



MILL TEST CERTIFICATE

9F, NO.127, SEC.2 CHIEN KUO N.
ROAD, TAIPEI TAIWAN 104
TEL:(02)2500-6206
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										CERTIFICATE NO.		100092301		ISSUE DATE		SEP.23.2011										
COMMODITY		PRIME NEWLY MANUFACTURED WELDED CASING ITEM(S) 7" 22.65 LBS/FT J55 PE R3 (SPECIAL DRIFT 6.250")								PURCHASE NUMBER		AGP0235		SHIPPING DATE		OCT.05.2011										
SPECIFICATION		IN ACCORDANCE WITH API 5CT (LATEST EDITION)								CUSTOMER NO.		W0032		INVOICE NO.		11091401										
LOT NO.	HEAT NO.	MATERIAL DESCRIPTION	QUANTITY	TENSILE		%1	HYDROSTATIC TEST	OTHER TEST #2	CHEMICAL COMPOSITION %																REMARK	
				Y.S.	T.S.				EL.	C	Mn	Si	P	S	Cu	Ni	Cr	Al	Mo	Nb	V	Ti	C.E.#3			
					BODY	WELD																				
		O.D./THICKNESSxLENGTH	PCS/T	MPa		%	PSI																			
C110915001	6U387	7"x0.317"x42'	217/93.599	551	607	—	28.4	4000	GOOD	13	95	15	10	5												
				535	579	—	27.6	4000	GOOD	13	97	13	15	5												
C110915001	3M401	7"x0.317"x42'	131/56.505	525	583	—	29.2	4000	GOOD	13	93	13	12	4												
										13	97	13	15	6												
C110915001	3M402	7"x0.317"x42'	44/18.979	532	609	—	28.0	4000	GOOD	12	96	13	14	5												
										12	94	13	14	6												
C110915001	4QZ61	7"x0.317"x42'	132/56.936	529	591	—	29.4	4000	GOOD	13	98	14	11	7												
										13	101	13	14	6												
C110915001	4R067	7"x0.317"x42'	151/56.505	489	589	—	30.4	4000	GOOD	12	94	13	14	5												
										12	94	13	12	4												
C110915001	5M737	7"x0.317"x42'	88/37.957	545	598	—	29.4	4000	GOOD	12	93	13	13	5												
										13	100	14	12	6												
		TOTAL	743/320.491																							
#1 DESCRIPTION OF TEST		VISUAL/ DIMENSION	DRIFT TEST	METALLOGRAPH EXAM		FLATTENING TEST	ULTRASONIC TEST	LOCATION OF TENSIL	ISSUED BY TENSION STEEL INDUSTRIES CO., LTD. WE CERTIFYING THAT MATERIAL IS MANUFACTURED IN ACCORDANCE WITH API 5CT AND TRACEABLE PER API 5CT SR15.2 MILL TEST CERTIFICATE MUST CERTIFY COMPLIANCE WITH PURCHASE CONTRACT AGP0235 AND API 5CT.																	
RESULT		GOOD	6.250"	F+P #4		GOOD	GOOD	N.L. OT UW																		
NOTES		HEAT TREATMENT / DELIVERY CONDITION : WELD SEAM HEAT TREATMENT #1 TENSILE TEST - ELONGATION RESULT SPECIMEN TYPE: STRIP WIDTH: 38.10MM #3 C.E.: CARBON EQUIVALENT #4 F+P-F-FERRITE P-PEARLITE																								
SURVEYOR TO		WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION. THE PIPES COVERED IN THE ABOVE CERTIFICATE COMPLY TO APPENDIX B, MATERIAL REQUIREMENTS FOR SOUR WELLS, OF DIRECTIVE DTD CANADA.																								
		TENSION STEEL INDUSTRIES CO., LTD. <i>Dan Lien Chen</i>																								



TENSION STEEL INDUSTRIES CO., LTD

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										CERTIFICATE NO.		100092302		ISSUE DATE		SEP.23.2011			
COMMODITY										PRIME NEWLY MANUFACTURED WELDED CASING (ITEM(S) 7" 22.65 LBS/FT J55 PE R3 (SPECIAL DRIFT 6.250")		PURCHASE NUMBER		AGP0235		SHIPPING DATE		OCT.05.2011	
SPECIFICATION										IN ACCORDANCE WITH API 5CT (LATEST EDITION)		CUSTOMER NO.		W0032		INVOICE NO.		11091401	

LOT NO.	HEAT NO.	MATERIAL DESCRIPTION O.D. x THICKNESS x LENGTH	QUANTITY PCS/T	TENSILE			HYDROSTATIC TEST	OTHER TEST	CHEMICAL COMPOSITION %														REMARK			
				Y.S.	T.S.				EL.	C	Mn	Si	P	S	Cu	Ni	Cr	Al	Mo	Nb	V	Ti		C.E.		
					BODY	WELD																			MPa	%
C110915001	5M738	7"x0.317"x42'	88/37.957	499	582	—	30.9	4000	GOOD	14	97	15	10	4												
C110915001	1WU73	7"x0.317"x42'	88/37.957	537	604	—	26.4	4000	GOOD	13	101	13	20	5												
C110915001	4QZ60	7"x0.317"x42'	87/37.326	535	592	—	29.8	4000	GOOD	13	95	13	11	5												
C110915001	4R017	7"x0.317"x42'	132/56.936	532	587	—	28.4	4000	GOOD	11	92	13	11	5												
C110915001	4R069	7"x0.317"x42'	131/56.505	550	606	—	27.8	4000	GOOD	13	98	15	10	4												
C110915001	5M738	7"x0.317"x42'	261/112.578	493	576	—	31.0	4000	GOOD	12	93	14	12	6												
TOTAL			787/339.459	534	597	—	25.8	4000	GOOD	11	98	13	16	6												

