000		3						180	48	50				1.3	1.1	
22	0.117	0.087	9.0	5,000		4						182	48	50				1.3	1.1	
23	0.102	0.082	9.0	12,000		3						182	50	56				1.5	1.3	
24	0.133	0.085	10.0	7,000		3						182	50	50				1.5	1.2	
25	0.140	0.088	9.0	7,000		3						182	50	50				1.5	0.7	
26	0.098	0.073	6.0	7,000		3						182	50	50				1.6	1.0	
27	0.102	0.078	7.0	7,000		3						156	54	52				1.0	0.9	
28	0.083	0.097	12.0	7,000		3						160	50	48				1.0	1.0	
29	0.115	0.082	8.0	9,000		4						150	52	50				1.2	1.5	
30	0.119	0.074	9.0	7,000		3						156	52	50				1.2	1.3	
31	0.176	0.092	12.0	7,000		3						150	50	50				1.2	1.4	
Total	3.570	2.610	260.0	196,000	0.00	99	0	0	0.0	0.0	0.0	5392	1572	1598	0	0	0.000	45.5	40.9	0.00
Avg	0.115	0.084	8.4	6,323	0.00	3	0	0	0.0	0.0	0.0	174	51	52	0	0	0.000	1.5	1.3	0.00
Max	0.176	0.100	12.0	12,000	0.00															
Min	0.083	0.071	6.0	5,000	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: MAY

Year: 1987

Total Number of Wells in System: 18

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	2.073	2.183	20.0	50,400	0.53	24	2150	41	7.5	8.7		146	64	61	145	62	61	1.4	1.3	0.98
2	1.957	2.372	18.0	162,000	0.49	23	2728	39	7.5	8.7		156	64	63	146	60	61	1.4	1.4	0.85
3	2.408	2.642	20.0	126,000	0.82	26	3038	42	7.7	8.8		152	63	63	147	55	58	1.3	1.3	0.84
4	2.232	2.204	20.0	187,200	0.67	22	2534	33	7.7	8.8		148	60	63	146	59	60	1.2	1.2	0.80
5	1.730	1.906	16.0	38,100	0.40	17	2191	35	7.7	8.8		154	59	60	146	58	56	1.2	1.1	0.98
6	1.885	2.226	18.0	114,300	0.37	20	2560	37	7.6	8.8		156	56	58	146	52	54	1.3	1.2	0.88
7	2.187	2.288	19.0	76,200	0.35	25	2515	39	7.5	8.9		150	59	58	149	54	53	1.4	1.3	0.95
8	2.221	2.173	18.0	330,400	0.32	25	2554	41	7.6	8.8		150	60	58	146	57	54	1.4	1.4	0.96
9	2.265	2.295	20.0	165,600	0.35	22	2604	43	7.7	8.7		144	59	60	147	56	54	1.2	1.2	1.01
10	2.178	2.554	20.0	76,000	0.34	23	2504	34	7.6	8.9		152	58	68	147	54	64	1.3	1.2	0.82
11	2.526	2.500	22.0	76,200	0.41	27	2904	42	7.6	8.7		148	59	59	150	57	55	1.3	1.3	0.86
12	2.614	2.219	22.0	39,900	0.53	26	3006	43	7.6	8.7		148	64	63	147	60	59	1.2	1.2	0.86
13	2.399	2.224	19.0	39,900	0.42	24	2758	40	7.7	8.8		156	63	64	149	60	61	1.2	1.1	0.93
14	2.513	2.362	19.0	162,000	0.39	25	2890	54	7.6	8.7		158	61	61	140	59	69	1.2	1.2	1.13
15	2.612	2.422	20.0	162,000	0.42	22	3004	50	7.7	8.7		156	63	65	143	60	61	1.1	1.1	1.00
16	2.401	2.322	19.0	119,700	0.35	22	2761	41	7.6	8.7		150	61	63	146	58	58	1.1	1.1	0.93
17	2.770	2.834	21.0	86,400	0.31	30	3186	62	7.6	8.8		152	61	63	146	59	60	1.3	1.1	1.15
18	3.473	3.085	24.0	187,200	0.27	33	3994	70	7.8	8.8		158	64	63	148	62	62	1.2	1.2	1.06
19	3.300	2.303	22.0	140,000	0.28	30	3795	71	7.5	8.7		160	66	64	152	60	62	1.1	1.1	1.14
20	2.300	2.014	15.0	70,200	0.45	23	2645	44	7.5	8.7		156	64	62	161	61	60	1.2	1.1	1.00
21	2.317	2.064	15.0	210,600	0.60	18	2480	33	7.6	8.9		148	67	64	151	63	63	1.2	1.2	0.75
22	2.323	2.230	16.0	70,200	0.66	23	2671	41	7.6	8.8		158	59	62	151	56	57	1.2	1.1	0.98
23	2.625	2.601	17.0	35,100	1.34	26	3019	47	7.7	8.9		154	57	59	148	54	55	1.2	1.1	0.95
24	2.816	2.997	19.0	76,200	0.69	28	3238	48	7.6	8.9		156	56	57	154	54	55	1.2	1.1	0.83
25	3.134	3.189	21.0	35,100	0.95	31	3604	17	7.5	8.8		156	56	56	147	55	54	1.2	1.2	0.28
26	3.304	2.571	21.0	90,000	0.76	33	3800	32	7.6	8.8		152	60	56	147	58	57	1.2	1.3	0.65
27	2.703	2.534	14.0	119,700	1.05	25	3108	43	7.7	8.8		146	58	61	152	55	58	1.1	1.1	0.83
28	3.339	2.962	17.0	147,600	1.27	38	3839	47	7.7	9.0		148	68	64	152	64	65	1.4	1.2	0.75
29	3.122	2.910	16.0	114,000	1.85	34	3347	51	7.6	8.3		156	85	78	157	66	63	1.3	1.3	0.91
30	3.666	3.360	16.0	239,400	0.45	37	3864	60	7.6	8.2		158	71	98	154	65	65	1.2	1.2	0.93
31	4.058	3.727	19.0	172,800	1.30	44	4286	56	7.5	8.6		158	76	69	160	71	64	1.3	1.2	0.96
Total	81.451	78.273	583.0	3,720,400	19.39	826	93577	1376	XXXXX	271.2	0.0	4740	1941	1963	4620	1824	1838	38.5	37.1	27.95
Avg	2.627	2.525	18.8	120,013	0.63	27	3019	44	7.6	8.7	0.0	153	63	63	149	59	59	1.2	1.2	0.90
Max	4.058	3.727	24.0	330,400	1.85															
Min	1.730	1.906	14.0	35,100	0.27															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month:

Year: 1987

Total Number of Wells in System: 18

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

Date	Total Raw (MSG)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	Remarks
1	4.640	3.567	20.0	360,000	1.50	50	5336	82	7.6		8.7	170	70	72	156	68	67	1.3	1.2	0.92	
2	4.206	3.704	19.0	342,900	0.81	46	4837	71	7.5		8.5	168	62	67	157	60	65	1.3	1.2	0.88	
3	4.861	3.889	22.0	228,600	0.84	53	5590	89	7.5		8.6	170	70	65	156	54	55	1.3	1.2	0.96	
4	3.295	2.268	15.0	152,400	0.45	36	3789	67	7.5		8.3	164	69	79	165	53	55	1.3	1.2	1.06	
5	2.650	2.424	11.0	228,600	0.83	31	3048	53	7.5		8.6	166	62	67	160	60	56	1.4	1.3	1.06	
6	3.299	2.867	16.0	120,650	0.54	38	3793	63	7.7		8.7	164	67	65	164	63	63	1.4	1.4	1.07	
7	3.851	3.881	17.0	254,000	0.36	41	4428	91	7.7		8.7	162	56	64	160	54	61	1.3	1.3	1.23	
8	3.886	3.420	18.0	114,300	0.32	38	4468	89	7.7		8.8	164	57	59	161	55	56	1.2	1.2	1.20	
9	3.668	3.569	17.0	79,800	0.42	37	4218	67	7.5		8.8	170	57	61	164	56	58	1.2	1.2	0.96	
10	3.582	3.205	19.0	147,600	0.95	35	4119	62	7.5		9.1	160	56	83	158	56	76	1.3	1.2	0.91	
11	3.674	3.292	19.0	118,000	0.71	39	4225	59	7.6		8.8	162	66	71	156	63	67	1.3	1.2	0.94	
12	3.290	3.139	17.0	108,000	0.38	41	3784	63	7.6		8.9	156	65	68	153	60	61	1.5	1.4	1.00	
13	2.619	2.642	14.0	104,400	0.36	28	3012	55	7.7		8.8	154	64	64	150	62	62	1.3	1.4	1.10	
14	2.540	2.392	14.0	72,000	0.66	27	2921	49	7.5		8.8	166	62	65	156	61	60	1.3	1.3	1.00	
15	2.443	2.369	12.0	0	0.34	24	2948	44	7.6		8.8	168	63	62	156	60	61	1.2	1.1	0.96	
16	2.993	2.577	17.0	180,000	0.34	30	3442	60	7.7		8.9	155	60	60	160	56	56	1.2	1.1	1.05	
17	2.788	2.906	16.0	38,000	0.31	28	3206	56	7.6		8.8	162	58	58	160	47	55	1.2	1.1	1.05	
18	2.882	2.764	17.0	152,000	0.45	29	3314	61	7.6		8.9	164	56	56	160	53	54	1.3	1.2	1.10	
19	2.491	2.697	13.0	114,000	0.58	27	2865	60	7.6		8.8	156	65	63	160	68	58	1.3	1.2	1.17	
20	2.597	2.690	14.0	114,000	0.37	28	2987	50	7.6		8.8	162	61	65	166	60	65	1.3	1.3	0.97	
21	2.736	2.585	17.0	72,000	0.32	32	3146	47	7.6		8.9	162	59	61	164	58	57	1.4	1.3	0.89	
22	2.608	2.752	17.0	114,000	0.25	30	2999	51	7.5		8.7	160	66	63	160	61	57	1.4	1.3	0.96	
23	2.727	2.694	19.0	152,400	0.83	34	3136	56	7.6		8.9	158	62	65	162	61	60	1.5	1.4	1.09	
24	2.351	2.806	19.0	72,000	1.18	25	2703	46	7.6		8.9	160	57	60	163	52	55	1.3	1.3	1.02	
25	2.416	2.889	18.0	79,200	0.41	24	2778	51	7.6		8.9	158	56	57	164	47	55	1.3	1.2	1.10	
26	2.440	2.815	20.0	114,000	0.50	28	2806	60	7.6		8.7	160	61	59	165	59	55	1.4	1.3	1.11	
27	2.020	1.971	16.0	61,200	0.33	24	2323	44	7.6		8.7	166	65	61	160	62	56	1.4	1.4	1.13	
28	2.484	3.126	18.0	72,000	0.44	27	2857	49	7.6		8.9	164	58	59	164	55	57	1.3	1.3	1.04	
29	2.824	3.197	19.0	79,200	0.46	33	3248	49	7.6		8.7	164	70	65	160	69	65	1.4	1.3	0.90	
30	2.505	3.370	16.0	72,000	0.51	29	2881	48	7.6		8.8	166	59	67	164	55	64	1.4	1.4	1.00	
31																					
Total	91.366	88.467	506.0	3,917,250	16.75	992	105207	1792	*****	0.0	263.2	4881	1859	1931	4804	1748	1792	39.7	37.9	30.83	
Avg	3.046	2.949	16.9	130,575	0.56	33	3507	60	7.6	0.0	8.8	163	62	64	160	58	60	1.3	1.3	1.03	
Max	4.861	3.889	22.0	360,000	1.50																
Min	0.000	0.000	0.0	0	0.00																

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

MONTH: REPORT OF OPERATION

YEAR: 1981

TOTAL NUMBER OF ACTIVE IN SYSTEM: 8

PUBLIC WATER SYSTEM NO: HO1C000 BIG ARTHUR DRIVE

DATE: 04-10-82

| DATE (MDD) | DEPARTED HOUR | ARRIVE HOUR | GRAIN WEIGHT | CHLORINE TIME | CHLORINE DOSE | RESIDUAL (MG/L) | | |

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: JUNE

Year: 1987

Total Number of Wells in System: 2

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant

PWSID: 04-67-048

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	Remarks
1	0.136	0.091	11.0	7,000		5						140	70	50				1.3	2.0		
2	0.118	0.075	12.0	9,000		3						168	68	70				1.6	1.4		
3	0.136	0.075	15.0	9,000		2						164	50	60				1.7	1.5		
4	0.116	0.214	8.0	5,000		4						156	50	56				1.9	1.5		Del. Telemeter d
5	0.105	0.088	8.0	7,000		3						150	50	54				1.6	1.4		x
6	0.117	0.086	8.0	5,000		3						160	50	50				1.5	1.4		
7	0.128	0.076	9.0	7,000		2						164	50	50				1.5	1.2		
8	0.109	0.090	9.0	7,000		4						160	50	52				1.5	1.2		
9	0.113	0.087	8.0	5,000		2						164	50	50				1.5	1.2		
10	0.138	0.081	10.0	5,000		2						160	48	50				1.7	1.1		
11	0.108	0.088	9.0	7,000		3						162	50	56				1.8	1.2		
12	0.110	0.075	8.0	5,000		4						160	52	54				1.7	1.2		
13	0.116	0.087	9.0	5,000		2						162	50	54				1.6	1.2		
14	0.080	0.083	6.0	7,000		3						160	52	54				1.6	1.2		
15	0.127	0.085	9.0	5,000		2						164	48	52				1.7	1.2		
16	0.126	0.076	9.0	7,000		4						162	50	54				1.5	1.0		
17	0.133	0.087	9.0	9,000		3						160	52	54				1.3	1.0		
18	0.122	0.083	9.0	7,000		4						160	48	50				2.0	1.0		
19	0.112	0.060	7.0	7,000		3						168	48	50				1.5	1.1		
20	0.101	0.050	7.0	7,000		3						168	50	53				1.2	1.2		
21	0.140	0.061	9.0	11,000		2						168	54	60				1.2	1.2		
22	0.112	0.057	7.5	7,000		5						168	57	55				1.5	1.1		
23	0.134	0.054	7.0	7,000		2						168	50	52				1.5	1.3		
24	0.116	0.064	8.0	7,000		2						150	54	50				1.4	2.0		
25	0.140	0.089	9.0	7,000		4						160	52	50				1.4	1.3		
26	0.094	0.059	7.0	7,000		2						168	52	50				1.3	1.3		
27	0.117	0.060	7.0	7,000		3						170	50	50				1.3	1.6		
28	0.155	0.062	11.0	7,000		3						168	50	50				1.1	1.6		
29	0.138	0.061	9.0	7,000		2						160	60	60				0.9	1.2		
30	0.130	0.063	10.0	7,000		2						168	60	60				1.0	0.8		
31																					
Total	3.627	2.367	264.5	206,000	0.00	88	0	0	0.0	0.0	0.0	4860	1575	1610	0	0	0	44.3	38.6	0.00	
Avg	0.121	0.079	8.8	6,867	0.00	3	0	0	0.0	0.0	0.0	162	53	54	0	0	0	1.5	1.3	0.00	
Max	0.155	0.214	15.0	11,000	0.00																
Min	0.000	0.000	0.0	0	0.00																

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICES

MONTH: REPORT OF OPERATION

YEAR: 1981

PWSID: 03-02-025 PUBLIC WATER SYSTEM NAME: CURRIE BEACH WATER PLANT

TOTAL NUMBER OF WELLS IN SYSTEM: 5

DATE (MOD)	(MOD)	DAYS	(GPGS)	(MIN)	(DS)	(DS)	(DS)	WQ	FINISH	DEVIATE	WQ	SULFURAL	DEVIATE	WQ	FINISH	DEVIATE	PLANT	DEVIATE	DEVIATE	REMARKS

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month:

Year: 1987

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	Remarks
1	0.579	0.498	17.0	28,600		15	50					180	50	50				1.4	1.4		
2	0.570	0.513	16.0	34,500		20	50					180	50	50				1.5	1.4		
3	0.550	0.436	13.0	35,000		10	50					178	48	50				1.4	1.3		
4	0.533	0.508	14.0	33,000		13	50					180	48	50				1.3	1.2		
5	0.515	0.386	13.0	32,500		17	50					180	48	50				1.3	1.3		
6	0.437	0.380	12.0	33,000		10	50					182	48	48				1.4	1.4		
7	0.468	0.319	15.0	33,000		15	50					180	50	50				1.4	1.4		
8	0.647	0.532	17.0	30,800		10	50					180	50	50				1.6	1.6		
9	0.499	0.442	12.0	30,800		30	50					180	50	50				1.5	1.5		
10	0.497	0.430	14.0	30,800		4	50					180	48	50				1.3	1.3		
11	0.619	0.530	17.0	35,200		20	50					180	48	48				1.2	1.0		
12	0.525	0.449	14.0	33,000		14	50					178	48	50				1.3	1.3		
13	0.618	0.562	17.0	35,200		14	50					180	48	50				1.2	1.3		
14	0.648	0.550	18.0	35,200		23	50					178	48	48				1.3	1.4		
15	0.626	0.536	17.0	33,000		18	50					178	48	50				1.6	1.5		
16	0.429	0.381	11.0	36,800		13	50					180	50	48				1.2	1.6		
17	0.613	0.551	17.0	35,200		19	50					156	50	50				1.3	1.1		
18	0.486	0.504	13.0	33,000		14	50					160	50	50				1.5	1.5		
19	0.431	0.394	12.0	33,000		11	50					180	50	50				1.3	1.4		
20	0.406	0.380	10.0	28,600		10	50					176	50	48				1.2	1.2		
21	0.462	0.388	11.0	33,000		10	50					156	50	48				1.2	1.2		
22	0.562	0.513	16.0	30,800		24	50					170	50	50				1.3	1.3		
23	0.450	0.412	15.0	30,800		14	50					170	50	48				1.4	1.4		
24	0.573	0.553	17.0	33,000		14	50					168	50	50				1.5	1.4		
25	0.575	0.537	18.0	33,000		16	50					170	50	52				1.3	1.2		
26	0.440	0.393	11.0	30,800		23	50					164	50	50				1.4	1.2		
27	0.411	0.375	12.0	30,800		18	50					170	50	50				1.2	1.2		
28	0.456	0.384	12.0	28,600		12	50					164	50	50				1.2	1.2		
29	0.526	0.520	16.0	35,200		13	50					168	50	50				1.0	1.1		
30	0.445	0.400	11.0	33,000		10	50					168	50	50				1.0	1.1		
31																					
Total	15.596	13.756	428.0	979,200	0.00	454	1500	0	0.0	0.0	0.0	5214	1480	1488	0	0	0	39.7	39.4	0.00	
Avg	0.520	0.459	14.3	32,640	0.00	15	50	0	0.0	0.0	0.0	174	49	50	0	0	0	1.3	1.3	0.00	
Max	0.648	0.562	18.0	36,800	0.00																
Min	0.000	0.000	0.0	0	0.00																

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICES

MONTH:

