



Utah!

Where ideas connect

Department of Environmental Quality
Division of Drinking Water

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FILE COPY

May 1, 2003

Fred Smolka ^{John}
Emigration Improvement District
P.O. Box 58945
Salt Lake City, Utah 84158

Dear Mr. Smolka:

Subject: Drinking Water Sanitary Survey for System #18143

On April 30, 2003 you, Larry Hall of Aqua Environmental Services Inc, Randy Williams of Salt Lake Valley Health Department and I conducted a sanitary survey on the Emigration Improvement District drinking water system. I appreciate your cooperation and you taking time from your busy schedule to conduct the survey.

The Utah Division of Drinking Water Improvement Priority System Rule, R309-150, rates public drinking water systems. Points are assigned based on violations of the Drinking Water Rules found. Points assessed during a sanitary survey will become part of the total IPS points if not corrected within the time frame specified in this report. Any community system that exceeds 150 points will be rated as "Not Approved" if corrections are not made.

Attached are the results of that sanitary survey. We encourage you to take the necessary actions to correct the deficiencies noted in the survey report. The "Conclusion" page at the end of the report lists a summary of the deficiencies noted during the survey with the IPS points assessed for each deficiency. Please contact us as you correct each of the noted deficiencies. Once we receive notification of corrections, the appropriate points will be deducted from your IPS report. Please use your water system number **18143** in all of your correspondence to our office.

We have also included some recommendations as listed on the "Recommendations" page of the report for your consideration.

Fred Smolka
Page 2
April 30, 2003

I am enclosing information relating to thermal expansion for your cross-connection public awareness program. We have also updated the physical inventory list on our database. A copy of the updates is also enclosed.

I thank you again for your time and assistance in conducting the survey. Please feel free to contact me at (801) 536-0057 if you have questions or if we can be of further assistance.

Sincerely,



John Oakeson
Division of Drinking Water

JHO

Enclosures

cc: Randy Williams, SLVHD

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UTAH DIVISION OF DRINKING WATER

PUBLIC WATER SUPPLY INFORMATION SYSTEM
05/01/03

WATER SYSTEM NUMBER: 18143

NAME: EMIGRATION IMP DISTRICT	RATING: APPROVED	POPULATION: 340
OWNER: EMIGRATION IMP DIST	RATING ASSIGNED: 05/26/95	RESIDENTIAL CONN.: 113
ADDRESS: PO BOX 58945	INVENTORY REVIEWED: 04/30/03	OTHER CONNECTIONS:
SALT LAKE UT 84158	INVENTORIED BY: OAKESON	TOTAL NO. CONNECTIONS: 113
AREA: EMIGRATION CANYON	LAST SURVEYED: 04/30/03	TYPE OTHER CONN:
COUNTY: SALT LAKE	SURVEYED BY: OAKESON/WI	OUTSIDE USE PERMITTED: YES
TYPE: COMMUNITY-PRIVATELY OWNED	LAST PLAN APPR.: / /	CALC PEAK DEMAND (GPD):
MANGR.: FRED SMOLKA	SYSTEM ENGINEER:	GPD/1440 = DEMAND (GPM):
PHONE: 582-6176	BEGIN OPERATION: 01/01	PEAK HOURLY DEMAND:
OPER.: KEITH HANSON	END OPERATION: 12/31	
PHONE: 278-9660		

-BACTERIOLOGIC QUALITY-	- - - - -STORAGE- - - - -	- - - TREATMENT- - - - -	- - - - - DISTRIBUTION - - - - -
SAMPLES REQ/MONTH: 1	NUMBER OF UNITS: 1	TYPE: CHLORINATION	PUMP/GRAVITY: PUMPED
MONTH INSUF. SAMPLS: 1	MATERIAL: CONCRETE	PLANT:	FIRE HYDRANTS: YES
MONTH UNSAT RESULT: 0	CAPACITY: 300,000	CAPACITY (MGD): .00	PRESSURE ADEQ.: YES
RECORD SATIS.: YES	ADEQUATE:	INSTALLED: 19	PCT METERED: 100
12 MOS END.: 12/31/01			MASTER METER:

SOURCE		SOURCE				SOURCE LOCATION	
* NO.	TYPE	SOURCE NAME	- - WELL - -	YIELD	PROT.	-LATITUDE -	-LONGITUDE-
			TYPE DIA	(GPM)	CONCUR TYPE OF TREATMENT	DEG MIN SEC	DEG MIN SEC
01	WELL (GW)	WELL #1	8	100	NONE	40 47 15.1	111 44 07.4
02	WELL (GW)	WELL #2	10	200	CHLORINATION	40 47 15.6	111 44 30.5
*N03	WELL	BRIGHAM FORK	12	30,000	NONE	40 47 40.0	111 43 39.0

