Tubacero

Ave. Guerrero
No. 3729 nte.
Col. Del Norte
Monterrey N.L. México
CP.64500
TEL.:3055555
FAX.:3055580

CONSTANCIA DE INSPECCION

INSPECTION CONSTANCY

No. CONSTANCIA (constancy No.): **111436**

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 MÉXICO. 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)
33544	12.750"	0.225"	X42/5LB PSL 1/A53B	API SPEC 5L 44TH ED./A.S.T.M.	HFW/ERW	11955	B-011-2011	AHMSA	21/12/2011

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
92	208987	T	6	59700	74500	39	0.83														
			7		71800																
33	208988	T	6	53500	70500	45	0.82														
			7		64600																
21	208991	T	6	52800	68500	43	0.82														
			7		64200																
283	107738	T	6	50300	74500	40	0.76														
			7		65800																
308	110117	T	6	53300	72600	40	0.78														
			7		67500																
13	208991		6																		9
99	208987		6																		9
277	107738		6																		9
CRITERIOS DE ACEPTACION: (Acceptance critera)			MIN:	42100	60200	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
			MAX:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			PROMEDIO (AVG.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(%)ANALISIS QUIMICO / chemical analysis (%)

TUBO (pipe) O SERIE (SERIAL)	TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
92	H	7	0.11	0.78	0.012	0.004	0.250	0.038	0.015	0.015	0.015	0.004	-	-	-	-	-	-	-	-	-
	P	7	0.11	0.83	0.014	0.005	0.254	0.035	0.019	0.016	0.015	0.004	0.001	0.001	0.0001	0.002	-	-	0.001	0.16	0.25
	P	7	0.13	0.79	0.011	0.006	0.218	0.038	0.017	0.018	0.013	0.006	0.001	0.001	0.0001	0.001	-	-	0.001	0.18	0.27
33	H	7	0.10	0.80	0.014	0.005	0.247	0.035	0.014	0.021	0.019	0.006	-	-	-	-	-	-	-	-	-
	P	7	0.11	0.83	0.016	0.006	0.238	0.038	0.015	0.024	0.022	0.006	0.002	0.002	0.0001	0.001	-	-	0.002	0.16	0.26
	P	7	0.13	0.81	0.017	0.005	0.259	0.036	0.013	0.023	0.024	0.005	0.001	0.001	0.0001	0.001	-	-	0.001	0.18	0.27
21	H	7	0.10	0.78	0.016	0.005	0.235	0.040	0.014	0.015	0.014	0.005	-	-	-	-	-	-	-	-	
	P	7	0.12	0.80	0.015	0.006	0.220	0.038	0.015	0.015	0.016	0.006	0.001	0.001	0.0001	0.001	-	-	0.001	0.17	0.26
	P	7	0.11	0.79	0.016	0.005	0.204	0.036	0.014	0.013	0.015	0.005	0.001	0.001	0.0002	0.001	-	-	0.001	0.16	0.25
283	H	7	0.19	0.70	0.011	0.009	0.011	0.037	0.020	0.022	0.019	0.005	-	-	-	-	-	-	-	-	-
	P	7	0.18	0.71	0.013	0.008	0.012	0.038	0.022	0.025	0.023	0.005	0.001	0.001	0.0002	0.001	-	-	0.001	0.22	0.31
	P	7	0.19	0.75	0.010	0.009	0.014	0.034	0.023	0.026	0.025	0.004	0.001	0.001	0.0001	0.001	-	-	0.001	0.23	0.32
308	H	7	0.17	0.82	0.019	0.005	0.121	0.029	0.016	0.035	0.017	0.006	-	-	-	-	-	-	-	-	-
	P	7	0.19	0.84	0.020	0.004	0.121	0.030	0.018	0.034	0.016	0.005	0.002	0.002	0.0001	0.001	-	-	0.002	0.24	0.34
	P	7	0.18	0.80	0.022	0.003	0.101	0.032	0.015	0.033	0.014	0.002	0.001	0.002	0.0001	0.002	-	-	0.001	0.23	0.32
CRITERIOS DE ACEPTACION: (Acceptance critera) MIN:			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAX:			0.26	1.30	0.030	0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PROMEDIO (AVG.)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PRUEBA HIDROSTATICA: (hidrostatic test) PRESION: (pressure) 1260 Psi TIEMPO: (time) 10 sec

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

PRUEBA DE APLASTAMIENTO: (flattening test) 0° OK 90° OK

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)
T: UNIDAD DE PRUEBA (Test unit)

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 THESE TEST RESULT ARE AS THEY APPEAR IN RECORDS OF THE COMPANY)

TUBACERO, S. DE R.L. DE C.V.

Control de Calidad (Quality Control)
Ing. Samuel Montoya Laguna.