



T.M.W.A.



Desert Springs #3

04-11-2016

ATTN: Chris Struffert
Client: Truckee Meadows Water Authority
ADDRESS: 1355 Capital Blvd, Reno, NV 89502
Phone: (775) 834-8080

Tank: On-Grade - Welded Steel
Height: 24'
Diameter: 104'
Year Built: 1998
Water Appearance - Good
Capacity - 1.53 MG
Coating Type - Epoxy
Number of Rings - 3

Approximate Measurement for all Penetrations:

- Perimeter Roof Vents - 6 @ 9" x 12"
- Center Roof Vent - 36" Diameter
- Access Hatch - 36' x 36'
- Inlet/Outlet/Drain - 12" Diameter
- Overflow - 16" Diameter
- Manways - 2 @ 30" Diameter

Date: 04/11/2016

Desert Springs #3

On April 11th, 2016, Blue Locker Commercial Diving Services, L.L.C. performed a cleaning and inspection of the Desert Springs #3 reservoir for Truckee Meadows Water Authority. This report, along with the provided video, documents the findings of the inspection. All observations are observed strictly for your own considerations.

The tank is inspected and mapped using clock coordinates with the access hatch at 12:00. Appurtenance locations are described using their location on the clock. General areas of the tank are divided into quadrants starting with Quadrant A covering 12:00 to 3:00.

Section 1: Shell

- **Coating - poor condition.**
- Cracking and peeling in rings #1 & #3 of quadrant A, exposing rusted steel.
- Rust spots and rust nodules in all three rings throughout tank, worst in quadrants A & D.

Section 2: Floor

- **Coating - fair condition.**
- No cracking or peeling observed.
- Rust spots and rust nodules in all 4 quadrants.
- Less than 1/8" of sediment on floor was not removed by divers prior to inspection.
- Observations:
 - **Tank is in need of a blast and recoat and may not be structural sound due to the amount of rust and coating failure throughout tank. We were not able to see the coating on the support pole.**

Section 3: Ceiling

- **Coating – fair condition.**
- No blisters observed.
- Cracking and peeling in isolated spots all around tank exposing rusted metal and steel.
- Surface rust and rust staining on ceiling panels throughout tank.

Section 4: Columns/Support Poles:

- **1 center support pole - coating is in poor condition.**
- May not be structurally sound, 90% of pole is covered in rust spots and rust nodules.
- Rust in crevices between base and floor.
- Surface rust and staining on top hat.

Section 5: Water Level Indicators

- **Mechanical water level indicator is functional with float at surface with guide wires no longer attached to the floor.**
- **Transducer is in place and appears functional.**
- Observations:
 - Ensure electronic level measurement is functioning to remain in compliance with NAC 445A.6708.7

Section 6: Roof Vent

- **6 @ 9"x 12" perimeter roof vents in good condition - screens intact.**
- **36" diameter center roof vent in good condition - screen intact.**
- Observations:
 - Ensure screen mesh is 22-24 mesh per NAC 445A.6708.5

Section 7: Exterior Ladder

- **Exterior ladder- good condition.**
- Structurally sound and secure to shell.
- No flaws observed on rungs, runners or cage.
- Bird's nest removed from bottom of cage door by T.M.W.A. operators.
- Safety climbing device - none present - good condition.

Section 8: Interior Ladder

- **Interior ladder - fair condition & structurally sound.**
- **Ladder coating is in fair condition with peeling of top 6 rungs exposing rusted steel.**
- Rust also observed on rungs and runners near floor.
- Safety climbing devices, none present.

Section 9: Access Hatch

- **36" x 36" access hatch - fair condition.**
- Peeling on hatch cover exposing rust and rust on opening edge.
- Observations:
 - May consider installing a gasket to improve seal.
 - May want to touch up coating on hatch to improve sanitary conditions.

Section 10: Inlet/Outlet/Drain

- **12” diameter penetration with mud-guard is in poor condition.**
- Rust around opening edge on mud-guard and interior of pipe.
- Rust spots on mud-guard edge and in crevice between mud-guard and penetration edge.
- Rust on interior of mud-guard exposing steel.
- 1”- 2” gap between mud-guard and penetration edge.

Section 11: Overflow

- **16” diameter overflow – sound and unobstructed - good condition.**
- Surface rust and staining on overflow box.
- No other flaws observed.

Section 12: Manways

- **2 @ 30” diameter manways - good condition.**
- Seals appear to be intact.
- Rust observed on both manways around outside edges.
- No other flaws observed.

Section 13: Cathodic Protection

- **None Present**

Section 14: Miscellaneous Penetrations

- **None present.**

General Notes:

- **Keep up with regularly scheduled maintenance & cleanings on a 3-5 year rotation.**
- **Rust observed throughout the entire tank but particularly worried about rust condition on center support pole.**
- **Overall the coating in this tank is in poor condition.**

**Sincerely,
Kelan Gondrezick**

Blue Locker Commercial Diving Services, L.L.C



Blue Locker Diving - Photo Documentation

Members - AWWA & NvRWA

Desert Springs #3

T.M.W.A.

