State of Utah

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DIVISION OF DRINKING WATER
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Director

October 13, 2020

Rodger A Smith
Highland Subdivision Utah15005
6373 Gordan Creek
Morgan ,UT 84050

Subject: RTCR Level 2 Assessment Highland Subdivision Utah15005

Dear Mr. Smith ,

I would like to thank your self, Nate Hadley,Marjilee Smith,Kent Wilkerson P.E.,and Bart Smith for taking the time to meet with me to conduct a Level 2 Assessment of Highland Subdivision Water System on Sept. 24th , 2020. The level 2 Assessment was required because of Multiple TC+,EC+ Samples from Spring Source WS002 Gordan Creek Spring 2 and WS003 Gordan Creek Spring 7 .

Observations:

My Assessment covered all the componates of Highland water system Sources, Tanks, Distribution System (Air vacs, PRV stations, Fire Hydrant program) , Chlorinators, etc.

The main focus however was on the Spring Source WS 002 and WS003 .

WS002 consists of 1 collection Box (Manhole) #2, WS003 consists of 7 collection Boxes (manholes) numbered 3 thru 9. The WS003 Boxes are all identical with 3 inflow pipes and an outflow pipe, approximately 15 ft. in depth from access hatch to bottom. WS002 box is a different design as it is larger in diameter and not as deep as the others. The outflow lines Tee off outside of box and this line acts as an overflow/Drain combo as there is a manuel shutoff valve downstream of the tee.

These lines then all connect as they come off the mountain in several locations with valving at all the intersections and turn outs /overflows at these intersections. Continuing as one line further down gradient to a Chlorination facility at 2 Tanks ST003 & ST004.

All of the boxes had vents, downturned, screened #14 , shoe box lid on access , gaskets , 18" above ground.

Springs were all fenced (stock tight) 50 ft upgradient from box , no deep rooted vegetation with in the fenced area.

Spring collection areas were all on slopes some steeper than others , this would divert run off away spring and boxes.

Spring Box WS002 #2 and WS003 # 9 had several insects in them.
Overflow lines were all screened with # 4 and intact with 12 inches plus of clearance free fall.
One of the overflow/Blowoff lines at one of the intersection points down the mountain was found to have a small hole in the #4 screen.

Deficiencies identified during the L2 Assessment: UPDATE as of 10/14/2020- These Deficencies have been resolved and will be removed. BP

Deficiency	Facility	Significant Deficiency Y/N	IPS Points	Description	Rule Reference	Due Date for Fix
SS04	WS002	Y	25	Spring Box Overflow Lacks #4 screen.	R309-515-7(7)(d) R309-545-13(3)	
D007	DS001	Y	25	Air Relief Valve or Chanmber subject to Flooding	R309-550-6(6)(b) (7)(b)	

Recommendations:

Operator Nate Hadley had indicated there was possibly a leak in one of the main lines coming from the springs , this would be something to determine if in fact there was one and repair the line.
System needs to be able to collect a good sanitary Bacteriological sample from each collection box when required to , system should devise a way to accomplish this. The overflow line is not an ideal location to collect Bac T samples.
Evaluate the 2 spring boxes which had insects in them and try to determine how to prevent them from entering.
If spring areas can be accessed when snow melts, observing the run off to make sure it is not compromising the collection area of each spring .
Continue to keep vegetation out of the collection area.

Conclusions:

WS003 Box 4 & 5 had TC+ EC+ samples , some of the other boxes had only TC+, box 5 had some root intrusion according to the operator , they had been removed upon my assessment. It is possible the TC EC followed a pathway with the roots at least on box 5 , however no root intrusion occurred on box 4 . The other possibility is the TC EC came from the overflow pipe where the samples were collected even though the operator indicated he had flushed them for a while. Box 4 & 5 are within a few hundred feet of one another however 5 is up on a ridge and 4 is down a ravene not in the same drainage area as box 5.

All the boxes at WS003 were in good condition and showed no influence of debris or water at the joints of the manhole section , WS002 was in good condition as well.

The deficiencies found on system would not have affected the TC EC event , Air Vac issue is down in Distribution System and hole in overflow screen is on an intersection of the spring transmission line several blocks from spring boxes and down gradient/elevation by several hundred feet.

Finally our assessment did not determine a definitive cause for the EC+ samples at WS003 Box 4 &5.

Feel free to contact me at 385-270-7272 bpattee@utah.gov, with questions or if we can be of further assistance.

Sincerely,

Brian Pattee
Environmental Scientist
Utah Division of Drinking Water

Enclosures: Survey Responses, Deficiency Report
cc:
Brian Pattee, Division of Drinking Water, bpattee@utah.gov
Sitara Federico, Division of Drinking Water, sfederico@utah.gov

Utah Department Of Environmental Quality
Division Of Drinking Water Level 2 Assessment

Level 2 Assessment

Site Visit Date	Surveyor Name
09/24/2020	Brian Pattee

HIGHLAND SUBDIVISION (MORGAN)	PWS ID: UTAH15005	Rating: Approved	02/16/1988	Active

General System Information

1	Admin Contact (AC) [eMail address is REQUIRED] *MIN | 15pts | SM | G004 | R309-100-4(5) | Rule requires a person or organization be designated as the owner of the system and name, address and phone number of such be supplied to the Division.*	*First Name: RODGER A *Last Name: SMITH *Organization: *Address: Redacted *City: MORGAN *State: UT *Zip: 84050 *Email: rodgersmithone@hotmail.com *Phone: 801-876-2510

Site Visit Info

2	Date of Survey (First Day of Field Work)	09/24/2020
3	Date of Survey (Last Day of Field Work) ** this should match the Date of Survey in the header **	09/24/2020
4	Date final report sent to system (questionnaire, deficiency report and cover letter)	10/14/2020
5	Water system representative present during the survey:	Rodger Smith, Marjalee Smith, Kent Wilkerson P.E. , Nate Hadley, Bart Smith.
6	What condition triggered the level 2 assessment?	LV03

Management and Operations

7	For a community water system without naturally flowing water sources (springs or artesian wells), system has at least one source of standby power. *SIG | 25pts | SO | S033 | R309-515-6(2)(a) | Rule requires a community water system without naturally flowing water sources, such as springs or flowing wells, to have one or more of the system's sources equipped for operation during power outages. To ensure continuous service when the primary power has been interrupted, a redundant power supply is required. A redundant power supply may include a transfer switch for auxiliary power such as a generator or a power supply service with coverage from two independent substations. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	NA (Notes: Springs are main source)

8	Are there any individual home booster pumps installed in the distribution system (not for fire suppression)? *SIG | 50pts | DS | M020 | R309-105-12(1) | Rule states that a water supplier shall not allow a connection to his system which may jeopardize its quality and integrity. Cross connections are not allowed unless controlled by an approved and properly operating backflow prevention assembly. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
9	Does the system haul water? ... if yes, answer the following question(s)	N
10	For a community system serving 100 or more connections, at least 2 water sources are available. *SIG | 50pts | SO | TGR7 | R309-515-4(3) | Rule requires Community Water Systems serving more than 100 connections to have a minimum of two sources except where served by a water treatment plant. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
11	Does system have a consecutive connection to another water system not listed in the SOURCE section of Waterlink Report? If yes, answer the following question(s)	N
12	Sell water? ... if yes, answer the following question(s)	N
13	Is the sample tap clean and free from obstruction?	N (Notes: Sample in question was collected from Spring Box/Line Overflow , Screened however would not be considered an Ideal sanitary spot . (No way to disinfect the entire surface of inside these pipes.))
14	Describe the type of sample tap (outside hose bib, frost free hydrant, kitchen tap, etc.)	Spring Box/Line Overflow
15	Was the sample collected on a supply line that is used regularly? (Samples should not be taken from a line with little or no use)	NA (Notes: Sample Taken from Spring Overflow)
16	Have any conditions changed since the last sample collection?	Y (Notes: Root intrusion into 2 of the spring Boxes.)
16A	Have there been any plumbing changes or construction where the sample was collected?	N
16B	Have there been any plumbing breaks or failure in the premise plumbing?	N
17	Are there any cross-connections after the service connection or in premise plumbing?	N
18	Were there any low pressure events or changes in the water pressure after the service connection or in premise plumbing?	N
19	Are there any treatment devices after the service connection or in the premise piping?	N
20	Could the sample be mixed with hot water or water passing through a water softener?	N
21	Was the sample representative of the water system?	N
22	Did the sampler explain their procedures for collecting samples?	Y
23	Was the sample tap adequately flushed prior to taking sample?	Y
24	Was the sample tap properly disinfected?	NA (Notes: No way to disinfect these overflow lines)
25	If the sample tap has an aerator, was the aerator removed before taking the sample?	NA (Notes: Overflow line)
26	Was the sample taken from a tap with a swivel connection?	N
27	Were sealed, fresh sample bottles used?	Y

28	Are sample bottles properly stored?	Y
29	Were there any adverse environmental conditions when the TC+ sample was collected?	Y (Notes: Outdoors from open pipe in mountains)
30	Were samples kept on ice during transportation to the laboratory?	Y
31	Were samples transported to the laboratory within the 30 hour holding time?	Y
32	Was a Boil Water Order issued for the E.coli sample results?	N
33	Was the Boil Water Order lifted?	NA (Notes: No Boil order)
34	Does the system have any unresolved significant deficiencies?	N (Notes: Have been resolved)

Cross Connection and Operator Certification

35	Sampler's Last Name	Hadley
36	Sampler's First Name	Nate
37	Sampler's telephone number	801-458-0175
38	Sampler's eMail address	highlandsn8@gmail.com
39	Emergency phone number:	801-458-0175
40	How long has the sampler been taking TCR samples?	8 years
41	Is the sampler certified in either distribution or treatment?	Y
41A	What type(s) and grade(s) of certification? (for example, D2 T4)	D2

General Maintenance and Environment

42	Has there been a loss of power to any portion(s) of the system?	N
43	Has there been any loss of pressure events?	N
44	Have there been any customer complaints (cloudy water, smell, taste, interruptions of service)?	Y (Notes: Air in water , discolored water)
44A	Describe customer complaint(s):	Air in water , discolored water
45	Have there been any visual indications of unsanitary conditions?	N
46	Has there been any operation, maintenance, or repair activities that could have introduced total coliform or E.coli into the system?	N
47	Has there been any vandalism and/or unauthorized access to facilities?	N
48	Has there been any recent fire fighting events, flushing operations, sheared hydrants, etc.?	N
49	Has there been any recent construction activities such as a new water line, tank, pump station, well installation, etc. or other facility that has been tied into the existing distribution system?	N
50	Have there been any analytical results or any additional samples collected, including source samples which were positive (not for compliance)?	Y (Notes: Several Spring boxes were TC+ from overflow pipes)
51	Has there been any community illness suspected of being waterborne?	N
52	Did the water system receive any TCR monitoring violations in the past 12 months?	N

53	What was the most recent date on which a satisfactory total coliform sample(s) were taken?	10/10/2020
54	Is there any evidence of intentional contamination of the system?	N
55	Was there an increase in water turbidity at any point in the system?	N
56	Have there been any recent modifications to the water system that could lead to contamination of the system?	N
57	Have any new sources been added to the system?	Y
58	Have any inactive sources recently been introduced into the system (e.g. existing source, auxiliary systems)?	N
59	Has there been any recent treatment or operational changes?	N
60	Is there any evidence of potential sources of contamination?	N
61	Was there any unusually high (or low) water demand that might have altered typical flow patterns in the water system?	N
62	Have there been any sewer spills, source water spills or other disturbances?	N
63	Have there been any algal blooms?	N
64	Has source water turnover occurred?	N
65	Has there been any unusual weather events that could have contributed to the TC+/EC+ samples?	N
66	Has there been any recent heavy rainfall?	N
67	Has there been any rapid snow melt or flooding?	N
68	Have there been any changes in available source water? (e.g. significant drop in water table, well output reservoir capacity, etc.)	N
69	Have there been any extremes in heat or cold?	N

