APPENDIX L

DOH Water Facility Inventory (WFI) Forms

D.R. Strong Consulting Engineers (1990)

D.R. Strong Consulting Engineers (2001)

DOH Records (1982 - 2018)

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

WATER FACILITIES INVENTORY (WFI) FORM

ONE FORM PER SYSTEM

Quarter: 3
Updated: 06/09/2020
Printed: 3/17/2022
WFI Printed For: On-Demand
Submission Reason: No Change

RETURN TO: Central Services - WFI, PO Box 47822, Olympia, WA, 98504-7822 or email wfi@doh.wa.gov

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
29487 U	GREEN RIVER GORGE RESORT	KING	A	TNC

6. PRIMARY CONTACT NAME & MAILING ADDRESS

JAMES CARTER [OWNER]
29500 SE GREEN RIVER GORGE RD
ENUMCLAW, WA 98022

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS
CITY STATE ZIP

7. OWNER NAME & MAILING ADDRESS

JAMES CARTER
29500 SE GREEN RIVER GORGE RD
ENUMCLAW, WA 98022

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS
CITY STATE ZIP

9. 24 HOUR PRIMARY CONTACT INFORMATION		10. OWNER CONTACT INFORMATION	
Primary Contact Daytime Phone: (360) 886-2302		Owner Daytime Phone: (360) 886-2302	
Primary Contact Mobile/Cell Phone:		Owner Mobile/Cell Phone:	
Primary Contact Evening Phone: (xxx)-xxx-xxxx		Owner Evening Phone: (xxx)-xxx-xxxx	
Fax:	E-mail: xxxxxxxxxxxxxxxxxxx	Fax:	E-mail: xxxxxxxxxxxxxxxxxxx

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

- [x] Not applicable (Skip to #12)
- [ ] Owned and Managed
- [ ] Managed Only
- [ ] Owned Only

SMA NAME: _____ SMA Number:

12. WATER SYSTEM CHARACTERISTICS (mark all that apply)

- [ ] Agricultural
- [ ] Commercial / Business
- [ ] Day Care
- [ ] Food Service/Food Permit
- [ ] 1,000 or more person event for 2 or more days per year
- [ ] Hospital/Clinic
- [ ] Industrial
- [ ] Licensed Residential Facility
- [ ] Lodging
- [x] Recreational / RV Park
- [ ] Residential
- [ ] School
- [ ] Temporary Farm Worker
- [ ] Other (church, fire station, etc.): _____

13. WATER SYSTEM OWNERSHIP (mark only one)

- [ ] Association
- [ ] City / Town
- [ ] County
- [ ] Federal
- [x] Investor
- [ ] Private
- [ ] Special District
- [ ] State

14. STORAGE CAPACITY (gallons)

8,300

15	16	17	18 SOURCE CATEGORY										19 USE			20	21 TREATMENT						22	23	24 SOURCE LOCATION			
Source Number	LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE	INTERTIE SYSTEM ID NUMBER	WELL	WELL FIELD	WELL IN A WELL FIELD	SPRING	SPRING FIELD	SPRING IN SPRINGFIELD	SEA WATER	SURFACE WATER	RANNEY / INF. GALLERY	OTHER	PERMANENT	SEASONAL	EMERGENCY	SOURCE METERED	NONE	CHLORINATION	FILTRATION	FLUORIDATION	IRRADIATION (UV)	OTHER	DEPTH TO FIRST OPEN TERVAL IN FEET	CAPACITY (GALLONS PER MINUTE)	1/4, 1/4 SECTION	SECTION NUMBER	TOWNSHIP	RANGE
S01	SPRING #1					X							X								X	X		50		18	21N	07E

WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
29487 U	GREEN RIVER GORGE RESORT	KING	A	TNC

	ACTIVE SERVICE CONNECTIONS	DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS	DOH USE ONLY! APPROVED CONNECTIONS
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)		4	14
A. Full Time Single Family Residences (Occupied 180 days or more per year)	4		
B. Part Time Single Family Residences (Occupied less than 180 days per year)	0		
26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?)			
A. Apartment Buildings, condos, duplexes, barracks, dorms	0		
B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year	0		
C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year	0		
27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?)			
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)	51	51	0
B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.	0	0	0
28. TOTAL SERVICE CONNECTIONS		55	14

29. FULL-TIME RESIDENTIAL POPULATION

A. How many residents are served by this system 180 or more days per year? 24

30. PART-TIME RESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many part-time residents are present each month?												
B. How many days per month are they present?												

31. TEMPORARY & TRANSIENT USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?	1240	1120	1240	1200	1240	2400	2480	2480	1200	1240	1200	1240
B. How many days per month is water accessible to the public?	31	28	31	30	31	30	31	31	30	31	30	31

32. REGULAR NON-RESIDENTIAL USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students, daycare children and/or employees are present each month that are NOT alreay included in the residential population?												
B. How many days per month are they present?												

33. ROUTINE COLIFORM SCHEDULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	1	1	1	1	1	1	1	1	1	1	1	1

34. NITRATE SCHEDULE	QUARTERLY	ANNUALLY	ONCE EVERY 3 YEARS
(One Sample per source by time period)		S01	

35. Reason for Submitting WFI:

☐ Update - Change ☐ Update - No Change ☐ Inactivate ☐ Re-Activate ☐ Name Change ☐ New System ☐ Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____ **TITLE:** _____

WS ID	WS Name
29487	GREEN RIVER GORGE RESORT

Total WFI Printed: 1

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Water Facilities Inventory (WFI)

Report Create Date:	3/17/2022		
Water System Id(s):	29487		
Print Data on Distribution Page:	ALL		
Print Copies For:	DOH Copy		
Water System Name:	ALL		
County:	-- Any --		
Region:	ALL		
Group:	ALL		
Type:	ALL		
Permit Renewal Quarter:	ALL		
Water System Is New:	ALL		
Water System Status:	ALL		
Water Status Date From:	ALL	**To**	ALL
Water System Update Date	ALL	**To**	ALL
Owner Number:	ALL		
SMA Number:	ALL		
SMA Name:	ALL		
Active Connection Count From:	ALL	**To:**	ALL
Approved Connection Count	ALL	**To:**	ALL
Full-Time Population From:	ALL	**To:**	ALL
Water System Expanding	ALL		
Source Type:	ALL		
Source Use:	ALL		
WFI Printed For:	On-Demand		

WATER FACILITIES INVENTORY (WFI) FORM

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

ONE FORM PER SYSTEM

Quarter: 1
Updated: 04/05/2022
Printed: 6/15/2022
WFI Printed For: On-Demand
Submission Reason: Source Update

RETURN TO: Central Services - WFI, PO Box 47822, Olympia, WA, 98504-7822 or email wfi@doh.wa.gov

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
07220 7	BLACK DIAMOND WATER DEPT	KING	A	Comm

6. PRIMARY CONTACT NAME & MAILING ADDRESS

JASON L. PITTAM [PWD]
PO BOX 599
BLACK DIAMOND, WA 98010

7. OWNER NAME & MAILING ADDRESS

BLACK DIAMOND, CITY OF
CAROL BENSON — MAYOR
PO BOX 599
BLACK DIAMOND, WA 98010

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS 24301 ROBERTS DR
CITY BLACK DIAMOND STATE WA ZIP 98010

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS 24301 ROBERTS DR
CITY BLACK DIAMOND STATE WA ZIP 98010

9. 24 HOUR PRIMARY CONTACT INFORMATION		10. OWNER CONTACT INFORMATION	
Primary Contact Daytime Phone: (360) 886-2523		Owner Daytime Phone: (360) 886-5703	
Primary Contact Mobile/Cell Phone: (253) 736-5984		Owner Mobile/Cell Phone: (253) 797-2608	
Primary Contact Evening Phone: (xxx)-xxx-xxxx		Owner Evening Phone: (xxx)-xxx-xxxx	
Fax:	E-mail: xxxxxxxxxxxxxxxxxxx	Fax: (360) 886-2592	E-mail: xxxxxxxxxxxxxxxxxxx

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

- [x] Not applicable (Skip to #12)
- [ ] Owned and Managed
- [ ] Managed Only
- [ ] Owned Only

SMA NAME: _____ SMA Number:

12. WATER SYSTEM CHARACTERISTICS (mark all that apply)

- [ ] Agricultural
- [x] Commercial / Business
- [ ] Day Care
- [x] Food Service/Food Permit
- [ ] 1,000 or more person event for 2 or more days per year
- [ ] Hospital/Clinic
- [ ] Industrial
- [ ] Licensed Residential Facility
- [ ] Lodging
- [x] Recreational / RV Park
- [x] Residential
- [x] School
- [ ] Temporary Farm Worker
- [x] Other (church, fire station, etc.): _____

13. WATER SYSTEM OWNERSHIP (mark only one)

- [ ] Association
- [x] City / Town
- [ ] County
- [ ] Federal
- [ ] Investor
- [ ] Private
- [ ] Special District
- [ ] State

14. STORAGE CAPACITY (gallons)

4,800,000

15	16	17	18									19			20	21						22	23	24			
	SOURCE NAME	INTERTIE	SOURCE CATEGORY									USE				TREATMENT						DEPTH		SOURCE LOCATION			
Source Number	LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE	INTERTIE SYSTEM ID NUMBER	WELL	WELL FIELD	WELL IN A WELL FIELD	SPRING	SPRING FIELD	SPRING IN SPRINGFIELD	SEA WATER	SURFACE WATER	RANNEY / INF. GALLERY	OTHER	PERMANENT	SEASONAL	EMERGENCY	SOURCE METERED	NONE	CHLORINATION	FILTRATION	FLUORIDATION	IRRADIATION (UV)	OTHER	DEPTH TO FIRST OPEN TERVAL IN FEET	CAPACITY (GALLONS PER MINUTE)	1/4, 1/4 SECTION	SECTION NUMBER	TOWNSHIP	RANGE
S01	SOFA SPRING ENCLOSED							X					X			Y		X				X		500	NE SW	19	21N	07E
S02	MATTRESS SPRING ENCL							X							X	Y		X				X		500	NE SW	19	21N	07E
S03	LEAF SPRING ENCLOSED							X					X			Y		X				X		500	NE SW	19	21N	07E
S04	All Springs						X						X			Y		X				X		1500	NE SW	19	21N	07E
S05	Tacoma/Intertie (2)	86800 N													X	Y		X						3800	SE SE	11	21N	06E

WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
07220 7	BLACK DIAMOND WATER DEPT	KING	A	Comm

	ACTIVE SERVICE CONNECTIONS	DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS	DOH USE ONLY! APPROVED CONNECTIONS
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)		1314	Unspecified
A. Full Time Single Family Residences (Occupied 180 days or more per year)	1297		
B. Part Time Single Family Residences (Occupied less than 180 days per year)	0		
26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?)			
A. Apartment Buildings, condos, duplexes, barracks, dorms	0		
B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year	17		
C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year	0		
27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?)			
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)	7	7	
B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.	34	34	
28. TOTAL SERVICE CONNECTIONS		1355	

29. FULL-TIME RESIDENTIAL POPULATION

A. How many residents are served by this system 180 or more days per year? 2251

30. PART-TIME RESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many part-time residents are present each month?												
B. How many days per month are they present?												

31. TEMPORARY & TRANSIENT USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
B. How many days per month is water accessible to the public?	31	29	31	30	31	30	31	31	30	31	30	31

32. REGULAR NON-RESIDENTIAL USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students, daycare children and/or employees are present each month that are NOT already included in the residential population?	100	100	100	100	100	100	10	10	100	100	100	100
B. How many days per month are they present?	20	20	20	20	20	15	20	20	15	20	20	15

33. ROUTINE COLIFORM SCHEDULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	2	2	2	2	2	2	2	2	2	2	2	2

34. NITRATE SCHEDULE	QUARTERLY	ANNUALLY	ONCE EVERY 3 YEARS
(One Sample per source by time period)			

35. Reason for Submitting WFI:

☐ Update - Change ☐ Update - No Change ☐ Inactivate ☐ Re-Activate ☐ Name Change ☐ New System ☐ Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____ **TITLE:** _____

WS ID	WS Name
07220	BLACK DIAMOND WATER DEPT

Total WFI Printed: 1

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Water Facilities Inventory (WFI)

Report Create Date:	6/15/2022		
Water System Id(s):	07220		
Print Data on Distribution Page:	ALL		
Print Copies For:	DOH Copy		
Water System Name:	ALL		
County:	-- Any --		
Region:	ALL		
Group:	ALL		
Type:	ALL		
Permit Renewal Quarter:	ALL		
Water System Is New:	ALL		
Water System Status:	ALL		
Water Status Date From:	ALL	**To**	ALL
Water System Update Date	ALL	**To**	ALL
Owner Number:	ALL		
SMA Number:	ALL		
SMA Name:	ALL		
Active Connection Count From:	ALL	**To:**	ALL
Approved Connection Count	ALL	**To:**	ALL
Full-Time Population From:	ALL	**To:**	ALL
Water System Expanding	ALL		
Source Type:	ALL		
Source Use:	ALL		
WFI Printed For:	On-Demand		

WATER FACILITIES INVENTORY (WFI) FORM

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

ONE FORM PER SYSTEM

Quarter: 4
Updated: 09/24/2020
Printed: 6/24/2022
WFI Printed For: On-Demand
Submission Reason: Pop/Connect Update

RETURN TO: Central Services - WFI, PO Box 47822, Olympia, WA, 98504-7822 or email wfi@doh.wa.gov

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
SP627 F	KANASKAT-PALMER STATE PARK	KING	A	TNC

6. PRIMARY CONTACT NAME & MAILING ADDRESS

HARLEY HILL [NW REGION]
220 N WALNUT
BURLINGOTN, WA 98233-1138

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS
CITY STATE ZIP

7. OWNER NAME & MAILING ADDRESS

WASHINGTON STATE PARKS & RECREATION
DAVID M. JAQUISH
270 9TH STREET NE SUITE 200
EAST WENATCHEE, WA 98027674

SATEWIDE MNT. CHIEF

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS
CITY STATE ZIP

9. 24 HOUR PRIMARY CONTACT INFORMATION

Primary Contact Daytime Phone: (360) 755-2824
Primary Contact Mobile/Cell Phone: (360) 929-3002
Primary Contact Evening Phone:
Fax: E-mail: xxxxxxxxxxxxxxxxxxx

10. OWNER CONTACT INFORMATION

Owner Daytime Phone: (509) 665-0431 x6
Owner Mobile/Cell Phone: (509) 668-1053
Owner Evening Phone:
Fax: (509) 886-5232 E-mail: xxxxxxxxxxxxxxxxxxx

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

- [x] Not applicable (Skip to #12)
- [ ] Owned and Managed
- [ ] Managed Only
- [ ] Owned Only

SMA NAME: _____ SMA Number:

12. WATER SYSTEM CHARACTERISTICS (mark all that apply)

- [ ] Agricultural
- [ ] Commercial / Business
- [ ] Day Care
- [ ] Food Service/Food Permit
- [ ] 1,000 or more person event for 2 or more days per year
- [ ] Hospital/Clinic
- [ ] Industrial
- [ ] Licensed Residential Facility
- [ ] Lodging
- [x] Recreational / RV Park
- [ ] Residential
- [ ] School
- [ ] Temporary Farm Worker
- [ ] Other (church, fire station, etc.): _____

13. WATER SYSTEM OWNERSHIP (mark only one)

- [ ] Association
- [ ] City / Town
- [ ] County
- [ ] Federal
- [ ] Investor
- [ ] Private
- [ ] Special District
- [x] State

14. STORAGE CAPACITY (gallons)

40,000

15	16	17	18									19			20	21						22	23	24			
	SOURCE NAME	INTERTIE	SOURCE CATEGORY									USE				TREATMENT						DEPTH		SOURCE LOCATION			
Source Number	LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE	INTERTIE SYSTEM ID NUMBER	WELL	WELL FIELD	WELL IN A WELL FIELD	SPRING	SPRING FIELD	SPRING IN SPRINGFIELD	SEA WATER	SURFACE WATER	RANNEY / INF. GALLERY	OTHER	PERMANENT	SEASONAL	EMERGENCY	SOURCE METERED	NONE	CHLORINATION	FILTRATION	FLUORIDATION	IRRADIATION (UV)	OTHER	DEPTH TO FIRST OPEN TERVAL IN FEET	CAPACITY (GALLONS PER MINUTE)	1/4, 1/4 SECTION	SECTION NUMBER	TOWNSHIP	RANGE
S01	Well AFJ213		X									X			Y		X					47	35	SW SE	10	21N	07E

WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
SP627 F	KANASKAT-PALMER STATE PARK	KING	A	TNC

	ACTIVE SERVICE CONNECTIONS	DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS	DOH USE ONLY! APPROVED CONNECTIONS
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)		1	1
A. Full Time Single Family Residences (Occupied 180 days or more per year)	1		
B. Part Time Single Family Residences (Occupied less than 180 days per year)	0		
26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?)			
A. Apartment Buildings, condos, duplexes, barracks, dorms	0		
B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year	0		
C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year	0		
27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?)			
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)	20	20	19
B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.	5	5	5
28. TOTAL SERVICE CONNECTIONS		26	25

29. FULL-TIME RESIDENTIAL POPULATION

A. How many residents are served by this system 180 or more days per year? 2

30. PART-TIME RESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many part-time residents are present each month?												
B. How many days per month are they present?												

31. TEMPORARY & TRANSIENT USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?	4795	4768	4415	7133	7503	10398	11643	16013	16235	10548	7818	5068
B. How many days per month is water accessible to the public?	31	28	31	30	31	30	31	31	30	31	31	31

32. REGULAR NON-RESIDENTIAL USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students, daycare children and/or employees are present each month that are NOT already included in the residential population?	3	3	3	4	4	5	5	5	4	3	3	3
B. How many days per month are they present?	31	28	31	30	31	30	31	31	30	31	30	31

33. ROUTINE COLIFORM SCHEDULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	1	1	1	1	1	1	1	1	1	1	1	1

34. NITRATE SCHEDULE	QUARTERLY	ANNUALLY	ONCE EVERY 3 YEARS
(One Sample per source by time period)		S01	

35. Reason for Submitting WFI:

☐ Update - Change ☐ Update - No Change ☐ Inactivate ☐ Re-Activate ☐ Name Change ☐ New System ☐ Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____ **TITLE:** _____

WS ID	WS Name
SP627	KANASKAT-PALMER STATE PARK

Total WFI Printed: 1

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Water Facilities Inventory (WFI)

Report Create Date:	6/24/2022		
Water System Id(s):	sp627		
Print Data on Distribution Page:	ALL		
Print Copies For:	DOH Copy		
Water System Name:	ALL		
County:	-- Any --		
Region:	ALL		
Group:	ALL		
Type:	ALL		
Permit Renewal Quarter:	ALL		
Water System Is New:	ALL		
Water System Status:	ALL		
Water Status Date From:	ALL	**To**	ALL
Water System Update Date	ALL	**To**	ALL
Owner Number:	ALL		
SMA Number:	ALL		
SMA Name:	ALL		
Active Connection Count From:	ALL	**To:**	ALL
Approved Connection Count	ALL	**To:**	ALL
Full-Time Population From:	ALL	**To:**	ALL
Water System Expanding	ALL		
Source Type:	ALL		
Source Use:	ALL		
WFI Printed For:	On-Demand		

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

WATER FACILITIES INVENTORY (WFI) FORM

ONE FORM PER SYSTEM

Quarter: 0
Updated: 05/14/2002

Printed: 6/24/2022
WFI Printed For: On-Demand
Submission Reason: Non-Periodic update

RETURN TO: Central Services - WFI, PO Box 47822, Olympia, WA, 98504-7822 or email wfi@doh.wa.gov

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
52236 D	CUNNINGHAM, MIKE	KING	B	

6. PRIMARY CONTACT NAME & MAILING ADDRESS	7. OWNER NAME & MAILING ADDRESS
MIKE CUNNINGHAM [WS - PRIMARY CONTACT] 22210 SE 272 MAPLE VALLEY, WA 98038	CUNNINGHAM MIKE NEED PRIMARY CONTACT OWNER ORG 013375 CUNNINGHAM MIKE 22210 SE 272 MAPLE VALLEY, WA 98038 OWNER ORG - PRIMARY
STREET ADDRESS IF DIFFERENT FROM ABOVE	**STREET ADDRESS IF DIFFERENT FROM ABOVE**
ATTN ADDRESS CITY STATE ZIP	ATTN ADDRESS CITY STATE ZIP

9. 24 HOUR PRIMARY CONTACT INFORMATION		10. OWNER CONTACT INFORMATION	
Primary Contact Daytime Phone: (000) 432-1557		Owner Daytime Phone:	
Primary Contact Mobile/Cell Phone:		Owner Mobile/Cell Phone:	
Primary Contact Evening Phone:		Owner Evening Phone:	
Fax:	E-mail: xxxxxxxxxxxxxxxxxxx	Fax:	E-mail: xxxxxxxxxxxxxxxxxxx

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

- [x] Not applicable (Skip to #12)
- [ ] Owned and Managed
- [ ] Managed Only
- [ ] Owned Only

SMA NAME: _____ SMA Number:

12. WATER SYSTEM CHARACTERISTICS (mark all that apply)

- [ ] Agricultural
- [ ] Commercial / Business
- [ ] Day Care
- [ ] Food Service/Food Permit
- [ ] 1,000 or more person event for 2 or more days per year
- [ ] Hospital/Clinic
- [ ] Industrial
- [ ] Licensed Residential Facility
- [ ] Lodging
- [ ] Recreational / RV Park
- [x] Residential
- [ ] School
- [ ] Temporary Farm Worker
- [ ] Other (church, fire station, etc.): _____

13. WATER SYSTEM OWNERSHIP (mark only one)

- [ ] Association
- [ ] City / Town
- [ ] County
- [ ] Federal
- [x] Investor
- [ ] Private
- [ ] Special District
- [ ] State

14. STORAGE CAPACITY (gallons)

15	16	17	18 SOURCE CATEGORY									19 USE			20	21 TREATMENT						22	23	24 SOURCE LOCATION			
Source Number	SOURCE NAME LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE	INTERTIE SYSTEM ID NUMBER	WELL	WELL FIELD	WELL IN A WELL FIELD	SPRING	SPRING FIELD	SPRING IN SPRINGFIELD	SEA WATER	SURFACE WATER	RANNEY / INF. GALLERY	OTHER	PERMANENT	SEASONAL	EMERGENCY	SOURCE METERED	NONE	CHLORINATION	FILTRATION	FLUORIDATION	IRRADIATION (UV)	OTHER	DEPTH TO FIRST OPEN TERVAL IN FEET	CAPACITY (GALLONS PER MINUTE)	1/4, 1/4 SECTION	SECTION NUMBER	TOWNSHIP	RANGE
S01	WELL		X									X				X						96	24	SW SE	20	21N	07E

WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
52236 D	CUNNINGHAM, MIKE	KING	B	

	ACTIVE SERVICE CONNECTIONS	DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS	DOH USE ONLY! APPROVED CONNECTIONS
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)		3	3
A. Full Time Single Family Residences (Occupied 180 days or more per year)	3		
B. Part Time Single Family Residences (Occupied less than 180 days per year)	0		
26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?)			
A. Apartment Buildings, condos, duplexes, barracks, dorms	0		
B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year	0		
C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year	0		
27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?)			
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)	0	0	0
B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.	0	0	0
28. TOTAL SERVICE CONNECTIONS		3	3

29. FULL-TIME RESIDENTIAL POPULATION

A. How many residents are served by this system 180 or more days per year? 8

30. PART-TIME RESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many part-time residents are present each month?												
B. How many days per month are they present?												

31. TEMPORARY & TRANSIENT USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?												
B. How many days per month is water accessible to the public?												

32. REGULAR NON-RESIDENTIAL USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students, daycare children and/or employees are present each month that are NOT already included in the residential population?												
B. How many days per month are they present?												

33. ROUTINE COLIFORM SCHEDULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

34. NITRATE SCHEDULE	QUARTERLY	ANNUALLY	ONCE EVERY 3 YEARS
(One Sample per source by time period)			

35. Reason for Submitting WFI:

☐ Update - Change ☐ Update - No Change ☐ Inactivate ☐ Re-Activate ☐ Name Change ☐ New System ☐ Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____ **TITLE:** _____

WS ID	WS Name
52236	CUNNINGHAM, MIKE

Total WFI Printed: 1

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Water Facilities Inventory (WFI)

Report Create Date:	6/24/2022		
Water System Id(s):	52236D		
Print Data on Distribution Page:	ALL		
Print Copies For:	DOH Copy		
Water System Name:	ALL		
County:	-- Any --		
Region:	ALL		
Group:	ALL		
Type:	ALL		
Permit Renewal Quarter:	ALL		
Water System Is New:	ALL		
Water System Status:	ALL		
Water Status Date From:	ALL	**To**	ALL
Water System Update Date	ALL	**To**	ALL
Owner Number:	ALL		
SMA Number:	ALL		
SMA Name:	ALL		
Active Connection Count From:	ALL	**To:**	ALL
Approved Connection Count	ALL	**To:**	ALL
Full-Time Population From:	ALL	**To:**	ALL
Water System Expanding	ALL		
Source Type:	ALL		
Source Use:	ALL		
WFI Printed For:	On-Demand		

APPROVED
DEPARTMENT OF HEALTH
DIVISION OF DRINKING WATER
Moe K. Batra
ENGINEER
August 24, 1990
DATE

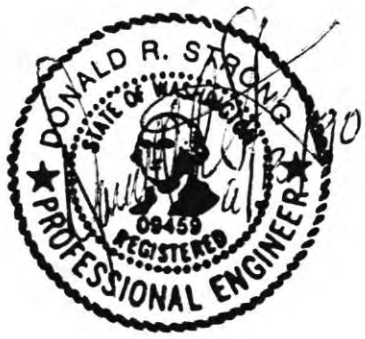
DRS D.R. STRONG Consulting Engineers
10602 N.E. 38TH PLACE, SUITE 101 • KIRKLAND, WA 98033 • (206) 827-3063
WASHINGTON STATE TOLL FREE • 1-800-962-1402
FAX NUMBER • (206) 827-2423

UPDATED REPORT

FOR

THE GREEN RIVER GORGE RESORT

WATER SYSTEM



PREPARED BY

D.R. STRONG ***Consulting Engineers Inc.***

10602 N.E. 38TH PLACE, SUITE 101 • KIRKLAND, WA 98033 • (206) 827-3063

JUNE 6, 1990

89329

INTRODUCTION

This report describes the water system for the Green River Gorge Resort. This report first gives a general description of the System, then discusses the source, treatment, storage, and distribution systems in more complete detail. This report presents water quality and geohydrologic information while discussing the source. Then, it presents the design of an Ultraviolet Radiation Disinfection System to be implemented if treatment becomes necessary. This report recommends a course of action for monitoring requirements and a response plan should contamination occur.

GENERAL DESCRIPTION

Mr. James Carter owns and operates the Green River Gorge Resort and Water System. The Resort is located on the east side of the Green River Gorge where the Franklin Bridge crosses the river.

The lower level of the Green River Gorge Resort Water System, laying northwest of the Green River Gorge Road, was constructed and approved in May 1983. Since then, the Owner has extended the System up the Green River Gorge Road and to the plateau northeast of the spring.

The Green River Gorge Resort Water System consists of a spring source, a pump station serving two pressure zones, and a distribution system. The spring emerges approximately 75 ft up a steep bank from the Green River Gorge Road. Water flows from the spring collection box to the pump station without coming in contact with the atmosphere. The first booster pump pressurizes water for the low pressure zone--Zone 1. Zone 1 consists of the distribution system for the services

at lower elevations. Connections in zone 1 include approximately 30 hose bib connections for RV sites, a rest room building, a house and the resort lodge. The second booster pump intakes water from zone 1 and pressurizes it to the high pressure zone--Zone 2. Zone 2 consists of the distribution system for the services at higher elevations. Connections in zone 2 include 18 hose bib connections on the plateau northwest of the spring and east of the Gorge Road and 40 hose bib connections west of the Gorge Road.

SOURCE

Description

The Green River Gorge Resort Spring produces an ample supply of excellent quality water. Research from the Metro Section 16 Silvigrow Project shows that the spring receives its water from a deep aquifer which originates in the Deep Creek Subbasin of the Cumberland Drainage Basin. Ref 1. The spring emerges on a steep bank approximately 75 ft up from the Green River Gorge Road. The spring collection box consists of a 4 ft diameter corrugated metal pipe embedded 4 ft into the ground. A cast-in-place concrete ring and raintight locking lid provide a sanitary and secure seal over the box. Outlet piping directs water to the pump station and discharges excess water to the natural drainage. Plastic sheeting, buried just below the surface, minimizes surface water infiltration around the spring. Figures 1 through 4 show the spring box, outlet piping, and plastic sheeting.

Capacity

The "Geohydrology Study of the Metro Section 16 Silvigrow Project" estimates the capacity of the Green River Gorge Resort Spring at 900 GPM minimum. Ref 1.

FIGURE 1 - SPRING BOX 4/90

FIGURE 2 - SPRING BOX & OUTLET PIPING
4/90

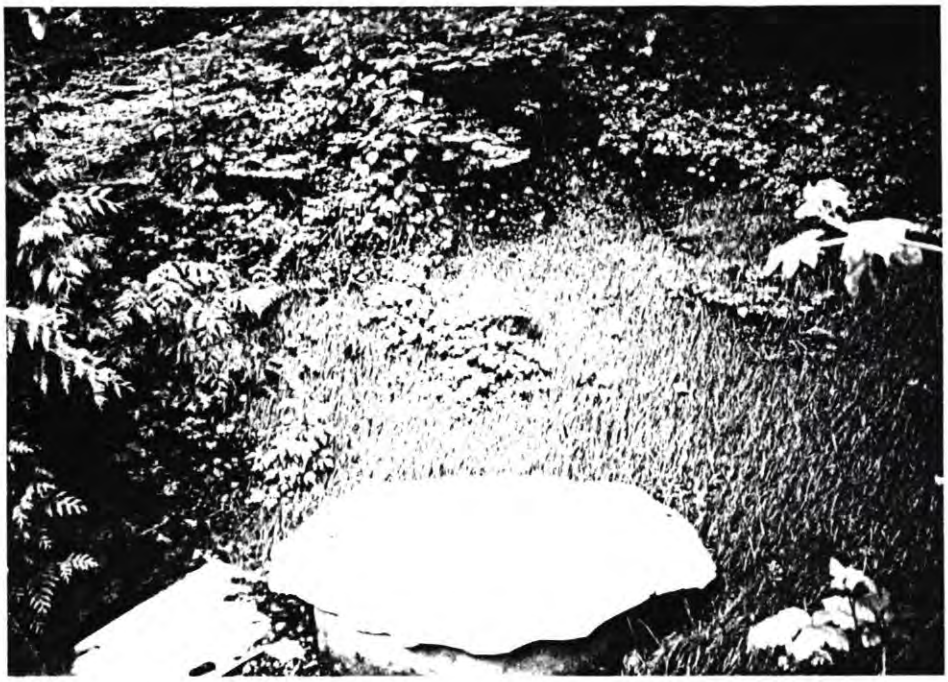


FIGURE 3 - SPRING BOX, LOCKING COVER, VEGITATION 6/90

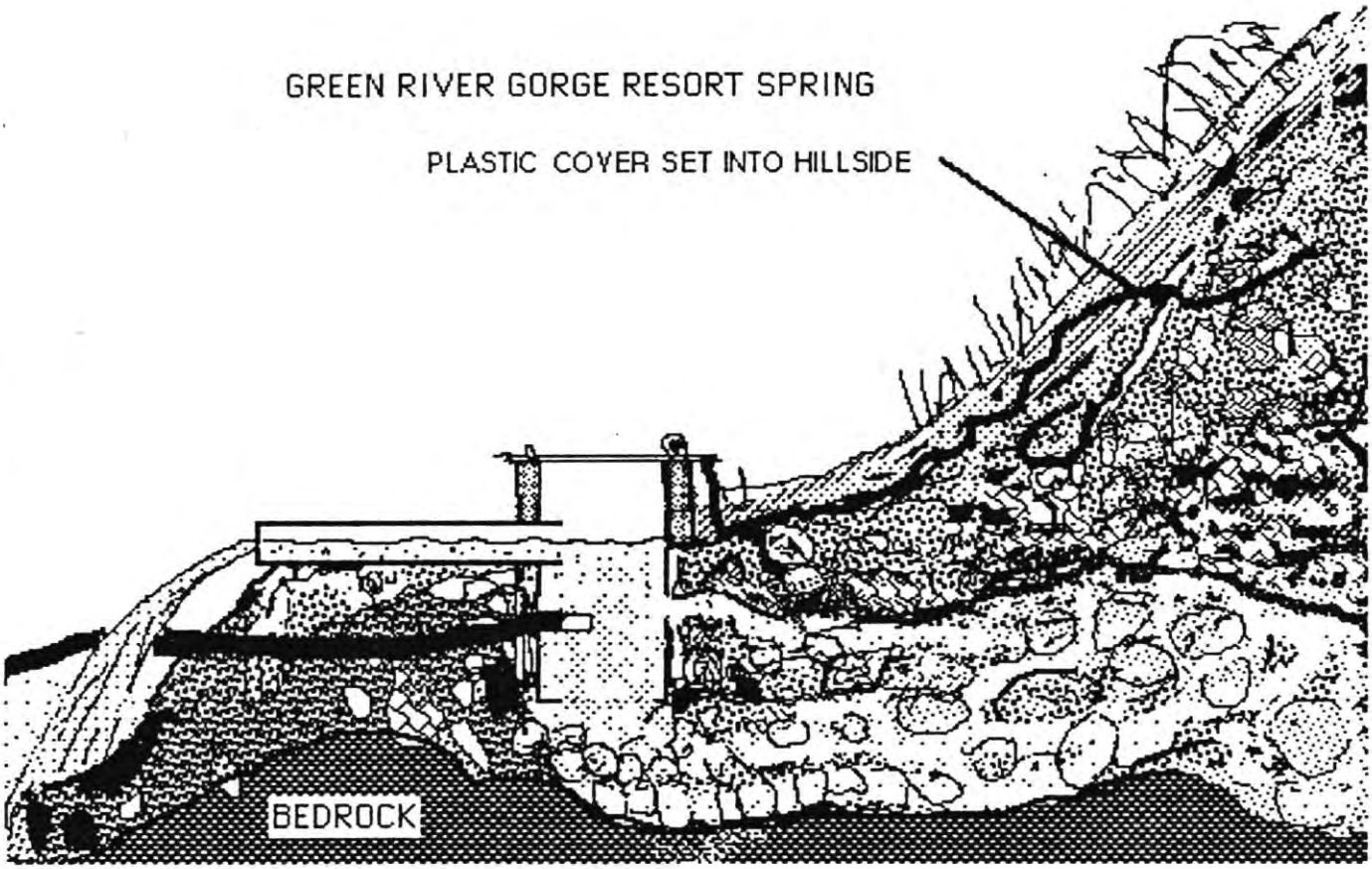


FIGURE 4 - SCHEMATIC X-SECTION
(FROM OWNER'S FILE)

Quality

The Green River Gorge Resort Spring consistently produces satisfactory bacteriological, inorganic chemical, and physical test results. Metro's Silvigrow Study test results provide a good history of the spring's water quality. Figure 5 shows the tabulated results of Metro's tests for metals, bacteria, and conventionals from May 1989 through February 1990. Figures 6 and 7 show the results of primary MCL, bacteriological, physical, and pesticide tests performed by Laucks Testing Lab August 23, and September 21, 1989. Appendix A contains the full form of the Metro and Laucks results as well as additional bacteriological tests performed at the request of Mr. Carter. A review of these test results shows only one unsatisfactory bacteriological test in about a one year period. The sample which produced an unsatisfactory result may have been taken downstream from the collection box where subsequent contamination could have occurred.

TREATMENT

The Green River Gorge Resort Spring currently supplies excellent quality water to the system without disinfection.

Mr. Carter wishes to preserve the natural quality of his spring's water. If disinfection becomes necessary, the owner would like to utilize an ultraviolet radiation system instead of chemical treatment.

We have completed a preliminary design for an ultraviolet radiation system to treat the spring's raw water should bacteriological contamination become a problem.

Low inorganic chemical and turbidity levels indicate that UV treatment would be a feasible option. Pre-filtration may be required to remove particulate matter greater than 5 microns in size.

GREEN RIVER RESORT SPRING
1989 WATER QUALITY DATA
Collected and Analyzed by Metyro Enviornmental Lab

METALS
(mg/l)

SNUM	DATE	BA	BE	CD	CA	CR	CU	FE	PB	MG	MN	NI	AG	ZN
8906137	890531	0.002	0.001	0.002	11.4	0.005	0.002	0.005	0.03	2.77	0.002	0.01	0.003	0.004
8906668	890627	0.003	0.001	0.002	14.3	0.005	0.002	0.005	0.03	3.68	0.002	0.01	0.003	0.004
8907390	890726	0.002	0.001	0.002	16.4	0.005	0.002	0.005	0.03	4.12	0.002	0.01	0.003	0.004
8907920	890815	0.002	0.001	0.002	15.6	0.005	0.002	0.005	0.03	4.07	0.002	0.01	0.003	0.004
8908361	890926	0.003	0.001	0.003	16.0	0.005	0.004	0.005	0.03	4.10	0.001	0.01	0.003	0.004
8909402	891017	0.002	0.001	0.002	16.0	0.005	0.002	0.005	0.03	4.10	0.001	0.01	0.003	0.004
8910552	891107	0.003	0.001	0.002	15.0	0.005	0.002	0.005	0.03	4.00	0.001	0.01	0.003	0.004
8910852	891206	0.003	0.001	0.002	15.0	0.005	0.002	0.02	0.03	4.10	0.001	0.01	0.004	0.01
Average		0.003	0.001	0.002	14.96	0.005	0.002	0.007	0.03	3.87	0.002	0.010	0.003	0.005
Stdev		0.001	0	0.0004	1.59	0	0.001	0.005	0	0.47	0.001	0	0.0004	0.002
Min		0.002	0.001	0.002	11.40	0.005	0.002	0.005	0.03	2.77	0.001	0.010	0.003	0.004
Max		0.003	0.001	0.003	16.40	0.005	0.004	0.02	0.03	4.12	0.002	0.010	0.004	0.010
Count		8	8	8	8	8	8	8	8	8	8	8	8	8

BACTERIA
(Orgs/100 g)

SNUM	DATE	Fecal Coliforms	Enterococcus
8906137	890531	< .1000E+01	< .1000E+01
8906668	890627	< .1000E+01	< .1000E+01
8907390	890726	.1000E+01	< .1000E+01
8907920	890815	< .1000E+01	< .1000E+01
8908361	890926	< .1000E+01	< .1000E+01
8909402	891017	< .1000E+01	< .1000E+01
8910552	891107	< .1000E+01	< .1000E+01
8910852	891206	< .1000E+01	< .1000E+01
Min		< 1.00E+00	< 1.00E+00
Max		1.00E+00	1.00E+00
Count		8	8

CONVENTIONALS

SNUM	DATE	Ammonia-N (mg/l)	Nitrate+Nitrite-N (mg/l)	pH	Conductivity
8906137	890531	< 0.001	1.02	6.97	87
8906668	890627	< 0.001	1.10	6.70	108
8907390	890726	< 0.001	1.33	6.66	120
8907920	890815	0.011	1.11	6.83	124
8908361	890926	0.002	1.10	7.17	120
8909402	891017	0.002	1.15	7.38	113
8910552	891107	0.004	1.04	6.97	124
8910852	891206	< 0.01	1.26	6.01	130
Average		0.004	1.14	6.84	116
Stdev		0.004	0.11	0.41	13
Min		0.001	1.02	6.01	87
Max		0.011	1.33	7.38	130
Count		8	8	8	8

FIGURE 5.1

GREEN RIVER RESORT SPRING
1990 WATER QUALITY DATA
Collected and Analyzed by Metro Enviornmental Lab

METALS
(mg/l)

Sample No.	Date	AS	BA	BE	CD	CR	CU
9003531	900123	< 0.05	0.001	< 0.001	< 0.003	< 0.005	< 0.002
9004401	900227	< 0.05	0.002	< 0.001	< 0.002	< 0.005	< 0.002

Sample No.	Date	PB	NI	SE	AG	ZN
9003531	900123	< 0.03	< 0.01	< 0.05	< 0.003	< 0.004
9004401	900227	< 0.03	< 0.01	< 0.05	< 0.003	< 0.004

BACTERIA
(Orgs/100 ml)

Sample No.	Date	Fecal Coliforms	Enterococcus
9003531	900123	< 1.00E+00	< 1.00E+00
9004401	900227	< 1.00E+00	< 1.00E+00

CONVENTIONALS

Sample No.	Date	Ammonia-N (mg/l)	Nitrate+Nitrite-N (mg/l)	pH	Conductivity
9003531	900123	< 0.01	0.498	7.25	65
9004401	900227	< 0.01	0.61	7.39	54
Average		< 0.01	0.554	7.32	60
Stdev		0	0.079	0.10	8
Min		< 0.01	0.498	7.25	54
Max		< 0.01	0.61	7.39	65
Count		2	2	2	2

FIGURE 5.2

Laucks 81 years
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Certificate

Chemistry, Microbiology, and Technical Services

CLIENT: Metro Water Quality Lab
322 W. Ewing St.
Seattle, WA 98119
ATTN: Ray McClain

LABORATORY NO. 17245

DATE: Aug. 23, 1989

PO #R30251

RECEIVED
MAR 08 1990
SLUDGE MGMT. PROGRAM

REPORT ON: WATER

SAMPLE IDENTIFICATION: Submitted 6/27/89 and identified as shown:

1) 6659 Black Diamond Spring 6/27
2) 6663 Palmer Spring 6/27 1008
3) 6668 Gorge Spring 6/27 1045

	1	2	3
Total Coliform Count, MPN/100 mls	<2.2	<2.2	2.2

	1	2	3	MCL
Turbidity, nephelometer units	<0.5	<0.5	<0.5	1.0
Color, units	<5.	<5.	<5.	15.
Specific Conductance, micromhos/cm @ 25°C	61.	#	120.	700.

