Material Test Report

Heat Code: YWG

An Ameri-Forge Group Company 13770 Industrial Rd., Houston, TX 77015

ISO 9001:2000 Certified

Sales: (713) 868-4421 Fax: (713) 455-8366

PLESA ANAHUAC Y CIAS

PO: 3815

Sales Order: 62636 Line: 11

SA DE CV AV. VALLE DE LAS

Item Code: 0151910101-0020f

Qtv Shipped: 15

ALAMEDAS 66-0

Item Desc: FLG 10.00 0150 WN RF STD A105 Supplier: CMC

NHT COFFR Supplier Heat: J73860

54940 TULTITLAN, EDO MEX

Spec: ASTM A 105/A 105M-03/ASME SA 105/SA 105M-04, Melt Practice EF

Elen	nent (%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA CAS#
С	Carbon	0.20				Cr Chrom	ium	0.11		√ 7440-47-3
Mn	Manganese	0.84		√ 7	439-96-5	Mo Molyb	denum	0.027		
P	Phosphorous	0.008				V Vanad	ium	0.002		
S	Sulphur	0.032				Cb Colum	bium	0.001		
Si	Silicon	0.25				C.E.		0.391		
Cu	Copper	0.26		√ 7	440-50-8	CuNiCrMo		0.49		
Ni	Nickel	0.09		· ✓ 7	440-02-0	CrMo		0.14		

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Mechanica		Other	
Test Lab	AFG	Country of Origin	USA (US)
Test Bar Size	SACRIFICIAL PIECE	EF	Y
HBW	163-167		
Elg (%)	27.0		
RA (%)	42.0		
Tensile Specimen Size (in)	0.505		
Tensile (ksi)	77.1		
Yield (ksi)	42.7		
Gauge Length	2.00	y .	
		8	

Material on this report is certified to NACE MR-01-75 and DIMS. to ANSI B16.5 Product compliant with NACE MRO175, latest edition.

Product compliant with and meets all requirements of ASTM A105/ASME SA105-05.

No Weld repair performed. Chemical Analysis results shown are actual. Forgings are capable of passing hydrostatic test compatible with the appropriate rating. Elongation taken from a round specimen. All material supplied under this order is certified to be free of mercury contamination and no mercury bearing equipment was used in manufacturing, fabrication or testing. Yield strength was determined using the 0.2% offset method.

EPCRA Supplier Notification: This product may contain one or more toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986) and 40 C.F.R. Part 372. Potentially reportable chemicals are indicated with a checkmark in the "EPCRA" column and a Chemical Abstract Services (CAS) registry number is provided for each such chemical in addition to the percent by weight of the chemical present in this product. It is your responsibility alone to determine whether your facility is required to submit a Toxic Release Inventory Report under EPCRA Section 313.

Certification No.:

131273

Certification Date: 12/11/2007

Kevin Papich - Tech. Svcs. Manager

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NHT COFFR

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Mn Manganese 0.84 ✓ 7439-96-5 Mo Molybdenum 0.027 P Phosphorous 0.008 V Vanadium 0.002 S Sulphur 0.032 Cb Columbium 0.001 Si Silicon 0.25 C.E. 0.391 Cu Copper 0.26 ✓ 7440-50-8 CuNiCrMo 0.49	✓ 7440-47-3					nent (%wt)	Elen
P Phosphorous 0.008 V vanadium 0.002 S Sulphur 0.032 Cb Columbium 0.001 Si Silicon 0.25 C.E. 0.391 Cu Copper 0.26 ✓ 7440-50-8 CuNiCrMo 0.49		0.11	Cr Chromium		0.20	Carbon	C
S Sulphur 0.032 Cb Columbium 0.001 Si Silicon 0.25 C.E. 0.391 Cu Copper 0.26 ✓ 7440-50-8 CuNiCrMo 0.49		0.027	Mo Molybdenum	✓ 7439-96-5	0.84	Manganese	Mn
Si silicon 0.25 Cu Copper 0.26 ✓ 7440-50-8 CuNiCrMo 0.49		0.002	V Vanadium		0.008	Phosphorous	P
Cu Copper 0.26 ✓ 7440-50-8 CuNiCrMo 0.49		0.001	Cb Columbium		0.032	Sulphur	S
		0.391	C.E.		0.25	Silicon	Si
W		0.49	CuNiCrMo	✓ 7440-50-8	0.26	Copper	Cu
Ni Nickel 0.09 7440-02-0 : CrMo 0.14		0.14	CrMo	✓ 7440-02-0	0.09	Nickel	Ni

Mechanic	al	0	ther
Test Lab	AFG	Country of Origin	USA (US)
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131273

Certification Date:

12/11/2007

This report is issued in compliance with the requirements of EN10204 3.1 / ISO 10474 3.1.b

Kevin Papich - Tech. Svcs. Manager