Distribution

70	No unprotected connection between the distribution system and a source of contamination. (If there is an unprotected connection, describe the location in detail.) *SIG | 50pts | DS | M020 | R309-105-12(1) | Rule states that a water supplier shall not allow a connection to his system which may jeopardize its quality and integrity. Cross connections are not allowed unless controlled by an approved and properly operating backflow prevention assembly. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
71	Are air release/vacuum valves in the distribution system? ... if yes, answer the following question(s)	Y
71A	Open end of vent line covered with #14 mesh screen and down-turned. *SIG | 25pts | DS | D004 | R309-550-6(6)(b) | Rule states the open end of the air relief vent pipe from automatic valves shall be provided with a #14 mesh, non-corrodible screen and a downward elbow, and where possible, be extended to at least one foot above grade. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

71B	For a valve in a chamber, open end of vent pipe is at least 12 inches above grade or one foot above distribution line in a chamber that does not flood. *SIG	25pts	DS	D006	R309-550-6(6)(b)	Rule states the open end of the air relief vent pipe from automatic valves shall be provided with a #14 mesh, non-corrodible screen and a downward elbow, and where possible, be extended to at least one foot above grade. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C (Notes: valve in chamber could easily be flooded and needs to be vented above grade .)
71C	Chamber has drain to daylight, gravel-filled adsorption pit if not subject to flooding, or sump pump. *SIG	25pts	DS	D007	R309-550-6(6)(b) and (7)(b)	Rule states chambers shall be provided with a drain to daylight, if possible. Where this is not possible, underground gravel-filled absorption pits may be used if the site is not subject to flooding and conditions will assure adequate drainage. Sump pumps may also be considered if a drain to daylight or absorption pit is not feasible. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	D (Notes: valve in chamber could easily be flooded and needs to be vented above grade .)
71D	Chamber is not flooded at the time of the inspection. *MIN	0pts	DS	D008	R309-550-6(7)(b)	Rule states the chamber for an air relief valve shall not be subject to flooding and shall have a drain to daylight wherever possible or a gravel fill absorption pit. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
72	Water system has a program to maintain, operate, or control the use of fire hydrants. *REC	0pts	DS	D012	N/A	Fire hydrants provide a direct access to the water in the distribution system. In order to protect the quality and integrity of the water, fire hydrant access should be controlled.*	C
73	Blow offs or air release valves are not directly connected to a sanitary sewer line. *SIG	50pts	DS	D013	R309-550-6(5)(a), R309-550-6(6)(c) and (7)(a)	Rule states blow-offs or air relief valves shall not be connected directly to a sewer. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
74	Blow offs or air release valves do not discharge below flood level in ditches or streams. *SIG	50pts	DS	M020	R309-105-12(1)	Rule states that a water supplier shall not allow a connection to his system which may jeopardize its quality and integrity. Cross connections are not allowed unless controlled by an approved and properly operating backflow prevention assembly. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
75	Does the system have fire hydrants or blow offs?	Y
75A	Are there any fire hydrants located in areas with a high water table?	N
76	All water mains installed after 1995 that provide fire flow are at least 8 inches in diameter. *MIN	15pts	DS	D019	R309-550-5(4) & (5)	Rule states that the minimum line size serving a fire hydrant lateral shall be 8-inch diameter unless a hydraulic analysis indicates that required flow and pressures can be maintained by 6-inch lines.*	C

77	Distribution system capable of providing minimum pressure of 20 psi at all service connections. *SIG	50pts	DS	D003	R309-105-9, R309-550-5(1)	Rule states the distribution system shall maintain minimum pressures as required by R309-105-9 at all points of connection under all flow conditions. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
78	Was the water system constructed or new portions added after January 1, 2007? ... if yes, answer the following question(s)	Y
78A	Distribution system capable of maintaining the following pressures at all service connections: (a) 20 psi during fire flow and fire demand during peak day demand; (b) 30 psi during peak instantaneous demand; and (c) 40 psi during peak day demand. *SIG	50pts	DS	D010	R309-105-9, R309-550-5(1)	Rule states that unless otherwise specifically approved by the Director, public water systems constructed after January 1, 2007, shall be designed and shall meet the following minimum water pressures at points of connection: (a) 20 psi during conditions of fire flow and fire demand experienced during peak day demand; (b) 30 psi during peak instantaneous demand; and (c) 40 psi during peak day demand. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
79	Is there any evidence that the system experienced low or negative pressure?	N
80	Is there adequate pressure throughout the entire distribution system at all times?	Y
81	Are blow offs or air relief valves directly connected to a sewer or do not have a proper air gap or do they exit below flood level in ditches or streams?	N
82	Does the system have pressure reducing / sustaining valve stations?	Y
82A	Do the valves function properly?	Y
82B	Is the valve vault free of standing water, debris, etc.?	Y
83	Has appropriate backflow prevention (devices/assemblies) been installed on all high risk (hazard) sites?	Y
83A	Have these devices/assemblies been inspected, maintained and/or tested at least annually?	Y

General Disinfection

84	Water system follows AWWA disinfection procedures for new, repaired, or seasonal water mains and tanks. *SIG	25pts	MR	D018	R309-550-8(10)	All new and repaired water mains and appurtenances shall be disinfected in accordance with AWWA Standard C651. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
85	How often do you periodically disinfect any or all parts of your water system (i.e. batch disinfection) other than for repairs or maintenance? *SIG	50pts	TR	TD25	R309-520-6	Rule requires continuous disinfection of groundwater sources that do not consistently meet bacteriological quality standards, all surface water sources, and groundwater sources under the direct influence of surface water. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
86	Did the system batch disinfect for this TC+, EC+ event?	N

87	Did the system conduct any flushing associated with this event?	N
88	Has the system completed any recent water main, service connection repairs, maintenance on a well or pump, fire hydrant, pressure regulator, etc. that may have introduced contamination into the distribution system?,	N
89	Were investigative TCR samples taken after repairs were made?	N
90	Were any isolation valves recently opened, closed or damaged?	N

WS002 - GORDON CREEK SPRING 2 - Active

91	Undocumented sources shall not be physically connected to the drinking water system. (IF SOURCE IS NOT IN SYSTEM INVENTORY MARK "DEFICIENT") *SIG | 200pts | SO | S001 | R309-515-6(5), R309-515-7(4), R309-500-9(2) and (3) | R309-105-6(1) requires plans and specifications for all public drinking water projects to be approved in writing by the Director prior to the commencement of construction. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
92	Area of equal or higher elevation within 50 feet of spring collection devices is fenced. *MIN | 15pts | SO | SS02 | R309-515-7(7)(e) | Rule requires a stock-tight fence around the spring collection area.*	C
93	Surface water runoff diverted away from spring by diversion channel or berm. *MIN | 15pts | SO | SS03 | R309-515-7(7)(g) | Rule requires a diversion channel or berm, constructed immediately inside the fenced area, capable of diverting all anticipated surface water runoff away from the spring collection area.*	C
94	Spring box has a means of providing overflow? *MIN | 15pts | SO | SS23 | R309-515-7(7)(d), R309-545-13(1) | All junction boxes and collection boxes, must comply with R309-545 with respect to access openings, venting, and tank overflow. Lids for these spring boxes shall be gasketed and the box adequately vented.*	Y
94A	Overflow screened with #4 mesh screen *SIG | 25pts | SO | SS04 | R309-515-7(7)(d), R309-545-13(3) | Overflow pipes on junction and collection boxes shall comply with R309-545 and be screened with No. 4 mesh non-corrodible screens. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	D (Notes: Overflow turn out at Intersection of combining springs had a small hole in the Screen)
94B	Overflow has a minimum of 12 inch clearance above flood rim of receiving basin *SIG | 25pts | SO | SS14 | R309-515-7(7)(d), R309-545-13 | Overflow pipes on junction and collection boxes shall comply with R309-545 and discharge a minimum of 12 inches above the ground surface or rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
95	Drain has minimum of 12 inch clearance above flood rim of receiving basin *SIG | 25pts | SO | SS14 | R309-515-7(7)(d), R309-545-13 | Overflow pipes on junction and collection boxes shall comply with R309-545 and discharge a minimum of 12 inches above the ground surface or rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

96	Is the spring collection area subject to ponding of surface water? *| 0pts | SO | SSL1 | TBD | TBD*	N
97	If a liner is present, spring liner integrity is maintained. *SIG | 50pts | SO | SS19 | R309-515-7(7)(b)(iv) | If a liner is present, it shall be installed to assure its integrity. No sharp-edged stones or stones two inches or larger shall be located within two inches of the liner. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
98	No deep-rooted vegetation is within the fenced collection area. *SIG | 25pts | SO | SS07 | R309-515-7(7)(f) | All deep-rooted vegetation within the fenced collection area shall be removed by a means not negatively affecting water quality. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
99	No roots seen in collection lines. *SIG | 25pts | SO | SS08 | R309-105-10(4)(a), R309-515-8(1)(a) | Spring collection areas shall be periodically (preferably annually) cleared of deep-rooted vegetation to prevent root growth from clogging collection lines. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
100	Is a spring collection box present? ... if yes, answer the following question(s) *MIN | 5pts | SO | SS11 | R309-515-7(7)(d), R309-545-15 | Rule requires junction boxes and collection boxes to comply with R309-545 with respect to venting. Therefore, a junction or collection box requires a vent to be fitted with #14 mesh or finer non-corrodible screen, be fitted with a protective heavy-gauge screen or covering if 6 inches in diameter or greater, be down-turned and shielded to prevent the entrance of contaminants, be located and sized to avoid blockage during winter, and have the end of the vent discharge a minimum of 24 inches above the earth on buried structures.*	Y
100A	Spring box has shoe box type lid with 2 inch overlap around frame *SIG | 25pts | SO | SS09 | R309-515-7(7)(d), R309-545-14 (2) | Access openings shall comply with R309-545 and be provided with a close-fitting, solid shoebox-type cover that extends down around the frame at least 2 inches. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
100B	Spring box lid is gasketed *SIG | 25pts | SO | SS10 | R309-515-7(7)(d), R309-545-14 (2) | Access openings shall comply with R309-545 and be provided with a cover furnished with a gasket between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

100C	Does lid show evidence of a vacuum on the spring box? *MIN | 5pts | SO | SS11 | R309-515-7(7)(d), R309-545-15 | Rule requires junction boxes and collection boxes to comply with R309-545 with respect to venting. Therefore, a junction or collection box requires a vent to be fitted with #14 mesh or finer non-corrodible screen, be fitted with a protective heavy-gauge screen or covering if 6 inches in diameter or greater, be down-turned and shielded to prevent the entrance of contaminants, be located and sized to avoid blockage during winter, and have the end of the vent discharge a minimum of 24 inches above the earth on buried structures.*	C
100D	Spring box opening is at least 4 inches above the surface of the box or 18 inches above an earthen cover if the box is buried. *MIN | 15pts | SO | SS12 | R309-515-7(7)(d), R309-545-14 (1), | Access openings shall comply with R309-545 and be framed at least 4 inches above the surface of the spring box roof at the opening or 18 inches above the ground surface on a buried spring box.*	C
100E	Spring box lid is locked *SIG | 25pts | SO | SS13 | R309-515-7(7)(d), R309-545-14 (3) | Access openings shall comply with R309-545 and the lids to the openings shall be locked. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
100F	All openings/penetrations in the spring collection box are sealed. *SIG | 50pts | SO | SS20 | R309-515-7(7)(d), R309-545-9(1) and (2) | All junction and collection boxes shall comply with R309-545 and shall have suitable watertight roofs and sidewalls that exclude birds, animals, insects, and excessive dust. All openings shall be kept to a minimum and be watertight. Pipes that may contain water of lesser quality than drinking water shall not penetrate the spring box. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
100G	Are there signs of small animals, slugs, bugs, etc. in the spring box?	Y
101	Is a spring box vent present? ... if yes, answer the following question(s) *MIN | 0pts | SO | SSL2 | R309-515-7(7)(d) | A spring vent has been required for many years by R309-515-7(7)(d). For existing sources where vacuum conditions do not exist we have not required the system to retro fit the spring box. However, whenever the spring is re-developed a vent will be required*	Y
101A	Vent is down-turned. *SIG | 25pts | SO | SS16 | R309-515-7(7)(d), R309-545-15(1) | All vents on junction and collection boxes shall comply with R309-545 and be downturned a minimum of 2 inches below any opening and shielded to prevent the entrance of contaminants. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