04/11/2016

1. Desert Springs #3



2. Exterior Shell



3. Exterior Shell at Chine - (Seismic)



4. Exterior Shell



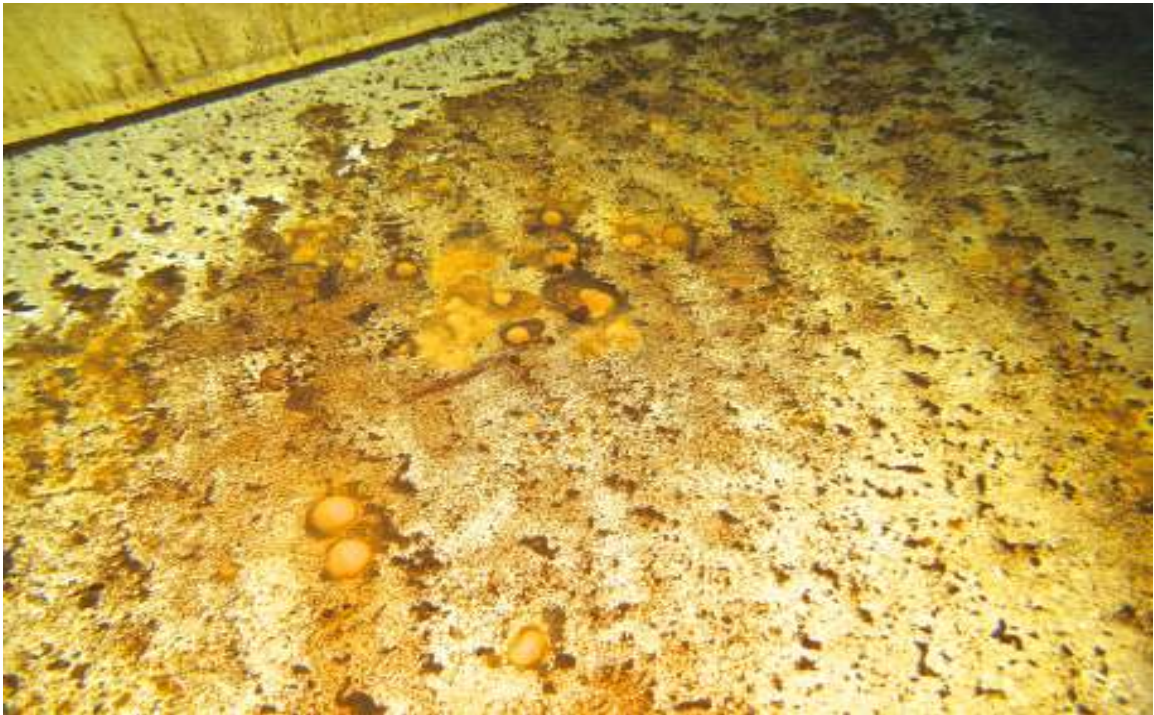
5. Roof Edge - (Seismic)



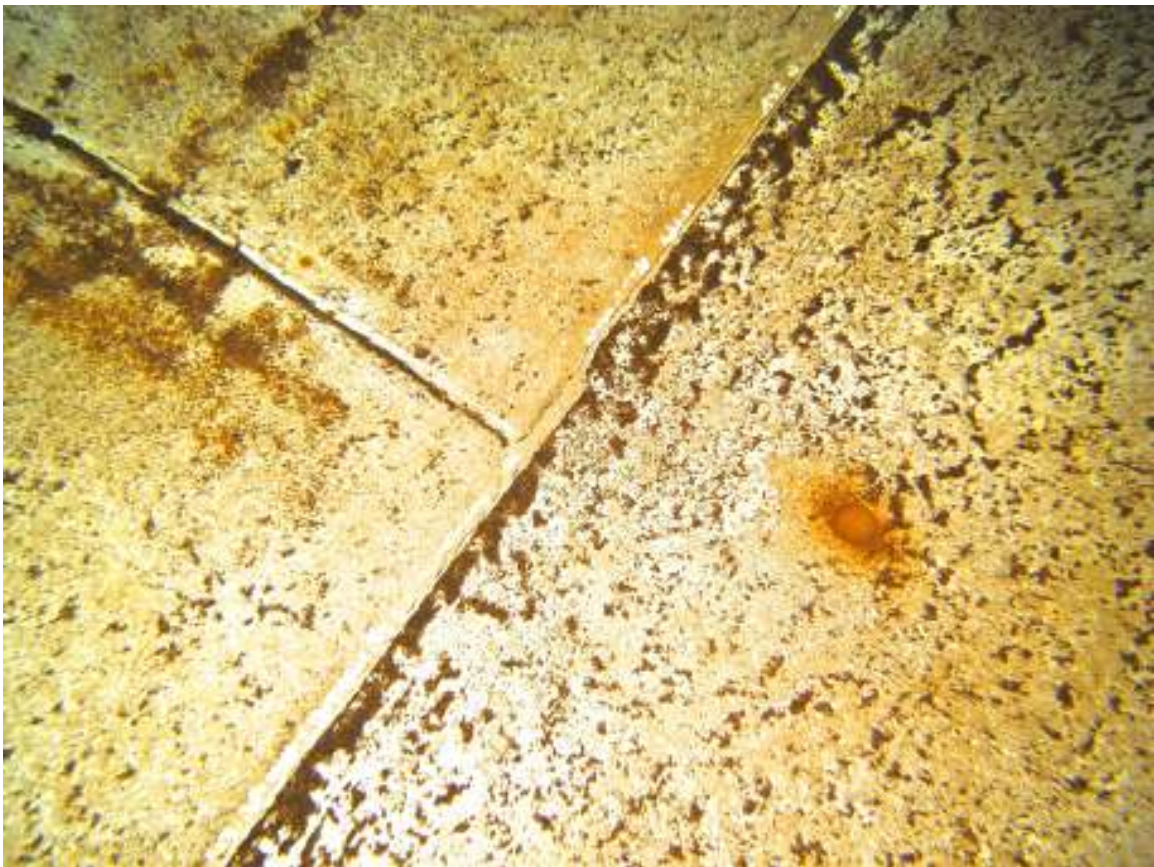
6. Roof (Seismic)