FIGURE 6.1

Laucks 81 years
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Certificate

Chemistry, Microbiology, and Technical Services

Metro

LABORATORY NO. 17245

	1	2	3	MCL
	parts per million (mg/L)			
Arsenic	<0.01	<0.01	<0.01	0.05
Barium	<0.25	<0.25	<0.25	1.0
Cadmium	<0.002	<0.002	<0.002	0.01
Chromium	<0.01	<0.01	<0.01	0.05
Iron	0.06	<0.05	0.12	0.3
Lead	<0.01	0.02	<0.01	0.05
Manganese	<0.01	<0.01	<0.01	0.05
Mercury	<0.001	<0.001	<0.001	0.002
Selenium	<0.005	<0.005	<0.005	0.01
Silver	<0.01	<0.01	<0.01	0.05
Sodium	<10.	<10.	<10.	20.0*
Fluoride	<0.2	<0.2	<0.2	2.0
Nitrate as N	0.5	0.7	1.1	10.0
Chloride	<10.	<10.	<10.	250.
Total Hardness	32.	44.	50.	---
Sulfate as SO4	<10.	<10.	<10.	250.
Copper	<0.25	<0.25	<0.25	1.0
Zinc	<0.25	<0.25	<0.25	5.0

FIGURE 6.2

Laucks 81 STAR
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Certificate

Chemistry Microbiology and Technical Services

Metro

LABORATORY NO. 17245

parts per million (mg/L)

	1	2	3	Lab Blank	MCL
Endrin	<0.0001	<0.0001	<0.0001	<0.0001	0.0002
Lindane	<0.00005	<0.00005	<0.00005	<0.00005	0.004
Methoxychlor	<0.0005	<0.0005	<0.0005	<0.0005	0.1
Toxaphene	<0.001	<0.001	<0.001	<0.001	0.005
2,4-D	<0.0005	<0.0005	<0.0005	<0.0005	0.1
2,4,5-TP	<0.0005	<0.0005	<0.0005	<0.0005	0.01

Key

< = less than
MCL = Maximum Contamination Level allowed per current EPA and State of Washington regulations.
* Recommended limit only, no MCL established.
# Insufficient sample volume to run analysis

Respectfully submitted,

Laucks Testing Laboratories, Inc.

J. M. Owens

JMO:veg

FIGURE 6.3

Laucks 81 years
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Certificate

Chemistry, Microbiology and Technical Services

CLIENT: Metro Water Quality Lab
322 W. Ewing St.
Seattle, WA 98119
ATTN: Ray McClain

LABORATORY NO. 17708

DATE: Sep. 21, 1989

PO #R30251

REPORT ON: WATER

SAMPLE
IDENTIFICATION: Submitted 7/26/89 and identified as shown:

1) 7381 7/26 Black Diamond Spring
2) 7385 7/26 Palmer Spring
3) 7390 7/26 Gorge Resort Spring

	1	2	3
Total Coliform Count, MPN/100 mls	2.	4.	<2.

	1	2	3	MCL	Lab Blank
Arsenic, mg/L	<0.01	<0.01	<0.01	0.05	<0.005
Barium, mg/L	<0.25	<0.25	<0.25	1.0	<0.02
Cadmium, mg/L	<0.002	<0.002	<0.002	0.01	<0.002
Chromium, mg/L	<0.01	<0.01	<0.01	0.05	<0.005
Iron, mg/L	<0.05	<0.05	0.06	0.3	<0.01
Lead, mg/L	<0.01	<0.01	0.02	0.05	<0.01
Manganese, mg/L	<0.01	<0.01	<0.01	0.05	<0.002
Mercury, mg/L	<0.001	<0.001	<0.001	0.002	<0.001
Selenium, mg/L	<0.005	<0.005	<0.005	0.01	<0.005
Silver, mg/L	<0.01	<0.01	<0.01	0.05	<0.002
Sodium, mg/L	<10.	<10.	<10.	20.0*	<10.
Total Hardness, mg/L	26.	42.	54.	---	<1.

FIGURE 7.1

Laucks 81 years
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Certificate

Chemistry, Microbiology, and Technical Services

Metro

LABORATORY NO. 17708

	1	2	3	MCL	Lab Blank
Specific Conductivity, micromhos/cm @ 25°C	66.	100.	140.	700.	-
Turbidity, nephelometer units	0.6	<0.5	<0.5	1.0	-
Color, units	<5.	<5.	<5.	15.	-
Fluoride, mg/L	<0.2	<0.2	<0.2	2.0	<0.2
Nitrate as N, mg/L	0.6	0.8	1.4	10.0	<0.2
Chloride, mg/L	<10.	<10.	<10.	250.	<10.
Sulfate as SO4, mg/L	<10.	<10.	12.	250.	<10.
Copper, mg/L	<0.25	<0.25	<0.25	1.0	<0.002
Zinc, mg/L	<0.25	<0.25	<0.25	5.0	0.002

parts per million (mg/L)

	1	2	3	Lab Blank	MCL
Endrin	<0.0001	<0.0001	<0.0001	<0.0001	0.0002
Lindane	<0.00005	<0.00005	<0.00005	<0.00005	0.004
Methoxychlor	<0.0005	<0.0005	<0.0005	<0.0005	0.1
Toxaphene	<0.001	<0.001	<0.001	<0.001	0.005
2,4-D	<0.0005	<0.0005	<0.0005	<0.0005	0.1
2,4,5-TP	<0.0005	<0.0005	<0.0005	<0.0005	0.01

FIGURE 7.2

Appendix B contains the design calculations and drawings for the ultraviolet treatment system. A brief operational description of the ultraviolet treatment system follows:

Water flows by gravity from the spring box to the new lift pump in the booster station. The new lift pump produces 10 GPM at 70 ft of head. This flow corresponds to the recommended flow capacity of the treatment unit for maximum efficiency. The 70 ft of head lifts water from the booster station to the remote storage tank. Water flows from the lift pump to the ultraviolet radiation chamber. A solenoid shut-off valve and a flow control valve regulate the flow through the treatment chamber and into the system. The solenoid shutoff valve opens on energization and closes on deenergization. When the solenoid shutoff valve is open, water flows through the UV radiation chamber. The flow control valve on the outlet limits the flow rate through the chamber to the rated capacity of 10 GPM. A sensor constantly meters the UV radiation intensity at the periphery of the chamber. If the UV intensity drops below the recommended levels, the sensor cuts power to the solenoid shut off valve, causing it to close, and sounds an alarm. Water flows from the treatment chamber and into the distribution manifold. From the distribution manifold, water flows either to the new 14,000 gal storage tank or directly to the distribution system depending on the system demand.

Ultraviolet treatment units with capacity of to meet the M.I.D. are not economically feasible because of high construction and operation costs. The selection of a packaged ultraviolet treatment unit with capacity about 10% M.I.D. requires the construction of equalizing

storage. However, this storage system performs some desirable functions. The new 14,000 gal storage tank sits at elevation 680 so that it provides pressure to zone 1 by gravity. This eliminates one booster pump.

Continuous operation of the ultraviolet treatment system provides several benefits. First, since ultraviolet treatment provides no residual disinfectant, continuous operation increases disinfection reliability by constantly refreshing treated water in storage and distribution. If the storage tank becomes full, the continuous supply water circulates in the tank and overflows. Also, continuous operation eliminates the problems related to warm up period delays.

STORAGE

The Green River Gorge Resort Water System currently has no Storage Facilities. The spring's flow of 900 GPM or more exceeds the Maximum Instantaneous Demand of approximately 90 GPM. The spring's continuity and flow rate eliminate the need for standby and equalizing storage.

If the ultraviolet treatment system is implemented, then equalizing storage will be required to meet the M.I.D. flows. The ideal location for the storage tank would be on the plateau above the spring. This would allow about half of the system to be served by gravity. The storage tank would be connected to the distribution system by a 4" PVC main to the pump house.

DISTRIBUTION

Description

The distribution system consists of a network of small diameter polyethylene tubing. The booster system (described below) provides water to two different pressure zones. The low level zone includes runs of 2", 1-1/2", and 1" tubing serving 30 RV sites, a restroom building, and a house. The high level zone includes runs of 2", 1-1/4", and 3/4" tubing. Potential plans for development in this high level zone calls for 18 cabin connections, 15 RV sites, 2 houses, 23 campsites. The resort lodge and the Elders Water system are served by gravity from the spring box.

Hydraulic Analysis

A hydraulic analysis was performed on a network of 2-inch, 1-1/2-inch, 1-1/4-inch, 1-inch, and 3/4-inch pipe. This analysis was based on the State Sizing Guidelines for M.I.D. flows for a combination of recreational and permanent residential use. Appendix C contains the hydraulic analysis.

The analysis suggests that the system will provide adequate flow and pressure to the houses, cabins, and RV hook-ups during the M.I.D.. Due to friction loss in the 3/4" pipe, some of the upper level campsite hose bibs would not produce the recommended flow at the required pressure of 30 psi during the M.I.D.. However, these campsites could be expected to produce approximately 3 GPM each with a residual head of around 20 psi.

Booster System

The owner recently improved and modified the booster system. A 7.5 ft by 7.5 ft wood frame building now encloses the two booster pumps, hydro-pneumatic tanks, and associated plumbing. Water enters the booster station from the spring with approximately 5 ft of head. The first booster pump operates in the 30-50 psi pressure range. This pressure range services zone 1, the low level zone, and the intake for the second booster pump. The second booster pump operates in the 60-80 psi pressure range. A review of the hydraulic analysis shows that the second booster pump will need to operate in the 80-100 psi pressure range. This pressure range services zone 2, the high level zone.

CONCLUSION

The spring originates in a stratum not subject to surface water contamination. The collection facility collects water by a method precluding contamination. The system has a satisfactory bacteriological history. Further, the raw water meets SWTR turbidity levels without treatment or filtration.

Tests show the source water to have excellent inorganic chemical and physical properties. We feel the spring source is eligible for a waiver from the disinfection requirements according to WAC 248-54-155 if bacteriological tests continue to be satisfactory. Further, we believe the source will not be subject to SWTR because the source is not under the direct influence of surface water.

RECOMMENDATIONS

We recommend approval of the existing water system provided several conditions are met.

The first condition is strict conformance to the WAC 248-54-165 monitoring and reporting requirements. The second condition is the installation of a water meter to register the amount of water the system actually consumes. Although source capacity is not a limiting factor, we cannot finalize a treatment system design without more detailed flow information. The third condition is completion of the design for the Ultraviolet or other treatment system once more accurate water use information is available.

If subsequent signs of a contamination appear, we suggest the immediate implementation of the ultra violet treatment facility, with chlorination providing treatment during construction.

REFERENCE 1: Geohydrology Studies of the Metro Section 16 Silvigrow Project; Brown & Caldwell, Municipality of Metropolitan Seattle, TCW Associates, Inc.; March 1989

C5:\R\89329.DOC

A P P E N D I X "A"

WATER QUALITY DATA

GREEN RIVER RESORT SPRING
1989 WATER QUALITY DATA
Collected and Analyzed by Metyro Enviornmental Lab

METALS
(mg/l)

SNUM	DATE	BA	BE	CD	CA	CR	CU	FE	PB	MG	MN	NI	AG	ZN
S906137	S90531	0.002	0.001	0.002	11.4	0.005	0.002	0.005	0.03	2.77	0.002	0.01	0.003	0.004
S906668	S90627	0.003	0.001	0.002	14.3	0.005	0.002	0.005	0.03	3.68	0.002	0.01	0.003	0.004
S907390	S90726	0.002	0.001	0.002	16.4	0.005	0.002	0.005	0.03	4.12	0.002	0.01	0.003	0.004
S907920	S90815	0.002	0.001	0.002	15.6	0.005	0.002	0.005	0.03	4.07	0.002	0.01	0.003	0.004
S908361	S90926	0.003	0.001	0.003	16.0	0.005	0.004	0.005	0.03	4.10	0.001	0.01	0.003	0.004
S909402	S91017	0.002	0.001	0.002	16.0	0.005	0.002	0.005	0.03	4.10	0.001	0.01	0.003	0.004
S910552	S91107	0.003	0.001	0.002	15.0	0.005	0.002	0.005	0.03	4.00	0.001	0.01	0.003	0.004
S910852	S91206	0.003	0.001	0.002	15.0	0.005	0.002	0.02	0.03	4.10	0.001	0.01	0.004	0.01
Average		0.003	0.001	0.002	14.96	0.005	0.002	0.007	0.03	3.87	0.002	0.010	0.003	0.005
Stdev		0.001	0	0.0004	1.59	0	0.001	0.005	0	0.47	0.001	0	0.0004	0.002
Min		0.002	0.001	0.002	11.40	0.005	0.002	0.005	0.03	2.77	0.001	0.010	0.003	0.004
Max		0.003	0.001	0.003	16.40	0.005	0.004	0.02	0.03	4.12	0.002	0.010	0.004	0.010
Count		8	8	8	8	8	8	8	8	8	8	8	8	8

BACTERIA
(Orgs/100 g)

SNUM	DATE	Fecal Coliforms	Enterococcus
S906137	S90531	< .1000E+01	< .1000E+01
S906668	S90627	< .1000E+01	< .1000E+01
S907390	S90726	.1000E+01	< .1000E+01
S907920	S90815	< .1000E+01	< .1000E+01
S908361	S90926	< .1000E+01	< .1000E+01
S909402	S91017	< .1000E+01	< .1000E+01
S910552	S91107	< .1000E+01	< .1000E+01
S910852	S91206	< .1000E+01	< .1000E+01
Min		< 1.00E+00	< 1.00E+00
Max		1.00E+00	1.00E+00
Count		8	8

CONVENTIONALS

SNUM	DATE	Ammonia-N (mg/l)	Nitrate+Nitrite-N (mg/l)	pH	Conductivity
S906137	S90531	< 0.001	1.02	6.97	87
S906668	S90627	< 0.001	1.10	6.70	108
S907390	S90726	< 0.001	1.33	6.66	120
S907920	S90815	0.011	1.11	6.83	124
S908361	S90926	0.002	1.10	7.17	120
S909402	S91017	0.002	1.15	7.38	113
S910552	S91107	0.004	1.04	6.97	124
S910852	S91206	< 0.01	1.26	6.01	130
Average		0.004	1.14	6.84	116
Stdev		0.004	0.11	0.41	13
Min		0.001	1.02	6.01	87
Max		0.011	1.33	7.38	130
Count		8	8	8	8

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Certificate

Chemistry Microbiology and Technical Services

CLIENT: Metro Water Quality Lab
322 W. Ewing St.
Seattle, WA 98119
ATTN: Ray McClain

LABORATORY NO. 17245

DATE: Aug. 23, 1989

PO #R30251

RECEIVED
MAR 0 8 1990
SLUDGE MGMT. PROGRAM

REPORT ON: WATER

SAMPLE IDENTIFICATION: Submitted 6/27/89 and identified as shown:

1) 6659 Black Diamond Spring 6/27
2) 6663 Palmer Spring 6/27 1008
3) 6668 Gorge Spring 6/27 1045

	1	2	3
Total Coliform Count, MPN/100 mls	<2.2	<2.2	2.2

	1	2	3	MCL
Turbidity, nephelometer units	<0.5	<0.5	<0.5	1.0
Color, units	<5.	<5.	<5.	15.
Specific Conductance, micromhos/cm @ 25°C	61.	#	120.	700.

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	1	2	3	MCL
	parts per million (mg/L)			
Arsenic	<0.01	<0.01	<0.01	0.05
Barium	<0.25	<0.25	<0.25	1.0
Cadmium	<0.002	<0.002	<0.002	0.01
Chromium	<0.01	<0.01	<0.01	0.05
Iron	0.06	<0.05	0.12	0.3
Lead	<0.01	0.02	<0.01	0.05
Manganese	<0.01	<0.01	<0.01	0.05
Mercury	<0.001	<0.001	<0.001	0.002
Selenium	<0.005	<0.005	<0.005	0.01
Silver	<0.01	<0.01	<0.01	0.05
Sodium	<10.	<10.	<10.	20.0*
Fluoride	<0.2	<0.2	<0.2	2.0
Nitrate as N	0.5	0.7	1.1	10.0
Chloride	<10.	<10.	<10.	250.
Total Hardness	32.	44.	50.	---
Sulfate as SO4	<10.	<10.	<10.	250.
Copper	<0.25	<0.25	<0.25	1.0
Zinc	<0.25	<0.25	<0.25	5.0

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LABORATORY NO. 17245

parts per million (mg/L)

	1	2	3	Lab Blank	MCL
Endrin	<0.0001	<0.0001	<0.0001	<0.0001	0.0002
Lindane	<0.00005	<0.00005	<0.00005	<0.00005	0.004
Methoxychlor	<0.0005	<0.0005	<0.0005	<0.0005	0.1
Toxaphene	<0.001	<0.001	<0.001	<0.001	0.005
2,4-D	<0.0005	<0.0005	<0.0005	<0.0005	0.1
2,4,5-TP	<0.0005	<0.0005	<0.0005	<0.0005	0.01

Key

< = less than
MCL = Maximum Contamination Level allowed per current EPA and State of Washington regulations.
* Recommended limit only, no MCL established.
# Insufficient sample volume to run analysis

Respectfully submitted,

Laucks Testing Laboratories, Inc.

J. M. Owens

JMO:veg

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Testing Laboratories, Inc.
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LABORATORY NO. 17245

APPENDIX

Surrogate Recovery Quality Control Report

Attached are surrogate (chemically similar) compounds utilized in the analysis of organic compounds. The surrogates are added to every sample prior to extraction and analysis to monitor for matrix effects, purging efficiency, and sample processing errors. The control limits represent the 95% confidence interval established in our laboratory through repetitive analysis of these sample types.

JOB No. 17245 DATE: 07/10/89

Sample No. 80630GHBWLQ Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	59		20 - 151

Sample No. 1 Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	55		20 - 151

Sample No. 2 Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	51		20 - 151

Sample No. 3 Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	47		20 - 151

JOB No. 17245 DATE. 07/10/89

Sample No. 00500GPXWLQ Matrix. Water Analysis. PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	105		43 - 152
Isodrin	92		32 - 96

Sample No. 1 Matrix: Water Analysis: PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	114		43 - 152
Isodrin	99		32 - 96

Sample No. 2 Matrix: Water Analysis: PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	133		43 - 152
Isodrin	103		32 - 96

Sample No. 3 Matrix: Water Analysis: PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	125		43 - 152
Isodrin	101		32 - 96

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Chemistry, Microbiology, and Technical Services

CLIENT: Metro Water Quality Lab
322 W. Ewing St.
Seattle, WA 98119
ATTN: Ray McClain

LABORATORY NO. 17708

DATE: Sep. 21, 1989

PO #R30251

REPORT ON: WATER

SAMPLE IDENTIFICATION: Submitted 7/26/89 and identified as shown:

1) 7381 7/26 Black Diamond Spring
2) 7385 7/26 Palmer Spring
3) 7390 7/26 Gorge Resort Spring

	1	2	3
Total Coliform Count, MPN/100 mls	2.	4.	<2.

	1	2	3	MCL	Lab Blank
Arsenic, mg/L	<0.01	<0.01	<0.01	0.05	<0.005
Barium, mg/L	<0.25	<0.25	<0.25	1.0	<0.02
Cadmium, mg/L	<0.002	<0.002	<0.002	0.01	<0.002
Chromium, mg/L	<0.01	<0.01	<0.01	0.05	<0.005
Iron, mg/L	<0.05	<0.05	0.06	0.3	<0.01
Lead, mg/L	<0.01	<0.01	0.02	0.05	<0.01
Manganese, mg/L	<0.01	<0.01	<0.01	0.05	<0.002
Mercury, mg/L	<0.001	<0.001	<0.001	0.002	<0.001
Selenium, mg/L	<0.005	<0.005	<0.005	0.01	<0.005
Silver, mg/L	<0.01	<0.01	<0.01	0.05	<0.002
Sodium, mg/L	<10.	<10.	<10.	20.0*	<10.
Total Hardness, mg/L	26.	42.	54.	---	<1.

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	1	2	3	MCL	Lab Blank
Specific Conductivity, micromhos/cm @ 25°C	66.	100.	140.	700.	-
Turbidity, nephelometer units	0.6	<0.5	<0.5	1.0	-
Color, units	<5.	<5.	<5.	15.	-
Fluoride, mg/L	<0.2	<0.2	<0.2	2.0	<0.2
Nitrate as N, mg/L	0.6	0.8	1.4	10.0	<0.2
Chloride, mg/L	<10.	<10.	<10.	250.	<10.
Sulfate as SO4, mg/L	<10.	<10.	12.	250.	<10.
Copper, mg/L	<0.25	<0.25	<0.25	1.0	<0.002
Zinc, mg/L	<0.25	<0.25	<0.25	5.0	0.002

parts per million (mg/L)

	1	2	3	Lab Blank	MCL
Endrin	<0.0001	<0.0001	<0.0001	<0.0001	0.0002
Lindane	<0.00005	<0.00005	<0.00005	<0.00005	0.004
Methoxychlor	<0.0005	<0.0005	<0.0005	<0.0005	0.1
Toxaphene	<0.001	<0.001	<0.001	<0.001	0.005
2,4-D	<0.0005	<0.0005	<0.0005	<0.0005	0.1
2,4,5-TP	<0.0005	<0.0005	<0.0005	<0.0005	0.01

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Key

< = less than
MCL = Maximum Contamination Level allowed per current EPA and State of Washington regulations.
* Recommended limit only, no MCL established.

Respectfully submitted,

Laucks Testing Laboratories, Inc.

J. M. Owens

JMO:veg

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LABORATORY NO. 17708

APPENDIX A

Matrix Spike/Matrix Spike Duplicate Report

		parts per million (mg/L)				mg/L			QC LIMITS	
Sample	Analyte	Spike Level	Sample Result	MS Result	% Rec	MSD Result	% Rec	RPD	RPD	REC
1	Hard.	20.	26.	44.	90.	46.	100.	10.*	5	79-119
1	Chloride	4.	2.	5.	78.	5.	77.	1.	7	71-133
1	Nitrate	2.0	0.6	2.3	85.	2.3	84.	1.	8	77-126
1	Sulfate	8.	3.	9.	75.	9.	75.	0.	6	66-129
1	Chromium	0.05	0.002	0.037	70.	0.035	66.	6.	6	67-127*
1	Cadmium	0.05	<0.01	0.048	96.	0.046	92.	4.	5	66-123
1	Iron	0.10	0.02	0.10	83.	0.10	83.	0.	23	43-138
1	Manganese	0.05	<0.01	0.039	78.	0.040	80.	2.	20	59-117
1	Lead	0.1	<0.01	0.10	98.	0.10	97.	1.	7	66-124
1	Silver	0.04	<0.01	0.048	96.	0.048	96.	0.	7	77-120
1	Zinc	0.05	0.002	0.039	74.	0.039	74.	0.	6	64-127
1	Copper	0.05	<0.25	0.042	84.	0.044	88.	0.	7	65-122
1	Barium	0.1	<0.25	0.10	97.	0.10	101.	4.	5	52-137
1	Arsenic	0.020	<0.01	0.014	69.	0.013	66.	4.	7	57-131
1	Selenium	0.020	<0.005	0.020	98.	0.020	98.	0.	7	66-131
1	Sodium	5.	3.	8.	102.	8.	102.	0.	30	82-124
3	Mercury	0.5	<0.001	0.005	99.	0.005	99.	1.	5	79-123
1	Fluoride	0.5	0.1	0.6	98.	0.6	104.	6.	7	71-122

* Persistently poor surrogate and spike recoveries signal a laboratory problem and the need for re-extraction and re-analysis. However, occasional outliers are regarded as anomolies and, in this case, re-analysis was not deemed necessary because other indicators were in control.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
Rec = Recovery
RPD = Relative Percent Difference

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LABORATORY NO. 17708

APPENDIX B

Surrogate Recovery Quality Control Report

Attached are surrogate (chemically similar) compounds utilized in the analysis of organic compounds. The surrogates are added to every sample prior to extraction and analysis to monitor for matrix effects, purging efficiency, and sample processing errors. The control limits represent the 95% confidence interval established in our laboratory through repetitive analysis of these sample types.

JOB No. 17708 DATE. 08/07/89

Sample No. 80727GHBWLG Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	105		20 - 151

Sample No. 1MSD Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	121		20 - 151

Sample No. 1MS Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	126		20 - 151

Sample No. 1 Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	131		20 - 151

Sample No. 2 Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	130		20 - 151

Sample No. 3 Matrix: Water Analysis: HERB

Surrogate Compound	Percent Recovery	Comment	Control Limits
PICLORAM	113		20 - 151

JOB No. 17709 DATE: 08/07/89

Sample No. B0720GPXWLX Matrix: Water Analysis: PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	57		43 - 152
Isodrin	84		32 - 96

Sample No. 1 Matrix: Water Analysis: PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	61		43 - 152
Isodrin	74		32 - 96

Sample No. 2 Matrix: Water Analysis: PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	78		43 - 152
Isodrin	95		32 - 96

Sample No. 2MS Matrix: Water Analysis: PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	70		43 - 152
Isodrin	96		32 - 96

Sample No. 2MSD Matrix: Water Analysis: PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	71		43 - 152
Isodrin	91		32 - 96

Sample No. 3 Matrix: Water Analysis: PEST

Surrogate Compound	Percent Recovery	Comment	Control Limits
Dibutylchlorendate	65		43 - 152
Isodrin	81		32 - 96

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Chemistry, Microbiology, and Technical Services

Certificate

APPENDIX C

Matrix Spike/Duplicate Spike Quality Control

Attached are the results of additional QC compounds utilized in the analysis of organic compounds. Compounds of interest are spiked into two additional sample aliquots prior to extraction and/or analysis to monitor for matrix effects, sample processing errors, and to calculate percent recoveries of compounds of interest and relative error in the analysis. The control limits represent the 95% confidence interval established in the laboratory through repetitive analysis of samples.

Key

D. Persistently poor surrogate and spike recoveries signal a laboratory problem and the need for re-extraction and re-analysis. However, occasional outliers are regarded as anomolies and, in this case, re-analysis was not deemed necessary because other indicators were in control.

Job No. 17703 Group No. DATE: 08/07/08

Sample No. 1 Matrix: Water Analysis: HERB

Spiking Analyte	Percent Recovery MS	MSD	Comment MS	MSD	%RPD	Recovery Control Limits	%RPD Control Limit
2,4-D	118	109			8	66-147	10
2,4,5-TP	105	110			5	58-136	10

Job No. 17708 Group No. DATE: 08/07/89

Sample No. 2 Matrix: Water Analysis: PEST

Spiking Analyte	Percent Recovery MS	Percent Recovery MSD	Comment MS	Comment MSD	%RPD	Recovery Control Limits	%RPD Control Limit
Lindane	85	79			7	20-113	19
Endrin	71	98	D	D	32	53-137	13

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED MONTH / DAY / YEAR	TIME COLLECTED	COUNTY NAME
3 / 29 / 90	8:30 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.
SPRING #2 WATER SOURCE	JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE RD
ENUMCLAW WA WASHINGTON 98022
98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF ____ /100 ml	3. ☐ Excess Debris	
	4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
7508593	3/29/90. 3:25 pm	la
DATE REPORTED 3-30-90	LABORATORY: LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH	
REMARKS		

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED MONTH / DAY / YEAR	TIME COLLECTED	COUNTY NAME
3 / 29 / 90	8:35 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.
RV SITE #6	JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE RD
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF ____ /100 ml	3. ☐ Excess Debris	
	4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO. 7508601	DATE, TIME RECEIVED— 3-29-90 3:25 P.M.	RECEIVED BY
DATE REPORTED 3-30-90	LABORATORY: LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH	
REMARKS		

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
3 / 29 / 90	830 : ___ ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2948TU CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.
RV SITE #30	JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE RD
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)
1. ☒ DRINKING WATER check treatment → ☐ Chlorinated (Residual: ___ Total ___ Free) ☐ Filtered ☒ Untreated or Other ___
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ___

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE
PREVIOUS LAB NO. ___
PREVIOUS SAMPLE COLLECTION DATE ___
REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	___ /ml	☐ Sample Too Old
MPN DILUTION ___ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF 1 /100 ml	3. ☐ Excess Debris 4. ☐ ___	☐ ___

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY
SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
7508594	3/29/90 3:45 pm	fa
DATE REPORTED 3-30-90	LABORATORY: LABORATORY SEATTLE-KING COUNTY	

DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
3 / 29 / 90	833 : ___ ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2948TU CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.
RV SITE #13	JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE RD
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)
1. ☒ DRINKING WATER check treatment → ☐ Chlorinated (Residual: ___ Total ___ Free) ☐ Filtered ☒ Untreated or Other ___
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ___

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE
PREVIOUS LAB NO. ___
PREVIOUS SAMPLE COLLECTION DATE ___
REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	___ /ml	☐ Sample Too Old
MPN DILUTION ___ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF 1 /100 ml	3. ☐ Excess Debris 4. ☐ ___	☐ ___

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY
SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
7508596	3-29-90 3:25 P.M.	fa
DATE REPORTED 3-30-90	LABORATORY: LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104	
REMARKS		

WATER SUPPLIER COPY

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
3 / 29 / 90	825 : ___ ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2948TU CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.
SPRING #1	JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE RD
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)
1. ☒ DRINKING WATER check treatment → ☐ Chlorinated (Residual: ___ Total ___ Free) ☐ Filtered ☒ Untreated or Other ___
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ___

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE
PREVIOUS LAB NO. ___
PREVIOUS SAMPLE COLLECTION DATE ___
REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	___ /ml	☐ Sample Too Old
MPN DILUTION ___ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF 1 /100 ml	3. ☐ Excess Debris 4. ☐ ___	☐ ___

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY
SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
7508597	3-29-90 3:25 P.M.	fa
DATE REPORTED 3-30-90	LABORATORY: LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104	
REMARKS		

WATER SUPPLIER COPY

DC

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL A

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF

If instructions are not followed, sample will be

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY
3 / 29 / 90	838 : ___ ☒ AM ☐ PM	K

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2948T7

NAME OF SYSTEM: SPR GREEN RIVER GORGE RE

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAM
KITCHEN TAP	JIM C (206) 88

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER G
ENUMCLAW WASHINGT

TYPE OF SAMPLE (Check only one in this column)
1. ☒ DRINKING WATER check treatment → ☐ Chlorinated (Residual: ___ T ☐ Filtered ☒ Untreated or Other ___
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ___

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE
PREVIOUS LAB NO. ___
PREVIOUS SAMPLE COLLECTION DATE ___
REMARKS:

LABORATORY RESULTS (FOR LAB USE ONL

MPN - COLIFORM	STD PLATE COUNT	SAMPLE N BEC
___ /5 tubes positive	___ /ml	☐ Sample T
MPN DILUTION ___ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in F
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficie Provided- Instructio
FECAL COLIFORM ☐ MPN ☐ MF /100 ml	3. ☐ Excess Debris 4. ☐ ___	☐ ___

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS A
☒ SATISFACTORY ☐ UNSATISFACTOR
SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION

LAB NO.	DATE, TIME RECEIVED—
7508598	3-29-90 3:25 P.M.
DATE REPORTED 3-30-90	LABORATORY: LABORATORY SEATTLE-KING COU DEPARTMENT OF PUBLIC 1303 PUBLIC SAFETY BU
REMARKS	

WATER SUPPLIER COPY

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
3 / 29 / 90	8:38 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2948 7U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: GREEN RIVER GORGE RESORT SPRING

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.
RV SITE #1	JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE RD
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF 1 /100 ml	3. ☐ Excess Debris	
	4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE:
☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
7508599	3-29-90 2:25 P.M.	A
DATE REPORTED	**LABORATORY:**	
3-30-90	LABORATORY SEATTLE-KING COUNTY	

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
4 / 3 / 90	9:52 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☐ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2948 7U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: GREEN RIVER GORGE RESORT SPRING

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.
STREAM BELOW SPRING #4	JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW WA WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☐ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other
2. ☒ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF 1 /100 ml	3. ☐ Excess Debris	
	4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE:
☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
75[illegible]26		
DATE REPORTED	**LABORATORY:**	
4-6-90	LABORATORY SEATTLE-KING COUNTY	

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
4 / 3 / 90	9:05 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☐ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2948 7U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: GREEN RIVER GORGE SPRING

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.
STREAM 100YD BELOW SPRINGS	JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW WA WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other
2. ☒ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF 1 /100 ml	3. ☐ Excess Debris	
	4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE:
☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
75[illegible]27		
DATE REPORTED	**LABORATORY:**	
4-4-90	LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING	

DOH 6[illegible]

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL AN[illegible]

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GO[illegible]

If instructions are not followed, sample will be re[illegible]

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY N[illegible]
4 / 3 / 90	9:00 ☒ AM ☐ PM	K[illegible]

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2948 7U

NAME OF SYSTEM: GREEN RIVER GORGE SPR[illegible]

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain)	SYSTEM OWNER/MGR. NAME
REST ROOM SINK	JIM C[illegible] (206) 886

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER G[illegible]
ENUMCLAW WASHINGT[illegible]

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ON[illegible])

MPN - COLIFORM	STD PLATE COUNT	SAMPLE BE
___ /5 tubes positive	____ /ml	☐ Sample
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not ir
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insuffic Provid Instruc
FECAL COLIFORM ☐ MPN ☐ MF ____ /100 ml	3. ☐ Excess Debris	
	4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULT[illegible]
☒ SATISFACTORY ☐ UNSATISFACT[illegible]

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATI[illegible]

LAB NO.	DATE, TIME RECEIVED—
75[illegible]25	
DATE REPORTED	**LABORATORY:**
4-4-90	LABORAT SEATTLE-KING DEPARTMENT OF PU 1303 PUBLIC SAFE

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
4 / 3 / 90	9:10 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): SPRING SOURCE

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name): JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION: ____ /100 ml	TEST UNSUITABLE: 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM: 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF: 1 /100 ml	3. ☐ Excess Debris	☐ ____
	4. ☐ ____	

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
150524	4-3-90 3:00	D

DATE REPORTED	LABORATORY:
4-10-90	SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104

REMARKS

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DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
4 / 11 / 90	9:30 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): SPRING SOURCE

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name): JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW, WA 98022 WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☒ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION: ____ /100 ml	TEST UNSUITABLE: 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM: 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF: 1 /100 ml	3. ☐ Excess Debris	☐ ____
	4. ☐ ____	

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
150524	4-9, 3:00	D

DATE REPORTED	LABORATORY:
4-12-90	LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING

REMARKS

WATER SUPPLIER COPY

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
4 / 11 / 90	9:50 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE # 43

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name): JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW, WA 98022 WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☒ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION: ____ /100 ml	TEST UNSUITABLE: 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM: 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF: 1 /100 ml	3. ☐ Excess Debris	☐ ____
	4. ☐ ____	

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
150613	4- 3:00	D

DATE REPORTED	LABORATORY:
4-12-90	SEATTLE-KING COUNTY

REMARKS

DOH 65-0

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANA

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLD

If instructions are not followed, sample will be reje

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NA
4 / 20 / 90	10:00 ☒ AM ☐ PM	KI

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7

NAME OF SYSTEM: SPR GREEN RIVER GORGE

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE #36

SYSTEM OWNER/MGR. NAME A: JIM CA (206) 886

SAMPLE COLLECTED BY: (Name): JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER
ENUMCLAW, WA 98022 WASHINGTO

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ To ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONL

MPN - COLIFORM	STD PLATE COUNT	SAMPLE BEC
0 /5 tubes positive	____ /ml	☐ Sample
MPN DILUTION: ____ /100 ml	TEST UNSUITABLE: 1. ☐ Confluent Growth	☐ Not in
MF COLIFORM: ____ /100 ml	2. ☐ TNTC	☐ Insuffic Provide Instruct
FECAL COLIFORM ☐ MPN ☐ MF: 1 /100 ml	3. ☐ Excess Debris	☐ ____
	4. ☐ ____	

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ☐ SATISFACTORY ☐ UNSATISFACT

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATIO

LAB NO.	DATE, TIME RECEIVED—
75[illegible]778	[illegible]

DATE REPORTED	LABORATORY:
4-23-90	LABORATOR SEATTLE-KING C DEPARTMENT OF PUB 1303 PUBLIC SAFET

REMARKS

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DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
4/20/90	1002 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE #38

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name): JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual:____ Total____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
0 /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM ____ /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF ____ /100 ml	3. ☐ Excess Debris	☐ ____
	4. ☐ ____	

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
75 1779	4-20-90	

DATE REPORTED	LABORATORY:
4-23-90	LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104

REMARKS

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STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
4/20/90	1006 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE # 39

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name): JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual:____ Total____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
0 /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM ____ /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF ____ /100 ml	3. ☐ Excess Debris	☐ ____
	4. ☐ ____	

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
75 1780	4-20-90	

DATE REPORTED	LABORATORY:
4-23-90	LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104

REMARKS

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STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
4/20/90	1004 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE # 37

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name): JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual:____ Total____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
0 /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM ____ /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF ____ /100 ml	3. ☐ Excess Debris	☐ ____
	4. ☐ ____	

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
75 1781	4-20-90	

DATE REPORTED	LABORATORY:
4-23-90	LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104

REMARKS

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DOH

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL AN

SAMPLE COLLECTION READ INSTRUCTIONS ON BACK OF G

If instructions are not followed, sample will be

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY
4/20/90	1000 ☒ AM ☐ PM	K

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7

NAME OF SYSTEM: SP GREEN RIVER GORGE

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE # 32

SYSTEM OWNER/MGR. NAM: JIM C (206) 8

SAMPLE COLLECTED BY: (Name): JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER G
ENUMCLAW WASHING

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual:____ ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE O

MPN - COLIFORM	STD PLATE COUNT	SAMPL B
0 /5 tubes positive	____ /ml	☐ Samp
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not
MF COLIFORM ____ /100 ml	2. ☐ TNTC	☐ Insuff Provic Instru
FECAL COLIFORM ☐ MPN ☐ MF ____ /100 ml	3. ☐ Excess Debris	☐ —
	4. ☐ ____	

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESUL

☒ SATISFACTORY ☐ UNSATISFAC

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATI

LAB NO.	DATE, TIME RECEIVED—
75 1782	4-20-90

DATE REPORTED	LABORATORY:
4-23-90	LABORAT SEATTLE-KING DEPARTMENT OF PU 1303 PUBLIC SAFET SEATTLE, WASHING

REMARKS

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STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED (MONTH / DAY / YEAR)	TIME COLLECTED	COUNTY NAME
4/20/90	1000 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: SPRINT GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE # 32

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2362

SAMPLE COLLECTED BY: (Name): JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29510 GREEN RIVER GORGE
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER — check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
12/5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION: ____ /100 ml	TEST UNSUITABLE: 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM: ____ /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM: ☐ MPN ☐ MF ____ /100 ml	3. ☐ Excess Debris	
	4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE:
☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
50[illegible]75[illegible]	4-20-90	[illegible]
DATE REPORTED	LABORATORY: LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104	
REMARKS		

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STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED: MONTH 4 / DAY 20 / YEAR 90
TIME COLLECTED: 10:04 [X] AM [ ] PM
COUNTY NAME: KING

TYPE OF SYSTEM: [X] PUBLIC [ ] INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: GREEN RIVER GORGE SPRING RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE # 37

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: [ ] SURFACE [ ] WELL [X] SPRING [ ] PURCHASED [ ] COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER G[illegible] E
ENU[illegible] WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. [X] DRINKING WATER — check treatment → [ ] Chlorinated (Residual: ____ Total ____ Free) [ ] Filtered [X] Untreated or Other ______
2. [ ] RAW SOURCE WATER
3. [ ] NEW CONSTRUCTION or REPAIRS
4. [ ] OTHER (Specify) ______

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ______

PREVIOUS SAMPLE COLLECTION DATE ______

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM: 0 /5 tubes positive

STD PLATE COUNT: ______ /ml

SAMPLE NOT TESTED BECAUSE: [ ] Sample Too Old [ ] Not in Proper Container [ ] Insufficient Information Provided—Please Read Instructions on Form [ ] ______

MPN DILUTION: ______ /100 ml

TEST UNSUITABLE: 1. [ ] Confluent Growth 2. [ ] TNTC 3. [ ] Excess Debris 4. [ ] ______

MF COLIFORM: ______ /100 ml

FECAL COLIFORM: [ ] MPN [ ] MF 1 /100 ml

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: [X] SATISFACTORY [ ] UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO. | DATE, TIME RECEIVED— | RECEIVED BY

DATE REPORTED | LABORATORY: LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104

REMARKS

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STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED: MONTH 4 / DAY 20 / YEAR 90
TIME COLLECTED: 10:06 [X] AM [ ] PM
COUNTY NAME: KING

TYPE OF SYSTEM: [X] PUBLIC [ ] INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: GREEN RIVER GORGE SPRING RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE # 39

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: [ ] SURFACE [ ] WELL [X] SPRING [ ] PURCHASED [ ] COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUM[illegible] WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. [X] DRINKING WATER — check treatment → [ ] Chlorinated (Residual: ____ Total ____ Free) [ ] Filtered [X] Untreated or Other ______
2. [ ] RAW SOURCE WATER
3. [ ] NEW CONSTRUCTION or REPAIRS
4. [ ] OTHER (Specify) ______

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ______

PREVIOUS SAMPLE COLLECTION DATE ______

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM: 0 /5 tubes positive

STD PLATE COUNT: ______ /ml

SAMPLE NOT TESTED BECAUSE: [ ] Sample Too Old [ ] Not in Proper Container [ ] Insufficient Information Provided—Please Read Instructions on Form [ ] ______

MPN DILUTION: ______ /100 ml

TEST UNSUITABLE: 1. [ ] Confluent Growth 2. [ ] TNTC 3. [ ] Excess Debris 4. [ ] ______

MF COLIFORM: ______ /100 ml

FECAL COLIFORM: [ ] MPN [ ] MF ______ /100 ml

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: [X] SATISFACTORY [ ] UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO. 75[illegible] | DATE, TIME RECEIVED— [illegible] | RECEIVED BY

DATE REPORTED [illegible] | LABORATORY: LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104

REMARKS

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STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED MONTH / DAY / YEAR	TIME COLLECTED	COUNTY NAME
4 / 20 / 90	1002 [X] AM [ ] PM	KING

TYPE OF SYSTEM: [X] PUBLIC [ ] INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: GREEN RIVER GORGE RESORT SPRING

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE #38

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: [ ] SURFACE [ ] WELL [X] SPRING [ ] PURCHASED [ ] COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. [X] DRINKING WATER — check treatment → [ ] Chlorinated (Residual: ____ Total ____ Free) [ ] Filtered [X] Untreated or Other ____
2. [ ] RAW SOURCE WATER
3. [ ] NEW CONSTRUCTION or REPAIRS
4. [ ] OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
0/5 tubes positive	____ /ml	[ ] Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. [ ] Confluent Growth	[ ] Not in Proper Container
MF COLIFORM ____ /100 ml	2. [ ] TNTC	[ ] Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM [ ] MPN [ ] MF ____ /100 ml	3. [ ] Excess Debris 4. [ ] ____	[ ] ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: [X] SATISFACTORY [ ] UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
75 [illegible]	[illegible]	

DATE REPORTED: [illegible]

REMARKS

LABORATORY: LABORATORY
SEATTLE-KING COUNTY
DEPARTMENT OF PUBLIC HEALTH
1303 PUBLIC SAFETY BUILDING

WATER SUPPLIER COPY ... WASHINGTON 98104

DOH 65-002 (REV. [illegible])

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BA[CK OF GOLDENROD COPY]

If instructions are not followed, sample will be rejected.