101B	Vent has #14 or finer non-corrodible mesh screen and a protective screen/covering if 6-inch diameter or greater. *SIG | 25pts | SO | SS17 | R309-515-7(7)(d), R309-545-15(4) and (5) | All vents on junction and collection boxes shall comply with R309-545 and be fitted with No. 14 or finer non-corrodible mesh screen. Vents 6-inch diameter or larger shall be fitted with additional heavy gage screen or substantial covering to protect the No. 14 mesh screen. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
101C	End of vent has sufficient clearance to prevent ice/snow blockage or is at least 24 inches above the earthen cover *SIG | 25pts | SO | SS18 | R309-515-7(7)(d), R309-545-15(2) and (3) | All vents on junction and collection boxes shall comply with R309-545 and shall be located and sized to avoid blockage during winter. The end of a vent on a buried spring box shall discharge a minimum of 24 inches above the ground. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
102	Spring has permanent flow-measuring device. *MIN | 5pts | SO | SS01 | R309-515-7(7)(h) | Rule requires a spring to have a permanent flow measuring device.*	C

WS003 - GORDON CREEK SPRING 7 - Active

103	Undocumented sources shall not be physically connected to the drinking water system. (IF SOURCE IS NOT IN SYSTEM INVENTORY MARK "DEFICIENT") *SIG | 200pts | SO | S001 | R309-515-6(5), R309-515-7(4), R309-500-9(2) and (3) | R309-105-6(1) requires plans and specifications for all public drinking water projects to be approved in writing by the Director prior to the commencement of construction. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
104	Area of equal or higher elevation within 50 feet of spring collection devices is fenced. *MIN | 15pts | SO | SS02 | R309-515-7(7)(e) | Rule requires a stock-tight fence around the spring collection area.*	C
105	Surface water runoff diverted away from spring by diversion channel or berm. *MIN | 15pts | SO | SS03 | R309-515-7(7)(g) | Rule requires a diversion channel or berm, constructed immediately inside the fenced area, capable of diverting all anticipated surface water runoff away from the spring collection area.*	C
106	Spring box has a means of providing overflow? *MIN | 15pts | SO | SS23 | R309-515-7(7)(d), R309-545-13(1) | All junction boxes and collection boxes, must comply with R309-545 with respect to access openings, venting, and tank overflow. Lids for these spring boxes shall be gasketed and the box adequately vented.*	Y
106A	Overflow screened with #4 mesh screen *SIG | 25pts | SO | SS04 | R309-515-7(7)(d), R309-545-13(3) | Overflow pipes on junction and collection boxes shall comply with R309-545 and be screened with No. 4 mesh non-corrodible screens. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

106B	Overflow has a minimum of 12 inch clearance above flood rim of receiving basin *SIG | 25pts | SO | SS14 | R309-515-7(7)(d), R309-545-13 | Overflow pipes on junction and collection boxes shall comply with R309-545 and discharge a minimum of 12 inches above the ground surface or rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
107	Drain has minimum of 12 inch clearance above flood rim of receiving basin *SIG | 25pts | SO | SS14 | R309-515-7(7)(d), R309-545-13 | Overflow pipes on junction and collection boxes shall comply with R309-545 and discharge a minimum of 12 inches above the ground surface or rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
108	Is the spring collection area subject to ponding of surface water? *| 0pts | SO | SSL1 | TBD | TBD*	N
109	If a liner is present, spring liner integrity is maintained. *SIG | 50pts | SO | SS19 | R309-515-7(7)(b)(iv) | If a liner is present, it shall be installed to assure its integrity. No sharp-edged stones or stones two inches or larger shall be located within two inches of the liner. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	NA (Notes: Unknown on liner)
110	No deep-rooted vegetation is within the fenced collection area. *SIG | 25pts | SO | SS07 | R309-515-7(7)(f) | All deep-rooted vegetation within the fenced collection area shall be removed by a means not negatively affecting water quality. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
111	No roots seen in collection lines. *SIG | 25pts | SO | SS08 | R309-105-10(4)(a), R309-515-8(1)(a) | Spring collection areas shall be periodically (preferably annually) cleared of deep-rooted vegetation to prevent root growth from clogging collection lines. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
112	Is a spring collection box present? ... if yes, answer the following question(s) *MIN | 5pts | SO | SS11 | R309-515-7(7)(d), R309-545-15 | Rule requires junction boxes and collection boxes to comply with R309-545 with respect to venting. Therefore, a junction or collection box requires a vent to be fitted with #14 mesh or finer non-corrodible screen, be fitted with a protective heavy-gauge screen or covering if 6 inches in diameter or greater, be down-turned and shielded to prevent the entrance of contaminants, be located and sized to avoid blockage during winter, and have the end of the vent discharge a minimum of 24 inches above the earth on buried structures.*	Y

112A	Spring box has shoe box type lid with 2 inch overlap around frame *SIG | 25pts | SO | SS09 | R309-515-7(7)(d), R309-545-14 (2) | Access openings shall comply with R309-545 and be provided with a close-fitting, solid shoebox-type cover that extends down around the frame at least 2 inches. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
112B	Spring box lid is gasketed *SIG | 25pts | SO | SS10 | R309-515-7(7)(d), R309-545-14 (2) | Access openings shall comply with R309-545 and be provided with a cover furnished with a gasket between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
112C	Does lid show evidence of a vacuum on the spring box? *MIN | 5pts | SO | SS11 | R309-515-7(7)(d), R309-545-15 | Rule requires junction boxes and collection boxes to comply with R309-545 with respect to venting. Therefore, a junction or collection box requires a vent to be fitted with #14 mesh or finer non-corrodible screen, be fitted with a protective heavy-gauge screen or covering if 6 inches in diameter or greater, be down-turned and shielded to prevent the entrance of contaminants, be located and sized to avoid blockage during winter, and have the end of the vent discharge a minimum of 24 inches above the earth on buried structures.*	C
112D	Spring box opening is at least 4 inches above the surface of the box or 18 inches above an earthen cover if the box is buried. *MIN | 15pts | SO | SS12 | R309-515-7(7)(d), R309-545-14 (1), | Access openings shall comply with R309-545 and be framed at least 4 inches above the surface of the spring box roof at the opening or 18 inches above the ground surface on a buried spring box.*	C
112E	Spring box lid is locked *SIG | 25pts | SO | SS13 | R309-515-7(7)(d), R309-545-14 (3) | Access openings shall comply with R309-545 and the lids to the openings shall be locked. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
112F	All openings/penetrations in the spring collection box are sealed. *SIG | 50pts | SO | SS20 | R309-515-7(7)(d), R309-545-9(1) and (2) | All junction and collection boxes shall comply with R309-545 and shall have suitable watertight roofs and sidewalls that exclude birds, animals, insects, and excessive dust. All openings shall be kept to a minimum and be watertight. Pipes that may contain water of lesser quality than drinking water shall not penetrate the spring box. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
112G	Are there signs of small animals, slugs, bugs, etc. in the spring box?	Y
113	Is a spring box vent present? ... if yes, answer the following question(s) *MIN | 0pts | SO | SSL2 | R309-515-7(7)(d) | A spring vent has been required for many years by R309-515-7(7)(d). For existing sources where vacuum conditions do not exist we have not required the system to retro fit the spring box. However, whenever the spring is re-developed a vent will be required*	Y

113A	Vent is down-turned. *SIG | 25pts | SO | SS16 | R309-515-7(7)(d), R309-545-15(1) | All vents on junction and collection boxes shall comply with R309-545 and be downturned a minimum of 2 inches below any opening and shielded to prevent the entrance of contaminants. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
113B	Vent has #14 or finer non-corrodible mesh screen and a protective screen/covering if 6-inch diameter or greater. *SIG | 25pts | SO | SS17 | R309-515-7(7)(d), R309-545-15(4) and (5) | All vents on junction and collection boxes shall comply with R309-545 and be fitted with No. 14 or finer non-corrodible mesh screen. Vents 6-inch diameter or larger shall be fitted with additional heavy gage screen or substantial covering to protect the No. 14 mesh screen. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
113C	End of vent has sufficient clearance to prevent ice/snow blockage or is at least 24 inches above the earthen cover *SIG | 25pts | SO | SS18 | R309-515-7(7)(d), R309-545-15(2) and (3) | All vents on junction and collection boxes shall comply with R309-545 and shall be located and sized to avoid blockage during winter. The end of a vent on a buried spring box shall discharge a minimum of 24 inches above the ground. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
114	Spring has permanent flow-measuring device. *MIN | 5pts | SO | SS01 | R309-515-7(7)(h) | Rule requires a spring to have a permanent flow measuring device.*	C

WS001 - PATE-POLL WELL (OUT) -

115	Operating Period (Start Date)	01/01
116	Operating Period (Ending Date)	12/31
117	Undocumented sources shall not be physically connected to the drinking water system. (IF SOURCE IS NOT IN SYSTEM INVENTORY MARK "DEFICIENT") *SIG | 200pts | SO | S001 | R309-515-6(5), R309-515-7(4), R309-500-9(2) and (3) | R309-105-6(1) requires plans and specifications for all public drinking water projects to be approved in writing by the Director prior to the commencement of construction. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	NA (Notes: Source no longer connected to this system)
118	Well casing is at least 18 inches above finished ground surface and 12 inches above well house floor. *SIG | 25pts | SO | S003 | R309-515-6(6)(b)(vi), R309-515-6(12)(c)(ii), R309-515-6(13)(a) | Rule requires the permanent well casing to project at least 18 inches above the final ground surface and 12 inches above the pump house floor; at sites subject to flooding, the top of the casing must terminate at least 3 feet above the 100-year flood level or highest known flood elevation, whichever is higher. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	NA (Notes: Source no longer connected to this system)

119	Is there a proper seal at wellhead surface to prevent contamination? *SIG | 50pts | SO | S013 | R309-515-6(6)(i) | R309-515-6(6)(i) require a sanitary seal be installed and maintained at the wellhead and discharge piping. 50 demerit points. This significant deficiency should be corrected within 120 days of notification or have a corrective action plan approved by*	NA (Notes: Source no longer connected to this system)
120	Is the well casing vented? ... if yes, answer the following question(s)	Y (Notes: Source no longer connected to this system)
120A	Vent screened with #14 mesh screen *SIG | 25pts | SO | S006 | R309-515-6(12)(d)(iii) | Guidance states provisions should be made for venting the well casing, however if vented R309-515-6(12)(d)(iii) and R309-550-6(6)(a)require vents be fitted with a #14 mesh or finer non-corrodible screen.*	C
120B	Vent down-turned *SIG | 25pts | SO | S007 | R309-515-6(12)(d)(iii) | Guidance states provisions should be made for venting the well casing, however if vented R309-515-6(12)(d)(iii) and R309-550-6(6)(b) requires vents be downturned or shielded to prevent the entraince of surface water or rainwater. 2 demerit points shall be assessed.*	C
120C	Vent has adequate clearance to prevent contamination from entering the well *SIG | 25pts | SO | S008 | R309-515-6(12)(d)(iii) | Guidance states provisions should be made for venting the well casing, however if vented R309-515-6(12)(d)(iii) and R309-550-6(6)(b) requires vents be terminated with a discharge with an appropriate air gap. 2 demerit points shall be assigned.*	C
121	Does the well have a pump to waste line? ... if yes, answer the following question(s)	Y (Notes: Source no longer connected to this system)
121A	Pump to waste line discharges with a minimum of 12-inch clearance to flood rim *SIG | 25pts | SO | S009 | R309-515-6(12)(d)(ix) | Rule requires a pump-to-waste line connected to a sewer/storm drain to have a minimum 12-inch clearance to the flood rim. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
121B	Pump to waste line equipped with #4 non-corrodible mesh screen *SIG | 25pts | SO | S010 | R309-515-6(12)(d)(ix) | The discharge end of the pump-to-waste line shall be covered with a No. 4 mesh corrosion-resistant screen. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
121C	Pump to waste line downturned *SIG | 25pts | SO | S011 | R309-515-6(12)(d)(ix) | The discharge end of the pump-to-waste line shall be downturned. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
121D	Pump to waste line discharges to recepticle with proper local authorization *SIG | 25pts | SO | S011 | R309-515-6(12)(d)(ix) | The discharge end of the pump-to-waste line shall be downturned. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