N MEANS THIS SOURCE CURRENTLY NOT USED

SYSTEM VIOLATION:	BEGINNING DATE OF VIOLATION: 11/01/01
	DATE SYSTEM ADVISED: 12/21/01
	DATE PUBLIC NOTIFIED: / /
	TYPE OF VIOLATIONS: FAILURE TO MONITOR (BACTI)

U T A H D I V I S I O N O F D R I N K I N G W A T E R

PUBLIC WATER SYSTEM IMPROVEMENT PRIORITY REPORT
05/01/03

18143 - EMIGRATION IMP DISTRICT

System Manager: FRED SMOLKA
System Address: PO BOX 58945
SALT LAKE UT 84158
Phone Number.: 582-6176
Type of System: COMMUNITY-PRIVATELY OWNED

Searches Back to...: 02/20
Current Rating.....: Approved
Period of Operation: 01/01 to 12/31
Last Surveyed By...: OAKESON/WI
Date Last Surveyed.: 04/30/03

General/Administration Information

SYSTEM HAS WRITTEN EMERGENCY RESPONSE PLAN 10 CREDIT POINTS Credit 20 points
SYSTEM HAS WRITTEN FINANCIAL PLAN 10 CREDIT POINTS

Certified Operator Information

This system has Operators that are certified at a higher level than required Credit 10 points

Bacteriological Information

No Bacteriological Violations found

Chemical Information

MCL exceedance for TURBIDITY on 08/29/00 for source 01 (WELL #1) 30 points

Lead / Copper Information

No Lead / Copper Infractions

Physical Facilities Information

WELL #1 MUST HAVE SMOOTH NOSED SAMPLE TAP 1 Pts Effective 05/30/03
REPAIR KIT FOR 150 POUND CL2 CYLINDER 2 IPS POINTS 7 Pts Effective 05/30/03
SCBA FOR CHLORINE FACILITY 5 IPS POINTS
SCREEN ON DRAIN LINE OF 300,000 GALLON RESERVOIR NEEDS REPAIR 2 Pts Effective 05/30/03

Total Points 0 points

****RETURN THIS REPORT WITH CORRECTIONS****

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

1. Administrative Issues

(Office Interview)

System Name: Emigration Improvement District

System #: 18143

Name of Surveyor: John Oakeson, Division of Drinking Water

Water System Representative(s)/Others accompanying survey:

Larry Hall, Aqua Environmental Services

Phone: 299-1327

Fred Smolka, Emigration ID

Phone: 582-6176

Randy Williams, SLVHD

Phone: 313-6712

Population now 340

113 connections with an anticipated 67 additional connections to the system.

10 points will be credited to a water system with a current Emergency Response Program

0 or 10 Points: 10

10 points will be credited to a water system which has a written Financial Management Plan; including an appropriate rate structure, infra-structure replacement plan, master plan.

0 or 10 Points: 10

Total Points Credited: 20

Date of Survey: April 30, 2003

Service Data

Have there been any customer complaints received and validated during the last three (3) years dealing with any of the following list of categories?

Yes No Unknown

** (Indicate the number of complaints received in each category) **

Turbidity _____ Taste and Odor _____ Pressure _____
Sickness (Water System Suspected) _____ Waterborne Disease Outbreak _____
Service Interruptions or Water Outages _____

Comments: _____

0 to 100 Points: 0

Source Monitoring

5 points will be assessed to water system which does not have an adequate bacteriological sampling site plan. [R309-104-4(6)(1)(d)]

To be fixed by: _____ 0 or 5 Points: 0

Plan in place _____

5 points will be assessed to any community or nontransient noncommunity water system which does not have an adequate lead/copper sampling site plan. [R309-104-4(2)(3)(a)].

To be fixed by: _____ 0 or 5 Points: 0

Plan in place _____

Date of Survey: April 30, 2003

Comments:

Cross Connection

50 points total, or 10 points per element, will be assessed to a water system that does not have any of the below-listed components of a cross connection control program. [R309-102-5]

A water system which only has some of the components of a cross connection control program shall be assessed the following number of points.

10 points will be assessed to a water system which does not have local authority to enforce a cross connection program (i.e., ordinances, bylaws or policies).

To be fixed by: _____ 0 or 10 Points: 0

10 points will be assessed to a water system which does not provide public education or awareness material presentations on an annual basis.

To be fixed by: _____ 0 or 10 Points: 0

10 points will be assessed to a water system which does not have an operator with training in the area of cross connection.

To be fixed by: _____ 0 or 10 Points: 0

10 points will be assessed to a water system with no written records of cross connection activities, such as backflow assembly inventories, hazard assessment, and/or test history.

To be fixed by: _____ 0 or 10 Points: 0

10 points will be assessed to a water system which does not have an on-going enforcement activity plan.