REPORT TO CONSTRUCTION

YEAR: 1981

PWSID: 04-91-041

TOTAL NUMBER OF WELLS IN SYSTEM: 2

PUBLIC WATER SYSTEM FOR: CONTINUOUS BAR MAGAZ BIGUE

TOTAL WELL NUMBER	HOURS	BARGE MAGAZ	CHLORINE LIMS	FLUORIDE	PH	HARDNESS (MG/L)			ALKALINITY (MG/L)			FECAL CHLORINE FLUORIDE		
							USED	USED	USED	TOTALIZER	USED	BIGUE	CONSTANT DETIAGL	BAR
												MG/L		
1	0.250	0.408	13.0	50.000	12	20			480	20	20	1.4	1.4	
2	0.240	0.380	13.0	35.200	13	20			480	24	20	1.3	1.2	
3	0.220	0.424	13.0	32.000	10	20			438	24	20	1.4	1.3	
4	0.211	0.402	14.0	32.000	12	20			480	24	20	1.3	1.3	
5	0.230	0.413	14.0	34.200	50	20			480	20	20	1.2	1.4	
6	0.252	0.424	14.0	33.000	14	20			438	18	20	1.3	1.3	
7	0.218	0.220	13.0	32.500	50	20			480	24	24	1.5	1.0	
8	0.183	0.420	14.0	30.800	4	20			480	24	20	1.2	1.3	
9	0.184	0.424	15.0	30.800	30	20			480	20	20	1.2	1.2	
10	0.141	0.215	13.0	30.800	10	20			480	20	20	1.9	1.9	
11	0.208	0.216	12.0	33.000	12	20			480	20	20	1.4	1.4	
12	0.212	0.280	15.0	33.000	10	20			485	24	24	1.4	1.4	
13	0.242	0.380	13.0	35.200	13	20			480	24	20	1.3	1.2	
14	0.211	0.209	14.0	33.000	13	20			480	24	20	1.3	1.3	
15	0.220	0.424	13.0	32.000	10	20			438	24	20	1.4	1.3	
16	0.230	0.213	14.0	34.200	50	20			480	20	20	1.2	1.4	
17	0.236	0.408	13.0	50.000	12	20			480	20	20	1.4	1.4	
18	0.250	0.408	14.0	33.000	12	20			480	20	20	1.4	1.4	
19	0.250	0.384	14.0	32.000	15	20			484	20	20	1.5	1.5	
20	0.240	0.424	14.0	33.000	10	20			480	20	20	1.4	1.4	
21														
22	0.244	0.408	14.0	33.000	10	20			488	20	20	1.0	1.4	
23	0.250	0.250	14.0	32.500	12	20			488	20	20	1.0	1.4	
24	0.250	0.384	15.0	32.000	15	20			484	20	20	1.5	1.5	
25	0.244	0.212	15.0	30.800	18	20			480	20	20	1.5	1.5	
26	0.240	0.201	14.0	30.800	53	20			484	20	20	1.4	1.5	
27	0.232	0.291	18.0	33.000	10	20			480	20	25	1.5	1.5	
28	0.213	0.223	15.0	33.000	14	20			484	20	20	1.2	1.4	
29	0.240	0.444	12.0	30.800	16	20			480	20	18	1.4	1.5	
30	0.202	0.241	10.0	30.800	52	20			480	20	20	1.9	1.3	
31	0.205	0.388	14.0	33.000	10	20			484	20	18	1.5	1.5	
32	0.204	0.380	10.0	30.800	10	20			480	20	18	1.5	1.5	
33	0.234	0.284	15.0	33.000	11	20			480	20	20	1.4	1.4	
34	0.222	0.204	13.0	33.000	4	20			484	20	20	1.2	1.2	
35	0.243	0.224	14.0	32.500	18	20			480	20	20	1.3	1.4	
36	0.250	0.384	14.0	30.800	12	20			480	20	18	1.5	1.0	
37	0.250	0.230	15.0	33.000	13	20			480	20	18	1.0	1.2	
38	0.248	0.220	18.0	32.500	53	20			480	20	18	1.3	1.4	
39	0.248	0.205	15.0	32.500	14	20			480	20	20	1.5	1.3	
40	0.252	0.446	14.0	33.000	14	20			438	18	20	1.3	1.3	
41	0.218	0.220	15.0	32.500	50	20			480	18	18	1.5	1.0	
42	0.183	0.420	14.0	30.800	4	20			480	18	20	1.2	1.3	
43	0.184	0.445	15.0	30.800	30	20			480	20	20	1.2	1.2	
44	0.141	0.215	13.0	30.800	10	20			480	20	20	1.9	1.9	
45	0.208	0.216	12.0	33.000	12	20			480	20	20	1.4	1.4	
46	0.212	0.280	15.0	33.000	10	20			485	18	18	1.4	1.4	
47	0.242	0.380	13.0	35.200	13	20			480	18	20	1.3	1.2	
48	0.211	0.209	14.0	33.000	13	20			480	18	20	1.3	1.3	
49	0.220	0.424	13.0	32.000	10	20			438	18	20	1.4	1.3	
50	0.230	0.213	14.0	34.200	50	20			480	20	20	1.2	1.4	
51	0.236	0.408	13.0	50.000	12	20			480	20	20	1.4	1.4	
52	0.250	0.408	14.0	33.000	12	20			480	20	20	1.4	1.4	
53	0.250	0.384	14.0	32.000	15	20			484	20	20	1.5	1.5	
54	0.240	0.424	14.0	33.000	10	20			480	20	20	1.4	1.4	
55	0.244	0.408	14.0	33.000	10	20			488	20	20	1.0	1.4	
56	0.250	0.250	14.0	32.500	12	20			488	20	20	1.0	1.4	
57	0.250	0.384	15.0	32.000	15	20			484	20	20	1.5	1.5	
58	0.244	0.212	15.0	30.800	18	20			480	20	20	1.5	1.5	
59	0.240	0.201	14.0	30.800	53	20			484	20	20	1.4	1.5	
60	0.232	0.291	18.0	33.000	10	20			480	20	25	1.5	1.5	
61	0.213	0.223	15.0	33.000	14	20			484	20	20	1.2	1.4	
62	0.240	0.444	12.0	30.800	16	20			480	20	18	1.4	1.5	
63	0.202	0.241	10.0	30.800	52	20			480	20	20	1.9	1.3	
64	0.205	0.388	14.0	33.000	10	20			484	20	18	1.5	1.5	
65	0.204	0.380	10.0	30.800	10	20			480	20	18	1.5	1.5	
66	0.234	0.284	15.0	33.000	11	20			480	20	20	1.4	1.4	
67	0.222	0.204	13.0	33.000	4	20			484	20	20	1.2	1.2	
68	0.243	0.224	14.0	32.500	18	20			480	20	20	1.3	1.4	
69	0.250	0.384	14.0	30.800	12	20			480	20	18	1.5	1.0	
70	0.250	0.230	15.0	33.000	13	20			480	20	18	1.0	1.2	
71	0.248	0.220	18.0	32.500	53	20			480	20	18	1.3	1.4	
72	0.248	0.205	15.0	32.500	14	20			480	20	20	1.5	1.3	
73	0.252	0.446	14.0	33.000	14	20			438	18	20	1.3	1.3	
74	0.218	0.220	15.0	32.500	50	20			480	18	18	1.5	1.0	
75	0.183	0.420	14.0	30.800	4	20			480	18	20	1.2	1.3	
76	0.184	0.445	15.0	30.800	30	20			480	20	20	1.2	1.2	
77	0.141	0.215	13.0	30.800	10	20			480	20	20	1.9	1.9	
78	0.208	0.216	12.0	33.000	12	20			480	20	20	1.4	1.4	
79	0.212	0.280	15.0	33.000	10	20			485	18	18	1.4	1.4	
80	0.242	0.380	13.0	35.200	13	20			480	18	20	1.3	1.2	
81	0.211	0.209	14.0	33.000	13	20			480	18	20	1.3	1.3	
82	0.220	0.424	13.0	32.000	10	20			438	18	20	1.4	1.3	
83	0.230	0.213	14.0	34.200	50	20			480	20	20	1.2	1.4	
84	0.236	0.408	13.0	50.000	12	20			480	20	20	1.4	1.4	

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: June

Year: 1987

Total Number of Wells in System: 4

PUBLIC WATER SYSTEM FOR: Rifle Range Water Plant

PWSID: 04-67-046

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	Remarks
1	0.310	0.188	15.0	10,400		5	50					180	50	52				1.1	1.0		
2	0.189	0.185	10.0	8,200		4	50					178	50	52				1.1	1.0		
3	0.226	0.277	12.0	8,200		5	50					180	50	52				1.0	1.0		
4	0.242	0.059	11.0	8,200		5	50					170	50	52				1.0	1.0		Del. Water Telem
5	0.287	0.177	13.0	8,200		5	50					182	50	52				1.0	1.1		*
6	0.237	0.174	11.0	8,200		4	50					180	50	50				1.1	1.0		
7	0.201	0.159	8.0	8,200		3	50					178	50	50				1.1	1.0		
8	0.276	0.163	10.0	8,200		5	50					176	50	52				1.1	1.0		
9	0.313	0.252	11.0	8,200		5	50					180	50	50				1.0	1.1		
10	0.204	0.250	11.0	8,200		6	50					180	50	50				1.1	1.1		
11	0.275	0.209	15.0	8,200		6	50					178	50	50				1.0	1.1		
12	0.279	0.182	15.0	8,200		5	50					180	54	52				1.2	1.1		
13	0.233	0.180	18.0	8,200		5	50					178	50	52				1.1	1.0		
14	0.201	0.154	15.0	8,200		5	50					180	54	52				1.1	1.0		
15	0.227	0.169	13.0	8,200		5	50					178	50	52				1.0	1.1		
16	0.248	0.189	14.0	8,200		5	50					176	50	52				1.0	1.2		
17	0.275	0.168	15.0	8,200		5	50					174	50	52				1.1	1.0		
18	0.229	0.203	13.0	8,200		5	50					176	50	52				1.1	1.0		
19	0.259	0.182	14.0	8,200		5	50					176	50	52				1.1	1.1		
20	0.191	0.160	9.0	8,200		4	50					178	50	52				1.1	1.1		
21	0.239	0.146	14.0	8,200		5	50					180	50	52				1.1	1.1		
22	0.206	0.209	15.0	8,200		5	50					180	52	54				1.1	1.0		
23	0.193	0.283	13.0	8,200		5	50					178	50	52				1.1	1.0		
24	0.234	0.178	12.0	10,400		4	50					176	50	52				1.1	1.0		
25	0.234	0.186	13.0	8,200		5	50					178	50	52				1.1	1.0		
26	0.358	0.205	15.0	8,200		6	50					182	50	52				1.2	1.1		
27	0.217	0.201	14.0	8,200		7	50					170	50	50				1.2	1.2		
28	0.348	0.267	16.0	8,200		11	50					176	50	50				1.0	1.1		
29	0.284	0.262	15.0	8,200		5	50					174	52	52				1.0	1.1		
30	0.290	0.211	15.0	8,200		5	50					174	52	52				1.1	1.0		
31																					
Total	7.505	5.828	395.0	250,400	0.00	155	1500	0	0.0	0.0	0.0	5326	1514	1548	0	0	0	32.4	31.6	0.00	
Avg	0.250	0.194	13.2	8,347	0.00	5	50	0	0.0	0.0	0.0	178	50	52	0	0	0	1.1	1.1	0.00	
Max	0.358	0.283	18.0	10,400	0.00																
Min	0.000	0.000	0.0	0	0.00																

Month:
Year: 1982
Total Number of wells in System:

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Backwash Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Chlorine Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Finish	Free Chlorine Residual (mg/l) Raw	Free Chlorine Residual (mg/l) Plant	Free Chlorine Residual (mg/l) Deliver	Free Chlorine Residual (mg/l) Deliver	Remarks
1	0.310	0.188	15.0	10,400		5	50			180	50	52		1.1	1.0			
2	0.189	0.185	10.0	8,200		4	50			178	50	52		1.1	1.0			
3	0.226	0.277	12.0	9,200		5	50			180	50	52		1.0	1.0			
4	0.242	0.059	11.0	8,200		5	50			170	50	52		1.0	1.0			Det. Water Tank
5	0.282	0.177	13.0	8,200		5	50			182	50	52		1.0	1.1			
6	0.237	0.174	11.0	8,200		4	50			180	50	50		1.1	1.0			
7	0.201	0.159	8.0	8,200		3	50			178	50	50		1.1	1.0			
8	0.276	0.163	10.0	8,200		5	50			176	50	52		1.1	1.0			
9	0.343	0.252	11.0	8,200		5	50			180	50	50		1.0	1.1			
10	0.204	0.250	11.0	8,200		6	50			180	50	50		1.1	1.1			
11	0.275	0.209	13.0	8,200		6	50			178	50	50		1.0	1.1			
12	0.279	0.183	13.0	8,200		5	50			180	54	52		1.2	1.1			
13	0.235	0.180	18.0	8,200		5	50			178	50	52		1.1	1.0			
14	0.201	0.154	13.0	8,200		5	50			180	54	52		1.1	1.0			
15	0.227	0.169	13.0	8,200		5	50			178	50	52		1.0	1.1			
16	0.248	0.189	14.0	8,200		5	50			176	50	52		1.0	1.2			
17	0.275	0.168	15.0	8,200		5	50			174	50	52		1.1	1.0			
18	0.229	0.207	12.0	8,200		5	50			176	50	52		1.1	1.0			
19	0.259	0.192	14.0	8,200		5	50			176	50	52		1.1	1.1			
20	0.191	0.180	9.0	8,200		4	50			178	50	52		1.1	1.1			
21	0.239	0.140	14.0	8,200		5	50			180	50	52		1.1	1.1			
22	0.206	0.209	13.0	8,200		5	50			180	52	54		1.1	1.0			
23	0.195	0.283	13.0	8,200		5	50			178	50	52		1.1	1.0			
24	0.234	0.178	12.0	10,400		4	50			176	50	52		1.1	1.0			
25	0.234	0.186	13.0	8,200		5	50			178	50	52		1.1	1.0			
26	0.358	0.200	15.0	8,200		6	50			182	50	52		1.2	1.1			
27	0.217	0.201	14.0	8,200		7	50			170	50	50		1.2	1.2			
28	0.348	0.267	16.0	8,200		11	50			174	50	50		1.0	1.1			
29	0.284	0.262	13.0	8,200		5	50			174	52	52		1.0	1.1			
30	0.290	0.271	13.0	8,200		5	50			174	52	52		1.1	1.0			
31																		
Total	7.505	5.828	395.0	250,400	0.00	153	1500	0	0.0	5126	1514	1548	0	7	0	32.4	31.2	0.00
AVG	0.250	0.194	13.2	8,347	0.00	5	50	0	0.0	176	50	52	0	0	0	1.1	1.1	0.00
MAX	0.362	0.284	16.0	10,400	0.00													
MIN	0.000	0.000	0.0	0	0.00													

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Month: Report of Operation

Year: 1987

Total Number of Wells in System: 25 PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water Plant PWSID: 04-67-042

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	Remarks
1	0.648	0.583	17.0	48,000	0.39	20	1687		7.4		8.6	190	64	58	260	102	118		0.9	0.79	
2	0.600	0.584	15.0	120,000	0.61	18	1507		7.4		8.6	190	62	55	260	104	104		0.8	0.81	
3	0.719	0.673	18.0	0	0.81	21	1664		7.4		8.7	186	64	55	258	111	107		0.8	0.81	
4	0.689	0.641	16.0	60,000	0.56	20	1393		7.4		8.8	184	71	60	248	119	110		0.8	0.89	
5	0.567	0.524	13.0	120,000	0.41	16	1499		7.4		8.6	190	60	55	245	113	113		0.7	0.89	
6	0.603	0.546	15.0	0	0.63	16	1349		7.4		8.5	192	66	56	240	108	107		0.8	0.89	
7	0.644	0.525	14.0	48,000	0.68	16	1366		7.4		8.4	192	69	58	244	109	109		0.8	0.89	
8	0.638	0.626	18.0	60,000	1.03	19	1669		7.4		8.6	190	63	56	237	110	103		0.9	0.91	
9	0.682	0.427	20.0	60,000	0.65	19	1768		7.4		8.6	194	67	55	244	107	99		0.8	0.86	
10	0.762	0.705	19.0	60,000	0.50	22	1876		7.4		8.6	196	62	56	250	111	102		0.8	0.84	
11	0.887	0.765	21.5	60,000	0.66	23	2042		7.4		8.6	196	63	60	242	120	109		0.9	0.86	
12	0.648	0.624	17.5	60,000	0.56	19	1720		7.4		8.6	188	65	54	244	108	110		0.9	0.84	
13	0.551	0.523	14.5	60,000	0.42	16	1397		7.4		8.6	192	69	53	246	105	111		0.9	0.88	
14	0.536	0.477	16.0	60,000	0.61	15	1238		7.6		8.7	190	67	57	240	102	109		0.8	0.82	
15	0.561	0.576	17.0	0	0.55	18	1654		7.5		8.8	198	74	58	236	110	131		0.8	0.82	
16	0.638	0.590	17.0	0	0.66	18	1530		7.6		8.7	192	66	62	252	110	106		0.8	0.85	
17	0.717	0.693	19.5	120,000	0.51	21	1755		7.4		8.7	190	63	53	244	116	105		0.8	0.90	
18	0.550	0.534	15.0	48,000	0.76	17	1350		7.5		8.5	190	66	58	246	116	115		0.7	0.87	
19	0.511	0.505	13.5	0	0.55	16	1215		7.6		8.5	190	69	56	242	110	110		0.8	0.82	
20	0.561	0.534	15.5	60,000	0.44	17	1395		7.4		8.5	188	62	56	250	108	109		0.8	0.84	
21	0.473	0.453	12.5	48,000	0.61	14	1125		7.5		8.6	186	62	56	250	104	107		0.8	0.78	
22	0.523	0.531	15.5	60,000	0.65	16	1395		7.6		8.8	210	62	54	235	110	95		0.8	0.84	
23	0.648	0.582	16.0	120,000	0.63	18	1460		7.6		8.7	190	65	55	260	111	109		0.8	0.89	
24	0.548	0.512	16.0	60,000	0.66	16	1320		7.6		8.7	192	65	55	262	108	109		0.8	0.90	
25	0.691	0.637	17.0	0	0.39	19	1289		7.4		8.5	172	58	50	250	117	110		0.8	0.92	
26	0.591	0.523	16.0	120,000	0.41	16	1260		7.4		8.5	182	66	54	258	105	109		0.8	0.85	
27	0.449	0.447	12.0	60,000	0.52	14	904		7.5		8.5	184	62	56	260	104	104		0.7	0.89	
28	0.551	0.539	14.5	0	0.51	17	1115		7.5		8.6	180	67	56	248	113	103		0.8	0.88	
29	0.571	0.548	15.5	60,000	0.39	17	1380		7.6		8.6	180	69	54	248	103	103		0.7	0.95	
30	0.617	0.553	15.5	108,000	0.62	17	1394		7.6		8.5	184	57	58	258	114	107		0.8	0.93	
31																					
Total	18.374	16.980	482.5	1,680,000	17.38	531	43716	0	xxxxx	0.0	258.2	5678	1945	1679	7457	3288	3243	0.0	24.1	25.91	
Avg	0.612	0.566	16.1	56,000	0.58	18	1457	0	7.5	0.0	8.6	189	65	56	249	110	108	0.0	0.8	0.86	
Max	0.887	0.765	21.5	120,000	1.03																
Min	0.000	0.000	0.0	0	0.00																

