Tubacero

Ave. Guerrero
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# CERTIFICADO DE TUBERIA

PIPE CERTIFICATE

No CERTIFICADO(certificate No.): 070896

CLIENTE(customer): PLESA ANAHUAC Y CIAS. S.A. DE C.V.

DIRECCION(address): AV. VALLE DE LAS AMERICAS # 68 O COL. SAN FCO. CHILPAN TULT. TLÁN. EDO. DE MÉXICO C.P. 54640

| O.T (order no.) | DIAMETRO (outside diam.) | ESPESOR (thickness) | GRADO (grade) | ESPECIFICACION (specification) | PROCESO (process) | PEDIDO (contract) | O. PREPARACION (preparation order) | PROVEEDOR (supplier) | FECHA (date) |
|---|---|---|---|---|---|---|---|---|---|
| 33444 | 10.750" | 0.365" | X42/5LB/A53B | API 5L 43 ED/A.S.T.M. | ERW | 3742 | B-235-2007 | AHMSA | 12/11/2007 |

| TUBO (pipe) Y SERIE (SERIAL) | COLADA (heat) | TIPO (type) | LOC | PRUEBA DE TENSION(tensile test) UNIDADES (units) | ORIENTACION (orientation) | TAMAÑO (size) | %EL | Y.S/T.S | DUREZA (HARDNESS) | PRUEBA DE IMPACTO (impact test) °C ORIENTACION (orientation) | ENERGY (lbs/ft) 1 | 2 | 3 | AVG | TAMAÑO (size) | SHEAR AREA 1 | 2 | 3 | AVG | DWTT SHEAR AREA 1 | 2 | AVG | GRAIN SIZE | TYPE | LOC | (%) ANALISIS QUIMICO (chemical analysis (%)) C | Mn | P | S | Si | Al | Cu | Cr | Ni | Mo | Ti | Nb | B | V | N | Als | Ca | PCM | CE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 6 | | | | | | | | | | | | | | | | | | | | | H | 7 | 0.15 | 0.55 | 0.016 | 0.008 | 0.108 | 0.039 | 0.020 | 0.030 | 0.030 | 0.005 | - | - | - | - | - | - | - | - | 0.25 |
| 16 | 173215 | H | 7 | 52100 | | 61900 | 40 | 0.84 | | | | | | | | | | | | | | | | P | 7 | 0.20 | 0.54 | 0.018 | 0.013 | 0.139 | 0.090 | 0.018 | 0.023 | 0.025 | 0.001 | 0.004 | 0.002 | 0.0004 | 0.001 | - | - | 0.002 | 0.24 | 0.30 |
| | | | | | | | | | | | | | | | | | | | | | | | | P | 7 | 0.19 | 0.53 | 0.021 | 0.009 | 0.125 | 0.060 | 0.018 | 0.022 | 0.024 | 0.001 | 0.002 | 0.002 | 0.0005 | 0.001 | - | - | 0.002 | 0.22 | 0.28 |
| | | | 6 | | | 81900 | | | | | | | | | | | | | | | | | | H | 7 | 0.15 | 0.57 | 0.016 | 0.009 | 0.099 | 0.030 | 0.030 | 0.030 | 0.030 | 0.005 | - | - | - | - | - | - | - | - | 0.26 |
| 456 | 273039 | H | 7 | 63000 | | 73600 | 34 | 0.85 | | | | | | | | | | | | | | | | P | 7 | 0.21 | 0.60 | 0.018 | 0.008 | 0.144 | 0.085 | 0.026 | 0.042 | 0.028 | 0.001 | 0.003 | 0.002 | 0.0002 | 0.001 | - | - | 0.004 | 0.24 | 0.32 |
| | | | | | | | | | | | | | | | | | | | | | | | | P | 7 | 0.21 | 0.59 | 0.020 | 0.012 | 0.140 | 0.088 | 0.023 | 0.042 | 0.028 | 0.001 | 0.003 | 0.002 | 0.0002 | 0.001 | - | - | 0.004 | 0.25 | 0.32 |
| | | | 6 | | | 74000 | | | | | | | | | | | | | | | | | | H | 7 | 0.16 | 0.61 | 0.018 | 0.009 | 0.110 | 0.037 | 0.020 | 0.030 | 0.030 | 0.006 | - | - | - | - | - | - | - | - | 0.27 |
| 29 | 273041 | H | 7 | 53900 | | 68000 | 40 | 0.79 | | | | | | | | | | | | | | | | P | 7 | 0.20 | 0.58 | 0.022 | 0.012 | 0.125 | 0.075 | 0.016 | 0.028 | 0.024 | 0.001 | 0.003 | 0.017 | 0.0002 | 0.001 | - | - | 0.003 | 0.24 | 0.31 |
| | | | | | | | | | | | | | | | | | | | | | | | | P | 7 | 0.18 | 0.60 | 0.020 | 0.011 | 0.114 | 0.049 | 0.010 | 0.028 | 0.023 | 0.001 | 0.001 | 0.002 | 0.0003 | 0.001 | - | - | 0.003 | 0.22 | 0.29 |
| | | | 6 | | | 73900 | | | | | | | | | | | | | | | | | | H | 7 | 0.16 | 0.58 | 0.018 | 0.010 | 0.122 | 0.042 | 0.020 | 0.040 | 0.030 | 0.006 | - | - | - | - | - | - | - | - | 0.27 |
| 190 | 273038 | H | 7 | 53900 | | 67300 | 42 | 0.80 | | | | | | | | | | | | | | | | P | 7 | 0.21 | 0.60 | 0.021 | 0.015 | 0.142 | 0.086 | 0.025 | 0.042 | 0.028 | 0.001 | 0.003 | 0.002 | 0.0003 | 0.001 | - | - | 0.004 | 0.25 | 0.32 |
| | | | | | | | | | | | | | | | | | | | | | | | | P | 7 | 0.20 | 0.59 | 0.019 | 0.017 | 0.145 | 0.097 | 0.025 | 0.043 | 0.028 | 0.001 | 0.004 | 0.002 | 0.0002 | 0.001 | - | - | 0.004 | 0.24 | 0.32 |
| | | | 6 | | | 74600 | | | | | | | | | | | | | | | | | | H | 7 | 0.15 | 0.59 | 0.015 | 0.007 | 0.116 | 0.035 | 0.03 | 0.04 | 0.030 | 0.005 | - | - | - | - | - | - | - | - | 0.26 |
| 56 | 273040 | H | 7 | 52800 | | 68000 | 39 | 0.77 | | | | | | | | | | | | | | | | P | 7 | 0.21 | 0.59 | 0.019 | 0.010 | 0.147 | 0.111 | 0.023 | 0.041 | 0.028 | 0.001 | 0.004 | 0.002 | 0.0005 | 0.001 | - | - | 0.003 | 0.25 | 0.31 |
| | | | | | | | | | | | | | | | | | | | | | | | | P | 7 | 0.20 | 0.59 | 0.016 | 0.008 | 0.134 | 0.057 | 0.025 | 0.042 | 0.029 | 0.001 | 0.002 | 0.002 | 0.0004 | 0.001 | - | - | 0.002 | 0.24 | 0.31 |