To be fixed by: _____ 0 or 10 Points: 0

Comments: System installs dual check valve type meter setters on all service connections. Threaded hose bibs on EID facilities have hose bib vacuum breakers where appropriate. Recommend annual notifications on thermal expansion.

Total Administrative Issue Points: -20

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

2. Well

(Field Interview/Inspection)

System Name: Emigration Improvement District System #: 18143

Source Number: 01 Source Name: Well #1

Location: _____ Period of Use: 1/1 -12/31

Latitude: 40° 47' 15.1" Longitude: 111° 44' 07.4"

A. Was Plan Approval received for this Well ? Yes No Unknown

B. Well Seal [R309-515-(6)(12)]

50 points will be assessed for any well that does not have a sanitary seal or has unsealed opening in the top of the well that could allow contamination to enter the well. A properly installed and maintained pitless adapter will meet this criteria if it has been approved by the Division of Drinking Water for the specific installation.

To be fixed by: _____ 0 or 50 Points: 0

OK

C. Proper Lubrication Oil [R309-102-(4)(7) & R309-515-(8)(2)]

25 points will be assessed for any well that requires oil lubrication if the oil used is not mineral grade suitable for human consumption.

To be fixed by: _____ 0 or 25 Points: 0

N/A

Date of Survey: April 30, 2003

D. Elevation of Top of Well Casing [R309-515-(6)(6)(B)(VI) & R309-515-(6)(13)(A)&(D)]

1 to 20 points will be assessed for any casing that does not extend at least 12" above the concrete floor or 18" above the ground, or five feet above the highest flood level. No points be assessed if a properly installed and approved pitless adapter is used. Range of points will be determined by degree of exposure to flooding, drainage, condition of floor and other factors which may jeopardize the integrity of the wellhead. If insufficient height above floor or ground, identify any conditions or factors which could jeopardize the well's sanitary integrity.

To be fixed by: _____ 0 to 20 Points: 0

Well house is partially buried. Surrounding ground slopes away from well house. Flooding does not appear to be a problem.

E. Well Discharge Piping Equipment [R309-515-6(12)(e)(iv)]

1 point assessed for each of the following items which are not present or serviceable on the discharge piping: (1) a smooth nosed sampling tap (2) a check valve (3) pressure gauge (4) a flow measuring device and/or (5) shut off valve. CIRCLE ITEMS NOT FOUND OR NOT SERVICEABLE, AND IDENTIFY IF THEY ARE NOT IN THE ORDER LISTED.

To be fixed by: 30-May-03 0 to 5 Points: 1

standard threaded hose bib with hose bib vacuum breaker installed. Must have smooth nose sample tap.

F. Screening of Well Casing Vent

5 points will be assessed for a well casing vent that is not properly covered with a number 14 mesh screen.

To be fixed by: _____ 0 or 5 Points: 0

OK

G. Discharge Piping Air Vent [R309-515-6(12)(e)(v)]

1 to 5 points assessed for each well that does not have an air relief valve on the discharge piping. Relief valve piping must be turned down and properly screened with number 14 mesh screen. Integrity of screen must be determined.

To be fixed by: _____ 0 to 5 Points: 0

OK

Date of Survey: April 30, 2003

H. Well House Floor Drain [R309-515-6(13)(b)]

1 to 5 points assessed for well houses that do not have a drain to daylight floor drain that is fully serviceable. Where does the drain end up?

To be fixed by: _____ 0 to 5 Points: 0

OK

Total Points Assessed: 1

ADDITIONAL REQUIRED INFORMATION (no points assessed)

Is this source covered in a source protection plan? Yes No

Is a current well log available for this well? Yes No

Current flow rate: 70 gpm Size of Well Casing: 8 inches

Type of Pump: Vertical Turbine Yes Submersible Yes

Brand/Model of Pump: not available Discharge piping size: 4 inches

Brand/Model of Motor: not available Horsepower: not known

Voltage: 460

Is there a serviceable pressure gauge on the well pump discharge? Yes, Static Yes, Stagnation No

If yes: 140 (psi) off (gpm) Static Dynamic

_____ (psi) _____ (gpm) Static Dynamic

_____ (psi) _____ (gpm) Static Dynamic

Date of Survey: April 30, 2003

Is there a pump-to-waste line with an adequate air gap (twice pipe diameter)? Yes No

Recommend larger screen on discharge piping not to exceed # 4 mesh

Distance to Surface Water <100 ft. 100 to 200 ft. >200 ft.