N CO DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICES

Report of Operation

Month:
Year: 1987
Total number of Wells in System: 25

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water Plant VSID: 04-07-042

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Raw Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Fluoride Used (lbs)	pH Raw	pH Finish	Hardness (mg/l) Raw	Hardness (mg/l) Softens. Deliver.	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Finish Deliver.	Free Chlorine (mg/l) Residual	Free Chlorine (mg/l) Plant Deliver.	Fluoride (mg/l) Deliver.	Remarks
1	0.648	0.583	17.0	48,000	0.39	20	1687		7.4	8.5	190	64	58	290	102	118	0.9	0.79
2	0.600	0.584	15.0	120,000	0.61	18	1507		7.4	8.4	190	62	53	260	94	104	0.8	0.81
3	0.719	0.673	18.0	0	0.81	21	1664		7.4	8.7	180	64	55	258	117	107	0.8	0.91
4	0.689	0.641	16.0	60,000	0.56	20	1303		7.4	8.8	184	71	60	248	119	110	0.8	0.89
5	0.357	0.324	18.0	120,000	0.41	16	1499		7.4	8.0	190	60	55	245	113	113	0.7	0.89
6	0.603	0.546	15.0	0	0.03	16	1349		7.4	8.5	192	65	55	240	103	107	0.8	0.89
7	0.684	0.325	14.0	48,000	0.88	16	1366		7.4	8.4	192	69	52	244	109	105	0.8	0.89
8	0.638	0.628	18.0	60,000	1.03	19	1669		7.4	8.6	190	63	56	237	110	103	0.9	0.91
9	0.682	0.427	20.0	60,000	0.65	19	1768		7.4	8.8	194	67	53	244	107	99	0.8	0.86
10	0.762	0.705	19.0	60,000	0.50	22	1875		7.4	8.6	196	62	56	250	111	102	0.8	0.84
11	0.887	0.745	21.5	60,000	0.66	23	2042		7.4	8.5	196	63	60	242	120	100	0.9	0.86
12	0.648	0.624	17.5	60,000	0.56	19	1720		7.4	8.8	188	65	54	244	108	110	0.9	0.84
13	0.551	0.525	14.5	60,000	0.42	18	1397		7.4	8.6	192	66	53	246	102		0.9	0.88
14	0.336	0.477	16.0	60,000	0.81	15	1238		7.5	8.7	190	67	57	240	102	104	0.8	0.81
15	0.561	0.376	17.0	0	0.55	18	1654		7.5	8.8	198	74	57	230	110	107	0.8	0.82
16	0.613	0.590	17.0	0	0.86	18	1530		7.6	8.7	192	68	62	252	110	104	0.8	0.83
17	0.717	0.693	19.5	120,000	0.51	21	1755		7.4	8.7	190	65	53	244	118	105	0.8	0.90
18	0.350	0.334	15.0	48,000	0.76	17	1350		7.5	8.5	190	66	52	242	116	115	0.7	0.87
19	0.511	0.505	12	0	0.55	16	1215		7.6	8.5	190	69	56	242	110	110	0.8	0.82
20	0.561	0.534	15.0	60,000	0.44	17	1395		7.4	8.5	188	62	56	230	112	113	0.8	0.84
21	0.473	0.452	12.5	48,000	0.91	14	1125		7.5	8.6	186	62	56	251	104	102	0.8	0.78
22	0.524	0.534	15.5	60,000	0.65	16	1395		7.6	8.8	210	62	54	235	110	95	0.8	0.84
23	0.648	0.582	16.0	120,000	0.65	18	1460		7.6	8.7	190	65	55	240	111	104	0.8	0.89
24	0.548	0.512	16.0	60,000	0.66	16	1320		7.5	8.7	192	65	55	252	107	107	0.8	0.90
25	0.891	0.832	17.0	0	0.39	19	1239		7.4	8.5	192	58	50	250	110	110	0.8	0.92
26	0.591	0.524	16.0	120,000	0.41	16	1240		7.4	8.5	188	66	54	258	105	107	0.8	0.85
27	0.449	0.447	12.0	60,000	0.52	14	904		7.5	8.5	184	62	56	260	104	104	0.7	0.89
28	0.551	0.539	14.5	0	0.51	17	1113		7.5	8.6	180	67	56	248	113	103	0.8	0.88
29	0.571	0.548	15.5	60,000	0.39	17	1380		7.6	8.6	180	69	54	258	102	103	0.7	0.95
30	0.617	0.553	15.5	108,000	0.62	17	1334		7.6	8.5	184	57	58	258	114	107	0.8	0.92
31																		
Total	18.374	16.080	482.5	1,080,000	17.38	531	42716	0	xxxxx	0.0	258	5878	1945	1079	1421	3288	24.1	25.921
Avg	0.612	0.586	16.1	56,000	0.58	18	1457	0	7.5	0.0	8.6	189	65	54	74		0.8	0.86
MAX	0.887	0.705	21.5	120,000	1.03													
Min	0.000	0.000	0.0	0	0.00													

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Month: Report of Operation

Year: 1987

Total Number of Wells in System: 35 PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant PWSID: 04-67-041

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	Remarks
1	3.694	3.623	24	39,900	0.19	50	3464	66	7.2		8.4	178	60	60	168	59	62	1.1	1.0	0.96	
2	3.367	3.711	24	79,800	0.17	50	3457	62	7.2		8.4	178	59	65	168	52	54	1.1	1.1	0.86	
3	4.112	3.820	24	0	0.16	50	3567	54	7.2		8.4	198	57	67	170	64	58	1.0	1.0	0.78	
4	4.552	3.801	24	105,000	0.17	52	3650	119	7.2		8.4	180	58	58	172	58	60	0.8	0.7	1.37	
5	3.775	3.572	24	0	0.18	80	3509	64	7.0		8.4	180	62	63	178	54	57	1.0	1.0	0.89	
6	3.746	3.175	24	119,700	0.16	40	3517	75	7.2		8.5	180	66	65	178	58	56	1.1	1.0	1.11	
7	3.316	3.121	24	0	0.16	55	3397	78	7.2		8.5	180	61	63	174	57	55	1.1	1.0	1.30	
8	3.360	3.480	24	119,700	0.28	55	3406	68	7.2		8.7	178	62	62	176	54	55	1.1	1.1	0.99	
9	3.595	3.611	24	0	0.12	70	3524	69	7.4		8.7	176	57	59	176	47	54	1.2	1.1	1.01	
10	4.155	3.630	24	119,700	0.12	65	3851	70	7.5		8.5	178	59	59	172	55	52	1.0	1.0	0.88	
11	4.360	3.856	24	39,900	0.11	50	2702	82	7.6		8.1	173	100	67	175	88	67	1.0	1.0	0.99	
12	3.474	4.201	24	119,700	0.06	65	1570	63	7.6		7.7	176	109	122	173	135	121	1.0	0.9	0.95	
13	3.300	3.046	24	0	0.07	45	2947	58	7.6		8.3	174	60	77	172	56	80	1.1	1.0	0.92	
14	2.947	2.876	24	79,800	0.11	45	2852	56	7.5		8.4	174	60	65	173	54	64	1.2	1.1	1.00	
15	3.833	3.751	24	0	0.13	45	3289	76	7.6		8.5	178	61	61	170	54	56	0.9	1.1	1.05	
16	4.141	3.453	24	119,700	0.13	60	3544	83	7.2		8.6	165	63	64	155	48	54	0.9	0.9	1.05	
17	3.566	3.445	24	0	0.11	55	3435	70	7.2		8.3	164	59	64	164	60	60	1.0	1.0	1.03	
18	3.550	3.439	24	119,700	0.15	60	3384	80	7.6		8.4	164	61	64	168	60	61	1.1	1.1	1.18	
19	3.464	2.457	24	0	0.16	50	3411	70	7.4		8.4	160	61	62	172	59	60	1.1	1.1	1.06	
20	3.491	2.929	24	119,700	0.17	60	3345	68	7.4		8.4	164	61	64	168	54	61	1.0	1.1	1.03	
21	3.379	2.953	24	0	0.17	35	3293	65	7.4		8.4	162	62	64	168	57	60	1.1	1.1	1.02	
22	3.219	3.410	24	119,700	0.12	45	3036	63	7.2		8.4	154	62	62	158	62	60	1.1	1.0	1.00	
23	4.027	3.510	24	79,800	0.16	40	3564	93	7.2		8.3	158	60	60	162	67	60	1.0	1.0	1.21	
24	3.962	3.465	24	39,900	0.20	50	3519	74	7.2		8.5	164	60	60	162	57	58	1.1	1.0	1.11	
25	3.446	3.384	24	79,800	0.18	65	3217	65	7.2		8.5	164	60	60	160	58	57	1.1	1.0	0.89	
26	3.426	3.324	24	39,800	0.20	45	3146	62	7.2		8.5	168	61	60	162	57	57	1.1	1.0	0.94	
27	3.465	3.097	24	79,800	0.19	40	3145	59	7.2		8.4	168	61	60	160	56	56	1.1	1.1	0.89	
28	3.423	3.028	24	39,900	0.18	40	3304	64	7.2		8.5	160	62	60	160	56	56	1.1	1.1	0.97	
29	3.316	3.252	24	79,800	0.15	40	3468	67	7.2		8.7	170	60	66	158	54	56	1.1	1.1	1.04	
30	3.746	3.108	24	0	0.20	46	3313	72	7.2		8.5	168	58	58	158	52	52	1.1	1.1	1.20	
31																					
Total	109.207	101.528	720	1,740,800	4.66	1548	98826	2115	*****	0.0	252.7	5134	1902	1941	5030	1802	1819	31.7	30.8	30.68	
Avg	3.640	3.384	24.0	58,027	0.16	52	3294	71	7.3	0.0	8.4	171	63	65	168	60	61	1.1	1.0	1.02	
Max	4.552	4.201	24.0	119,700	0.28																
Min	0.000	0.000	0.0	0	0.00																

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICES

Report of Operation

PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant PWSID 04-67-041

Month

Year: 1987

Total Number of Wells in System: 35

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Backwash Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Fluoride Used (lbs)	Raw	Finish	Raw	Softened Deliver	Raw	Raw	Free Chlorine (mg/l) Residual	Plant	Deliver	Fluoride (mg/l) Plant	Deliver	Remarks
1	3.694	3.658	24	39,700	0.19	30	3464	66	7.2	8.4	176	60	60	108	79	62	1.7	1.0	0.96	
2	3.767	3.711	24	79,800	0.17	30	3457	62	7.2	8.4	178	59	65	168	72	34	1.1	1.1	0.86	
3	4.412	3.820	24	0	0.16	30	3567	54	7.2	8.4	198	57	67	170	84	58	1.0	1.0	0.78	
4	4.552	3.801	24	105,000	0.17	32	3850	119	7.2	8.4	160	58	58	172	72	60	0.8	0.7	0.37	
5	3.775	3.572	24	0	0.18	30	3209	64	7.0	8.4	180	62	63	175	54	32	1.0	1.0	0.89	
6	3.796	3.175	24	119,700	0.16	30	3517	75	7.2	8.5	180	66	65	178	58	30	1.1	1.0	1.14	
7	3.816	3.721	24	0	0.16	32	3327	78	7.2	8.5	180	67	63	174	37	35		1.0	0.80	
8	3.360	3.480	24	119,700	0.28	32	3406	65	7.2	8.7	178	66	62	170	34	35	1.1	1.1	0.59	
9	3.595	3.611	24	0	0.12	30	3324	69	7.4	8.7	176	57	59	176	47	34	1.1	1.1	1.07	
10	4.155	3.630	24	119,700	0.12	35	3351	70	7.5	8.5	178	59	59	172	35	32	1.0	1.0	0.88	
11	4.360	3.856	24	39,900	0.11	30	2702	82	7.6	8.1	174	100	67	175	88	30	1.0	1.0	0.09	
12	3.474	4.201	24	119,700	0.06	35	1570	63	7.6	7.7	174	109	122	173	133	124	1.0	0.9	0.95	
13	3.300	3.040	24	0	0.07	45	2947	58	7.6	8.3	176	60	77	172	36	80	1.1	1.0	0.92	
14	2.947	2.875	24	79,800	0.11	45	2832	56	7.5	8.4	179	60	65	178	54	54	1.2	1.1	1.00	
15	3.834	3.157	24	0	0.13	45	3289	76	7.6	8.3	178	61	67	177	32	58	0.9	1.1	1.05	
16	4.141	3.453	24	119,700	0.12	60	3544	83	7.2	8.5	155	63	69	156	48	34	0.9	0.9	.09	
17	3.566	3.445	24	0	0.11	55	3435	70	7.2	8.3	164	59	64	160	60	50	1.0	1.0	.04	
18	3.550	3.439	24	119,700	0.15	60	3384	60	7.2	8.4	144	61	63	162	32	40	1.1	1.1	1.18	
19	3.464	2.457	24	0	0.10	70	3411	70	7.4	8.4	160	61	62	172	35	50	1.1	1.1	1.09	
20	2.491	2.929	24	119,700	0.17	60	3345	68	7.4	8.4	168	61	66	168	34	57	1.1	1.1	1.07	
21	3.279	2.953	24	0	0.10	55	3093	55	7.4	8.4	162	62	64	163	37	60	1.1	1.4	1.46	
22	3.210	3.410	24	119,700	0.12	45	3013	61	7.2	8.4	154	62	62	158	32	60	1.0	1.0	1.00	
23	4.027	3.310	24	79,800	0.15	40	3584	73	7.2	8.3	159	60	60	162	37	60	1.0	1.0	1.24	
24	3.962	3.465	24	39,900	0.20	30	3519	72	7.2	8.5	164	60	60	164	37	52	1.0	1.1	1.17	
25	3.446	3.364	24	79,800	0.18	45	3217	65	7.2	8.5	164	60	60	170	58	55	1.1	1.1	0.88	
26	3.425	3.324	24	39,800	0.20	45	3146	62	7.2	8.5	168	61	60	172	37	57	1.1	1.0	0.94	
27	3.465	3.097	24	79,800	0.19	40	3145	59	7.2	8.4	168	61	60	170	58	50	1.1	1.1	0.88	
28	3.421	3.028	24	39,900	0.18	40	3304	84	7.2	8.5	160	62	60	160	50	56	1.1	1.1	0.97	
29	3.216	3.282	24	79,800	0.15	40	3468	67	7.2	8.7	170	60	66	172	35	58	1.1	1.1	1.04	
30	3.748	3.108	24	0	0.20	46	3318	72	7.2	8.5	168	58	58	172	52	52	1	1.1	1.42	
31																				
Total	100.207	101.528	720	1,740,800	4.86	1548	98626	2415	*****	0.0	232.7	1343	1902	1044	1302	1845	31.2	28.8	30.08	
Avg	3.840	3.384	24.0	58,027	0.16	52	3289	78	7.3	0.0	8.4	117	63	65	44.9	5	1	1.0	1.02	
Max	4.552	4.201	24.0	119,700	0.28															
Min	0.000	0.000	0.0	0	0.00															

5000
MAIN

Water Supply Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities for the month of September 1987 are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer: B. Frazelle, W/WW,X5988
Typist: S. Kolde, 1 Oct 87

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: September

Year: 1987

Total Number of Wells in System: 2

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant

PWSID: 04-67-048

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.155	0.119	10.0	9,000		3						168	48	50				1.7	1.5	
2	0.102	0.129	6.0	7,000		2						170	50	50				1.6	1.5	
3	0.124	0.102	9.0	7,000		3						168	48	50				1.8	1.4	
4	0.078	0.110	5.0	7,000		3						170	48	50				1.8	1.2	
5	0.108	0.117	7.0	9,000		3						166	48	50				1.9	1.0	
6	0.083	0.104	6.0	9,000		3						168	50	50				1.6	1.1	
7	0.126	0.118	9.0	7,000		3						168	46	50				1.6	1.1	
8	0.118	0.104	9.0	7,000		3						168	48	50				1.5	1.2	
9	0.116	0.117	8.0	9,000		7						168	50	50				1.6	1.3	
10	0.103	0.118	7.0	9,000		3						170	50	52				1.4	1.0	
11	0.125	0.110	8.0	7,000		3						170	52	51				1.6	0.8	
12	0.124	0.112	9.0	7,000		3						168	50	52				1.3	0.9	
13	0.125	0.117	8.0	9,000		2						168	60	62				1.4	0.8	
14	0.299	0.274	20.0	13,000		9						168	80	64				1.8	1.4	
15	0.112	0.115	10.0	9,000		3						168	73	118				1.8	1.2	
16	0.128	0.121	10.0	7,000		4						160	60	58				1.2	0.9	
17	0.154	0.123	11.0	9,000		3						150	50	50				1.3	1.6	
18	0.151	0.119	11.0	9,000		4						150	50	50				1.3	1.0	
19	0.143	0.107	10.0	7,000		4						150	50	50				1.4	1.3	
20	0.140	0.122	11.5	9,000		4						154	50	50				1.4	1.4	
21	0.183	0.126	14.0	9,000		4						152	50	50				1.5	1.5	
22	0.115	0.121	10.0	9,000		3						168	36	38				1.3	1.6	
23	0.102	0.177	9.0	7,000		3						168	52	54				1.8	1.8	
24	0.160	0.127	20.0	7,000		4						164	54	51				1.9	1.6	
25	0.110	0.122	16.0	5,000		1						166	54	62				1.7	1.6	
26	0.112	0.111	14.0	7,000		4						168	65	56				1.4	1.5	
27	0.149	0.119	19.0	5,000		5						166	52	57				1.9	1.5	
28	0.145	0.126	12.0	7,000		2						168	50	50				1.2	1.0	
29	0.098	0.118	13.0	7,000		2						168	48	50				1.7	1.8	
30	0.117	0.117	17.0	9,000		2						166	44	50				2.0	1.7	
31																				
Total	3.905	3.722	328.5	238,000	0.00	104	0	0	0.0	0.0	0.0	4944	1586	1645	0	0	0	47.6	39.2	0.00
Avg	0.130	0.124	11.0	7,933	0.00	3	0	0	0.0	0.0	0.0	165	53	55	0	0	0	1.6	1.3	0.00
Max	0.299	0.274	20.0	13,000	0.00															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: September

