



# Fermi National Accelerator Laboratory

Technical Division-Machine Shop

## WELDER PERFORMANCE QUALIFICATION TEST REPORT

Welder's Name : William Gatfield #04609 ASME No. W-12  
Welding Process(es) 1st GTAW Manual Type \_\_\_\_\_ 2nd \_\_\_\_\_ Type \_\_\_\_\_

In accordance with WPS No. FERMI CS-1

Joint: Fillet  Production Weld  Test Coupon

Groove: Double Welded:  Yes  No  
Single Welded:  Metal Fused  Metal Non-Fused  Non-Metal  Open Root  Consumable Insert  
 With Solid Backing  Without Solid Backing

Base Metal: Spec. SA106 to SA 106 (ASME IX) P. No. 1 to P. No. 1  
 Plate  Pipe  Tube

Actual Thickness \_\_\_\_\_ Nominal Diameter 4NPS Actual Diameter 4.5" OD \_\_\_\_\_  
Qualified Range \_\_\_\_\_ Wt/Sch 80 Qual. Thick Range 0-0.674 Wall \_\_\_\_\_  
Actual Thickness 0.337 Qual. Dia. Range 2-7/8 min Qual. Thick Range \_\_\_\_\_  
Qual. Dia. Range \_\_\_\_\_

Filler: **1st Process** Spec. SFA 5.18 Class ER70S-2 **2nd Process** Spec. \_\_\_\_\_ Class \_\_\_\_\_  
Dia.(s) 3/32 Dia.(s) \_\_\_\_\_  
F. No. 4 F. No. \_\_\_\_\_  
Deposit Thickness 0.337 Range Qual. 0-0.674 Deposit Thickness \_\_\_\_\_ Range Qual. \_\_\_\_\_

Position(s) (IG, etc.): 6G If Vertical Up  Down \_\_\_\_\_  
Gas (Type and Composition): Fuel \_\_\_\_\_ Shielding Ar 99.9% Root Side Backing Ar 99.9%  
Electrical: Type Current  AC  DC - Reverse  XDC - Straight  
Transfer: GMAW  Spray  Globular  Pulse  Short Circuit

FOR INFORMATION ONLY	MACHINE WELDING
Filler Metal Trade Name: _____	Control: <input type="checkbox"/> Visual <input type="checkbox"/> Remote Visual
S.A.W. Flux Trade Name: _____	Arc Voltage Control: <input type="checkbox"/> Auto <input type="checkbox"/> Other _____
Shielding Gas Trade Name: _____	Joint Tracking: <input type="checkbox"/> Yes <input type="checkbox"/> No

**VISUAL INSPECTION**  
Appearance Satisfactory Undercut \_\_\_\_\_ Piping porosity \_\_\_\_\_

**GUIDED BEND TEST**

TYPE AND FIGURE	RESULTS	TYPE AND FIGURE	RESULTS	TYPE AND FIGURE	RESULTS

Test Conducted by \_\_\_\_\_ Lab Test No. \_\_\_\_\_  
Date \_\_\_\_\_

**RADIOGRAPHIC TEST**  
Results Satisfactory Per ASME IX-2007 and AWS D1.1-06  
Radiographer Alloyweld Inspection Co., Inc. Examiner Jennifer Anaya Level II Test No. 175214 Date 4/20/2009

**FILLET WELD TEST RESULTS**  
Fracture Test \_\_\_\_\_ Location, Nature, and Size of Crack or Tear in Specimen \_\_\_\_\_  
Length of Weld \_\_\_\_\_ inch, Length of Defect \_\_\_\_\_ inch, \_\_\_\_\_ % of Defect  
Macro Test: Fusion \_\_\_\_\_  
Appearance: Fillet size \_\_\_\_\_ inch x \_\_\_\_\_ inch  Convex  Concave  
Test Conducted by \_\_\_\_\_ Lab Test No. \_\_\_\_\_

We certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of ASME IX -2007 and ASW D1.1-06 Fermi National Accelerator Laboratory

By [Signature] Date 5/1/2009