122	Provisions available to periodically measure water levels *MIN | 5pts | SO | S015 | R309-515-6(12)(e), R309-515-6(12)(c)(vi) | Rule requires provisions be made to permit periodic measurement of water levels in the completed well.*	C (Notes: Source no longer connected to this system)
123	Wellhead secured to protect quality water *SIG | 25pts | SO | S002 | R309-105-10(5) | All water system facilities shall be secure. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C (Notes: Source no longer connected to this system)
124	Well head or well house and equipment protected from flooding *SIG | 25pts | SO | S020 | R309-515-6(6)(b)(vi), R309-515-6(12)(d)(iii), R309-515-6(13)(a) to (d) | Top of well casing shall terminate at least 18" above ground level or 12" above well house floor and for sites that flood at least 3' above 100-year flood level or highest known flood elevation. Well casing terminating in underground vault shall have a drain to daylight and surface runoff directed away from vault access. Well house floor shall be at least 6" above ground elevation, be sloped for drainage, and have a drain to daylight unless highly impractical. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C (Notes: Source no longer connected to this system)
125	There are no unprotected cross-connections in well discharge piping. *SIG | 50pts | SO | S021 | R309-105-12(1), R309-515-6(12)(d)(iii) | Rule requires the well discharge piping to be protected against the entrance of contamination. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C (Notes: Source no longer connected to this system)
126	No toxic chemicals, hazardous or flammable materials, or lubricants inside the well house or near well head? *MIN | 15pts | TR | TGR9 | R309-105-8, R309-100 through 605 | Trigger for regulatory followup to address concerns.*	C (Notes: Source no longer connected to this system)
127	Well discharge line has a smooth-nosed sampling tap, which samples the well water before any chemical injection. (first item from the wellhead). *MIN | 5pts | SO | S023 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)
128	Well discharge line has a check valve. *MIN | 5pts | SO | S024 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)
129	Well discharge line has a pressure gauge. *MIN | 5pts | SO | S025 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)
130	Well discharge line has a means to measure flow. *MIN | 5pts | SO | S026 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)

131	Well discharge line has a shut-off valve (last item from the well head). *MIN | 5pts | SO | S027 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)
132	Is there an air/vac valve on the well discharge line? If yes, answer the following question(s)	Y (Notes: Source no longer connected to this system)
132A	Air vacuum relief valve on well discharge piping downturned *SIG | 25pts | SO | S028 | R309-515-6(12)(d)(v) | Rule requires the exhaust/relief piping on an air release/vacuum relief valve on the well discharge piping to be down-turned. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
132B	Air vacuum relief valve on well discharge piping screened with #14 mesh screen *SIG | 25pts | SO | S029 | R309-515-6(12)(d)(v) | Rule requires the exhaust/relief piping on an air release/vacuum relief valve on the well discharge piping to be covered with a #14 mesh corrosion-resistant screen. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
132C	Air vacuum relief valve on well discharge piping has at least 6 inches of clearance above floor *SIG | 25pts | SO | S030 | R309-515-6(12)(d)(v) | Rule requires the exhaust/relief piping on an air release/vacuum relief valve on the well discharge piping to be at least 6 inches above the well house floor. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
133	Wells that pump directly into a distribution system have means to release trapped air from pump discharge piping (for example, pumps directly to a tank, has an air release valve or pump to waste line) *MIN | 5pts | SO | SL01 | R309-515-6(12)(d)(v) | Rule requires a well that pumps directly into the distribution system be equipped with an air release/vacuum relief valve located upstream of the check valve, unless the wellhead valve and piping provide for pumping to waste all trapped air before water is introduced into the distribution system.*	C (Notes: Source no longer connected to this system)
134	Well lubricants ANSI/NSF 60 certified *SIG | 25pts | SO | S031 | R309-105-10(7), R309-515-6(6)(a) | Rules require all oil-lubricated pumps for drinking water wells to utilize food-grade mineral oil suitable for human consumption as determined by the Director. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.* *Click here for addition training*	C (Notes: Source no longer connected to this system)
135	How is the well used?	Culinary (Notes: Source no longer connected to this system)
136	How deep is the well (in feet)?	unknown (Notes: Source no longer connected to this system)
137	What is the output of the well (gpm) and has it changed recently?	Source no longer connected to this system
138	Is there evidence of standing water, floodwater or runoff, depressions, unsanitary conditions, rodents or animals, birds near the wellhead?	N (Notes: Source no longer connected to this system)

WS004 - ABANDONED OLD HIGHLAND WELL -

139	Operating Period (Start Date)	01/01 (Notes: Source no longer connected to this system)
140	Operating Period (Ending Date)	12/31 (Notes: Source no longer connected to this system)
141	Undocumented sources shall not be physically connected to the drinking water system. (IF SOURCE IS NOT IN SYSTEM INVENTORY MARK "DEFICIENT") *SIG | 200pts | SO | S001 | R309-515-6(5), R309-515-7(4), R309-500-9(2) and (3) | R309-105-6(1) requires plans and specifications for all public drinking water projects to be approved in writing by the Director prior to the commencement of construction. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C (Notes: Source no longer connected to this system)
142	Well casing is at least 18 inches above finished ground surface and 12 inches above well house floor. *SIG | 25pts | SO | S003 | R309-515-6(6)(b)(vi), R309-515-6(12)(c)(ii), R309-515-6(13)(a) | Rule requires the permanent well casing to project at least 18 inches above the final ground surface and 12 inches above the pump house floor; at sites subject to flooding, the top of the casing must terminate at least 3 feet above the 100-year flood level or highest known flood elevation, whichever is higher. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C (Notes: Source no longer connected to this system)
143	Is there a proper seal at wellhead surface to prevent contamination? *SIG | 50pts | SO | S013 | R309-515-6(6)(i) | R309-515-6(6)(i) require a sanitary seal be installed and maintained at the wellhead and discharge piping. 50 demerit points. This significant deficiency should be corrected within 120 days of notification or have a corrective action plan approved by*	C (Notes: Source no longer connected to this system)
144	Is the well casing vented? ... if yes, answer the following question(s)	N (Notes: Source no longer connected to this system)
145	Does the well have a pump to waste line? ... if yes, answer the following question(s)	N (Notes: Source no longer connected to this system)
146	Provisions available to periodically measure water levels *MIN | 5pts | SO | S015 | R309-515-6(12)(e), R309-515-6(12)(c)(vi) | Rule requires provisions be made to permit periodic measurement of water levels in the completed well.*	C (Notes: Source no longer connected to this system)
147	Wellhead secured to protect quality water *SIG | 25pts | SO | S002 | R309-105-10(5) | All water system facilities shall be secure. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C (Notes: Source no longer connected to this system)

148	Well head or well house and equipment protected from flooding *SIG | 25pts | SO | S020 | R309-515-6(6)(b)(vi), R309-515-6(12)(d)(iii), R309-515-6(13)(a) to (d) | Top of well casing shall terminate at least 18" above ground level or 12" above well house floor and for sites that flood at least 3' above 100-year flood level or highest known flood elevation. Well casing terminating in underground vault shall have a drain to daylight and surface runoff directed away from vault access. Well house floor shall be at least 6" above ground elevation, be sloped for drainage, and have a drain to daylight unless highly impractical. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C (Notes: Source no longer connected to this system)
149	There are no unprotected cross-connections in well discharge piping. *SIG | 50pts | SO | S021 | R309-105-12(1), R309-515-6(12)(d)(iii) | Rule requires the well discharge piping to be protected against the entrance of contamination. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C (Notes: Source no longer connected to this system)
150	No toxic chemicals, hazardous or flammable materials, or lubricants inside the well house or near well head? *MIN | 15pts | TR | TGR9 | R309-105-8, R309-100 through 605 | Trigger for regulatory followup to address concerns.*	C (Notes: Source no longer connected to this system)
151	Well discharge line has a smooth-nosed sampling tap, which samples the well water before any chemical injection. (first item from the wellhead). *MIN | 5pts | SO | S023 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)
152	Well discharge line has a check valve. *MIN | 5pts | SO | S024 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)
153	Well discharge line has a pressure gauge. *MIN | 5pts | SO | S025 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)
154	Well discharge line has a means to measure flow. *MIN | 5pts | SO | S026 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)
155	Well discharge line has a shut-off valve (last item from the well head). *MIN | 5pts | SO | S027 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C (Notes: Source no longer connected to this system)
156	Is there an air/vac valve on the well discharge line? If yes, answer the following question(s)	Y (Notes: Source no longer connected to this system)

156A	Air vacuum relief valve on well discharge piping downturned *SIG | 25pts | SO | S028 | R309-515-6(12)(d)(v) | Rule requires the exhaust/relief piping on an air release/vacuum relief valve on the well discharge piping to be down-turned. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
156B	Air vacuum relief valve on well discharge piping screened with #14 mesh screen *SIG | 25pts | SO | S029 | R309-515-6(12)(d)(v) | Rule requires the exhaust/relief piping on an air release/vacuum relief valve on the well discharge piping to be covered with a #14 mesh corrosion-resistant screen. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
156C	Air vacuum relief valve on well discharge piping has at least 6 inches of clearance above floor *SIG | 25pts | SO | S030 | R309-515-6(12)(d)(v) | Rule requires the exhaust/relief piping on an air release/vacuum relief valve on the well discharge piping to be at least 6 inches above the well house floor. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
157	Wells that pump directly into a distribution system have means to release trapped air from pump discharge piping (for example, pumps directly to a tank, has an air release valve or pump to waste line) *MIN | 5pts | SO | SL01 | R309-515-6(12)(d)(v) | Rule requires a well that pumps directly into the distribution system be equipped with an air release/vacuum relief valve located upstream of the check valve, unless the wellhead valve and piping provide for pumping to waste all trapped air before water is introduced into the distribution system.*	C (Notes: Source no longer connected to this system)
158	Well lubricants ANSI/NSF 60 certified *SIG | 25pts | SO | S031 | R309-105-10(7), R309-515-6(6)(a) | Rules require all oil-lubricated pumps for drinking water wells to utilize food-grade mineral oil suitable for human consumption as determined by the Director. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.* *Click here for addition training*	C (Notes: Source no longer connected to this system)
159	How is the well used?	culinary (Notes: Source no longer connected to this system)
160	How deep is the well (in feet)?	unknown (Notes: Source no longer connected to this system)
161	What is the output of the well (gpm) and has it changed recently?	Source no longer connected to this system
162	Is there evidence of standing water, floodwater or runoff, depressions, unsanitary conditions, rodents or animals, birds near the wellhead?	N (Notes: Source no longer connected to this system)