Year: 1987

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.571	0.514	15.0	33,000		14	50					180	48	50				1.4	1.6	
2	0.516	0.496	14.0	33,000		17	0					180	50	50				2.0	2.0	
3	0.623	0.560	17.0	33,000		15	50					180	50	50				1.4	1.3	
4	0.453	0.375	11.0	33,000		11	50					180	50	52				1.4	1.3	
5	0.355	0.340	9.0	28,600		9	0					180	48	50				1.3	1.1	
6	0.488	0.428	13.0	30,800		15	50					180	50	50				1.2	1.2	
7	0.382	0.351	10.0	33,000		10	0					180	50	50				1.6	1.6	
8	0.454	0.468	10.0	28,600		11	50					176	52	50				1.1	1.2	
9	0.527	0.494	15.0	30,800		14	50					178	52	54				1.2	1.3	
10	0.430	0.395	10.0	30,800		12	50					168	50	50				1.0	1.2	
11	0.432	0.389	10.0	30,800		9	50					170	50	50				1.2	1.2	
12	0.415	0.392	10.0	33,000		11	50					168	58	58				1.2	1.2	
13	0.543	0.476	15.0	33,000		11	50					168	56	56				0.9	0.9	
14	0.488	0.396	12.0	28,600		16	50					170	58	58				1.5	1.5	
15	0.436	0.363	14.0	33,000		16	50					174	66	68				1.4	1.4	
16	0.389	0.353	12.0	28,600		10	50					170	50	58				1.8	1.6	
17	0.551	0.495	16.0	33,000		20	50					172	59	60				1.5	1.4	
18	0.335	0.334	8.0	33,000		10	50					174	60	61				1.5	1.5	
19	0.369	0.326	10.0	33,000		10	50					174	62	60				1.5	1.5	
20	0.466	0.436	12.0	30,800		13	50					170	68	66				1.5	1.5	
21	0.489	0.461	12.0	33,000		17	50					172	70	72				1.5	1.6	
22	0.572	0.517	15.0	33,000		17	50					170	64	66				1.4	1.4	
23	0.477	0.528	14.0	33,000		14	50					172	74	76				1.4	1.3	
24	0.478	0.464	14.0	28,000		12	50					178	70	70				1.2	1.2	
25	0.402	0.362	9.0	28,600		10	50					174	68	66				1.0	0.9	
26	0.368	0.346	6.0	28,600		8	50					176	60	60				0.9	0.9	
27	0.451	0.426	5.0	30,800		10	50					178	60	60				1.0	1.0	
28	0.522	0.481	9.0	33,000		15	50					180	60	64				1.1	1.0	
29	0.407	0.351	9.0	30,800		15	50					180	60	60				1.0	1.0	
30	0.431	0.421	11.0	28,600		14	50					172	58	58				1.4	1.3	
31																				
Total	13.820	12.738	347.0	938,800	0.00	386	1350	0	0.0	0.0	0.0	5244	1731	1753	0	0	0	39.5	39.1	0.00
Avg	0.461	0.425	11.6	31,293	0.00	13	45	0	0.0	0.0	0.0	175	58	58	0	0	0	1.3	1.3	0.00
Max	0.623	0.560	17.0	33,000	0.00															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: September

Year: 1987

Total Number of Wells in System: 4

PUBLIC WATER SYSTEM FOR: Rifle Range Water Plant

PWSID: 04-67-046

Date	Total Water Pumped Raw (MGD)	Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.151	0.190	11.0	8,200		4	50					176	52	50				1.0	1.1	
2	0.205	0.202	12.0	8,200		5	50					174	52	52				1.1	1.0	
3	0.215	0.182	13.0	8,200		5	50					178	50	54				1.1	1.0	
4	0.167	0.184	12.0	8,200		5	50					176	50	54				1.1	1.0	
5	0.167	0.181	12.0	8,200		5	50					176	50	52				1.1	1.0	
6	0.147	0.170	14.0	8,200		5	50					174	50	52				1.1	1.0	
7	0.187	0.182	13.0	8,200		5	50					176	50	52				1.1	1.0	
8	0.214	0.205	16.0	8,200		5	50					172	52	54				1.0	1.0	
9	0.231	0.195	15.0	8,200		5	50					174	52	52				1.1	1.0	
10	0.225	0.190	17.0	8,200		5	50					172	50	52				1.1	1.0	
11	0.224	0.188	16.0	8,200		5	50					174	54	54				1.1	1.0	
12	0.251	0.168	16.0	8,200		6	50					174	52	56				1.1	1.1	
13	0.181	0.186	12.0	8,200		5	50					174	52	56				1.1	1.1	
14	0.215	0.210	17.0	8,200		6	50					174	50	54				1.1	1.0	
15	0.225	0.213	17.0	8,200		8	50					176	54	76				1.2	1.1	
16	0.244	0.206	16.0	8,200		7	50					174	52	62				1.1	0.9	
17	0.217	0.203	15.0	8,200		6	50					176	54	64				1.1	1.0	
18	0.178	0.183	16.0	8,200		9	50					172	52	54				1.1	1.0	
19	0.221	0.201	15.0	8,200		6	50					172	50	52				1.1	1.0	
20	0.216	0.199	14.0	8,200		8	50					178	56	60				1.1	1.0	
21	0.217	0.198	14.0	8,200		6	50					176	54	60				1.1	1.0	
22	0.201	0.201	13.0	8,200		5	50					176	52	62				1.1	1.0	
23	0.227	0.203	14.0	8,200		5	50					176	54	62				1.1	1.0	
24	0.237	0.205	15.0	8,200		5	50					174	54	60				1.1	1.0	
25	0.200	0.195	13.0	8,200		6	50					176	50	54				1.1	1.0	
26	0.192	0.185	12.0	8,200		5	50					176	50	52				1.1	1.0	
27	0.217	0.206	10.0	8,200		5	50					176	54	56				1.0	0.9	
28	0.207	0.201	13.0	8,200		4	50					176	52	50				1.0	1.0	
29	0.191	0.220	12.0	8,200		5	50					176	52	52				1.0	1.0	
30	0.239	0.389	11.0	8,200		4	50					176	70	56				1.0	1.0	
31																				
Total	6.209	6.041	416.0	246,000	0.00	165	1500	0	0.0	0.0	0.0	5250	1576	1676	0	0	0	32.5	30.2	0.00
Avg	0.207	0.201	13.9	8,200	0.00	6	50	0	0.0	0.0	0.0	175	53	56	0	0	0	1.1	1.0	0.00
Max	0.251	0.389	17.0	8,200	0.00															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: September

Year: 1987

Total Number of Wells in System: 25

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water Plant

PWSID: 04-67-042

Date	Total Water Pumped Raw (MGD)	Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver
1	0.597	0.612	15.0	60,000	0.58	19	1512		7.5	8.5		160	63	57	260	147	132		0.7	
2	0.595	0.523	11.5	0	0.38	16	1408		7.5	8.6		160	62	53	255	132	132		0.8	
3	0.531	0.612	12.0	60,000	0.37	19	1516		7.5	8.6		158	63	54	258	136	133		0.8	
4	0.556	0.528	14.0	60,000	0.58	16	1354		7.5	8.6		160	68	55	262	145	136		0.8	
5	0.440	0.432	14.0	60,000	0.60	13	1233		7.5	8.6		162	61	60	260	146	159		0.7	
6	0.460	0.471	12.0	0	0.59	14	1258		7.5	8.5		160	58	72	258	112	159		0.8	
7	0.553	0.540	13.0	120,000	0.75	17	1524		7.6	8.7		158	65	65	260	128	135		0.7	
8	0.538	0.563	14.0	0	0.66	17	1260		7.5	8.5		160	58	60	256	132	129		0.7	
9	0.588	0.591	15.0	60,000	0.57	18	1215		7.5	8.3		164	68	66	258	149	141		0.8	
10	0.599	0.566	15.0	108,000	0.40	18	1350		7.5	8.4		164	55	65	270	144	142		0.8	
11	0.556	0.560	13.5	0	0.38	17	1240		7.6	8.6		172	65	55	254	148	136		0.8	
12	0.490	0.462	12.0	60,000	0.36	14	1080		7.6	8.7		170	63	52	269	136	134		0.8	
13	0.542	0.547	13.0	0	0.32	17	1170		7.6	8.7		170	66	54	254	136	131		0.7	
14	0.618	0.567	15.5	120,000	0.34	18	1395		7.5	8.7		178	66	52	262	139	132		0.8	
15	0.428	0.531	13.5	60,000	0.38	16	1345		7.6	8.7		178	62	54	272	138	132		0.0	
16	0.626	0.643	16.5	0	0.34	20	1420		7.6	8.6		218	61	53	260	133	131		0.8	
17	0.627	0.602	16.5	120,000	0.38	19	1435		7.6	8.6		192	54	59	260	141	140		0.8	
18	0.507	0.510	13.5	60,000	0.37	16	1270		7.4	8.6		168	66	55	272	152	137		0.9	
19	0.536	0.529	12.5	0	0.32	16	1310		7.5	8.4		166	66	58	264	155	147		1.0	
20	0.521	0.429	14.0	120,000	0.40	15	1230		7.5	8.5		162	59	57	264	142	144		1.0	
21	0.613	0.603	15.5	0	0.37	19	1415		7.6	8.7		164	63	55	260	143	134		1.0	
22	0.567	0.519	12.5	60,000	0.27	16	1268		7.4	8.6		160	65	54	258	148	134		1.0	
23	0.657	0.608	14.4	60,000	0.41	19	1293		7.5	8.6		174	57	54	254	149	133		1.0	
24	0.674	0.591	17.5	60,000	0.45	18	1486		7.4	8.5		154	63	54	263	166	158		1.0	
25	0.585	0.543	12.5	60,000	0.46	17	1267		7.4	8.5		154	58	52	268	177	167		1.0	
26	0.533	0.526	12.0	0	0.43	16	1225		7.4	8.4		166	60	53	264	171	170		1.0	
27	0.626	0.578	14.5	108,000	0.45	18	1297		7.4	8.4		168	58	55	266	158	153		1.0	
28	0.647	0.605	16.0	0	0.37	19	1375		7.4	8.5		156	56	54	284	167	148		1.0	
29	0.658	0.614	17.5	100,000	0.35	19	1476		7.4	8.5		162	66	55	258	139	166		1.0	
30	0.510	0.486	13.0	120,000	0.60	15	1246		7.6	8.7		165	67	53	250	150	130		0.8	
31																				
Total	16.978	16.491	421.4	1,636,000	13.23	511	39873	0	*****	256.8	0.0	5003	1862	1695	7853	4359	4255	0.0	25.0	0.00
Avg	0.566	0.550	14.0	54,533	0.44	17	1329	0	7.5	8.6	0.0	167	62	57	262	145	142	0.0	0.8	0.00
Max	0.674	0.643	17.5	120,000	0.75															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: September

Year: 1987

Total Number of Wells in System: 8

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

	Total Water Pumped		Hours	Bkwsh Water		Chlorine	Lime	Flouride	pH			Hardness (mg/l)			Alkalinity (mg/l)			Free Chlorine Fluoride		
	Raw	Delivered	Plant	Used	Turbidity	Used	Used	Used										Resid (mg/l)		
ate	(MSG)	(MGD)	Oper	(Gals)	(NTU)	(lbs)	(lbs)	(lbs)	Raw	Finish	Deliver	Raw	Softener	Deliver	Raw	Filter	Deliver	Plant	Deliver	Deliver
1	2.512	3.492	17.0	0	0.57	27	2888	0	7.7	8.9		154	65	62	153	66	62	1.3	1.2	0.33
2	2.243	3.538	15.0	190,800	0.57	22	2579	0	7.7	8.9		166	70	68	162	67	67	1.2	1.1	0.14
3	2.537	3.480	17.0	75,600	0.54	25	2917	0	7.7	8.9		160	63	63	157	62	63	1.2	1.1	0.12
4	2.183	3.426	15.0	162,000	0.39	25	2510	0	7.7	8.9		160	62	65	160	61	62	1.4	1.2	0.12
5	2.194	3.461	15.0	0	0.35	26	2523	29	7.6	9.0		162	60	62	162	56	63	1.4	1.2	0.68
6	2.179	3.432	15.0	118,800	0.39	25	2506	66	7.8	9.0		166	60	60	162	57	58	1.4	1.3	1.02
7	2.409	3.596	16.0	158,400	0.36	28	2770	66	7.7	9.0		164	60	60	160	57	56	1.4	1.2	0.96
8	2.402	3.482	15.0	79,200	0.34	24	2762	57	7.8	8.9		156	63	62	154	57	58	1.2	1.1	1.26
9	2.089	1.857	14.0	118,800	0.30	20	2402	40	7.7	8.9		150	59	60	156	51	55	1.2	1.1	1.02
10	2.320	1.842	16.0	39,600	0.29	25	2688	41	7.8	8.9		158	58	60	158	55	58	1.3	1.2	0.94
11	2.174	1.842	15.0	79,200	0.28	24	2500	43	7.8	8.9		160	62	60	160	59	58	1.3	1.3	1.02
12	2.128	1.774	15.0	79,200	0.34	23	2447	39	7.8	8.9		160	56	59	164	52	58	1.3	1.3	1.14
13	2.246	1.752	16.0	118,800	0.29	24	2583	38	7.8	9.0		156	57	59	160	56	56	1.3	1.3	0.98
14	1.535	1.393	11.0	79,800	0.30	16	1765	27	7.8	8.9		162	60	59	160	62	60	1.3	1.2	1.01
15	1.449	1.429	11.0	28,800	0.27	16	1666	28	7.8	9.0		164	66	69	160	60	65	1.3	1.3	1.04
16	1.817	1.448	13.0	61,200	0.27	21	2089	30	7.8	8.9		154	62	69	154	59	71	1.4	1.3	0.88
17	1.451	1.432	12.0	79,800	0.28	16	1668	24	7.8	8.9		160	59	64	160	57	63	1.4	1.3	0.88
18	1.532	1.247	12.0	39,600	0.48	16	1704	27	7.8	8.9		160	74	74	160	69	64	1.3	1.2	0.94
19	1.114	1.199	10.0	75,600	0.37	14	1403	24	7.8	9.0		162	62	61	160	59	61	1.5	1.3	1.06
20	1.223	1.250	10.0	0	0.24	14	1406	25	7.8	8.9		160	59	58	158	59	56	1.5	1.3	1.10
21	1.569	1.235	13.0	118,800	0.30	19	1829	33	7.6	8.8		164	58	59	159	56	57	1.5	1.4	1.10
22	1.388	1.211	12.0	76,200	0.27	16	1598	28	7.9	8.8		167	58	59	160	58	57	1.4	1.5	1.06
23	1.628	1.287	14.0	76,200	0.31	21	1978	33	7.8	8.9		160	57	57	156	56	55	1.5	1.5	1.03
24	1.569	1.262	13.0	76,200	0.40	18	1804	32	7.6	8.9		162	62	62	158	61	59	1.4	1.4	1.09
25	1.175	1.302	11.0	38,100	0.35	12	1351	22	7.6	8.8		158	65	65	157	64	60	1.2	1.3	1.00
26	1.444	1.218	12.0	76,200	0.29	12	1660	36	7.7	8.9		162	61	61	160	59	60	1.0	1.2	1.33
27	1.781	1.371	15.0	114,300	0.29	19	2048	44	7.9	8.8		160	67	59	159	60	62	1.3	1.1	1.31
28	1.422	1.461	12.0	38,100	0.32	14	1635	30	7.8	8.9		160	58	61	157	55	62	1.2	1.1	1.12
29	1.456	1.320	13.0	121,800	0.37	13	1674	34	7.9	8.9		154	58	60	153	54	58	1.1	1.1	1.23
30	1.068	1.046	10.0	0	0.44	10	1228	28	8.2	8.9		158	59	63	156	58	62	1.2	1.1	1.20
31																				
otal	54.237	59.085	405.0	2,321,100	10.56	585	62581	924	*****	267.2	0.0	4799	1840	1860	4755	1762	1806	39.4	37.2	28.11
Avg	1.808	1.970	13.5	77,370	0.35	20	2086	31	7.8	8.9	0.0	160	61	62	159	59	60	1.3	1.2	0.94
Max	2.537	3.596	17.0	190,800	0.57															
Min	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: September

Year: 1987

Total Number of Wells in System: 35

PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant

PWSID: 04-67-041

	Total Water Pumped		Hours	Bkwsh Water		Chlorine	Lime	Flouride	pH			Hardness (mg/l)			Alkalinity (mg/l)			Free Chlorine (mg/l)		Fluoride
ate	Raw (MGD)	Delivered (MGD)	Plant Oper	Used (Gals)	Turbidity (NTU)	Used (lbs)	Used (lbs)	Used (lbs)	Raw	Finish	Deliver	Raw	Softener	Deliver	Raw	Filter	Deliver	Resid Plant	Deliver	Deliver
1	4.338	3.775	24	0	0.21	55	3326	0	7.3	8.1		168	63	66	158	56	62	1.1	1.0	0.12
2	4.861	3.637	24	159,600	0.20	65	3495	0	7.4	8.2		170	64	67	160	60	60	1.1	1.0	0.15
3	4.985	3.782	24	0	0.19	60	3590	0	7.6	8.2		172	62	66	163	64	62	1.0	1.0	0.14
4	8.666	4.561	24	159,600	0.19	70	3478	0	7.4	8.0		157	65	66	160	63	63	1.1	1.0	0.14
5	4.103	3.371	24	39,900	0.19	70	3408	45	7.4	8.2		163	63	65	165	64	62	0.9	0.9	0.58
6	3.422	2.771	24	119,900	0.19	55	3393	49	7.6	8.2		160	60	61	162	63	60	0.9	1.0	0.75
7	3.462	3.502	24	119,700	0.20	50	3394	66	7.4	8.2		163	60	60	165	64	60	1.0	1.0	1.00
8	3.384	3.627	24	79,800	0.19	55	3385	57	7.2	8.3		160	60	62	162	60	60	1.0	1.0	0.89
9	3.863	3.687	24	39,900	0.21	60	3544	69	7.4	8.3		160	60	65	164	61	60	1.0	1.0	0.94
10	4.190	3.800	24	79,800	0.21	65	3806	78	7.4	8.3		162	62	64	162	60	60	1.1	1.0	0.98
11	3.950	3.493	24	39,900	0.22	63	3716	72	7.4	8.3		164	60	64	164	56	60	1.1	1.0	0.96
12	3.434	3.033	24	79,800	0.19	50	3482	68	7.2	8.3		160	60	63	162	60	60	1.1	1.0	1.05
13	3.330	2.969	24	39,900	0.21	47	3480	63	7.2	8.3		160	60	62	162	60	60	1.1	1.0	1.00
14	3.953	3.771	24	79,800	0.22	53	3379	69	7.5	8.3		152	60	62	138	57	60	1.1	1.0	0.95
15	4.879	4.332	24	39,900	0.13	57	3554	92	7.4	8.2		150	59	63	120	61	58	0.9	0.9	0.99
16	5.251	4.051	24	119,700	0.19	85	3617	87	7.4	8.2		168	62	64	154	62	61	0.9	0.9	0.87
17	4.502	4.448	24	79,800	0.17	65	3613	69	7.4	8.2		166	61	65	154	58	62	1.1	0.9	0.80
18	5.031	4.648	24	79,800	0.17	70	3630	86	7.4	8.2		168	59	62	156	57	60	1.1	1.0	0.89
19	4.560	4.382	24	79,800	0.16	70	3627	81	7.3	8.2		170	59	60	154	53	58	1.1	1.0	0.93
20	4.258	4.539	24	79,800	0.16	80	3637	86	7.4	8.2		166	58	62	154	56	60	1.1	1.1	0.99
21	4.761	5.073	24	79,800	0.17	74	3723	97	7.3	8.3		168	60	61	152	58	60	1.1	1.1	1.00
22	4.817	5.033	24	39,900	0.17	65	3792	96	7.2	8.2		168	62	66	154	52	59	0.9	0.9	0.99
23	4.298	5.001	24	119,700	0.17	55	5055	100	7.4	8.3		164	58	60	156	53	47	1.1	1.0	1.05
24	5.003	4.923	24	39,900	0.17	80	5662	95	7.4	8.1		162	55	63	154	57	57	0.8	0.8	0.89
25	5.042	4.787	24	119,700	0.18	59	6138	94	7.2	8.1		164	58	65	152	60	60	1.2	1.1	0.97
26	4.696	4.237	24	0	0.18	51	5963	101	7.6	8.2		162	63	65	156	59	60	1.1	0.9	1.12
27	4.183	3.824	24	39,900	0.18	50	3540	82	7.4	8.1		160	63	60	160	58	60	1.1	1.0	1.00
28	4.774	4.765	24	0	0.18	60	5968	117	7.4	8.3		156	60	62	154	58	60	1.1	1.1	1.59
29	5.245	4.794	24	159,600	0.18	70	6634	103	7.4	8.4		160	61	63	162	59	55	1.1	1.1	1.03
30	5.031	4.713	24	0	0.23	50	6715	83	7.4	8.7		164	65	67	161	62	61	1.0	1.1	0.86
31																				
otal	136.272	123.329	720	2,114,900	5.61	1859	123744	2105	*****	247.1	0.0	4887	1822	1901	4700	1771	1787	31.3	29.8	25.62
Avg	4.396	3.978	23.2	68,223	0.18	60	3992	68	7.1	8.0	0.0	158	59	61	152	57	58	1.0	1.0	0.83
ax	8.666	5.073	24.0	159,600	0.23															