DATE COLLECTED MONTH / DAY / YEAR	TIME COLLECTED	COUNTY NAME
4 / 25 / 90	10:33 [X] AM [ ] PM	KING

TYPE OF SYSTEM: [X] PUBLIC [ ] INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U (KU) — CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: GREEN RIVER GORGE RESORT SPRING

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE #5

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: [ ] SURFACE [ ] WELL [X] SPRING [ ] PURCHASED [ ] COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GRN RIVER GORGE
ENUMCLAW 98022 WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. [X] DRINKING WATER — check treatment → [ ] Chlorinated (Residual: ____ Total ____ Free) [ ] Filtered [X] Untreated or Other ____
2. [ ] RAW SOURCE WATER
3. [ ] NEW CONSTRUCTION or REPAIRS
4. [ ] OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
____ /5 tubes positive	____ /ml	[ ] Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. [ ] Confluent Growth	[ ] Not in Proper Container
MF COLIFORM 1 /100 ml	2. [ ] TNTC	[ ] Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM [ ] MPN [ ] MF 1 /100 ml	3. [ ] Excess Debris 4. [ ] ____	[ ] ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: [X] SATISFACTORY [ ] UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
[illegible]	[illegible]	

DATE REPORTED

REMARKS

LABORATORY: LABORATORY
SEATTLE-KING COUNTY
DEPARTMENT OF PUBLIC HEALTH
1303 PUBLIC SAFETY BUILDING
SEATTLE, WASHINGTON 98104

WATER SUPPLIER COPY

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED MONTH 4 DAY 25 YEAR 90 | TIME COLLECTED 1025 ☒ AM ☐ PM | COUNTY NAME KING

TYPE OF SYSTEM: ☐ PUBLIC ☐ INDIVIDUAL (serves only 1 residence) | IF PUBLIC SYSTEM, COMPLETE: I.D. No. 29487 U | CIRCLE CLASS 1 2 3 4

NAME OF SYSTEM: SPRING GREEN RIVER GORGE RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE #68

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: Jim Carter (206) 886-2302

SAMPLE COLLECTED BY: (Name) Jim Carter

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW, WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)
1. ☒ DRINKING WATER check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☐ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE
PREVIOUS LAB NO. ____
PREVIOUS SAMPLE COLLECTION DATE ____
REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___/5 tubes positive	____/ml	☐ Sample Too Old
MPN DILUTION ____/100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF 1 /100 ml	3. ☐ Excess Debris	
	4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE:
☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
750812	4-25-90 3:00	JD
DATE REPORTED 4-26-90	LABORATORY: SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104	
REMARKS		

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED MONTH 4 DAY 25 YEAR 90 | TIME COLLECTED 10:35 ☒ AM ☐ PM | COUNTY NAME KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence) | IF PUBLIC SYSTEM, COMPLETE: I.D. No. 29481 | CIRCLE CLASS 1 2 3 4

NAME OF SYSTEM: SPRING RESORT GREEN RIVER GORGE

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE #72

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW, WA 98022 WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)
1. ☒ DRINKING WATER check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE
PREVIOUS LAB NO. ____
PREVIOUS SAMPLE COLLECTION DATE ____
REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___/5 tubes positive	____/ml	☐ Sample Too Old
MPN DILUTION ____/100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF ____ /100 ml	3. ☐ Excess Debris	
	4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE:
☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
750810	4-25-90 3:00	JD
DATE REPORTED 4-10-90	LABORATORY: SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING SEATTLE, WASHINGTON 98104	
REMARKS		

WATER SUPPLIER COPY

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED MONTH / DAY / YEAR	TIME COLLECTED	COUNTY NAME
4 / 25 / 90	10:40 ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U (KU) CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: GREEN RIVER GORGE SPRING RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE # 74

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☒ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW, WA 98022 WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF ___ /100 ml	3. ☐ Excess Debris 4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
7508804	4-25-90 3:00	(initials)
DATE REPORTED 4-26-90	LABORATORY: LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING	

REMARKS

DOH 65-002 (REV. 7/89)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

WATER BACTERIOLOGICAL ANALYSIS

SAMPLE COLLECTION: READ INSTRUCTIONS ON BACK OF GOLDENROD COPY

If instructions are not followed, sample will be rejected.

DATE COLLECTED MONTH / DAY / YEAR	TIME COLLECTED	COUNTY NAME
4 / 25 / 90	1030: ☒ AM ☐ PM	KING

TYPE OF SYSTEM: ☒ PUBLIC ☐ INDIVIDUAL (serves only 1 residence)

IF PUBLIC SYSTEM, COMPLETE: I.D. No. 2 9 4 8 7 U (KU) CIRCLE CLASS 1 2 (3) 4

NAME OF SYSTEM: GREEN RIVER GORGE SPRING RESORT

SPECIFIC LOCATION WHERE SAMPLE COLLECTED (ie. kitchen tap @ school, fire station, fountain): RV SITE # 78

SYSTEM OWNER/MGR. NAME AND TELEPHONE NO.: JIM CARTER (206) 886-2302

SAMPLE COLLECTED BY: (Name) JIM CARTER

SOURCE TYPE: ☐ SURFACE ☐ WELL ☐ SPRING ☐ PURCHASED ☐ COMBINATION or OTHER

SEND REPORT TO: (Print Full Name, Address and Zip Code)
JIM CARTER
29500 GREEN RIVER GORGE
ENUMCLAW, WA 98022 WASHINGTON 98022

TYPE OF SAMPLE (Check only one in this column)

1. ☒ DRINKING WATER check treatment → ☐ Chlorinated (Residual: ____ Total ____ Free) ☐ Filtered ☒ Untreated or Other ____
2. ☐ RAW SOURCE WATER
3. ☐ NEW CONSTRUCTION or REPAIRS
4. ☐ OTHER (Specify) ____

COMPLETE IF THIS SAMPLE IS A **CHECK** SAMPLE

PREVIOUS LAB NO. ____

PREVIOUS SAMPLE COLLECTION DATE ____

REMARKS:

LABORATORY RESULTS (FOR LAB USE ONLY)

MPN - COLIFORM	STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
___ /5 tubes positive	____ /ml	☐ Sample Too Old
MPN DILUTION ____ /100 ml	TEST UNSUITABLE 1. ☐ Confluent Growth	☐ Not in Proper Container
MF COLIFORM 0 /100 ml	2. ☐ TNTC	☐ Insufficient Information Provided—Please Read Instructions on Form
FECAL COLIFORM ☐ MPN ☐ MF ___ /100 ml	3. ☐ Excess Debris 4. ☐ ____	☐ ____

FOR **DRINKING WATER** SAMPLES ONLY, THESE RESULTS ARE: ☒ SATISFACTORY ☐ UNSATISFACTORY

SEE REVERSE SIDE OF GREEN COPY FOR EXPLANATION OF RESULTS

LAB NO.	DATE, TIME RECEIVED—	RECEIVED BY
7508813	4-25-90 3:00	(initials)
DATE REPORTED 4-30-90	LABORATORY: LABORATORY SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH 1303 PUBLIC SAFETY BUILDING	

REMARKS

A P P E N D I X "B"

WATER SYSTEM PLAN

AND

CONCEPTUAL ULTRAVIOLET DISINFECTION SYSTEM

D.R. STRONG
CONSULTING ENGINEERS INC.
10602 Northeast 38th Place Suite 101
KIRKLAND, WA 98033
(206) 827-3063

JOB 89329
SHEET NO. _____ OF _____
CALCULATED BY HMD DATE 5/4/90
CHECKED BY _____ DATE _____
SCALE _____

THESE CALCS SUBJECT TO CHANGE BASED ON ACTUAL MEASURED CONSUMPTION
M.I.D.

89 RECREATIONAL SITES

0.6 x 142 GPM = 85 GPM

4 HOUSES 8 GPM

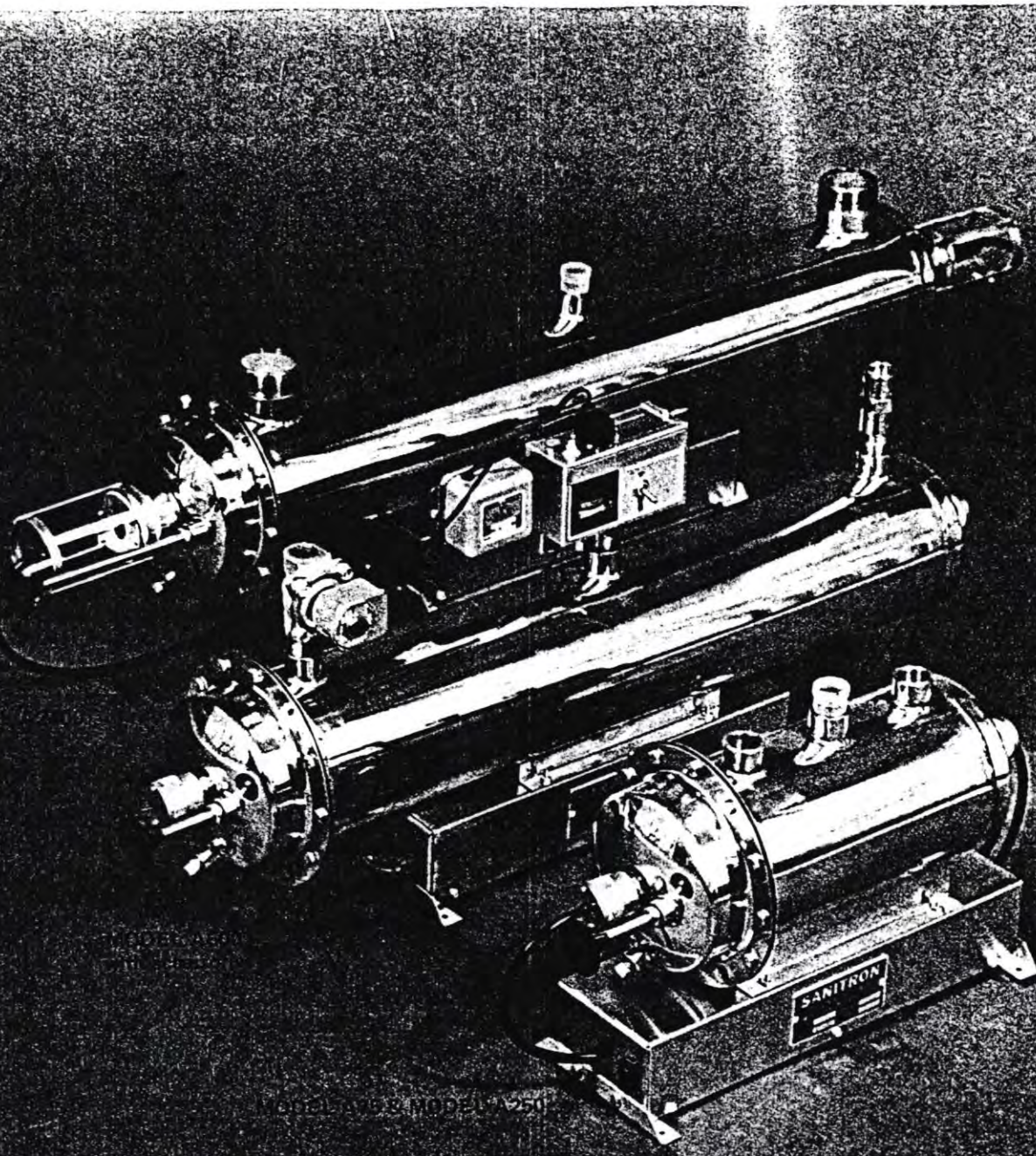
93 GPM → USE 95 GPM

PLANT CAPACITY 10 GPM

EQ. STORAGE = (95 GPM - 10)(150) = 12,750 GAL

USE MT BAKER SILO 14'ø x 15'H → 17,000 GAL

PROVIDES 3,000 G STANDBY STORAGE



MODEL A150 & MODEL A250

SANITRON™

ULTRAVIOLET WATER PURIFIERS

GERMICIDAL ULTRAVIOLET

Ultraviolet water purification is a unique and rapid method of water disinfection without the use of heat or chemicals.

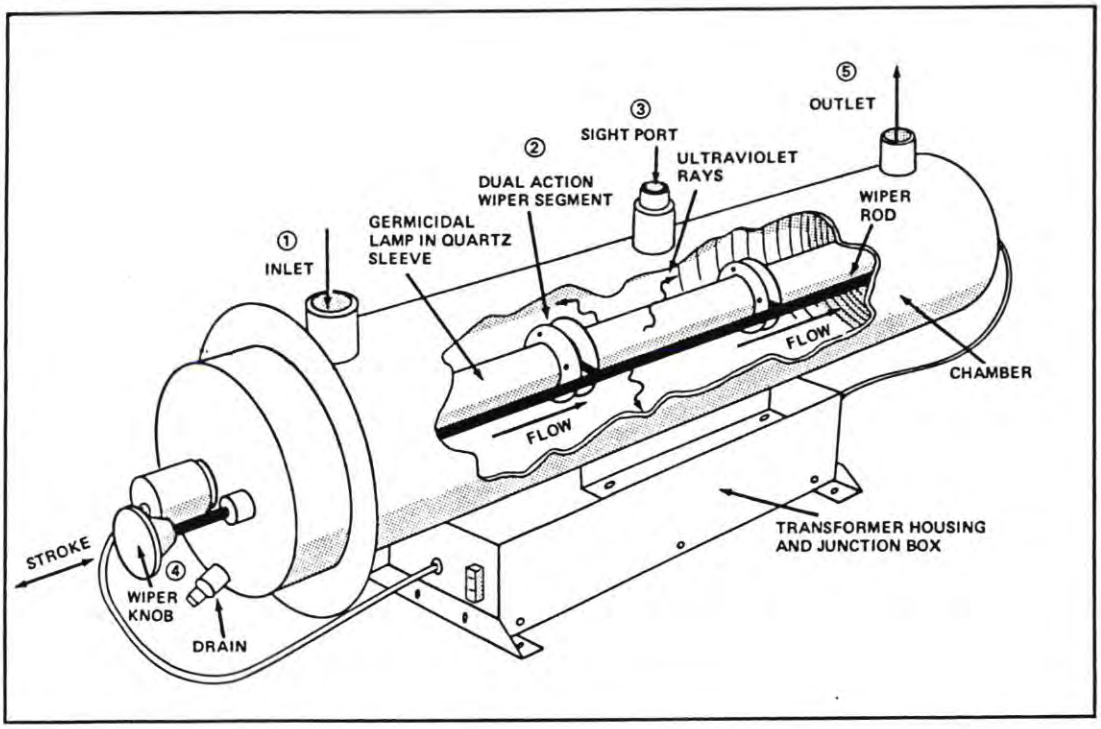
Sanitron water purifiers utilize germicidal ultraviolet lamps that produce short wave radiation that is lethal to bacteria, viruses and other micro-organisms present in common water.

These rays are shorter in wavelength than the shortest ultraviolet rays that penetrate the earth's atmosphere from the sun.

Germicidal lamps are widely used for air disinfection in hospitals, veterinaries and laboratories to protect personnel and prevent cross infection.

Pharmaceutical manufacturers, food processors and bottlers use germicidal lamps to prevent product contamination and in some instances for the cold sterilization of the finished product.

MADE IN USA FORM #200



PRINCIPLE OF OPERATION

① The water enters the purifier and flows into the annular space between the quartz sleeve and the outside chamber wall.

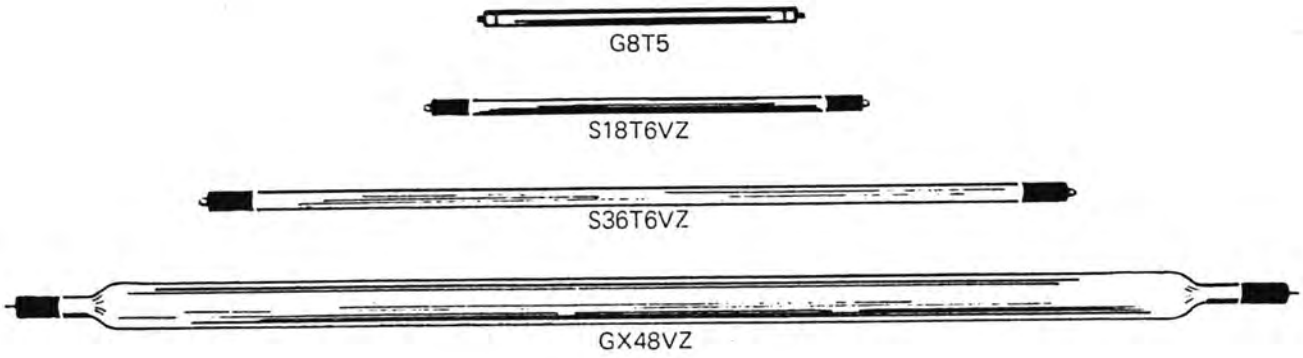
② The wiper segments induce turbulence in the flowing liquid to insure uniform exposure of suspended micro-organisms to the lethal ultraviolet rays.

③ The sight port enables visual observation of lamp operation.

④ The wiper assembly facilitates periodic cleaning of the quartz sleeve without any disassembly or interruption of purifier operation.

⑤ Water leaving the purifier is instantly ready for use.

GERMICIDAL LAMP DATA FOR



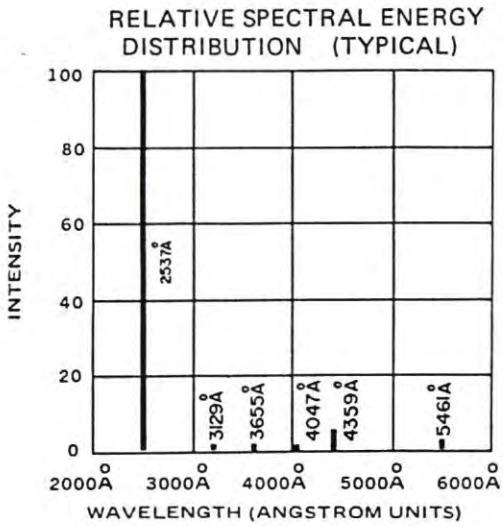
LAMP NUMBER	PURIFIER MODEL NUMBER	LAMP LENGTH ①	POWER CONSUMPTION ②	ULTRAVIOLET OUTPUT ③	RATED EFFECTIVE LIFE
G8T5	A75	12"	8 Watts	1.3 Watts	7500 Hours
S18T6VZ	A250	18"	18 Watts	5.8 Watts	10,000 Hours
S36T6VZ	A600	36"	39 Watts	14 Watts	10,000 Hours
GX48VZ	A2400 & Larger	48"	110 Watts	45 Watts	10,000 Hours

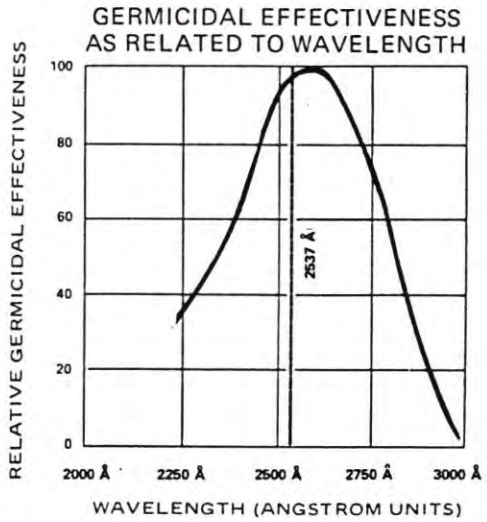
① Nominal overall length including standard lampholders.
② Wattage is lamp watts only and does not include ballast loss.
③ Maximum rated output at 2537 Å.

The lamps listed above have been especially developed and selected for use with Sanitron water purifiers. All lamps with a VZ suffix have the capacity of generating a mild hydrogen peroxide residual in addition to the direct germicidal action of the 2537 Angstrom radiation.

All Sanitron lamps are of the low pressure type which afford the maximum efficiency in producing the required germicidal rays. In addition to the obvious advantages of high efficiency and low power requirements, there is no possibility of the purifier overheating as is the case with some other lamp types. Consequently the need for additional equipment to combat overheating is eliminated.

SANITRON WATER PURIFIERS





EXPOSURE NECESSARY TO KILL

The dosage necessary to inactivate a micro-organism is a product of time and intensity. An average bacterium will be destroyed if exposed in air at a distance of two inches from an S18T6VZ lamp for about two seconds.

Ultraviolet energy at 2537Å required for complete destruction of some micro-organisms.

Organism	μWsec/cm^2
BACILLUS ANTHRACIS	8700
BACILLUS SUBTILIS	11000
CORYNEBACTERIUM DIPHTHERIAE	6500
DYSENTERY BACILLI	4200
EBERTHELLA TYPOSA	4100
ESCHERICHLIA COLI	7040
INFLUENZA VIRUS	6600
STAPHYLOCOCCUS AUREUS	6600

When used as directed Sanitron water purifiers will provide a dosage in excess of 30,000 microwatt seconds per square centimeter. (μWsec/cm^2)

SPECIFICATIONS - STANDARD MODELS

MODEL NUMBER	Max. Recommended Flow Rate		INLET AND OUTLET SIZE	Power Consumption	REPLACEMENT LAMP(S)	Overall Dimensions (Inches)			SHIPPING DATA		
	GPM	GPH				LENGTH	WIDTH	HEIGHT	Gross Wgt.	Net Wgt.	Cu. Ft
A75	1.25	75	¾" NPT	10 watts	G8T5	21	8	12	21 lbs.	14 lbs.	2.3
A250	4	250	¾"NPT	38 watts	S18T6VZ	21	8	12	28 lbs.	21 lbs.	2.3
A600	10	600	¾"NPT	60 watts	S36T6VZ	38	8	12	35 lbs.	25 lbs.	4
A2400	40	2,400	2"NPT	140 watts	GX48VZ	50	8	13	50 lbs.	38 lbs.	4.5
A5000	83	5,000	2"NPT	280 watts	GX48VZ (2 Lamps)	50	22	16	139 lbs.	85 lbs.	17
A 10,000	166	10,000	2"NPT ①	560 watts	GX48VZ (4 Lamps)	50	22	33	282 lbs.	174 lbs.	30
A 15,000	250	15,000	2"NPT ②	840 watts	GX48 VZ (6 Lamps)	50	22	50	425 lbs.	263 lbs.	44
A 20,000	333	20,000	2"NPT ③	1120 watts	GX48VZ (8 Lamps)	50	22	67	568 lbs.	352 lbs.	58

① Two connections in parallel ② Three connections in parallel ③ Four connections in parallel

DATA IS FOR 115V 60 CYCLE OPERATION.
MAXIMUM RECOMMENDED OPERATING PRESSURE FOR ALL PURIFIERS IS 100 PSI.
PRESSURE DROP AT MAXIMUM RECOMMENDED FLOW RATE IS 5 PSI OR LESS.

ADVANTAGES OF THE SANITRON METHOD

EFFECTIVE—All micro-organisms are susceptible to Sanitron disinfection. Effluent is guaranteed to exceed United States Public Health Standards for bacterial purity.

ECONOMICAL—Hundreds of gallons are purified for each penny operating cost.

SAFE—No danger of overdosing, no addition of dangerous chemicals.

FAST—Water is ready for use as soon as it leaves the purifier—no further contact time required.

EASY—Simple installation and maintenance. Compact units require minimum space.

AUTOMATIC—Provides continuous or intermittent disinfection without special attention or measurement.

NO CHEMICALS—No chlorine taste or corrosion problems.

SPECIAL FEATURES OF SANITRON WATER PURIFIERS

STAINLESS STEEL CONSTRUCTION – Chamber, transformer housing and hardware are type 304 stainless steel for lifetime corrosion free service.

FUSED QUARTZ SLEEVE – Insures maximum lamp output regardless of water temperature.

QUICK LAMP CHANGE – Lamp can be replaced in less than a minute without shut down of water pressure or drainage of tank.

SIGHT PORT – Provides visual indication of lamp operation.

DUAL ACTION WIPER – Facilitates periodic cleaning of quartz sleeve without interruption of purifier operation. No disassembly required.

REMOVABLE FLANGED HEAD – Units disassemble completely and easily in the event that repairs become necessary. No special tools or fixtures required.

OPTIONAL EQUIPMENT – Complete range of optional equipment may be obtained at purchase time or added at any later date.

INSTALLATION AND MAINTENANCE

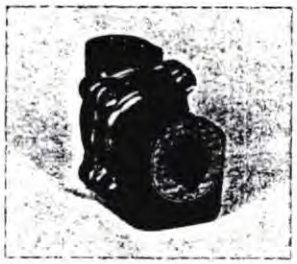
The purifier is installed as close as possible to the point of use. Connection of the inlet and outlet to water supply and plug into ordinary electrical outlet is all that is required.

Ordinary maintenance consists of cleaning the quartz sleeve with the manual wiper once weekly or oftener where conditions dictate. Lamp replacement is recommended once every 7500 hours of operation (about 10½ months of continuous operation).

SANITRON OPTIONAL ACCESSORIES

ULTRAVIOLET MONITOR

The electronic monitor visually indicates the level of germicidal ultraviolet available after penetration of the quartz sleeve and the liquid medium. The monitor also operates the solenoid valve and audio alarm.



SOLENOID VALVE

The solenoid valve will automatically stop the flow of water in the event of power failure or whenever the ultraviolet intensity measured at the monitor is inadequate to insure disinfection.

AUDIO ALARM

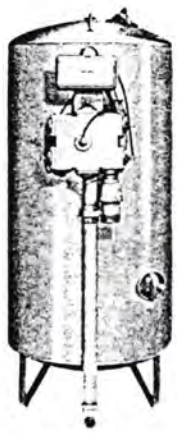
The audio alarm will alert the user of any malfunction detected by the ultraviolet monitor.

The audio alarm may be installed on the purifier or at a remote location.

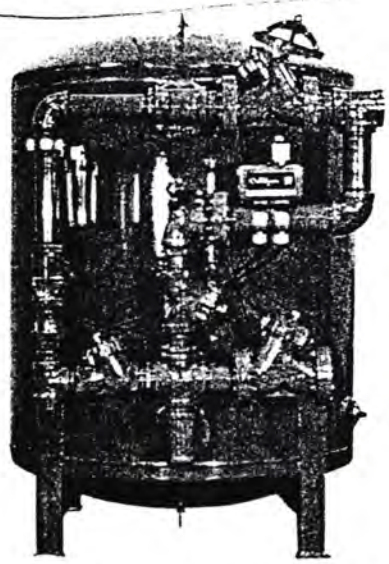
FLOW CONTROL VALVE

The flow control valve automatically prevents the flow of water from exceeding the rated capacity of the water purifier.

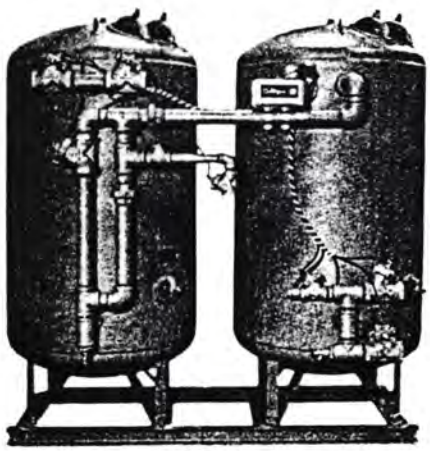
FILTRATION



HD AND HR MODEL FILTERS THROUGH 36" DIAMETER



HD AND HR MODEL FILTERS 42" DIAMETER AND LARGER



MULTI-TECH FILTER SYSTEM

PRODUCT FEATURES

PROCESS — The Culligan Depth Filter uses a multi-media filtration process. Large particulate matter is captured by coarser, lighter media near the top of the filter bed. Smaller particles continue down to the successive lower media levels, where the particles as small as 10 microns are retained by finer, heavier media. The density differences between the media allows for layer separation after backwashing.

The Cullar filter utilizes activated carbon supported by a gravel underbed for dechlorination, plus the removal of taste, odors and organic material.

RUGGED TANKS — Designed for 100 psi working pressure, hydrostatically tested to 150 psi. 12-inch through 16-inch tanks are made of rugged steel with a corrosion-proof vinyl bag liner, high gloss epoxy exterior finish, and carry a 12-year limited warranty. 20-inch and larger tanks feature heavy gauge steel construction, coated inside with a baked-on phenolic epoxy, and outside with a rust inhibiting primer, covered by a 5-year limited warranty. ASME code construction available.

FILTER MEDIA — the multi-media sand and gravel used in the Depth Filters and the carbon used in the Cullar filters are specially selected and packaged separately for bedding during installation. Detailed instructions are provided, and supervision by the local Culligan service representative for proper loading of the media and initial start-up are available.

CULLIGAN VALVES are hydraulically activated by a weatherproof timer/controller which automatically causes backwash and rinse of the filter bed on an adjustable, pre-set schedule, depending upon the turbidity of the water supply.

FLOW CONTROLS are self-adjusting to regulate maximum service and backwash rates regardless of fluctuations in water pressure, thus helping to prevent any loss of filter medium from the tank.

OPTIONAL FEATURES — ASME code tank construction is available for all filters.

PRESSURE DIFFERENTIAL control systems to activate backwash cycles when pressure drop across the bed increases to maximum level are available as an option for all single and duplex installations.

ALTERNATORS for duplex installation are available as an option to cycle two units so that one unit is always "on line" while the other is backwashing or on standby.

MULTI-TECH $_{TM}$ FILTRATION is a three-step process of chemical feed, contact flocculation and multi-media filtration. Turbidity and organic matter are removed to produce drinking water for small communities, and high clarity water for industrial processes.

QUADRA-KLEEN$_{TM}$ Backwash Systems are offered for Depth Filters. This unique control features three stage backwash plus rinse to thoroughly clean the filter bed. Recommended when water is very high in suspended solids or slime.

Design Data

CULLAR, FILTERS

MODEL	FLOW RATES: TASTE, ODOR, & ORGANIC REMOVAL[1] FLOW GPM	TASTE, ODOR, & ORGANIC REMOVAL[1] DROP PSI	DECHLORINATION[2] FLOW GPM	DECHLORINATION[2] DROP PSI	BACK WASH GPM	TANK[3] SIZE (IN)	PIPE SIZE: SERVICE (IN)	PIPE SIZE: DRAIN (IN)	MEDIA VOL. STD. FT³	DIMENSIONS[6]: WIDTH IN.	DEPTH IN.	HEIGHT IN.	WEIGHT: SHIP LB.	OPERAT. LB.	
HR-12	4	1.5	8	5	8	12x38	1	1	1.4	13	13	55	178	285	SERIES 1
HR-16	7	2.4	14	10	15	16x36.5	1	1	2.0	17	17	54	277	460	
HR-20	10	2.0	20	5	20	20x54	1½	1	6.0	21	36	69	670	1,275	SERIES 5
HR-24	15	2.0	30	8	30	24x54	1½	1	8.0	25	40	69	835	1,625	
HR-30	25	3.0	50	10	50	30x60	2	2½	14.0	31	46	77	1,330	2,525	
HR-36	35	4.0	70	10	70	36x60	2	2½	20.0	37	54	84	1,810	3,575	
HR-42	50	4.0	100	14	90	42x60	2½	2½	24.0	43	51	86	3,200	5,120	SERIES 50
HR-48	65	4.0	125	16	130	48x60	2½	3	30.0	49	60	92	4,520	7,120	
HR-54	80	6.0	150	18	160	54x60	2½	3	40.0	55	71	94	5,640	9,025	
HR-60	100	4.0	200	13	210	60x60	3	3	48.0	61	98	98	6,900	11,160	

DEPTH FILTERS

MODEL	FLOW RATES: CONTINUOUS[4] FLOW GPM	CONTINUOUS[4] DROP PSI	PEAK[5] FLOW GPM	PEAK[5] DROP PSI	BACKWASH STD. GPM	BACKWASH QUAD. GPM	TANK[3] SIZE (IN)	PIPE SIZE (IN): INLET & OUTLET	PIPE SIZE (IN): DRAIN	MEDIA VOL. STD. FT³	DIMENSIONS: WIDTH IN.	DEPTH IN.	HEIGHT IN.	WEIGHT: SHIP LB.	OPERAT. LB.	
HD-12	8-12	4-7	15	10	10	—	12x38	1	1	1.5	13	13	55	260	365	SERIES 1
HD-16	14-21	7-14	26	20	20	—	.16x36.5	1	1	2.8	17	17	54	414	610	
HD-20	22-33	4-7	45	10	30	50	20x54	1½	1	6.0	21	36	69	975	1,600	SERIES 5
HD-24	33-49	5-10	65	16	50	80	24x54	1½	2½	8.0	25	40	69	1,315	2,150	
HD-30	50-75	5-10	100	16	70	120	30x60	2	2½	13.0	31	46	77	2,015	3,275	
HD-36	70-105	5-10	140	16	90	160	36x60	2½	2½	19.0	37	54	84	2,970	4,750	
HD-42	95-142	5-10	190	17	136	226	42x60	3	3	25.0	43	51	86	4,980	6,850	SERIES 50
HD-48	125-187	6-10	250	16	188	324	48x60	3	3	34.0	49	62	92	6,300	8,850	
HD-54	160-240	5-8	320	13	210	398	54x60	4	3	42.0	55	72	94	8,000	11,290	
HD-60	200-300	4-9	400	14	270	430	60x60	4	3	52.0	61	77	98	9,770	13,990	
HD-72	290-425	4-9	560	14	400	—	72x60	6	4	75.0	73	88	94	14,150	20,100	
HD-84	390-575	4-9	770	14	540	—	84x60	6	4	106.0	85	94	97	19,240	27,300	

(1) Taste, odor, and organic removal based on 5 gpm per square foot of filter area.
(2) Dechlorination flow rate can be set up to 10 gpm per square foot of filter area.
(3) Dimensions are diameter by straight side sheet.
(4) Normal Service Range based on 10-15 gpm per square foot of filter bed area.
(5) Peak Flow based on 20 gpm per square foot of filter bed area, not recommended for extended periods of time.
(6) Does not include operating and maintenance spaces, ASME code tanks are slightly taller.

NOTE: CONSULT FACTORY FOR WATER RECLAMATION APPLICATIONS.

Multi-Tech™ Systems

Design Data

MODEL	DAILY CAPACITY[1]	SERVICE FLOW RATE PER TANK[2]: NORMAL	SERVICE FLOW RATE PER TANK[2]: MAXIMUM	BACKWASH FLOW RATE[3]	TANK DIAMETER	PIPE SIZE[4]
MT-20	0.065 MGD	15 gpm	22 gpm	30 gpm	20 in.	1½ in.
MT-24	0.095 MGD	22 gpm	30 gpm	50 gpm	24 in.	1½ in.
MT-30	0.150 MGD	35 gpm	50 gpm	70 gpm	30 in.	2 in.
MT-36	0.215 MGD	50 gpm	70 gpm	100 gpm	36 in.	2 in.
MT-42	0.280 MGD	65 gpm	95 gpm	130 gpm	42 in.	2½ in.
MT-48	0.367 MGD	85 gpm	125 gpm	170 gpm	48 in.	3 in.
MT-54	0.475 MGD	110 gpm	160 gpm	220 gpm	54 in.	3 in.
MT-60	0.580 MGD	135 gpm	190 gpm	270 gpm	60 in.	4 in.
MT-72	0.842 MGD	195 gpm	280 gpm	400 gpm	72 in.	4 in.
MT-84	1.15 MGD	265 gpm	380 gpm	530 gpm	84 in.	6 in.
MT-96	1.52 MGD	350 gpm	500 gpm	700 gpm	96 in.	6 in.
MT-120	2.37 MGD	550 gpm	780 gpm	1100 gpm	120 in.	6 in. (8 in.)

(1) Daily Capacity based on 24 hour operation of 3 train system operating at normal service flow rate of 7 gpm/ft² per train.
(2) Service flow rates based on 7 gpm/ft² per train. When one train of the 3 train system is in backwash, the remaining 2 trains will operate at 10.5 gpm/ft².
(3) The backwash flow rate of both the clarifier and filter are approximately 14 gpm/ft². The clarifier eductor draws 5-6 cfm/ft² air during the scour cycle for additional mineral bed expansion.
(4) Pipe size selection is based on a maximum velocity of 5 fps at the Normal Service flow rate.
(5) Total water usage per train is 225 gallons per sq ft of filter tank area. This includes 140 gallons of influent water for clarifier backwash and system rinse plus 85 gallons of filtered water for depth filter backwash.

A P P E N D I X "C"

HYDRAULIC ANALYSIS CALCULATIONS

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CONSULTING ENGINEERS INC.
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KIRKLAND, WA 98033
(206) 827-3063

JOB 89329
SHEET NO. _____ OF _____
CALCULATED BY HMD DATE 6/8/90
CHECKED BY _____ DATE _____
SCALE _____

HYDRAULIC ANALYSIS

PIPE 3/4", 1", 1 1/4", 1 1/2", AND 2"
PE 3408 SDR 15 ASTM D2239 100 PSI
SAME I.D.'S AS SCHEDULE 40 PVC
USE HARRINGTON HEADLOSS TABLE

D.R. STRONG
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JOB 89329
SHEET NO. ____ OF ____
CALCULATED BY HMD DATE 6/10/90
CHECKED BY ____ DATE ____
SCALE ____

PIPE #	FROM NODE	TO NODE	CONNECTION DESCRIPTION & PEAK FLOW	PIPE DIAM	PIPE LENGTH	FRICTION h_L FACTOR	H_{LF}
14	N	O	3 CAMPSITES 0.6 x 19 GPM = 11 GPM	3/4"	250 LF	24.5/100	61 FT
13	M	N	CAMPSITES, 2 HOUSES 0.6 x 55 +4 = 37	2"	200 LF	2.4/100	5 FT
15	M	P	3 CAMPSITES 0.6 x 19 = 11 GPM	3/4"	120 LF	24.5	29 FT
12	L	M	12 CAMPSITES, 15 RV, 2 HOUSES 0.6 x 67 +4 = 44 GPM	2"	420 LF	3.4	14 FT
11	A	L	12 CAMPSITES, 15 RV, 2 HOUSES, 12 CAB 0.6 x 91 +4 = 59 GPM	2"	950	5.7	54 FT

FRICTION LOSS A TO O = $h_{LA-L} + h_{LL-M} + h_{LM-N} + h_{LN-O}$
= 54 + 14 + 5 + 61 = 134 FT
ΔEL A-O = 45 FT

TOTAL LOSS A-O = 179 FT → 78 PSI

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JOB 89321
SHEET NO. ____ OF ____
CALCULATED BY HMD DATE 6/10/96
CHECKED BY ____ DATE ____
SCALE ____

PIPE #	FROM NODE	TO NODE	CONNECTION DESCRIPTION & PEAK FLOW	PIPE DIAM	PIPE LENGTH	FRICTION h_L FACTOR	H_{LE}
10	G	K	5 CAMPSITES, 6 CABINS 0.6 x 35 = 21 GPM	1 1/4"	920	5.6	52 FT
9	H	J	3 CAMPSITES 0.6 x 19 = 11 GPM	3/4"	380	24.5	93 FT
8	H	I	1 CAMPSITE 0.6 x 15 = 9 GPM	3/4"	80'	16.9	14 FT
7	G	H	7 CAMPSITES 0.6 x 27 = 16 GPM	3/4"	346'	42.5	145 FT
6	A	G	12 CAMPSITES, 6 CABINS 0.6 x 49 = 29 GPM	1 1/4"	80'	11.8	9 FT

TOTAL LOSS TO K = $h_{L A-G} + h_{L G-K} + \Delta EL$
= 9 FT + 52 FT + 40 FT = 101 FT

TOTAL LOSS TO J = $h_{L A-G} + h_{L G-H} + h_{L H-J} + \Delta EL$
= 9 FT + 145 FT + 93 FT + 40 FT 287 FT

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JOB 89329
SHEET NO. ____ OF ____
CALCULATED BY HMD DATE 6/10/96
CHECKED BY ____ DATE ____
SCALE ____

PIPE #	FROM NODE	TO NODE	CONNECTION DESCRIPTION & PEAK FLOW	PIPE DIAM	PIPE LENGTH	FRICTION h_L, FACTOR	H_{Le}
5	D	F	9 CAMP SITES 0.6 x 31 = 19 GPM	1"	320 LF	20	64 FT
4	D	E	6 CAMPSITES 0.6 x 25 = 15 GPM	1"	220 LF	12.8	28 FT
3	A	D	15 CAMPSITES, 1 RR BLDG 0.6 x 45 = 27 GPM	2"	400 LF	1.6	6. FT
			TOTAL LOSS TO F = $h_{L\,A-D} + h_{L\,D-F} + \Delta EL_{A-F}$ = 6 + 64 + -35 = 35 FT				
2	B	C	10 RV, 5 CAMPSITES 0.6 x 43 = 26 GPM	1½"	430	4'	17 FT
1	A	B	10 RV, 5 CAMPSITES, 1 HOUSE 0.6 x 43 + 2 = 28 GPM	1½	100	5 1/100	5 FT
			TOTAL LOSS TO C = $h_{L\,A-B} + h_{L\,B-C} + \Delta EL_{A-C}$ = 5 + 17 - 35 = -13 FT				

Carrying Capacity & Friction Loss (Continued)

TABLE 3—CARRYING CAPACITY AND FRICTION LOSS FOR SCHEDULE 40 THERMOPLASTIC PIPE

(Independent variables: Gallons per minute and nominal pipe size O.D.
Dependent variables: Velocity, friction head and pressure drop per 100 feet of pipe, interior smooth.)

