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NAS PENSACOLA
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JUNE 1998 MONTHLY OPERATION AND MAINTENANCE REPORT ON THE DOMESTIC
WASTEWATER TREATMENT PLANT GROUNDWATER REMEDIATION PROJECT FOR NAS
PENSACOLA FL
6/29/1998
HRP SPECTRUM INC

HRP/Spectrum, Inc.

155

June 29, 1998

Southern Division
NAVFACENGCOM
Attention: Maxie Keisler, Code 18213
2155 Eagle Drive
P.O. Box 190010
Charleston, SC 29419-9010

RE: JUNE 1998 MONTHLY OPERATION AND MAINTENANCE REPORT ON THE DOMESTIC WASTEWATER TREATMENT PLANT (DWTP) GROUND-WATER REMEDIATION; NAVAL AIR STATION (NAS) PENSACOLA, FLORIDA, (JOB # NAV0303.FE)

Dear Sir:

HRP/Spectrum is pleased to submit the June 1998 monthly report for the operation and maintenance activities conducted on the DWTP Ground Water Treatment System for the above referenced project. The attached Table 1 contains a summary of the recovery well pumping data for the month of June 1998 and Attachment "A" contains time series graphs of the calculated bi-weekly pump flow rates and measured well water levels to facilitate evaluation of the performance and maintenance requirements of the recovery wells and pumps. In addition, four (4) copies of the report have been sent to Mr. Tom Kelley, Naval Public Works Center and two (2) copies to Commander, Naval Air Station, Environmental Division, Attention: Mr. Bill Taylor. *HRP/Spectrum* has the following comments for the month of June:

RECOVERY WELL SYSTEM OPERATION STATUS

RW 1,2&3

- On June 9, 1998, Pump B for RW's 1, 2, & 3 was in operation. The pumps and wells appeared to be in good condition producing normal pressure and flow. No leaks were observed.
- Upon departure on June 9, 1998, RW's 1, 2, & 3 were taken off-line to increase the groundwater retention time and decrease the groundwater flowrate through the Air Stripper. No leaks or backflow were observed upon departure.
- On June 23, 1998, Pump B for RW's 1, 2, & 3 was turned on after a two week shut down. Upon departure, the pumps and wells appeared to be in good condition producing normal pressure and flow. No leaks were observed or detected.

RW 4&6

- On June 9, 1998, Pump A for RW's 4 & 6 was operating sufficiently with normal pressure and flow. No leaks were detected at either of the recovery wells or pumps.

- On June 23, 1998, Pump A for RW's 4 & 6 was operating with normal pressure and flow. Upon departure, no leaks were detected at either of the recovery wells or pumps.

RW 5A

- On June 9, 1998, Pump B for RW 5A was turned on after a two (2) week shutdown. This shutdown was performed to decrease the groundwater flowrate through the Air Stripper and increase the overall groundwater retention time within the Air Stripper. No leaks were detected at either the recovery well or pumps.
- On June 9, 1998, Pump B for RW-5A was restarted and was producing normal pressure and flow. Upon departure, no leaks were detected at either the recovery well or pumps.
- On June 23, 1998, Pump B of RW 5A was operating sufficiently with normal pressure and flow. Upon departure, RW-5A was shut down for a two (2) week period to allow RW-1, 2, & 3 to operate under the conditions stated above. No leaks or backflow was observed in RW-5A.

RW 7

- On June 9, 1998, Pump A for RW 7 appeared to be working properly producing normal pressure and flow. No leaks were detected in either the pumps or well.
- On June 23, 1998, Pump A for RW 7 appeared to be working properly producing normal pressure and flow. No leaks were detected in either the pumps or well.

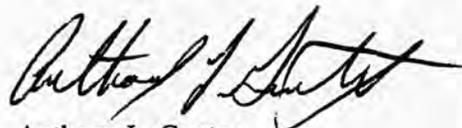
PRE-TREATMENT AIR STRIPPER

- On June 9, 1998, the Air Stripper was operating properly. No leaks were detected.
- On June 23, 1998, the Air Stripper was operating properly. No leaks were detected.

.If you have any questions regarding this report or other matters pertaining to this project, please contact me at (864) 289-0311.