5000
MAIN

Water Supply Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities for the month of July 1987 are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer: B. Frazelle, W/WW, X5988
Typist: S.Kolde, 3 Aug 87

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: August

Year: 1987

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.476	0.413	12.0	33,000		25	50					170	48	50				1.0	1.0	
2	0.540	0.510	17.0	30,800		13	50					168	50	50				1.3	1.2	
3	0.413	0.355	10.0	33,000		14	50					168	50	50				1.4	1.4	
4	0.402	0.371	9.0	30,800		10	50					170	50	50				1.4	1.4	
5	0.415	0.373	9.0	35,000		12	50					180	48	50				1.4	1.3	
6	0.438	0.384	8.0	30,800		12	50					178	48	50				1.4	1.3	
7	0.464	0.403	11.0	33,000		17	50					180	50	52				1.4	1.3	
8	0.462	0.400	12.0	33,000		13	50					180	48	50				1.3	1.5	
9	0.593	0.508	17.0	33,000		6	0					180	50	50				1.3	1.4	
10	0.489	0.388	14.0	33,000		15	0					180	48	50				1.4	1.4	
11	0.320	0.380	9.0	33,000		24	50					180	48	50				1.5	1.5	
12	0.435	0.399	11.0	33,000		22	50					180	48	50				1.4	1.4	
13	0.461	0.400	13.0	28,600		12	0					178	50	50				1.3	1.2	
14	0.521	0.508	14.0	33,000		14	50					176	50	50				1.2	1.2	
15	0.511	0.418	14.0	33,000		13	50					174	50	52				1.3	1.3	
16	0.591	0.521	15.0	35,200		18	50					170	50	50				1.4	1.4	
17	0.525	0.463	12.0	33,000		13	50					164	50	50				1.4	1.4	
18	0.471	0.407	12.0	33,000		14	50					170	50	50				1.4	1.3	
19	0.468	0.429	12.0	33,000		12	50					170	50	50				1.3	1.3	
20	0.642	0.675	16.0	33,000		20	50					168	50	50				1.3	1.3	
21	0.523	0.574	13.0	30,800		14	50					168	50	50				1.4	1.3	
22	0.526	0.470	18.0	35,200		16	50					170	50	50				1.4	1.2	
23	0.565	0.579	20.0	30,800		18	50					166	50	50				1.2	1.3	
24	0.592	0.497	18.0	33,000		16	50					170	50	50				1.3	1.3	
25	0.614	0.566	18.0	33,000		18	50					180	50	50				1.3	1.2	
26	0.470	0.463	14.0	33,000		13	50					174	52	50				1.3	1.3	
27	0.432	0.443	15.0	33,000		13	50					170	50	50				1.3	1.3	
28	0.537	0.547	15.0	33,000		16	50					170	50	50				1.3	1.3	
29	0.662	0.626	20.0	33,000		23	50					170	62	58 *				1.5	1.4	
30	0.644	0.559	19.0	33,000		21	50					170	58	59				1.6	1.6	
31	0.496	0.396	14.0	33,000		15	50					164	50	50				1.4	1.3	
Total	15.698	14.425	431.0	1,014,000	0.00	482	1400	0	0.0	0.0	0.0	5356	1558	1571	0	0	0	41.8	41.0	0.00
Avg	0.506	0.465	13.9	32,710	0.00	16	45	0	0.0	0.0	0.0	173	50	51	0	0	0	1.3	1.3	0.00
Max	0.662	0.675	20.0	35,200	0.00															
Min	0.320	0.355	8.0	28,600	0.00															

Month: ~~August~~ July
Year: 1987
Total Number of Wells in System: 4

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE
Report of Operation

PUBLIC WATER SYSTEM FOR: Rifle Range Water Plant

PWSID: 04-67-046

	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.257	0.198	13.0	8,200		8	50					176	50	50				1.1	1.0	
2	0.292	0.198	15.0	8,200		5	50					178	50	50				1.0	1.0	
3	0.255	0.163	13.0	8,200		5	50					178	50	52				1.0	1.0	
4	0.237	0.167	13.0	8,200		6	50					176	50	50				1.0	1.1	
5	0.198	0.158	11.0	8,200		5	50					177	50	50				1.1	1.1	
6	0.256	0.140	13.0	8,200		2	50					178	50	50				1.1	1.0	
7	0.211	0.170	12.0	8,200		5	50					178	50	50				1.2	1.1	
8	0.231	0.159	12.0	16,400		5	50					176	52	54				1.2	1.1	
9	0.226	0.167	15.0	8,200		5	50					178	50	50				1.0	1.1	
0	0.207	0.152	14.0	8,200		4	50					178	50	54				1.1	1.0	
11	0.232	0.172	15.0	8,200		3	50					176	50	50				0.9	0.8	
2	0.231	0.153	15.0	8,200		5	50					178	50	52				1.0	0.9	
13	0.261	0.184	15.0	10,400		6	50					178	50	50				1.1	1.1	
4	0.158	0.209	14.0	8,200		6	50					176	50	52				1.0	1.1	
15	0.181	0.243	14.0	8,200		10	50					178	50	52				1.1	1.0	
6	0.178	0.235	13.0	8,200		8	50					176	50	52				1.1	1.0	
17	0.292	0.177	15.0	8,200		5	50					178	50	52				1.1	1.0	
8	0.164	0.141	11.0	8,200		5	50					176	50	52				1.1	1.0	
9	0.194	0.182	15.0	8,200		1	50					178	50	52				1.1	1.0	
0	0.232	0.182	15.0	8,200		4	50					178	50	52				1.1	1.0	
21	0.239	0.168	16.0	8,200		4	50					176	52	54				1.0	0.9	
2	0.268	0.193	16.0	8,200		7	50					178	58	52				1.1	1.0	
23	0.268	0.193	16.0	8,200		7	50					178	50	52				1.1	1.0	
4	0.214	0.177	16.0	8,200		5	50					176	50	52				1.0	1.2	
25	0.248	0.167	16.0	8,200		5	50					176	50	52				1.0	1.1	
6	0.218	0.152	14.0	8,200		5	50					178	50	52				1.0	1.2	
27	0.221	0.195	11.0	8,200		5	50					178	50	52				1.0	1.0	
8	0.241	0.216	8.0	8,200		5	50					174	50	52				1.0	1.2	
9	0.388	0.225	16.0	8,200		5	50					176	52	54				1.2	1.0	
0	0.337	0.236	15.0	8,200		5	50					174	50	54				1.0	1.1	
31	0.296	0.220	14.0	8,200		8	50					178	50	54				1.0	1.0	
al	7.431	5.692	431.0	264,600	0.00	164	1550	0	0.0	0.0	0.0	5487	1564	1606	0	0	0	32.8	32.1	0.00
g	0.240	0.184	13.9	8,535	0.00	5	50	0	0.0	0.0	0.0	177	50	52	0	0	0	1.1	1.0	0.00
x	0.388	0.243	16.0	16,400	0.00															
n	0.158	0.140	8.0	8,200	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: August

Year: 1987

Total Number of Wells in System: 25

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water Plant

PWSID: 04-67-042

ate	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.568	0.546	17.0	0	0.51	17	1449		7.5	8.6		182	69	58	248	118	112		0.8	0.87
2	0.455	0.480	13.0	0	0.52	15	1364		7.5	8.5		180	71	58	238	115	112		0.8	0.82
3	0.427	0.446	13.0	60,000	0.46	14	1231		7.4	8.4		180	64	54	240	112	109		0.7	0.87
4	0.473	0.433	13.0	10,800	0.81	13	1385		7.4	8.4		170	61	54	248	129	112		0.7	0.88
5	0.482	0.475	13.0	0	0.46	15	1271		7.3	8.4		172	64	55	242	123	118		0.8	0.89
6	0.579	0.564	17.0	0	0.45	17	1669		7.5	8.5		160	61	54	248	129	125		0.8	0.82
7	0.557	0.537	15.0	60,000	0.42	17	1483		7.5	8.5		160	71	54	260	151	150		0.8	0.83
8	0.625	0.597	16.0	120,000	0.34	19	1528		7.5	8.5		162	67	56	258	147	147		0.7	0.84
9	0.672	0.621	15.5	60,000	0.63	19	1620		7.6	8.7		170	70	70	256	170	165		0.9	0.86
10	0.628	0.556	17.0	60,000	0.46	16	1576		7.4	8.5		178	58	75	266	136	168		0.9	0.95
11	0.536	0.478	14.0	60,000	0.41	15	1242		7.4	8.6		194	66	53	258	148	145		0.9	0.82
12	0.624	0.528	15.0	60,000	0.43	16	1374		7.5	8.5		190	73	50	256	136	152		0.8	0.82
13	0.604	0.595	17.0	60,000	0.43	18	1610		7.5	8.5		188	72	56	250	154	154		0.8	0.84
14	0.674	0.557	16.0	60,000	0.39	17	1395		7.5	8.5		160	70	53	250	144	146		0.8	0.91
15	0.558	0.524	16.0	60,000	0.33	16	1480		7.5	8.4		166	67	55	256	132	145		0.7	0.86
16	0.656	0.595	15.0	60,000	0.37	18	1350		7.4	8.5		178	70	56	270	149	141		0.8	0.85
17	0.644	0.575	15.0	60,000	0.38	18	1395		7.5	8.5		176	69	57	264	148	138		0.8	0.84
18	0.528	0.468	13.5	60,000	0.41	16	1215		7.4	8.5		174	70	54	254	146	139		0.8	0.86
19	0.512	0.505	12.5	0	0.42	15	1125		7.5	8.5		168	71	55	258	144	140		0.7	0.88
20	0.677	0.615	15.5	108,000	0.43	19	1305		7.5	8.3		184	69	65	238	152	148		0.7	0.92
21	0.670	0.622	18.0	0	0.62	19	1245		7.4	8.4		192	60	63	280	147	145		0.8	0.94
22	0.653	0.608	17.0	60,000	0.65	19	1208		7.5	8.6		164	66	53	260	151	149		0.8	0.94
23	0.703	0.641	16.0	60,000	0.46	20	1410		7.4	8.5		174	67	54	248	151	152		0.8	0.89
24	0.690	0.606	17.0	60,000	0.41	19	1220		7.6	8.4		164	72	57	270	146	146		0.8	0.82
25	0.614	0.553	15.0	60,000	0.38	17	1160		7.8	8.6		176	69	53	272	139	139		0.8	0.83
26	0.682	0.594	17.0	60,000	0.33	18	1250		7.6	8.6		178	72	53	270	151	143		0.8	0.80
27	0.612	0.546	14.5	60,000	0.38	17	1172		7.8	8.6		162	74	55	264	147	145		0.8	0.83
28	0.537	0.512	13.5	60,000	0.41	16	1279		7.5	8.5		156	69	53	260	145	139		0.7	0.87
29	0.544	0.541	13.5	0	0.46	17	1243		7.5	8.5		162	65	57	260	143	146		0.7	0.88
30	0.616	0.551	15.0	60,000	0.45	17	1369		7.5	8.4		158	67	55	266	152	151		0.8	0.88
31	0.604	0.577	14.5	60,000	0.53	18	1282		7.5	8.4		162	67	66	258	155	159		0.7	0.91
tal	18.404	17.046	470.0	1,498,800	14.14	527	41905	0	*****	263.3	0.0	5340	2101	1761	7966	4410	4380	0.0	24.2	26.82
vg	0.594	0.550	15.2	48,348	0.46	17	1352	0	7.5	8.5	0.0	172	68	57	257	142	141	0.0	0.8	0.87
ax	0.703	0.641	18.0	120,000	0.81															
in	0.427	0.433	12.5	0	0.33															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: August

Year: 1987

Total Number of Wells in System: 8

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	2.370	2.712	15.0	76,200	0.44	28	2726	19	7.6	8.9		164	59	57	162	59	58	1.4	1.4	0.43
2	2.312	2.680	15.0	132,300	0.25	27	2658	28	7.6	8.8		166	58	59	162	58	58	1.4	1.3	0.65
3	1.488	2.315	10.0	0	0.75	14	1711	22	7.7	8.7		166	61	61	163	60	63	1.1	1.2	0.77
4	2.011	2.375	13.0	38,100	0.87	18	2312	27	7.6	8.8		168	53	60	160	58	59	1.1	1.0	0.72
5	2.497	2.735	16.0	189,000	0.99	24	2871	41	7.6	8.8		162	56	57	163	50	54	1.2	1.0	0.86
6	2.489	3.029	17.0	76,200	0.75	24	2862	42	7.7	9.0		160	55	56	161	53	53	1.2	1.1	0.89
7	2.206	2.725	15.0	76,200	0.69	22	2536	41	7.7	8.9		158	59	60	165	57	57	1.3	1.2	0.99
8	2.406	2.899	16.0	38,100	0.66	26	2766	44	7.7	8.9		168	61	60	162	60	60	1.3	1.3	0.96
9	2.527	3.134	17.0	119,700	0.80	27	2906	46	7.7	8.9		158	71	68	160	77	67	1.3	1.3	0.96
10	2.628	3.174	17.0	86,400	0.41	28	3022	47	7.8	8.9		154	64	67	166	63	66	1.3	1.2	0.93
11	2.443	2.891	17.0	183,600	0.44	26	2809	44	7.8	8.9		160	59	62	155	60	62	1.3	1.3	0.95
12	2.440	2.777	17.0	134,400	0.40	26	2806	48	7.6	8.8		160	56	60	158	56	60	1.3	1.3	0.91
13	2.446	2.875	16.0	172,200	0.59	22	2813	47	7.6	8.8		158	57	56	155	54	56	1.1	1.3	1.01
14	2.543	2.966	16.0	114,300	0.68	24	2924	52	7.7	8.7		160	59	61	160	56	59	1.1	1.0	1.07
15	2.130	2.812	14.0	114,300	0.42	24	2450	41	7.6	8.8		162	57	59	157	53	59	1.3	1.1	1.00
16	2.380	2.933	15.0	114,300	0.46	29	2737	45	7.8	8.9		160	55	55	158	51	53	1.5	1.4	0.98
17	2.440	3.126	16.0	114,300	0.42	28	2806	55	7.7	8.8		156	57	58	155	56	54	1.4	1.3	0.92
18	2.266	2.987	16.0	76,200	0.27	26	2606	57	7.6	8.8		140	58	58	158	58	58	1.4	1.3	0.99
19	2.666	3.601	18.0	114,300	0.23	29	3065	45	7.6	8.9		160	57	56	158	56	56	1.3	1.2	0.90
20	2.909	3.499	19.0	152,400	0.24	29	3345	52	7.4	8.9		154	57	58	158	54	56	1.2	0.9	0.94
21	3.286	3.624	20.0	82,800	0.29	41	3779	61	7.4	8.8		148	57	57	160	57	57	1.5	1.4	0.98
22	4.065	4.085	24.0	147,600	0.33	44	4674	76	7.7	8.7		158	65	63	159	62	62	1.3	1.3	0.98
23	3.622	3.519	20.0	129,600	0.88	39	4165	65	7.6	8.7		158	62	63	160	64	63	1.3	1.3	0.94
24	3.628	3.530	19.0	158,400	0.93	42	4172	52	7.6	8.8		166	58	62	175	59	62	1.4	1.3	0.75
25	3.386	3.590	19.0	46,800	0.44	37	3894	30	7.6	8.8		164	60	58	165	60	58	1.3	1.3	0.47
26	3.675	3.867	19.0	175,500	0.29	40	4226	67	7.6	8.8		164	63	64	165	64	64	1.3	1.3	0.96
27	3.155	3.093	18.0	105,300	0.34	37	3628	59	7.6	8.8		166	64	64	162	62	62	1.4	1.3	0.97
28	2.667	2.958	15.0	114,300	0.31	29	3067	57	7.6	8.8		164	65	66	158	64	64	1.3	1.3	1.12
29	2.459	3.182	14.0	114,300	0.37	28	2828	51	7.6	8.7		160	64	65	160	62	64	1.4	1.2	1.09
30	2.827	2.848	16.0	114,300	0.26	31	3251	61	7.5	8.7		160	62	63	160	62	64	1.3	1.2	1.12
31	2.847	3.038	16.0	152,400	0.31	28	3274	56	7.7	8.7		160	66	65	160	64	64	1.3	1.2	1.03
al	83.214	95.579	515.0	3,463,800	15.51	897	95689	1478	*****	273.2	0.0	4962	1855	1878	4980	1829	1852	40.3	38.2	28.24
g	2.684	3.083	16.6	111,735	0.50	29	3087	48	7.6	8.8	0.0	160	60	61	161	59	60	1.3	1.2	0.91
x	4.065	4.085	24.0	189,000	0.99															
n	1.488	2.315	10.0	0	0.23															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: August