| | | | |
|---|---|---|---|
| PRUEBA HIDROSTATICA (hydrostatic test) | PRESION (pressure) | 2420 Psi | TIEMPO (time) 10 sec |
| ULTRASONIDO (U.T.) (ultrasonic) | STANDARD DE REFERENCIA / REFERENCE STANDARD | J | |
| RAYOS-X (RT) (x-ray) | PENETROMETRO (penetrometer) | N/ | N/A |
| NORMALIZADO DE SOLDADURA (heat treatment weld) | TEMPERATURA (temperature) | | 1600° F MIN |
| REFERENCE STANDARD | F. U.T. DRILLED HOLE 1/16" G. U.T. DRILLED HOLE 1/8" | | |

* U.T. NOTCH N-5, J U.T. NOTCH N 10 L RT HOLE 1/16" N. RT HOLE 2-2T O. RT HOLE 2-4T

ORIENTACION(orientation):
T: TRANSVERSAL (transverse)
L: LONGITUDINAL (longitudinal)
TAMAÑO (size):
R: RECTANGULAR (rectangular)
4 CIRCUNFERICA (round bar) 0.500"
5 CIRCUNFERICA (round bar) 0.350"
LOCALIZACION (location):
S: SOLDADURA (weld)
T: METAL BASE (base metal)
Z: ZONA AFECTADA (h.a.z.)
S: LINEA DE FUSION (fusion line)
TIPO DE PRUEBA (type):
H: COLADA (heat)
P: PRODUCTO (product)
R: REMUESTREO (recheck)

CERTIFICAMOS QUE EL MATERIAL DESCRITO HA SIDO HECHO DE ACUERDO CON LA ESPECIFICACION MENCIONADA, Y QUE LOS RESULTADOS SON COMO APARECEN EN LOS REGISTROS DE LA COMPAÑIA
(WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE SPECIFICATION MENTIONED AND THAT THESE TEST RESULTS ARE AS APPEAR IN RECORDS OF THIS COMPANY).

Control de Calidad (Quality Control)

CONTROL DE CALIDAD
TUBACERO, S.A. DE C.V.
04

REV. 2 May-07

F-TUME-013