Sincerely,

HRP/Spectrum



Anthony L. Gentry
Project Engineer

ALG/cmc

Enclosure

cc: Tom Kelley-Naval Public Work Center- Code 423-4 (4 copies)
Bill Taylor - NAS Pensacola - Code 00500 (2 copies)

Attachment #1
Time Series Graph



TABLE 1
NAS PENSACOLA
RECOVERY WELL PUMPING DATA

PUMP STATION	DATE INSPECTED	TIME (MILITARY)	FLOW METER READING (GALLONS)	DISCHARGE PRESSURE (psig)	SUCTION VACUUM ("Hg)	INSTANTANEOUS PUMPING FLOW RATE (GPM)	CALCULATE D BI-WEEKLY FLOW RATE (GPM)	PUMP IN USE (A or B)	ELAPSED TIME (HOURS)	TOTAL BI-WEEKLY FLOW (GALLONS)	WATER LEVEL BELOW TOP OF CASING (Ft) (RESPECTIVELY)
RW 1,2 & 3	6/9/98	12:20	15,091,090	16	10	6.9	6.20	B	312	116080	N/A, N/A, 4.95
RW 4&6	6/9/98	12:30	5,733,790	5.5	10.5	4	4.48	A	312	83840	3.99, 4.70
RW 5A	6/9/98	N/A	149,360	N/A	N/A	N/A	0.00	N/A	312	0	N/A
RW 7	6/9/98	12:40	7,392,790	5	22	2.3	2.48	A	312	46350	23.21
RW 1,2 & 3	6/23/98	N/A	15,091,090	N/A	N/A	N/A	0.00	N/A	336	0	N/A, N/A, N/A
RW 4&6	6/23/98	9:40	5,817,980	5	11.5	4.5	4.18	A	336	84190	4.65, 4.99
RW 5A	6/23/98	9:50	271,210	10	19	7	6.04	B	336	121,850	5.82
RW 7	6/23/98	9:57	7,440,050	6	22	2.4	2.34	A	336	47260	23.22

* Flow meter not reading flow.

NOTES:

- RW 1,2 3 - Recovery station for recovery wells RW 1, RW 2, and RW 3.
- RW 4 6 - Recovery well for wells RW 4 and RW 6.

INSPECTOR'S NAME	ANTHONY L. GENTRY
DATE	6/9/98
AMBIENT TEMPERATURE	85
WEATHER CONDITIONS	SUNNY

ITEM	INSPECTION CHECK	INSPECTION FREQUENCY	DATA/ COMMENTS
INFLUENT PIPING	OPERATION OF BALL CHECK VALVE	MONTHLY	OK
	SAMPLE PORT OPERATION	MONTHLY	OK
	FLOW METER READING	BI-WEEKLY	18,922,120
	SAMPLE COLLECTION	QUARTERLY	N/A
AIR STRIPPER	PRESSURE GAUGE READING	BI-WEEKLY	27.0" WATER
	CLEAN / CHECK TRAYS	BI-WEEKLY	CHECKED
BLOWER	PIPING CONNECTIONS	MONTHLY	OK
EFFLUENT PIPING	OPERATION OF BALL CHECK VALVE	MONTHLY	OK
	SAMPLE PORT OPERATION	MONTHLY	OK
	FLOW METER READING	BI-WEEKLY	N/A
	SAMPLE COLLECTION	QUARTERLY	N/A
SYSTEM COMPONENTS	EXPOSED PIPING CONNECTIONS	MONTHLY	OK

SYSTEM DESCRIPTION:

ACTIVITIES PERFORMED:

INSPECTOR'S NAME	ANTHONY L. GENTRY
DATE	6/23/98
AMBIENT TEMPERATURE	92
WEATHER CONDITIONS	SUNNY

ITEM	INSPECTION CHECK	INSPECTION FREQUENCY	DATA/ COMMENTS
INFLUENT PIPING	OPERATION OF BALL CHECK VALVE	MONTHLY	OK
	SAMPLE PORT OPERATION	MONTHLY	OK
	FLOW METER READING	BI-WEEKLY	19,218,400
	SAMPLE COLLECTION	QUARTERLY	N/A
AIR STRIPPER	PRESSURE GAUGE READING	BI-WEEKLY	27" WATER
	CLEAN / CHECK TRAYS	BI-WEEKLY	CHECKED
BLOWER	PIPING CONNECTIONS	MONTHLY	OK
EFFLUENT PIPING	OPERATION OF BALL CHECK VALVE	MONTHLY	OK
	SAMPLE PORT OPERATION	MONTHLY	OK
	FLOW METER READING	BI-WEEKLY	N/A
	SAMPLE COLLECTION	QUARTERLY	N/A
SYSTEM COMPONENTS	EXPOSED PIPING CONNECTIONS	MONTHLY	OK

