Tubacero

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CONSTANCIA DE INSPECCION

INSPECTION CONSTANCY

No. CONSTANCIA (constancy No.): **091232**

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

DIRECCION(address): AV. VALLE DE LAS ALAMEDAS # 66-O COL. SAN FCO. CHILPAN TULTITLÁN, 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)
33484	14.000"	0.312"	X42/5LB PSL 1/A53B	API SPEC 5L 44TH ED./A.S.T.M.	HFW	7187	TB-226-2009	TERNIUM	19/10/2009

TUBO (pipe) O SERIE (SERIAL)	COLADA (heat)	TYPE	LOC	PRUEBA DE TENSION(tensile test) UNIDADES (units) PSI (Y.S.)	ORIENTACION (orientation) 1 (T.S.)	TAMAÑO (size) 3 % EL.	Y S/T S	BEND	HARDNESS	PRUEBA DE IMPACTO (impact test) °C °F 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
			6		78400																
48	ZA18391	H	7	48800	65600	40	0.74														
			6		77600																
7	ZA18303	H	7	51800	67900	37	0.76														
			6		74700																
36	ZA18304	H	7	51200	69100	40	0.74														
			6		74100																
86	ZA18314	H	7	51100	68200	39	0.75														
			6		73700																
127	ZA18305	H	7	48400	64300	39	0.75														
16	ZA18303		6																		9
75	ZA18303		6																		9
120	ZA18303		6																		9
CRITERIOS DE ACEPTACION: (Acceptance critera) MIN:				42.1	60.2	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MAX:																					
PROMEDIO (AVG.)																					

TUBO (pipe) O SERIE (SERIAL)	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
	H	7	0.18	0.74	0.020	0.007	0.181	0.035	0.020	0.040	0.020	0.004	0.001	0.001	0.0001	0.001	0.002	-	0.000	-	-
48	P	7	0.20	0.72	0.020	0.003	0.187	0.024	0.017	0.001	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.24	0.32
	P	7	0.20	0.71	0.020	0.004	0.191	0.023	0.017	0.001	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.24	0.32
	H	7	0.19	0.82	0.015	0.009	0.215	0.046	0.020	0.030	0.020	0.004	0.001	0.002	0.0001	0.001	0.000	-	0.000	-	-
7	P	7	0.21	0.78	0.016	0.005	0.218	0.036	0.018	0.001	0.001	0.001	0.001	0.001	0.0001	0.000	-	-	0.001	0.26	0.34
	P	7	0.20	0.77	0.016	0.005	0.222	0.035	0.018	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	-	-	0.001	0.25	0.33
	H	7	0.19	0.81	0.013	0.006	0.192	0.052	0.020	0.030	0.020	0.004	0.001	0.003	0.0001	0.001	0.004	-	0.000	-	-
36	P	7	0.20	0.79	0.015	0.003	0.194	0.040	0.015	0.001	0.001	0.001	0.001	0.002	0.0002	0.001	-	-	0.001	0.25	0.34
	P	7	0.20	0.78	0.015	0.003	0.202	0.098	0.015	0.001	0.001	0.001	0.001	0.002	0.0001	0.001	-	-	0.001	0.25	0.34
	H	7	0.19	0.73	0.014	0.007	0.182	0.042	0.020	0.030	0.020	0.005	0.001	0.002	0.0001	0.001	-	-	0.000	0.24	0.32
86	P	7	0.19	0.71	0.016	0.004	0.188	0.033	0.016	0.000	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.23	0.31
	P	7	0.20	0.70	0.016	0.004	0.187	0.032	0.014	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	-	-	0.001	0.24	0.32
	H	7	0.18	0.74	0.015	0.007	0.177	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	0.000	-	-
127	P	7	0.18	0.71	0.016	0.004	0.181	0.043	0.016	0.001	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.22	0.30
	P	7	0.19	0.71	0.016	0.004	0.183	0.043	0.017	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	-	-	0.001	0.23	0.31
CRITERIOS DE ACEPTACION: (Acceptance critera) MAX:			0.26	1.20	0.030	0.030	-	-	0.500	0.400	0.400	0.150	0.040	-	-	0.080	-	-	-	-	-

PRUEBA HIDROSTATICA: (hidrostatic test) — PRESION: (pressure) 1590 Psi — TIEMPO: (time) 10 sec

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

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

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

ESTANDAR DE REFERENCIA (REFERENCE STANDARD) — F: U.T. DRILLED HOLE 1/16", G. U.T. DRILLED HOLE 1/8", I: 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 Barreno (Drilled Hole)=H Muesca (Notch)=N

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)

HACEMOS CONSTAR QUE EL MATERIAL DESCRITO HA SIDO FABRICADO, MUESTREADO, PROBADO E INSPECCIONADO DE ACUERDO CON LA ESPECIFICACION MENCIONADA, Y QUE LOS RESULTADOS SON COMO APARECEN EN LOS REGISTROS DE LA COMPAÑIA.
(WE HEREBY VERIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION MENTIONED AND THAT THE TEST RESULT ARE AS THEY APPER IN RECORDS OF THE COMPANY)

Control de Calidad (Quality Control)

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

REV. 4 Mzo-09

F-TUME-013