GALLONS PER MINUTE	VELOCITY FEET PER SECOND	FRICTION HEAD FEET	FRICTION LOSS POUNDS PER SQUARE INCH	VELOCITY FEET PER SECOND	FRICTION HEAD FEET	FRICTION LOSS POUNDS PER SQUARE INCH	VELOCITY FEET PER SECOND	FRICTION HEAD FEET	FRICTION LOSS POUNDS PER SQUARE INCH	VELOCITY FEET PER SECOND	FRICTION HEAD FEET	FRICTION LOSS POUNDS PER SQUARE INCH	VELOCITY FEET PER SECOND	FRICTION HEAD FEET	FRICTION LOSS POUNDS PER SQUARE INCH	VELOCITY FEET PER SECOND	FRICTION HEAD FEET	FRICTION LOSS POUNDS PER SQUARE INCH	VELOCITY FEET PER SECOND	FRICTION HEAD FEET	FRICTION LOSS POUNDS PER SQUARE INCH	VELOCITY FEET PER SECOND	FRICTION HEAD FEET	FRICTION LOSS POUNDS PER SQUARE INCH
		½ in.			¾ in.			1 in.			1¼ in.			1½ in.			2 in.			2½ in.			3 in.	
1	1.13	2.08	0.90	0.63	0.51	0.22																		
2	2.26	4.16	1.80	1.26	1.02	0.44	0.77	0.55	0.24	0.44	0.14	0.06	0.33	0.07	0.03									
5	5.64	23.44	10.15	3.16	5.73	2.48	1.93	1.72	0.75	1.11	0.44	0.19	0.81	0.22	0.09	0.49	0.066	0.029	0.30	0.038	0.016	0.22	0.015	0.007
7	7.90	43.06	13.64	4.43	10.52	4.56	2.72	3.17	1.37	1.55	0.81	0.35	1.13	0.38	0.17	0.69	0.11	0.048	0.49	0.051	0.023	0.31	0.021	0.009
10	11.28	82.02	35.51	6.32	20.04	8.68	3.86	6.02	2.61	2.21	1.55	0.67	1.62	0.72	0.31	0.98	0.21	0.091	0.68	0.09	0.039	0.44	0.03	0.013
15		4 in.		9.48	42.46	18.39	5.79	12.77	5.53	3.31	3.28	1.42	2.42	1.53	0.66	1.46	0.45	0.19	1.03	0.19	0.082	0.66	0.07	0.030
20	0.51	0.03	0.013	12.65	72.34	31.32	7.72	21.75	9.42	4.42	5.59	2.42	3.23	2.61	1.13	1.95	0.76	0.33	1.37	0.32	0.14	0.88	0.11	0.048
25	0.64	0.04	0.017		5 in.		9.65	32.88	14.22	5.52	8.45	3.66	4.04	3.95	1.71	2.44	1.15	0.50	1.71	0.49	0.21	1.10	0.17	0.074
30	0.77	0.06	0.026	0.49	0.02	0.009	11.58	46.08	19.95	6.63	11.85	5.13	4.85	5.53	2.39	2.93	1.62	0.70	2.05	0.68	0.29	1.33	0.23	0.10
35	0.89	0.08	0.035	0.57	0.03	0.013				7.73	15.76	6.82	5.66	7.36	3.19	3.41	2.15	0.93	2.39	0.91	0.39	1.55	0.31	0.13
40	1.02	0.11	0.048	0.65	0.03	0.013				8.84	20.18	8.74	6.47	9.43	4.08	3.90	2.75	1.19	2.73	1.16	0.50	1.77	0.40	0.17
45	1.15	0.13	0.056	0.73	0.04	0.017		6 in.		9.94	25.10	10.87	7.27	11.73	5.08	4.39	3.43	1.49	3.08	1.44	0.62	1.99	0.50	0.22
50	1.28	0.16	0.069	0.81	0.05	0.022	0.56	0.02	0.009	11.05	30.51	13.21	8.08	14.25	6.17	4.88	4.16	1.80	3.42	1.75	0.76	2.21	0.60	0.26
60	1.53	0.22	0.095	0.97	0.07	0.030	0.67	0.03	0.013				9.70	19.98	8.65	5.85	5.84	2.53	4.10	2.46	1.07	2.65	0.85	0.37
70	1.79	0.30	0.13	1.14	0.10	0.043	0.79	0.04	0.017							6.83	7.76	3.36	4.79	3.27	1.42	3.09	1.13	0.49
75	1.92	0.34	0.15	1.22	0.11	0.048	0.84	0.05	0.022							7.32	8.82	3.82	5.13	3.71	1.61	3.31	1.28	0.55
80	2.05	0.38	0.16	1.30	0.13	0.056	0.90	0.05	0.022		8 in.					7.80	9.94	4.30	5.47	4.19	1.81	3.53	1.44	0.62
90	2.30	0.47	0.20	1.46	0.16	0.069	1.01	0.06	0.026							8.78	12.37	5.36	6.15	5.21	2.26	3.98	1.80	0.78
100	2.56	0.58	0.25	1.62	0.19	0.082	1.12	0.08	0.035	0.65	0.03	0.012				9.75	15.03	6.51	6.84	6.33	2.74	4.42	2.18	0.94
125	3.20	0.88	0.38	2.03	0.29	0.125	1.41	0.12	0.052	0.81	0.035	0.015		10 in.					8.55	9.58	4.15	5.52	3.31	1.43
150	3.84	1.22	0.53	2.44	0.40	0.17	1.69	0.16	0.069	0.97	0.04	0.017							10.26	13.41	5.81	6.63	4.63	2.00
175	4.48	1.63	0.71	2.84	0.54	0.235	1.97	0.22	0.096	1.14	0.055	0.024										7.73	6.16	2.67
200	5.11	2.08	0.90	3.25	0.69	0.30	2.25	0.28	0.12	1.30	0.07	0.030	0.82	0.027	0.012		12 in.					8.83	7.88	3.41
250	6.40	3.15	1.36	4.06	1.05	0.45	2.81	0.43	0.19	1.63	0.11	0.048	1.03	0.035	0.015							11.04	11.93	5.17
300	7.67	4.41	1.91	4.87	1.46	0.63	3.37	0.60	0.26	1.94	0.16	0.069	1.23	0.05	0.022									
350	8.95	5.87	2.55	5.69	1.95	0.85	3.94	0.79	0.34	2.27	0.21	0.091	1.44	0.065	0.028	1.01	0.027	0.012						
400	10.23	7.52	3.26	6.50	2.49	1.08	4.49	1.01	0.44	2.59	0.27	0.12	1.64	0.09	0.039	1.16	0.04	0.017						
450				7.31	3.09	1.34	5.06	1.26	0.55	2.92	0.33	0.14	1.85	0.11	0.048	1.30	0.05	0.022						
500				8.12	3.76	1.63	5.62	1.53	0.66	3.24	0.40	0.17	2.05	0.13	0.056	1.45	0.06	0.026						
750							8.43	3.25	1.41	4.86	0.85	0.37	3.08	0.28	0.12	2.17	0.12	0.052						
1000							11.24	5.54	2.40	6.48	1.45	0.63	4.11	0.48	0.21	2.89	0.20	0.087						
1250										8.11	2.20	0.95	5.14	0.73	0.32	3.62	0.31	0.13						
1500										9.72	3.07	1.33	6.16	1.01	0.44	4.34	0.43	0.19						
2000													8.21	1.72	0.74	5.78	0.73	0.32						
2500													10.27	2.61	1.13	7.23	1.11	0.49						
3000																8.68	1.55	0.67						
3500																10.12	2.07	0.90						
4000																11.07	2.66	1.15						

FILE
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- UV TREATMENT
FOLDER

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• FAX NUMBER (425)827-2423

GREEN RIVER GORGE RESORT WATER SYSTEM

ULTRAVIOLET DISINFECTION SYSTEM EVALUATION

Prepared for

Green River Gorge Resort Water System
29500 Green River Gorge Road
Enumclaw, WA 98022

PREPARED BY

D. R. STRONG *Consulting Engineers Inc.*

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January 16, 2001

Green River Gorge Resort Water System
Ultraviolet Disinfection System Evaluation

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Green River Gorge Resort Water System
Ultraviolet Disinfection System Evaluation

I. INTRODUCTION

The Green River Gorge Resort Water System (GRGRWS) serves a total of approximately 50 water service connections and is classified as a Group A Water System by the Washington State Department of Health (DOH). The majority of the connections are part-time consumers who rent camping/trailer spaces at the Green River Gorge Resort and use the water mainly as a domestic drinking water supply. The remaining connections are full-time consumers that use the water as both drinking water and for landscaping and irrigation. The source of water to the system is an existing natural spring that is captured by a concrete vault, installed approximately ten years ago along a steep slope uphill from Green River Gorge Road SW, and piped by gravity into a pumphouse located down the hill to the northwest (see Figure 1). Inside the pumphouse, the water system utilizes ultraviolet (UV) lamps to provide disinfection of the source water before distribution to three different storage tanks serving the system.

On January 28th, 2000, notice was sent to the GRGRWS that, due to the correlation of the spring's conductivity and temperature versus seasonal trends, precipitation and air temperatures, a determination had been made that the source water was in "hydraulic connection" with surface water in the area. After a period of testing, additional notice was sent to the GRGRWS on August 1st, 2000, that the source water was indeed under the direct influence of ground water (GWI).

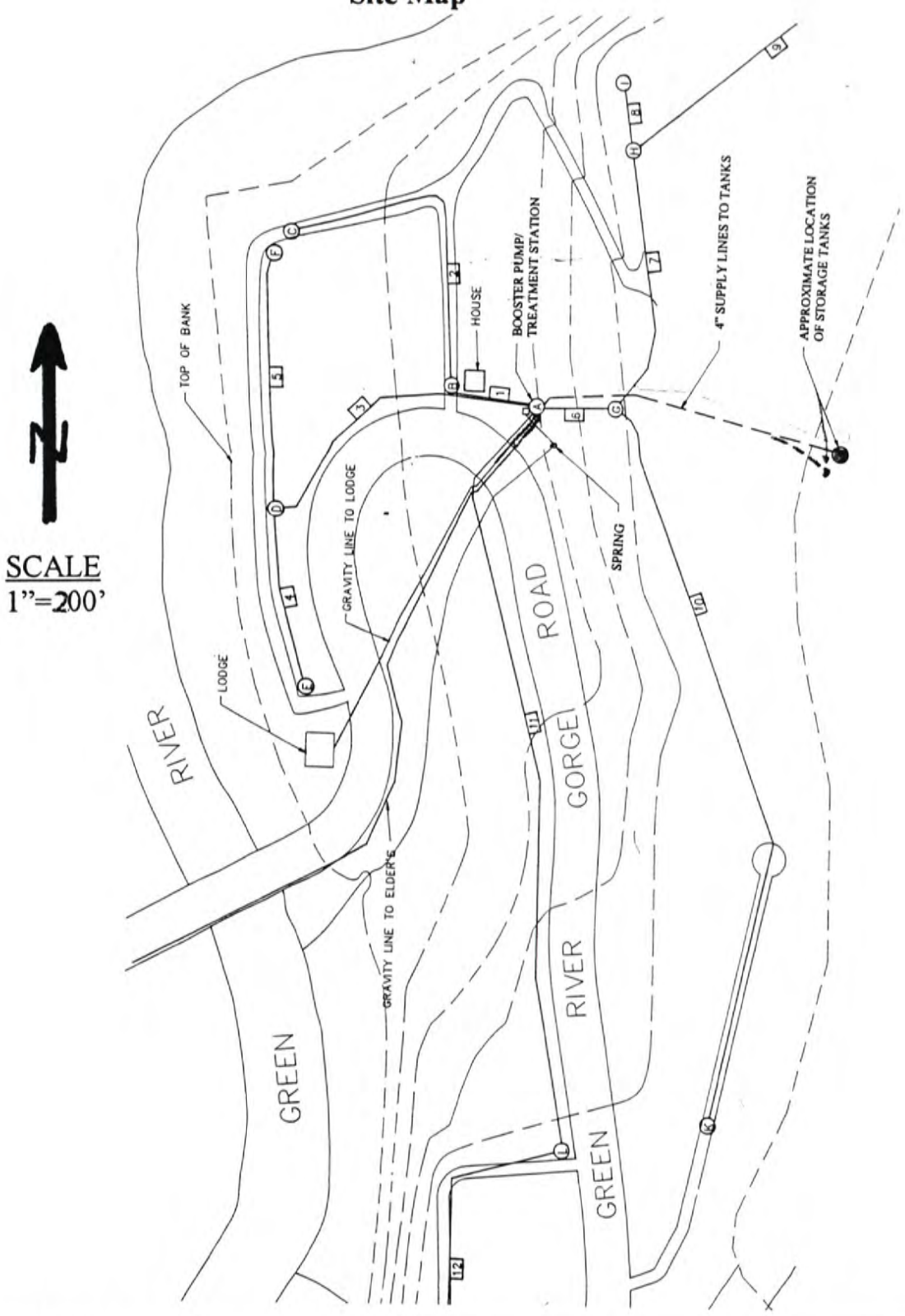
II. CURRENT REGULATIONS

Once a system is determined to be in "hydraulic connection" with surface water, the purveyor is required to, in accordance with WAC 246-290-640(4) collect water samples for Microscopic Particulate Analysis (MPA), provide interim disinfection of the source water, and obtain the services of a licensed professional engineer to direct further evaluation and actions regarding the source. Several months of sample collection and testing are usually required for the MPA to determine if contaminants normally found in surface water are present in the source water. As a precaution, the water system in question must provide disinfection of the source water that meets the requirements of WAC 246-290-451. If the results from the analyses show that such contaminants are present, the source is then determined to be GWI and is subject to comply with the Surface Water Treatment Rule (SWTR).

Since the source water of the GRGRWS has been determined to be GWI, the SWTR is now applicable to this system. On an interim basis, while the water system evaluates options including future expanded treatment or the possibility of developing a new source, the system must disinfect the existing source water to meet a minimum of 3-log (99.9%) inactivation of Giardia Lamblia cysts and 4-log (99.99%) inactivation of viruses. The purpose of this report was originally to address the interim disinfection required by the "hydraulic connection" notice to the system, however, the findings of this report will assist the GRGRWS in the implementation of a treatment system to comply with the immediate requirements of the GWI notice.

Figure 1

Site Map



According to WAC 246-290-451, the disinfection technique must conform to the standards published by the American Water Works Association, or other industry standards acceptable to the department. These regulations for Group A water systems specifically outline the required contact time for chlorine disinfection but do not have a guideline for UV disinfection. Published articles from journals, reports, experimental research data, and examples from industry are referenced throughout this report to determine the appropriate UV dosage levels for proper disinfection of drinking water.

In the notice given to the GRGRWS outlining interim disinfection treatment requirements for systems operating a GWI source, the DOH specifies that based on the most recent research, a dose of 140 milliwatt-seconds per square centimeter (mWs/cm^2), which is equal to 140 millijoules per square centimeter (mJ/cm^2), is needed to provide the proper levels of inactivation. This required dosage level appears to be based on the same data referenced in the Environmental Protection Agency (EPA) Federal Register Document for the National Primary Drinking Water Regulations, published in May of 2000. According to the EPA document, the required dosage (intensity-duration) to provide 4-log disinfection of HAV has been found to be between 16 and 39.4 mJ/cm^2, and a dosage level of 120 mJ/cm^2 has been stated to achieve 4-log inactivation of poliovirus[iii]. The HAV limits were set by research articles published in 1993 by D.A. Battigelli et al, and in 1992 by B.R. Wilson et al, respectively, and the required poliovirus treatment dosage is based on an article published in 1987 by G.D. Harris et al.

Prior to the EPA's Federal Register Document, the EPA released a technology review in 1996 entitled *Ultraviolet Light Disinfection Technology in Drinking Water Application: An Overview*, in which conclusions are made from several sources about the effectiveness of UV light to treat several contaminants. Several examples were cited showing that many local regulatory agencies were requiring that the utilities use some form of secondary treatment, such as chlorine, in addition to the existing UV dosages of approximately 30 mJ/cm^2. There were, however, some systems that provided dosages of 30 mJ/cm^2 with no additional treatment and reported no water quality problems. Additionally, standards for UV dosages for some European nations (e.g. Austria, Germany) that have been using the technology to treat drinking water for several decades are disclosed as being around 30 mJ/cm^2 [iv].

Reference made to research data paints a very different picture. Results outlined in papers published up to 1996 that show proper treatment of specific contaminants, such as 4-log inactivation of Bacillus Subtilis, Giardia cysts and Cryptosporidium oocysts, requires a much higher dosage than what utilities have historically been using. It was shown that a dose of 60 mJ/cm^2 provides 4-log inactivation of Bacillus Subtilus and that a dose of 128 mJ/cm^2 provides 3.99-log inactivation of Giardia, and 4.3-log reduction in Cryptosporidium[iv], which has been shown to be extremely resistant to chlorine.

It appears that the EPA Federal Register Document, even though it was published less than a year ago, references the 1996 technology "overview". Because of the discrepancies between the use of UV light in industry and the results found through multiple experiments up until 1996, and the lack of conclusive data available in the articles referenced by the regulations, the EPA suggested dosage is 120 mJ/cm^2. All parties involved agree that further research is necessary to clarify several issues regarding the UV disinfection technique. It has since been the attitude of the DOH that regulatory actions for UV disinfection systems shall be based upon more recent research findings and industry standards.

III. DATA ANALYSIS

Inactivation of harmful organisms in drinking water has traditionally been accomplished by adding chemicals, such as chlorine or ozone, or by membrane filtration. Since Cryptosporidium is extremely resistant to chlorine, recent findings showing its vulnerability to UV light have prompted several new studies and new angles of thought on the technology. These studies have shown that initial experimentation may have severely underestimated the level of inactivation that UV light provides in the treatment of Giardia, Cryptosporidium, and other pathogenic viruses, bacteria, and protozoans.

In order to save time and money, early UV light inactivation efficacy investigations focused on data from experiments that utilized jar tests, excystation, and viability stain methods. The measurement of required dosages based on excystation methods were determined by the response of the oocyst to external chemical stimuli and not by the potential of the organism to cause an infection in a susceptible host[ii]. When exposed to the proper dosages of UV light, the DNA of the organism is damaged to a point that its reproductive capabilities are lost, eliminating its ability to spread throughout the host. Therefore, even though the oocyst is responsive to the external chemical stimuli unless it is killed by a very large, lethal dose of UV light, smaller doses of UV light have the ability to leave the organism "inactive".

More recent studies have focused on animal infectivity methods which track the amount of infections that occur in mice or gerbils after being inoculated with pathogenic viruses, bacteria or protozoans that have been exposed to different dosages of UV light. Infectivity assays are considered to meet the Gold Standard for measuring protozoan inactivation[ii], however each experiment is much more expensive and time consuming than the previous methods. Using the easier excystation methods, the belief was that UV light dosages in excess of 100 mJ/cm^2 were the required "safe" levels for disinfection of drinking water. Studies performed from 1998 through 2000 using infectivity methods have indicated that 4-log inactivation can be achieved by dosages of UV light in the range of <10 mJ/cm^2 to 40 mJ/cm^2 [i,iv,v] (see Figure 2).

IV. EXISTING SYSTEM

Currently, the GRGRWS operates a total of three Atlantic Ultraviolet Corporation Sanitron Model A2400 UV reactors, each capable of providing a dose of 30 mWs/cm^2 (mJ/cm^2) at 40 gallons per minute (gpm). The system utilizes a total of three storage tanks to provide water to the campsite and to the system's full-time residents on both sides of the Green River. See Appendix A for a schematic of the existing system operations.

A. System Flow Characteristics

1. Elder's Pump Tank

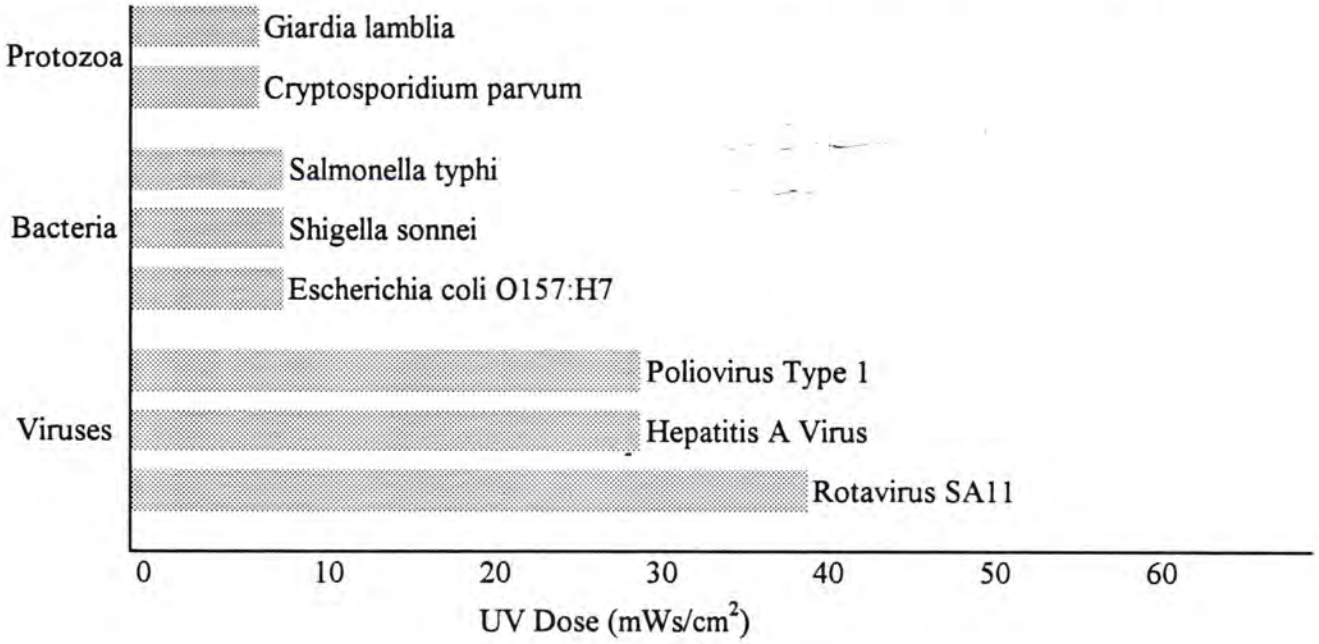
The Elder's pump tank is located on the west side of the river and is fed by a continuous gravity flow of approximately 6 gpm from source water after passing through a single UV reactor in the pumphouse.

2. Low-Pressure System

The second tank is a 7,000 gallon storage tank (Low-Pressure System) located approximately 650 feet up the hill to the east of the spring collection vault and pumphouse. This tank is filled by a 2 horsepower Teel pump that draws water from the spring collection vault, through the first UV reactor and then pumps through a second UV

Figure 2
Required Dosages

UV Dose Required to Deliver 4-Log (99.99%) Inactivation of Selected Waterborne Pathogens



Pathogen	UV Dose (mWs/cm²) 99.99% Inactivation
Cryptosporidium parvum oocysts	<10
Giardia lamblia cysts	<10
Vibrio cholerae	2.9
Eschirichia coli O157:H7	5.6
Salmonella typhi	8.2
Shigella sonnei	8.2
Hepatitis A virus	30
Poliovirus Type 1	30
Rotavirus SA11	36

* Data obtained from technology update article in *Water Quality Products* (November 200) by Gail Sakamoto entitled "Ultraviolet Disinfection of Pathogens in Drinking Water".

reactor and into the tank. When the pump is operating, the 6 gpm flow to the Elder's tank remains consistent and an additional 35 – 40 gpm flows to the low-pressure tank. The services connected to this tank are then fed by gravity flow that is routed back through the UV reactor on its way to the distribution system.

3. High-Pressure System

The third tank is a 1,300 gallon standpipe (High-Pressure System) located adjacent to the Low-Pressure System tank uphill from the spring collection vault and pumphouse. The standpipe is filled by water that is drawn from the Low-Pressure System back through the second UV reactor and then pumped through the third UV reactor into the standpipe. When demanded, the water flows back through the third UV reactor and into the High-Pressure distribution system. Flows to this tank are approximately the same as flows to the Low-Pressure System.

B. Disinfection of Source Water

All of the UV reactors are constantly operating, therefore needing no warm-up period prior to release of water into the system. Additionally, the power to the first UV reactor is supplemented by a battery back up which allows for continuous operation during a power outage. In the case of a UV lamp burnout, cleaning, or other standard reactor maintenance, a solenoid valve is closed by a UV sensor that reads the intensity of the light in the reactor. When the UV lamp is not putting out the proper intensity during maintenance or during the standard 2-minute warm-up period, the sensor signals the solenoid valve to close. Both the sensor and the solenoid valve are standard accessories manufactured by the Atlantic Ultraviolet Corporation.

When the pump is operating, the flowrate through the first UV reactor is roughly 40 – 45 gpm with approximately 6 gpm of that flow continuing on to the Elder's pump tank. The approximate dosage from the first UV reactor on the water is calculated to be 26.7 mJ/cm^2 (40 gpm/45 gpm x 30 mWs/cm^2). Since the demands on the Low-Pressure and High-Pressure systems fluctuate with time, there is no way to present accurate numbers on just how much disinfection the drinking water receives from their respective UV reactors. When the demands on the system are small, it is possible for the secondary lamps to provide an additional dosage in excess of 30 mJ/cm^2 (40 gpm/40 gpm x 30 mWs/cm^2). However, when there is a high demand either of the systems, it is possible for both the pump and the tank to be flowing at once through the secondary UV lamps at that high flowrate. In this case, the drinking water may be exposed to a very small dosage.

For design purposes, the worst case scenario must be used to analyze the amount of treatment being provided to the system. It is possible for this system to provide dosages of up to 200 mJ/cm^2 (6 gpm gravity flow only to the Elder's tank), however this does not take into account the additional flows demanded by the pump. When the pump is in operation, 40 – 45 gpm flows through the first reactor and receives a dosage of approximately 26.7 mJ/cm^2 of UV light. The pump lifts approximately 35 – 40 gpm to the Low-Pressure and High-Pressure systems where some additional treatment occurs, but the gravity flow to the Elder's tank only receives the 26.7 mJ/cm^2 dosage. The proposed modifications to the existing treatment system have been selected based on this worst case condition.

V. PROPOSED SYSTEM MODIFICATIONS

Based on the data provided in Section III, the required UV dosage to provide 4-log inactivation is 40 mJ/cm^2. To achieve this amount of treatment, it may be necessary to provide a more efficient

networking of the available UV reactor units that allows for the necessary disinfection of the source water to occur prior to distribution by gravity or pump to the three different areas of the system. As stated above, the approximate UV dosage delivered to the source water under worst case conditions is 26.7 mJ/cm^2. The treatment system may be modified to provide the minimum dosage level by either connecting the three units in series or in a parallel arrangement.

UV Reactors in Series

When connecting the UV reactors in series, the total dosage delivered is calculated by the flowrate of the source water through all three of the lamps. Since each unit is rated for 30 mWs/cm^2 at 40 gpm, the total dosage provided at a selected flowrate is:

3 units x (40 gpm/X gpm x 30 mWs/cm^2 per unit)

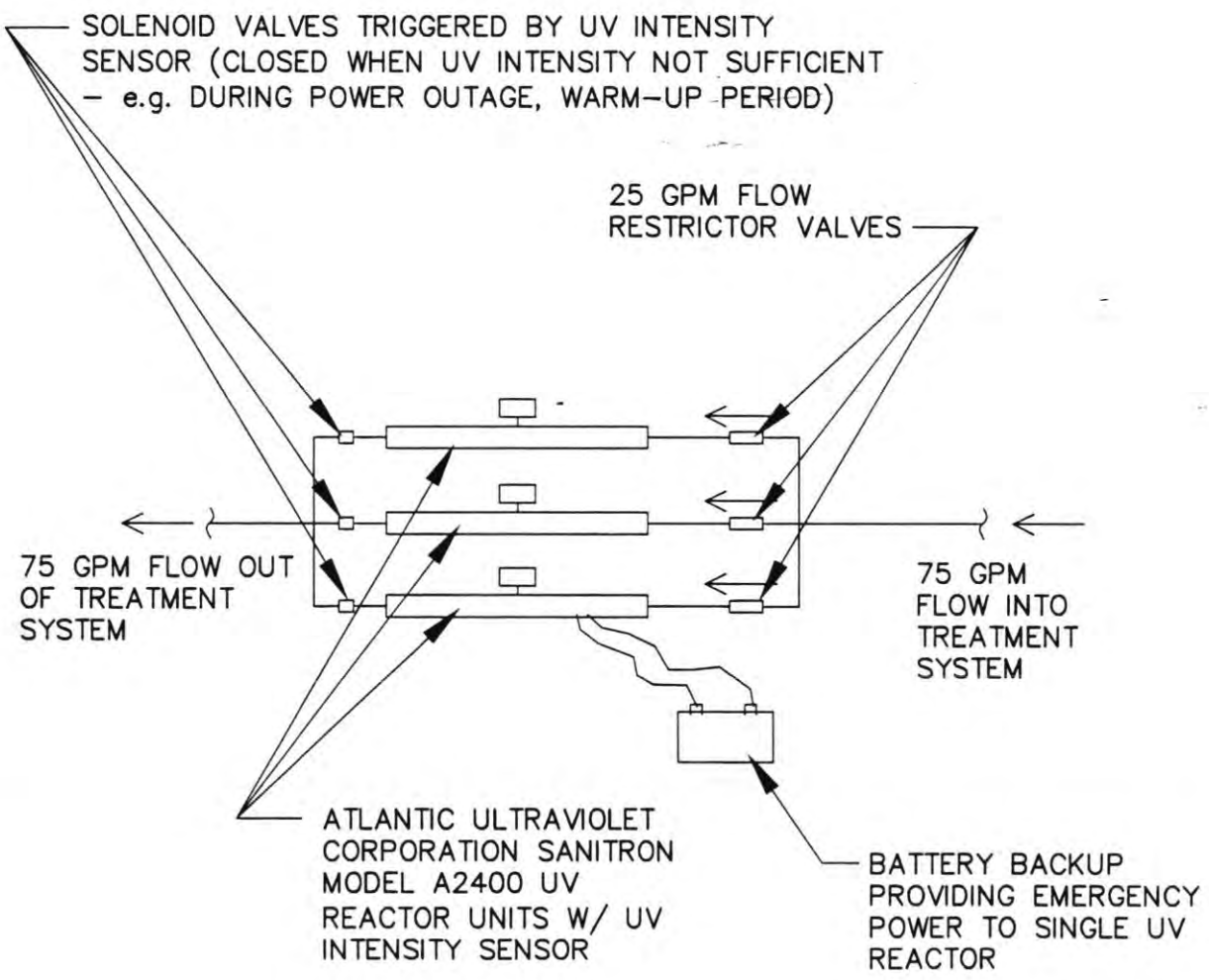
Therefore a dosage of 40 mJ/cm^2 may be achieved by restricting the flow of water through the three reactors to 90 gpm. The problem with this is that if any unit had a lamp intensity problem, the total treatment system flow would be shut down automatically. If the maximum flow were limited to 60 gpm, then the system would only need to be shut down automatically if two units failed concurrently. The failure of only one of the three units could then activate an alarm condition, thus allowing the system to operate while the operator makes repairs. It is recommended that the total flowrate be limited to 50 gpm as a factor of safety for this configuration.

UV Reactors in Parallel

The total flowrate entering into and flowing out of a system arranged in parallel is equal, and the total combined flowrates through each of the individual reactors total that amount. A dosage of 40 mJ/cm^2 may be achieved by restricting the flow of water through a single reactor to a maximum of 30 gpm. This will allow for the minimum dosage to be achieved by each individual reactor (40 gpm/30 gpm x 30 mWs/cm^2 = 40 mWs/cm^2 = 40 mJ/cm^2) and for a maximum combined flowrate of 90 gpm to be distributed to the system. In order to provide a factor of safety to the system, it is recommended that the maximum flowrate through each reactor is restricted to 25 gpm for a total system capacity of 75 gpm (see Figure 3).

Figure 3

Proposed Treatment System Schematic



VI. CONCLUSIONS

UV technology has been used and researched for over 60 years. More than 2,000 municipal groundwater and surface water installations in Europe and 1,000 installations in the United States are currently operating with reliance on UV disinfection. Until recently, data collected from UV reactor installations and from experimentation have been based upon methods that test if the pathogenic microorganisms in questions are killed by the UV light. Unlike data resulting from animal infectivity assays, the previous standards were not taking into account that much smaller dosages of UV light effectively damage the pathogenic viruses, bacteria and protozoans so that they may not reproduce, thus eliminating infection. Based upon research performed over the last few years, 4-log inactivation can be achieved by dosages of 40 mJ/cm^2.

Should the GRGRWS implement the proposed modifications to the disinfection system, the interim treatment requirements of the "hydraulic connection" determination would be satisfied. Also, based on the undisturbed nature of the watershed upstream from the collection of the system's source water, it is the view of D. R. STRONG Consulting Engineers, Inc. that, at this time, no residual chlorine concentration is necessary.

During the preparation of this evaluation, the system's source water received a classification of GWI, therefore additional steps must be taken to satisfy the DOH requirements while the water system evaluates its available options to provide drinking water to their customers. In addition to adequate disinfection of the source water, it will be necessary for the water system to:

1. a). either provide a chlorine concentration of 0.2 mg/L prior to distribution and maintain a detectable residual throughout the piping network, or

   b). initiate a monthly HPC monitoring program to prove that the system contains 500 organisms/mL or less and,

2. write a compliance plan and schedule to meet the SWTR requirements as well as addressing the remaining elements listed in the August 1, 2000 DOH letter and,

3. develop a characterization of the microbiological water quality of the distribution system to demonstrate the effectiveness of UV to prevent regrowth (provided that the system demonstrates <500 organisms/mL in the HPC monitoring program).

VII. REFERENCES

i. Clancy, J.L., et al. Using UV to Inactivate Crytosporidium. *Journal AWWA,* 92:9:97-104 (September 2000).

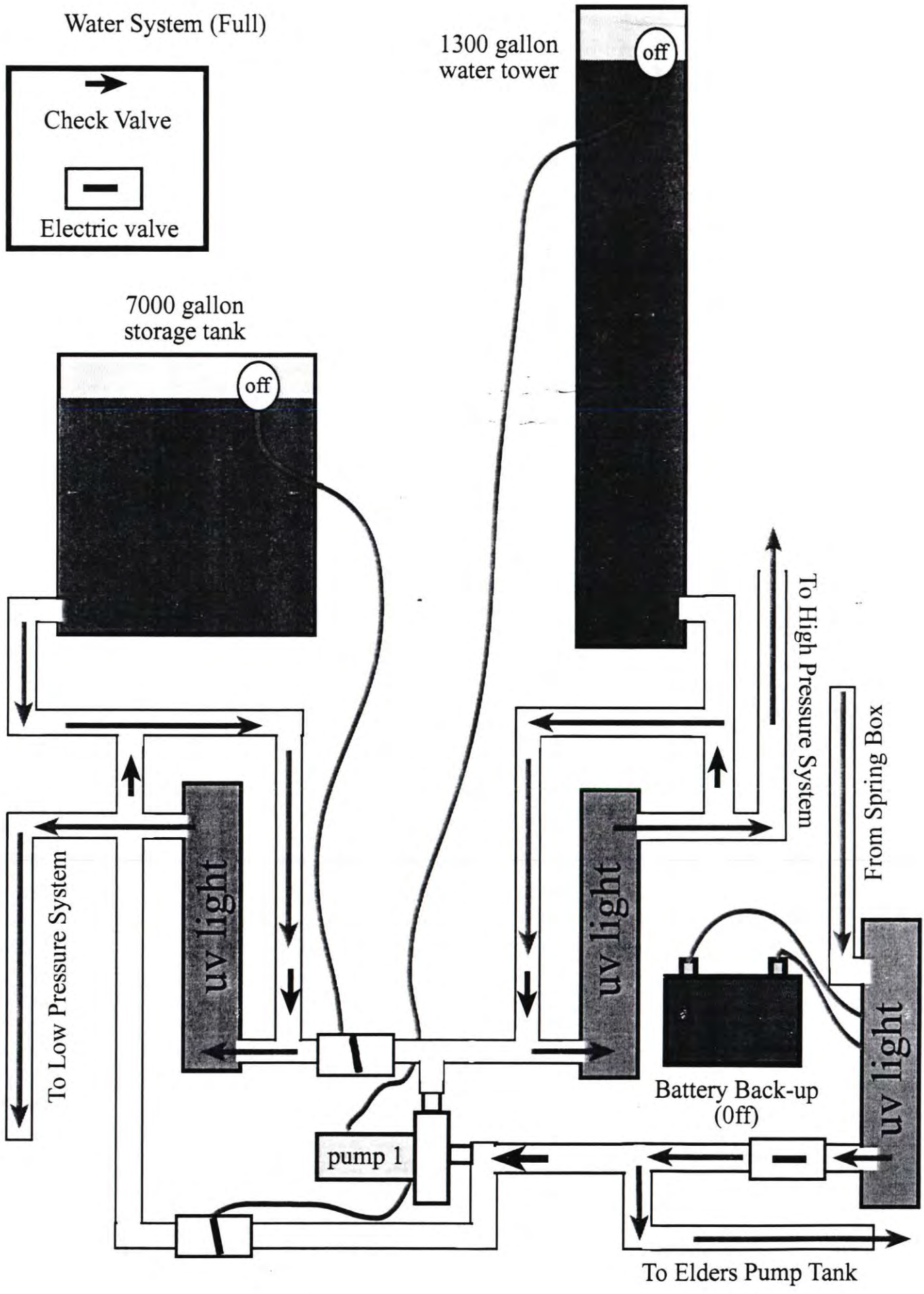
ii. Sakamoto, Gail. Technology Update: Ultraviolet Disinfection of Pathogens in Drinking Water. *Water Quality Products,* pp. 8-11 (November 2000).

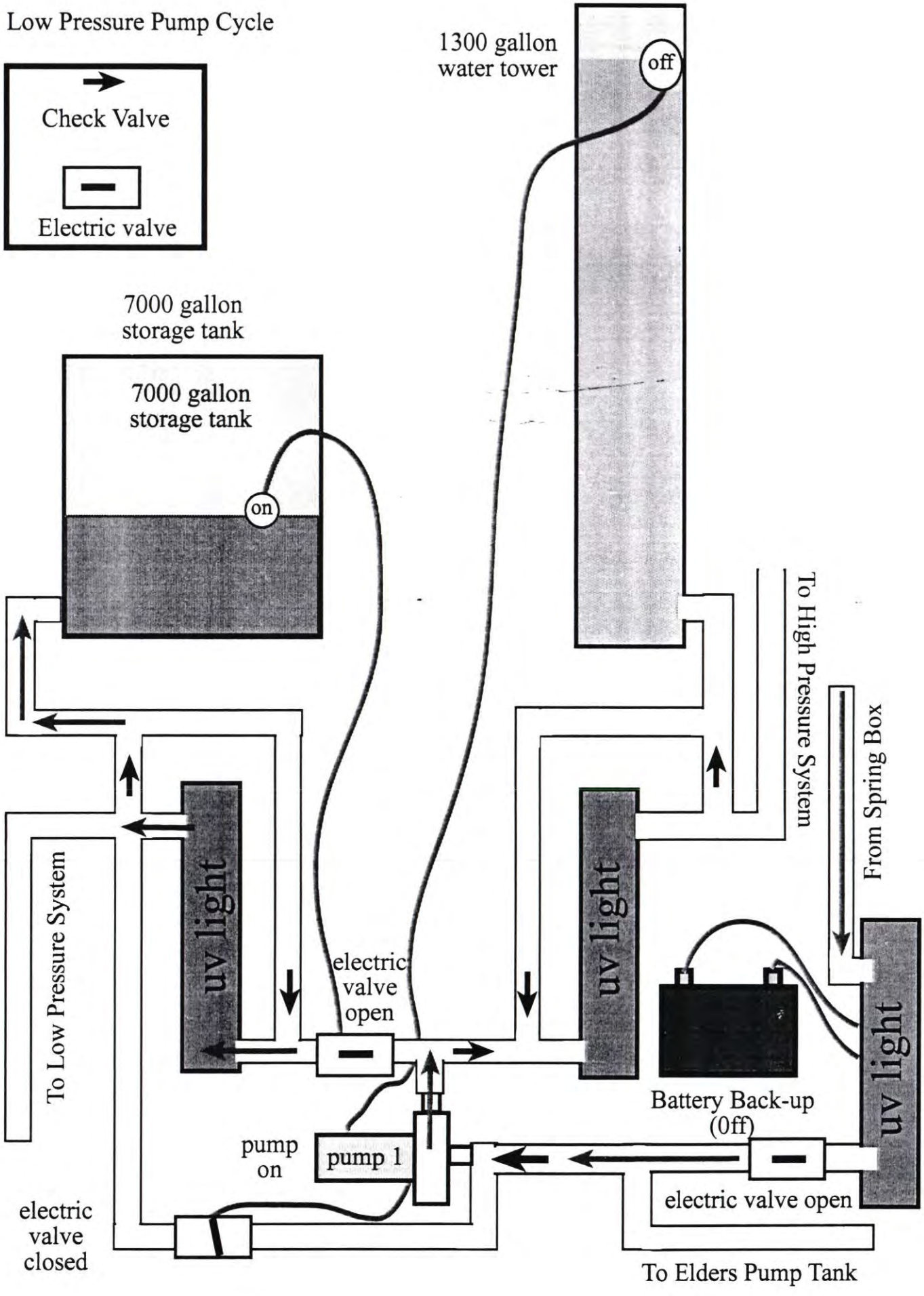
iii. USEPA. Federal Register Document; National Primary Drinking Water Regulations: Ground Water Rule; Proposed Rules. EPA Volume 65, Number 91, Page 30193-30274 (May 10, 2000).

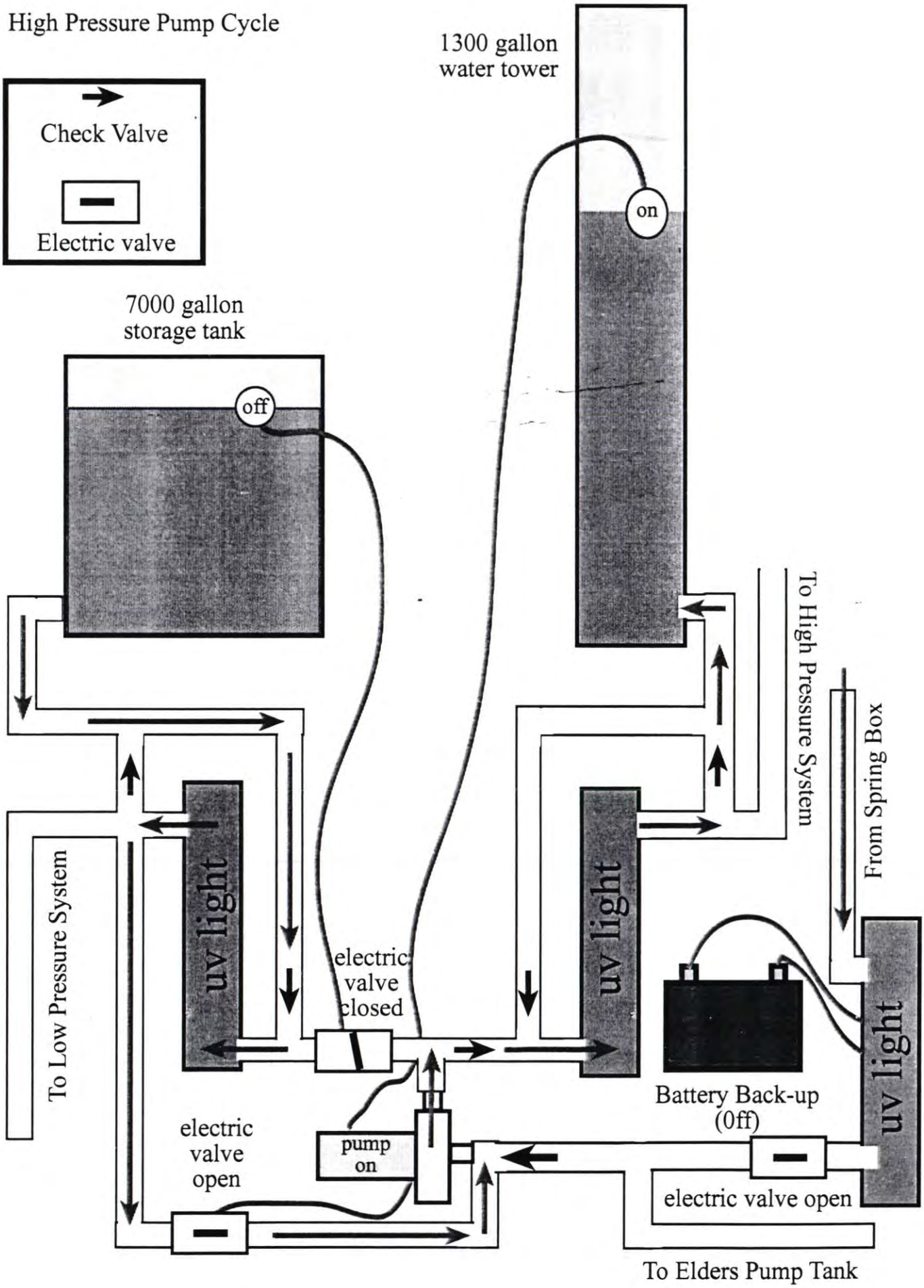
iv. USEPA, Office of Water. Ultraviolet Light Disinfection Technology in Drinking Water Application: An Overview. EPA 811-R-96-002. Washington (1996).

v. Wright, Harold. UV Disinfection: A New Paradigm Unfolds for Drinking Water Treatment. *Water Conditioning and Purification,* pp. 86-89 (October 1999).