Year: 1987

Total Number of Wells in System: 35

PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant

PWSID: 04-67-041

	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine Resid (mg/l) Plant	Free Chlorine Resid (mg/l) Deliver	Fluoride Deliver	R
e	(MGD)	(MGD)	Oper	(Gals)	(NTU)	(lbs)	(lbs)	(lbs)	Raw	Finish	Deliver	Raw	Softener	Deliver	Raw	Filter	Deliver	Plant	Deliver	Deliver	
1	3.572	3.444	24	79,800	0.20	43	3399	66	7.4	8.4		166	59	59	156	57	53	1.0	0.9	1.03	
2	3.310	3.322	24	39,900	0.20	62	3462	66	7.6	8.4		166	62	60	156	57	57	1.1	1.1	1.04	
3	3.608	2.837	24	79,800	0.20	60	3491	70	7.2	8.4		166	60	60	156	58	56	1.1	1.0	1.02	
4	3.038	2.696	24	79,800	0.22	45	3437	60	7.6	8.4		164	60	60	154	58	58	1.1	1.0	1.03	
5	2.812	2.763	24	79,800	0.21	50	3247	56	7.6	8.4		166	60	62	156	55	61	1.1	1.0	1.05	
6	3.148	3.156	24	0	0.20	52	3279	63	7.4	8.4		166	59	61	154	58	58	1.1	1.0	1.06	
7	2.822	2.238	24	79,800	0.22	50	3517	55	7.2	8.4		164	59	56	156	54	56	1.1	1.1	1.02	
8	3.524	3.401	24	39,900	0.21	55	3403	60	7.3	8.5		173	62	60	160	61	57	0.9	0.9	0.90	
9	3.740	3.408	24	79,800	0.22	50	3496	35	7.2	8.4		175	63	66	157	53	58	1.0	0.9	0.50	
0	3.481	3.271	24	39,900	0.21	50	3530	32	7.3	8.3		175	64	64	169	58	61	1.1	1.0	0.48	
1	3.412	3.059	24	79,800	0.11	50	3564	52	7.4	8.2		175	61	63	169	63	64	1.2	1.1	0.81	
2	3.372	3.120	24	39,900	0.19	45	3580	56	7.3	8.4		173	62	65	159	63	62	1.0	0.9	0.87	
3	3.367	3.365	24	79,900	0.21	40	3574	64	7.3	8.4		175	63	64	165	60	62	1.2	1.0	1.00	
4	3.746	3.357	24	39,900	0.19	48	3609	49	7.4	8.3		173	64	64	170	63	64	1.0	0.9	0.66	
5	3.291	3.543	24	79,800	0.23	59	3877	76	7.4	8.4		168	64	64	168	62	64	1.0	0.9	0.76	
6	3.339	3.438	24	0	0.19	53	3427	63	7.3	8.2		170	64	68	170	64	64	1.0	1.0	0.99	
7	3.588	3.405	24	79,800	0.22	70	4673	68	7.2	8.2		168	62	62	168	64	64	1.2	1.2	1.00	
8	3.469	2.708	24	39,900	0.19	35	2856	48	7.4	8.4		168	64	64	168	62	64	1.0	1.1	1.00	
9	3.048	3.067	24	79,800	0.22	45	2995	64	7.2	8.1		170	64	68	170	64	64	1.0	1.0	1.20	
0	3.385	3.484	24	79,800	0.16	60	3625	71	7.2	8.2		168	60	64	168	62	66	1.1	1.0	1.01	
1	3.857	3.532	24	119,700	0.13	40	3678	72	7.4	8.1		168	59	60	170	57	56	1.1	1.0	0.98	
2	4.030	3.599	24	39,900	0.19	50	3638	60	7.3	8.4		162	59	58	156	56	58	1.1	1.0	0.78	
3	3.561	3.652	24	79,800	0.17	50	3537	54	7.3	8.3		160	61	61	156	58	56	1.1	1.0	0.79	
4	3.494	3.421	24	39,900	0.18	50	3486	62	7.6	8.3		164	60	61	154	59	58	1.1	1.0	0.93	
5	2.974	3.297	24	79,800	0.19	45	3438	74	7.6	8.2		166	60	61	156	59	60	1.1	1.0	1.18	
6	2.973	3.201	24	39,900	0.17	65	3404	66	7.6	8.2		166	57	60	154	54	58	1.1	1.1	1.07	
7	3.436	3.436	24	79,800	0.18	58	3391	72	7.4	8.3		168	61	60	156	56	53	1.0	0.9	0.95	
8	3.330	3.963	24	39,900	0.18	32	3366	72	7.4	8.2		162	63	60	152	57	54	1.0	1.0	1.13	
9	3.502	3.621	24	79,800	0.18	65	3404	73	7.6	8.2		166	63	73	156	58	71	1.0	1.0	1.03	
0	3.960	3.655	24	39,900	0.18	45	3488	72	7.6	8.3		164	62	69	154	61	66	1.2	1.1	1.20	
1	3.016	3.740	24	79,800	0.18	60	3440	72	7.4	8.4		166	65	64	156	74	66	1.1	1.0	1.08	
al	105.205	102.199	744	1,915,300	5.93	1582	108311	1923	*****	257.7	0.0	5201	1906	1941	4969	1845	1869	33.2	31.1	29.55	
g	3.394	3,297	24.0	61,784	0.19	51	3494	62	7.4	8.3	0.0	168	61	63	160	60	60	1.1	1.0	0.95	
x	4.930	3.963	24.0	119,700	0.23																
n	2.812	2.238	24.0	0	0.11																

Encl (1)

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: August

Year: 1987

Total Number of Wells in System: 2

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant

PWSID: 04-67-048

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.135	0.063	9.5	7,000		10						168	67	65				1.6	1.0	
2	0.105	0.121	8.0	9,000		4						160	66	64				1.8	1.3	
3	0.114	0.059	10.0	7,000		4						164	54	54				1.1	0.9	
4	0.130	0.065	9.0	9,000		5						166	50	52				1.0	1.0	
5	0.107	0.059	12.0	7,000		2						178	50	50				1.3	1.2	
6	0.097	0.057	13.0	7,000		3						180	48	50				1.8	1.5	
7	1.090	0.083	12.0	9,000		2						180	48	50				1.8	1.6	
8	0.097	0.118	14.0	7,000		3						178	48	50				1.8	1.8	
9	0.116	0.119	16.0	9,000		3						176	48	50				1.8	1.6	
10	0.108	0.104	15.0	9,000		3						178	48	50				1.7	1.5	
11	0.114	0.123	15.0	9,000		2						170	48	50				1.8	1.5	
12	0.130	0.107	18.0	7,000		2						168	48	50				1.9	1.6	
13	0.096	0.116	13.5	7,000		6						170	48	51				1.9	1.5	
14	0.112	0.113	16.0	7,000		5						178	50	50				1.6	1.6	
15	0.110	0.120	16.0	7,000		3						180	48	50				1.6	1.5	
16	0.133	0.142	17.0	9,000		5						180	48	50				1.6	1.4	
17	0.163	0.117	23.0	6,000		5						178	46	48				1.8	1.5	
18	0.124	0.131	17.0	9,000		4						180	56	54				1.6	1.3	
19	0.188	0.135	13.0	9,000		7						180	72	62				1.8	1.4	
20	0.180	0.131	13.0	9,000		6						180	50	50				1.8	1.7	
21	0.182	0.126	14.0	9,000		3						180	50	52				1.8	1.7	
22	0.103	0.133	13.0	7,000		4						156	50	50				1.2	1.2	
23	0.234	0.146	17.0	9,000		8						160	60	70				1.2	1.3	
24	0.166	0.143	12.0	9,000		4						166	70	70				1.2	1.5	
25	0.279	0.267	19.0	9,000		8						150	50	54				1.0	1.0	
26	0.170	0.123	11.0	9,000		6						152	50	54				1.0	1.0	
27	0.156	0.135	10.0	7,000		2						150	54	50				1.2	1.6	
28	0.163	0.120	13.0	7,000		4						150	60	58				1.6	1.1	
29	0.168	0.145	14.0	9,000		4						152	50	50				1.5	1.2	
30	0.149	0.125	10.0	7,000		3						160	58	56				1.8	1.5	
31	0.119	0.129	9.0	6,000		2						164	52	50				1.7	1.5	
Total	5.338	3.675	422.0	247,000	0.00	132	0	0	0.0	0.0	0.0	5232	1645	1664	0	0	0	48.3	43.0	0.00
Avg	0.172	0.119	13.6	7,968	0.00	4	0	0	0.0	0.0	0.0	169	53	54	0	0	0	1.6	1.4	0.00
Max	1.090	0.267	23.0	9,000	0.00															
Min	0.096	0.057	8.0	6,000	0.00															

5000
MAIN

Water Supply Branch
Division of Health Services
P.O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities for the month of August 1987 are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operations Forms

Writer: B. Frazelle, W/WW, X5988
Typist: S.Kolde, 2 Sept 87

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: August

Year: 1987

Total Number of Wells in System: 35

PUBLIC WATER SYSTEM FOR: Hadnot Point Water Plant

PWSID: 04-67-041

ate	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	BKWSH Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride (mg/l) Deliver
1	3.816	3.019	24	39,900	0.18	60	3327	73	7.6	8.5		166	57	60	156	64	62	1.1	1.1	1.00
2	3.174	2.997	24	79,900	0.18	50	3076	58	7.5	8.3		164	60	62	154	61	60	1.1	1.1	0.95
3	3.396	3.411	24	0	0.18	60	3173	62	7.6	8.4		166	56	60	154	60	60	1.1	1.1	0.97
4	3.666	3.412	24	19,700	0.19	45	3189	71	7.4	8.2		164	59	60	156	62	58	1.1	1.0	1.01
5	3.390	4.120	24	0	0.15	58	3496	72	7.6	8.2		158	60	60	158	62	60	1.1	1.0	1.00
6	3.610	3.495	24	119,700	0.12	52	3208	60	7.4	8.2		163	58	60	160	60	60	1.1	1.0	0.86
7	3.822	3.482	24	0	0.16	50	3212	67	7.6	8.2		167	58	60	157	59	60	1.1	1.1	0.93
8	3.056	3.480	24	119,700	0.11	40	3076	64	7.4	8.2		164	60	60	160	60	59	1.0	1.0	0.97
9	3.512	3.022	24	0	0.19	60	3114	66	7.6	8.4		162	58	63	164	58	58	1.0	1.0	0.99
10	4.242	4.312	24	119,700	0.18	50	4780	76	7.4	8.4		167	57	60	165	56	56	1.1	1.0	0.94
11	5.171	4.504	24	0	0.18	65	5492	100	7.6	8.4		172	58	59	171	54	54	1.1	1.1	1.02
12	4.617	3.988	24	159,600	0.17	65	4099	88	7.4	8.5		168	59	58	166	55	54	1.1	1.0	1.00
13	3.813	3.588	24	0	0.19	60	3288	71	7.4	8.3		170	62	61	164	57	53	1.1	1.0	0.98
14	3.436	3.531	24	119,700	0.15	50	3316	67	7.4	8.3		146	58	63	136	51	55	1.1	1.0	1.01
15	2.982	3.385	24	39,900	0.15	55	3162	69	7.4	8.3		152	60	60	140	54	52	1.1	1.1	1.08
16	3.920	2.980	24	79,800	0.14	50	3125	77	7.2	8.1		152	61	59	140	59	55	1.1	1.0	1.04
17	3.413	3.592	24	0	0.18	50	3532	60	7.0	8.3		136	59	62	147	62	59	1.2	1.1	0.92
18	3.971	3.852	24	79,800	0.22	50	3442	65	7.2	8.8		154	66	60	142	67	58	1.1	1.1	0.85
19	4.647	4.118	24	39,900	0.16	60	3848	76	7.5	8.2		152	68	72	140	60	68	1.1	1.0	0.86
20	4.270	4.017	24	79,800	0.16	65	3650	71	7.4	8.1		154	65	69	140	63	67	1.0	1.0	0.87
21	4.094	3.827	24	79,800	0.18	65	3368	98	7.3	8.1		152	59	64	142	60	66	1.1	1.0	1.25
22	3.374	3.589	24	39,900	0.17	55	3406	58	7.4	8.1		152	60	63	144	60	62	1.1	1.1	0.85
23	3.435	3.522	24	79,800	0.14	55	3481	63	7.3	8.2		156	58	63	150	56	59	1.2	1.1	0.92
24	3.812	3.603	24	39,900	0.16	55	3518	82	7.4	8.2		156	62	62	148	60	60	1.1	1.1	1.13
25	3.321	4.081	24	79,800	0.13	50	3530	0	7.4	8.2		162	63	60	148	57	57	1.1	1.0	0.81
26	3.844	4.042	24	39,900	0.13	45	3506	44	7.4	7.9		162	64	61	148	56	57	1.0	1.0	0.57
27	4.044	3.840	24	79,800	0.15	55	3506	58	7.4	8.5		158	58	58	144	54	56	0.9	1.0	0.74
28	4.003	4.206	24	39,900	0.22	63	3437	72	7.4	8.2		160	58	58	146	57	59	1.0	1.0	0.95
29	3.956	2.884	24	79,800	0.18	50	3757	0	7.4	8.0		156	57	60	146	57	57	1.2	1.0	0.35
30	3.916	3.297	24	39,900	0.16	57	2912	0	7.3	8.0		160	62	60	154	60	60	1.0	1.0	0.32
31	3.360	4.009	24	79,800	0.28	64	3239	0	7.3	8.2		156	64	64	165	56	58	1.2	1.1	0.28
otal	117.083	113.205	744	1,775,400	5.24	1709	108265	1888	*****	256.1	0.0	4927	1864	1901	4705	1817	1819	33.7	32.2	27.42
Avg	3.777	3.652	24.0	57,271	0.17	55	3492	61	7.4	8.3	0.0	159	60	61	152	59	59	1.1	1.0	0.88
Max	5.171	4.504	24.0	159,600	0.28															
Min	2.982	2.884	24.0	0	0.11															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: August

Year: 1987

Total Number of Wells in System: 18

PUBLIC WATER SYSTEM FOR: Holcomb Blvd Water Plant

PWSID: 04-67-043

	Total Raw	Water Pumped Delivered	Hours Plant	Bkwsh Water Used	Turbidity	Chlorine Used	Lime Used	Flouride Used	pH			Hardness (mg/l)			Alkalinity (mg/l)			Free Chlorine Resid	Fluoride (mg/l)	
ate	(MGD)	(MGD)	Oper	(Gals)	(NTU)	(lbs)	(lbs)	(lbs)	Raw	Finish	Deliver	Raw	Softener	Deliver	Raw	Filter	Deliver	Plant	Deliver	Deliver
1	2.356	2.695	15.0	114,300	0.32	23	2709	45	7.6	8.8		170	66	66	160	66	64	1.2	1.2	0.69
2	2.347	2.833	14.0	76,200	0.29	23	2699	39	7.8	8.8		168	67	66	166	68	65	1.3	1.2	0.87
3	2.936	3.127	17.0	114,300	0.42	29	3376	52	7.8	8.8		164	68	67	162	66	67	1.3	1.2	0.94
4	2.866	3.162	17.0	88,200	0.92	28	3295	58	7.8	8.9		163	61	66	162	59	64	1.3	1.2	1.07
5	3.104	3.266	18.0	126,000	0.28	31	3570	62	7.6	8.9		156	62	63	164	62	62	1.2	1.2	1.04
6	3.281	3.449	19.0	96,600	0.34	32	3773	74	7.8	8.9		164	60	64	163	59	59	1.2	1.2	1.18
7	2.194	2.919	13.0	105,000	0.33	24	2902	54	7.8	8.9		162	63	62	160	60	60	1.3	1.2	0.97
8	2.680	3.010	16.0	105,000	0.48	29	3082	47	7.8	8.9		160	61	62	156	59	58	1.3	1.2	0.92
9	2.786	3.330	16.0	63,000	0.62	27	3203	60	7.8	8.9		160	61	62	156	58	60	1.3	1.2	0.94
10	2.030	2.425	12.0	100,800	0.41	23	2334	38	7.7	8.8		163	66	63	163	62	63	1.4	1.3	0.99
11	1.082	1.904	6.5	76,200	0.42	11	1244	20	7.8	9.0		150	62	60	150	59	57	1.2	1.1	1.00
12	1.857	2.638	10.0	76,200	0.30	19	2136	30	7.9	9.1		158	59	58	154	57	51	1.2	1.1	0.84
13	2.345	3.032	13.0	76,200	0.36	23	2696	39	7.7	8.8		164	62	61	158	60	59	1.2	1.2	0.88
14	2.380	1.977	13.0	114,300	0.33	24	2737	37	7.9	8.8		160	67	64	156	66	62	1.2	1.2	0.97
15	2.224	2.101	12.0	76,200	0.22	24	2558	38	7.6	8.7		150	62	64	152	61	64	1.3	1.2	0.95
16	2.805	2.299	15.0	38,100	0.18	30	3225	53	7.7	8.7		140	60	60	156	58	60	1.3	1.2	1.08
17	2.459	2.304	14.0	76,200	0.27	27	2879	44	7.7	8.6		166	62	59	154	58	56	1.3	1.2	1.00
18	2.715	2.422	16.0	180,000	0.33	29	3122	41	7.6	8.8		136	57	60	160	58	56	1.3	1.3	0.88
19	2.491	2.140	14.0	25,200	0.40	26	2865	45	7.6	8.7		154	58	58	156	58	60	1.3	1.2	0.95
20	2.178	2.620	15.0	162,000	0.26	24	2505	15	7.6	8.8		148	60	59	156	57	58	1.4	1.3	0.37
21	2.039	2.226	13.0	57,600	0.42	24	2197	14	7.8	8.8		148	62	59	156	59	59	1.5	1.4	0.39
22	2.585	2.226	16.0	93,600	0.31	26	2609	96	7.6	8.7		168	62	63	165	60	59	1.4	1.3	2.22
23	2.867	2.376	18.0	126,000	0.39	31	2812	41	7.7	8.6		164	62	62	168	62	62	1.5	1.4	0.89
24	2.187	2.016	15.0	48,000	0.49	25	2302	49	7.8	9.0		162	59	62	168	58	61	1.5	1.5	1.30
25	2.201	1.891	14.0	76,200	0.45	23	2099	40	7.8	9.0		163	63	61	164	50	56	1.5	1.4	0.96
26	2.305	2.176	16.0	76,200	0.78	25	2462	29	7.6	9.0		167	59	64	166	57	66	1.4	1.3	0.73
27	2.976	2.320	18.0	76,200	0.41	32	3422	15	7.8	9.0		160	58	61	156	55	59	1.3	1.2	0.27
28	2.300	2.307	16.0	38,100	0.42	24	2645	5	7.7	8.8		162	68	64	155	68	62	1.3	1.3	0.12
29	2.473	2.439	16.0	114,300	0.59	24	2843	5	7.8	8.8		144	65	66	147	62	63	1.3	1.2	0.64
30	2.171	3.504	15.0	54,000	0.50	25	2496	49	7.8	8.9		156	58	61	155	54	59	1.4	1.2	1.02
31	2.301	3.447	15.0	114,300	0.44	24	2646		7.7	8.9		160	60	61	156	57	58	1.3	1.2	1.18
tal	73.220	77.134	442.5	2,650,200	12.24	765	82797	1234	*****	265.2	0.0	4748	1860	1867	4764	1796	1811	39.6	37.3	27.07
vg	2.362	2.488	14.3	85,490	0.39	25	2671	40	7.5	8.6	0.0	153	60	60	154	58	58	1.3	1.2	0.87
ax	3.281	3.504	19.0	180,000	0.92															
in	0.000	0.000	0.0	0	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: AUGUST

