CERTIFICATE OF INSPECTION & TEST

ORIGINAL

(EN 10204 3.1)

PLEASA ANAHUAC Y CIAS. S.A. DE C.V.
CONTROL DE CALIDAD
Date: JUN.22.2009

ST&H CORPORATION
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Customer : **TUBERIA Y VALVULAS DEL NORTE,S.A**	Contract No :**6490 (PSJ4975)** **MAY.01.2009**	Certificate No :**QA90622-04** FECHA 23 Abr 2010
Spec. for Material	Spec. for Inspection	Surface & Dimension F656
ASTM A234-05/ASME SA234-05 WPB **NACE MR-0175**	**ASME B16.9**	**GOOD** FECHA E. RUIZ

ITEM		Heat No.	CHEMICAL COMPOSITION (%)											Tensile Test				Bending Test (°)	Flattening Test	Hardness Test (HB)	Heat Treatment	C.E
			C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Nb	Y.P kgf/㎟ MPA	T.S kgf/㎟ MPA	E (%)	R (%)					
SIZE	Q'TY	MIN		0.10	0.29									240	415	22						
		MAX	0.30		1.06	0.05	0.058	0.40	0.15	0.40	0.40	0.08			655					197		
RED TEE STD			0.18	0.21	0.55	0.023	0.014	0.03	0.01	0.01	0.03	0.01		310	480	30			GOOD	<197	S	0.28
3" X 2"	50	02128																				
RED TEE STD			0.18	0.21	0.55	0.023	0.014	0.03	0.01	0.01	0.03	0.01		310	480	30			GOOD	<197	S	0.28
3" X 2 1/2"	50	02128																				
RED TEE STD			0.22	0.25	0.51	0.012	0.007	0.05	0.02	0.03	0.07	0.01		330	500	32			GOOD	<197	S	0.33
4" X 2"	50	02375																				
RED TEE STD			0.22	0.25	0.51	0.012	0.007	0.05	0.02	0.03	0.07	0.01		330	500	32			GOOD	<197	S	0.33
4" X 2 1/2"	50	02375																				
RED TEE STD			0.22	0.25	0.51	0.012	0.007	0.05	0.02	0.03	0.07	0.01		330	500	32			GOOD	<197	S	0.33
4" X 3"	50	02375																				

□ Reviewed By

□ Witnessed By

NOTE . HF : Hot formed (620 ~ 980℃) and cooled in still air
N : Normalized (850 X 0.5HR)

1MPa = 145.037 psi
1MPa = 0.145037 ksi
1psi = 6894.76 MPa
1ksi = 6.89476 MPa

We hereby certify that the material herein has been made and tested in accordance with above specification and the results of all test are acceptable.

C.E.=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15

QUALITY CONTROL

Manager of Q.A Dept.