WS005 - HIGHLANDS WELL #1 - Active

163	Operating Period (Start Date)	01/01
164	Operating Period (Ending Date)	12/31

165	Undocumented sources shall not be physically connected to the drinking water system. (IF SOURCE IS NOT IN SYSTEM INVENTORY MARK "DEFICIENT") *SIG | 200pts | SO | S001 | R309-515-6(5), R309-515-7(4), R309-500-9(2) and (3) | R309-105-6(1) requires plans and specifications for all public drinking water projects to be approved in writing by the Director prior to the commencement of construction. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
166	Well casing is at least 18 inches above finished ground surface and 12 inches above well house floor. *SIG | 25pts | SO | S003 | R309-515-6(6)(b)(vi), R309-515-6(12)(c)(ii), R309-515-6(13)(a) | Rule requires the permanent well casing to project at least 18 inches above the final ground surface and 12 inches above the pump house floor; at sites subject to flooding, the top of the casing must terminate at least 3 feet above the 100-year flood level or highest known flood elevation, whichever is higher. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
167	Is there a proper seal at wellhead surface to prevent contamination? *SIG | 50pts | SO | S013 | R309-515-6(6)(i) | R309-515-6(6)(i) require a sanitary seal be installed and maintained at the wellhead and discharge piping. 50 demerit points. This significant deficiency should be corrected within 120 days of notification or have a corrective action plan approved by*	C
168	Is the well casing vented? ... if yes, answer the following question(s)	Y
168A	Vent screened with #14 mesh screen *SIG | 25pts | SO | S006 | R309-515-6(12)(d)(iii) | Guidance states provisions should be made for venting the well casing, however if vented R309-515-6(12)(d)(iii) and R309-550-6(6)(a)require vents be fitted with a #14 mesh or finer non-corrodible screen.*	C
168B	Vent down-turned *SIG | 25pts | SO | S007 | R309-515-6(12)(d)(iii) | Guidance states provisions should be made for venting the well casing, however if vented R309-515-6(12)(d)(iii) and R309-550-6(6)(b) requires vents be downturned or shielded to prevent the entraince of surface water or rainwater. 2 demerit points shall be assessed.*	C
168C	Vent has adequate clearance to prevent contamination from entering the well *SIG | 25pts | SO | S008 | R309-515-6(12)(d)(iii) | Guidance states provisions should be made for venting the well casing, however if vented R309-515-6(12)(d)(iii) and R309-550-6(6)(b) requires vents be terminated with a discharge with an appropriate air gap. 2 demerit points shall be assigned.*	C
169	Does the well have a pump to waste line? ... if yes, answer the following question(s)	Y
169A	Pump to waste line discharges with a minimum of 12-inch clearance to flood rim *SIG | 25pts | SO | S009 | R309-515-6(12)(d)(ix) | Rule requires a pump-to-waste line connected to a sewer/storm drain to have a minimum 12-inch clearance to the flood rim. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

169B	Pump to waste line equipped with #4 non-corrodible mesh screen *SIG	25pts	SO	S010	R309-515-6(12)(d)(ix)	The discharge end of the pump-to-waste line shall be covered with a No. 4 mesh corrosion-resistant screen. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
169C	Pump to waste line downturned *SIG	25pts	SO	S011	R309-515-6(12)(d)(ix)	The discharge end of the pump-to-waste line shall be downturned. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
169D	Pump to waste line discharges to recepticle with proper local authorization *SIG	25pts	SO	S011	R309-515-6(12)(d)(ix)	The discharge end of the pump-to-waste line shall be downturned. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
170	Provisions available to periodically measure water levels *MIN	5pts	SO	S015	R309-515-6(12)(e), R309-515-6(12)(c)(vi)	Rule requires provisions be made to permit periodic measurement of water levels in the completed well.*	C
171	Wellhead secured to protect quality water *SIG	25pts	SO	S002	R309-105-10(5)	All water system facilities shall be secure. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
172	Well head or well house and equipment protected from flooding *SIG	25pts	SO	S020	R309-515-6(6)(b)(vi), R309-515-6(12)(d)(iii), R309-515-6(13)(a) to (d)	Top of well casing shall terminate at least 18" above ground level or 12" above well house floor and for sites that flood at least 3' above 100-year flood level or highest known flood elevation. Well casing terminating in underground vault shall have a drain to daylight and surface runoff directed away from vault access. Well house floor shall be at least 6" above ground elevation, be sloped for drainage, and have a drain to daylight unless highly impractical. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
173	There are no unprotected cross-connections in well discharge piping. *SIG	50pts	SO	S021	R309-105-12(1), R309-515-6(12)(d)(iii)	Rule requires the well discharge piping to be protected against the entrance of contamination. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
174	No toxic chemicals, hazardous or flammable materials, or lubricants inside the well house or near well head? *MIN	15pts	TR	TGR9	R309-105-8, R309-100 through 605	Trigger for regulatory followup to address concerns.*	C

175	Well discharge line has a smooth-nosed sampling tap, which samples the well water before any chemical injection. (first item from the wellhead). *MIN | 5pts | SO | S023 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C
176	Well discharge line has a check valve. *MIN | 5pts | SO | S024 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C
177	Well discharge line has a pressure gauge. *MIN | 5pts | SO | S025 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C
178	Well discharge line has a means to measure flow. *MIN | 5pts | SO | S026 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C
179	Well discharge line has a shut-off valve (last item from the well head). *MIN | 5pts | SO | S027 | R309-515-6(12)(d)(iv) | Rule requires the discharge piping to be equipped with (in order of placement from the wellhead) a smooth nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve.*	C
180	Is there an air/vac valve on the well discharge line? If yes, answer the following question(s)	Y
180A	Air vacuum relief valve on well discharge piping downturned *SIG | 25pts | SO | S028 | R309-515-6(12)(d)(v) | Rule requires the exhaust/relief piping on an air release/vacuum relief valve on the well discharge piping to be down-turned. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
180B	Air vacuum relief valve on well discharge piping screened with #14 mesh screen *SIG | 25pts | SO | S029 | R309-515-6(12)(d)(v) | Rule requires the exhaust/relief piping on an air release/vacuum relief valve on the well discharge piping to be covered with a #14 mesh corrosion-resistant screen. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
180C	Air vacuum relief valve on well discharge piping has at least 6 inches of clearance above floor *SIG | 25pts | SO | S030 | R309-515-6(12)(d)(v) | Rule requires the exhaust/relief piping on an air release/vacuum relief valve on the well discharge piping to be at least 6 inches above the well house floor. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

181	Wells that pump directly into a distribution system have means to release trapped air from pump discharge piping (for example, pumps directly to a tank, has an air release valve or pump to waste line) *MIN | 5pts | SO | SL01 | R309-515-6(12)(d)(v) | Rule requires a well that pumps directly into the distribution system be equipped with an air release/vacuum relief valve located upstream of the check valve, unless the wellhead valve and piping provide for pumping to waste all trapped air before water is introduced into the distribution system.*	C
182	Well lubricants ANSI/NSF 60 certified *SIG | 25pts | SO | S031 | R309-105-10(7), R309-515-6(6)(a) | Rules require all oil-lubricated pumps for drinking water wells to utilize food-grade mineral oil suitable for human consumption as determined by the Director. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.* *Click here for addition training*	C
183	How is the well used?	culinary
184	How deep is the well (in feet)?	unknown
185	What is the output of the well (gpm) and has it changed recently?	unknown
186	Is there evidence of standing water, floodwater or runoff, depressions, unsanitary conditions, rodents or animals, birds near the wellhead?	N

ST001 - TANK #1 - Active

187	There are no undocumented drinking water facilities (i.e. tanks, pump stations, treatment facilities, etc.) or recent modifications that have not gone through DDW review *SIG | 50pts | SM | G001 | R309-100-5(2), R309-500-6, R309-500-9, R309-500-9(2) and (3) | Rule requires complete plans & specification for all public drinking water projects to be approved in writing by the Director. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
188	Storage tank capacity in gallons (from SDWIS; if different explain why in the comments)	80000
189	Ladders, ladder guards, platform railings, or safely located entrance hatches are provided. *MIN | 15pts | FW | V004 | R309-545-18 | Rule requires ladders, ladder guards, platform railings, and safely located entrance hatches where applicable for water storage tanks and requires safety practices to conform to pertinent laws and regulations of the Utah Occupational Safety and Health Division.*	C
190	Tank is vented. *SIG | 25pts | FW | VL02 | R309-545-15 | Rule requires drinking water storage tanks to be vented. Overflows cannot be considered or used as vents. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
191	Are air vents present? ... if yes, answer the following question(s)	Y

191A	Vent is either down-turned or shielded from contaminants (at least 2 inches below the bottom of the opening) *SIG	25pts	FW	V005	R309-545-15(1)	Rule requires inverted vents on water storage tanks to be down-turned a minimum of 2 inches below any opening and shielded to prevent the entrance of contaminants. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
191B	End of vent terminates at least 24 inches above earthen cover (buried tank) and is located and sized to avoid blockage during winter. *MIN	15pts	FW	V006	R309-545-15(2)	For buried structures, the rule requires the end of the vent discharge to be a minimum of 24 inches above the earthen covering.*	C
191C	Vent covered with #14 or finer non-corrodible mesh screen. *SIG	25pts	FW	V007	R309-545-15(4)	Rule requires a water storage tank vent to be fitted with #14 mesh or finer non-corrodible screen and vents 6-inches or greater in diameter to be fitted with additional heavy gauge screen or substantial covering to protect the #14 mesh screen from vandalism or damage. This significant deficiency must be corrected within 120 days of notification or have a compliance action plan approved by DDW.*	C
191D	Vent 6-inch diameter and larger protected with additional heavy-gauge screen or substantial covering. *MIN	5pts	FW	V035	R309-545-15(5)	Rule requires vents that are 6-inch diameter or greater to be fitted with additional heavy gauge screen or substantial covering, which will protect the No. 14 mesh screen against vandalism or damage.*	C
192	Are access openings present? ... if yes, answer the following question(s) *MIN	15pts	FW	VL03	R309-545-14 and 14(1)	Rule requires drinking water storage tanks to be designed with reasonably convenient access to the interior for cleaning and maintenance.*	Y
192A	Access opening framed at least 4 inches above roof surface or 18 inches above earthen cover. *MIN	15pts	FW	V008	R309-545-14(1)	Rule requires tank access opening to be framed at least 4 inches above the surface of the roof, or on a buried tank, to be at least 18 inches above any earthen cover over the tank.*	C
192B	Access opening shoe box type with at least 2 inches of overlap *SIG	25pts	FW	V010	R309-545-14(2)	Rule requires the frame of an access opening to be provided with a close fitting solid shoebox type cover which extends down around the frame at least two inches and is furnished with a gasket(s) between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
192C	Access opening lid properly gasketed *SIG	25pts	FW	V009	R309-545-14(2)	Rule requires the access opening to a tank to be furnished with a gasket between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

