BD 1778(12/80)

NEW YORK STATE

DEPARTMENT OF TRANSPORTATION ~

WELDING PROCEDURE QUALIFICATION RECORD

Fabricator Seismic Energy Products Test Date 4/14/10

Process FCAW Filler Metal Classification E81T1-Ni1C

Electrode(s) Lincoln Ultracore 81Ni1C Flux N/A

(1) Diameter 1/16" Amps 310 Volts 33 Current & Polarity DC-Rev

(2) ____ ____ ____ ____

(3) ____ ____ ____ ____

Shielding Gas 100% CO_2 Flow Rate 40 CFH Dew Point -128°F

Travel Speed 12 I.P.M. Material Specification & Thickness A588 - 1"

Preheat Temp. 200°F Interpass Temp. 450°F max.

Heat Input 51,150 FCM ☐ Yes ☒ No

SPECIMEN	TEST RESULTS		
All Weld Metal Tension (AWMT)		(1)	(2)
	Tensile Strength (psi)	85,400	
	Yield Strength (psi)	77,500	
	Elongation in 2" (%)	28	
	Reduction in Area (%)		
Side Bends	1. Pass 2. Pass 3. Pass 4. Pass		
Reduction Section Tension	Tensile Strength 1. 85,000 2. 86,300	Location of Break 1. BM 2. BM	
Charpy Impact (Weld Metal)	(57, 48, 17, 26, 27)	Avg. Ft. Lbs. 33.7 @ -20 °F	
	(____, ____, ____, ____, ____)	Avg. Ft. Lbs. ____ @ ____ °F	
	ESW & EGW (____, ____, ____, ____, ____, ____, ____, ____)	Avg. Ft. Lbs. ____ @ ____ °F	
Chemistry	C. .06 Mn. 1.03 P. .01 S. .004 Si. .22		
	Ni .90 Cr. .08 Mo. .007 V. .02 Cu. .06		

REMARKS:

PQR# TP4

Position - 1G

NYSDOT
METALS ENGINEERING
REVIEW

X APPROVED Expires 4/14/15
___ APPROVED AS NOTED
___ DISAPPROVED
5/5/10
R. Cosgrove

Vermont Agency of Transportation
RECEIVED
CK'D BY ____ OK'D BY JC
February 13, 2015
RESUBMIT NO Approved
BY KH DATE 3-5-2015

Test Witness: John Martin Agency NDT

Results Reviewed: RMC DOT Acceptance R. Cosgrove Date 5/5/10