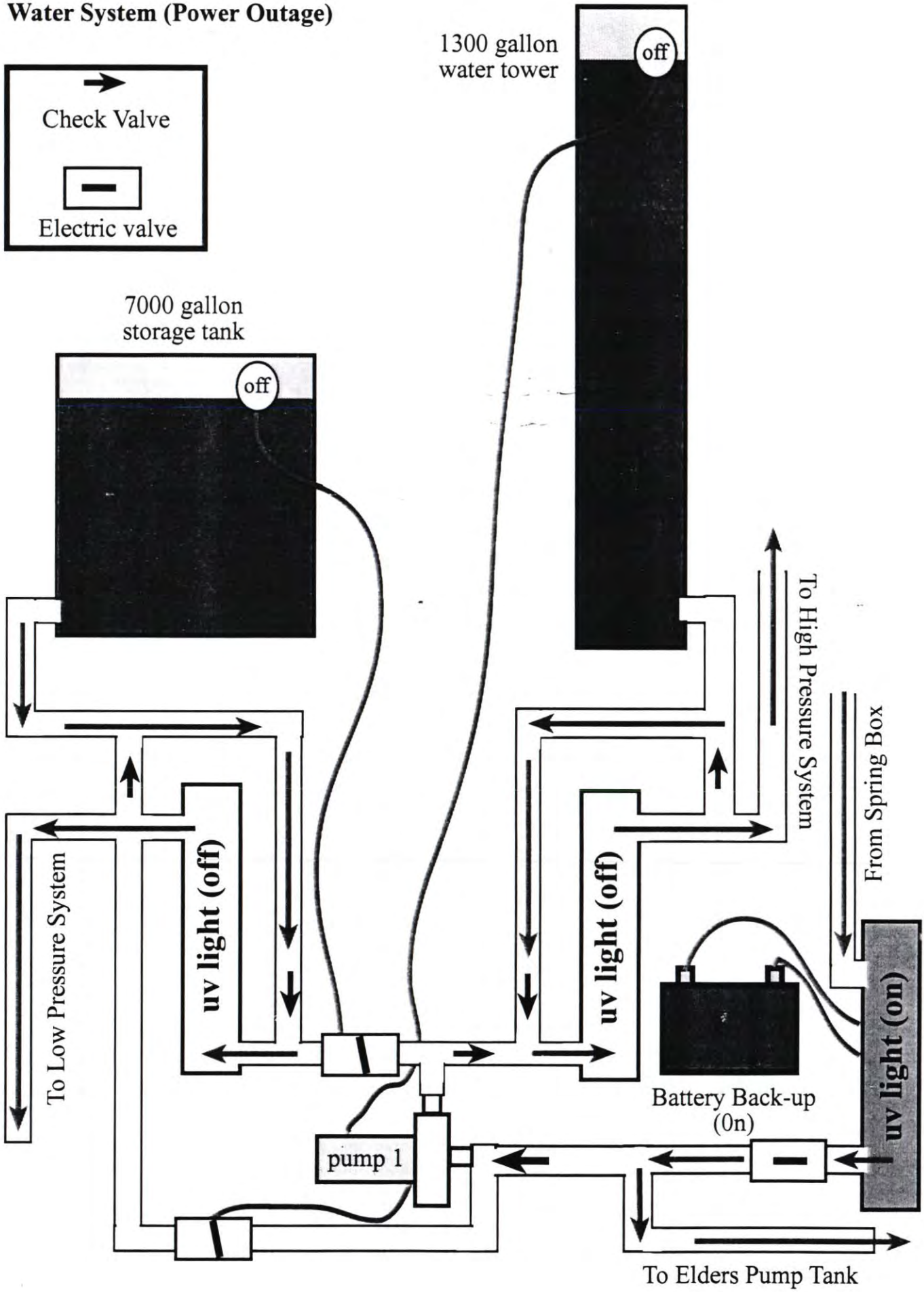
Appendix A
EXISTING SYSTEM SCHEMATIC DRAWINGS


Water System (Full)
Check Valve
Electric valve
1300 gallon
water tower
off
7000 gallon
storage tank
off
To High Pressure System
From Spring Box
To Low Pressure System
uv light
uv light
uv light
Battery Back-up
(0ff)
pump 1
To Elders Pump Tank

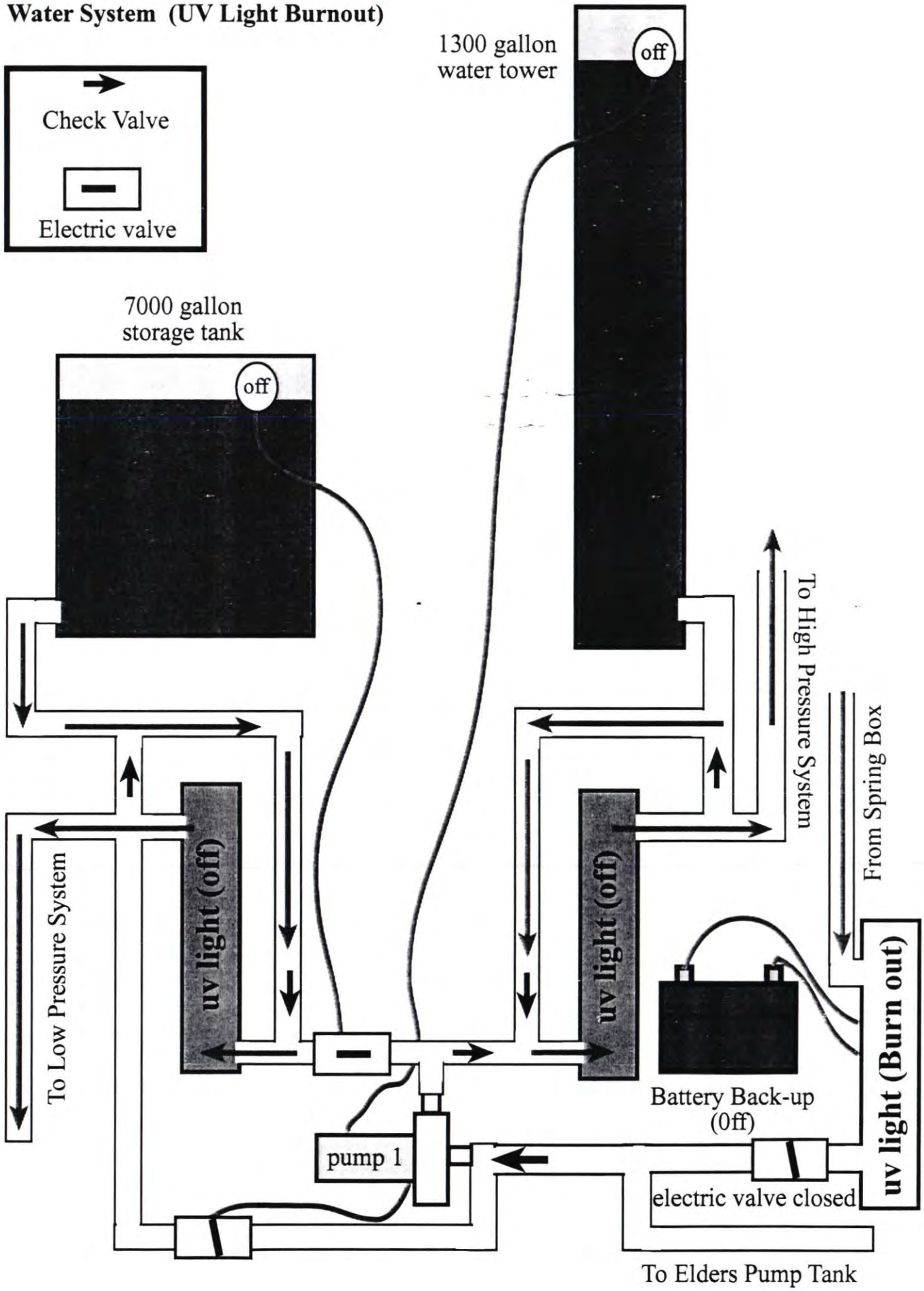

Low Pressure Pump Cycle
Check Valve
Electric valve
1300 gallon
water tower
off
7000 gallon
storage tank
7000 gallon
storage tank
on
To High Pressure System
From Spring Box
uv light
uv light
uv light
To Low Pressure System
electric
valve
open
Battery Back-up
(0ff)
pump
on
pump 1
electric valve open
electric
valve
closed
To Elders Pump Tank


High Pressure Pump Cycle
Check Valve
Electric valve
1300 gallon
water tower
on
7000 gallon
storage tank
off
To High Pressure System
From Spring Box
To Low Pressure System
uv light
uv light
uv light
electric
valve
closed
Battery Back-up
(0ff)
electric
valve
open
pump
on
electric valve open
To Elders Pump Tank

Water System (Power Outage)

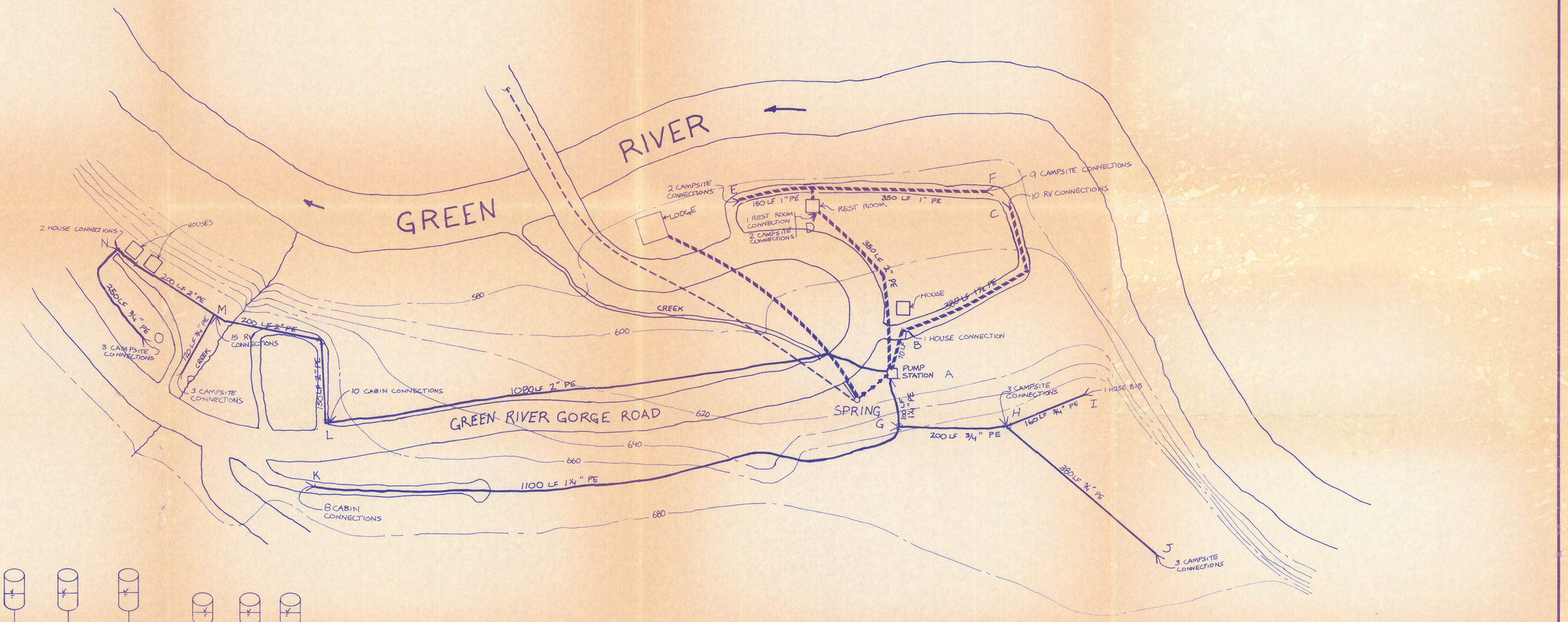


Water System (UV Light Burnout)

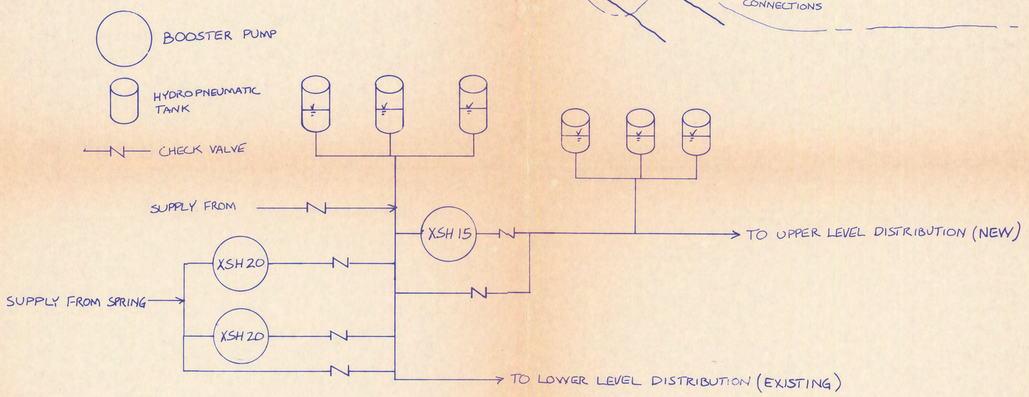


LEGEND

- WATERLINE CONSTRUCTION APPROVED MAY 1983
- GRAVITY SUPPLY LINE TO ELDER'S SYSTEM
- NEW WATER LINE
- A > SYSTEM CALCULATION NODE

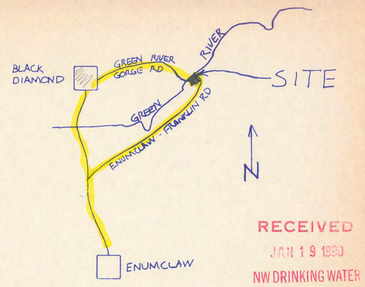


SCHEMATIC LEGEND



PUMP SYSTEM SCHEMATIC
NO SCALE

NOTE: ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. FOR SYSTEM PERFORMANCE CALCULATIONS ONLY.



VICINITY MAP
NO SCALE

DONALD R. STRONG — STATE OF WASHINGTON — 08459 — REGISTERED PROFESSIONAL ENGINEER — 1/19/90

RECEIVED
JAN 19 1990
NW DRINKING WATER
#90-0119

JAN 17 1990

CLIENT: GREEN RIVER GORGE RESORT

PROJECT: WATER SYSTEM PLAN

RICHARD D. OLSON — STATE OF WASHINGTON — 21345 — REGISTERED PROFESSIONAL ENGINEER

D.R. STRONG Consulting Engineers Inc.
10602 N.E. 38th PLACE, SUITE 101 • KIRKLAND, WA. 98033 (206) 827-3063
ENGINEERS • PLANNERS • SURVEYORS (206) 652-9334

DRAWN HMC DATE 1/15/90 DRAWING NO. 89329
CHECKED SCALE 1" = 100' SHEET 1 OF 1

CERTIFICATION OF INSPECTION AND INSTALLATION OF PUBLIC WATER SYSTEM PROJECTS

Effective January 16, 1971 the following Regulation applies: WAC 248-54-340 - Within sixty days following the completion of and prior to the use of any project or portion thereof for which plans and specifications have received the approval of the Secretary, certification shall be made to the Secretary and signed by a professional engineer that the project was inspected by him or his authorized agent and that it was constructed in accordance with the plans and specifications approved by the Secretary.

Instructions:

(a) If a project is being completed in stage construction, attach a map and description of portion of project being certified as completed as approved on date given below.

(b) As future portions of staged construction projects are completed, each must be certified as required by WAC 248-54-340.

(c) Additional certification forms are available upon request from DSHS offices listed below.

Green River Gorge Resort
Name of Water System

29500 Green River Gorge Road
Mailing Address

Enumclaw, Washington 98022
City State Zip

DSHS Water System No. N R 2 8 0 V

Referendum No. (if any)

Date Plans and Specifications Approved by Department of Social and Health Services

December 1, 1982

Date Project or Portions Thereof Completed

May 3, 1983

PROJECT NAME AND DESCRIPTIVE TITLE:

Distribution extension to serve campsite. Owner has used a hydraulic ram instead of booster pump as called out on plans. Water pressure at hose bib in campground - 55 psi, and delivered 12 GPM.

The undersigned engineer or his authorized agent has inspected the above-described project, which as to layout, size and type of pipe, valves and materials, reservoir and other designed physical facilities has been constructed in accordance with the plans and specifications approved by the Secretary, Department of Social and Health Services, and in the opinion of the engineer, the installation, testing and disinfection of the system was carried out in accordance with the specifications approved by the Secretary for the project.

DONALD R. STRONG STATE OF WASHINGTON 8000 REGISTERED PROFESSIONAL ENGINEER
Engineers Seal

RECEIVED MAY - 5 1983

Donald R. Strong
Engineer

May 4, 1983
Date

Please return completed form to DSHS office checked below.

☒ **Seattle Regional Office**
Health Services Division
Water Supply & Waste Section
Smith Tower Building
Seattle, Washington 98104

☐ **Olympia Regional Office**
Health Services Division
Water Supply & Waste Section
Mail Stop 4-1
Olympia, Washington 98504

☐ **Spokane Regional Office**
Health Services Division
Water Supply & Waste Section
West 924 Sinto
Spokane, Washington 99201

DSHS 9-346 (11-76)

D. R. STRONG
Consulting Engineers Inc., P.S.
10604 NE 38th Place Suite 101
KIRKLAND, WASHINGTON 98033

(206) 827-3063

LETTER OF TRANSMITTAL

RECEIVED
MAY - 5 1983

DATE	JOB NO.
May 4, 1983	2-663
ATTENTION: Moe Batra	
RE: Green River Gorge Resort	

TO Washington State D.S.H.S.
1312 Smith Tower
Seattle, Washington 98104

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	5/4/83		"Certification of Inspection and Installation of Public Water System Projects"

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO Jim Carter

SIGNED: Lorna L. Fisher
for DONALD R. STRONG, P.E.

If enclosures are not as noted, kindly notify us at once.

File

JOHN SPELLMAN
Governor

ALAN J. GIBB
Secretary

STATE OF WASHINGTON

DEPARTMENT OF SOCIAL AND HEALTH SERVICES

1409 Smith Tower, B17-9 • Seattle, Washington 98104

May 5, 1983

Green River Gorge Resort
29500 Green River Gorge Road
Enumclaw, Washington 98022

Subject: Distribution extension to serve campsite. Owner has used a hydraulic ram instead of booster pump as called for on plans. Water pressure at hose bib in campground, 55 psi, and delivered 12 gpm. King County

Gentlemen:

This letter acknowledges receipt of the certification of inspection and installation for the subject water system which was signed by your engineer, Donald R. Strong. The certificate indicates that the project has been completed according to plans and specifications which were approved by this office.

Sincerely,

Moe R. Batra

Moe R. Batra, P. E.
Regional Engineer
Water Supply & Waste Section

MRB:ta

CC: Seattle-King County Health Dept.
Don Strong, P. E.

D.R. STRONG Consulting Engineers Inc.
10602 N.E. 38TH PLACE, SUITE 101 • KIRKLAND, WA 98033 (206) 827-3063
• TOLL FREE (Washington State) 1-800-962-1402
• FAX NUMBER (206) 827-2423

89329

January 17, 1989

RECEIVED
JAN 19 1989
NW DRINKING WATER
#90-0119

Moe Batra, District Engineer
Washington State Department of Health
217 Pine Street, #220
MS B17-12
Seattle, Washington 98101

Dear Mr. Batra:

Enclosed is an Engineering Report for the Green River Gorge Resort Water System. This report is intended to supplement our November 1982 report which was approved by you December 1, 1982.

Construction of the water system per our approved report was completed May 3, 1983. On May 4, 1983 we submitted a Certification of Inspection and Installation of Public Water System Projects (DSHS Water System No. NR 280V). In a letter dated May 5, 1983 you acknowledged receipt of this letter (See Appendix 2 for background).

Since May 1983 the resort owner has made significant additions to his facilities. The information in the Report was obtained from the Owner and a site visit in December of 1989.

The purpose of this supplemental report is to first analyze the performance of the entire system including the recent additions; second, to check the system's compliance with State and County regulations; and third, to recommend solutions for any components of the system found not to be in compliance with the regulations.

Please review the Report and provide the appropriate approval letter. Thank you in advance for your prompt attention to this matter.

Sincerely yours,

D. R. STRONG Consulting Engineers Inc.

Donald R. Strong

DONALD R. STRONG, P.E.
President

DRS/HMD:lf
enclosures
cc: Jim Carter, Green River Resort


Hydraulic Ram
Water Pump

Green River Gorge WS . Feb 1990 .
Close up photo of the hydraulic ram
Note algae growth on the base of
the ram.

Green River Gorge WS
Feb. 1990

The hydraulic ram (the intake structure) to the source of water. It is located approximately 10' from the edge of a County road.

Any runoff and spillage on the roadway can easily contaminate the source.

STATE OF WASHINGTON

DEPARTMENT OF HEALTH

217 Pine Street, Suite 220 • Seattle, Washington 98101-1549

March 1, 1990

Mr. Donald R. Strong, P.E., President
D.R. Strong
10602 NE 38th Place, Suite 101
Kirkland, Washington 98033

Subject: Green River Gorge Resort Water System

Dear Don:

The engineering report submitted to this office states that the subject facilities has had significant additions. On page 1 of the report the proposed system is to serve 7 campsites on the plateau above the spring source, 18 cabins along the Green River Gorge Road and 15 RV connections plus 6 campsites and 2 homes up the road. From this report the water system will be classified as a Group A water system requiring additional information, water quality analyses and detailed layout maps, etc. The review of our file indicates there is absolutely no historical background on the water quality, monitoring performance, and protection to the existing source of supply. On February 13, 1990 a site visit to the area revealed that domestic animals were playing right above the spring source.

All Group A water systems require development of engineering documents to reflect the items identified on the attached checklist. The spring source is extremely vulnerable to surface contamination, hence, chlorination should be incorporated into the design. Also I believe the proposed campsite above the spring may deterioate water quality.

The other element of the state future regulation which your client should be made aware of is the Surface Water Treatment Rule (SWTR). These rules were promulgated by EPA and the State is developing revised regulations which are anticipated to be adopted by December 31, 1990. The SWTR will impact Group A public water systems using surface water sources or ground water under the direct influence of surface water. All systems subject to the SWTR will be required at least 99.9% removal and/or inactivation of Giardia cysts and 99.99% removal and/or inactivation of virus. to accomplish this the system must:

1. Disinfect,
2. Filter, and
3. Be operated by qualified personnel.

Also systems will be required to meet new and more stringent monitoring and report requirements. I have enclosed a public awareness information packet and I believe the subject water system will be greatly impacted by these proposed rules.

I recommend drilling a deep well with a large standby storage tank to avoid these future requirements.

Sincerely,

Moe R. Batra

Moe R. Batra, P.E.
Regional Engineer
NW Drinking Water Operations

MRB:cb

Enclosures

my copy

City of Seattle
Charles Royer, Mayor

King County
Tim Hill, Executive

Seattle-King County Department of Public Health

M E M O R A N D U M

TO: King County Zoning & Subdivision Examiner

FROM: Larry Kirchner, R.S. - Supervisor
SE Public Health Center

DATE: 3-1-90

RE: **REPORT TO THE EXAMINER**
King County Health ~~Department~~
Civil Penalty Case 89-39-420142-0045

James & Linda Carter
Green River Gorge Resort
29500 Green River Gorge Road
Enumclaw, Washington 98022

Location of Violation: 29500 Green River Gorge Road
Tax Account No. 172107-9017

Code Violations:

1. Operating an illegal mobile home park (King County Ordinance 5316, Health Department Rule 21, K.C.C. 21.09.010.)

2. Operating a community water system which is unapproved (Title 12, Code of King County Board of Health; K.C.C. 21.09.030(E)(13).

3. Sewage disposal system serving the property does not comply with King County Board of Health Requirements (Title 13, Code of King County Board of Health; K.C.C. 21.09.030(E)(13).

Case Description:

The Green River Gorge Resort is located north of Enumclaw and east of Black Diamond. It has been in existence for many years. In 1982, the Health Department gave notice to Mr. Carter that his facility was in violation of requirements for an approved water system and sewage disposal system to serve the mobile home park/R.V. Park at the Green River Gorge Resort. As a result of our enforcement, steps were finally taken in May, 1983, to correct those problems.

In 1989, it was brought to our attention that Mr. Carter had expanded his facility to an area which had never been approved by the Health Department. As a result of this unauthorized expansion, the Health

Department sent Mr. Carter a letter dated August 18, 1989, which outlined the problems needing correction (Attachment 1). The letter specified that Mr. Carter notify us within 30 days to outline his plan of action. Nothing was heard from Mr. Carter.

On November 17, 1989, a Notice and Order (HD-05) was sent to Mr. Carter specifying that civil penalties in the amount of $750.00/day (3 violations at $250.00/day each) would be assessed effective November 30, 1989 (Attachment 2).

On November 28, 1989, a meeting was held with Mr. & Mrs. Carter to discuss requirements. It was agreed that the Carters would hire an engineer to begin the process of up-grading the water and sewage systems, and to bring the mobile home park into compliance with King County standards.

An appeal to the Notice and Order was provided to the Health Department on November 28, 1989. The appeal was provided within 10 days of receipt of the Notice and Order (Attachment 3)

A notice of the Hearing Examiner Appeal Hearing dated February 20, 1990, was mailed to the appellant (Attachment 4).

As of February 28, 1990, we have not received any follow-up information from the Carters as to improvements being made.

3/9/90 AN INSPECTION COMPLETED - NO CHANGE (INTRODUCE PICTURES

Summary: 3/1/90 LETTER FROM STATE - DISAPPROVING SYSTEM (INTRODUCE) & OTHER NOTICES & ORDERS

Adequate and proper notice notice has been given to the Carters which outline the requirements that have to be met. Based on his prior experience with us in 1982, it is reasonable to believe he should have know that Health Department approvals were required.

Recommendation:

Uphold the civil penalties assessed by the Health Department. The size of the penalty is an incentive to correct the violations which exist.

NOTE HAVE MAP IF NEEDED

LK:nm

Attachments

cc: Kirk Robbins

James Carter

STATE OF WASHINGTON

DEPARTMENT OF HEALTH

217 Pine Street, Suite 220 • Seattle, Washington 98101-1549

April 20, 1990

Mr. Don Strong, P.E.
D.R. Strong and Associates
16604 NE 38th Place, Suite 101
Kirkland, Washington 98033

Subject: Green River Gorge Water System
King County

Dear Don:

In response to your telephone call on the subject matter, I have expressed numerous concerns regarding this water system. My prime concern is that the source of supply is extremely vulnerable to contamination by domestic animals, roadway spillage, vandalism and polluted drainage ditch water. In our conversation you indicated the purveyor has recognized our concerns and has made an effort to eliminate the source of contamination. Also, you have indicated that the purveyor wishes to pursue use of the ultraviolet process for disinfection of water, instead of routine chlorination and storage requirements.

The source must prove to meet the water quality standards identified under WAC 248-54. Hence it is imperative that the chemical and physical characteristics of the water quality be analyzed. Also, the purveyor must conduct a radionuclide analyses. This information is critically needed because, color, turbidity and other inorganic and organic impurities interfere with the transmission of ultraviolet energy and may decrease the disinfection efficiency below levels required to insure destruction of pathogenic organisms.

I have attached a criteria guideline for acceptability of an ultraviolet disinfecting unit. In your design these guidelines should be strictly followed for our review and approval. Also, identify improvement to the source such as burying pipe, fences, etc. Thank you.

Sincerely,

Moe R. Batra

Moe R. Batra, P.E.
Regional Engineer
NW Drinking Water Operations

MRB:cb
Enclosure
cc: Seattle-King County Health Department

Date 8-22-90

To: MOE BATRA, PE

From: Ken White

Subj: Improvements at Green River Gorge Resort water System

King Co.
294870

The system was field visited on 8-21-90 ~~accompanied~~ by a Jim Carter, Owner of said system. (Linda Carter 872-2630)

The following Improvements have been satisfactorily completed.

1. Two (2) Sanitron Ultraviolet Water Purifiers installed & operating (Model A5000) with 83 gpm flow rate
2. Two(2) Ultraviolet monitoring units installed & operating.
3. Cellinoid water shut off valve in place plus exterior audio alarm.
4. Exterior distribution valve box contructed, covered & in place
5. RV space above fenced off collection area is abandoned.

See attached photo's.

DRS D.R. STRONG Consulting Engineers Inc.
10602 N.E. 38TH PLACE, SUITE 101 • KIRKLAND, WA 98033 (206) 827-3063
• TOLL FREE (Washington State) 1-800-962-1402
• FAX NUMBER (206) 827-2423

89-329

#90 0608

June 5, 1990

Mr. Moe Batra, P.E.
Regional Engineer
NW Drinking Water Operations
Washington State Department of Health
217 Pine Street, Suite 220, B17-12
Seattle, Washington 98101-1549

RE: Green River Gorge Resort Water System
King County, Washington

Dear Mr. Batra:

We are submitting our Updated Water System Report, for the Green River Gorge Resort Water System, for your review and approval.

As stated in our report, we are recommending conditional approval based on a good water quality history and a protected groundwater source.

We have prepared a conceptual design of an Ultraviolet Radiation Treatment System to be implemented if disinfection becomes necessary. Due to variability and uncertainty of the flow rates, we are unable to finalize our design at this time. We recommend the installation of a source meter so that actual water consumption can be determined. With this information we can finalize our design.

If you have any further questions, or need further information, please give us a call.

Sincerely yours,

D. R. STRONG Consulting Engineers Inc.

DONALD R. STRONG, P.E.
President

DRS:lf
enclosure

90-0808

89-329

OPERATION AND MAINTENANCE SUMMARY

OPERATION:

1. Clean quartz sleeves weekly to prevent buildup of material on sleeves. More frequent cleaning may be required to maintain optimum transmission of U.V. radiation;

2. Record U.V. intensity readings after each cleaning;

3. Operate the U.V. disinfection device continuously. Since the unit is located on the demand side of the system, no time will be available for a warmup period;

4. Record meter readings weekly;

5. Record any plant shut-down. Include date, meter reading, reason for shut-down, maintenance performed and parts replaced;

MAINTENANCE:

1. Replace ultraviolet lamps every 10 (ten) months. More frequent replacement may be required if sensor indicates 70% of new lamp output. Always keep a spare ultraviolet lamp in stock. Alternate replacement of the lamps in the two chambers on five-month (5-month) intervals;

2. When replacing bulbs, clean the inside of chamber with denatured alcohol. Clean the quartz sleeves and polish the chamber walls. Check condition of sleeve and wipe rings, and replace if worn;

3. When returning unit to service, time delay on solenoid valve should automatically provide warmup period for lamps before throughflow is allowed. Never operate disinfection chambers without allowing lamps to warm up for at least two (2) minutes.

NOTE: Consult manufacturer's instructions for more detailed operation and maintenance information.

NOTES:

1. All new piping shall be Schedule 40 galvanized steel pipe, 2-inch minimum diameter;

2. Solenoid shutoff valve and flow control valve shall be provided by Sanitron with the unit;

3. All new fittings for piping shall be Class 250 galvanized cast iron;

4. New gate valves and check valves shall be Class 150 bronze.

If subsequent operation of the plant indicates turbidity to adversely affect the radiation intensity, or if evidence of giardia contamination appears, the ultraviolet plant will need to be preceeded with a filtration device (<5 microns).

If you have any further questions, or if we can be of additional assistance, please give us a call.

Sincerely yours,

D. R. STRONG Consulting Engineers Inc.

DONALD R. STRONG, P.E.
President

DRS/HMD:lf
enclosures
cc: James Carter

D.R. STRONG Consulting Engineers Inc.
10602 N.E. 38TH PLACE, SUITE 101 • KIRKLAND, WA 98033 (206) 827-3063
• TOLL FREE (Washington State) 1-800-962-1402
• FAX NUMBER (206) 827-2423

89-329

August 13, 1990

Moe Batra, P.E., Regional Engineer
NW Drinking Water Operations
State of Washington, Department of Health
217 Pine Street, Suite 220, B17-12
Seattle, Washington 98101-1549

RE: Green River Gorge Resort

Dear Moe:

We have revised our drawing to show the use of an ultraviolet disinfection device capable of treating an M.I.D. of 83 GPM. We are sending this drawing to you for review and approval.

The use of this device is based on evidence which shows the spring to be groundwater, not subject to surface water intrusion. Further, there has been no history of giardia problems with this source. Water chemistry and very low turbidity records indicate that U.V. radiation can be effective for bacterial disinfection

In addition to providing an ultraviolet treatment device to meet an 83 GPM demand, the owner has agreed to satisfy your concerns as follows:

1. Remove the RV site on the plateau directly above the spring;

2. Provide an audible alarm on the exterior of the pump building which will sound whenever U.V. intensity falls below effective level in either chamber;

3. Operate the plant in accordance with all manufacturer recommendations and the O&M sheet prepared by us;

4. Cover piping under pump building;

5. Reserve adequate space (approximately 50 feet square) for a future storage tank.

Ultraviolet radiation provides bacterial disinfection only and cannot be relied upon for giardia cyst inactivation.

STATE OF WASHINGTON

DEPARTMENT OF HEALTH

217 Pine Street, Suite 220 • Seattle, Washington 98101-1549

August 24, 1990

Mr. & Mrs. Jim Carter
Green River Gorge Water System
29500 Green River Gorge Road
Enumclaw, Washington 98022

Subject: Improvements to the Existing Source - UV Disinfection Facility - Water System. Report dated June 6, 1990, Revision dated August 13, 1990 Submittal #90-0608

Dear Mr. & Mrs. Carter:

The plans and specifications for the above project received in this office on June 19, 1990, together with information received on August 14, 1990, have been reviewed and, in accordance with the provisions of WAC 248-54 are hereby **APPROVED.** The approval issued herein is only valid as it relates to current standards outlined in WAC 248-54, revised September 1989. Future changes in the rules may be more stringent and require facility modifications or corrective action.

As required in WAC 248-54-035(2) - Within sixty days following the completion of and prior to the use of the above project or portions thereof, the enclosed construction report must be completed by a professional engineer and returned to this department.

Regulations establishing a schedule of fees for review of planning, engineering and construction documents were adopted June 29, 1983 (WAC 440-44-048). An itemized invoice for $150.00 is enclosed. Please remit your complete payment in the form of a check or money order within thirty (30) days of the date of this letter to: **DOH, Revenue Unit, P.O. Box 1099, Olympia, WA 98504.**

WAC 248-54-086(4) provides that if construction of the project has not been started within two years of the date of this letter, this approval will become null and void unless you take action at that time to arrange for an extension of the approval period in the manner prescribed.

Nothing in this approval shall be construed as satisfying other applicable federal, state or local statutes, ordinances and regulations.

Sincerely,

Moe R. Batra

Moe R. Batra, P.E.
Regional Engineer
NW Drinking Water Operations

MRB:cab
Enclosures
cc: Seattle-King County Health Department
D.R. Strong Engineering

CONSTRUCTION REPORT FOR PUBLIC WATER SYSTEM PROJECTS

Effective September 9, 1983 the following Regulation applies: WAC 248-54-035(2) - A construction report shall be submitted to and accepted by the department within sixty days of completion and prior to use of any project for which plans and specifications have been approved by the Department for projects designed by a professional engineer. The construction report must be signed by a professional engineer. The report shall state in the opinion of the signee whether the project has been constructed in accordance with approved plans and specifications and the installation, testing and disinfection of the system were carried out in accordance with department regulations.

(a) If a project is being completed in stage construction, attach a map and description of protion of project being certified as completed as approved on date given below.

(b) As future portions of staged construction projects are completed, each must be certified as required by WAC 248-54-035(2).

(c) Additional certification forms are available upon request from DOH offices listed below.

Green River Gorge Water System
Name of Water System

29500 Green River Gorge Road
Mailing Address

Enumclaw, Washington 98022
City State Zip

State Water System No. :2:9:4:8:7:0:

Referendum
No. (if any): : : : : : : : : :

Date Plans and Specifications Approved by Department of Health

August 24, 1990

PROJECT NAME AND DESCRIPTIVE TITLE:

System Improvements - UV Disinfection
Facility - Water System Report
Submittal #90-0608

Date Project or Portions Thereof Completed

November 18, 1991
~~September 24, 1990~~

The undersigned engineer or his authorized agent has inspected the above-described project, which as to layout, size and type of pipe, valves and materials, reservoir and other designed physical facilities has been constructed in accordance with the plans and specifications approved by the Secretary, Department Health and in the opinion of the engineer, the installation, testing and disinfection of the system was carried out in accordance with the specifications approved by the Secretary for the project.

DONALD R. STRONG
STATE OF WASHINGTON
09459
REGISTERED
PROFESSIONAL ENGINEER

Engineer's Seal

Donald R. Strong P.E.
Engineer

11/18/91
Date

Please return completed form to DOH office checked below.

:XX: Environmental Health
NW Drinking Water
217 Pine Street, Suite 220
Seattle, Washington 98101

: : Environmental Health
SW Drinking Water
Mail Stop LD-11
Olympia, Washington 98504

: : Environmental Health
Eastern Drinking Water
West 924 Sinto
Spokane, Washington 99201

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
1511 Third Ave., Suite 719 • Seattle, Washington 98101-1632

February 28, 1995

Mr. Steven Koppelmann, R.S.
Seattle-King County Department of Public Health
Alder Square Environmental Health Services
1404 Central Avenue South, Suite 101
Kent, Washington 98032

Subject: King County
Green River Gorge Resort Water System
Water Service to a Caretaker's Residence

Dear Mr. Koppelmann:

This department has reviewed your letter dated February 7, 1995 regarding the above. We have reviewed our files concerning the Green River Gorge Resort water system and will require the following information to complete our evaluation:

1. Evidence of a water right permit issued by the Department of Ecology.

2. Copies of the maintenance reports developed over the last twelve months per the O & M summary prepared by D. R. Strong Consulting Engineers, Inc. at the time of design approval.

3. A hydraulic analysis of the water system prepared by a licensed professional engineer which demonstrates that the existing facilities can support service to the proposed residence.

If you should have any questions please contact this office in Seattle at 464-7671.

Sincerely,

Robert E. James, P.E.
Regional Engineer
NW Drinking Water Operations

GREEN RIVER GORGE RESORT MAINTENANCE REPORT WATER SYSTEM #29487 U

2462	182707	9/30/93
2360	195018	10/5/93
	211540	10/12/93 REPLACE UV LIGHT
1061	230640	10/30/93
2962	247873	11/6/93
	264206	11/13/93
	286049	11/20/93
	304172	11/30/93
	318651	12/6/93
	335813	12/15/93
	350462	12/21/93
	367251	12/28/93
	381217	1/3/94
	399850	1/11/94
	20813	1/20/94
	33006	1/25/94
	43564	2/2/94
	469255	2/8/94
	491051	2/17/94
	507879	2/24/94
	528248	3/4/94
	547914	3/12/94
	552736	3/14/94 CHANGE UV LIGHT
	566729	3/20/94
	586362	3/28/94
2608	607225	4/3/94

GREEN RIVER GORGE RESORT
29500 Green River Gorge Rd.
Enumclaw, WA 98022
886-2302

	619392	4/13/94
	633851	4/19/94
	650186	4/26/94
	667194	5/3/94
2501	692208	5/13/94
	709196	5/20/94
	729073	5/28/94
	745894	6/4/94
	767121	6/12/94
	789099	6/22/94
	816214	7/2/94
2000	830812	7/7/94 NEW UV LIGHT
	846817	7/14/94
	878862	7/26/94
	895684	8/3/94
	922095	8/13/94
	942103	8/21/94
	968658	9/1/94
	980769	9/6/94
	000021	9/14/94
	015219	9/20/94
	029337	9/27/94
	041233	10/2/94
	061380	10/10/94
	076446	10/18/94 CHANGE WEAK LIGHT
	113537	10/25/94

128544	11/1/94	
140580	11/6/94	
162417	11/15/94	
176972	11/21/94	
193935	11/29/94	
212048	12/6/94	
224057	12/11/94	
246159	12/20/94	
261470	12/27/94	
280703	1/3/95	REPLACE UV TUBE
299903	1/10/95	
316292	1/17/95	
335667	1/25/95	
349868	1/31/95	
369979	2/8/95	
388981	2/14/95	
412342	2/24/95	
426929	3/2/95	
444162	3/9/95	
458839	3/15/95	
468352	3/19/95	

State of Washington
Department of Ecology

Water Right Claims Registration

Water Right Claim

RECEIVED
DEPARTMENT OF ECOLOGY
JUN 27 1974 7 0 8 9
CASH ___ OTHER ___ NONE ___

09

Name R.S. Quinill, et al

Address 8418 Calif. Ave S.W.

Seattle, Wash. Zip Code 98136

Phone No. 935-1088

1) Source from which the right to take and make use of water is claimed: [X] Surface Water [ ] Ground Water

If surface water, please indicate source; give name if known:

UNNAMED SPRING

(River, stream, lake, pond, spring, etc.)

2) Purpose(s) for which water is used:

[X] Domestic [X] Stockwatering [X] Irrigation (lawn and garden) [ ] Other Use (specify)

3) Legal description of lands on which water is used:

(see Schedule A attached hereto and by this reference made a part hereof)

If located within the limits of a recorded platted property:

Lot ______ Block ______ of ______

(Give name of plat or addition)

In addition, please indicate Sec. 17 20 T. 24 21 N., R. 7 7 E./W. W.M.

