

# **Big Bertha Slide Show**

Nash Williams President National Welding Corporation

# Bertha Penetrates Recovery Shaft



# Rigging, Cutting TBM Shield





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# Removal of Shield Upper Section







### **Removal of Cutter Head**







# Not Much Empty Space







## **Cutter Head and Main Bearing**







#### Cutter Head Hard Facing & Buildup





## **Trailing Gear Structures**





#### Tight Quarters, Mirrors, Contortions









# Weld Buildup & Machining







### More Reinforcments

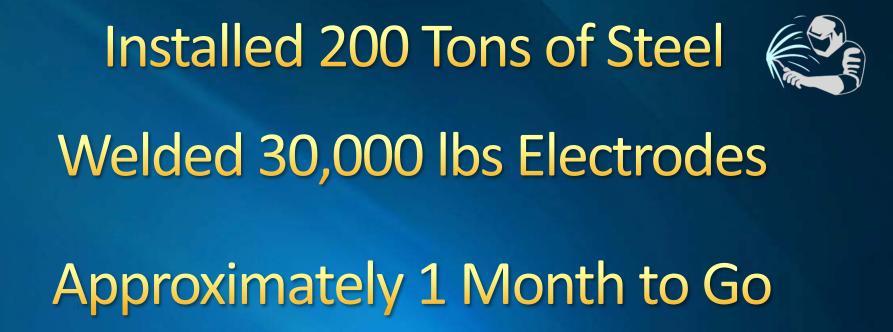




## **Reassembly Nearly Complete**







#### Let's Hope it Works!

THE END