



Jim Lewis
Nelson Engineering
PO Box 1599
Jackson, WY 83001

Phone: (307) 733-2087
Fax:
Other: E-REPORTS ONLY

**Project: Skyline Water District, 5000 Gal. Hydro
Pneumatic Tank Inspection CMT –
Nelson Engineering**

Permit #: N/A

**Project Manager: Troy McMurtrey
Atlas File #: E210470n**

SUMMARY INSPECTION REPORT

This letter is to confirm that, in accordance with Atlas Proposal #21-02323, dated February 15, 2021, project scope of services, and standards relevant to those requested services, Atlas Technical Consultants personnel have performed the following tasks:

- Visual examination of the in-service water tank to evaluate for signs of damage and external corrosion.
- Ultrasonic thickness measurements to evaluate for signs of internal corrosion and material degradation.
- Engineering evaluation of current tank condition and recommendation for future service.

Our field inspector obtained physical dimensions using ultrasonic testing equipment to determine if the tank has undergone any significant material degradation due to corrosion. A visual examination, along with review of four customer provided photos was also used in determining the condition of the exterior of the water tank. During the field inspection, nameplate data, showing nominal material thicknesses for both the head and shell were obtained, as well as design pressures. The customer provided a copy of an original installation drawing showing standard operating pressures.

Based on the ultrasonic testing thickness data obtained and associated inspection reports provided from field inspection reports, customer provided operating pressures, and nameplate data obtained during the field inspection, the water tank appears to be in good working condition, and our professional engineer has provided a recommendation for continued service based on the current condition and usage of the water tank.

The engineering evaluation letter and ultrasonic testing reports are attached as part of this summary letter for your review.

If there are questions concerning this letter, or if Atlas can be of further assistance, please contact the project manager at (208) 529-8242.

Respectfully submitted,
Atlas Technical Consultants, LLC

J. Troy McMurtrey
Corporate NDT Level III

Reviewed by: John P. Tracy
Quality Control Systems Manager

Dennis Reilly

165 El Camino Real

Berkeley, California 94705

(510) 506-8284

Email: reillyco@comcast.net

March 16, 2021

Troy McMurtrey

Atlas Technical Consultants

Corporate NDT Level III

208-982-1603

Subject: Pressurized Water Tank, E210470n Skyline Water District, Jackson Hole, WY

Dear Troy:

Based upon review of the photos provided, thickness measurements that were taken across six different areas of the tank, and the sheet C2 (original installation drawing), I offer the following assessment:

While I am a Registered Civil and Structural Engineer in California, I am not licensed in the state of Wyoming, and as such I do not represent myself as a Civil and/or Structural Engineer in Wyoming. My opinions are therefore strictly my opinions based upon my education and experience in Architecture and Structural Engineering for over 40 years, and do not represent Professional Services in any manner in the State of Wyoming.

It is my understanding that the tank does not exhibit rust, compromised welds or dents or bends in the steel, which would compromise the integrity of the pressurized tank. Since this review was limited to the integrity of the tank under pressure, I did not review the anchorage of the tank to its saddle supports nor the anchorage to the floor, under static nor seismic conditions. I did not analyze the welds nor the intake and out-take connections.

I performed limited calculations on the tank assuming that the tank was fully filled with water and under the maximum pressure of 125 psi (the operating pressure is indicated as 60 psi to 75 psi on Sheet C2).

My review considered the effect of bending of the tank across the supports and resulting shear forces imposed on the steel from the fully loaded weight. Additionally, I considered the shearing forces on the tank from the pressure within the tank.

For the purpose of the review, I assumed the maximum measured tank skin thickness of 0.322" in determining weight and the minimum measured thickness of 0.281" in determining stresses. The stresses appear to be very small compared to the tank capacity. From this review, the stresses on the tank from its loaded weight and pressure appear

to be significantly below the allowable stresses for bending and shear. Within this limited review, the tank appears to be in good serviceable condition for the maximum 125 psi pressure, (as well as the 75psi operating pressure) and when fully loaded with water.

Best Regards,

Dennis P. Reilly

A handwritten signature in cursive script that reads "Dennis P. Reilly".



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**Project: Skyline Water District, 5000 Gal. Hydro
Pneumatic Steel Tank Inspection CMT -
Nelson Engineering**

**Permit #:
Project Manager: Derrick Fontes
File #: E210470n**

INSPECTION/TESTING REPORT

Our representative(s) performed work on the above referenced project. Attached you will find the corresponding inspection and/or test reports. Please refer to the attached reports for details and locations of our testing and inspection services.

If there are questions concerning the attachment(s), please contact the project manager at (208) 529-8242.