193	Access opening locked *SIG | 25pts | FW | V029 | R309-545-14(3) | Rule requires the lid to any access opening to have a locking device. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
194	Roof or wall penetrations sealed *SIG | 100pts | FW | V017 | R309-545-6(1) and 545-9 | Rule requires openings in a storage tank roof or top, designed to accommodate control apparatus or pump columns, to be welded, gasketed, or curbed and sleeved and to have additional proper shielding to prevent vandalism. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
195	Area surrounding ground-level or buried storage tank is graded to prevent surface water from standing within 50 feet. *SIG | 25pts | TR | V001 | R309-545-7(4) | Rule requires the area surrounding a ground-level or buried water storage tank be graded in a manner to prevent surface water from standing within 50 feet of the tank. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
196	Storage tank roof is sloped to prevent ponding *MIN | 15pts | FW | V003 | R309-545-9(4) | Rule requires drainage of storage tank roofs to eliminate water ponding.*	C
197	Are there cracks in the walls or roof of the storage tank? (if yes, select only one of the following options)	N
198	Is a tank overflow present? ... if yes, answer the following question(s) *SIG | 25pts | FW | VL01 | R309-545-13 | Rule requires all storage tanks to be provided with an overflow that discharges at an an elevation between 12 and 24 inches above the ground surface or the rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	Y
198A	Overflow line discharges at least 12 inches above ground or the flood rim of receiving basin? *SIG | 25pts | FW | V011 | R309-545-13 | Rule requires all water storage tanks to be provided with an overflow that discharges at an elevation between 12 and 24 inches above the ground surface or the rim of the receiving basin.*	C
198B	Overflow line covered with #4 mesh non-corrodible screen *SIG | 25pts | FW | V012 | R309-545-13(3) | Rule requires overflow pipes to be screened with #4 mesh non-corrodible screens installed at a location least susceptible to damage by vandalism. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
198C	Overflow line connected or discharges to a sanitary sewer drain? *SIG | 50pts | FW | V013 | R309-545-13(5) | Rule prohibits overflow pipes from connecting to, or discharging into, a sanitary sewer system. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
199	Are the drain line and overflow combined?	N

199A	Drain line shall terminate at least 12 inches above ground or flood rim of receiving basin *SIG | 25pts | FW | V016 | R309-545-10(1)(d) | If the local authority allows discharge to a storm drain, the rule requires the drain discharge to have a physical clearance of at least 12 inches between the discharge end of the pipe and the overflow rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
200	Is the storage structure interior coating or liner peeling or cracked? *REC | 0pts | FW | V019 | N/A | The integrity of the interior coating or liner is essential for proper quality control of the drinking water and may be intergral to the structural integrity of the tank. The system management should closely monitor the status of the liner and make plans*	C
201	If the tank interior has been re-coated, did the materials used comply with ANSI/ NSF Standard 61?	NA (Notes: Not recoated)
202	When was the tank last inspected/cleaned?	07/01/2020
203	Do you perform routine security checks of this tank?	Y
203A	How often do you perform routine secutity checks of this tank?	monthly
204	Could the physical condition of the tank be a source of contamination?	N
205	Is proper O&M being performed for this storage tank?	Y
206	Does the tank have an excess of floating material on the surface of the water and/or sediment on the bottom of the tank?	N
207	Is there evidence of outside water intrusion into the rank?	N
208	Are the inside walls of the tank free from staining or bacteral growth?	Y

ST002 - 160K TANK - Active

209	There are no undocumented drinking water facilities (i.e. tanks, pump stations, treatment facilities, etc.) or recent modifications that have not gone through DDW review *SIG | 50pts | SM | G001 | R309-100-5(2), R309-500-6, R309-500-9, R309-500-9(2) and (3) | Rule requires complete plans & specification for all public drinking water projects to be approved in writing by the Director. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
210	Storage tank capacity in gallons (from SDWIS; if different explain why in the comments)	160000
211	Ladders, ladder guards, platform railings, or safely located entrance hatches are provided. *MIN | 15pts | FW | V004 | R309-545-18 | Rule requires ladders, ladder guards, platform railings, and safely located entrance hatches where applicable for water storage tanks and requires safety practices to conform to pertinent laws and regulations of the Utah Occupational Safety and Health Division.*	C

212	Tank is vented. *SIG | 25pts | FW | VL02 | R309-545-15 | Rule requires drinking water storage tanks to be vented. Overflows cannot be considered or used as vents. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
213	Are air vents present? ... if yes, answer the following question(s)	Y
213A	Vent is either down-turned or shielded from contaminants (at least 2 inches below the bottom of the opening) *SIG | 25pts | FW | V005 | R309-545-15(1) | Rule requires inverted vents on water storage tanks to be down-turned a minimum of 2 inches below any opening and shielded to prevent the entrance of contaminants. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
213B	End of vent terminates at least 24 inches above earthen cover (buried tank) and is located and sized to avoid blockage during winter. *MIN | 15pts | FW | V006 | R309-545-15(2) | For buried structures, the rule requires the end of the vent discharge to be a minimum of 24 inches above the earthen covering.*	C
213C	Vent covered with #14 or finer non-corrodible mesh screen. *SIG | 25pts | FW | V007 | R309-545-15(4) | Rule requires a water storage tank vent to be fitted with #14 mesh or finer non-corrodible screen and vents 6-inches or greater in diameter to be fitted with additional heavy gauge screen or substantial covering to protect the #14 mesh screen from vandalism or damage. This significant deficiency must be corrected within 120 days of notification or have a compliance action plan approved by DDW.*	C
213D	Vent 6-inch diameter and larger protected with additional heavy-gauge screen or substantial covering. *MIN | 5pts | FW | V035 | R309-545-15(5) | Rule requires vents that are 6-inch diameter or greater to be fitted with additional heavy gauge screen or substantial covering, which will protect the No. 14 mesh screen against vandalism or damage.*	C
214	Are access openings present? ... if yes, answer the following question(s) *MIN | 15pts | FW | VL03 | R309-545-14 and 14(1) | Rule requires drinking water storage tanks to be designed with reasonably convenient access to the interior for cleaning and maintenance.*	Y
214A	Access opening framed at least 4 inches above roof surface or 18 inches above earthen cover. *MIN | 15pts | FW | V008 | R309-545-14(1) | Rule requires tank access opening to be framed at least 4 inches above the surface of the roof, or on a buried tank, to be at least 18 inches above any earthen cover over the tank.*	C
214B	Access opening shoe box type with at least 2 inches of overlap *SIG | 25pts | FW | V010 | R309-545-14(2) | Rule requires the frame of an access opening to be provided with a close fitting solid shoebox type cover which extends down around the frame at least two inches and is furnished with a gasket(s) between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

214C	Access opening lid properly gasketed *SIG | 25pts | FW | V009 | R309-545-14(2) | Rule requires the access opening to a tank to be furnished with a gasket between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
215	Access opening locked *SIG | 25pts | FW | V029 | R309-545-14(3) | Rule requires the lid to any access opening to have a locking device. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
216	Roof or wall penetrations sealed *SIG | 100pts | FW | V017 | R309-545-6(1) and 545-9 | Rule requires openings in a storage tank roof or top, designed to accommodate control apparatus or pump columns, to be welded, gasketed, or curbed and sleeved and to have additional proper shielding to prevent vandalism. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
217	Area surrounding ground-level or buried storage tank is graded to prevent surface water from standing within 50 feet. *SIG | 25pts | TR | V001 | R309-545-7(4) | Rule requires the area surrounding a ground-level or buried water storage tank be graded in a manner to prevent surface water from standing within 50 feet of the tank. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
218	Storage tank roof is sloped to prevent ponding *MIN | 15pts | FW | V003 | R309-545-9(4) | Rule requires drainage of storage tank roofs to eliminate water ponding.*	C
219	Are there cracks in the walls or roof of the storage tank? (if yes, select only one of the following options)	Y
219A	Mild deterioration or spalling? *MIN | 15pts | FW | V021 | R309-545-6(1) and 545-9(1) | Rule requires all water storage tanks to have suitable watertight roofs and sidewalls that shall also exclude birds, animals, insects, and excessive dust.*	Y (Notes: small Cracks on top of tank)
219B	Severe deterioration or spalling? *SIG | 50pts | FW | V022 | R309-545-6(1) and 545-9(1) | Rule requires all water storage tanks to have suitable watertight roofs and sidewalls that shall also exclude birds, animals, insects, and excessive dust. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	N
220	Is a tank overflow present? ... if yes, answer the following question(s) *SIG | 25pts | FW | VL01 | R309-545-13 | Rule requires all storage tanks to be provided with an overflow that discharges at an an elevation between 12 and 24 inches above the ground surface or the rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	Y

220A	Overflow line discharges at least 12 inches above ground or the flood rim of receiving basin? *SIG | 25pts | FW | V011 | R309-545-13 | Rule requires all water storage tanks to be provided with an overflow that discharges at an elevation between 12 and 24 inches above the ground surface or the rim of the receiving basin.*	C
220B	Overflow line covered with #4 mesh non-corrodible screen *SIG | 25pts | FW | V012 | R309-545-13(3) | Rule requires overflow pipes to be screened with #4 mesh non-corrodible screens installed at a location least susceptible to damage by vandalism. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
220C	Overflow line connected or discharges to a sanitary sewer drain? *SIG | 50pts | FW | V013 | R309-545-13(5) | Rule prohibits overflow pipes from connecting to, or discharging into, a sanitary sewer system. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
221	Are the drain line and overflow combined?	N
221A	Drain line shall terminate at least 12 inches above ground or flood rim of receiving basin *SIG | 25pts | FW | V016 | R309-545-10(1)(d) | If the local authority allows discharge to a storm drain, the rule requires the drain discharge to have a physical clearance of at least 12 inches between the discharge end of the pipe and the overflow rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
222	Is the storage structure interior coating or liner peeling or cracked? *REC | 0pts | FW | V019 | N/A | The integrity of the interior coating or liner is essential for proper quality control of the drinking water and may be intergral to the structural integrity of the tank. The system management should closely monitor the status of the liner and make plans*	C
223	If the tank interior has been re-coated, did the materials used comply with ANSI/ NSF Standard 61?	NA (Notes: Not recoated)
224	When was the tank last inspected/cleaned?	07/01/2020
225	Do you perform routine security checks of this tank?	Y
225A	How often do you perform routine secutity checks of this tank?	monthly
226	Could the physical condition of the tank be a source of contamination?	N
227	Is proper O&M being performed for this storage tank?	Y
228	Does the tank have an excess of floating material on the surface of the water and/or sediment on the bottom of the tank?	N
229	Is there evidence of outside water intrusion into the rank?	N
230	Are the inside walls of the tank free from staining or bacteral growth?	Y

ST003 - 250 K GORDON CREEK NO. 1 - Active

231	There are no undocumented drinking water facilities (i.e. tanks, pump stations, treatment facilities, etc.) or recent modifications that have not gone through DDW review *SIG | 50pts | SM | G001 | R309-100-5(2), R309-500-6, R309-500-9, R309-500-9(2) and (3) | Rule requires complete plans & specification for all public drinking water projects to be approved in writing by the Director. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
232	Storage tank capacity in gallons (from SDWIS; if different explain why in the comments)	250000
233	Ladders, ladder guards, platform railings, or safely located entrance hatches are provided. *MIN | 15pts | FW | V004 | R309-545-18 | Rule requires ladders, ladder guards, platform railings, and safely located entrance hatches where applicable for water storage tanks and requires safety practices to conform to pertinent laws and regulations of the Utah Occupational Safety and Health Division.*	C
234	Tank is vented. *SIG | 25pts | FW | VL02 | R309-545-15 | Rule requires drinking water storage tanks to be vented. Overflows cannot be considered or used as vents. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
235	Are air vents present? ... if yes, answer the following question(s)	Y
235A	Vent is either down-turned or shielded from contaminants (at least 2 inches below the bottom of the opening) *SIG | 25pts | FW | V005 | R309-545-15(1) | Rule requires inverted vents on water storage tanks to be down-turned a minimum of 2 inches below any opening and shielded to prevent the entrance of contaminants. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
235B	End of vent terminates at least 24 inches above earthen cover (buried tank) and is located and sized to avoid blockage during winter. *MIN | 15pts | FW | V006 | R309-545-15(2) | For buried structures, the rule requires the end of the vent discharge to be a minimum of 24 inches above the earthen covering.*	C
235C	Vent covered with #14 or finer non-corrodible mesh screen. *SIG | 25pts | FW | V007 | R309-545-15(4) | Rule requires a water storage tank vent to be fitted with #14 mesh or finer non-corrodible screen and vents 6-inches or greater in diameter to be fitted with additional heavy gauge screen or substantial covering to protect the #14 mesh screen from vandalism or damage. This significant deficiency must be corrected within 120 days of notification or have a compliance action plan approved by DDW.*	C
235D	Vent 6-inch diameter and larger protected with additional heavy-gauge screen or substantial covering. *MIN | 5pts | FW | V035 | R309-545-15(5) | Rule requires vents that are 6-inch diameter or greater to be fitted with additional heavy gauge screen or substantial covering, which will protect the No. 14 mesh screen against vandalism or damage.*	C