County in which lands are located King

DO NOT USE THIS SPACE

The filing of a statement of claim does not constitute an adjudication of any claim to the right to use of waters as between the water use claimant and the state or as between one or more use claimants and another or others. This acknowledgment constitutes receipt for the filing fee.

Date Registered MAY 2 3 75

This has been assigned Water Right Claim Registry No. 161580

Director, Department of Ecology John Biggs

I hereby swear that the above information is true and accurate to the best of my knowledge and belief.

X R.S. Quinill

Date June 25, 1974

If claim filed by designated representative print or type full name and mailing address of agent below.

[ ] Additional information relating to water quality and/or well construction is available.

ORIGINAL DOE

A FEE OF $2.00 MUST ACCOMPANY THIS WATER RIGHT CLAIM.

Return all three copies with carbons intact, along with your fee to:
Department of Ecology, Water Right Claims Registration, Olympia, Washington 98504

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
WATER RIGHT CLAIMS REGISTRATION

WATER RIGHT CLAIM

RECEIVED
JUN 27 1974

1. NAME R. S. Quinill, et al

ADDRESS 8418 Calif. Ave. S. W.

Seattle, Wash. ZIP CODE 98136 PHONE NO. 935-1088

2. SOURCE FROM WHICH THE RIGHT TO TAKE AND MAKE USE OF WATER IS CLAIMED: Surface Water (SURFACE OR GROUND WATER)

W.R.I.A. 09 (LEAVE BLANK)

A. IF GROUND WATER, THE SOURCE IS

B. IF SURFACE WATER, THE SOURCE IS Spring (unnamed)

3. THE QUANTITIES OF WATER AND TIMES OF USE CLAIMED:

A. QUANTITY OF WATER CLAIMED .10 CFS PRESENTLY USED .10 CFS (CUBIC FEET PER SECOND OR GALLONS PER MINUTE)

B. ANNUAL QUANTITY CLAIMED 12 PRESENTLY USED 12 (ACRE FEET PER YEAR)

C. IF FOR IRRIGATION, ACRES CLAIMED 2 PRESENTLY IRRIGATED 2

D. TIME(S) DURING EACH YEAR WHEN WATER IS USED: May-October for irrigation continuously for other uses and campground

4. DATE OF FIRST PUTTING WATER TO USE: MONTH YEAR

5. LOCATION OF THE POINT(S) OF DIVERSION/WITHDRAWAL: 1400 FEET N AND 1400 FEET E FROM THE S. W. CORNER OF SECTION 17

BEING WITHIN NE 1/4 SW 1/4 OF SECTION 17, T. 21 N., R. 7E (E.ORW.) W.M.

IF THIS IS WITHIN THE LIMITS OF A RECORDED PLATTED PROPERTY, LOT BLOCK OF

(GIVE NAME OF PLAT OR ADDITION)

6. LEGAL DESCRIPTION OF LANDS ON WHICH THE WATER IS USED:

(See Schedule A attached hereto and by this reference made a part thereof)

COUNTY King

7. PURPOSE(S) FOR WHICH WATER IS USED: Irrigation, Domestic, Restaurant, and Campground

8. THE LEGAL DOCTRINE(S) UPON WHICH THE RIGHT OF CLAIM IS BASED: Appropriation and/or Riparian

DO NOT USE THIS SPACE

THE FILING OF A STATEMENT OF CLAIM DOES NOT CONSTITUTE AN ADJUDICATION OF ANY CLAIM TO THE RIGHT TO USE OF WATERS AS BETWEEN THE WATER USE CLAIMANT AND THE STATE OR AS BETWEEN ONE OR MORE WATER USE CLAIMANTS AND ANOTHER OR OTHERS. THIS ACKNOWLEDGEMENT CONSTITUTES RECEIPT FOR THE FILING FEE.

DATE RETURNED THIS HAS BEEN ASSIGNED WATER RIGHT CLAIM REGISTRY NO.

MAY 23 75 161581

John Biggs

DIRECTOR - DEPARTMENT OF ECOLOGY

I HEREBY SWEAR THAT THE ABOVE INFORMATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

X R. S. Quinill

DATE June 21, 1974

IF CLAIM FILED BY DESIGNATED REPRESENTATIVE, PRINT OR TYPE FULL NAME AND MAILING ADDRESS OF AGENT BELOW.

☐ ADDITIONAL INFORMATION RELATING TO WATER QUALITY AND/OR WELL CONSTRUCTION IS AVAILABLE.

A FEE OF $2.00 MUST ACCOMPANY THIS WATER RIGHT CLAIM

RETURN ALL THREE COPIES WITH CARBONS INTACT, ALONG WITH YOUR FEE TO:
DEPARTMENT OF ECOLOGY
WATER RIGHT CLAIMS REGISTRATION
OLYMPIA, WASHINGTON 98504

ORIGINAL DWR

STATE OF WASHINGTON

DEPARTMENT OF HEALTH

1511 Third Ave., Suite 719 • Seattle, Washington 98101-1632

April 11, 1995

Mr. James Carter
Green River Gorge Resort
29500 Green River Gorge Road
Enumclaw, Washington 98022

Subject: King County
Green River Gorge Resort Water System
Water Service to a Caretaker's Residence

Dear Mr. Carter:

I have reviewed the information enclosed with your letter dated March 27, 1995 and would like to offer the following comments:

1. The water right information you submitted consisted of two water right claims registration forms (one long and one short form) which had been completed by R.S. Quinill in June of 1974. The quantity of water claimed on the long form is 0.10 cfs (45 gpm) and 12 acre feet per year (522,750 cu. ft.). Currently the system is taking approximately 74 to 83 gpm out of the spring whenever the pump is activated and 901,000 cu. ft. annually based upon your 1994-95 records. Both of these values exceed the quantities identified in your claim.

   It is also my understanding that a water right claim does not entitle you to obtain water for any use which did not exist prior to 1917. Please check with the Department of Ecology (DOE) in Bellevue regarding the validity of your claim and its ability to support the above project. I have enclosed a fact sheet prepared by the DOE to assist you with any questions you might have.

2. Mr. Strong, your engineer, had indicated to the department that you would be cleaning the quartz sleeves weekly to prevent the buildup of material on the sleeves and then recording the U.V. intensity readings after each cleaning. The reports submitted do not include any U.V. readings. Are you cleaning the quartz sleeves weekly and if not why not?

3. Please identify the pumping capacity of the pump serving the lower zone and indicate the pressure switch settings which control its operation. The first engineering report prepared in 1990 indicated that two low level pumps would be required to meet the system's peak demand for water. The second report indicated that only one pump for the low zone had been installed and that the peak water demand for the entire system was 93 gpm.

If you should have any questions please contact this office in Seattle at 464-7671.

Sincerely,

Robert E. James, P.E.
Regional Engineer
NW Drinking Water Operations

Enclosure

cc: Seattle-King County Department of Public Health

Green River Gorge Resort

29500 GREEN RIVER GORGE ROAD
ENUMCLAW, WASHINGTON 98022
pH: (360) 886-2302
FAX: (360) 886-2454

April 27, 1995

Robert E James PE
1511 3rd Ave #719
Seattle WA 98101-1632

Dear Mr. James,

Enclosed is the information that you requested concerning the Green River Gorge Resort water system #29487 U.

I have just reviewed your letter of April 11, 1995 and I will try to answer your concerns. Since you are from the health department I assumed that you were primarily concerned with the quality of the water produced by my water system rather than the quantity. When I indicated that the capacity of the system was 83 gpm, I was referring to the capacity of the UV light to purify the water and the 83 gpm flow restrictor that prevents more than this volume of water from passing through the system and not the ability of the pumps to pump that much water. There are (2) two hp pumps hooked up in series, each with its own pressure switch and storage tanks. The pressure switch on the first pump is set to turn the pump on at 35 psi and off at 50 psi. The second pump draws water through a check valve from the storage tank of the first pump. It's pressure switch is set to turn on at 60 psi and turn off at 75 psi. With both sets of storage tanks drained to atmospheric pressure and both pumps running the system will pump 83 gpm. However, under normal operating conditions the pumps only pump 40 gpm when the pressure switch turns them on and less than 10 gpm at the time that they turn off. The peak demand of 93 gpm is obtained by drawing water from both the spring and the storage tanks at the same time.

Although I failed to mention it in my first letter, I assumed that it was obvious that the UV meters were checked and that the quartz sleeves were cleaned each time a meter reading was made. These three items are located next to each other. Cleaning the sleeves consists of merely pulling a handle back and forth a few times on the UV unit. In order to perform this operation it is necessary to look directly at both of the UV intensity meters. In the future I will record the UV intensity readings each time I read the water meter.

I am at somewhat of a loss to understand what you mean by your statement "water for any use that did not exist prior to 1917". In 1917 the majority of the water diverted from this spring was piped across the bridge to maintain a large storage pond that supplied water for coal washing and other purposes to the dozen or so coal mines that were operating there at the time. However, the spring also supplied the majority of the domestic water used by the 1000 or so residents who lived in Franklin at that time. I

have not been able to find out what the exact population of Franklin was in 1917 but the Black Diamond Historical Society has a record of 1200 votes being cast in Franklin in an election that occurred in 1890. I have enclosed a copy of a portion of an undated county assessor's inventory map that appears to have been made in the 1920's. It shows approximately 75 permanent buildings and residences existing in that portion of Franklin now within the boundaries of Green River Gorge Resort property. Several of these long vanished residences were quite close to the site of the proposed caretaker's residence that I have marked with a red square. While I do not plan to do any coal washing, I do intend to use the water for domestic purposes such as drinking, washing, cooking, and irrigation and all of these uses were certainly prevalent in 1917.

Your assumption that the proposed residence will increase water consumption is not necessarily TRUE since the house, and the yard surrounding it, will replace several campsites that are each presently supplied with water hookups. While the house will only be occupied by my wife and myself, these campsites were typically occupied by a dozen or more people during the warmer months of the year and on some occasions was occupied by many dozens.

Your contention that I am using more water than my water right claim allows needs some clarification. The meter that measures the volume of water passing through the UV light is not a true indication of my actual water use.

A good portion of this water supplies a decorative fountain beside the lodge building. The water shoots out through a nozzle and then runs back into the stream through a pipe. At the time that Ron Quinill filed the water right claim this fountain was not operational because the iron pipe supplying it with water had long ago rusted out. When I acquired this property in 1976, I reconnected the water supply to this fountain. The water used by this fountain should not be subtracted from the water right since it fits the definition of nonconsumptive and aesthetic use outlined in your enclosed fact sheet. Also, in the Black Diamond Museum there is a photo of this fountain in front of the old hotel that was built in the early 1890's and burned down around 1920. This means that this fountain almost certainly existed long before 1917. If we are going to split hairs and be precisely accurate in this evaluation it should be noted that the use this fountain actually increases, by a small amount, the quantity of water that ultimately reaches the Green River because the water in the pipe supplying the fountain is not subject to evaporation during this part of its journey to the river. I have just installed a much smaller nozzle on the fountain to reduce its flow, however, if you are still concerned about its use I will simply turn it off.

During the coldest winter months the many unoccupied outdoor water faucets are slightly turned on and allowed to drip to prevent them from freezing and it has always been my policy to encourage all residents to keep their water running during sub-freezing weather for this same reason. This practice could be easily discontinued and save a large quantity of water.

During the last three years I have planted a good number of large trees and have watered them continuously throughout most of the year until they establish a good root

system. This has been a substantial but temporary use of water and since I have done very little irrigation in the past I should be entitled to a little extra water when I need it. However, I am now in the process of installing a much more efficient drip irrigation system for these trees that will consume a far less quantity of water.

Another large portion of the water that runs through my meter but which I do not use is that water taken by the general public. The water that comes from this spring is probably the best tasting drinking water that is available in King County. As this fact has become more widely known and as the population of southeast King County has been rapidly increasing, more and more people have been coming to draw water from my water system. In 1981 when I replaced the existing hydraulic ram water pumps with electric pumps I also installed a 3/4" water line out to the Green River Gorge Road as a courtesy to the numerous people who had been collecting their household drinking water from the culvert that runs under the road. At first most of these people were from the many residences between the Gorge and Black Diamond that do not have their own supply of drinking water. Since then as the word has spread, and as the quality of city water systems has steadily declined, more and more people are coming to collect Gorge water. There are now over a hundred vehicles per week drawing water from my system and some of them make weekly trips from as far away as Olympia. Since this water appears to be free, many people do not bother to turn off the valve and often the water pipe runs continuously back into the stream. When I installed this pipe it never occurred to me that by doing so I was jeopradizing my own rights to supply water to my residence. The use of this substantial volume of water could be easily curbed by merely removing this water pipe. I doubt if any of these people have water rights to this spring and very few of them are old enough to claim that they have been collecting water here since before 1917. However, I do not look forward to explaining to hundreds of irate people about their lack of water rights. If you are concerned about all of these unauthorized people drawing water from the spring I would be glad to post your name, address and phone number at the site so that you could confer with them on a case by case basis in order to determine which of them do have water rights. Also, it would be helpful if you could supply me with a list of the people who do have water rights to this spring. The only ones that I am aware of are the several residences directly across the bridge from the Resort.

I hope that the information in this letter answers all of your concerns. As indicated above it would be an easy matter to greatly reduce the amount of water running through my water meter if this is what you require to allow me to move my residence from one location on my property to another. If you have any other questions concerning this matter please give me a call at (360) 886-2302.

Sincerely,

James Carter

May 5, 1995

Mr. James Carter
Green River Gorge Resort
29500 Green River Gorge Road
Enumclaw, Washington 98022

Subject: King County
Green River Gorge Water System
Water Service to the Proposed Caretaker's Residence

Dear Mr. Carter:

This department has reviewed your letter dated May 1, 1995 regarding the Green River Gorge water system. My previous correspondence had identified a number of concerns which were based upon my interpretation of the design information contained in our files. It now appears that much of the information we have on file may be inaccurate and must be reconciled with what has actually been constructed. Please respond to the following comments:

1. The engineering report prepared in 1982 indicated that the existing water system served the lodge, six homes, a public restroom, and a campground consisting of approximately 13 spaces. The report also considered the provision of water service to and additional 11 campsites. The engineering report submitted in 1990 indicated that service was being provided by gravity to the lodge and five homes and pumped to one house, one restroom, 20 campsites, and 10 RV sites. In addition the report indicated that service was being proposed to two houses, 18 cabins, 17 campsites, and 15 RV sites. The Water Facilities Inventory (see enclosed) completed in 1993 for the Green River Gorge Resort identifies two residential connections and 25 non-residential connections. Please identify the number, type, and location of the water system's existing water services. In addition please identify the location and number of campsites which will be replaced by the proposed caretaker's residence.

2. Please identify the peak hour demand and the geographical boundary of each pressure zone served by the water system.

3. Please be aware that the pressure tanks installed within the pumphouse only provide pump protection and cannot be relied upon to provide any equalizing storage to meet your system's peak hour water demand. As I currently understand the plumbing arrangement within your pumphouse the pump serving the lower pressure zone must be of sufficient capacity to meet the combined peak hour water demand of both pressure

zones. It does not appear that a peak hour water demand of 93 gpm can be reliably provided with your existing equipment.

4. Previous engineering reports have not identified the water demands placed upon your system by the fountain, winter-time freeze protection methods, and/or the public faucet which were described in your letter. Given the apparent limitations of your water right claim you will have to prioritize how the water should be used and then work with your engineer to develop an appropriate design. It seems that there may be some benefits to implementing a water conservation program which could consider the benefits of recirculating the fountain's water, winterizing the water system by wrapping the pipes, and relocating the public faucet and installing some sort of spring loaded valve to prevent the wasting of water.

5. We have recently received a request from the Pure Water Corporation which asks us to state in writing that your water is safe for human consumption. Please indicate your water system's relationship with the Pure Water Corporation and the amount of water it receives from you. This relationship should also be incorporated into the design of your water system.

6. This department does not issue water rights. We do not intend to interpret the validity of your water right claim. Please contact the Department of Ecology in Bellevue at 649-7000 to discuss the specifics of your situation. This department, however, was asked by the Seattle-King County Department of Public Health to comment upon the adequacy of your water system with respect to the requirements of the Growth Management Act of 1990. This Act requires that the water right status of a water system be considered by local government prior to the issuance of a building permit.

If you should have any questions please contact this office in Seattle at 464-7671.

Sincerely,

Robert E. James, P.E.
Regional Engineer
NW Drinking Water Operations

enclosure

cc: Seattle-King County Department of Public Health

file:grngorg.rjc

STATE OF WASHINGTON

DEPARTMENT OF HEALTH

1511 Third Ave., Suite 719 • Seattle, Washington 98101-1632

May 8, 1995

Mr. Stephen G. Bechtel
Pure Water Corporation
9411 8th Avenue South
Seattle, Washington 98108

Subject: Green River Gorge Resort
King County
System ID #29487U; Reference #0403-95
Group A Transient Non-community Water System

Dear Mr. Bechtel:

In response to your request for a status report on the above-named Group A water system we offer the following information. This letter is valid for this transaction only:

1. The system is required to submit monthly coliform samples. Samples have been submitted and presently meet water quality standards. However, the system failed to submit a sample during February 1995, which is a violation of WAC 246-290-300.

2. The system is required to submit one initial and complete inorganic chemical sample. An April 27, 1993, sample shows that the water system is in compliance with water quality standards.

3. The system is required to submit an annual nitrate sample. The sample due in 1994 has not been received which is a violation of WAC 246-290-300 (3). Also, the system is required to submit a nitrate sample and a sample for nitrite by December 31, 1995.

4. An engineering report which identified the as-built condition of the water system was approved by this department for an existing lodge, 6 homes, 1 restroom, 20 campsites and 10 RV sites. The engineering report did not anticipate any water being made available to the Pure Water Corporation.

Regulations establish an $85 fee for this information per WAC 246-290-990. Please remit payment within thirty (30) days of the date of this letter. Invoice enclosed.

Sincerely,

Jennifer A. Kropack

Jennifer A. Kropack
NW Drinking Water Operations

enclosure

cc: Seattle-King County Health Department
Water System Manager
Regional Engineer
Ellen Winningham

ATTN: Jennifer Prodzinski (FAX) 464-9059

Green River Gorge Resort
29500 GREEN RIVER GORGE ROAD
ENUMCLAW, WASHINGTON 98022
(360) 886-2302
(206) 525-9427
FAX: (360) 886-2454

July 5, 1996

Jerry Bell
Pure Water Corporation
9411 8th Ave So
Seattle WA 98108

Dear Steve,

This letter is to answer your questions concerning the number of people using the water from the Green River Gorge Resort Spring water system #29487U. This system services four houses. The number of people occupying these houses year around is approximately six to twelve. At the present time there are four people living in these houses (two houses are vacant at this time). The resort has approximately forty campsites for tents and recreational vehicles. The use of these campsites is seasonal and temporary by mostly weekend campers and vacationers. If you need any other information please give me a call.

Sincerely,

James Carter

Green River Gorge Resort
29500 GREEN RIVER GORGE ROAD
ENUMCLAW, WASHINGTON 98022
pH: (360) 886-2302
FAX: (360) 886-2454

July 14, 1997

Robert E James PE
1511 3rd Ave #719
Seattle WA 98101-1632

Dear Mr. James,

Enclosed is the information that we discussed in our phone conversation today concerning the Green River Gorge Resort water system #29487 U and the water system that supplies the six residences of the "Elder family" on the opposite side of the Green River Gorge bridge from the resort. Both myself and the Elder Family have always considered their water system to be separate from that of the Resort. They have their own water right for the spring and their own pipe that draws water directly from the spring box and then gravity feeds across the bridge to a storage tank from which water is pumped to the individual residences. About two years ago, as a courtesy to them, I diverted their water through the ultraviolet light of the Resort System before it ran across the bridge to their storage tank. Since the UV light must be on all the time and is on the suction side of my pump, this change did not require any additional electricity. By making this diversion, I did not mean to combine these two separate water systems into a single system. Today I have closed the valve to the UV light so that the Elders now receive their water directly from the spring box. This change should not cause any health concerns because the raw water from the spring has been tested many times over the years and has never had an unsatisfactory result.

A copy of this letter has been given to the Elders. If you need any additional information please call me at (360) 886-2302.

Sincerely,

James Carter

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
1511 Third Ave., Suite 719 • Seattle, Washington 98101-1632

August 26, 1997

JAMES CARTER OWNER
GREEN RIVER GORGE RESORT
29500 SE GREEN RIVER GORGE RD
ENUMCLAW WA 98022

Subject: Reclassification of Water System and Monitoring Requirements
Green River Gorge Resort
King County, ID # 29487U

Dear Water System Operator

Your water system has been reclassified from a Group A Community system to a Group A Transient Non-community (TNC) system based on information recently provided to our department. A Group A TNC system is one which serves either: 1) 15 or more connections less than 180 days per year; 2) 25 or more different non-residents for 60 or more days per year; 3) 25 or more of the same non-residents for between 60 and 180 days per year; or 4) 25 or more residents for between 60 and 180 days per year.

Group A TNC systems are required to conduct less comprehensive monitoring than are Group A Community systems. The following is a summary of water quality monitoring requirements for Group A TNC systems:

1) Coliform Bacteria - All Group A water systems serving a population of less than 1000 people are required to submit one routine water sample per month to test bacteriological water quality. During months when the total population served is less than twenty-five, routine sample collection is not required when: 1) only protected ground water sources are used, and 2) no coliform were detected in samples during the previous month. If conditions one and two are met and when the population is less than twenty-five, sampling is only required quarterly. For example, after two months without sampling, a system must take one sample the third month. You should begin sampling for coliform bacteria immediately and continue to take monthly samples (except when the population is below 25 people in a month and the above criteria are met). The monitoring schedule is printed at the bottom of your water facilities inventory form, but make sure that all information on the form is correct before following the schedule listed. Routine samples should be taken from within the distribution system. I've enclosed information on how to properly collect a sample, how to fill out a lab slip, what to do if you get an "unsatisfactory" result for a sample, and guidance on preparation of a coliform monitoring plan.

2) Inorganic Chemical and Physical Parameters (IOC) - If you have your own source and do not purchase all of your water from another system, one initial complete inorganic chemical test is required from each permanent source. If you have not taken a complete IOC from each source, you need to have one (or more) done.

3) Nitrate - Nitrate testing is required once every year.

4) Nitrite - Group A systems were required to test one water sample for nitrite by December 1995. If you have never had an initial complete IOC or you need to collect a sample for nitrate, then the analysis for nitrite should be included when either test is performed.

5) Chlorine Residual - If you chlorinate your water, you are required to conduct chlorine residual monitoring. Tests should be conducted daily. The results should be recorded and sent to our office on a monthly basis.

All required samples must be analyzed at a Department of Health certified drinking water laboratory. I've enclosed a list of certified labs for your use. Please include your 6-digit identification number on all samples submitted to ensure that your system receives proper credit for all samples. (Your identification number is located in the top left corner of your Water Facilities Inventory form and also in the heading of this letter). Lab personnel can provide you with instruction on how to collect samples for the various tests and inform you of the proper sampling locations for each type of test.

We understand that the regulations are sometimes confusing. If you have questions, feel free to contact any of the following individuals at the Northwest Regional Office:

Jennifer Prodzinski	Coliform monitoring	(206) 464-6752
Jennifer Kropack	Chlorine residual monitoring Water Facility Inventory (WFI) Surface Water Treatment Rule	(206) 389-2634
Steve Hulsman	IOC, VOC, SOC monitoring	(206) 464-7962

Besides new water quality monitoring responsibilities, there are additional components to the drinking water program which include engineering and operating permits. Also, within the next year you will receive an application for an operating permit and the permit itself.

If you would like to have a copy of the Washington State Board of Health Drinking Water Regulations sent to you, you may request a copy from the main desk at (206) 464-7670.

Sincerely,

Jennifer A. Kropack

Jennifer A. Kropack
NW Drinking Water Operations

enclosures

cc: Seattle-King County Health Department
Bob James, WDOH Engineer
Jennifer Prodzinski

File (K)
Green River
Gorge
ID# 29487

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

OCT 11 2001

CERTIFIED MAIL
7000 0520 0021 6763 8667

Mr. James Carter
29500 Green River Gorge Road
Enumclaw, WA 98022

Dear Mr. Carter:

Re: PRELIMINARY PERMIT to Drill and Test a Well Under Ground Water Application CS1-161581CL

This letter serves as your Preliminary Permit to drill and test a well under Water Right Change Application CS1-161581CL. **Please read this letter carefully. In accordance with RCW 90.03.290 failure to comply with the conditions of this PRELIMINARY PERMIT shall result in the cancellation of your application.**

Under the authority of chapter 90.03.290 RCW and chapter 90.44.060 RCW, the Department of Ecology may issue a preliminary permit requiring the applicant to conduct studies, surveys, and investigations necessary to provide the information needed to properly assess the subject application.

In the situation at Green River Gorge Resort, it is necessary to determine that the proposed well will be withdrawing water from the same source as claimed under the asserted vested right (the existing spring). To aid in making this determination, a pump test of the well will be required.

The above application requested the withdrawal of public ground water at the rate of 60 gallons per minute (gpm) and 40 acre-feet per year (afy) for multiple domestic supply. The proposed well site is located within the SE¼ SW¼, Section 17, T. 21 N., R. 7E., W.M., of King County.

The application for change of water right states that presently water is taken from the existing spring source at a rate of 165 gpm and 55 afy. However, Water Right Claim 161581 states a claimed quantity of water of 0.1 cubic feet per second (or about 45 gpm) instantaneous quantity and 12 acre-feet per year annual quantity.

It appears that historically water has been taken at a rate higher than the claimed amount. Although it is assumed that this water was used beneficially, a water right change allowing the withdrawal of water at the requested rate of 60 gpm and 40 afy is not permissible under Washington Law. RCW 90.14.220 disallows the acquisition of water through prescription or adverse use. RCW 90.03.380 states that a change in point of diversion is permitted if such change results in no increase in the consumptive quantity of water authorized for withdrawal.

Due to the fact that a water right cannot be enlarged through the process of change, a changed water right will not be issued for an amount greater than 45 gallons per minute and 12 acre-feet per year. Based on the tentative evaluation that Water Right Claim 161581 is valid, it is authorized that the required pump test be performed at the rate of 45 gallons per minute. The pumping rate may be increased if desired (see Number 5 under conditions), but increasing the pumping rate will result in no enhancement of the quantities permitted in the proposed change of Water Right Claim 161581, if approved.

Enclosed are well logs from existing wells in your area. These well logs should aid in your drilling operations.

You are hereby granted a PRELIMINARY PERMIT to proceed with drilling and testing of the well. Please check with the Washington State Department of Health (or King County Health Department) to determine whether well site approval is required prior to well construction. This letter serves as a PRELIMINARY PERMIT subject to existing rights and the following conditions:

1. This PRELIMINARY PERMIT will remain in effect until October 1, 2002, unless sooner revoked by the Department of Ecology.

2. All water wells constructed within the state shall meet the minimum standards for construction and maintenance as provided under chapter 18.104 RCW (Washington Water Well Construction Act of 1971) and chapter 173-160 WAC (Minimum Standards for Construction and Maintenance of Water Wells).

3. In accordance with WAC 173-160-205 wells shall not be located within certain minimum distances of potential sources of contamination. In general wells shall be located at least 100 feet from a sewer, septic tank, privy, or other source of contamination. Wells shall not be located within 1,000 feet of a solid waste landfill. Minimum distances shall also comply with state and local health regulations.

4. An access port, as described in the Department of Ecology's Groundwater Bulletin No. 1 (ECY 040-1-3, Rev. 12/90 [copy enclosed]), shall be installed and maintained.

5. WRIS Information Bulletin No. 30 (copy enclosed) shall be used as a guideline for designing and conducting the aquifer test. The pumping rate shall be held constant during the test. This rate shall be equal to or greater than the maximum design rate at which the well source is to be used. The duration of the continuous test shall be such that the product of the time pumped, in minutes, and the pumping test rate, in gallons per minute (gpm) will equal the total maximum daily demand, in gallons, for the total connections to be served.

   The test duration shall be adequate to ensure that a minimum of four hours of stabilization has occurred during the pumping phase. Stabilization is defined as a drop in water level of less than or equal to 0.1 foot drawdown per hour during pumping. Pumping shall be followed by recovery data collection until the well nears pre-pumping static conditions and the water level recover rate is less than 0.1 foot per hour.

6. When aquifer testing is completed, the data shall be compiled into a completion report. This completion report shall be submitted to the Department of Ecology, Northwest Regional Office by October 1, 2002 and shall include the following:

   a. A well construction report (well log) for the pumping well, which shall include the well's total depth, screened interval depths, and pump intake depth.

   b. A map and description (1/4, 1/4, Section, Township, Range) accurately indicating the well location.

   c. A legible table including the pumping rate and all water measurement data collected during pumping and recovery.

7. In addition to the above, a complete water well report for the well shall be submitted by the driller to the Department of Ecology within thirty (30) days of well completion.

8. All expenses, risks, and liabilities incurred during well testing shall be borne by the applicant. If senior water right holders are adversely affected during any portion of the aquifer test, the test shall be terminated immediately.

9. This PRELIMINARY PERMIT grants the right to use this well for aquifer testing purposes only. Upon completion of testing, the well may be used only as authorized under RCW 90.44.050.

10. A decision on the pending application will not be considered until such time as the above conditions have been met.

11. The granting of this PRELIMINARY PERMIT shall not be construed, by inference or otherwise, that subject application will ultimately be approved. If the applicant fails to comply with the terms of this PRELIMINARY PERMIT, it shall be canceled.

Any person wishing to appeal this action may obtain review by submitting a written request, within thirty (30) days of receipt of this order, to the Washington Pollution Control Hearings Board, P.O. Box 40903, Lacey, Washington 98504-0903. Concurrently send to the Department of Ecology c/o Enforcement Officer, P.O. Box 47600, Olympia, Washington 98504-7600, a copy of the request for review. Your appeal alone will not stay the effectiveness of this decision. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with the provisions of Chapter 43.21B RCW.

Should you have any questions regarding this PRELIMINARY PERMIT please contact Jay Cook at (425) 649-7186.

Sincerely,

Daniel L Swenson

Daniel L. Swenson by SJA
Section Supervisor
Water Resources

DS:jc:gm
Enclosures: WRIS Information Bulletin 30
Groundwater Bulletin No. 1
Well logs from surrounding area

cc: Bob James, Department of Health

I certify that I mailed this Order, or an identical copy thereof, postage prepaid, to the above addressee(s) this 11th day of October 2001. Signature

File (K)
Green River
Gorge Resort

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

September 12, 2002

Mr. James Carter
29500 Green River Gorge Road
Enumclaw, WA 98022

Dear Mr. Carter:

Re: Ground Water Change Application CS1-161581CL

Green River Gorge Resort, located in the NE¼ SW¼ of Section 17, Township 21 North, Range 7 East W.M., currently supplies water to its facilities from a spring source under Water Right Claim 161581, which was filed in June 1974. Recently a water right change application proposing to relocate the point of diversion / withdrawal was submitted to the Department of Ecology. This letter summarizes actions taken by the involved parties and the current status of the application.

Background

On May 9, 2001, the Department of Ecology (Ecology) received an application for change of water right. Change Application CS1-161581CL proposed a new point of withdrawal for the existing water right. On June 7, 2001 Ecology received a document from the Department of Health (DOH) requesting priority processing of your water right change application based on the fact that the existing spring source had been designated by the DOH as "ground water under the influence of surface water", meaning that the water must undergo additional treatment prior to distribution to customers of your water system.

Priority processing of the change application was granted under WAC 173-152-050(1)(c). At that time, you were contacted and a site visit was made by Ecology personnel to begin the investigation. During the site visit it was determined that you would need time to drill and test the proposed well. A preliminary permit to drill and test a well was issued on October 11, 2001. You were given until October 1, 2002 to meet the conditions of the permit.

You were contacted on September 10, 2002 to verify that the permitted drilling and testing would be complete prior to expiration of the preliminary permit. From our telephone conversation (on Sept. 10), it is understood that the permitted work has not been completed and that you no longer plan on changing your point of withdrawal to a new well. Recent testing of your existing water source has shown that it, in fact, may not be under the influence of surface water. It is my understanding that a minimum of two more tests, under the supervision of DOH, will be performed to make a final determination of water quality.

You also indicated during our conversation that, if required by DOH, you would now prefer to install a treatment facility for the existing spring source instead of relocating the source to a new well and that you would like to withdraw the change application (CG1-161581CL).

Please be aware that if treatment or relocation of your source proves necessary, relocation of the point of withdrawal (drilling a well) may prove to be the most practical and/or cost effective method to meet the DOH requirements, and it may be in your best interest to leave this option open.

Existing Water Use

It is noted from your change application that you have been using the water for domestic uses, irrigation, and to supply water to a bottled drinking water company. It is also noted from the application that you estimate your annual water use has been 55 acre-feet per year and that the water has been instantaneously diverted from the spring at a rate as high as 60 (or possibly 165) gallons per minute (gpm). Please be aware that Claim #161581 states a claimed quantity of water of 0.1 cubic feet per second (about 45 gpm) and 12 acre-feet per year (afy) and that these quantities represent the maximum amount of water that can legally be diverted / withdrawn under this claim. Also, Water right Claim 161581 states that the water used at the specified property is to be used for the purposes of: irrigation, domestic supply, the restaurant, and the campground. Any use of water for purposes other than those listed also is not authorized. If you plan to use any portion of the claimed 12 afy for a purpose other than those listed, you should leave your existing change application active and amend it to only change the purpose of use.

If it is determined by you that the claimed quantities of 0.1 cubic feet per second and 12 afy do not meet the needs of the Green River Gorge Resort, you may apply for a new water right or you may attempt to acquire existing water rights in the area.

Preliminary Permit and Water Right Change Application CS1-161581CL

The form on the following page contains two options. Please select one, sign, and date the form and **return it within 7 days** to the Department of Ecology in the addressed, stamped envelope provided with this letter.

Your preliminary permit to drill and test a well expires on October 1, 2002. Please read your preliminary permit and be aware that your application will be rejected if you do not request an extension prior to the expiration date. If you would like to extend the permit until after the DOH testing is completed, please make the appropriate choice on the following page and return the form. The form will need to be followed by an extension request letter to the Department of Ecology. The letter should explain why you have not met the conditions of the permit and how much time you need to complete the permitted drilling and testing.

If you choose to withdraw the change application, please make the appropriate choice on the following page and return to the Department of Ecology.

Should you have any questions regarding this letter please contact me at (425) 649-7186.

Sincerely,

Jay Cook
Water Resources

CC: Jim Nilson, Department of Health

_____ I request an extension of the preliminary permit for Water Right Change Application CS1-161581CL.

_____ I voluntarily withdraw Water Right Change Application CS1-161581CL. In withdrawing this application I am aware that, under Water Right Claim 161581CL and the State Law of Washington, I am allowed to only use the water diverted / withdrawn from the existing spring source, in the amount of 0.1 cubic feet per second (45 gallons per minute) and 12 acre-feet per year, for the purposes listed on the claim.

_____ _____

Signature Date

_____

Printed Name

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
20435 72nd Ave. S. , Suite 200, K17-12• Kent, Washington 98032 -2358

August 25, 2003

MR JAMES CARTER
GREEN RIVER GORGE RESORT
29500 GREEN RIVER GORGE ROAD
ENUMCLAW WA 98022

Subject: Green River Gorge Resort Water System (ID#29487U)
King County
Ground Water Under the Direct Influence of Surface Water (GWI)
Revised Determination for Spring Source (S01): Not GWI, Not Hydraulically Connected

Dear Mr. Carter:

We are in receipt of the results of three MPA sample tests that were collected and analyzed in accordance with our Bilateral Compliance Agreement (BCA) signed on July 9, 2002. We are also in receipt of three letters from Richard Olson, PE (dated July 24, 2002, November 19, 2002, and May 7, 2003), which describe his oversight of the sampling procedures for each MPA sample. The results are summarized below:

Source	MPA Sample Date	MPA Result
Spring (S01)	7/11/02	11 - Medium Risk
Spring (S01)	11/13/02	5 - Low Risk
Spring (S01)	5/7/03	5 - Low Risk

(These samples were analyzed by Udder Health System laboratory using EPA Consensus Method.)

Based on these results, and in accordance with the GWI determination protocols that have been developed for the Department, **your spring source (S01) is NOT considered to be under the direct influence of surface water (not GWI).** To be clear, the determination of GWI stated in a letter to you from the Department on August 1, 2000 has now been changed; the requirements in that letter no longer apply.

In addition, the Department has also reviewed a second set of water quality monitoring data that you collected from your spring from April 5, 2001 and May 3, 2002. The data were presented in a report received May 8, 2002 from you. These data, though somewhat consistent with previous data received, show very little variation in spring water temperature and conductivity. **Therefore, the Department has concluded that your spring (S01) is NOT in hydraulic connection with surface water.** The spring will be designated as a ground water source. To be clear, the determination of hydraulic connection stated in a letter to you from the Department on January 28, 2000 has now been changed; the requirements in that letter no longer apply.

Also, the requirements of our BCA (signed on July 9, 2002) are now completed and the BCA is closed.

Please note that in the future the Department may re-evaluate your spring source should either the conditions affecting the water quality of the source change or the regulatory approach to determining the influence of surface water upon ground water be modified.

Thank you for your efforts to document the water quality of your spring. Please call me at 253-395-6764 if you have any questions.

Sincerely,

James Nilson, PE
Regional Engineer
NW Drinking Water Operations

cc: Public Health – Seattle & King County
Rick Olson – DR Strong
Derek Pell – DOH
Ingrid Salmon – DOH
Nancy Feagin – DOH
GWI file

GREEN GORGE RESORT SPRING TEST DATA 4/5/01 to 5/3/02

DATE & TIME	METER READING CU FT	WATER TREATED CU FT	WATER TEMP °C	AIR TEMP °F	CONDUC-TIVITY	RAIN FALL	UV #1 %	UV #2 %	UV #3 %	COLIFORM TESTS TREATED	COLIFORM TESTS RAW WATER	HPC TESTS RAW WATER	HPC TESTS TREATED
4/5/01 10 AM	778700		8.9	46	102.8	.09	95	80	100	SAT			
4/12/01 10 AM	817300	38600	9.0	52	103.1	.35	95	85	100				
4/19/01 10 AM	853800	36500	9.0	49	103.4	.09	100	75	100			<1	66, 8, 28, 21
4/26/01 9 AM	888700	34900	8.9	51	102.6	.41	95	75	100				
5/3/01 3 PM	926500	37800	9.0	54	103.1	.03	95	80	100				
5/9/01 10 AM	957400	30900	9.0	52	104.1	.09	95	75	100				
5/16/01 9 AM	990500	33100	9.0	54	104.5	1.17	95	75	100				
5/21/0110AM	027900	37400	9.0	60	104.8	.00	95	70	100	SAT			
5/23/01 11AM	062400	34500	9.0	72	104.2	.04	95	75	100			<1	3, 7
5/30/01 10 AM	090300	27900	9.0	61	105.0	.12	95	75	100				
6/7/01 9AM	127400	37100	9.0	65	104.8	.75	90	70	100				
6/13/01 2AM	166300	38900	9.0	59	105.4	1.52	95	70	100				
6/19/01 9AM	209600	43300	9.0	67	105.7	.00	95	70	100				
6/25/01 10AM	258400	48800	9.0	61	106.4	.16	90	75	100	SAT		130	50
7/3/01 4PM	305000	46600	9.0	73	105.9	.62	95	70	100				
7/10/01 10AM	357100	52100	9.0	69	106.2	.00	90	70	100	SAT		3	5
7/17/01 10AM	406300	49200	9.0	60	106.4	.76	90	70	100	SAT		<1	<1
7/23/01 9AM	457600	51300	9.0	73	106.6	.01	90	75	100				
7/30/01 5PM	513500	55900	9.0	64	106.3	.27	90	70	100				
8/5/01 9AM	563700	50200	9.0	63	107.1	.12	90	75	100				
8/11/01 10AM	601900	38200	9.0	78	107.6	.00	85	75	100				
8/18/01 4PM	662300	60400	9.0	65	107.2	.02	90	70	100				
8/24/01 2PM	718000	55700	9.0	65	108.1	2.20	85	70	100				
8/30/01 10AM	759200	41200	9.0	64	107.7	.00	85	70	100	SAT		<1	2
9/7/01 7PM	790500	31300	9.0	61	108.6	.07	90	65*	100				
9/14/01 9AM	824900	34400	9.0	65	108.5	.00	85	100	100				
9/21/01 6PM	850100	25200	9.0	65	109.4	.12	80	100	100				
9/29/01 10AM	884300	34200	9.0	61	110.3	.57	80	100	100	SAT		3	<1
10/8/01 11AM	925300	41000	9.0	55	111.2	.23	75	100	100	SAT	SAT	12	22

10/15/0110AM	960100	34800	9.0	53	110.9	.34	80	100	100				
10/22/01 9AM	993700	33600	9.0	52	110.5	1.02	75	100	95				
10/28/01 9AM	020900	27200	9.0	55	108.5	1.01	75	100	100				
11/03/01 4PM	050100	29200	9.0	46	109.9	1.33	75	100	100				
11/10/01 11PM	081200	31100	9.0	47	107.4	.42	70	100	95				
11/16/01 2PM	109900	28700	9.0	48	106.9	4.60	75	100	100				
11/22/01 10AM	135700	25800	9.0	46	105.4	2.51	75	100	100				
11/29/01 9AM	169200	33500	9.0	43	106.8	1.22	80	100	100	SAT	SAT		
12/4/01 2PM	199600	30400	9.0	39	105.1	1.43	75	100	100			22	92
12/10/01 11AM	229900	30300	9.0	39	104.6	.69	75	100	100				
12/18/01 9AM	270400	40500	9.0	41	105.7	3.17	70	100	95				
12/24/01 10AM	299800	29400	9.0	44	104.8	.15	75	95	100				
12/27/01 10AM	315500	15700	9.0	44	104.2	.10	70	100	95	SAT	SAT	<1	1
1/4/02 9AM	344800	29300	9.0	45	104.3	.84	70	100	100				
1/11/02 10AM	379100	34300	8.9**	46	103.8	2.47	75	100	100				
1/17/02 9AM	412800	33700	8.9	37	104.0	.29	70	100	95				
1/24/02 4PM	449400	36600	8.9	42	103.9	1.78	70	95	95				
1/29/0211AM	474800	25400	8.9	30	103.3	.52	70	95	95	SAT	SAT		
2/04/02 11AM	509300	34500	8.9	41	102.9	.35	70	100	100			5	<1
2/11/02 3PM	550200	40900	8.9	39	102.7	1.34	65*	100	95				
2/18/02 9AM	587000	36800	8.9	40	102.4	.22	100	100	100				
2/26/02 11AM	638400	51400	8.9	39	101.8	2.54	100	100	95	SAT	SAT		<1
3/5/02 8AM	678100	39700	8.9	39	101.3	.05	100	95	100				
3/12/02 11AM	727700	49600	8.9	40	101.7	1.61	100	100	95	SAT	SAT	1	<1
3/18/02 3PM	759000	31300	8.9	36	100.9	.63	100	100	95				
3/25/02 9AM	795200	36200	8.9	49	100.3	.57	100	100	95				
4/3/02 10AM	844200	49000	8.9	53	99.8	.01	100	95	95	SAT	SAT	11	2
4/10/02 4PM	885800	41600	8.9	52	99.8	1.28	100	95	95				
4/17/02 9AM	935400	49600	8.9	49	99.3	2.28	100	95	90				
4/26/02 9AM	973400	38000	8.9	44	99.4	.35	100	95	90				
5/3/02 10 AM	014300	40900	8.9	59	98.9	.01	100	95	90				

**THERMOMETER BATTERIES CHANGED

* new UV Lamp

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
NORTHWEST DRINKING WATER REGIONAL OPERATIONS
20425 72nd Avenue South, Suite 310, Kent Washington 98032-2388

SYSTEM INSPECTION / MEETING SUMMARY
Date: July 29, 2013

GREEN RIVER GORGE RESORT - King County (ID# 29487U)

Persons Attending:
James Carter – Green River Gorge Resort Water System
Bob James, Krista Chavez- Washington State Department of Health

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Purpose: Routine Sanitary Survey

BOLD TYPE INDICATES ITEMS NEEDING ATTENTION

WATER FACILITIES INVENTORY:

Group A Transient Non-Community System

Existing Connects	=	55 Total (4 single family residential and 51 non-residential) per WFI
Population	=	64 - 104
Engineering Capacity	=	The existing water system facilities suggest that the design differs substantially from what was proposed in previous design submittals. The system has a blue operating permit.