Year: 1987

Total Number of Wells in System: 25

PUBLIC WATER SYSTEM FOR: Marine Corps Air Station Water Plant

PWSID: 04-67-042

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.525	0.475	14.0	60,000	0.34	16	1146		7.5	8.5		164	73	54	262	150	154	0.7	0.0	0.90
2	0.573	0.518	13.0	48,000	0.39	16	1238		7.5	8.6		168	69	54	260	148	146	0.7	0.0	0.90
3	0.647	0.575	15.0	60,000	0.45	18	1376		7.5	8.6		158	70	55	260	155	147	0.8	0.0	0.90
4	0.631	0.567	16.5	60,000	0.36	18	1384		7.6	8.6		158	70	56	268	137	156	0.7	0.0	1.00
5	0.669	0.632	16.0	0	0.44	19	1506		7.6	8.6		160	69	51	265	143	145	0.9		0.84
6	0.773	0.654	19.0	120,000	0.48	20	1724		7.5	8.6		164	72	54	256	150	146	0.9		0.85
7	0.620	0.551	15.0	60,000	0.39	17	1340		7.6	8.5		162	77	54	258	152	151	0.8		0.89
8	0.534	0.524	15.0	60,000	0.27	16	1266		7.6	8.5		132	72	53	268	149	153	0.8		0.89
9	0.614	0.546	16.0	60,000	0.36	17	1358		7.6	8.6		156	74	55	264	133	151	0.8		0.90
10	0.667	0.651	14.0	60,000	0.37	19	1476		7.5	8.6		160	71	54	260	167	148	0.8		0.91
11	0.554	0.632	14.0	0	0.41	20	1260		7.5	8.5		162	72	54	264	149	149	0.8		0.87
12	0.675	0.646	17.0	120,000	0.41	20	1530		7.6	8.5		164	69	52	256	148	146	0.7		0.85
13	0.568	0.595	14.5	60,000	0.40	18	1305		7.6	8.5		178	67	53	260	141	138	0.8		0.85
14	0.644	0.725	15.5	60,000	0.36	22	1385		7.5	8.5		168	71	55	268	146	151	0.8		0.90
15	0.452	0.537	12.0	60,000	0.39	17	1080		7.6	8.4		164	71	57	262	153	145	0.8		0.87
16	0.522	0.629	14.0	60,000	0.37	19	1280		7.5	8.5		168	73	53	248	149	139	0.8		0.88
17	0.641	0.690	0.0	0	0.48	21	1350		7.4	8.6		162	76	53	254	150	138	0.7		0.89
18	0.644	0.646	16.5	120,000	0.36	20	1305		7.5	8.6		168	72	56	258	143	142	0.8		0.94
19	0.571	0.579	14.0	0	0.39	18	1125		7.5	8.6		168	71	53	258	145	147	0.8		0.93
20	0.632	0.682	17.0	60,000	0.34	21	1340		7.5	8.5		166	67	53	256	146	148	0.7		0.94
21	0.589	0.594	10.5	120,000	0.37	18	1250		7.5	8.6		180	74	53	264	144	143	0.8		0.91
22	0.553	0.558	14.5	60,000	0.46	17	1215		7.6	8.6		160	77	53	256	144	141	0.8		0.83
23	0.567	0.592	14.5	60,000	0.29	18	1265		7.6	8.6		160	56	54	264	130	133	0.8		0.76
24	0.561	0.590	14.5	60,000	0.35	18	1250		7.6	8.7		156	60	52	262	134	130	0.8		0.83
25	0.930	0.622	15.0	60,000	0.50	19	1267		7.6	8.7		158	61	55	260	129	134	0.7		0.81
26	0.666	0.680	18.0	60,000	0.47	21	1491		7.6	8.7		164	65	53	250	136	138	0.7		0.80
27	0.752	0.812	18.0	48,000	0.40	24	1537		7.6	8.6		162	64	55	255	134	147	0.8		0.84
28	0.630	0.637	16.0	60,000	0.48	20	1427		7.5	8.6		164	61	54	252	135	134	0.7		0.86
29	0.625	0.616	14.0	60,000	0.44	19	1213		7.5	8.4		162	56	58	258	126	151	0.7		0.89
30	0.476	0.503	11.5	0	0.37	16	1055		7.5	8.3		164	56	58	260	143	128	0.7		
31	0.630	0.636	15.5	120,000	0.34	20	1376		7.5	8.4		158	64	56	258	142	140	0.8		
Total	19.135	18.894	450.0	1,836,000	12.23	582	41120	0	*****	265.1	0.0	5058	2120	1680	8044	4451	4459	23.9	0.0	25.43
Avg	0.617	0.609	14.5	59,226	0.39	19	1326	0	7.5	8.6	0.0	163	68	54	259	144	144	0.8	0.0	0.82
Max	0.930	0.812	19.0	120,000	0.50															
Min	0.452	0.475	0.0	0	0.27															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Month: August

Year: 1987

Report of Operation

Total Number of Wells in System: 5

PUBLIC WATER SYSTEM FOR: Courthouse Bay Water Plant

PWSID: 04-67-047

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.521	0.568	17.0	33,000		20	50					168	70	70				1.3	1.4	
2	0.523	0.423	11.5	33,000		20	50					172	50	50				1.2	1.0	
3	0.618	0.570	15.0	30,800		17	50					168	50	50				1.2	1.2	
4	0.554	0.420	13.0	33,000		14	50					180	50	50				1.3	1.2	
5	0.480	0.410	14.0	33,000		14	50					180	50	52				1.2	1.2	
6	0.514	0.530	16.0	28,600		17	50					180	50	50				1.3	1.2	
7	0.468	0.407	11.0	33,000		12	50					180	52	51				1.1	1.2	
8	0.503	0.460	13.0	33,000		11	50					180	51	52				1.1	1.2	
9	0.416	0.591	15.0	33,000		10	50					182	52	52				1.1	1.2	
10	0.450	0.399	14.0	33,000		11	50					180	52	52				1.2	1.2	
11	0.572	0.549	17.0	30,800		12	50					166	50	50				0.9	0.9	
12	0.442	0.395	12.0	30,800		15	50					160	50	50				1.2	1.2	
13	0.428	0.430	13.0	30,800		10	50					164	50	50				1.2	1.2	
14	0.561	0.511	15.0	33,000		16	50					168	50	50				1.2	1.2	
15	0.447	0.439	11.0	33,000		12	50					164	50	50				1.0	1.2	
16	0.571	0.529	14.0	35,200		19	50					162	50	50				1.2	1.3	
17	0.450	0.415	12.0	30,800		13	50					160	50	50				1.2	1.2	
18	0.617	0.598	18.0	30,800		16	50					164	50	50				1.2	1.2	
19	0.510	0.442	14.0	33,000		14	50					166	52	52				1.5	1.4	
20	0.548	0.506	15.0	33,000		16	50					164	52	52				1.4	1.4	
21	0.626	0.570	20.0	35,200		17	50					162	50	50				1.4	1.4	
22	0.422	0.476	10.0	28,600		14	50					150	50	50				1.0	1.2	
23	0.453	0.454	11.0	28,600		15	50					150	52	50				1.3	1.2	
24	0.581	0.521	17.0	38,000		17	50					154	50	50				1.3	1.3	
25	0.407	0.408	12.0	30,800		10	50					132	48	48				1.4	1.4	
26	0.583	0.502	16.0	33,000		20	50					156	52	52				1.4	1.3	
27	0.544	0.542	15.0	30,800		15	50					158	50	50				1.3	1.2	
28	0.532	0.451	14.0	33,000		20	50					154	48	50				1.4	1.3	
29	0.564	0.490	16.0	30,800		15	50					156	50	50				1.4	1.3	
30	0.422	0.400	12.0	28,600		10	50					154	48	50				1.4	1.3	
31	0.474	0.421	11.0	33,000		10	50					156	50	50				1.5	1.4	
Total	15.801	14.827	434.5	995,000	0.00	452	1550	0	0.0	0.0	0.0	5110	1579	1583	0	0	0	38.8	38.5	0.00
Avg	0.510	0.478	14.0	32,097	ERR	15	50	ERR	0.0	0.0	0.0	165	51	51	ERR	ERR	ERR	1.3	1.2	ERR
Max	0.626	0.598	20.0	38,000	ERR															
Min	0.407	0.395	10.0	28,600	ERR															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: AUGUST

Year: 1987

Total Number of Wells in System: 4

PUBLIC WATER SYSTEM FOR: Rifle Range Water Plant

PWSID: 04-67-046

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.295	0.188	14.0	8,200		7	50					176	50	56				1.1	1.0	
2	0.324	0.195	13.0	8,200		5	50					178	50	52				1.1	1.0	
3	0.237	0.157	13.0	10,400		6	50					178	52	54				1.0	1.0	
4	0.262	0.197	14.0	8,200		5	50					176	50	54				1.1	1.0	
5	0.216	0.194	12.0	8,200		5	50					176	50	52				1.1	1.0	
6	0.322	0.194	13.0	8,200		6	50					178	50	52				1.1	1.0	
7	0.220	0.200	14.0	8,200		5	50					174	50	52				1.1	1.0	
8	0.181	0.173	15.0	8,200		5	50					172	52	54				1.1	1.0	
9	0.190	0.212	13.0	8,200		5	50					176	52	54				1.1	1.0	
10	0.189	0.181	9.0	8,200		2	50					176	52	52				1.1	1.0	
11	0.213	0.192	7.0	8,200		4	50					168	50	50				1.0	1.2	
12	0.276	0.246	16.0	10,400		9	50					172	56	50				1.0	1.1	
13	0.145	0.176	14.0	8,200		7	50					170	54	50				1.1	1.1	
14	0.170	0.165	13.0	8,200		7	50					172	50	52				1.0	1.1	
15	0.151	0.166	12.0	8,200		6	50					170	50	52				1.0	1.1	
16	0.186	0.153	14.0	8,200		5	50					172	50	52				1.0	1.1	
17	0.181	0.180	13.0	8,200		6	50					170	50	52				1.1	1.0	
18	0.174	0.181	14.0	8,200		5	50					168	50	52				1.0	1.1	
19	0.181	0.191	15.0	8,200		5	50					164	50	52				1.0	1.0	
20	0.234	0.193	14.0	8,200		5	50					162	52	54				1.0	1.0	
21	0.205	0.202	14.0	8,200		9	50					170	50	56				1.2	1.0	
22	0.313	0.275	17.0	8,200		6	50					160	50	52				1.1	1.0	
23	0.276	0.185	14.0	8,200		5	50					166	50	52				1.0	1.0	
24	0.224	0.196	16.0	8,200		7	50					168	50	54				1.0	1.0	
25	0.190	0.208	15.0	8,200		6	50					168	50	52				1.0	1.0	
26	0.241	0.214	13.0	8,200		4	50					166	50	52				1.1	1.1	
27	0.131	0.136	10.0	8,200		3	50					168	50	52				1.0	1.0	
28	0.201	0.187	11.0	8,200		4	50					166	70	52				1.1	1.1	
29	0.182	0.178	14.0	8,200		4	50					162	50	52				1.0	1.1	
30	0.212	0.203	15.0	8,200		4	50					174	50	52				1.1	1.0	
31	0.208	0.183	14.0	8,200		5	50					176	52	52				1.1	1.0	
Total	6.730	5.901	419.0	258,600	0.00	167	1550	0	0.0	0.0	0.0	5292	1592	1626	0	0	0	32.8	32.1	0.00
Avg	0.217	0.190	13.5	8,342	0.00	5	50	0	0.0	0.0	0.0	171	51	52	0	0	0	1.1	1.0	0.00
Max	0.324	0.275	17.0	10,400	0.00															
Min	0.131	0.136	7.0	8,200	0.00															

N.C. DEPARTMENT OF HUMAN RESOURCES -- DIVISION OF HEALTH SERVICES -- ENVIRONMENTAL HEALTH SERVICE

Report of Operation

Month: AUGUST

Year: 1987

Total Number of Wells in System: 2

PUBLIC WATER SYSTEM FOR: Onslow Beach Water Plant

PWSID: 04-67-048

Date	Total Raw (MGD)	Water Pumped Delivered (MGD)	Hours Plant Oper	Bkwsh Water Used (Gals)	Turbidity (NTU)	Chlorine Used (lbs)	Lime Used (lbs)	Flouride Used (lbs)	pH Raw	pH Finish	pH Deliver	Hardness (mg/l) Raw	Hardness (mg/l) Softener	Hardness (mg/l) Deliver	Alkalinity (mg/l) Raw	Alkalinity (mg/l) Filter	Alkalinity (mg/l) Deliver	Free Chlorine (mg/l) Resid Plant	Free Chlorine (mg/l) Deliver	Fluoride Deliver
1	0.133	0.116	10.0	7,000		2						160	50	52				1.7	1.4	
2	0.132	0.128	9.5	7,000		3						168	51	52				1.5	1.3	
3	0.144	0.117	10.0	9,000		3						166	50	51				1.4	1.1	
4	0.164	0.124	12.0	9,000		3						168	50	68				2.0	1.6	
5	0.160	0.118	11.0	7,000		6						168	50	56				1.5	1.3	
6	0.114	0.107	9.0	7,000		5						168	54	56				1.5	1.3	
7	0.118	0.111	9.5	7,000		6						164	54	56				1.4	1.3	
8	0.154	0.118	11.0	9,000		2						162	54	52				1.4	1.4	
9	0.148	0.112	10.0	7,000		2						166	54	50				1.4	1.4	
10	0.130	0.137	10.0	9,000		3						166	54	52				1.3	1.4	
11	0.189	0.120	10.0	7,000		4						168	54	58				1.0	1.3	
12	0.143	0.108	11.0	9,000		3						170	58	58				1.3	1.2	
13	0.159	0.129	10.0	9,000		3						170	55	50				1.8	1.4	
14	0.110	0.106	9.0	7,000		2						168	50	52				2.0	1.4	
15	0.142	0.113	9.0	12,000		2						170	48	50				1.8	1.4	
16	0.135	0.122	10.0	12,000		3						170	48	50				1.7	1.5	
17	0.145	0.112	11.0	12,000		2						170	50	50				1.6	1.4	
18	0.105	0.113	10.0	9,000		3						170	52	50				1.5	1.2	
19	0.076	0.149	5.0	7,000		5						168	50	50				1.5	1.3	
20	0.256	0.119	16.0	9,000		6						170	50	50				1.0	1.7	
21	0.125	0.108	7.0	7,000		2						168	50	50				1.2	1.5	
22	0.124	0.141	8.0	9,000		2						160	50	50				1.2	1.2	
23	0.080	0.097	5.0	7,000		2						170	50	50				1.2	1.5	
24	0.094	0.112	6.0	7,000		5						168	50	50				1.2	1.5	
25	0.043	0.108	9.0	7,000		3						170	44	50				1.5	1.0	
26	0.128	0.118	9.5	7,000		3						170	44	50				1.5	1.0	
27	0.130	0.114	9.0	9,000		3						166	54	50				1.7	1.0	
28	0.142	0.118	10.0	7,000		3						168	50	48				1.5	1.2	
29	0.106	0.118	7.0	7,000		3						164	50	51				1.6	1.3	
30	0.134	0.111	9.0	9,000		3						161	51	50				1.2	1.7	
31	0.089	0.122	7.0	7,000		3						168	48	50				1.5	1.7	
Total	4.052	3.646	289.5	254,000	0.00	100	0	0	0.0	0.0	0.0	5183	1577	1612	0	0	0	45.6	41.9	0.00
Avg	0.131	0.118	9.3	8,194	0.00	3	0	0	0.0	0.0	0.0	167	51	52	0	0	0	1.5	1.4	0.00
Max	0.256	0.149	16.0	12,000	0.00															
Min	0.043	0.097	5.0	7,000	0.00															

5000
MAIN

Water Supply Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602-2091

Dear Sir:

As requested, the attached forms concerning the operation of our water treatment facilities are submitted.

If we can be of any further assistance, please contact us at your earliest convenience.

Sincerely,

M. G. LILLEY
Colonel, U. S. Marine Corps
Base Maintenance Officer
By direction of Commanding General

Encl:
(1) Plant Operation Forms

Writer: B. M. Frazelle, Water, X1081
Typist: S. Kolde, 3 Dec 86

PUBLIC WATER SYSTEM FOR: [illegible]

YEAR [illegible] NUMBER OF WELLS IN SYSTEM 2

DAY	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER Cl2	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK. (mg/l) RAW	ALK. (mg/l) FILTER	ALK. (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.044	9	7,000	—	—	—	—		—	—	180	52	54	—	—	—	1.4	1.5	—	
2	.057	8	7,000	—	—	—	—	—	—	—	170	44	50	—	—	—	1.8	1.5	—	
3	.045	10	6,000	—	—	—	—	—	—	—	180	44	50	—	—	—	1.8	1.5	—	
4	.062	[illegible]	7,000	—	—	—	—	—	—	—	180	54	50	—	—	—	1.3	2.0	—	
5	.058	[illegible]	9,000								[illegible]	50	50				1.3	1.2	—	
6	.073	9	7,000					3			180	50	50				1.8	1.8		
7	.060	8	7,000					2			180	48	48				1.5	1.8		
8	.066	9	9,000					3			180	46	50				1.8	1.6		
9	.064	8	9,000					4			180	48	50				1.6	1.3		
10	.058	10	9,000					4			180	44	50				1.8	1.5		
11	.086	9	7,000					3			186	50	46				1.5	1.9		
12	.084	10	7,000					3			180	50	48				1.4	1.7		
13	.080	15	7,000					4			180	46	46				1.4	1.6		
14	.084	12	7,000					2			180	48	46				1.2	1.4		
15	.090	13	9,000					5			180	48	46				1.5	2.0		
16	.082	10	7,000					3			200	48	46				1.6	1.9		
17	.094	8	9,000					3			180	48	46				1.4	1.7		
18	.083	9	7,000					3			180	46	48				1.4	1.7		
19	.087	11	9,000					2			184	48	50				1.5	1.8		
20	.094	10	7,000					3			180	48	52				1.5	1.8		
21	.081	8	7,000					3			180	48	50				1.4	1.6		
22	.088	10	7,000					4			180	48	50				1.6	1.4		
23	.089	10	9,000					5			180	48	50				1.6	1.5		
24	.097	8	7,000					5			180	48	52				1.5	1.3		
25	.092	7	7,000					5			170	48	50				1.5	1.4		
26	.097	7	6,000					5			180	58	56				1.0	1.4		
27	.085	12	7,000					10			180	56	58				2.0	1.2		
28	.100	10	7,000					15			180	50	56				1.8	1.4		
29	.093	9	7,000					5			180	50	54				1.8	1.4		
30	.083	7	7,000					5			185	50	54				1.6	1.4		
31																				
TOT	2.365	302	222,000					105												
AVG	.078	10	7400																	
MAX	.100	24	9,000																	
MIN	.044	7	7,000																	

SIGNED [illegible]