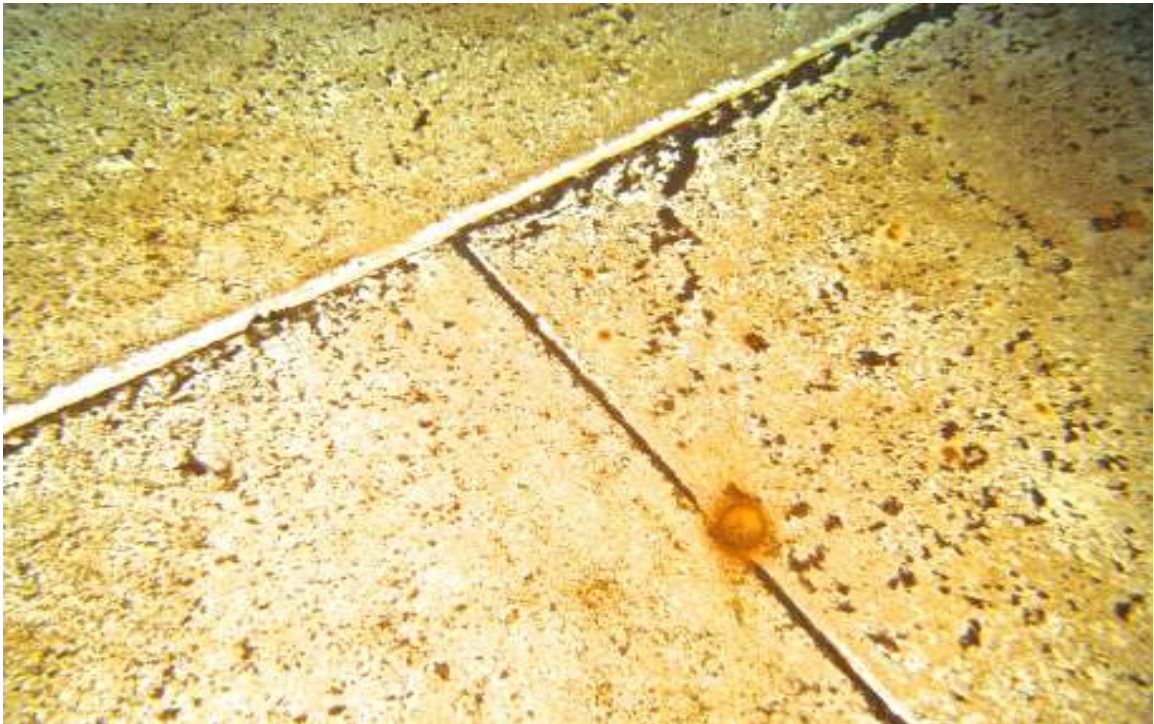
7. Floor



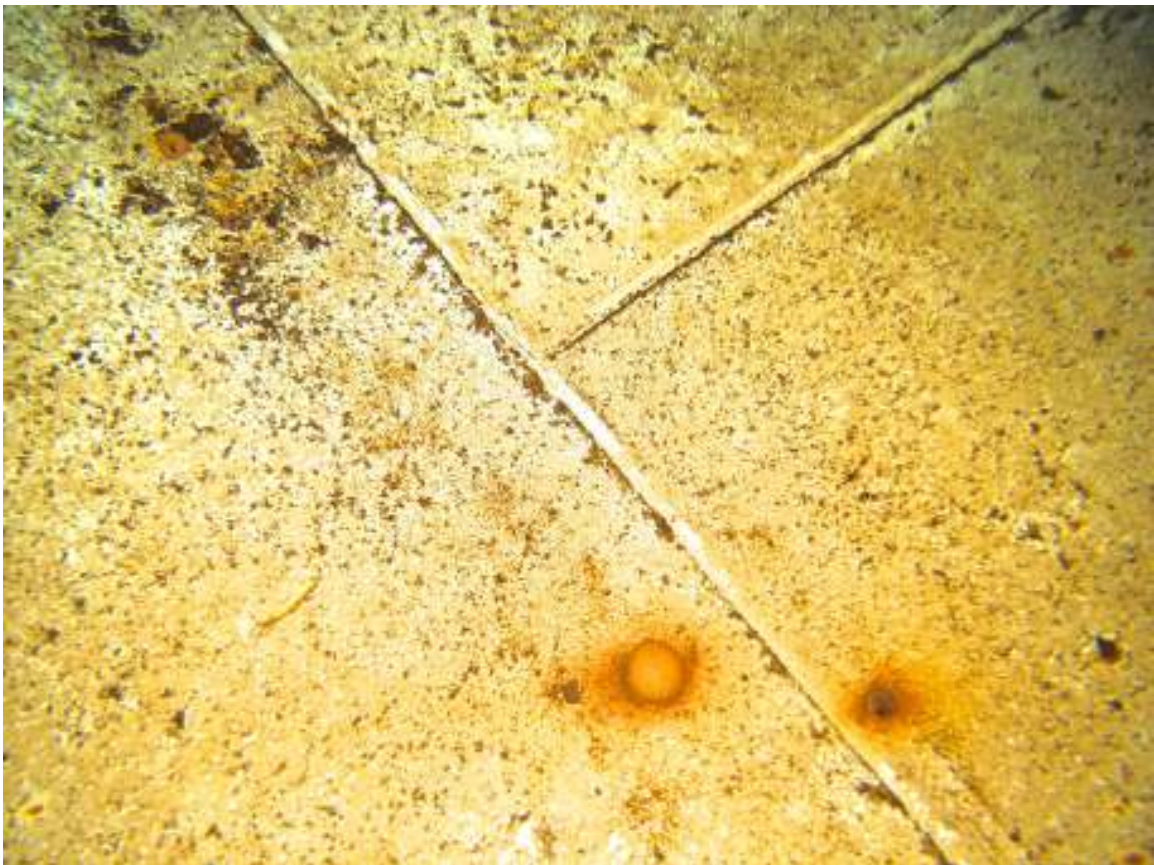
8. Floor



9. Floor



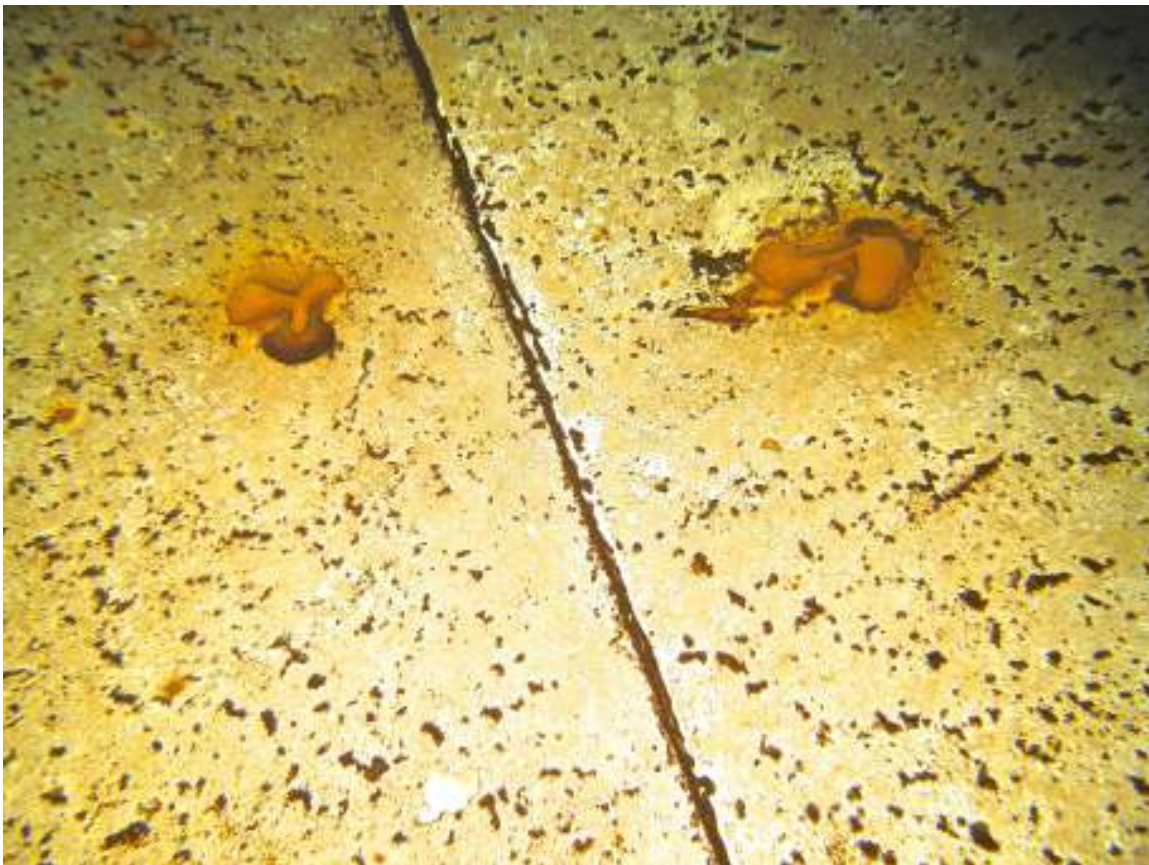
10. Floor



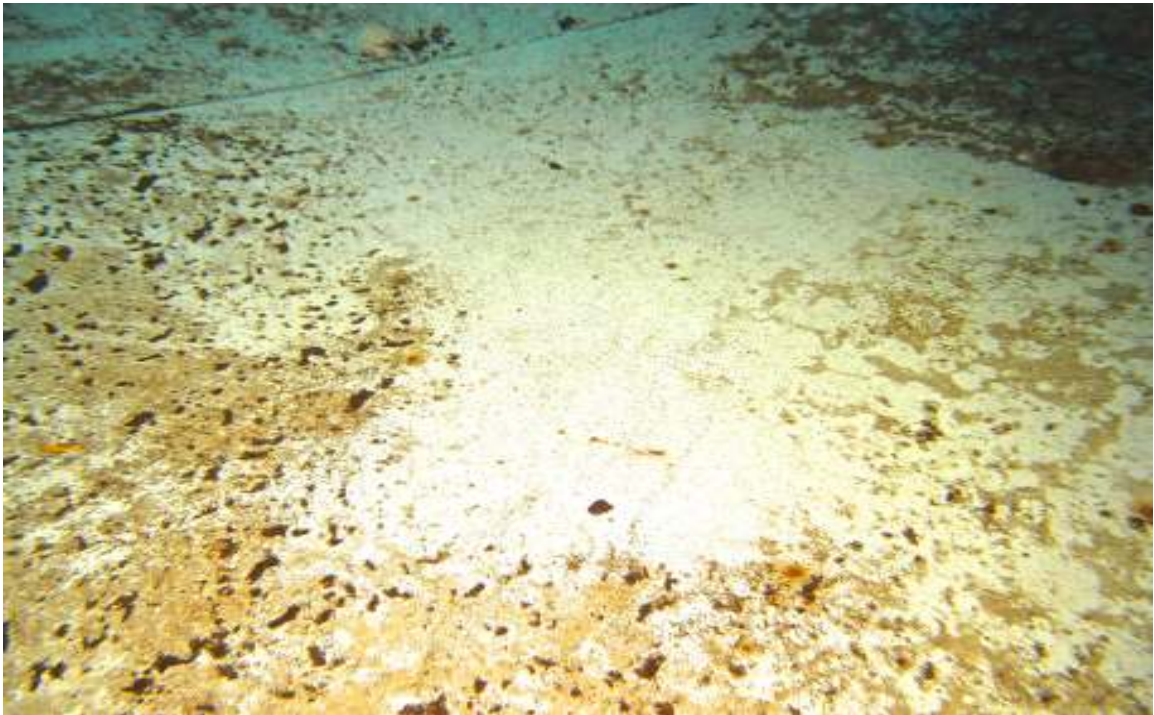
11. Floor



12. Floor