If there is a Pump House, is it secure? Yes No
Does it have adequate heating? Yes No
Does it have adequate lighting? Yes No
Does it have adequate ventilation? Yes No
Is floor elev.at least 6 in.above the surrounding ground elevation? Yes No

Other Observations/Comments for This Well: _____

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

8a. Source Protection

(Field Interview/Inspection)

System Name: Emigration Improvement District System #: 18143

Source Number: 01 Source Name: Well #1

Location: _____ System Population: 340

NOTE: *Compliance with R309-600 "Drinking Water Source Protection For Ground-Water Sources" is voluntary for existing groundwater sources of drinking water which are used by nontransient noncommunity water systems.*

A. Is there a current source protection plan in place that covers this source? [R309-600-3(2)]

Yes

No

B. 5 points will be assessed to a community or nontransient noncommunity water system that has not delineated a protection area of its groundwater sources in accordance with the required time frame. Points shall remain until the source is properly delineated and the plan has been concurred with the Division personnel. [R309-600-3]

To be fixed by: _____ 0 or 5 Points: _____

C. 5 points will be assessed to a community or nontransient noncommunity water system that has not inventoried potential sources of contamination for ground water sources. [R309-600-10]

To be fixed by: _____ 0 or 5 Points: _____

D. 5 points will be assessed to a community or nontransient noncommunity water system that has not developed a management program for pre-existing potential contamination sources. [R309-600-11]

To be fixed by: _____ 0 or 5 Points: _____

E. 5 points will be assessed to a community or nontransient noncommunity water system that has not developed a management program for future potential contamination sources. [R309-600-12]

To be fixed by: _____ 0 or 5 Points: _____

Total Points Assessed: 0

F. 20 Credit Points are awarded to a water system that has completed all of its *Source Protection Plans* before required due date:

0 or 20 Credit Points: _____

Other Observations or Comments: _____

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

1

(Field Interview/Inspection)

System Name: Emigration Improvement District System #: 18143

Source Number: 01 Source Name: Well #1

Location: _____ System Population: 340

Period of Use: 1/1 - 12/31

Note: No points issued for any of the following information.

Are there any potential sources of contamination within 5,000 feet up gradient of the water levels in the source or 5,000 foot radius of a well? Yes No

NOTE: If a source protection plan has been established for this source, then the 5,000 feet distance shall be replaced by the delineated 3 - year time of travel distance.

Describe any potential sources such as fuel storage, septic tanks, pesticide or chemical storage tanks, industry, mining or feedlots:

septic tanks

Has the area within 5,000 feet up gradient of the water level in a spring or within 5,000 feet radius of a well been sprayed for insects or weed control in the last 10 years? If yes, describe type and method of application of chemicals. Yes No

Residential landscape applications

Is source subject to any surface water intrusion/flooding any time during year? Yes No

Is there an adequate management plan in place to effectively eliminate the risk of contaminant sites polluting the source? Yes No

Does any of the source transmission lines or distribution system contain asbestos/cement pipe? Yes No

Other Observations or Comments: _____

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

2. Well

(Field Interview/Inspection)

System Name: Emigration Improvement District System #: 18143

Source Number: 02 Source Name: Well #2

Location: _____ Period of Use: 1/1 - 12/31

Latitude: 40° 47' 15.6" Longitude: 111° 44' 30.5"

A. Was Plan Approval received for this Well ? Yes No Unknown

B. Well Seal [R309-515-(6)(12)]
50 points will be assessed for any well that does not have a sanitary seal or has unsealed opening in the top of the well that could allow contamination to enter the well. A properly installed and maintained pitless adapter will meet this criteria if it has been approved by the Division of Drinking Water for the specific installation.

To be fixed by: _____ 0 or 50 Points: 0

OK

C. Proper Lubrication Oil [R309-102-(4)(7) & R309-515-(8)(2)]
25 points will be assessed for any well that requires oil lubrication if the oil used is not mineral grade suitable for human consumption.

To be fixed by: _____ 0 or 25 Points: 0

N/A

Date of Survey: April 30, 2003

D. Elevation of Top of Well Casing [R309-515-(6)(6)(B)(VI) & R309-515-(6)(13)(A)&(D)]

1 to 20 points will be assessed for any casing that does not extend at least 12" above the concrete floor or 18" above the ground, or five feet above the highest flood level. No points be assessed if a properly installed and approved pitless adapter is used. Range of points will be determined by degree of exposure to flooding, drainage, condition of floor and other factors which may jeopardize the integrity of the wellhead. If insufficient height above floor or ground, identify any conditions or factors which could jeopardize the well's sanitary integrity.

To be fixed by: _____ 0 to 20 Points: 0

OK

E. Well Discharge Piping Equipment [R309-515-6(12)(e)(iv)]

1 point assessed for each of the following items which are not present or serviceable on the discharge piping: (1) a smooth nosed sampling tap (2) a check valve (3) pressure gauge (4) a flow measuring device and/or (5) shut off valve. CIRCLE ITEMS NOT FOUND OR NOT SERVICEABLE, AND IDENTIFY IF THEY ARE NOT IN THE ORDER LISTED.