CERTIFICATION: GRADE A NO. 1201

PUBLIC WATER SYSTEM FOR: COURTHOUSE BAY

PWSID: 02-047

YEAR: 1972

NUMBER OF WELLS IN SYSTEM: 5

	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER Cl_2	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.633	16	35,200	56	50			19			190	62	68				1.4	1.3		
2	.564	13	33,000		NA			16			190	58	60				1.4	1.4		
3	.600	15	35,200		50			17			190	64	64				1.5	1.4		
4	.681	17	35,200		50			16			190	66	66				1.4	1.4		
5	.621	17	35,200		50			21			190	58	58				1.4	1.4		
6	.603	15	30,800		50			16			190	66	60				1.5	1.5		
7	.640	19	35,000		50			19			190	50	50				1.5	1.5		
8	.563	15	35,000		50			14			190	50	50				1.3	1.4		
9	.561	15	30,800		50			11			190	44	44				1.3	1.3		
10	.491	15	33,000		50			12			196	44	44				1.5	1.5		
11	.520	18	35,200		50			11			186	42	46				1.5	1.5		
12	.562	16	35,200		50			10			188	44	46				1.5	1.5		
13	.624	17	33,000		50			15			184	46	48				1.5	1.5		
14	.585	18	35,200		50			14			188	46	50				1.3	1.4		
15	.501	13	33,000		50			9			186	46	48				1.3	1.3		
16	.548	14	33,000		50			8			160	44	46				1.3	1.4		
17	.491	15	35,200		50			16			170	44	46				1.2	1.3		
18	.711	19	35,200		50			23			180	44	46				1.5	1.4		
19	.527	14	35,200		50			22			170	46	48				1.5	1.4		
20	.740	19	35,200		NA			16			185	48	44				1.4	1.4		
21	.662	19	35,200		50			15			180	42	44				1.5	1.4		
22	.701	20	33,000		50			7			180	46	46				1.4	1.4		
23	.621	17	33,000		50			15			180	46	48				1.5	1.4		
24	.663	19	35,200		NA			15			200	48	50				1.4	1.4		
25	.704	22	37,400		50			22			190	50	54				1.5	1.4		
26	.681	20	35,200		50			18			196	58	62				1.5	1.4		
27	.645	16	30,800		50			16			190	60	58				1.4	1.4		
28	.603	18	35,200		50			14			190	58	56				1.4	1.3		
29	.602	17	33,000		50			12			194	50	52				1.5	1.5		
30	.639	16	33,000		50			12			192	50	50				1.5	1.5		
31																				
TOT	18.287	504	1,024,800		1350			446												
AVG	.409	16.8	34,160																	
MX	.740	22	37,400																	
MN	.491	13	30,800																	

SIGNED: [illegible]

CERTIFICATION: GRADE A NO. 1201

	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER Cl.	WATER HARDNESS (mg/L) RAW	FINISHED	RAW HOCl	SOFTENER	DELIVERED	RAW	FILTER	DELIVERED	CHLORINE RESIDUAL (mg/L) PLANT	DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.146	13	8,200	—	50	—	—	5	—	—	176	50	60	—	—	—	1.1	1.0	—	
2	.167	11	8,200	—	50	—	—	5	—	—	182	52	60	—	—	—	1.1	1.0	—	
3	.186	12	8,200	—	50	—	—	5	—	—	178	52	59	—	—	—	1.1	1.0	—	
4	.185	13	8,200	—	50	—	—	5	—	—	184	52	58	—	—	—	1.1	1.0	—	
5	.202	13	10,400	—	50	—	—	5	—	—	188	54	64	—	—	—	1.1	1.0	—	
6	.184	13	8200	—	50	—	—	6	—	—	186	50	58	—	—	—	1.1	1.0	—	
7	.141	13	8,200	—	50	—	—	5	—	—	174	52	58	—	—	—	1.1	1.0	—	
8	.159	13	8,200	—	50	—	—	5	—	—	176	52	60	—	—	—	1.1	1.0	—	
9	.181	13	8,200	—	50	—	—	8	—	—	178	52	60	—	—	—	1.1	1.0	—	
10	.168	13	8200	—	50	—	—	7	—	—	174	52	54	—	—	—	1.1	1.0	—	
11	.172	13	8200	—	50	—	—	5	—	—	178	52	58	—	—	—	1.1	1.0	—	
12	.158	12	8200	—	50	—	—	5	—	—	178	50	60	—	—	—	1.1	1.0	—	
13	.177	14	8200	—	50	—	—	5	—	—	178	50	58	—	—	—	1.1	1.1	—	
14	.180	13½	8200	—	50	—	—	6	—	—	190	50	56	—	—	—	1.0	1.1	—	
15	.165	9¾	8200	—	50	—	—	5	—	—	180	52	58	—	—	—	1.2	1.3	—	
16	.159	14	8,200	—	50	—	—	5	—	—	179	53	56	—	—	—	1.2	1.2	—	
17	.181	13	8,200	—	50	—	—	5	—	—	176	54	56	—	—	—	1.1	1.3	—	
18	.209	10	8,200	—	50	—	—	6	—	—	174	54	58	—	—	—	1.2	1.3	—	
19	.169	15	8,200	—	50	—	—	6	—	—	190	54	54	—	—	—	1.3	1.3	—	
20	.211	12	8,200	—	50	—	—	6	—	—	178	53	57	—	—	—	1.2	1.3	—	
21	.161	10	8200	—	50	—	—	5	—	—	178	50	58	—	—	—	1.1	1.0	—	
22	.175	12	8200	—	50	—	—	7	—	—		54	56	—	—	—	1.2	1.0	—	
23	.171	11	8200	—	50	—	—	6	—	—	178	54	58	—	—	—	1.1	1.0	—	
24	.161	11	8200	—	50	—	—	5	—	—	180	54	52	—	—	—	1.0	1.0	—	
25	.171	10	8200	—	50	—	—	3	—	—	178	52	54	—	—	—	1.0	1.0	—	
26	.161	10	8200	—	50	—	—	5	—	—	178	52	52	—	—	—	1.0	1.0	—	
27	.172	10	8200	—	50	—	—	5	—	—	180	50	52	—	—	—	1.0	1.1	—	
28	.155	12	8,200	—	50	—	—	5	—	—	178	54	53	—	—	—	1.1	1.0	—	
29	.159	10	8,200	—	50	—	—	5	—	—	176	50	52	—	—	—	1.1	1.0	—	
30	.178	12	8,200	—	50	—	—	6	—	—	176	50	58	—	—	—	1.1	1.0	—	
31																				
TOT	5.793	361	248,200		1500			162												
AVG	.193	12	8,273																	
MAX	.211	15	10,400																	
MIN	.146	10	8,200																	

SIGNED B. Frazell

CERTIFICATION: GRADE A NO. 1201

PUBLIC WATER SYSTEM FOR: [illegible]

NUMBER OF WELLS IN SYSTEM 7

	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.897	16	35100	.27					7.6	8.9	176	57	69	174	55	65	1.1	0.9	1.00	
2	1.066	18	35100	.21					7.6	8.9	174	60	58	175	60	56	1.1	0.9	1.01	
3	1.034	19	35,100	.19					7.6	8.9	180	59	60	178	62	62	1.0	0.8	1.05	
4	1.047	19	35,100	.29					7.7	8.8	178	58	60	174	61	58	1.0	0.9	1.08	
5	1.037	19	35,100	.17					7.6	8.8	173	52	58	176	59	58	0.9	0.9	1.05	
6	1.089	18	35,100	.19					7.7	8.8	182	61	50	180	65	53	1.0	0.8	.95	
7	1.126	21	35,100						7.6	8.8	176	67	60	176	66	57	0.9	0.9	.91	
8	.933	16	35,100						7.6	8.9	176	60	56	178	62	56	0.8	0.8	.98	
9	1.079	14	35,100						7.4	8.9	194	54	62	184	56	59	1.1	0.8	.96	
0	1.193	17	35,100						7.5	8.8	180	55	63	186	61	59	1.2	1.0	.86	
1	1.234	18	35,100						7.6	8.9	186	62	64	184	58	61	1.2	1.0	.76	
2	.997	17	35,100						7.6	8.9	186	66	61	182	61	58	1.1	0.9	.77	
3	1.007	15	35,100						7.6	8.9	188	64	63	184	56	65	1.2	0.9	.83	
4	.990	19	35,100	.27					7.6	8.9	186	66	65	186	67	64	1.2	1.0	.90	
5	.994	16	35,100	.20					7.7	8.8	180	60	63	182	59	60	1.2	0.9	.95	
6	1.148	18	35,100	.23					7.5	9.0	180	60	61	175	58	58	1.1	1.0	1.01	
7	1.203	21	35,100	.21					7.5	8.9	180	59	60	178	56	58	1.2	0.9	1.17	
8	1.015	19	35,100	.16					7.6	8.9	175	62	60	180	60	58	1.1	0.9	.99	
9	1.053	19	35,100	.14					7.9	8.9	180	57	61	182	57	58	1.1	0.9	.93	
20	1.092	19	35,100	.16					7.8	8.9	170	65	60	175	64	57	1.2	1.0	.99	
21	1.012	18	35,100	.13					7.5	8.9	186	56	61	176	54	56	1.0	0.9	.95	
22	.915	14	35,100	.15					7.7	8.9	182	66	60	174	64	57	1.1	0.8	.87	
23	1.096	18	35,100	.20					7.6	8.9	188	61	61	187	60	60	1.1	0.9	100	
24	1.114	20	35,100	.16					7.6	8.7	184	63	62	182	64	59	1.3	0.9	.88	
25	1.108	17	35,100	.15					7.6	8.8	178	62	61	182	60	57	1.2	0.9	.93	
26	1.100	19	35,100	.23					7.5	9.0	174	53	63	180	54	62	1.1	1.0	.89	
27	.950	18	35,100	.17					7.7	9.0	194	62	61	179	60	60	1.1	0.9	.98	
28	1.180	20	35,100	.13					7.6	8.8	179	89	93	181	103	126	1.1	0.9	.94	
29	.728	14	35,100	.13					7.6	8.8	178	61	68	174	59	64	1.1	0.9	1.01	2760
30	1.146	17	35,100	.16					7.7	8.9	182	60	62	176	63	59	1.2	0.9		
31																				
TOT	31,582	529.8	1,053,000	430				AVG.			180	61	62	179	61	61	1.1	0.9		
AVG	1.052	.18	35,100	.19																
AX	1.234	21	35,100	.29																

SIGNED

CERTIFICATION: GRADE NO.

PUBLIC WATER SYSTEM FOR: [illegible] PWS ID: [illegible]

NUMBER OF WELLS IN SYSTEM 25

	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) Gravel FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
1	.616	12½	0						7.6	8.7	162	60	58	266	159	180		0.76		
2	.650	12½	60,000						7.6	8.5	168	61	57	276	163	163		0.7		
3	.829	15½	60,000						7.5	8.6	162	54	55	268	157	156		0.77		
4	.673	15½	60,000						7.6	8.4	154	56	53	262	154	154		0.7		
5	.654	14	60,000						7.6	8.5	180	58	54	243	157	153		0.65		
6	.657	14½	0						7.5	8.5	160	57	51	280	165	164		0.76		
7	.651	15	120,000						7.5	8.4	160	55	55	270	163	159		0.8		
8	.584	11½	0						7.4	8.4	154	55	52	276	155	157		0.75		
9	.564	13	60,000						7.5	8.5	150	58	51	276	163	152		0.8		
10	.641	13½	48,000						7.4	8.4	164	60	54	272	166	151		0.71		
11	.536	12½	0						7.4	8.4	156	59	66	277	146	152		0.77		
12	.622	15	120,000						7.5	8.6	154	52	53	274	150	153		0.76		
13	.641	16½	0						7.6	8.6	150	54	52	274	157	155		0.78		
14	.597	15	120,000						7.8	8.4	144	63	58	276	170	177		0.78		
15	.615	15	60,000						7.6	8.4	160	59	55	272	168	178		0.77		
16	.539	13	0						7.5	8.4	152	57	56	270	151	164		0.75		
17	.616	14½	48,000						7.5	8.5	162	58	52	268	149	151		0.76		
18	.652	16½	60,000						7.4	8.5	150	56	51	272	148	152		0.76		
19	.641	16½	0						7.4	8.5	156	65	59	270	154	159		0.75		
20	.716	13½	60,000						7.4	8.4	190	63	78	260	185	180		0.73		
21	.727	17½	120,000						7.4	8.6	152	56	68	260	172	162		0.75		
22	.622	12	0						7.5	8.4	156	56	55	268	166	180		0.68		
23	.664	12	0						7.5	8.4	158	55	55	262	149	162		0.65		
24	.662	13½	60,000						7.4	8.4	156	56	53	268	157	152		0.76		
25	.606	14½	60,000						7.4	8.6	160	60	53	270	149	144		0.75		
26	.610	14	0						7.4	8.6	158	58	51	268	143	148		0.77		
27	.507	12	60,000						7.4	8.6	160	55	50	264	147	157		0.74		
28	.523	11½	60,000						7.4	8.6	158	56	54	262	152	156		0.79		
29	.495	9½	60,000						7.5	8.5	156	58	54	280	153	155		0.76		
30	.541		0						7.4	8.5	158	58	53	266	157	159		0.75		
31																				
TOT	18.651	402	1,350,000																	
AVG	.621	13.4	45,000																	
MAX	[illegible]	17.5	120,000																	

SIGNED [illegible]

CERTIFICATION GRADE A NO. [illegible]

PUBLIC WATER SYSTEM NO. [illegible] PHASE [illegible]

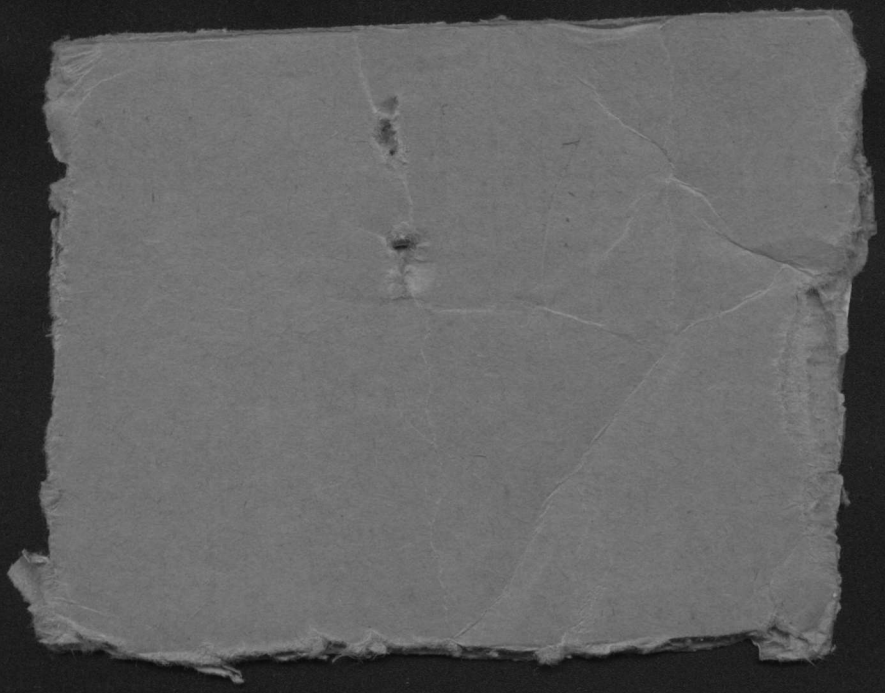
NUMBER OF WELLS IN SYSTEM [illegible]

	TOTAL WATER PUMPED (MGD)	HOURS PLANT OPERATED	BACKWASH WATER USED (GALLONS)	TURBIDITY (NTU) LIME PLTS ONLY	LIME USED (POUNDS)	FLUORIDE USED (POUNDS)	PHOSPHATE USED (LBS OR GALS)	OTHER	p.H. RAW	p.H. FINISHED	HARDNESS (mg/l) RAW	HARDNESS (mg/l) SOFTENER	HARDNESS (mg/l) DELIVERED	ALK (mg/l) RAW	ALK (mg/l) FILTER	ALK (mg/l) DELIVERED	CHLORINE (mg/l) PLANT	CHLORINE (mg/l) DELIVERED	FLUORIDE DELIVERED	REMARKS
	2.233	24	39,900						7.6	9.0	175	58	61	143	53	53	1.1	1.0		
	2.352	24	79,800						7.8	9.0	173	59	60	167	51	51	1.0	1.0		
	2.859	24	39,900						7.6	9.0	172	58	60	173	54	52	1.1	1.0		
	2.720	24	79,800						7.4	8.9	163	59	62	148	49	53	1.1	1.1	1.08	
	2.835	24	39,900						7.4	8.9	176	59	62	145	49	52	1.1	1.0	1.07	
	2.817	24	79,800						7.4	8.9	176	61	60	146	53	52	1.1	1.0	.96	
	2.984	24	39,900						7.4	8.7	172	62	60	144	51	51	1.0	1.0	.29	
	2.344	24	79,800						7.4	8.8	172	61	63	144	51	51	1.1	1.0	.69	
	2.416	24	39,900						7.3	8.8	173	62	66	146	51	51	1.1	1.0	.20	
	2.580	24	39,900						7.3	8.8	174	62	63	146	50	50	1.0	1.0	.35	
	2.197	24	39,900						7.3	8.8	172	59	61	144	51	50	1.0	1.0	.35	
	2.627	24	79,800						7.3	8.8	172	59	62	144	51	52	1.0	1.0	.35	
	2.755	24	39,900						7.3	8.8	173	60	62	144	51	50	1.0	1.0	.35	
	2.654	24	79,800						7.4	8.7	172	59	60	145	53	52	1.0	1.0	.35	
	2.532	24	39,900						7.4	8.5	172	59	62	148	52	52	1.0	1.0	.35	
	2.226	24	79,800						7.4	8.5	172	60	62	146	52	54	1.1	1.0	.35	
	2.951	24	39,900						7.5	8.8	173	60	64	144	50	54	1.1	1.0	1.17	
	2.783	24	119,700						7.5	8.7	174	66	70	148	55	55	1.1	1.0	.45	
	2.645	24	39,900						7.6	8.7	176	60	63	150	53	56	1.1	1.0		
	3.200	24	79,800						7.5	8.8	174	63	67	146	50	54	1.1	1.0		
	3.028	24	39,900						7.5	8.8	178	60	64	148	50	52	1.1	1.0	.65	
	2.633	24	79,800						7.5	8.8	176	60	64	146	50	52	1.1	1.0	.62	
	2.599	24	39,900						7.5	8.8	174	60	64	146	50	52	1.1	1.0	.70	
	3.310	24	39,900						7.6	8.8	174	60	61	146	50	52	1.1	1.0	.76	
	3.046	24	79,800						7.4	8.8	176	59	60	144	51	53	1.1	1.0	1.44	
	2.935	24	39,900						7.4	8.8	174	61	60	146	51	54	1.1	1.0	1.12	
	2.218	24	79,800						7.6	8.8	177	62	61	147	50	53	1.1	1.0	1.12	
	2.274	24	39,900						7.6	9.0	168	59	65	155	48	51	1.0	1.0	1.04	
	3.115	24	39,900						7.7	9.0	166	63	64	150	50	51	1.0	1.0	1.18	
	2.230	24	39,900						7.6	8.9	170	63	64	147	52	51	0.8	0.8		
OT	80.092	720	1,715,700																	
VG	2.669	24	57,190																	
AX	3.310	24	119,700																	

SIGNED [illegible]

CERTIFICATION: GRADE A NO. 1201

COOK WELL STRAINER CORP.
4848 FRANKLIN AVENUE
CINCINNATI, OHIO 45212

To:

CAROLINA WELL & PUMP
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