



MILL TEST REPORT

PRODUCT: 1 1/2" C80 ASTM A-53-A / NMX B-177
FINISHING: TUBO BARNIZADO EXTREMO LISO

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

SHIPPING DATE: 29/06/13

SPORT PLATAFORM:

LOGISTICA ABURTO

INVOICE: FT-16152

ORDER: 1200126408

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) | LENGTH (Mts) |
| 18/12/12 | 1 | COM | 296 | A | E | NO | 1.900" | .200" | 6.40 |

| 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 | |
| NB166791 | 1814 | AS ROLLED | 5 | OK | N/A | N/A | OK | OK | |

| CHEMICAL ANALYSYS (ANALISIS QUIMICOS)/ MECHANICAL PROPERTIES (PROPIEDADES MECANICAS) | | | | | | | | | |
|--|--------|--------|--------|--------|----------------|----------|---------|----------------|---------------------|
| HEAT NUMBER (COLADA) | %C | %Mn | %P | %S | %Si | %Cr | %Mo | %Ni | %Cu |
| NB166791 | 0.0880 | 0.3620 | 0.0170 | 0.0080 | 0.0140 | 0.0300 | 0.0030 | 0.0240 | 0.0480 |
| %Nb | %Sn | %Ti | %V | | YIELD ST (PSI) | UT (PSI) | % ELONG | HARDNESS (HRb) | CARBON EQUIVALENT % |
| 0.0000 | 0.0000 | 0.0010 | 0.0010 | | 50490 | 58170 | 28.700 | 74 | N/A |

| CHARPY TEST (PRUEBA CHARPY) | | | | | |
|-----------------------------|-------------------------|-----|-----|---------|---------------------|
| HEAT IDENT NUM | ABSORBED ENERGY (FT-LB) | | | AVERAGE | TEMPERATURE TEST °C |
| | 1 | 2 | 3 | | |
| NB166791 | 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. JOSE GILBERTO GUZMAN RUIZ

QUALITY ASSURANCE MANAGER