Respectfully submitted,
Atlas Technical Consultants, LLC

cc:

Attachments:
rpt001

Date: 2/22/2021 File #: E210470n Project Name: Skyline Water Dist. Jackson, WY
 Contractor: Skyline Water Permit #: _____
 Inspector: Josh Clark Weather: Cold

REMARKS

Inspector arrived on site to perform thickness testing on the 5000 gal water tank located at 575 North West Ridge Road in Jackson, Wyoming.

Paint was removed from test location with a wire wheel in a grinder. Thickness testing was performed via Ultra sonic testing method.

see attached documents for locations and thickness measurements.

UT unit = Olympus Epoch 1000i
MTI # 5547
Serial # 110116803

Transducer = 1/2" round 5 MHZ with 1/2" stand off tip
Serial # RDG054



Inspector: _____ Date: 2/22/2021
Note: The recording of false, fictitious or fraudulent statements or entries on this document may be punishable as a felony under Federal Statute.

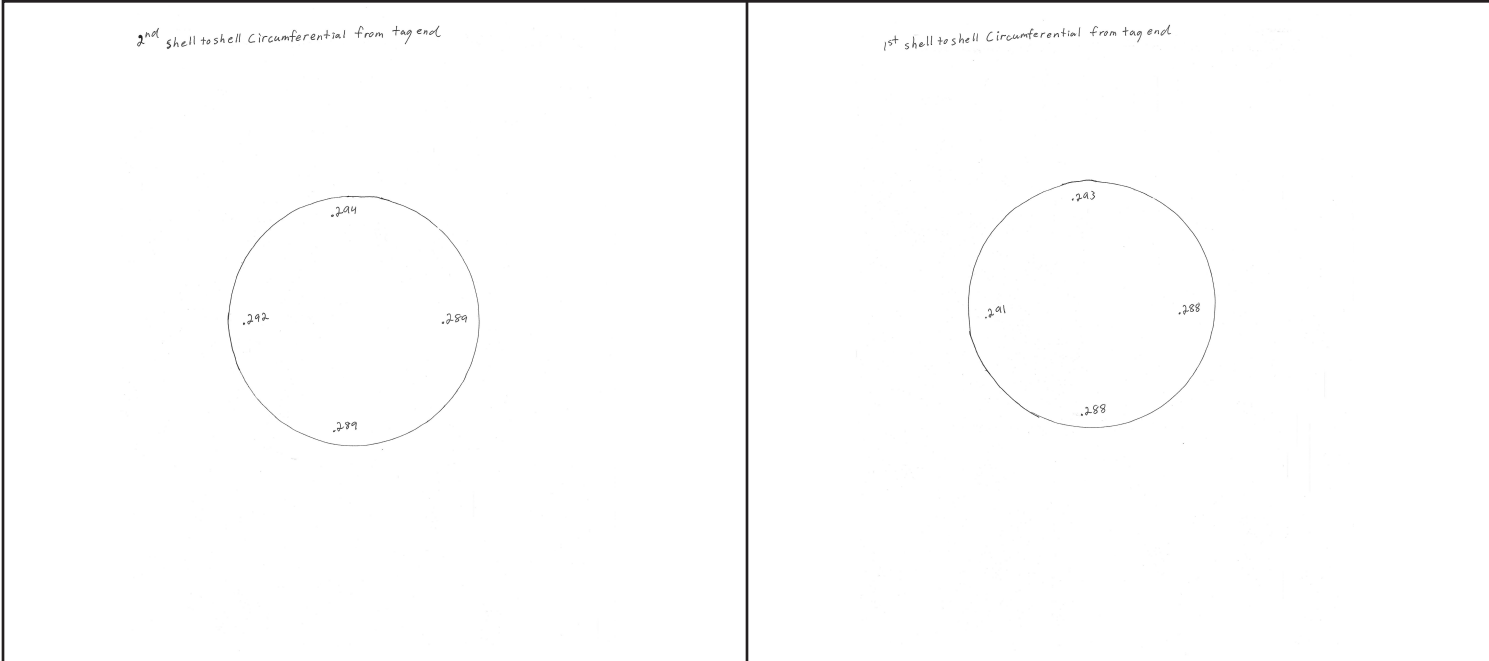
This Report is Preliminary.
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