13. Floor



14. Shell at Floor



15. Shell at Floor



16. Shell Ring #1



17. Shell Seam Rings #1-#2



18. Shell Ring #2



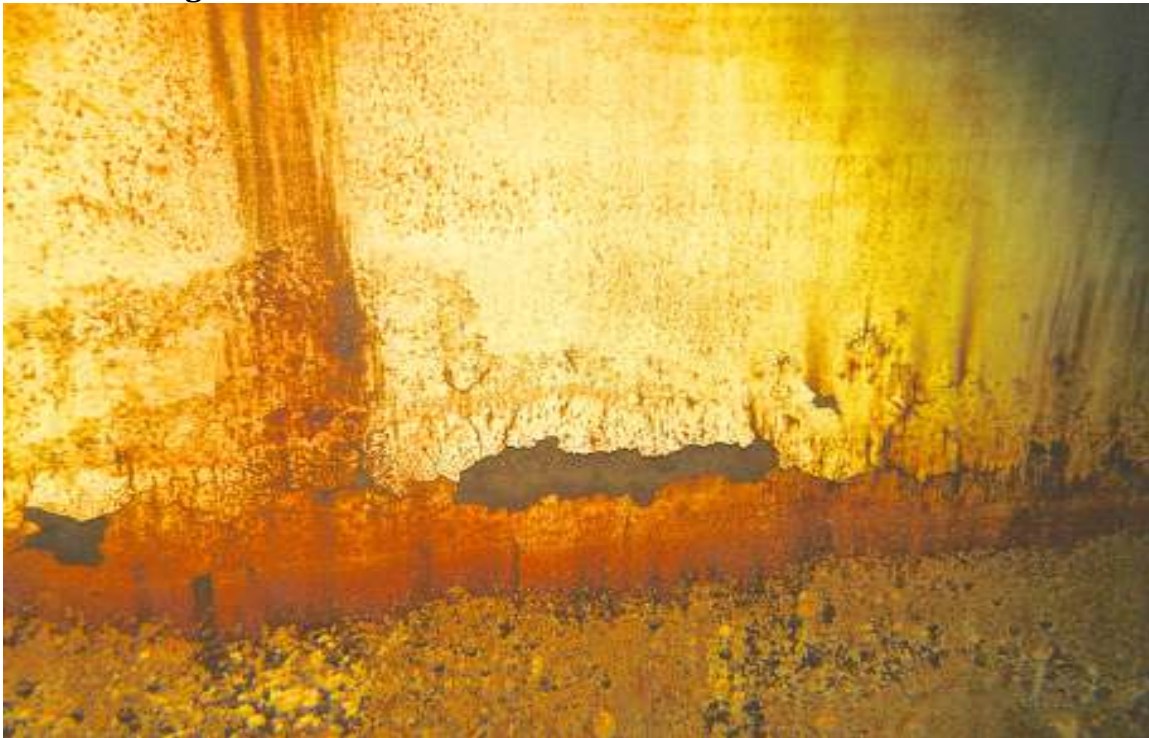
19. Shell Seam Rings #1-#2



20. Shell Ring #3



21. Shell Ring #3



