Tubacero
Ave. Guerrero
No. 3729 nte.
Col. Del Norte
Monterrey N.L. Mexico
CP.64500
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CONSTANCIA DE INSPECCION

INSPECTION CONSTANCY

No. CONSTANCIA (constancy No.): **120806**

CLIENTE(customer): PLESA ANAHUAC 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)
23267	20.000"	0.375"	X42 PSL1	API SPEC 5L 44TH ED. NACE MR 0175	SAWL	13736	SB-076-2012	AHMSA	14/08/2012

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 HV	PRUEBA DE IMPACTO (impact test) °C °F ORIENTACION (orientation) ENERGY (J) 1	2	3	AVG	TAMAÑO: (size) SHEAR AREA 1	2	3	AVG	DWTT SHEAR AREA 1	2	AVG	GRAIN SIZE
98	112090	T	6		80900																
			7	57200	72500	39	0.79		174												
128	112092	T	6		74100																
			7	55200	71900	38	0.77		171												
203	112093	T	6		72200																
			7	50300	66400	40	0.76		174												
226	112096	T	6		76000																
			7	54700	71500	41	0.76		179												
206	112097	T	6		78800																
			7	56300	71100	43	0.79		177												
151	212027	T	6		74500																
			7	53400	69900	40	0.76		173												
89	112088		6					OK													
141	112094		6					OK													
255	112094		6					OK													
311	212027		6					OK													
CRITERIOS DE ACEPTACION: (Acceptance critera)	MIN:			42100	60200	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MAX:			-	-	-	-	-	248	-	-	-	-	-	-	-	-	-	-	-	-
	PROMEDIO (AVG.)			-	-	-	No Se Aceptan grietas >1/8"			-	-	-	-	-	-	-	-	-	-	-	-

TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
H	7	0.17	0.83	0.018	0.006	0.106	0.025	0.027	0.029	0.022	0.006	-	-	-	-	-	-	-	-	-
P	7	0.16	0.81	0.017	0.005	0.115	0.029	0.029	0.034	0.024	0.005	0.001	0.001	0.0002	0.001	-	-	0.002	0.21	0.31
P	7	0.16	0.80	0.016	0.006	0.129	0.031	0.030	0.032	0.026	0.004	0.001	0.002	0.0001	0.002	-	-	0.001	0.21	0.30
H	7	0.16	0.84	0.019	0.006	0.150	0.034	0.034	0.049	0.021	0.005	-	-	-	-	-	-	-	-	-
P	7	0.18	0.82	0.021	0.005	0.170	0.038	0.032	0.045	0.024	0.006	0.002	0.001	0.0001	0.002	-	-	0.003	0.23	0.33
P	7	0.17	0.83	0.020	0.005	0.182	0.035	0.030	0.048	0.022	0.008	0.001	0.001	0.0001	0.001	-	-	0.004	0.22	0.32
H	7	0.16	0.85	0.013	0.006	0.105	0.038	0.020	0.029	0.023	0.005	-	-	-	-	-	-	-	-	-
P	7	0.17	0.87	0.015	0.007	0.136	0.043	0.024	0.031	0.021	0.008	0.002	0.001	0.0001	0.001	-	-	0.001	0.22	0.33
P	7	0.18	0.89	0.018	0.005	0.143	0.045	0.022	0.034	0.024	0.007	0.001	0.002	0.0002	0.001	-	-	0.002	0.23	0.34
H	7	0.16	0.85	0.019	0.007	0.110	0.035	0.037	0.035	0.030	0.007	-	-	-	-	-	-	-	-	-
P	7	0.18	0.82	0.017	0.006	0.138	0.038	0.039	0.038	0.031	0.008	0.001	0.001	0.0001	0.001	-	-	0.004	0.23	0.33
P	7	0.17	0.83	0.016	0.006	0.151	0.041	0.042	0.037	0.035	0.008	0.002	0.002	0.0002	0.001	-	-	0.001	0.22	0.32
H	7	0.16	0.85	0.021	0.006	0.127	0.031	0.027	0.029	0.023	0.006	-	-	-	-	-	-	-	-	-
P	7	0.15	0.86	0.020	0.005	0.135	0.033	0.024	0.031	0.021	0.007	0.002	0.001	0.0001	0.002	-	-	0.001	0.20	0.30
P	7	0.17	0.88	0.018	0.004	0.141	0.035	0.026	0.033	0.020	0.006	0.002	0.001	0.0001	0.001	-	-	0.001	0.22	0.33
H	7	0.16	0.82	0.017	0.009	0.116	0.029	0.035	0.021	0.022	0.006	-	-	-	-	-	-	-	-	-
P	7	0.18	0.83	0.019	0.008	0.134	0.031	0.038	0.024	0.028	0.008	0.001	0.001	0.0001	0.002	-	-	0.002	0.23	0.33
P	7	0.16	0.85	0.021	0.006	0.128	0.033	0.039	0.026	0.025	0.007	0.001	0.002	0.0001	0.001	-	-	0.001	0.21	0.31
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		0.26	1.30	0.030	0.030	-	-	0.500	0.500	0.500	0.150		-	-						
		-	-	-	-	-	-	-	-	-	-	-	-	-						

PRUEBA HIDROSTATICA: (hidrostatic test) — PRESION: (pressure) 1430 Psi — TIEMPO: (time) 10 sec

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

RAYOS-X (RT): (x-ray) — PENETROMETRO (penetrometer): 10-ISO-16

NORMALIZADO DE SOLDADURA: (heat treatment weld) — TEMPERATURA (temperature): N/A (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).

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

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