Reviewed by: Jocelynn Silva Date: 2/23/2021

This Report is Final.
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

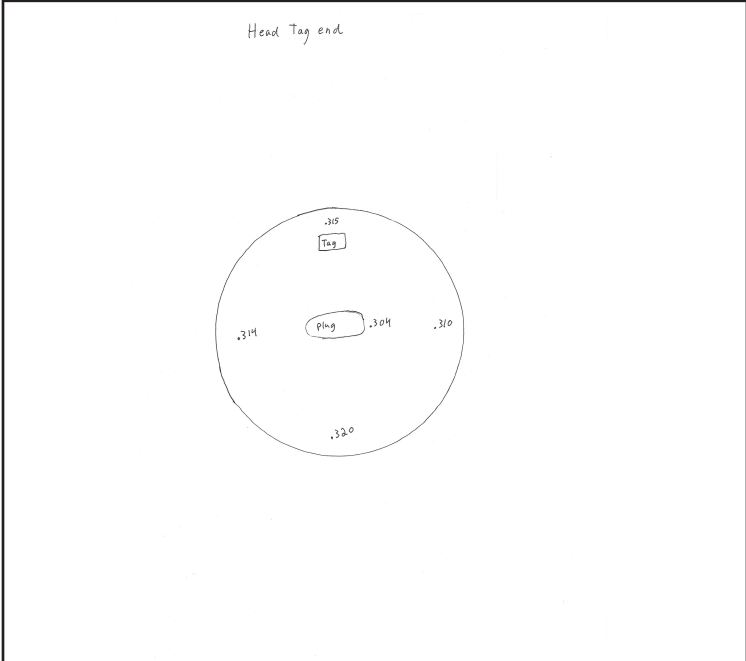
NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representatives do not relieve any contractor from its obligation to meet contractual requirements. No one except our client may rely on our findings and opinions. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

Date: 2/22/2021 File #: E210470n Project Name: Skyline water district Jackson, WY
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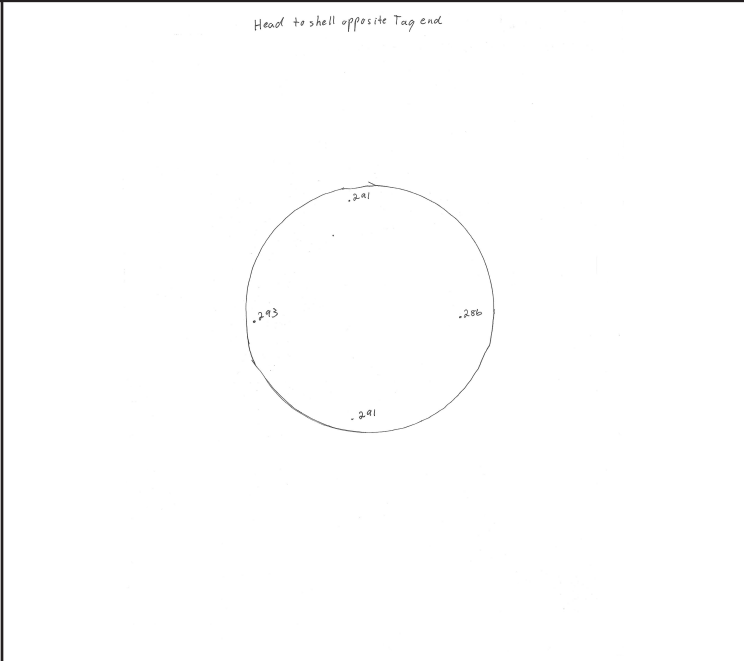


2nd shell to shell circumferential weld from tag end. Measurements approx. 2-3" from weld

1st shell to shell circumferential weld from tag end. Measurements approx. 2-3" from weld



Head with Tag



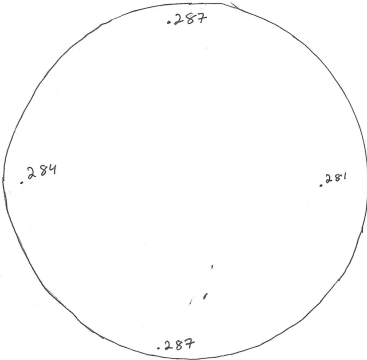
Head to Shell at tag end. Measurements approx. 2-3" from weld

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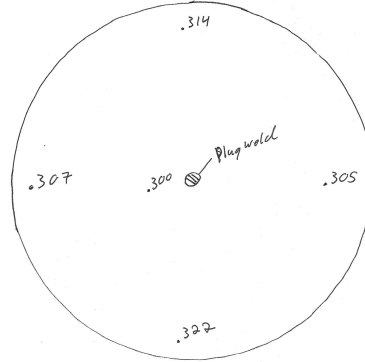
Jocelynn Silva

Date: 2/22/2021 File #: E210470n Project Name: Skyline Water Dist. Jackson, WY
Contractor: Skyline Water Permit #: _____
Inspector: Josh Clark Weather: Cold

Head to shell @ tag end



Head opposite Tag



Head to shell at tag end. Measurements approx. 2-3" from weld

Head opposite tag.

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Jocelynn Silva