Tubacero
Ave. Guerrero
No. 3729 Ote.
Col. Del Norte
Monterrey N.L. México
CP.64590
Tel.3055555
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CERTIFICADO DE TUBERIA

PIPE CERTIFICATE

No.CERTIFICADO(certificate No.): **090057**

CLIENTE(customer): PLESA ANÁHUAC Y CÍAS., S.A. DE C.V.

DIRECCION(address): AV. VALLE DE LAS ALAMEDAS # 66-O COL. SAN FCO. CHILPAN TULTITLAN, EDO. DE MEXICO C.P. 54940

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)
33491	10.750"	0.365"	X42/SLB PSL 1/A53B	API SPEC 5L 44TH ED./A.S.T.M.	HFW	5683	TB-014-2009	TERNIUM	19/01/2009

TUBO (pipe) O SERIE (SERIAL)	COLADA (heat)	TYPE	LOC	PRUEBA DE TENSION (tensile test) UNIDADES: (units) PSI (Y.S.)	(T.S.)	ORIENTACION: (orientation) 1	% EL.	TAMAÑO: (size) 3	Y.S./T.S.	BEND	HARDNESS	PRUEBA DE IMPACTO (impact test) 0 °C °F ORIENTACION (orientation) ENERGY (lbs/ft) 1	2	3	AVG	TAMAÑO: (size) 1:1 SHEAR AREA 1	2	3	AVG	DWTT SHEAR AREA 1	2	AVG	DRAIN SIZE
			6		74900																		
28	70228	H	7	53800	68000		42		0.79														
			6		83500																		
52	70234	H	7	61000	73200		39		0.83														
			6		69500																		
130	70233	H	7	50600	62500		40		0.81														
			6		71500																		
7	70227	H	7	51800	67000		40		0.77														
			6		72800																		
128	70235	H	7	51900	66800		34		0.77														
49	70234		6																				9
92	70236		6																				9
136	70233		6																				9
297	70228		6																				9
368	286835		6																				9
510	70228		6																				9

TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
H	7	0.18	0.72	0.009	0.002	0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.16	0.70	0.008	0.001	0.180	0.022	0.035	0.010	0.010	0.002	0.001	0.045	0.0001	0.001	-	-	0.001	0.20	0.24
P	7	0.15	0.72	0.010	0.002	0.180	0.020	0.036	0.010	0.012	0.002	0.001	0.040	0.0001	0.002	-	-	0.001	0.20	0.24
H	7	0.19	0.74	0.015	0.003	0.230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.16	0.70	0.015	0.002	0.220	0.018	0.035	0.012	0.010	0.001	0.001	0.040	0.0001	0.001	-	-	0.002	0.21	0.24
P	7	0.15	0.72	0.012	0.002	0.220	0.018	0.038	0.012	0.010	0.002	0.002	0.040	0.0001	0.002	-	-	0.002	0.20	0.24
H	7	0.18	0.69	0.010	0.002	0.160	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.21	0.66	0.013	0.001	0.183	0.029	0.006	0.001	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.25	0.32
P	7	0.21	0.66	0.013	0.002	0.186	0.030	0.005	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	-	-	0.001	0.25	0.32
H	7	0.18	0.70	0.011	0.005	0.140	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.15	0.68	0.010	0.004	0.120	0.028	0.040	0.010	0.011	0.005	0.001	0.047	0.0001	0.001	-	-	0.001	0.19	0.24
P	7	0.14	0.66	0.010	0.004	0.120	0.020	0.038	0.010	0.012	0.002	0.001	0.049	0.0002	0.001	-	-	0.001	0.18	0.24
H	7	0.19	0.73	0.012	0.002	0.180	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.21	0.68	0.015	0.002	0.211	0.032	0.005	0.001	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.26	0.33
P	7	0.21	0.69	0.015	0.003	0.208	0.034	0.004	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	-	-	0.001	0.25	0.33

PRUEBA HIDROSTATICA: (hydrostatic test) PRESION: (pressure) 2430 Psi TIEMPO: (time) 10 sec

ULTRASONIDO (U.T.) (ultrasonic) STANDARD DE REFERENCIA: J REFERENCE STANDARD

RAYOS-X (RT) (X-ray) PENETROMETRO (penetrometer): N/A

NORMALIZADO DE SOLDADURA (heat treatment weld) TEMPERATURA (temperature): 1600° F MIN (NO UNTEMPERED MARTENSITE REMAINS)

REFERENCE STANDARD F. U.T. DRILLED HOLE 1/16" G. U.T. DRILLED HOLE 1/8" NOTCH U.T. NOTCH U-10 DRT HOLE 1/16" N. RT HOLE 2-2T O. RT HOLE 2-4T

ORIENTACION(orientation)
1. TRANSVERSAL (transverse)
2. LONGITUDINAL (longitudinal)
TAMAÑO (size)
3.RECTANGULAR (rectangular)
4 CILINDRICA(round bar) 0.500"
5 CILINDRICA(round bar) 0.350"
LOCALIZACION (location)

6 SOLDADURA (weld)
7. METAL BASE (base metal)
8. ZONA AFECTADA (h.a.z.)
9. 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 RESULT ARE AS NOTED IN RECORDS OF THE COMPANY.

Control de Calidad (Quality Control)

REV. 2 May-07

F-TUME-013

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