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CONSTANCIA DE INSPECCION

INSPECTION CONSTANCY

No. CONSTANCIA (constancy No.): **110208**

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	10310	SB-056-2011	AHMSA	31/03/2011

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	SHEAR AREA 1	2	3	AVG	DWTT SHEAR AREA 1	2	AVG	GRAIN SIZE
			6		74500																
283	107738	H	7	50300	65800	40	0.76														
308	110117	H	6 7	53300	72600 67500	40	0.78														
92	208987	H	6 7	59700	74500 71800	39	0.83														
33	208988	H	6 7	53500	70500 64600	45	0.82														
21	208991	H	6 7	52800	68500 64200	43	0.82														
13	208991		6																		9
99	208987		6																		9
277	107738		6																		9

(%)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
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
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

CRITERIOS DE ACEPTACION: (Acceptance critera)		UNIDADES: (units) PSI (Y.S.)	(T.S.)	% EL.	Y.S/T.S.	BEND	HARDNESS	ENERGY 1	2	3	AVG	SHEAR AREA 1	2	3	AVG	DWTT 1	2	AVG	GRAIN SIZE	TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
	MIN:	42100	60200	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	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: REFERENCE STANDARD J

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 APPER IN RECORDS OF THE COMPANY).

PA.

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