DATE	5/14/12
INVOICE NO.	482348
BILL OF LADING	66808
CUSTOMER NO.	0829
CUSTOMER P.O.	4500088031

NUCOR-YAMATO STEEL CO.

P.O. BOX 1228 ● BLYTHEVILLE,AR 72316

CERTIFIED MILL TEST REPORT

100% MELTED AND MANUFACTURED IN U.S.A.
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

SHIP TO
FORTACERO C/O GULF STREAM MARINE
PORT OF BROWNSVILLE

BROWNSVILLE, TX

SPECIFICATIONS
ASTM A992/A992M-11 A572/A572M GR50-07
ASTM A709/A709M-11 GR50 (345)
ASTM A709/A709M-11 GR50S (345S)
ASTM A6/A6M-11

SOLD TO
FORTACERO S.A. DE CV
BLVD CARLOS SALINAS DE GORTARI
KM 8.8
APODACA, N.L. MEXICO 66600

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES: YIELD TO TENSILE RATIO	YIELD STRENGTH PSI / MPa	TENSILE STRENGTH PSI / MPa	ELONG % / %	CHARPY IMPACT TEMP °F / °C	IMPACT ENERGY FT-LBS / JOULES	CHEMICAL PROPERTIES: C	Mn	P	S	Si	Cu	Ni	Cr	Mo / Sn	V / Pcm	Cb	CE / CI
1	W14 - 22.0	17	378804	.76	52000	68000	26			.08	.92	.014	.030	.24	.29	.10	.09	.03	.01	.001	.29
	40'			.78	53000	68000	27											.01	.16		
	W360 x 32.9				359	469	26														
	12.192 M				365	469	27														
2	W14 - 22.0	25	378805	.74	51000	69000	25			.09	.93	.014	.026	.21	.29	.11	.09	.04	.01	.001	.31
	40'			.76	53000	70000	23											.01	.17		
	W360 x 32.9				352	476	25														
	12.192 M				365	483	23														
3	W14 - 22.0	3	378806	.75	52000	69000	26			.08	.95	.014	.024	.21	.28	.12	.11	.03	.01	.002	.30
	40'			.77	53000	69000	26											.01	.16		
	W360 x 32.9				359	476	26														
	12.192 M				365	476	26														
4	W14 - 22.0	3	378813	.74	52000	70000	23			.08	.91	.011	.030	.20	.26	.10	.09	.03	.01	.002	.28
	40'			.75	52000	69000	25											.01	.16		
	W360 x 32.9				359	483	23														
	12.192 M				359	476	25														
5	W14 - 22.0	1	378822	.76	52000	68000	28			.08	.90	.021	.026	.24	.27	.11	.09	.04	.01	.001	.29
	40'			.77	54000	70000	27											.01	.16		
	W360 x 32.9				359	469	28														
	12.192 M				372	483	27														
6	W14 - 22.0	12	378823	.77	55000	71000	29			.09	.92	.012	.019	.20	.28	.10	.10	.03	.01	.001	.30
	40'			.76	55000	72000	26											.01	.17		
	W360 x 32.9				379	490	29														
	12.192 M				379	496	26														
7	W14 - 22.0	5	378831	.75	53000	71000	24			.08	.90	.015	.026	.19	.29	.09	.08	.03	.01	.001	.28
	40'			.76	53000	70000	26											.01	.16		
	W360 x 32.9				365	490	24														
	12.192 M				365	483	26														
8	W14 - 22.0	5	378837	.74	52000	70000	27			.08	.90	.020	.023	.20	.27	.10	.16	.03	.01	.002	.29
	40'			.76	53000	70000	24											.01	.16		
	W360 x 32.9				359	483	27														
	12.192 M				365	483	24														
9	W14 - 22.0	7	378839	.75	51000	68000	25			.08	.90	.020	.026	.20	.29	.10	.14	.03	.01	.001	.30
	40'			.75	51000	68000	26											.01	.16		
	W360 x 32.9				352	469	25														
	12.192 M				352	469	26														

$Pcm = C + \frac{Si}{30} + \frac{Mn}{20} + \frac{Cu}{20} + \frac{Ni}{60} + \frac{Cr}{20} + \frac{Mo}{15} + \frac{V}{10} + 5B$ B=Approx..0005

CARBON EQUIVALENT: CE = CE(IIW) = C + Mn/6 + (Cr+Mo+V)/5 + (Ni +Cu)/15

Mercury has not been used in the direct manufacturing of this material.

Corrosion Index: CI=26.01(%Cu)+3.88(%Ni)+1.20(%Cr)+1.49(%Si)+17.28(%P)-7.29(%Cu)(%Ni)-9.10(%Ni)(%P)-33.39(%Cu)^2

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

Gary Lemmell

QUALITY ASSURANCE

CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
SWORN TO AND SUBSCRIBED BEFORE ME THIS

14 Day of 05/12

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2013

CHARLENE WALLIS
MY Comm. Exp. NOTARY PUBLIC 10-21-2013
MISSISSIPPI CO. ARKANSAS