To be fixed by: _____ 0 to 5 Points: 0

OK

F. Screening of Well Casing Vent

5 points will be assessed for a well casing vent that is not properly covered with a number 14 mesh screen.

To be fixed by: _____ 0 or 5 Points: 0

OK

G. Discharge Piping Air Vent [R309-515-6(12)(e)(v)]

1 to 5 points assessed for each well that does not have an air relief valve on the discharge piping. Relief valve piping must be turned down and properly screened with number 14 mesh screen. Integrity of screen must be determined.

To be fixed by: _____ 0 to 5 Points: 0

OK

Date of Survey: April 30, 2003

H. Well House Floor Drain [R309-515-6(13)(b)]

1 to 5 points assessed for well houses that do not have a drain to daylight floor drain that is fully serviceable. Where does the drain end up?

To be fixed by: _____ 0 to 5 Points: 0

OK

Total Points Assessed: 0

ADDITIONAL REQUIRED INFORMATION (no points assessed)

Is this source covered in a source protection plan? Yes No

Is a current well log available for this well? Yes No

Current flow rate: 250 gpm Size of Well Casing: 10 inches

Type of Pump: Vertical Turbine Yes Summersible Yes

Brand/Model of Pump: Ingersol/Dresser Discharge piping size: 4 inches

Brand/Model of Motor: Hitachi Horsepower: 75

Voltage: 460

Is there a serviceable pressure gauge on the well pump discharge? Yes, Static Yes, Stagnation No

If yes: 110 (psi) off (gpm) Static Dynamic

_____ (psi) _____ (gpm) Static Dynamic

_____ (psi) _____ (gpm) Static Dynamic

Date of Survey: April 30, 2003

Is there a pump-to-waste line with an adequate air gap (twice pipe diameter)? Yes No

Distance to Surface Water <100 ft. 100 to 200 ft. >200 ft.

If there is a Pump House, is it secure? Yes No
Does it have adequate heating? Yes No
Does it have adequate lighting? Yes No
Does it have adequate ventilation? Yes No
Is floor elev.at least 6 in.above the surrounding ground elevation? Yes No

Other Observations/Comments for This Well:

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

8a. Source Protection

(Field Interview/Inspection)

System Name: Emigration Improvement District System #: 18143

Source Number: 02 Source Name: Well #2

Location: _____ System Population: 340

NOTE: *Compliance with R309-600 "Drinking Water Source Protection For Ground-Water Sources" is voluntary for existing groundwater sources of drinking water which are used by nontransient noncommunity water systems.*

A. Is there a current source protection plan in place that covers this source? [R309-600-3(2)]

Yes No

B. 5 points will be assessed to a community or nontransient noncommunity water system that has not delineated a protection area of its groundwater sources in accordance with the required time frame. Points shall remain until the source is properly delineated and the plan has been concurred with the Division personnel. [R309-600-3]

To be fixed by: _____ 0 or 5 Points: _____

C. 5 points will be assessed to a community or nontransient noncommunity water system that has not inventoried potential sources of contamination for ground water sources. [R309-600-10]

To be fixed by: _____ 0 or 5 Points: _____

D. 5 points will be assessed to a community or nontransient noncommunity water system that has not developed a management program for pre-existing potential contamination sources. [R309-600-11]

To be fixed by: _____ 0 or 5 Points: _____

E. 5 points will be assessed to a community or nontransient noncommunity water system that has not developed a management program for future potential contamination sources. [R309-600-12]

To be fixed by: _____ 0 or 5 Points: _____

Total Points Assessed: 0

F. 20 Credit Points are awarded to a water system that has completed all of its *Source Protection Plans* before required due date:

0 or 20 Credit Points: _____

Other Observations or Comments: _____

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

8b. Waiver Verification

(Field Interview/Inspection)

System Name: Emigration Improvement District System #: 18143

Source Number: 02 Source Name: Well #2

Location: _____ System Population: 340

Period of Use: 1/1 - 12/31

Note: No points issued for any of the following information.

Are there any potential sources of contamination within 5,000 feet up gradient of the water levels in the source or 5,000 foot radius of a well? Yes No

NOTE: If a source protection plan has been established for this source, then the 5,000 feet distance shall be replaced by the delineated 3-year time of travel distance.