22. Shell at Ceiling & Perimeter Roof Vent



23. Shell at Ceiling



24. Shell at Ceiling



25. Ceiling



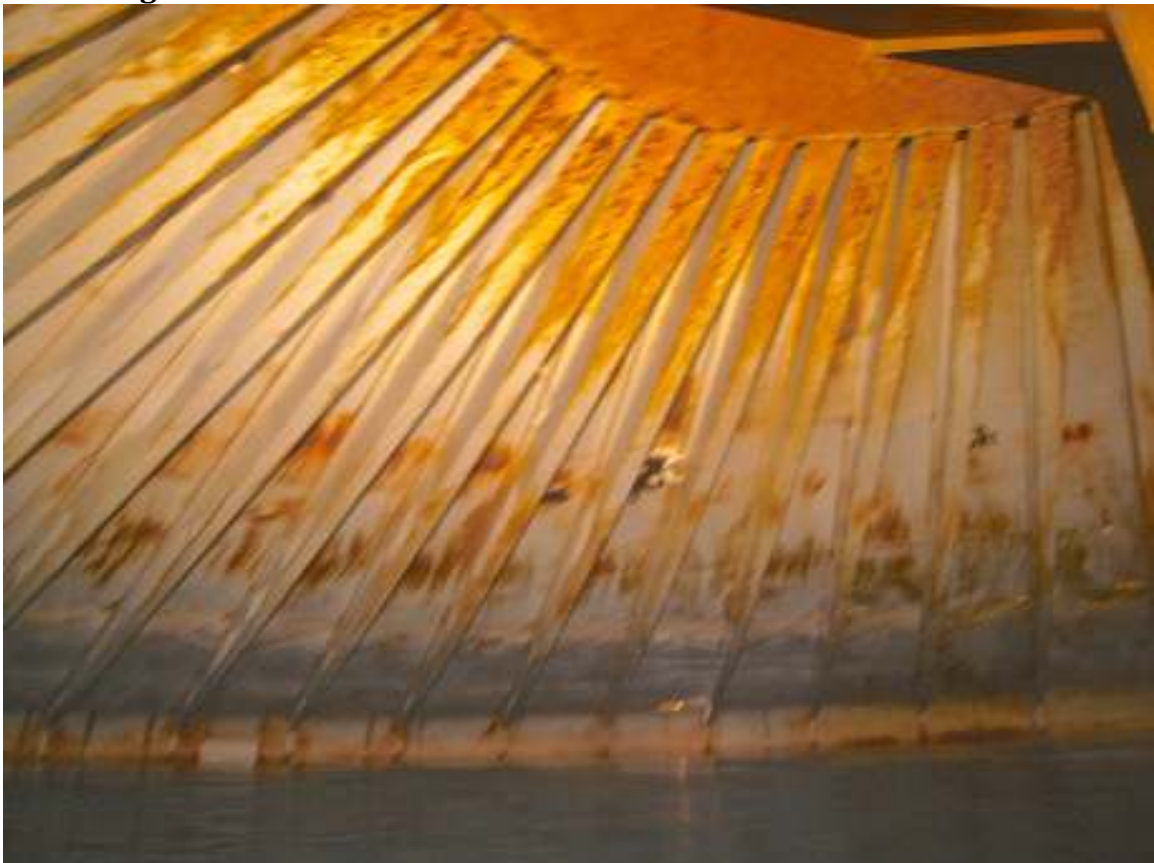
26. Ceiling



27. Ceiling



28. Ceiling



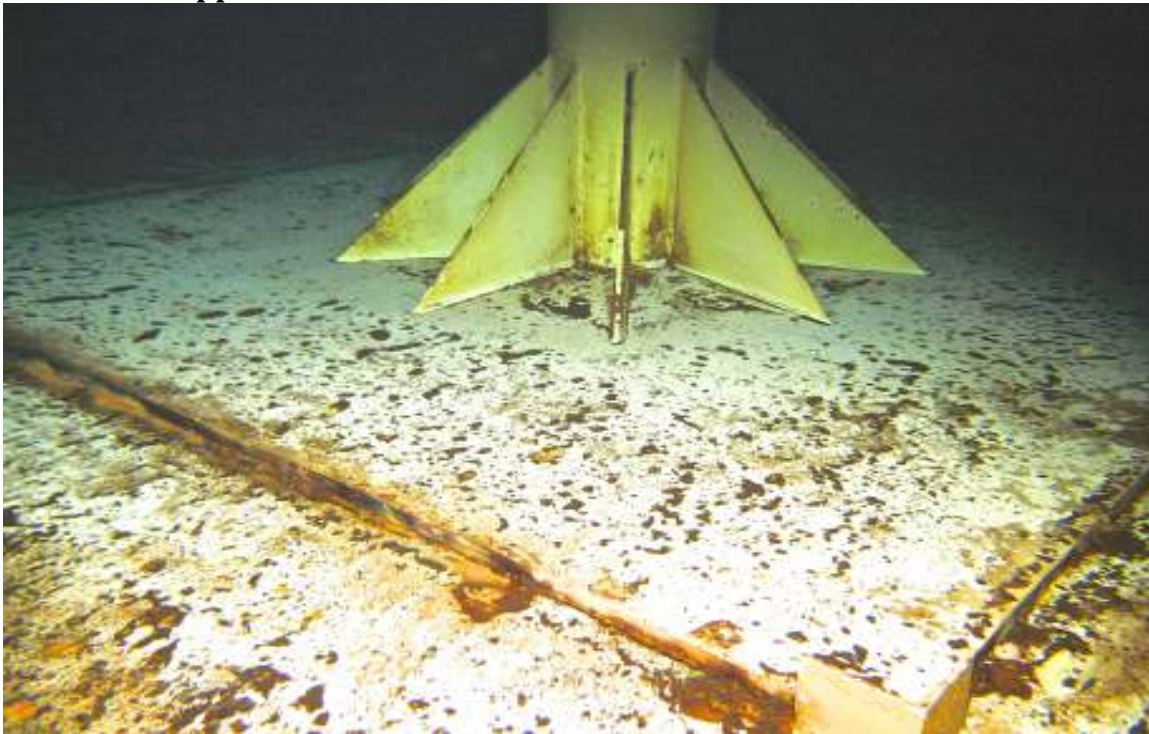
29. Ceiling



