



# VILLACERO

## MILL TEST REPORT

**PRODUCT:** 2 1/2 MEC ASTM A-500-A / NMX B-199  
**FINISHING:** TUBO BARNIZADO EXTREMO LISO

**CUSTOMER:** PLESA ANAHUAC Y CIAS, S.A. DE C.V.

**SHIPPING DATE:** 11/10/12

**TRANSPORT PLATAFORM:** ANGELINA RAMIREZ TREJO

**INVOICE:** FT-13410

**ORDER:** 1200096842

TRANSPORT/ TRANSPORTE:

MANUFACTURER/ PLANTA : LAMINA Y PLACA COMERCIAL S.A DE C.V.  
 DIEGO DIAZ DE BERLANGA, NO. 1002 SUR  
 SAN NICOLAS DE LOS GARZA, NUEVO LEON, MEXICO

I HEREBY CERTIFY THAT THE PRODUCT ACCOMPLISHED WITH THE SPECIFICATION TO THE INVOICE AND/ OR REMISSION ( DATABASE OF SYSTEM ) .

ESTE PRODUCTO FUE FABRICADO BAJO LA NORMA QUE SE DESCRIBE HACIENDO CUMPLIR LOS REQUERIMIENTOS DE LA ESPECIFICACION (BASE DE DATOS DEL SISTEMA).

PROCESS: HFW

MANUFACTURING INFORMATION/ INFORMACION DE MANUFACTURA							DIMENSIONS (DIMENSIONES)		
DATE	SHIFT	OPER	ORDER OP #	GRADE	MANUFACT PROCESS	HEAT TREATMENT	OUTSIDE DIAMETER (In)	Thickness (In)	LENGT (Mts)
05/10/12	1	COM	431	A	HFW	NO	2.875"	0.203"	6.00

ONLINE TESTS (PRUEBAS DE CAMPO)									
HEAT NUMBER (COLADA)	HYDROSTATIC TEST (PSI)	DELIVERY CONDITION	TIME (Sec.)	NON-DESTRUCTIVE TEST (PND)	METALLOGRAPHY TEST	BENDING TEST	FLATTENING TEST	VISUAL INSPECTION	
NOV253356	1000	AS ROLLED	5	OK	OK	OK	OK	OK	OK

CHEMICAL ANALYSYS (ANALISIS QUIMICOS)/ MECHANICAL PROPERTIES (PROPIEDADES MECANICAS)									
HEAT NUMBER (COLADA)	%C	%Mn	%P	%S	%Si	%Cr	%Mo	%Ni	%Cu
NOV253356	0.1000	0.3600	0.0120	0.0090	0.0070	0.0100	0.0000	0.0000	0.0000
%Nb	%Sn	%Ti	%V		YIELD ST (PSI)	UT (PSI)	% ELONG	HARDNESS (HRb)	CARBON EQUIVALENT %
0.0000	0.0020	0.0010	0.0010		44.789	57.1960	50.000	74	N/A

CHARPY TEST (PRUEBA CHARPY)					
HEAT IDENT NUM	ABSORBED ENERGY (FT-LB)			AVERAGE	TEMPERATURE TEST °C
	1	2	3		
NOV253356	N/A	N/A	N/A	N/A	N/A

NOTE: THE SUM OF THE NIOBIUM, VANADIUM AND TITANIUM CONCENTRATIONS SHALL BE 0.15%  
 NOTA: LA SUMA DE LA CONCENTRACION DE NIOBIO, VANADIO Y TITANIO NO DEBE SER 0.15%

I HAVE PERSONAL KNOWLEDGE AS TO ACCURACY OF THE ABOVE INFORMATION, AND HAVE AUTHORITY TO SIGN ON BEHALF OF THE COMPANY.

TENGO EL CONOCIMIENTO Y AUTORIZACION EN NOMBRE DE LA COMPAÑIA PARA AVALAR ESTA INFORMACION.

SINCERELY

ING. DIONISIO CHIHUAHUA PEREZ

QUALITY ASSURANCE MANAGER