Aliquippa, PA

NDE • MECHANICAL LAB • FIELD SERVICES www.nondestructivetesting.com

TÜVRheinland® NDT NON-DESTRUCTIVE TESTING SERVICES

Vermont Agency of Transportation

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CK'D BY David Peterson OK'D BY JWC

Apr 26, 2012

RESUBMIT ____ APPROVED ✓

BY C. CARLSON DATE 5/7/12

ARC Enterprise
Steve Howard
27 Commercial Road
P.O. Box 120
Kingfield, ME 04947

Date: April 26, 2010

Report #: 1
P.O. #: 5062
Lab #: 100275
Date Received: 4/23/10
Date Tested: 4/26/10
Work Order: G5513

WELDING PROCEDURE QUALIFICATION RECORD (WQR) 45

Fabricator: ARC Enterprises, Inc.
Welding Process (es): SAW
Welding Position: 1G
Electrode: Lincoln LA-75
Flux Mfg. Designation: 960

Date Welded: 4-14-10
# of Passes: 18
Filler Metal Specification:
Filler Metal Classification:

Types: ☐ Manual ☐ Automatic ☐ Semi-Auto

Electrode	Diameter	Current	WFS*	Volts	Current	Polarity
1	3/32"	400	N/A	30	DC	Positive

Shielding Gas: N/A
Flow Rate: N/A
Dew Point: N/A
Preheat Temp: 75°
Interpass Temp: 450° F maximum
Material Specification: A709 Gr 50W
Material Thickness: 1"
Welding Witnessed By:
Welded By: Jim Gentile

SPECIMEN	TEST RESULTS
ALL WELD METAL TENSION (AWMT)	Tensile Strength (psi): 84,000 Yield Strength (psi): 68,000 Elongation in 2" (%): 29 Reduction in Area (%): 67
SIDE BENDS	1. Pass 2. Pass 3. Pass 4. Pass
REDUCED SECTION TENSION	Tensile Strength 1: 89,000 Location of Break 1: Base metal Tensile Strength 2: 66,500 Location of Break 2: Base Metal
CHARPY IMPACT (WELD METAL)	Charpy 1: 59 44 54 55 55 Avg. Ft-Lb: 54.7 @ 0° F Charpy 2: Avg. Ft-Lb:
CHEMISTRY ELEMENTS	C Cr Mn Mo Ni S Cu Si P V
MACROETCH	1. Acceptable 2. Acceptable 3. Acceptable

RADIOGRAPHIC TEST RESULTS

Film I.D.	Results	Remarks	Film I.D.	Results	Remarks
N/A					

Per Inspector: J. Pete Merther, P.E.
Testing witnessed by: N/A
Does meet the requirements of AWS D1.5 – 2008

Process date: 4/26/10
Witness date: N/A

Frank M Adragna
CWI 91060621
QC1 EXP. 6/1/2012

Respectfully submitted,

Non-Destructive Testing Services, Inc.

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APR 30 2010

Testing was performed in accordance with accepted industry practice as well as the test methods referenced. Non-Destructive Testing Services, Inc. has no direct knowledge of the origin, sampling procedure, nor condition of the samples, and makes no claims as to the suitability nor final use of the material. This test report applies only to those items tested. This report shall not be reported except in full without the written consent of Non-Destructive Testing Services, Inc.

PQR AWS D1.5 Fracture Critical NYSSCM & NYCDOT
RLK 7/13/09