LAST SANITARY SURVEY:

The last sanitary survey for the Green River Gorge Resort water system was conducted by Public Health – Seattle & King County on October 15, 2008. The following recommendations were made:

- Improve the seal on the lid of the spring collection box. *Status: No change.*
- Prepare a Small Water System Management Plan. *Status: Still Required.*
- Prepare a written Coliform Monitoring Plan. *Status: Still Required.*
- Prepare an Operations & Maintenance Manual. *Status: Still Required.*

SYSTEM OVERVIEW:

The Green River Gorge Resort supplies water to the old lodge building, several homes, and a number of RV spots located adjacent to the Green River Gorge Road just east of the Green River Gorge Bridge. The system has a spring source that is not hydraulically connected to surface water, UV treatment, two booster pumps, two storage tanks and two pressure zones.

SOURCE:
Currently, the Green River Gorge Resort water system receives its water from a spring source (S01). The water is captured underground via collection pipes and then flows into a 1,000 gallon spring box at a rate estimated to be 500 gpm. Most of the water flows through the spring box and into the Green River while approximately 50 gpm can be diverted into the water system. The spring box hatch cover is secured with two padlocks one of which could not be unlocked at the time of our visit. A gasket is fixed to the hatch cover however it appeared to be quite hard. **Please examine the gasket and determine whether it should be replaced with a softer material that could ensure a tighter seal between the opening and the hatch cover.** The outlet piping is equipped with a tap for sampling the raw water. **Please consider installing a new raw water sample tap at a location that can be easily accessed to eliminate any possibility that a triggered source sample collected under the Groundwater Rule is contaminated with a fecal indicator via human error during sample collection.**

The area around the spring is surrounded by fairly dense vegetation. There was no sign of any contaminants located within 200 feet of the spring.

TREATMENT:
The Green River Gorge Resort provides disinfection treatment with UV radiation. There are currently four units installed. One unit supplies water to the Elder water system and three units plumbed in parallel provide water to the Green River Gorge Resort. Each unit is rated at $40mj/cm^2$. All units are equipped with UV Intensity monitors that are designed to shut down the flow of water through the unit should the UV lamp fail. **Please begin tracking your disinfection process using the form provided. You should record the amount of water treated, the intensity of each lamp, and note the dates you clean and replace the lamps.**

BOOSTER PUMPS:
Water is pumped from the UV treatment units to two gravity storage tanks via two booster pumps. The pumps are controlled by float controls in the storage tanks. There is a solenoid valve in the discharge piping that allows the pumps to fill the low zone tank when the higher tank is full.

STORAGE:
There are two gravity storage tanks that serve the system. The high zone tank is 24 inches in diameter and approximately 60 feet tall. The second tank serves the lower pressure zone and has a capacity of approximately 7,000 gallons. The high zone tank does not have a vent or an overflow and drains into the distribution system. It does have an access hatch on its side that allows access to the float control. The hatch was leaking at the time of the survey. **Please reset the gasket on the hatch cover to stop the leakage.** The low zone tank has an access hatch and vents at the top of the tank. The vents also serve as an overflow for the tank. The tank drain line comes off the tank outlet piping. **Provide pictures of the low flow tank appurtenances (hatch cover, vents and any other penetrations) to demonstrate that they are properly sealed or screened.**

DISTRIBUTION:
The distribution system consists of a variety of different piping materials. Fire flows are not provided.. All RV sites are equipped with vacuum breakers for cross-connection control.

WATER QUALITY MONITORING:
The Green River Gorge Resort has a good coliform monitoring record. One coliform test is collected each month from the distribution system. **The regulations require that all system have a Coliform Monitoring Plan for your system and submit it to the department.** Refer to the guidance document on our website that has been recently updated to include the Groundwater Rule: http://www.doh.wa.gov/portals/1/Documents/pubs/331-240.pdf. **Your next survey is scheduled for 2018.**

The spring is tested annually for nitrate and sample results are ≤ 1.0 ppm which is well below the standard of 10.0 ppm.

MANAGEMENT & OPERATIONS:
The Green River Gorge Resort water system is owned and operated by James Carter.

Item	Status
Water System Plan	• Every water system is required to develop a planning document for their system. **Green River Gorge Resort must have a Small Water System Management Program (SWSMP) that outlines the operation, maintenance, and management requirements of the system now and into the future.** The document should be developed for internal use and does not need to be submitted to the Department. Reference the revised guidance document on our website: http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemDesignandPlanning/SmallWaterSystemMgmt.aspx.
WFI Update	• WFI sent out annually to system for review and update. • **Please update your connection and population information to ensure that we have properly classified your water system.**
Consumer Confidence Report	Not required for a Transient Non-community water system.
Treatment Overview	The Green River Gorge Resort provides disinfection with UV radiation.
Operating Permit	Blue
Overall Design Approval	Originally approved for 161 connections assuming Well 1 and Well 2 at 200 gpm. Well capacity has diminished; currently limited to 157 connections. **Overall system capacity must be re-established according to requirements in approval for Well 3 (S04).**
Certified Operator	• A certified operator is not required for your water system.

Operations and Maintenance Procedures	• Maintain access to spring box. • Inspect spring box hatch cover to ensure tight seal. • Regular maintenance of treatment equipment – lamp cleaning and bulb replacement; spare parts kept on hand. • Storage tanks – Inspection of hatch cover seals and vent screens.
Telemetry	• No telemetry in place.
Emergency Response Program	• Did not discuss in detail. • Should be discussed in the SWSMP.
Financial Viability Program	• Water system maintenance and operation requirement should be incorporated into the resort's business plan.
Reliability	• Portable emergency generator is available.
Water Use Efficiency	• Not Applicable
Production Data	• Source meter should be read daily.
Consumption Data	Not Applicable

SANITARY SURVEY FINDINGS:

This report documents the findings of the sanitary survey site visit. The following summarizes findings that need your attention. Please provide a plan of how you plan to address each of the categories below within **45** days.

Significant Deficiencies and Findings:

1. **Provide pictures of the low flow tank appurtenances (hatch cover, vents and any other penetrations) to demonstrate that they are properly sealed or screened.**

Observations:

2. **Please update your connection and population information on your WFI to ensure that we have properly classified your water system.**
3. **The regulations require that all system have a Coliform Monitoring Plan for your system and submit it to the department.**
4. **Green River Gorge Resort must have a Small Water System Management Program that outlines the operation, maintenance, and management requirements of the system now and into the future.**

Recommendations:

5. **Please examine the gasket and determine whether it should be replaced with a softer material that could ensure a tighter seal between the opening and the hatch cover.**
6. **Please consider installing a new raw water sample tap at a location that can be easily accessed to eliminate any possibility that a triggered source sample collected under the Groundwater Rule is contaminated with a fecal indicator via human error during sample collection.**

7. **Please begin tracking your disinfection process using the form provided. You should record the amount of water treated, the intensity of each lamp, and note the dates you clean and replace the lamps.**
8. **Please reset the gasket on the hatch cover on the high zone tank to stop the leakage.**

Washington State Department of Health

Office of Drinking Water
Third Party Sanitary Survey Form (Checklist)

System Name:	**Green River Gorge Resort**			Survey Date:	**05/030/2018**
PWS ID#:	**29487**	County:	**King**	System Type:	**TNC**
Persons Attending Inspection:	**James Carter, Owner**				
Inspector's Name:	**Sharon Gregg**				

PART A: SUMMARY OF SIGNIFICANT DEFICIENCIES AND SIGNIFICANT FINDINGS

The following is a completed sanitary survey checklist and summary of inspection findings. This completed sanitary survey checklist is the basis for the cover letter you receive from your local health jurisdiction or from the WA Dept. of Health (DOH). The cover letter documents any significant deficiencies or significant findings that must be corrected. The cover letter may also summarize observations concerning compliance with certain rules, and offer recommendations you can use to make improvements to the operation and management of your water system. Contact your DOH regional office with any questions you have about this survey.

Bolded and highlighted checklist items represent significant deficiencies that, if left uncorrected, create a significant public health risk. Highlighted checklist items represent significant findings that, if left uncorrected, create a significant risk to the physical safety, security, or reliability of the public drinking water supply. You will be required to take some sort of corrective action for each checklist answer that is **bolded and highlighted**, or highlighted.

Significant deficiencies and significant findings identified during this sanitary survey:

Significant deficiencies or significant findings identified in the previous sanitary survey that remain unaddressed:

Observations and recommendations identified during this survey
As part of your O & M program, make sure that the lid seal is intact and continues to keep debris and bugs out of the spring.
Secure gaps between piping and the pump house with foam or other sealant to keep out bugs and other creatures
Continue to track down leaks and fix leaks on the high pressure storage tank.
Remove water lines at surface that are no longer in use
Verify there is a tight seal between the cap and the top of the high pressure tank.

PART B: GENERAL WATER S[redacted]EM DESCRIPTION

Provide a general description of the water system including changes, updates, connections, source(s), storage, number of pressure zones, treatment, and control system(s) and alarm(s). Make corrections and updates to the purveyor's water facilities inventory form (WFI).

The water system consists of one 50GPM spring. From the spring, one line takes water to a pump house, where water flows through one of two two UV lamps. Water that is used by the system is called on by floats from one of two storage tanks (Lamp 3). The rest of the water flows to waste through two faucets down by the road (Lamp 4). The UV treated water is pumped to the two tanks by a 2 HP, 25 GPM pump after going through two more lamps (Lamp 2 for the low pressure system and Lamp 1 for the higher one). There are two tanks, one is for the high pressure zone, and is about 1300 gallons, the other is for the low pressure zone and is 7000 gallons. The high pressure tank has priority over the lower tank. There is also a pressure switch set monitoring the high tank as a back up to the float switches. When there is demand on the system and water is drawn from the storage tanks, it flows via gravity back down, through lamps 1 and 2 (for a third pass) and then into the system. The system services 4 houses, a old lodge building, and 51 RV sites in two pressure systems. There is no fire flow. There are lights on both the inside and outside of the pump house to alert the operator of any issues with the UV lights and/or pumps. UV is purveyor option.

PART C: OPERATIONS and MANAGEMENT

1. Was the system operator, who is most knowledgeable about the system's day-to-day operations, present for the survey?		☒Yes ☐No ☐NA
2. Were water system records available for your review?		☒Yes ☐No ☐Partial
3. Has the purveyor developed and implemented either a Small Water System Management Program or a Water System Plan?		☒Yes ☐No
3a. If no, are the following planning documents complete and up to date:		
	Service Area and Facility Map	☐Yes ☐No ☐Partial
	Cross-Connection Control Program	☐Yes ☐No ☐Partial
	Source Water Protection Program	☐Yes ☐No ☐Partial
	Emergency Response Plan	☐Yes ☐No ☐Partial
	Operation and Maintenance Program	☐Yes ☐No ☐Partial
	Coliform Monitoring Plan	☐Yes ☐No ☐Partial
	Component Inventory and Assessment	☐Yes ☐No ☐Partial
	Asset Replacement and Other System Improvements	☐Yes ☐No ☐Partial
	Budget	☐Yes ☐No ☐Partial
4. Does the purveyor plan to make capital improvements in the next 1-3 years? If yes, describe below		☐Yes ☒No
5. Is there a backup operator available if the regular one is not available? If yes, provide contact info below		☐Yes ☒No
6. Were the water system's current and future water quality monitoring requirements reviewed?		☒Yes ☐No
7. Was water quality sample results and trends reviewed with the purveyor?		☒Yes ☐No
8. Does the system have emergency power?		☒Yes ☐No
9. Does the system experience frequent power outages (>2 per year)? If yes, explain below		☐Yes ☒No
10. Does the system experience frequent water outages (>2 per year)? If yes, explain below		☐Yes ☒No
11. Does there appear to be adequate reliability provided for this system? If no, explain below		☒Yes ☐No

Describe the general level of planning and management documents developed by this water system and any recommendations for additional development, including updates, system management practices and processes, water rates, etc.

The operator's son is well versed in the runnings of the system and lives nearby. A generator is kept off site at Mr. Carter's residence.

PART D: SOURCES (This page may be reproduced to add more sources)						
12. Did you observe a source connected to the water system that is NOT listed on the WFI and in active use?					☐Yes ☒No	
12a. If so, has the source received written DOH approval? (confirm with DOH post-survey)					☐Yes ☐**No**	
13. DOH Source Number:				SO #**1**	SO #	
14. Source Name from the WFI: (For example, North Well; Well #2; ABC334.)				Spring 1		
15. Dept of Ecology Well Tag Number: (Use Well tag ID#, None or Not readable)				None		
16. Source Use:	P - Permanent	S - Seasonal	E - Emergency	P		
17. **If this is an emergency source, should it be disconnected?**				☐**Yes** ☐No ☒NA	☐**Yes** ☐No ☐NA	
18. *Is the source a potential GWI source?*				☐*Yes* ☐*No*	☐*Yes* ☐*No*	
WELL (if there is no well, skip to question 34)						
19. Is the Sanitary Control Area (SCA) free of unmitigated potential sources of contamination?				☐Yes ☐**No**	☐Yes ☐**No**	
20. Is the wellhead located in a pit or vault?				☐Yes ☐No	☐Yes ☐No	
21. Is the wellhead at risk of submergence?				☐**Yes** ☐No	☐**Yes** ☐No	
22. Is the well cap sealed, watertight, and free of unprotected openings?				☐Yes ☐**No**	☐Yes ☐**No**	
23. Is the well casing free of any unprotected openings?				☐Yes ☐**No**	☐Yes ☐**No**	
24. Is there a vent on the well?				☐Yes ☐No	☐Yes ☐No	
24a. If yes, is the vent protected? (24 non-corrodible mesh screen or slots)				☐Yes ☐**No**	☐Yes ☐**No**	
25. Are conduits and junction boxes sealed to prevent contaminant entry?				☐Yes ☐**No**	☐Yes ☐**No**	
26. Is the well unreasonably at risk to physical damage?				☐**Yes** ☐No	☐**Yes** ☐No	
27. Is there a raw water source sample tap?				☐Yes ☐**No**	☐Yes ☐**No**	
28. Is the source metered?				☐Yes ☐No	☐Yes ☐No	
28a. If yes, is the source meter read at least monthly?				☐Yes ☐No	☐Yes ☐No	
28b. If yes, are the water production records maintained?				☐Yes ☐No	☐Yes ☐No	
29. Is the wellhouse properly constructed and maintained? If no, explain below				☐Yes ☐No	☐Yes ☐No	
30. Is there any evidence of infestation by rodents or other pests?				☐Yes ☐No	☐Yes ☐No	
31. Is the wellhouse and well adequately protected from unauthorized access and tampering?				☐Yes ☐**No**	☐Yes ☐**No**	
32. Is there a pump control valve or vacuum relief valve without an air gap on the valve discharge pipe?				☐**Yes** ☐No ☐NA	☐**Yes** ☐No ☐NA	
33. Are the source pump and pump controls operational and adequate to prevent chronic water outages or premature pump failure? If no explain below				☐Yes ☐**No**	☐Yes ☐**No**	
SPRING (if there is no spring, skip to question 41)						
34. Is the springbox (structure, hatch, and overflow) constructed to prevent the entry of contaminants or direct surface drainage? If yes, describe below.				☒Yes ☐**No**	☐Yes ☐**No**	
35. Is there a raw water source sample tap? **Read below**				☐Yes ☒No	☐Yes ☐No	
36. Is the source metered?				☒Yes ☐No	☐Yes ☐No	
36a. If yes, is the source meter read at least monthly?				☒Yes ☐No	☐Yes ☐No	
36b. If yes, are the water production records maintained?				☒Yes ☐No	☐Yes ☐No	
37. Is the springhouse properly constructed and maintained? If no, explain below				☒Yes ☐No	☐Yes ☐No	
38. Is there any evidence of infestation by rodents or other pests?				☐Yes ☒No	☐Yes ☐No	
39. Is the springhouse and spring box adequately protected from unauthorized access?				☒Yes ☐No	☐Yes ☐No	
40. **Is the Sanitary Control Area (SCA) free of unmitigated potential sources of contamination?**				☒Yes ☐**No**	☐Yes ☐**No**	
Describe and evaluate the source facilities including maintenance, operations, sanitary and security observations and any major change made to the source such as pump replacement, deepening or reconstruction:						

There is not a source ample tap[redacted]t the spring box, but there are locations w[redacted] water can be taken before treatment. Most notably from the pipe where Cry[redacted]al Springs takes their water from that comes[redacted]m the same spring box. This point is also sampled monthly for coliform by the bottling company. The water for the system proper is metered. There is continuous flow that runs through the first UV point and runs to waste by the road, where the public has access. This was added as the public has historically taken water from the spring overflow and gave them a dedicated place to take the water. There is a certificated water right for the water the system uses.

PART E: DISINFECTION

(if no disinfection, answer question 41 and skip rest of Part E)

41. *Does the operator batch chlorinate the source, the distribution system, or the reservoir just before collecting routine or repeat coliform samples? If yes, provide details below.*	☐*Yes* ☒*No*
42. Did you observe disinfection treatment connected to the water system in active use that is NOT listed on the WFI? If yes, explain below	☐Yes ☒No
43. Is ultraviolet light (UV) used for disinfecting a drinking water source? If no, skip to question 46.	☒Yes ☐No
44. Is the UV unit sized for the maximum flow rate, and is there a UV transmittance sensor controlling a solenoid valve or other device to shut off supply if the UV light fails?	☒Yes ☐No

45. Describe the UV equipment including:

UV manufacturer and model number: Atlantic Ultraviolet corporation — Rated capacity (gpm): 40 GPM

Cleaning frequency of quartz sleeve : Per manufacturers specs — Mo/Yr UV light last replaced: (ballast)05/2018

46. Is there continuous chlorination? If no, skip to Part F	☐Yes ☒No

46a. If yes, please measure the free chlorine residual from a representative location in the distribution system.

Location description:	Free chlorine residual:

47. **Is there a water supply line plumbed directly into a chlorine solution tank without a reduced pressure backflow assembly on the supply line?**	☐**Yes** ☐No
48. Is there a post-treatment sample tap?	☐Yes ☐No
49. Does the chlorine compound meet NSF/ANSI Standard 60? - household bleach is exempted	☐Yes ☐No
50. Is a backup chemical feed pump or spare parts for the operating chemical feed pump available onsite?	☐Yes ☐No
51. According to the operator, is there a DOH requirement for Chlorine Contact Time? If no, skip to Part F	☐Yes ☐No

51a. *If yes, measure and record the free chlorine residual at the CT6 compliance location:*
Describe compliance sampling location below – location must be prior to the first service connection downstream of chlorine addition.

52. *Is the chlorine pump and pump controls constructed and maintained to provide uninterrupted, reliable CT6 treatment? If no, describe below.*	☐*Yes* ☐*No*

Describe the chlorination facilities including purpose for chlorination, concerns with maintenance or operations, purveyor's record keeping of monthly reports, and sanitary and security observations:

PART F: TREATMENT

53. Is there any treatment other than chlorination or UV in use? If no, skip Part F.	☐Yes ☒No
54. Did you observe a treatment process connected to the water system in active use that is NOT listed on the WFI? If yes, describe below.	☐Yes ☐No
55. **Is there a water supply line plumbed directly into a chemical solution tank (e.g., fluoride saturator) without a reduced pressure backflow assembly on the supply line?**	☐**Yes** ☐No ☐NA
56. Are primary contaminant treatment facilities (e.g., nitrate, corrosion control, arsenic) operating properly? If no, describe below	☐Yes ☐**No**
57. Do the water treatment chemicals meet NSF/ANSI Standard 60?	☐Yes ☐No ☐NA
58. Is there a post-treatment sample tap?	☐Yes ☐No

Describe the treatment facilities including purpose for treatment, concerns with maintenance or operations, purveyor's record keeping of monthly reports, and sanitary and security observations:

PART G: BOOSTER PUMPING FACILITIES and CONTROLS

59. Are there any booster pumps in use? If no, skip Part G	☒Yes ☐No
60. Are the booster pumps in good working condition? If no, explain below	☒Yes ☐No
61. Are pump and pump controls operational and adequate to prevent chronic water outages or premature pump failure? If no explain below	☒Yes ☐**No**
62. If there is a booster pump house/pump station, is it secure against unauthorized entry? If no, explain below	☒Yes ☐**No** ☐NA
63. Is the booster pump house/pump station properly constructed and maintained? If no, explain below	☒Yes ☐No

Describe and evaluate the pump facilities and controls including maintenance, operations, sanitary and security observations:

There is a main 2HP pump and a spare 1.5 HP pump that operate on float and (as back up) pressure switches to pump water through the UV lights and to either the high pressure (Priority) or low pressure tank. The water then flows back through the lines via gravity, through the lights one more time, and to distribution. In the event of main pump failure, the secondary pump is manually swapped. The pumps are in a secure and well-maintained building. The bulbs are changed before the brightness meter shows they need to be and the ballasts have been changed three times in the past 20 years.

PART H: PRESSURE TANKS

64. Are there any pressure tanks in use? If no, skip Part H	☐Yes ☒No
65. For systems using an air compressor, is the compressor an oil-free type or does it use food-grade oil?	☐Yes ☐No ☐NA
66. Are valves present to isolate pressure tanks for maintenance or repair?	☐Yes ☐No
67. Is there an ASME pressure relief valve installed between each pressure tank and any shutoff valve? (see DOH publication #331-429)	☐Yes ☐No
68. Are the pressure tanks in good working condition? If no, explain below	☐Yes ☐No

Describe and evaluate the pressure tanks including maintenance, operational, sanitary and security observations:

There is a small expansion tank next to the pressure swtiches for the pump back up controls.

PART I: FINISHED WATER STORAGE

69. Is there a finished water storage tank in use? If no, skip Part I	☒Yes ☐No

70. If unable to physically inspect the storage tank hatch, vent, roof, or overflow outlet, select the method you discussed with the purveyor to document their condition:

a ☒ Reviewed and discussed maintenance records and recent photos

b ☒ Photos will be taken and mailed by purveyor; additional follow-up required by DOH

c ☐ Purveyor unable or unwilling to document; additional follow-up required by DOH

Insert Tank Names	High pressure tank	Low pressure tank
71. Is the storage tank protected from unauthorized entry or vandalism? If no, explain below	☒Yes ☐No ☐unk	☒Yes ☐No ☐unk
72. Is the reservoir roof free of any unprotected openings? If no, explain below	☐Yes ☐**No** ☒unk	☒Yes ☐**No** ☐unk
73. Is the access hatch constructed and sealed to prevent the entry of contaminants? If no, explain below	☒Yes ☐**No** ☐unk	☒Yes ☐**No** ☐unk
74. If able to open hatch, is the stored water free of visible contaminants? If no, explain below	☐Yes ☐No ☐unk	☐Yes ☐No ☐unk
75. Is there a dedicated air vent on the storage tank?	☐Yes ☒No ☐unk	☒Yes ☐No ☐unk
75a. If yes, is the air vent constructed to prevent the entry of contaminants? If no, explain below	☐Yes ☐**No** ☐unk	☒Yes ☐**No** ☐unk
76. Is the overflow line constructed to prevent contaminants from entering the tank? If no, explain below	☐Yes ☐**No** ☐unk	☒Yes ☐**No** ☐unk
77. Does the overflow line discharge near ground level?	☐Yes ☐No ☐unk	☐Yes ☒No ☐unk
78. Is the overflow line discharge area protected from potential erosion?	☐Yes ☐No ☐unk	☐Yes ☒No ☐unk
79. Does the overflow line discharge into a storm drain or surface water?	☐Yes ☐No ☐unk	☐Yes ☒No ☐unk
79a. If yes, is there an air gap at the discharge of the overflow OR does the overflow drop at least 34 vertical feet measured from the overflow connection to	☐Yes ☐**No** ☐unk	☐Yes ☐**No** ☐unk

the reservoir down to the receiv[redacted]water body?		
80. Does the overflow line discharge directly into a sanitary sewer without an air gap?	☐**Yes** ☐No ☐unk	☐**Yes** ☒No ☐unk
81. Can the reservoir be isolated from the rest of the water system and be drained through a dedicated drain line?	☒Yes ☐No ☐unk	☐Yes ☒No ☐unk
82. When was the tank inspected last? Explain below if necessary	2017	2018
83. What is the tank cleaning frequency? Explain below if necessary	Never, but flushed annually	As needed
84. Does the tank size, operation, and internal piping configuration appear to provide adequate water turnover (i.e. separate inlet/outlet, baffling or mixing to reduce stagnant water)? If no, explain below	☐Yes ☐No ☒unk	☒Yes ☐No ☐unk
85. Does the tank show signs of excessive leakage, significant structural cracking, or an advanced concrete spalling?	☒Yes ☐No	☐Yes ☒No

Describe and evaluate the finished water storage facilities including volume, operational drawdown, configuration of the inlet/outlet piping, any concerns about operations and maintenance, and sanitary and security observations:

No overflow on the high pressure tank. It is currently capped by a cut-off plastic drum that overlaps the reservoir in what looks to be a snug fit. There does not appear to be any overflow nor screened vent on the reservoir. The tightness of the seal of this cap, as well as where the tank is venting when filled and while drawing water should be verified. There is a small leak on one of the segments. The leak at the hatch has been secured. There is a way to blow-off water from the bottom of the tank and this blow-off can also be used to sample. The low pressure tank is a black poly tank. Pictures have been submitted and are included of the inside of the tank, the locked hatch and the sensors. The overflow should be brought down closer to ground level so that any discharge would not erode the dirt around the tank. The tank is cleaned every ten years. Both tanks can be isolated. The low pressure tank does not have a dedicated drain line.

PART J: DISTRIBUTION SYSTEM

86. Is a complete, up to date and accurate map of the distribution system maintained?	☐Yes ☒No
87. *Does the system provide adequate pressure throughout the distribution system? If no, explain below.*	☒Yes ☐No
88. Are proper procedures followed for disinfection of new construction or repairs?	☒Yes ☐No
89. *Are there any air relief or vacuum relief valves subject to submersion?*	☐Yes ☒No
90. Does the purveyor seasonally or annually flush the distribution system? If yes, describe below	☒Yes ☐No
91. Does the purveyor exercise its distribution system valves? If yes, describe below	☒Yes ☐No

Describe and evaluate the distribution system including maintenance, operational, sanitary and security observations:

The high pressure tank gets flushed, there are no dedicated blow-offs for the system.

PART K: CROSS CONNECTION CONTROL (CCC)

92. Does the water system serve a single connection? If yes, refer the purveyor to the Uniform Plumbing Code and skip Part K	☐Yes ☒No
93. Is the water system known to serve one or more high health hazard premises, such as those listed in Table 9 in WAC 246-290-490? If yes, describe the premise(s) below.	☐Yes ☒No
94. Has the purveyor established the legal authority to implement a CCC program (i.e., formally adopted an ordinance, resolution, by-laws, or other document defining the purveyor's CCC program requirements, and empowering the purveyor to enforce them)?	☒Yes ☐No
95. Has the purveyor designated a CCC Specialist (CCS) to be in responsible charge of the CCC program?	☐Yes ☒No
95a. If yes, has the CCS conducted a hazard evaluation to identify high health hazard premises?	☐Yes ☐No
95b. If yes, has the purveyor completed installation of a backflow prevention assembly on the service line to each identified high health hazard premise?	☐Yes ☐No ☒NA
96. Has each testable backflow prevention assembly installed for premises isolation been tested by a DOH certified backflow assembly tester (BAT) within the past 12 months?	☐Yes ☐No ☒NA
97. Did you observe the end of a hose connected to the potable water system submerged in a pool, hot tub, watering trough, or other non-potable body of water observed during the survey?	☐**Yes** ☒No

98. **This question only applies to a facili[redacted]perating a sewage dump station: Is there a[redacted]age dump station without a reduced pressure back[redacted] assembly on the water supply at the dump station?**	☐Yes ☐No ☒NA
Additional cross connection control program comments: **There are vaccum breakers on all the RV connections**	

PART L: OPERATOR

99. Is the operator of the water system certified?	☐Yes ☒No
100. Describe the operator's certification level (if certified), duration of employment with this water system, relationship with the system (e.g., contract operator, SMA, direct hire employee, volunteer, temporary, or owner), and duties and responsibilities. **Owner of system**	
101. Does the operator conduct self-inspections of the water system? If yes, describe frequency and scope of these self-inspections below.	☒Yes ☐No
102. *Is the operator performing measurements and calibration of water treatment monitoring equipment consistent with manufacturer recommendations? If no, describe below.*	☒Yes ☐No ☐NA
103. *Is the operator using proper inputs to treatment plant operations reports, such as correct volume, peak flow rate, time, and making the proper calculations? If no, describe below.*	☐Yes ☐No ☐NA
104. *Does the operator take compliance water quality samples at the proper location? If no, describe below.*	☒Yes ☐No ☐NA
Additional operator comments: **The operator has a series of lights outside the pump house that he drives by several times a day to warn him if things are amiss as well as a regular pumphouse inspection routine.**	

PART M: FIELD NOTES AND OTHER

Descriptions of any water quality tests, physical measurements, or simple repairs completed during the inspection:
None

PART N: SUPPLEMENTAL NOTES AND SAFETY CONCERNS

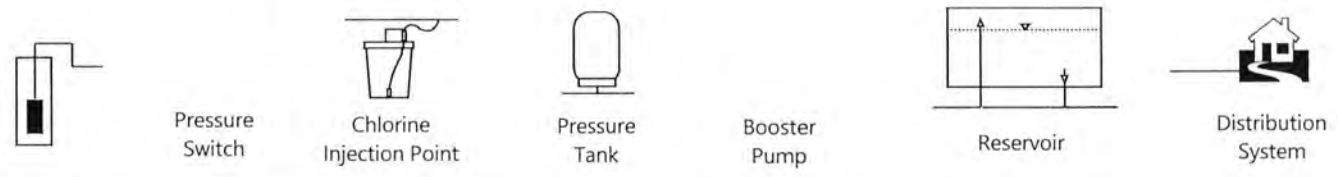
Supplemental comments from other parts of the checklist, and documentation of field safety concerns:

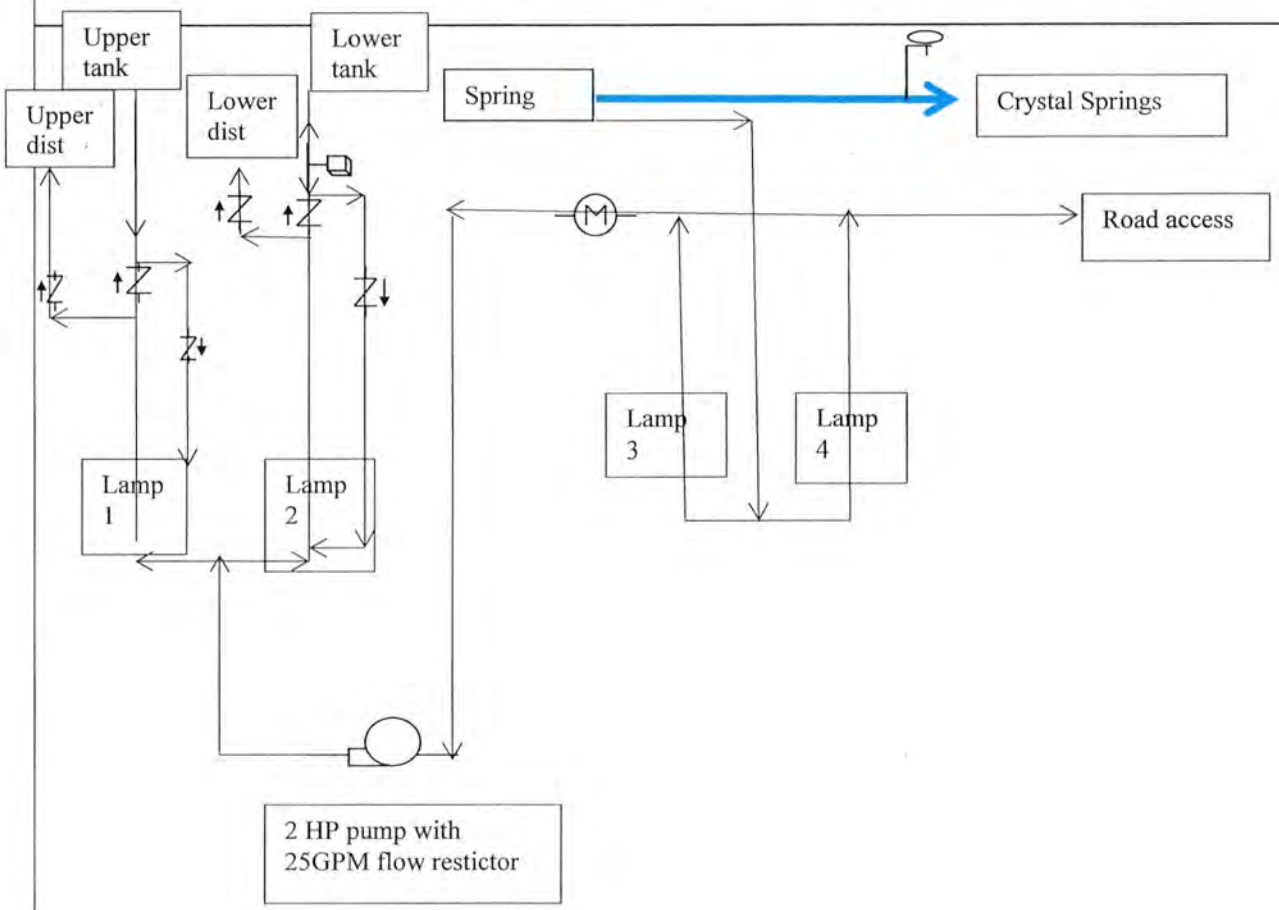
PART O: WATER SYSTEM FACILITIES FIELD SCHEMATIC

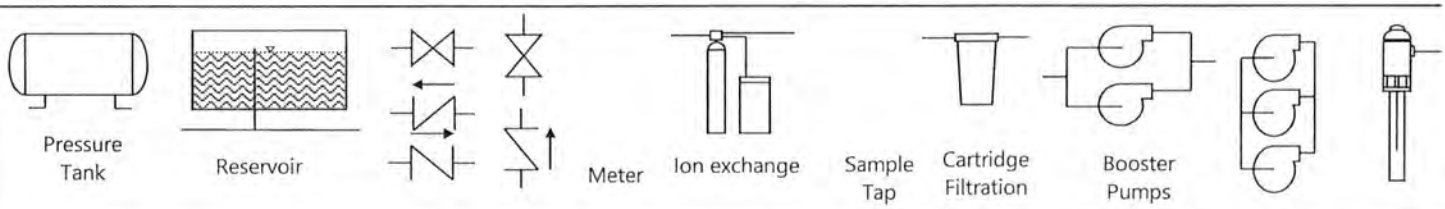
Use the space below to sketch a simple schematic of the water system facilities. You may use the templates shown below to help build your schematic. The sketch should show location of sources, treatment, pressure tanks, booster pumps, storage tanks, and a simple representation of the distribution system. Include direction of flow (directional arrows) and brief description of how the controls function.