30. Ceiling



31. Center Support Pole - Bottom



32. Center Support Pole - Middle



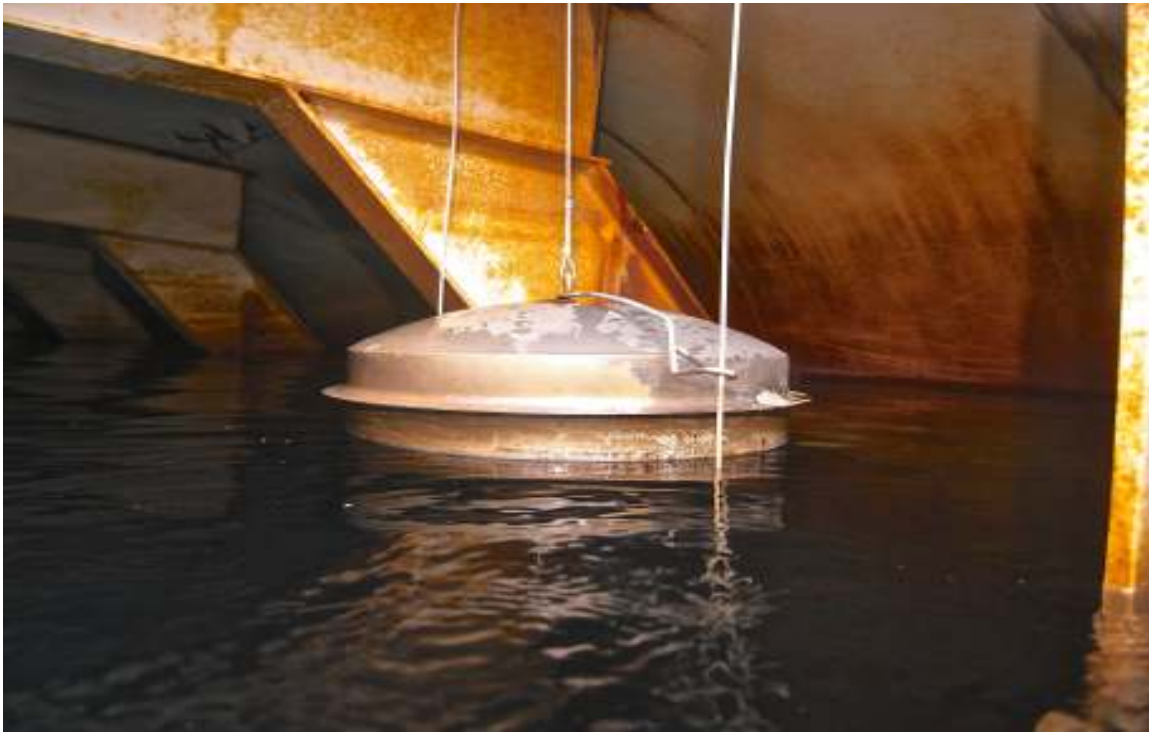
33. Center Support Pole - Top



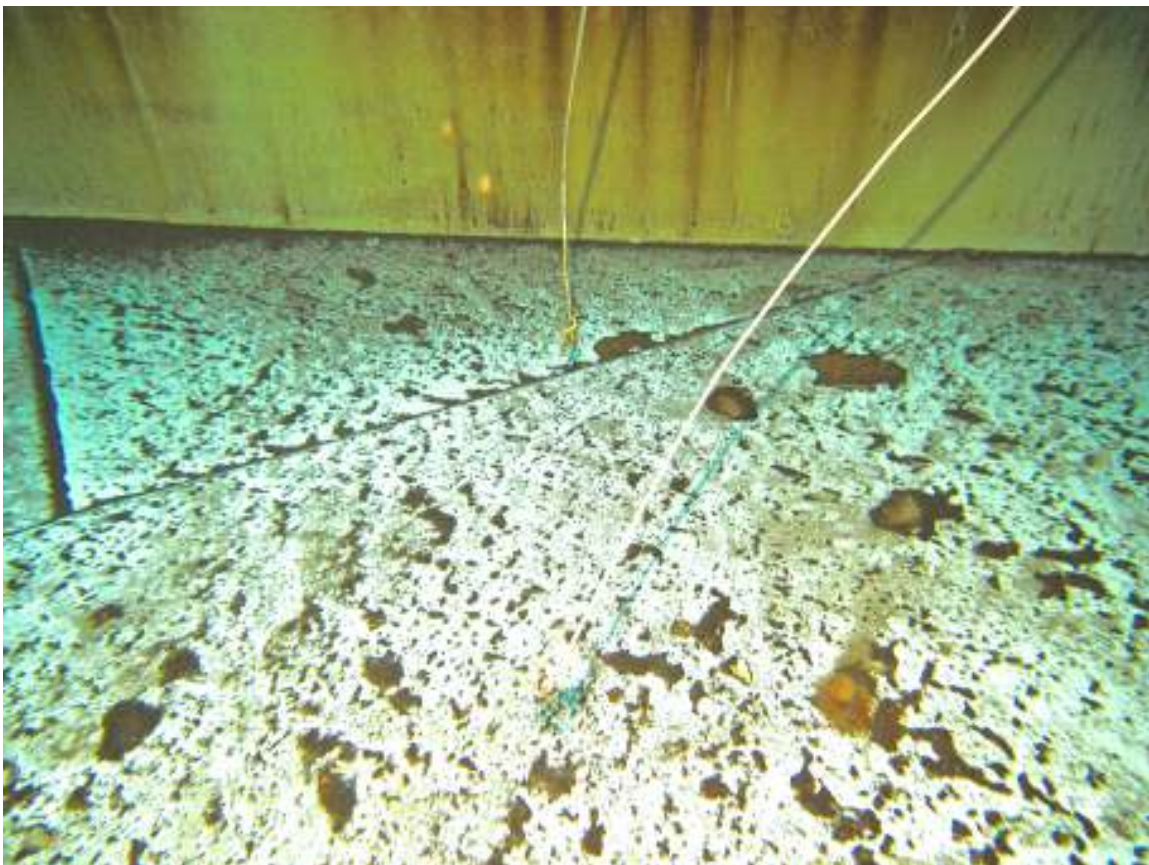
34. Water Level Indicator