236	Are access openings present? ... if yes, answer the following question(s) *MIN | 15pts | FW | VL03 | R309-545-14 and 14(1) | Rule requires drinking water storage tanks to be designed with reasonably convenient access to the interior for cleaning and maintenance.*	Y
236A	Access opening framed at least 4 inches above roof surface or 18 inches above earthen cover. *MIN | 15pts | FW | V008 | R309-545-14(1) | Rule requires tank access opening to be framed at least 4 inches above the surface of the roof, or on a buried tank, to be at least 18 inches above any earthen cover over the tank.*	C
236B	Access opening shoe box type with at least 2 inches of overlap *SIG | 25pts | FW | V010 | R309-545-14(2) | Rule requires the frame of an access opening to be provided with a close fitting solid shoebox type cover which extends down around the frame at least two inches and is furnished with a gasket(s) between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
236C	Access opening lid properly gasketed *SIG | 25pts | FW | V009 | R309-545-14(2) | Rule requires the access opening to a tank to be furnished with a gasket between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
237	Access opening locked *SIG | 25pts | FW | V029 | R309-545-14(3) | Rule requires the lid to any access opening to have a locking device. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
238	Roof or wall penetrations sealed *SIG | 100pts | FW | V017 | R309-545-6(1) and 545-9 | Rule requires openings in a storage tank roof or top, designed to accommodate control apparatus or pump columns, to be welded, gasketed, or curbed and sleeved and to have additional proper shielding to prevent vandalism. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
239	Area surrounding ground-level or buried storage tank is graded to prevent surface water from standing within 50 feet. *SIG | 25pts | TR | V001 | R309-545-7(4) | Rule requires the area surrounding a ground-level or buried water storage tank be graded in a manner to prevent surface water from standing within 50 feet of the tank. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
240	Storage tank roof is sloped to prevent ponding *MIN | 15pts | FW | V003 | R309-545-9(4) | Rule requires drainage of storage tank roofs to eliminate water ponding.*	C
241	Are there cracks in the walls or roof of the storage tank? (if yes, select only one of the following options)	N

242	Is a tank overflow present? ... if yes, answer the following question(s) *SIG | 25pts | FW | VL01 | R309-545-13 | Rule requires all storage tanks to be provided with an overflow that discharges at an an elevation between 12 and 24 inches above the ground surface or the rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	Y
242A	Overflow line discharges at least 12 inches above ground or the flood rim of receiving basin? *SIG | 25pts | FW | V011 | R309-545-13 | Rule requires all water storage tanks to be provided with an overflow that discharges at an elevation between 12 and 24 inches above the ground surface or the rim of the receiving basin.*	C
242B	Overflow line covered with #4 mesh non-corrodible screen *SIG | 25pts | FW | V012 | R309-545-13(3) | Rule requires overflow pipes to be screened with #4 mesh non-corrodible screens installed at a location least susceptible to damage by vandalism. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
242C	Overflow line connected or discharges to a sanitary sewer drain? *SIG | 50pts | FW | V013 | R309-545-13(5) | Rule prohibits overflow pipes from connecting to, or discharging into, a sanitary sewer system. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
243	Are the drain line and overflow combined?	N
243A	Drain line shall terminate at least 12 inches above ground or flood rim of receiving basin *SIG | 25pts | FW | V016 | R309-545-10(1)(d) | If the local authority allows discharge to a storm drain, the rule requires the drain discharge to have a physical clearance of at least 12 inches between the discharge end of the pipe and the overflow rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
244	Is the storage structure interior coating or liner peeling or cracked? *REC | 0pts | FW | V019 | N/A | The integrity of the interior coating or liner is essential for proper quality control of the drinking water and may be intergral to the structural integrity of the tank. The system management should closely monitor the status of the liner and make plans*	C
245	If the tank interior has been re-coated, did the materials used comply with ANSI/ NSF Standard 61?	NA (Notes: Not recoated)
246	When was the tank last inspected/cleaned?	07/01/2020
247	Do you perform routine security checks of this tank?	Y
247A	How often do you perform routine secutity checks of this tank?	weekly
248	Could the physical condition of the tank be a source of contamination?	N
249	Is proper O&M being performed for this storage tank?	Y
250	Does the tank have an excess of floating material on the surface of the water and/or sediment on the bottom of the tank?	N

251	Is there evidence of outside water intrusion into the rank?	N
252	Are the inside walls of the tank free from staining or bacteral growth?	Y

ST004 - 700K GORDON CREEK NO.2 TANK - Active

253	There are no undocumented drinking water facilities (i.e. tanks, pump stations, treatment facilities, etc.) or recent modifications that have not gone through DDW review *SIG | 50pts | SM | G001 | R309-100-5(2), R309-500-6, R309-500-9, R309-500-9(2) and (3) | Rule requires complete plans & specification for all public drinking water projects to be approved in writing by the Director. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
254	Storage tank capacity in gallons (from SDWIS; if different explain why in the comments)	700000
255	Ladders, ladder guards, platform railings, or safely located entrance hatches are provided. *MIN | 15pts | FW | V004 | R309-545-18 | Rule requires ladders, ladder guards, platform railings, and safely located entrance hatches where applicable for water storage tanks and requires safety practices to conform to pertinent laws and regulations of the Utah Occupational Safety and Health Division.*	C
256	Tank is vented. *SIG | 25pts | FW | VL02 | R309-545-15 | Rule requires drinking water storage tanks to be vented. Overflows cannot be considered or used as vents. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
257	Are air vents present? ... if yes, answer the following question(s)	Y
257A	Vent is either down-turned or shielded from contaminants (at least 2 inches below the bottom of the opening) *SIG | 25pts | FW | V005 | R309-545-15(1) | Rule requires inverted vents on water storage tanks to be down-turned a minimum of 2 inches below any opening and shielded to prevent the entrance of contaminants. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
257B	End of vent terminates at least 24 inches above earthen cover (buried tank) and is located and sized to avoid blockage during winter. *MIN | 15pts | FW | V006 | R309-545-15(2) | For buried structures, the rule requires the end of the vent discharge to be a minimum of 24 inches above the earthen covering.*	C
257C	Vent covered with #14 or finer non-corrodible mesh screen. *SIG | 25pts | FW | V007 | R309-545-15(4) | Rule requires a water storage tank vent to be fitted with #14 mesh or finer non-corrodible screen and vents 6-inches or greater in diameter to be fitted with additional heavy gauge screen or substantial covering to protect the #14 mesh screen from vandalism or damage. This significant deficiency must be corrected within 120 days of notification or have a compliance action plan approved by DDW.*	C

257D	Vent 6-inch diameter and larger protected with additional heavy-gauge screen or substantial covering. *MIN | 5pts | FW | V035 | R309-545-15(5) | Rule requires vents that are 6-inch diameter or greater to be fitted with additional heavy gauge screen or substantial covering, which will protect the No. 14 mesh screen against vandalism or damage.*	C
258	Are access openings present? ... if yes, answer the following question(s) *MIN | 15pts | FW | VL03 | R309-545-14 and 14(1) | Rule requires drinking water storage tanks to be designed with reasonably convenient access to the interior for cleaning and maintenance.*	Y
258A	Access opening framed at least 4 inches above roof surface or 18 inches above earthen cover. *MIN | 15pts | FW | V008 | R309-545-14(1) | Rule requires tank access opening to be framed at least 4 inches above the surface of the roof, or on a buried tank, to be at least 18 inches above any earthen cover over the tank.*	C
258B	Access opening shoe box type with at least 2 inches of overlap *SIG | 25pts | FW | V010 | R309-545-14(2) | Rule requires the frame of an access opening to be provided with a close fitting solid shoebox type cover which extends down around the frame at least two inches and is furnished with a gasket(s) between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
258C	Access opening lid properly gasketed *SIG | 25pts | FW | V009 | R309-545-14(2) | Rule requires the access opening to a tank to be furnished with a gasket between the lid and frame. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
259	Access opening locked *SIG | 25pts | FW | V029 | R309-545-14(3) | Rule requires the lid to any access opening to have a locking device. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
260	Roof or wall penetrations sealed *SIG | 100pts | FW | V017 | R309-545-6(1) and 545-9 | Rule requires openings in a storage tank roof or top, designed to accommodate control apparatus or pump columns, to be welded, gasketed, or curbed and sleeved and to have additional proper shielding to prevent vandalism. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
261	Area surrounding ground-level or buried storage tank is graded to prevent surface water from standing within 50 feet. *SIG | 25pts | TR | V001 | R309-545-7(4) | Rule requires the area surrounding a ground-level or buried water storage tank be graded in a manner to prevent surface water from standing within 50 feet of the tank. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

262	Storage tank roof is sloped to prevent ponding *MIN | 15pts | FW | V003 | R309-545-9(4) | Rule requires drainage of storage tank roofs to eliminate water ponding.*	C
263	Are there cracks in the walls or roof of the storage tank? (if yes, select only one of the following options)	N
264	Is a tank overflow present? ... if yes, answer the following question(s) *SIG | 25pts | FW | VL01 | R309-545-13 | Rule requires all storage tanks to be provided with an overflow that discharges at an an elevation between 12 and 24 inches above the ground surface or the rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	Y
264A	Overflow line discharges at least 12 inches above ground or the flood rim of receiving basin? *SIG | 25pts | FW | V011 | R309-545-13 | Rule requires all water storage tanks to be provided with an overflow that discharges at an elevation between 12 and 24 inches above the ground surface or the rim of the receiving basin.*	C
264B	Overflow line covered with #4 mesh non-corrodible screen *SIG | 25pts | FW | V012 | R309-545-13(3) | Rule requires overflow pipes to be screened with #4 mesh non-corrodible screens installed at a location least susceptible to damage by vandalism. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
264C	Overflow line connected or discharges to a sanitary sewer drain? *SIG | 50pts | FW | V013 | R309-545-13(5) | Rule prohibits overflow pipes from connecting to, or discharging into, a sanitary sewer system. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
265	Are the drain line and overflow combined?	N
265A	Drain line shall terminate at least 12 inches above ground or flood rim of receiving basin *SIG | 25pts | FW | V016 | R309-545-10(1)(d) | If the local authority allows discharge to a storm drain, the rule requires the drain discharge to have a physical clearance of at least 12 inches between the discharge end of the pipe and the overflow rim of the receiving basin. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
266	Is the storage structure interior coating or liner peeling or cracked? *REC | 0pts | FW | V019 | N/A | The integrity of the interior coating or liner is essential for proper quality control of the drinking water and may be intergral to the structural integrity of the tank. The system management should closely monitor the status of the liner and make plans*	C
267	If the tank interior has been re-coated, did the materials used comply with ANSI/ NSF Standard 61?	NA (Notes: Not recoated)
268	When was the tank last inspected/cleaned?	09/01/2020
269	Do you perform routine security checks of this tank?	Y

269A	How often do you perform routine secutity checks of this tank?	weekly
270	Could the physical condition of the tank be a source of contamination?	N
271	Is proper O&M being performed for this storage tank?	Y
272	Does the tank have an excess of floating material on the surface of the water and/or sediment on the bottom of the tank?	N
273	Is there evidence of outside water intrusion into the rank?	N
274	Are the inside walls of the tank free from staining or bacteral growth?	Y

TP002 - GORDON CREEK CHLORINATOR -- Treatment - Chlorination General - Active

Exception Granted: R309-520-7(2(d)(v) | R309-520-7(2(d)(v) requires separate switches for ventilation fans and lighting near the chlorine facility entrance. As the Gordon Creek Springs chlorinator (TP002) building does not have electrical powered lighting or ventilation, this Rule requirement is not applicable in this situation (see other exceptions to power/ventilation).