Describe any potential sources such as fuel storage, septic tanks, pesticide or chemical storage tanks, industry, mining or feedlots:

Septic tanks

Has the area within 5,000 feet up gradient of the water level in a spring or within 5,000 feet radius of a well been sprayed for insects or weed control in the last 10 years? If yes, describe type and method of application of chemicals. Yes No

Residential landscape spraying

Is source subject to any surface water intrusion/flooding any time during year? Yes No

Is there an adequate management plan in place to effectively eliminate the risk of contaminant sites polluting the source? Yes No

Does any of the source transmission lines or distribution system contain asbestos/cement pipe? Yes No

Other Observations or Comments: _____

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

2. Well

(Field Interview/Inspection)

System Name: Emigration Improvement District System #: 18143

Source Number: 03 Source Name: Brigham Fork

Location: _____ Period of Use: not in use

Latitude: 40° 47' 15.6" Longitude: 111° 43' 39.0"

This is a new well currently under construction. Inspection will take place by Engineering Section upon completion of construction.

A. Was Plan Approval received for this Well ? Yes No Unknown

B. Well Seal [R309-515-(6)(12)]
50 points will be assessed for any well that does not have a sanitary seal or has unsealed opening in the top of the well that could allow contamination to enter the well. A properly installed and maintained pitless adapter will meet this criteria if it has been approved by the Division of Drinking Water for the specific installation.

To be fixed by: _____ 0 or 50 Points: 0

C. Proper Lubrication Oil [R309-102-(4)(7) & R309-515-(8)(2)]
25 points will be assessed for any well that requires oil lubrication if the oil used is not mineral grade suitable for human consumption.

To be fixed by: _____ 0 or 25 Points: 0

DRINKING WATER FACILITY EVALUATION

4. Disinfection Facilities Gaseous Chlorine

(Field Interview/Inspection)

System Name: Emigration Improvement District Number: 18143

Disinfection Station Number 01 Station Name: Well #2

Location: Well #2 Period of Use: year around

Source(s) Treated Well #2
[include source number(s) and name(s)]

A. Was Plan Approval received for this Chlorinator? Yes No Unknown

B. Detectable Residual [R309-102-4(1) & R309-103-2(7)]
10 points will be assessed to a chlorinated water system that does not maintain a chlorine residual at all times. Yes

To be fixed by: _____ 0 or 10 Points: 0

C. Chlorine Building [R309-205-10(1)(l)]
2 points will be assessed for each chlorine building that is not properly heated, lighted and vented. Ventilation must include exhausting room air at or near floor level. Heating may be unnecessary in warm climates. OK

To be fixed by: _____ 0 or 2 Points: 0

D. Chlorine Residual Test Kit [R309-205-10(1)(j)]
2 points will be assessed to a chlorinated water system that does not have a functional chlorine residual test kit. OK

To be fixed by: _____ 0 or 2 Points: 0

E. Cylinder Wrench on Yolk Valve
2 points will be assessed to a chlorinated water system that does not have a chlorine cylinder wrench on the yoke valve. OK

To be fixed by: _____ 0 or 2 Points: 0

F. Leak Detection and Repair Kit [R309-205-10(2)(p)]
15 points will be assessed for a water system that uses 1 TON CYLINDERS that does not have chlorine leak detection equipment and a type B 1 ton cylinder repair kit. 2 points will be assessed for a water system that uses 150 POUND CYLINDERS that does not proper chlorine leak detection equipment and a type A 150 pound cylinder repair kit. No 150 # kit available

To be fixed by: 30-May-03 0, 2, 15 or 17 Points: 2

G. Restraint and Isolation of Chlorine Cylinders [R309-205-10(2)(l)]
2 points will be assessed to a water system that does not have chlorine cylinders properly restrained and isolated from normal operating areas. Yes

To be fixed by: _____ 0 or 2 Points: 0

H. Chlorinator Feed Vent [R309-205-10(2)(f)]
 2 points will be assessed to a water system that does not have chlorinator feeder vents properly vented and screened to outside of the chlorine room. **Yes**

To be fixed by: _____ 0 or 2 Points: 0

I. Chlorine Feed Rate and Cylinder Usage [R309-205-10(2)(k)]
 2 points will be assessed to a water system that does not have the equipment to accurately measure the chlorine feed rate and the usage of the cylinder (scales). **OK**

To be fixed by: _____ 0 or 2 Points: _____

J. Self Contained Breathing Apparatus [R309-205-10-(2)(o)]
 5 points will be assessed to a water system using gaseous chlorine that does not have access to a self contained breathing apparatus for chlorine emergencies. 5 points will be assessed to a system that stores the apparatus in the chlorine room where getting to it would require exposure to chlorine gas. **No SCBA available**

To be fixed by: 05/30/03 0 or 5 Points: 5

K. Measurement of Chlorinated Water [R309-205-10(1)(l)]
 2 points will be assessed to a water system that does not have a means of measuring the volume of water treated with chlorine. **OK**

To be fixed by: _____ 0 or 2 Points: 0

Total Points Assessed: 7

ADDITIONAL REQUIRED INFORMATION (no points assessed)