SYSTEM DESCRIPTION:

ACTIVITIES PERFORMED:

**ATTACHMENT 1
GROUNDWATER FLOW READINGS**

DATE	RW 1,2,&3	RW 4&6	RW 5A	RW 7	TOTAL
5/31/96	9,722	10,033	2,577	4,760	27,092
6/6/96	59,060	42,822	439	22,325	124,646
6/12/96	56,952	49,788	460	21,626	128,826
6/19/96	59,513	80,468	1,555	26,465	168,001
6/26/96	56,512	86,242	0	28,001	170,755
7/11/96	6,264	123,432	-3,289	59,241	185,648
8/8/96	80,000	120,000	0	60,000	260,000
8/21/96	153,290	90,540	0	55,670	299,500
9/4/96	0	154,470	49,184	60,980	264,634
9/23/96	192,330	0	220,336	82,000	494,666
10/9/96	0	188,940	164,420	57,760	411,120
10/28/96	191,710	220,050	0	79,580	491,340
11/19/96		266,730	10,080	70,950	347,760
12/3/96	0	184,490	262,710	47,130	494,330
12/16/96	125,560	158,840	242,580	44,410	571,390
1/6/97	211,440	225,360	391,290	69,570	897,660
1/28/97	203,820	286,830	130,110	72,700	693,460
2/11/97	140,470	194,330	95,910	49,490	480,200
3/14/97	313,290	437,710	191,710	101,070	1,043,780
3/25/97	110,100	147,810	65,650	34,540	358,100
4/16/97	169,240	215,640	102,140	55,370	542,390
4/29/97	109,650	98,960	32,710	38,680	280,000
5/16/97	161,300	105,890	204,190	56,590	527,970
5/29/97	129,190	83,640	156,490	43,120	412,440
6/10/97	192,010	123,890	209,690	83,390	416,970
6/26/97	65,640	41,840	56,390	0	163,870
7/14/97	167,630	109,340	109,800	0	386,770
8/5/97	290	123,010	0	72,580	195,880
8/19/97	141,650	86,850	28,060	54,660	311,220
9/3/97	150,690	92,500	176	56,910	300,276
9/17/97	140,450	85,610	0	51,390	277,450
10/6/97	193,180	118,120	0	68,230	379,530
10/27/97	210,410	127,460	275,934	70,980	684,784
11/10/97	122,530	75,330	240,020	42,840	480,720
11/24/97	143,590	69,310	195,400	49,930	458,230
12/9/97	153,410	95,070	136,140	54,790	439,410
12/18/97	92,110	57,360	71,100	33,470	254,040
1/12/98	254,880	160,220	193,520	94,190	702,810
2/3/98	203,280	135,340	577,670	86,880	1,003,170
2/17/98	135,540	90,420	365,580	55,780	647,320
3/3/98	137,580	91,680	216,120	56,350	501,730
3/17/98	131,720	86,380	180,970	58,250	457,320
3/31/98	77,450	50,180	-7,020	32,970	153,580

**ATTACHMENT 1
GROUNDWATER FLOW READINGS**

DATE	RW 1,2,&3	RW 4&6	RW 5A	RW 7	TOTAL
4/17/98	0	810	0	790	1,600
4/28/98	104,510	67,690	0	42,700	214,900
5/12/98	132050	83210	0	51960	267,220
5/27/98	0	91990	149,360	52790	294,140
6/9/98	116080	83840	0	46350	246,270
6/23/98	0	84190	121,850	47260	253,300

NOTE: Large peak on 3/14/97 is due to no second site visit during the month of February.

NAS PENSACOLA GROUNDWATER RECOVERY WELL FLOW RATES