Exception Granted: R309-520-7(2)(d)(iii) requires the exhaust fan suction to be located near the floor | As per the above, the Gordon Creek Springs chlorinator (TP002) building does not have electrical power with ventilation provided by natural means rather than mechanical. The existing screen access openings are located at ceiling height, intended to allow fresh air in, and at the floor to allow any collected chlorine gas to exit the facility. The locations of the openings, in combination with the SOP, are proposed to meet the intent of the rule.

Exception Granted: R309-520-7(1)(l), chlorination buildings to be heated, lighted and ventilated | TP002 is a historical installation that does not have electrical power. It is a partially buried facility with insulation installed on the walls, which effectively insulates the facility from extremes in temperatures. The water system notes historical experience has demonstrated the system does not experience freezing of the equipment, or negative impacts from excessive heat. An exception to the requirement for heating is requested on the basis that the facility construction and insulation meets the intent of the rule.

275	Is system required to provide primary disinfection? Prompt - If system knows they are required to chlorinate based on water quality issues and/or knows they are required to provide a minimum CT then follow-up by DDW is needed.	Y
275A	If yes, no new connections have been added prior to approved first connection that would change the disinfection CT calculation. *SIG	50pts	TR	TD26	R309-505-7(2), R309-520-4 and 6(4)	Point of application of disinfectants shall be at a location that will achieve the required disinfection CT prior to the first service connection. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
276	When chlorination is required, disinfection has operated uninterrupted during the past year while supplying drinking water. *SIG	50pts	TR	TD25	R309-520-6	Rule requires continuous disinfection of groundwater sources that do not consistently meet bacteriological quality standards, all surface water sources, and groundwater sources under the direct influence of surface water. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
277	Chlorine (gas & hypochlorite solution, tablets, granules,) and chemicals used to generate chlorine solutions and chlorine dioxide meet ANSI/NSF 60. *SIG	50pts	TR	TD90	R309-525-11(5), R309-520-6(2)	All chemicals added to drinking water, including chlorine, chloramines and chemicals used to generate hypochlorite solutions and chlorine dioxide, shall be certified as complying with ANSI/NSF Standard 60. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C

278	If chemical dilution or dissolution is needed, cross-connection control is provided on water lines feeding solution tanks. *SIG | 50pts | TR | TX07 | R309-525-11(2)(c), R309-525-11(9)(b)(i) to (iv) | Cross connection control shall be provided on make-up water lines feeding solution tanks. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
279	Water flow rate is measured to control chemical feed? *SIG | 25pts | TR | TD79 | R309-525-11(7)(d)(ii) and (iii), R309-252-11(7)(a)(i) | Chemical feed rates shall be proportional to flows and a means to measure water flow rate shall be provided. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
280	Free chlorine residual test equipment on-site or available? *MIN | 15pts | TR | TD78 | R309-520-7(1)(j) | Rule requires chlorine residual test equipment available capable of measuring residuals to the nearest 0.1 mg/l in the range below 0.5 mg/l, to the nearest 0.3 mg/l between 0.5 mg/l and 1.0 mg/l and to the nearest 0.5 mg/l above 1.0 mg/l.*	C
281	Spare parts are available to replace parts subject to wear and breakage *MIN | 15pts | TR | TD75 | R309-520-7(1)(k)(i) | Spare parts shall be provided and maintained for all chlorinators to repair parts subject to wear and breakage.*	C
282	Treatment plant properly secured to protect the quality of the treated water *SIG | 25pts | SM | A050 | R309-400-11 | If the water system does not comply with the directive, the Director may assess 25 to 200 points to the water system. Points shall be assessed based upon the severity of the non-compliance, the threat to public health and the underlying basis for the original directive.*	C

TP002 - GORDON CREEK CHLORINATOR -- Gaseous Chlorination - Active

283	If disinfection is required, standby chlorination equipment of sufficient capacity is available to replace the largest unit. *SIG | 25pts | TR | TD22 | R309-520-7(1)(k)(ii) | Where chlorination is required for disinfection of the water supply, the rule requires standby equipment of sufficient capacity to be available to replace the largest unit in the event of its failure. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
284	Is the chlorinator room heated and has the ability to be protected from excessive heat? *Exception Granted: R309-520-7(1)(l), chlorination buildings to be heated, lighted and ventilated | TP002 is a historical installation that does not have electrical power. It is a partially buried facility with insulation installed on the walls, which effectively insulates the facility from extremes in temperatures. The water system notes historical experience has demonstrated the system does not experience freezing of the equipment, or negative impacts from excessive heat. An exception to the requirement for heating is requested on the basis that the facility construction and insulation meets the intent of the rule.* *MIN | 15pts | TR | TD08 | R309-520-7(1)(l) | Rule requires chlorinator buildings to be heated, lighted, and ventilated as necessary to assure proper operation of the equipment and safety of the operators.*	C

285	If continuous disinfection is required, automatic switch over of chlorine cylinders is provided. *MIN | 15pts | TR | TD01 | R309-520-7(2)(a), R309-520-6(1) | Rule requires automatic switch over of chlorine cylinders be provided if continuous disinfection is required.*	C
286	Exhaust fan takes suction near the floor as far as practical from the door and air inlet, and discharges outside away from air inlets. *Exception Granted: R309-520-7(2)(d)(iii) requires the exhaust fan suction to be located near the floor | As per the above, the Gordon Creek Springs chlorinator (TP002) building does not have electrical power with ventilation provided by natural means rather than mechanical. The existing screen access openings are located at ceiling height, intended to allow fresh air in, and at the floor to allow any collected chlorine gas to exit the facility. The locations of the openings, in combination with the SOP, are proposed to meet the intent of the rule.* *MIN | 15pts | TR | TD09 | R309-520-7(2)(d)(iii) | Rule requires a chlorine room exhaust fan to take suction inside the chlorine room near the floor, as far as practical from the door and air inlet, and discharge air outside of the building away from air inlets.*	C
287	Air inlets are located near the ceiling and fitted with louvers. *MIN | 15pts | TR | TD10 | R309-520-7(2)(d)(iv) | Rule requires chlorine room air inlets to be through wall louvers near the ceiling.*	C
288	Chlorine vent line discharges outside and above grade and is screened with #14 mesh screen. *SIG | 25pts | TR | TD13 | R309-520-7(2)(e) | Rule requires the chlorine vent line to discharge outside, above grade, at a point least susceptible to vandalism, and to have the end covered with a #14 mesh non-corrodible screen. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
289	Separate switches for chlorine room fans and lights are located near the entrance to the room (or are located outside the chlorine room if housed in a water treatment plant). *Exception Granted: R309-520-7(2(d)(v) | R309-520-7(2(d)(v) requires separate switches for ventilation fans and lighting near the chlorine facility entrance. As the Gordon Creek Springs chlorinator (TP002) building does not have electrical powered lighting or ventilation, this Rule requirement is not applicable in this situation (see other exceptions to power/ventilation).* *MIN | 15pts | TR | TD12 | R309-520-7(2)(d)(v) | Rule requires separate switches for the chlorine room fans and lights to be located near the entrance to the room and to be protected from vandalism. The switches are required to be located outside the chlorine room if housed in a water treatment plant.*	C
290	Chlorine cylinder is restrained in position to prevent upset. *SIG | 25pts | TR | TD18 | R309-520-7(2)(d)(iv) | For gas a chlorinator housed at a water treatment plant, the rule requires all openings between the chlorine room and the remainder of the plant to be sealed.*	C

291	Chlorine cylinder is not stored in direct sunlight or exposed to excessive heat. *SIG | 25pts | TR | TD17 | R309-520-7(2)(f)(ii) | Rule prohibits chlorine cylinders from being stored in direct sunlight or exposed to excessive heat. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
292	Weight scale is provided for weighing chlorine gas cylinders/containers. *SIG | 25pts | TR | TD02 | R309-520-7(2)(i) | Rule requires scales to be provided for determining chlorine cylinder weight. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
293	Respiratory protection equipment is available where chlorine gas is handled, stored in convenient location, and not stored where chlorine is used/stored. *SIG | 25pts | TR | TD06 | R309-520-7(2)(k)(i) and (ii) | Rule requires respiratory protection equipment meeting requirements of NIOSH be available where 1-ton cylinders are handled and a respirator recommended by NIOSH be available where 150-lb cylinders are used. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
294	Is the chlorine cylinder 150 pounds in capacity? ... if yes, answer the following question(s)	Y
294A	Leak response/repair plan available *MIN | 15pts | TR | TGR9 | R309-105-8, R309-100 through 605 | Trigger for regulatory followup to address concerns.*	C
294B	Bottle of ammonium hydroxide (56 % ammonia solution) is available for chlorine leak detection *MIN | 15pts | TR | TD14 | R309-520-7(2)(l)(i) | Rule requires a bottle of ammonium hydroxide (56% ammonia solution) to be available for leak detection.*	C
294C	Immediate access to NIOSH respirator available *SIG | 25pts | TR | TD04 | R309-520-7(2)(k)(ii) | Where 150 pound chlorine cylinders are used, a respirator recommended the National Institute of Occupational Safety and Health must be available. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.*	C
295	Is the chlorine cylinder 1 ton in capacity? ... if yes, answer the following question(s)	N

Level 2 Assessment - Deficiency Report

PWS Number: **UTAH15005** **Deficiency Points:** **65** **Survey Date:** **09/24/2020**

Survey Name: **HIGHLAND SUBDIVISION (MORGAN)** **Surveyor:** **Brian Pattee**

Sanitary Survey Category: DS

SDWIS Severity Code: Significant Deficiency

Distribution | DS001 | UTAH15005 DISTRIBUTION SYSTEM

71C. Chamber has drain to daylight, gravel-filled adsorption pit if not subject to flooding, or sump pump.

Rule: R309-550-6(6)(b) and (7)(b)

Rule states chambers shall be provided with a drain to daylight, if possible. Where this is not possible, underground gravel-filled absorption pits may be used if the site is not subject to flooding and conditions will assure adequate drainage. Sump pumps may also be considered if a drain to daylight or absorption pit is not feasible. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.

Notes: *valve in chamber could easily be flooded and needs to be vented above grade .*

Deficiency Points: 25

Days until points become effective on IPS: 30

SDWIS Deficiency Description: D007 AIR RELIEF VALVE OR CHAMBER SUBJECT TO FLOODING

Sanitary Survey Category: SO

SDWIS Severity Code: Significant Deficiency

Springs | WS002 | GORDON CREEK SPRING 2

94A. Overflow screened with #4 mesh screen

Rule: R309-515-7(7)(d), R309-545-13(3)

Overflow pipes on junction and collection boxes shall comply with R309-545 and be screened with No. 4 mesh non-corrodible screens. This significant deficiency must be corrected within 120 days of notification or have a corrective action plan approved by DDW.

Notes: *Overflow turn out at Intersection of combining springs had a small hole in the Screen*

Deficiency Points: 25

Days until points become effective on IPS: 30

SDWIS Deficiency Description: SS04 SPRING BOX OVERFLOW LACKS NO. 4 SCREEN

Sanitary Survey Category: FW

SDWIS Severity Code: Minor Deficiency

Storage Tanks | ST002 | 160K TANK

219A. Mild deterioration or spalling?

Rule: R309-545-6(1) and 545-9(1)

Rule requires all water storage tanks to have suitable watertight roofs and sidewalls that shall also exclude birds, animals, insects, and excessive dust.

Notes: *small Cracks on top of tank*

Deficiency Points: 15

Days until points become effective on IPS: 0

SDWIS Deficiency Description: V021 STORAGE TANK ROOF OR SIDEWALLS SHOW SIGNS OF MILD OR MODERATE DETERIORATION