- Is the chlorination building secure? Yes
- What condition is the chlorine building in? Good Average Poor
- Is a booster pump used for the chlorinator? Yes No
- Pump Brand Grundfos Model _____
- Size 1 inch Capacity _____
- Brand of Injector Capital Controls Capacity 10 ppd
- Are there spare parts on hand to repair the chlorinator? Yes No
- Does the chlorinator feed line have an in line screen or flush valve? Yes No
- Are there exterior warning signs on the chlorine building? Yes No
- Are the doors hinged to open outward and equipped with panic bars? Yes No

OTHER OBSERVATIONS OR COMMENTS:

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

5. Storage Reservoir

(Field Interview/Inspection)

System Name: Emigration Improvement District System #: 18143

Reservoir Number: 01 Reservoir Name: Freeze Creek

Location: above well #1

Latitude: _____ Longitude: _____

Volume: 300,000 (gal) Dimensions: _____

Construction Year: _____ Material: Concrete

A. Was Plan Approval received for this Storage Unit? Yes No Unknown

B. Uncovered Finished Water Storage [R309-545-9 & R309-545-6]
A water system with an uncovered finished water storage shall immediately be assessed a rating of NOT APPROVED.

Uncovered Reservoir? Yes No

C. Storage Reservoir Access [R309-545-14]
10 points shall be assessed for a water storage reservoir's access cover that is not an overlapping (shoe box) type lid, that is not locked, gasketed, and does not extend at least 4 inches above the top of the tank or finished grade.

To be fixed by: _____ 0 or 10 Points: 0

OK

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D. Storage Reservoir Vents [R309-545-15]

5 points shall be assessed for storage reservoirs that are not properly vented with a turned down vent and screened with at least No. 14 mesh screen or finer in good condition.

To be fixed by: _____ 0 or 5 Points: 0

OK

E. Storage Reservoir Drainage [R309-545-10(1)]

2 points shall be assessed for a reservoir which does not have an adequate drain line that is properly screened with at least no. 4 mesh and 12 inched free fall.

To be fixed by: 30-May-03 0 or 2 Points: 2

Screen needs repair

F. Storage Reservoir Overflow Piping [R309-545-13]

Up to 15 points shall be assessed to a reservoir that has an overflow that is either 1) unscreened with a minimum of no. 4 mesh screen, 2) inadequately sized, 3) improperly sloped, and/or 4) without at least 12 inches of free fall or an adequate air gap if connected to the sewer. Number of points assigned shall be determined by the number and severity of the above-mentioned items.

To be fixed by: _____ 0 to 15 Points: 0

OK

G. Integrity of Roof and Sidewalls of Water Storage Reservoirs [R309-545-6(1) & R309-545-9(1)]

Up to 50 points shall be assessed to a reservoir that has cracks and/or other unprotected openings in the roof or sidewalls which are not water tight, or which may affect the structural integrity of the reservoir. Points shall be determined by the severity of problems and by the degree of possible contamination to the drinking water, rodents, birds, and/or any other means permitted by the deficiency in the roof or walls of the reservoir.

To be fixed by: _____ 0 to 50 Points: 0

OK

H. Access Ladders and Protective Railings [R309-545-19]

2 points shall be assessed for each storage reservoir that does not have a safe and serviceable access ladder and/or protective railings where required.

To be fixed by: _____ 0 or 2 Points: 0

OK

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I. Internal Coatings of Storage Reservoirs [R309-545-11]

30 points shall be assessed for each storage reservoir that has internal coatings that are not in compliance with ANSI/NSF Standard 61.

To be fixed by: _____

0 or 30 Points: 0

OK

Total Points Assessed: 2

ADDITIONAL REQUIRED INFORMATION (No points assessed)

When was Storage Reservoir last cleaned? 1 years ago.

Other Observations/Comments for Reservoir: _____

Date of Survey: April 30, 2003

DRINKING WATER FACILITY EVALUATION

6. Distribution System

(Field Interview/Inspection)

System Name: Emigration Improvement District

System #: 18143

A. Was *Plan Approval* received for this Distribution System? Yes No Unknown

B. System Pressures [R309-102-11 & R309-550-5(1)]

50 points will be assessed to a water system which fails to provide at least 20 psi at all service connections within the water system at all times, including peak instantaneous flow conditions.

To be fixed by: _____ 0 or 50 Points: _____

OK

C. Adequate System Source Capacity [R309-510-7(1)]

5 to 50 points may be assessed to a system that does not have adequate source capacity to meet peak daily and/ or average yearly flow requirements. The number of points shall be determined by the severity and frequency of shortages, outages or low pressure.

Existing: 320 gpm

DDW Calculate: 197 gpm

Difference: 123 gpm

To be fixed by: _____ 0 or 50 Points: 0

System is completing construction of Brigham Fork Well. The anticipated design capacity is 250 GPM. Peak day demand has not exceeded 250,000 gallons per day.

