

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT**

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027757
Date Inspected: 14-Jun-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name:	As noted below.	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes No N/A	
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes No N/A	
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes No N/A	
Approved Drawings:	Yes No N/A	Approved WPS:	Yes No N/A	
		Delayed / Cancelled:	Yes No N/A	
Bridge No:	34-0006	Component:	Tower Component	

Summary of Items Observed:

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Electroslag Weld Excavation

This QA observed ABF/JV welding personnel Xiao Jian Wan #9677 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as "ESW F" and was excavated at locations:

Weld "F" – Y=1680mm, L=150mm, W=40mm, D=10mm

Weld "F" – Y=3440mm, L=180mm, W=50mm, D=28mm

The carbon arc gouging process, as well as machine grinding, were used to excavated approximately 5mm at a time. In between excavation passes both QA and QC performed Magnetic Particle Testing (MT).

Throughout this excavation this QA observed no recordable indications either visually or using the MT method.

Please see attached photographs for representative samples of indication observed.

QC MT and data recording was performed by Jesse Cayabyab.

This QA observed ABF/JV welding personnel Wai Kit Li #2953 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

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The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as "ESW E" and was excavated at locations:

Weld "E" – Y=3830mm, L=2170mm, W50mm, D=40mm

The carbon arc gouging process, as well as machine grinding, were used to excavated approximately 2mm-5mm at a time. In between excavation passes both QA and QC performed Magnetic Particle Testing (MT) and photographed the discovered indications.

Throughout this excavation this QA observed and photographed three (3) longitudinal linear indications approximately 10mm-20mm in size.

Please see attached photographs for representative samples of indication observed.

QC MT and data recording was performed by Jesse Cayabyab.

This QA observed ABF/JV welding personnel performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

The UT discovered indication was found to be oriented in the transverse position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as "ESW R" and was excavated at locations:

Weld "R" – Y=540mm, L=240mm, W50mm, D=40mm

The carbon arc gouging process was used to excavate to a depth of 40mm. At 40mm depth both QA and QC performed Magnetic Particle Testing (MT) and photographed the discovered indications.

This QA observed and photographed three (3) linear indications.

Please see attached photographs for representative samples of indication observed.

QC MT and data recording was performed by Jesse Cayabyab.

This QA observed ABF/JV welding personnel Wai Kit Li #2953 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as "ESW J" and was excavated at locations:

Weld "J" – Y=4470mm, D=35mm

Weld "J" – Y=3960mm, D=30mm

The carbon arc gouging process, as well as machine grinding, were used to excavated approximately 5mm at a time. In between excavation passes both QA and QC performed Magnetic Particle Testing (MT) and photographed the discovered indications.

Throughout this excavation this QA observed and photographed two (2) longitudinal linear indications approximately 20mm in size. This excavation is still in progress. Final measurements have not been made.

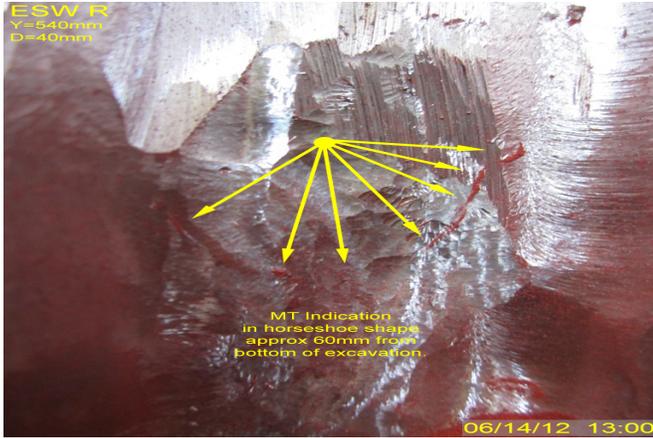
Please see attached photographs for representative samples of indication observed.

QC MT and data recording was performed by Jesse Cayabyab.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

Conversations were relevant to testing performed and indications discovered during excavation.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Clifford, William	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