Source Name:	**Green River Gorge Resort**	Source Number:	**1**

Example templates you can use to build your schematic:







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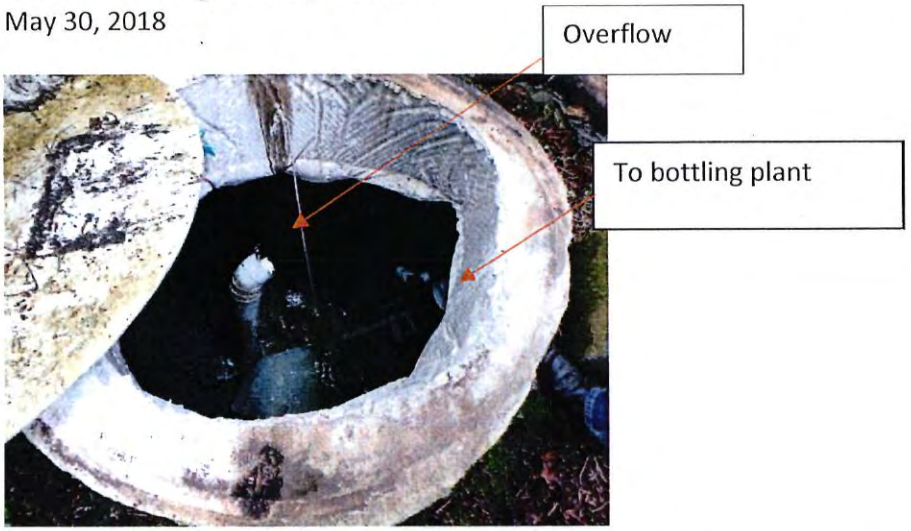

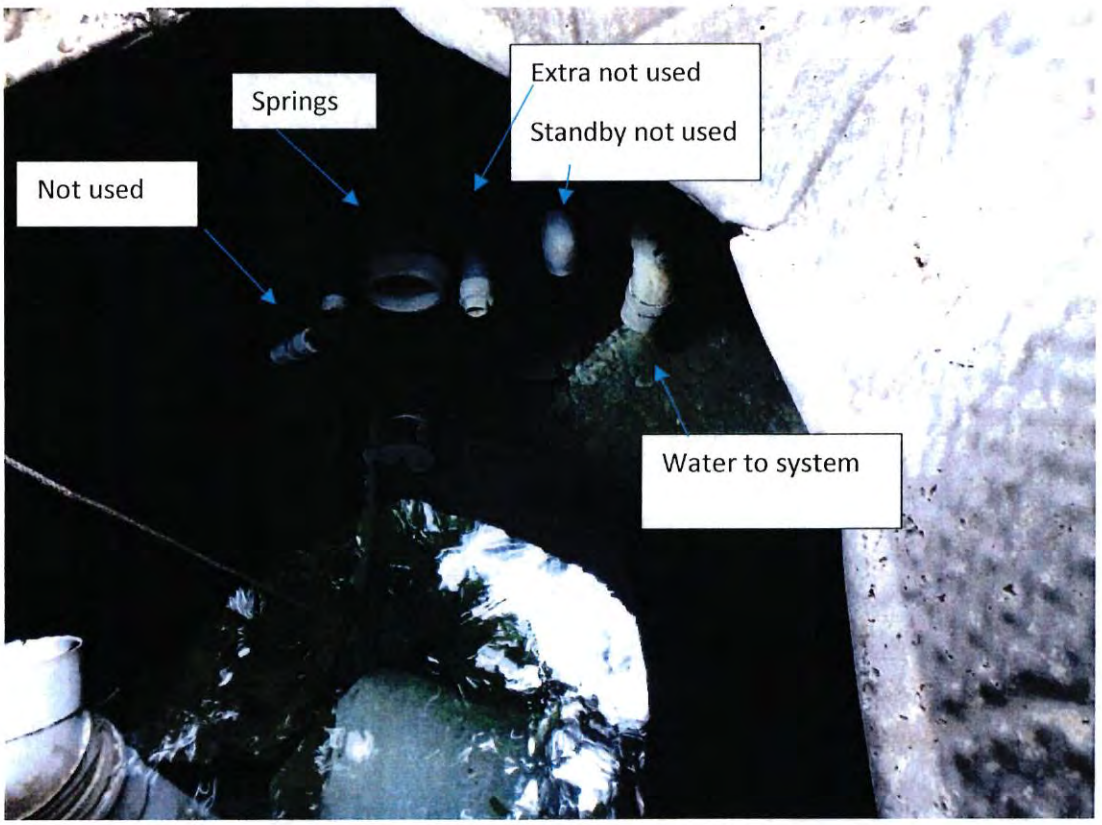

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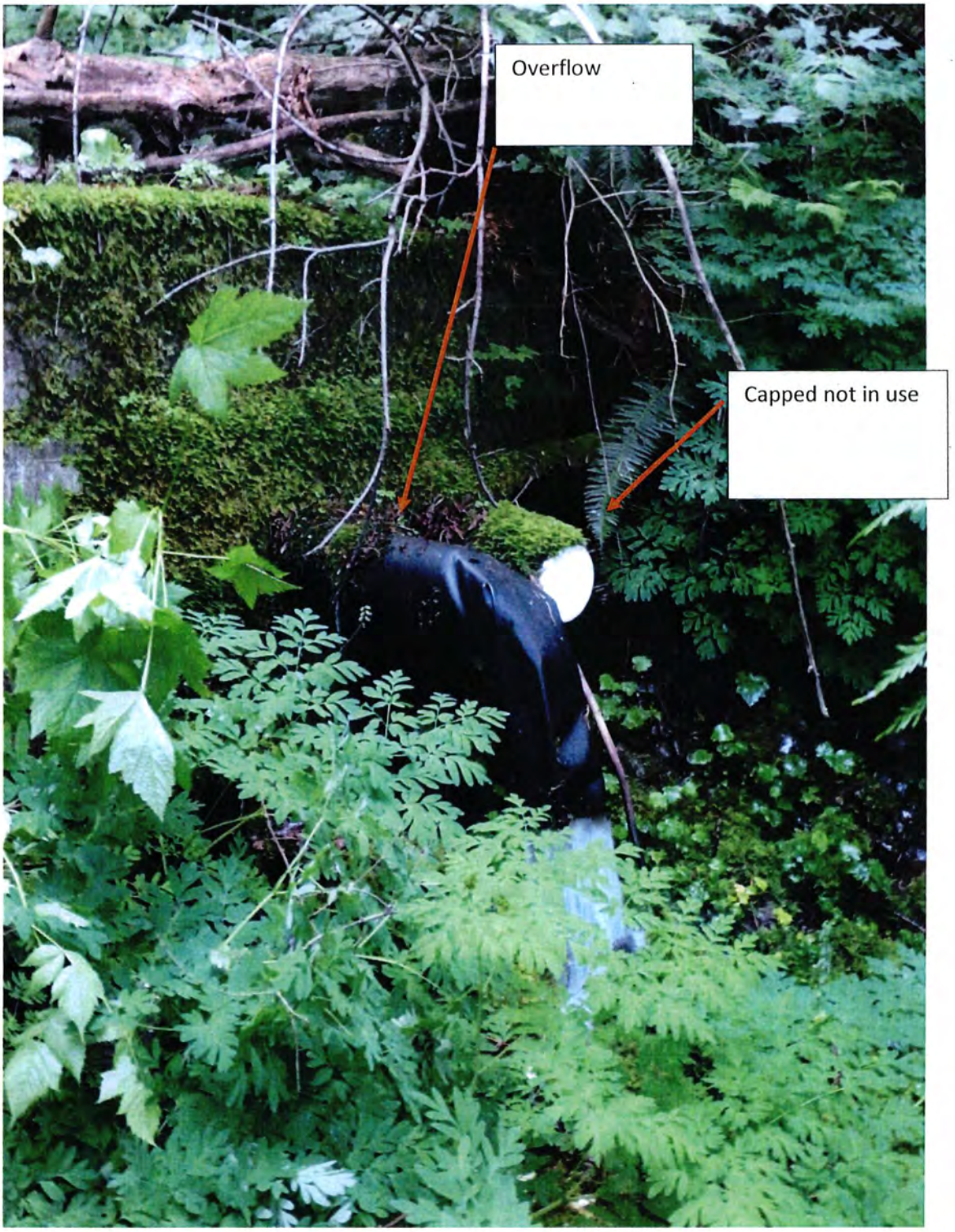

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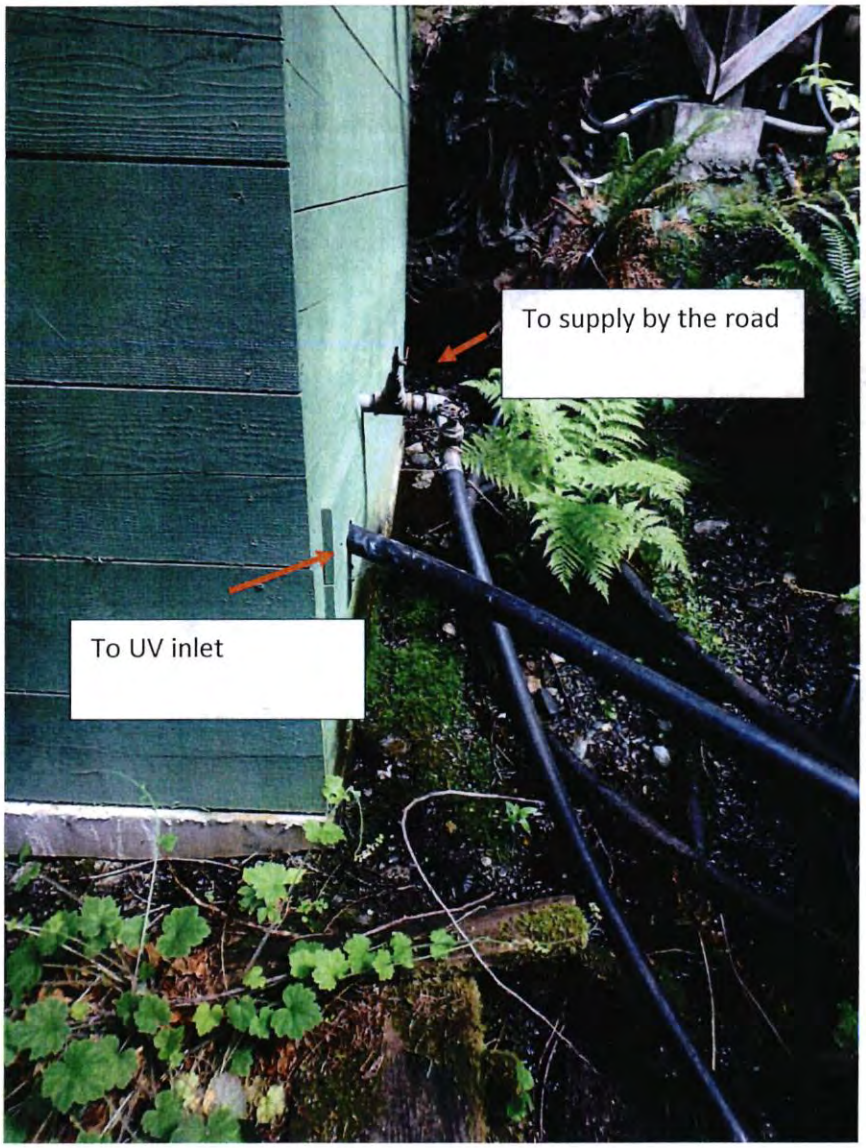

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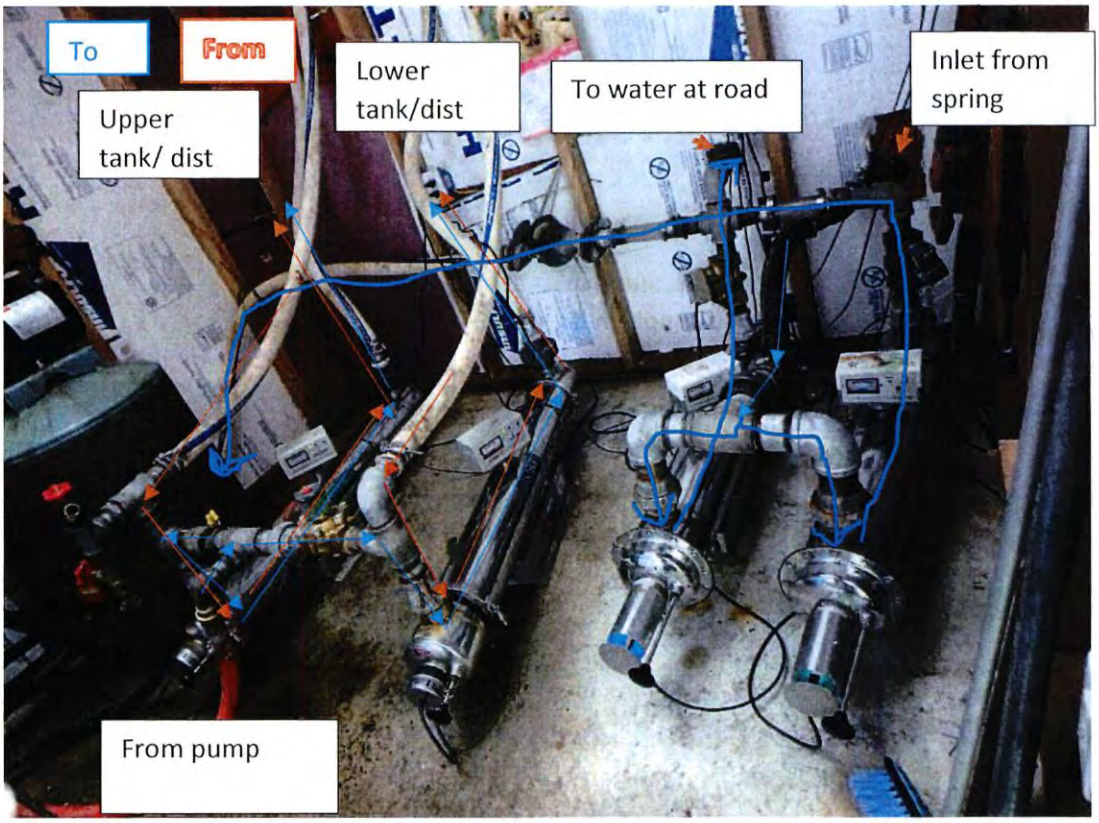

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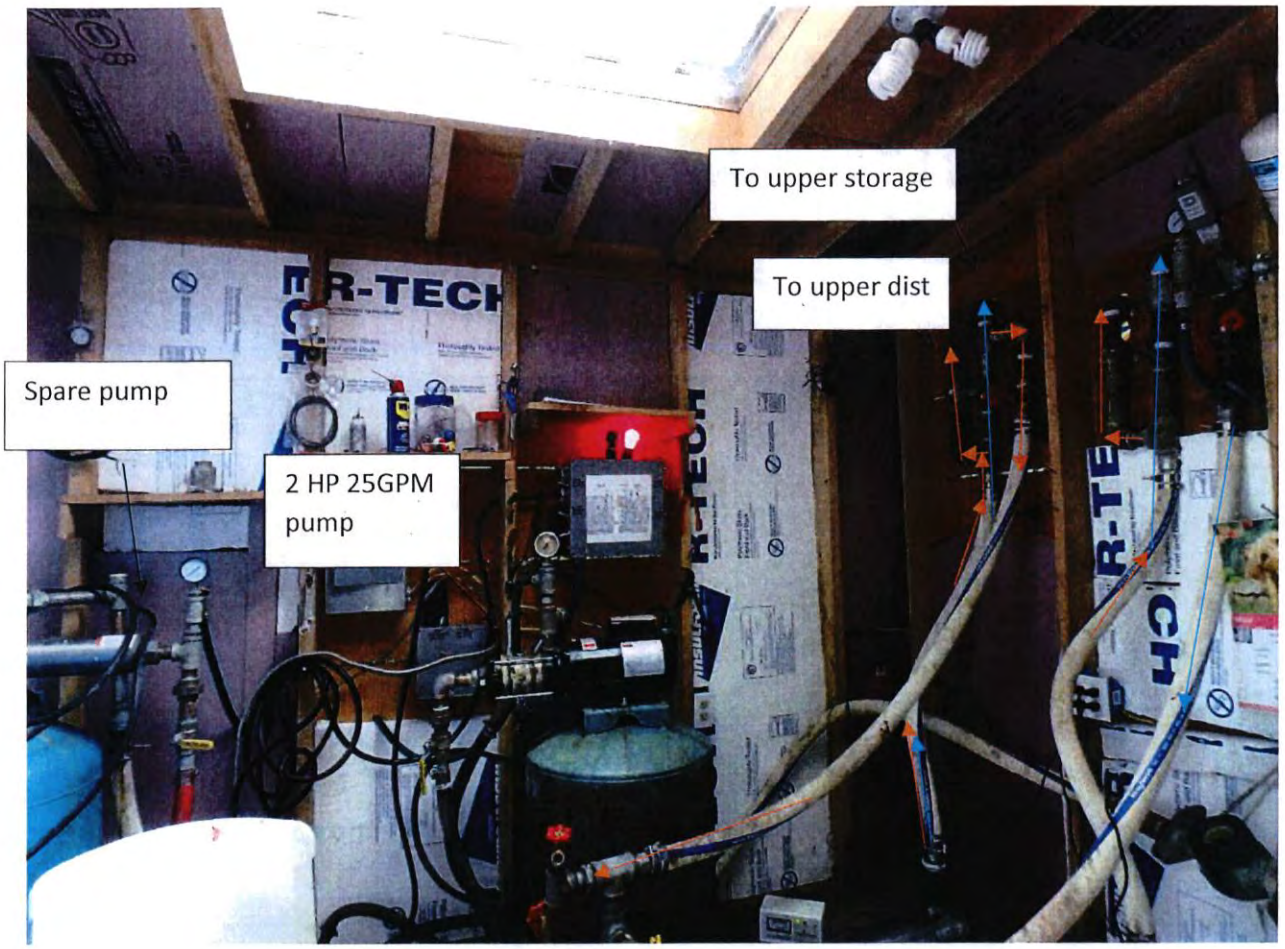

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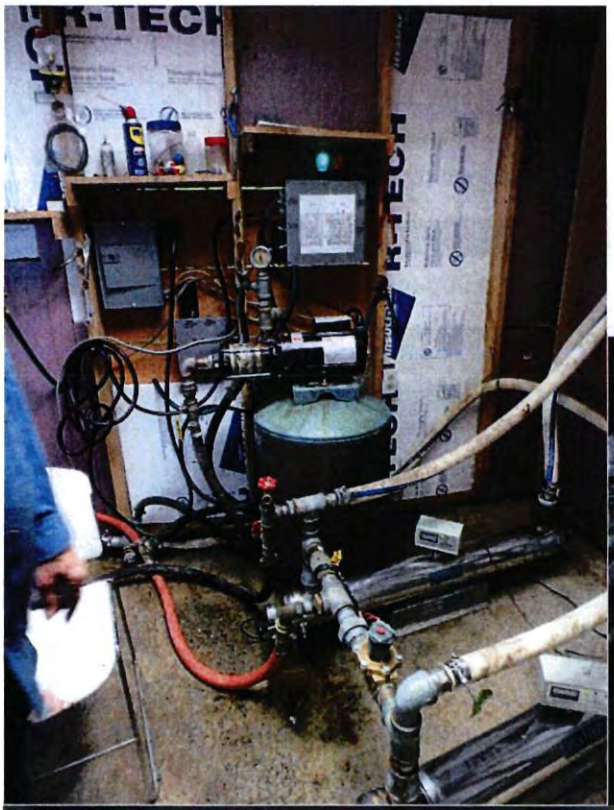

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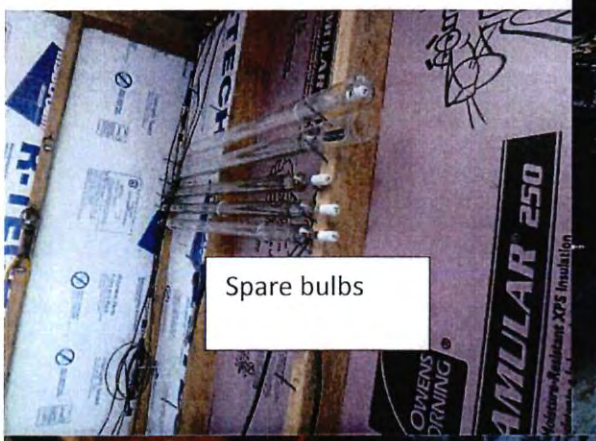
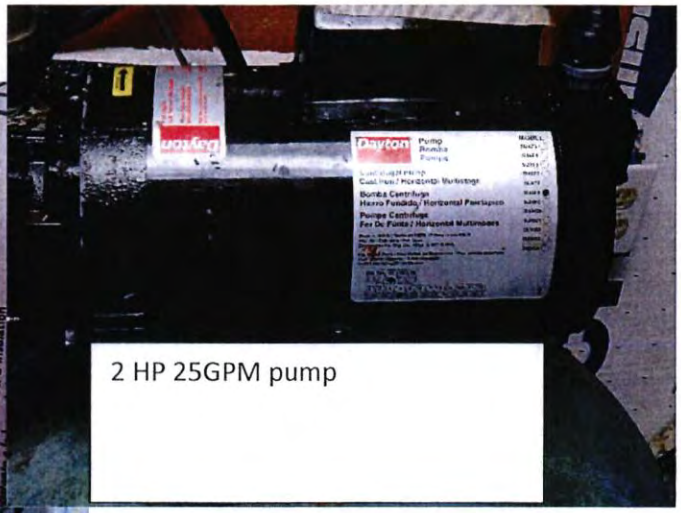
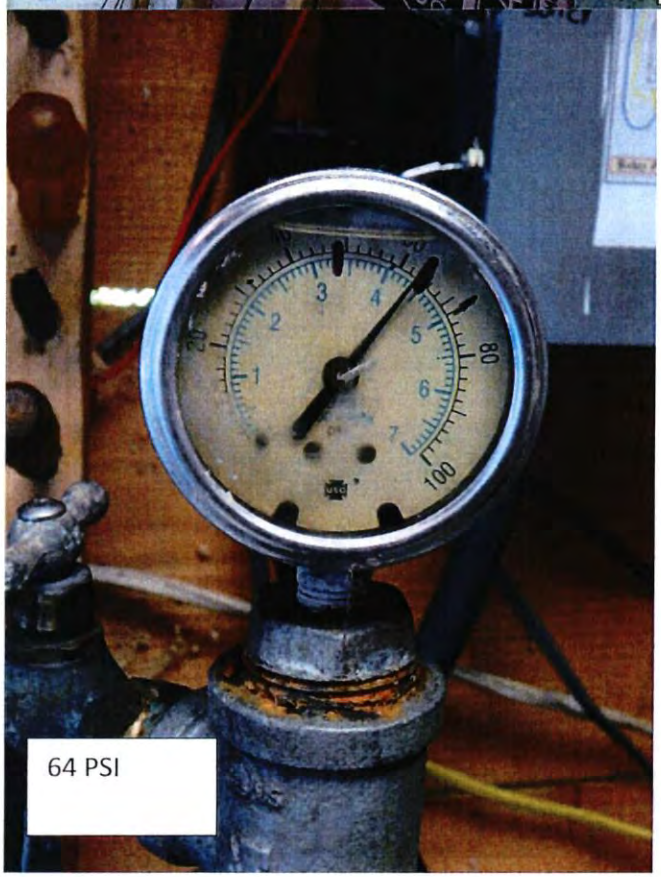


Spare bulbs



2 HP 25GPM pump



64 PSI

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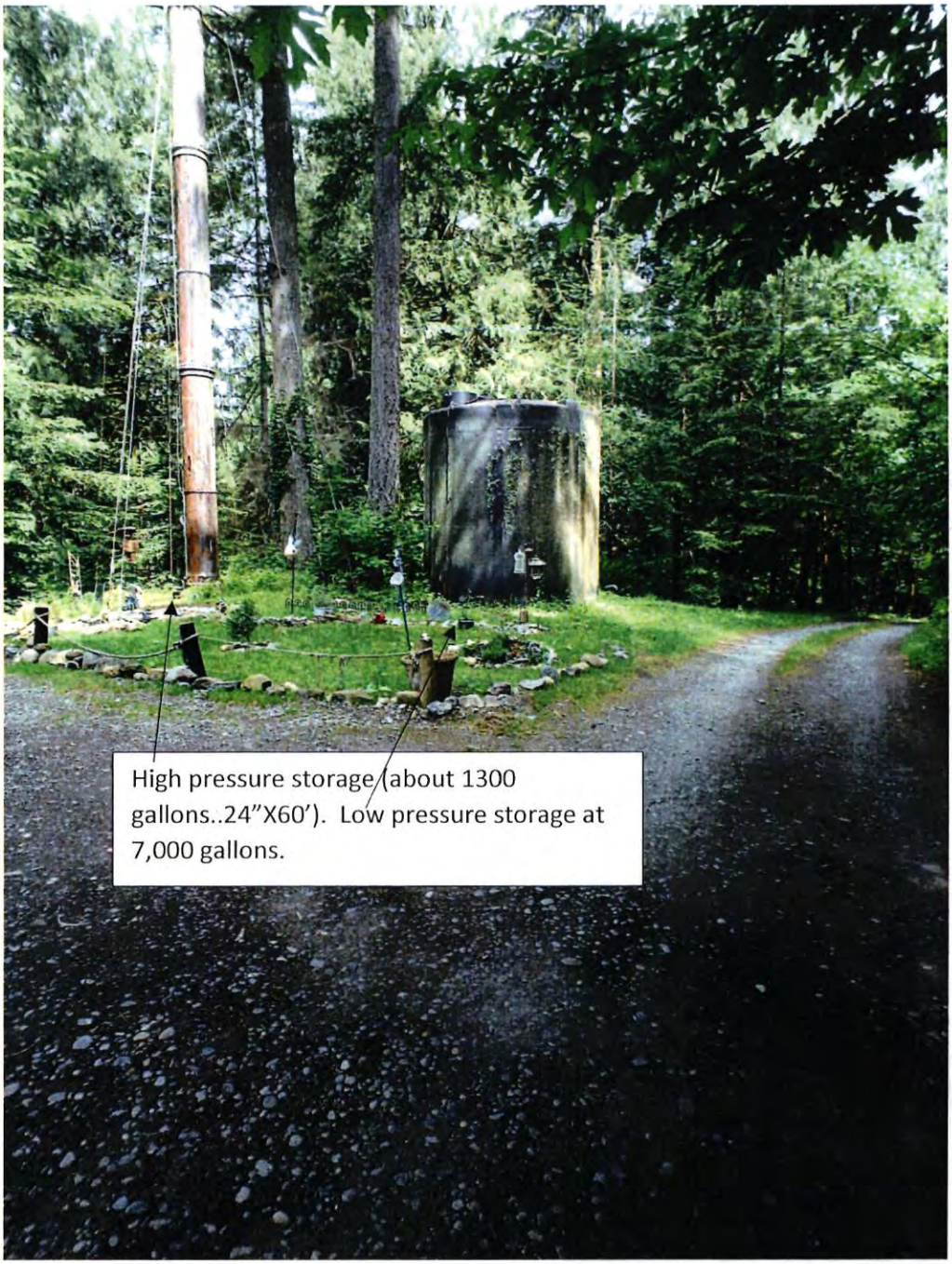

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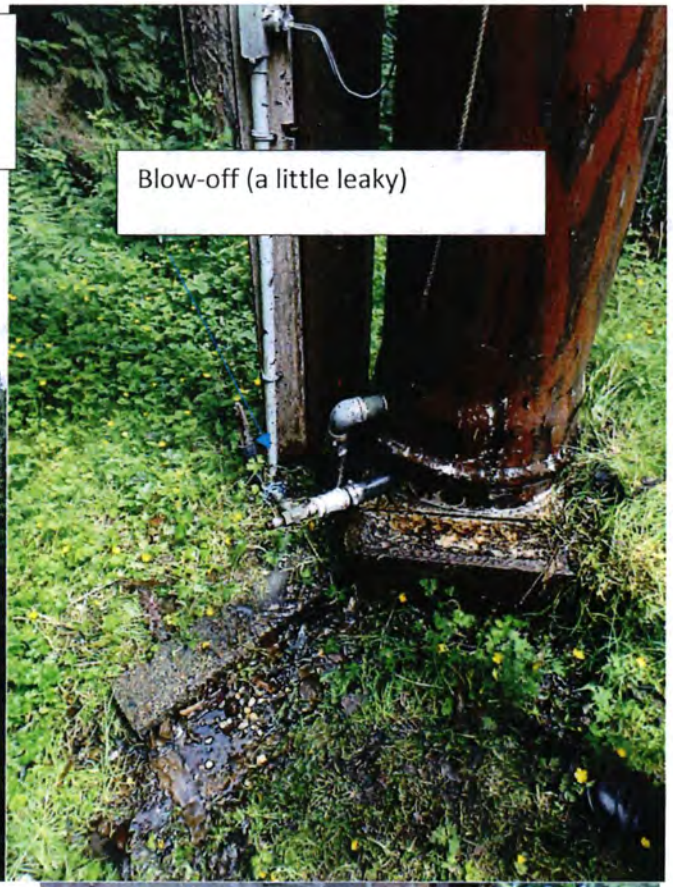
Plastic drum on top



Blow-off (a little leaky)

Inlet/outlet for poly tank

Hatch for access and sensor for high pressure tank

Green River Gorge Resort, ID#29487
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Spring water to waste after UV for the public

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Chemistry

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName	SRL
Pre-Treatment / Raw	spring overflow	1057290	2001-12-04	ARSENIC	.00200	LT	Milligrams per Liter	.00100
Post-Treatment / Finished	ph	1423447	2004-12-22	ARSENIC	.00200	LT	Milligrams per Liter	.00100
Pre-Treatment / Raw	spring box	1572165	2005-12-08	ARSENIC	.00200	LT	Milligrams per Liter	.00100
Pre-Treatment / Raw	spring box	1898491	2007-09-11	ARSENIC	.00300	LT	Milligrams per Liter	.00100
Pre-Treatment / Raw	spring box	2039305	2008-09-02	ARSENIC	.00300	LT	Milligrams per Liter	.00100
Unknown	spring box	2398523	2010-12-02	ARSENIC	.00300	LT	Milligrams per Liter	.00100
Pre-Treatment / Raw	SPRING BOX	377257	1997-11-04	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377259	1997-12-23	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377266	1998-03-30	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377270	1998-05-07	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377272	1998-06-30	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377274	1998-07-08	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377277	1998-09-14	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377279	1998-10-29	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377282	1998-11-09	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377284	1998-12-10	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377285	1999-02-22	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377307	2000-08-07	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING	377332	2002-01-29	E. COLI	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	spring box	2035668	2008-10-08	E. COLI	2.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377264	1998-02-27	FECAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377275	1998-08-29	FECAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377334	2002-02-26	FECAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	spring box	1268912	2003-12-23	LEAD	.00200	LT	Milligrams per Liter	.00100
Pre-Treatment / Raw	29500 GREEN RIVER GORGE RD	377234	1995-05-15	NITRATE-N	.90000	EQ	Milligrams per Liter	.50000

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Chemistry

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName	SRL
Pre-Treatment / Raw	SPRING BOX, GREEN RV GORGE	377258	1997-11-04	NITRATE-N	.80000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring overflow	1057290	2001-12-04	NITRATE-N	.50000	LT	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	1268912	2003-12-23	NITRATE-N	.90000	EQ	Milligrams per Liter	.50000
Post-Treatment / Finished	ph	1423447	2004-12-22	NITRATE-N	.90000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	1572165	2005-12-08	NITRATE-N	.80000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring outflow	1728104	2006-10-04	NITRATE-N	.20000	LT	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	1884026	2007-09-11	NITRATE-N	.20000	LT	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	2039305	2008-09-02	NITRATE-N	.20000	LT	Milligrams per Liter	.50000
Unknown	spring box	2246244	2009-12-23	NITRATE-N	1.00000	EQ	Milligrams per Liter	.50000
Unknown	spring box	2398522	2010-12-02	NITRATE-N	.54000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	2535737	2011-10-03	NITRATE-N	.76000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	2681631	2012-09-05	NITRATE-N	.68000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	2855834	2013-09-30	NITRATE-N	.74000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	3011623	2014-09-04	NITRATE-N	.83000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	3197656	2015-10-13	NITRATE-N	.84000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	3354768	2016-09-30	NITRATE-N	.74000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	3524056	2017-10-19	NITRATE-N	.79000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	ph	3713354	2018-12-18	NITRATE-N	.67000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	3888652	2019-12-26	NITRATE-N	.60000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	4061135	2021-01-04	NITRATE-N	.50000	LT	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box 01	4167056	2021-08-30	NITRATE-N	.68000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	1268912	2003-12-23	NITRITE-N	.50000	LT	Milligrams per Liter	.10000
Unknown	spring box	2246244	2009-12-23	NITRITE-N	.20000	LT	Milligrams per Liter	.10000
Unknown	spring box	2398522	2010-12-02	NITRITE-N	.20000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	spring box	2535737	2011-10-03	NITRITE-N	.20000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	spring box	2681631	2012-09-05	NITRITE-N	.20000	LT	Milligrams per Liter	.10000

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Chemistry

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName	SRL
Pre-Treatment / Raw	spring box	2855834	2013-09-30	NITRITE-N	.20000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	spring box	3011623	2014-09-04	NITRITE-N	.20000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	spring box	3197656	2015-10-13	NITRITE-N	.20000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	spring box	3354768	2016-09-30	NITRITE-N	.20000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	spring box	3524056	2017-10-19	NITRITE-N	.20000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	ph	3713354	2018-12-18	NITRITE-N	.10000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	spring box	3888652	2019-12-26	NITRITE-N	.10000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	spring box	4061135	2021-01-04	NITRITE-N	.10000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	spring box 01	4167056	2021-08-30	NITRITE-N	.10000	LT	Milligrams per Liter	.10000
Pre-Treatment / Raw	SPRING BOX	377257	1997-11-04	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377259	1997-12-23	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377264	1998-02-27	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377266	1998-03-30	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377268	1998-04-20	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377270	1998-05-07	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377272	1998-06-30	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377274	1998-07-08	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377275	1998-08-29	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377277	1998-09-14	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377279	1998-10-29	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377282	1998-11-09	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377284	1998-12-10	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377285	1999-02-22	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377307	2000-08-07	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING	377332	2002-01-29	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377334	2002-02-26	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377337	2002-03-12	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	SPRING BOX	377339	2002-03-12	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Chemistry

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName	SRL
Pre-Treatment / Raw	SPRING BOX	377341	2002-04-03	TOTAL COLIFORM	1.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	spring box	1015435	2002-05-30	TOTAL COLIFORM	.00000	EQ	Per 100 milliliters	1.00000
Pre-Treatment / Raw	spring box	2035668	2008-10-08	TOTAL COLIFORM	2.00000	LT	Per 100 milliliters	1.00000
Pre-Treatment / Raw	spring box	1268912	2003-12-23	TOTAL NITRATE/NITRITE	.90000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring outflow	1728104	2006-10-04	TOTAL NITRATE/NITRITE	.50000	LT	Milligrams per Liter	.50000
Unknown	spring box	2246244	2009-12-23	TOTAL NITRATE/NITRITE	1.00000	EQ	Milligrams per Liter	.50000
Unknown	spring box	2398522	2010-12-02	TOTAL NITRATE/NITRITE	.54000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	2535737	2011-10-03	TOTAL NITRATE/NITRITE	.76000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	2681631	2012-09-05	TOTAL NITRATE/NITRITE	.68000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	2855834	2013-09-30	TOTAL NITRATE/NITRITE	.74000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	3011623	2014-09-04	TOTAL NITRATE/NITRITE	.83000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	3197656	2015-10-13	TOTAL NITRATE/NITRITE	.84000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	3354768	2016-09-30	TOTAL NITRATE/NITRITE	.74000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	3524056	2017-10-19	TOTAL NITRATE/NITRITE	.79000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	ph	3713354	2018-12-18	TOTAL NITRATE/NITRITE	.67000	EQ	Milligrams per Liter	.50000

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Chemistry

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName	SRL
Pre-Treatment / Raw	spring box	3888652	2019-12-26	TOTAL NITRATE/NITRITE	.60000	EQ	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box	4061135	2021-01-04	TOTAL NITRATE/NITRITE	.50000	LT	Milligrams per Liter	.50000
Pre-Treatment / Raw	spring box 01	4167056	2021-08-30	TOTAL NITRATE/NITRITE	.68000	EQ	Milligrams per Liter	.50000

Key:

LT = Less Than

EQ = Equal To

SRL = State Reporting Limit

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Coliform and E. Coli Presence (P) or Absence (A)

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	SITE 81	377298	2000-02-28	E. COLI	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 1	377313	2000-12-22	E. COLI	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden	1508268	2005-08-17	E. COLI	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 7	377239	1996-06-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 6	377240	1996-07-01	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 4	377241	1996-08-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 14	377242	1996-09-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE # 24	377243	1996-10-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 1	377244	1996-11-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE #15	377245	1996-12-10	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE #16	377246	1997-01-31	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE #71	377247	1997-02-11	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE #18	377248	1997-03-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE #15	377249	1997-04-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	14	377250	1997-05-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	3	377251	1997-06-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 21	377252	1997-07-10	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE #15	377253	1997-08-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	#34	377254	1997-09-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	#2	377255	1997-10-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	21	377256	1997-11-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 86	377260	1997-12-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	94	377262	1998-01-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 10	377263	1998-02-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 1	377265	1998-03-30	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 81	377267	1998-04-20	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	#15	377269	1998-05-07	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 4	377271	1998-06-30	TOTAL COLIFORM	A	EQ	Per 100 milliliters

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Coliform and E. Coli Presence (P) or Absence (A)

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	SITE 5	377273	1998-07-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 7	377276	1998-08-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 81	377278	1998-09-14	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 85	377280	1998-10-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 43	377281	1998-11-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 4	377283	1998-12-10	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 88	377286	1999-02-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 15	377287	1999-03-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 1?	377288	1999-04-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 84	377289	1999-05-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 15	377290	1999-06-18	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 30	377291	1999-07-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 88	377292	1999-08-30	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 8	377293	1999-09-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 19	377294	1999-10-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 88	377295	1999-11-30	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377296	1999-12-30	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 27	377297	2000-01-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	**SITE 81**	**377298**	**2000-02-28**	**TOTAL COLIFORM**	**P**	**EQ**	**Per 100 milliliters**
Post-Treatment / Finished	SITE 81	377299	2000-03-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	377300	2000-03-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 81	377301	2000-03-24	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377302	2000-03-24	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377303	2000-04-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377304	2000-05-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377305	2000-06-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377306	2000-07-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ELDERS WATER F	377308	2000-08-07	TOTAL COLIFORM	A	EQ	Per 100 milliliters

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Coliform and E. Coli Presence (P) or Absence (A)

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	SITE 1	377309	2000-08-07	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 1	377310	2000-09-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 4	377311	2000-10-03	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377312	2000-11-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	**SITE 1**	**377313**	**2000-12-22**	**TOTAL COLIFORM**	**P**	**EQ**	**Per 100 milliliters**
Post-Treatment / Finished	PH	377314	2000-12-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	377317	2001-01-03	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 1	377315	2001-01-03	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PUMP HOUSE	377316	2001-01-03	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377318	2001-02-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 1	377319	2001-03-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377320	2001-04-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 4	377321	2001-05-21	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 36	377322	2001-06-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 60	377323	2001-07-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	PH	377324	2001-08-30	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	377325	2001-09-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	377326	2001-10-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SPRING BOX OVE	377328	2001-11-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT HOUSE	377329	2001-12-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 1	377331	2002-01-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 84	377335	2002-02-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 5	377336	2002-03-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE NUMBER 3	377338	2002-03-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	377340	2002-04-03	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site # 66	1015518	2002-05-30	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	1032438	2002-06-24	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	1039470	2002-07-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Coliform and E. Coli Presence (P) or Absence (A)

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	# 7	1062477	2002-08-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	Elders pipr	1068638	2002-09-11	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1075725	2002-10-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	1085848	2002-11-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	1095573	2002-12-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1111562	2003-01-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1126831	2003-02-19	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 80	1131566	2003-03-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1145583	2003-04-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1144957	2003-04-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1157379	2003-05-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1173266	2003-06-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1174254	2003-06-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1179815	2003-07-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 15	1203485	2003-08-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1218318	2003-09-24	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 75	1230382	2003-10-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1236905	2003-11-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1253238	2003-12-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1270527	2004-01-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1277645	2004-02-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1296076	2004-03-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1306237	2004-04-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	GARDEN FAUCET	1322504	2004-05-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1322804	2004-06-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1342330	2004-07-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1358236	2004-08-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1366728	2004-09-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters

PWSId 29487 - GREEN RIVER GORGE RESORT, Spring, Group A, TNC - Coliform and E. Coli Presence (P) or Absence (A)

SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	KT	1381318	2004-10-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1395768	2004-11-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	UPPER SHOWER	1405273	2004-12-01	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1425009	2005-01-14	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1442740	2005-02-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1444982	2005-03-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden hose	1467288	2005-04-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1473657	2005-05-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	br sink	1484055	2005-06-14	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1506905	2005-07-14	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	**garden**	**1508268**	**2005-08-17**	**TOTAL COLIFORM**	**P**	**EQ**	**Per 100 milliliters**
Post-Treatment / Finished	ph	1521637	2005-08-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1521638	2005-08-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 36	1521640	2005-08-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	1521960	2005-09-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	1521951	2005-09-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	1548152	2005-10-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1556059	2005-11-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 88	1569786	2005-12-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	GARDEN FAUCET	1600660	2006-01-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KT	1600678	2006-02-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1611801	2006-03-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	GARDEN FAUCET	1628565	2006-04-21	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	1633763	2006-05-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 82	1647960	2006-06-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 17	1670146	2006-07-24	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	shop sink	1687186	2006-08-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1700847	2006-09-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters

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SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	garden faucet	1707730	2006-10-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden tap	1725951	2006-11-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1740568	2006-12-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1748114	2007-01-18	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1760398	2007-02-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden tap	1767484	2007-03-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 5	1782807	2007-04-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1800373	2007-05-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 70	1817534	2007-06-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KITCHEN SINK	1824361	2007-07-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	GARDEN FAUCET	1835754	2007-08-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	1854473	2007-09-11	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	1870680	2007-10-11	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1885968	2007-11-20	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	1894390	2007-12-07	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kit faucet	1920175	2008-01-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	1928234	2008-02-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	1945946	2008-03-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	1957724	2008-04-24	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	1960018	2008-05-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	1975326	2008-06-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	1997442	2008-07-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2004311	2008-08-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2019598	2008-09-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	2037876	2008-10-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 70	2058280	2008-11-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2075682	2009-01-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	2075686	2009-01-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters

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SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	ph	2090355	2009-02-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	2105392	2009-03-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2112450	2009-04-03	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	2131494	2009-05-14	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 1	2149764	2009-06-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 91	2155446	2009-07-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 60	2177507	2009-08-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 90	2197426	2009-09-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 91	2205450	2009-10-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 91	2223341	2009-11-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 91	2238928	2009-12-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 2	2242899	2010-01-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2264667	2010-02-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2276163	2010-03-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	2280042	2010-04-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 88	2304901	2010-05-21	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	88	2318157	2010-06-10	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2321914	2010-07-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	2339924	2010-08-10	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 80	2351074	2010-09-01	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	2371378	2010-10-07	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2397505	2010-11-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden faucet	2404539	2010-12-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2408676	2011-01-03	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	2431421	2011-02-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	2442993	2011-03-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 88	2448243	2011-04-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ktichen sink	2462376	2011-05-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters

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SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	garden tap	2481046	2011-06-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 88	2485030	2011-07-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 88	2509722	2011-08-11	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	2527232	2011-09-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 5	2536485	2011-10-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2550279	2011-11-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kitchen sink	2566202	2011-12-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	garden tap	2579272	2012-01-24	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2585987	2012-02-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 82	2599475	2012-03-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2617862	2012-04-20	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2624005	2012-05-01	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2643365	2012-06-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2655152	2012-07-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2668175	2012-08-07	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2679866	2012-09-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2700026	2012-10-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2718529	2012-11-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2722861	2012-12-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2737391	2013-01-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	80	2748187	2013-02-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	ph	2763915	2013-03-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2778112	2013-04-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	65	2785468	2013-05-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2806381	2013-06-20	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	2820683	2013-07-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 1	2829082	2013-08-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 60	2839808	2013-09-03	TOTAL COLIFORM	A	EQ	Per 100 milliliters

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SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	64	2867516	2013-10-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	15	2881912	2013-11-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	90	2894059	2013-12-18	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	70	2899230	2014-01-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 30	2913593	2014-02-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 30	2921485	2014-03-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 3	2942276	2014-04-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	80	2955416	2014-05-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	25	2965791	2014-06-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	77	2985497	2014-07-18	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 70	3001616	2014-08-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 5	3013529	2014-09-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 25	3032309	2014-10-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 77	3048945	2014-11-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 80	3060862	2014-12-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	80	3066309	2015-01-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 80	3085909	2015-02-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	#80	3098967	2015-03-24	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 80	3107447	2015-04-21	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 4	3123501	2015-05-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 9	3136352	2015-06-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 70	3155145	2015-07-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	88	3168222	2015-08-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 77	3176456	2015-09-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 15	3198748	2015-10-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	77	3207999	2015-11-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 66	3226160	2015-12-18	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	61	3241458	2016-01-21	TOTAL COLIFORM	A	EQ	Per 100 milliliters

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SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	site 67	3245743	2016-02-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	26	3260769	2016-03-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	66	3277791	2016-04-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 14	3282520	2016-05-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 88	3303015	2016-06-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	15	3316787	2016-07-14	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	80	3334335	2016-08-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 14	3347321	2016-09-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 14	3366949	2016-10-28	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 66	3374178	2016-11-07	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	3388030	2016-12-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	3399285	2017-01-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	77	3415363	2017-02-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 87	3420963	2017-03-07	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 88	3440112	2017-04-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 5	3445895	2017-05-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 14	3466453	2017-06-21	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	3474928	2017-07-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	14	3498223	2017-08-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	80	3508722	2017-09-19	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 80	3520465	2017-10-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	3537602	2017-11-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 60	3545655	2017-12-08	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 14	3563025	2018-01-12	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	3571471	2018-02-14	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 14	3585112	2018-03-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 80	3597178	2018-04-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site14	3617743	2018-05-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters

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SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	site 3	3622591	2018-06-11	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	14	3644316	2018-07-30	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	76	3653084	2018-08-17	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	77	3676463	2018-09-24	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 66	3687625	2018-10-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	kt	3701982	2018-11-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	#85	3714550	2018-12-14	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 7	3731028	2019-01-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 77	3739868	2019-02-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 77	3752728	2019-03-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	15	3754205	2019-04-01	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	76	3783275	2019-05-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 65	3810110	2019-07-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	#80	3820995	2019-08-19	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 3	3830330	2019-09-11	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 23	3855746	2019-10-11	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 93	3859920	2019-11-01	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 15	3871960	2019-12-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 89	3892494	2020-01-21	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 79	3905476	2020-02-19	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	5	3917846	2020-03-19	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	80	3935616	2020-04-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 79	3946291	2020-05-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	77	3959974	2020-06-15	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 8	3969982	2020-07-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 79	3993001	2020-08-14	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 76	4010526	2020-09-18	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 66	4025180	2020-10-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters

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SamTypeName	SamLocationCmt	SamId	SamCollectDate	AnalyteName	ResultQty	ResultCode	UOMName
Post-Treatment / Finished	site 15	4042119	2020-11-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 8	4049594	2020-12-10	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	15	4079582	2021-02-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	29500 green rive	4080245	2021-02-25	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	65	4089373	2021-03-04	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	8	4105815	2021-04-16	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 67	4114952	2021-05-13	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	8	4140476	2021-06-22	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 5	4140480	2021-07-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 79	4163570	2021-08-30	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 79	4183436	2021-09-27	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 3	4190369	2021-10-20	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 5	4210449	2021-11-29	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 18	4224671	2021-12-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	2	4225985	2022-01-05	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	sltr? 89	4246276	2022-02-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site #89	4257521	2022-03-23	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 78	4270967	2022-04-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 5	4277919	2022-05-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	stite 15	4293350	2022-06-06	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	site 88	4312345	2022-07-20	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE#77	4323852	2022-08-10	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 18	4353432	2022-09-02	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	KIT SINK	4360234	2022-10-21	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE #73	4365958	2022-11-09	TOTAL COLIFORM	A	EQ	Per 100 milliliters
Post-Treatment / Finished	SITE 77	4401493	2023-01-26	TOTAL COLIFORM	A	EQ	Per 100 milliliters