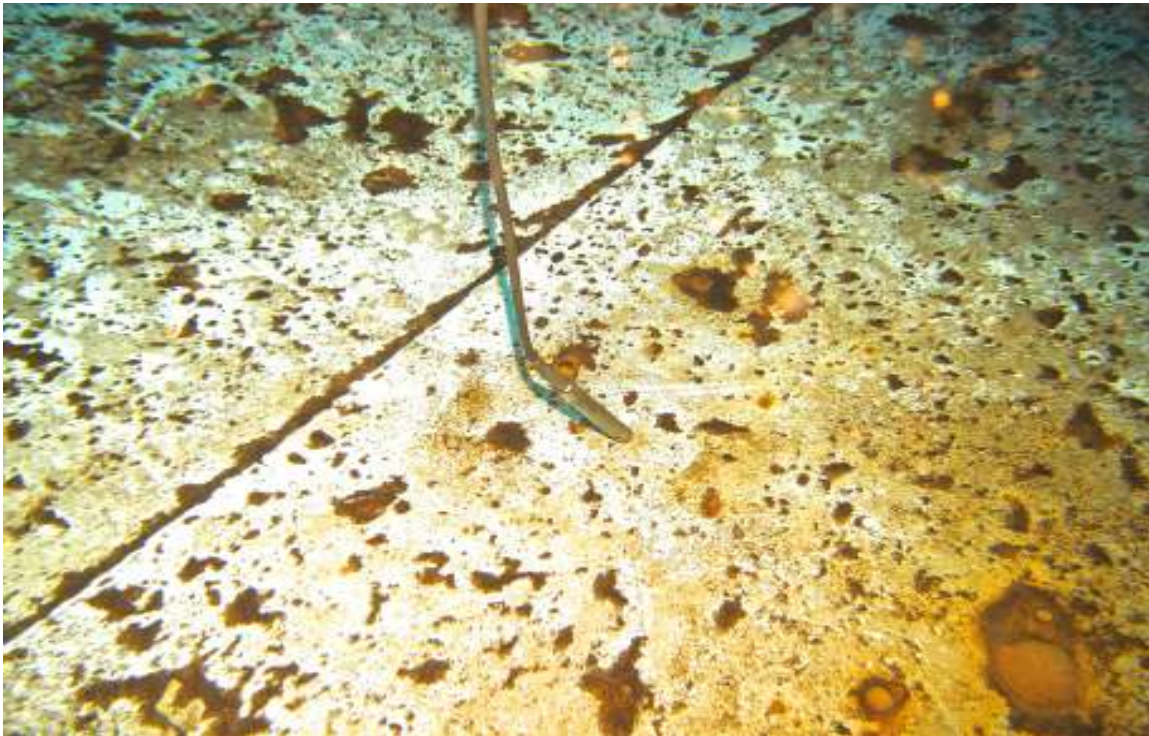
35. W.L.I. Float at the Surface



36. W.L.I. Wires at Base - Bottom



37. W.L.I. Transducer



38. @1 of 6 - Perimeter Roof Vents



39. Center Roof Vent



40. Exterior Ladder



41. Access Hatch



42. Interior Ladder - Top



43. Interior Ladder - Middle



44. Interior Ladder - Bottom



45. Inlet/Outlet/Drain



46. Overflow Bottom



47. Overflow - Near Top



48. Overflow Box



49. Manway #1



50. Manway #1



51. Manway #2



52. Manway #2