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D. Adequate System Storage Capacity [R309-510-8]

5 to 50 points may be assessed to a system that does not have adequate storage capacity to meet peak daily flow requirements. The number of points shall be determined by the severity frequency of shortages and/or water outages.

Existing: 300,000 gal
DDW Calculate: 261,747 gal
Difference: 38,253 gal

To be fixed by: _____ 0 or 50 Points: 0

Note: System is constructing a 1 million gallon reservoir which should be on line by August or September of 2003.

E. Piping Materials [R309-550-6]

30 points will be assessed to a water system that uses unapproved pipe, fittings, or materials for conveyance of drinking water. Piping and fittings must be NSF approved and/or meet AWWA Standards or other appropriate approvals. Abestos cement pipe that has successfully passed a distribution system asbestos monitoring program according to Drinking Water Rules shall not be assessed any points.

To be fixed by: _____ 0 or 30 Points: 0

C900 mostly 8 inch

F. Clearance from Sewer Lines [R309-550-7]

30 points will be assessed to a water system that has improperly installed water lines which do not have adequate clearance or separation from sewer lines.

To be fixed by: _____ 0 or 30 Points: 0

septic tank systems

G. Vent Piping on Air and Vacuum Release Valves [R309-550-6(6)(a)]

Up to 2 points shall be assessed each air and/ or vacuum released valve that does not have a properly turned down screen vent, for a maximum total of 20 points possible.

To be fixed by: _____ 0 to 20 Points: 0

OK system has about 6 on system

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H. Flooded Air and Vacuum Release Valves [R309-550-6(6)(b)]

20 points will be assessed to a water system for each air and/or vacuum releases valve chamber that is flooded or subject to flooding, where there is indication that the vent is subject to flooding, where there is indication that the vent is subject to submergence with a total possible of 50 points for the system.

To be fixed by: _____ 0, 20, 40 or 50 Pts: 0

no problems vaults drain to daylight

Total Points Assessed: 0

ADDITIONAL REQUIRED INFORMATION (no points assessed)

Does the water system provide fire protection? Yes No

If yes, how many hydrants? 65

Does the water system have a periodic flushing program? Yes No

Does the flushing program include hydrant maintenance? Yes No

Does the water system have dead end water lines? Yes No

Does the water system have pressure zones? Yes No

If yes, how many? 3

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What are the pressure ranges throughout the system (psi)? (low) 40 (high) 150

What are the ranges of the different pressure zones?

Pressure Zone Area	psi range	Controls		
		Automatic	Manual	Remote
<i>zone 1</i>	<i>40 - 80</i>			
<i>zone 2</i>	<i>90 - 145</i>			
<i>zone 3</i>	<i>95 - 150</i>			

Other Observations or Comments: _____

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DRINKING WATER FACILITY EVALUATION

11. DDW Calculations

(Field Interview/Inspection)

System Name: Emigration Improvement District

System #: 18143

Indoor Water Use

Population served ----->>> 340
 No. of residential connections ----->>> 113
 No. of other connections --->>> _____ ERCs of other connection _____
ERC = peak day demand of other connections / 800 gal/day
(See next sheet for examples) Total ERCs 113

MINIMUM REQUIREMENTS					
Source		Storage		Water Rights	
Per Unit (gpd/ERC)	Total (gpm)	Per Unit (gallons/ERC)	Total (gallons)	Per Unit (ac-ft/yr)	Total (ac-ft/yr)
800	62.8	400	45,200	0.45	50.66

Outdoor Water Use

Is the drinking water used for outdoor irrigation? Yes No
 Avg irrigated lot size per residential connection (acres). ----->>> 0.30
 Total irrigated acreage of other connections. ----->>> _____
Irrigation zone 4

MINIMUM REQUIREMENTS					
Source		Storage		Water Rights	
Per Unit (gpd/ERC)	Total (gpm)	Per Unit (gallons/ERC)	Total (gallons)	Per Unit (ac-ft/yr)	Total (ac-ft/yr)
1711	134.2	854	96,547	0.56	63

Fire Flow Requirement

Does the water system provide fire protection? Yes No
 Maximum fire suppression **demand** for water system or pressure zone (gpm) 1000
 Maximum fire suppression **duration** for water system or pressure zone (hours) 2
 Required Fire Suppression Storage (gallons) ----->>> 120,000

Total Water System Requirements

MINIMUM REQUIREMENTS					
Source		Storage		Water Rights	
Per Unit (gpd/ERC)	Total (gpm)	Per Unit (gallons/ERC)	Total (gallons)	Per Unit (ac-ft/yr)	Total (ac-ft/yr)
2511	197.0	1,254	261,747	1.01	114

ERCs of Non-Community Water Systems, **Indoor Use** (Per 1994 Public Drinking Water Rules)