DESCRIPTION OF TEST	VISUAL DIMENSION	DRIFT TEST	METALLOGRAPH EXAM	FLATTENING TEST	ULTRASONIC TEST	LOCATION OF TENSIL	ISSUED BY TENSION STEEL INDUSTRIES CO., LTD. WE CERTIFYING THAT MATERIAL IS MANUFACTURED IN ACCORDANCE WITH API 5CT AND TRACEABLE PER API 5CT SR15.2 MILL TEST CERTIFICATE MUST CERTIFY COMPLIANCE WITH PURCHASE CONTRACT AGP0235 AND API 5CT.
RESULT	GOOD	6.250"	F+P	GOOD	GOOD	NL OF EW	

NOTES	HEAT TREATMENT / DELIVERY CONDITION : WELD SEAM HEAT TREATMENT	
	#1 TENSILE TEST - ELONGATION RESULT SPECIMEN TYPE: STRIP WIDTH: 38.10MM	
	#3 - C.E. : CARBON EQUIVALENT	#4 - F+P-FERRITE P-PEARLITE

SURVEYOR TO	WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE	
	MATERIAL SPECIFICATION: THE PIPES COVERED IN THE ABOVE CERTIFICATE COMPLY TO APPENDIX B, MATERIAL REQUIREMENTS FOR FOUR WELLS, OF DIRECTIVE 16 IN CANADA	

TENSION STEEL INDUSTRIES CO., LTD.

Jian Lien Chen



TENSION STEEL INDUSTRIES CO., LTD

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		CERTIFICATE NO.	100092303	ISSUE DATE	SEP.23.2011
COMMODITY	PRIME NEWLY MANUFACTURED WELDED CASING ITEM(S) 7" 22.65 LBS/FT J55 PE R3 (SPECIAL DRIFT 6.250")	PURCHASE NUMBER	AGP0235	SHIPPING DATE	OCT.05.2011
SPECIFICATION	IN ACCORDANCE WITH API 5CT (LATEST EDITION)	CUSTOMER NO.	W0032	INVOICE NO.	11091401

LOT NO.	HEAT NO	MATERIAL DESCRIPTION	QUANTITY	TENSILE			HYDROSTATIC TEST	OTHER TEST	CHEMICAL COMPOSITION %																	REMARK	
				Y.S.	T.S.				EL.	C	Mn	Si	P	S	Ca	Ni	Cr	Al	Mo	Nb	V	Ti	C.E.				
					BODY	WELD																					
		O.D. THICKNESS x LENGTH	PCS/T	MPa		%	PSI																				
C110915001	1WU70	7"x0.317"x42'	253/113.441	455	573	—	30.0	4000	GOOD	11	94	12	13	4													
				548	602	—	27.2	4000	GOOD	11	95	13	13	4													
C110915001	1WU72	7"x0.317"x42'	43/18.547	523	587	—	29.6	4000	GOOD	12	98	14	13	7													
										12	98	13	15	6													
C110915001	1WU74	7"x0.317"x42'	44/18.979	495	572	—	28.2	4000	GOOD	13	98	16	9	6													
										13	98	16	10	6													
C110915001	3M136	7"x0.317"x42'	263/113.441	505	603	—	28.0	4000	GOOD	12	98	14	12	8													
				511	567	—	30.0	4000	GOOD	13	97	13	16	6													
C110915001	3M137	7"x0.317"x42'	176/75.915	508	565	—	29.2	4000	GOOD	13	101	13	19	6													
										10	100	13	19	6													
C110915001	1WU69	7"x0.317"x42'	87/37.526	514	568	—	29.4	4000	GOOD	14	96	12	16	8													
										14	96	12	15	9													
TOTAL			876/377.845																								
#2 DESCRIPTION OF TEST		VISUAL DIMENSION	DRIFT TEST	METALLOGRAPH EXAM		FLATTENING TEST	ULTRASONIC TEST	LOCATION OF TENSILE	ISSUED BY TENSION STEEL INDUSTRIES CO., LTD. WE CERTIFYING THAT MATERIAL IS MANUFACTURED IN ACCORDANCE WITH API 5CT AND TRACEABLE PER API 5CT SR15.2 MILL TEST CERTIFICATE MUST CERTIFY COMPLIANCE WITH PURCHASE CONTRACT AGP0235 AND API 5CT.																		
RESULT		GOOD	6.250"	P+R #4		GOOD	GOOD	#L 5T 6W																			
NOTES		HEAT TREATMENT / DELIVERY CONDITION: WELD SEAM HEAT TREATMENT #1 TENSILE TEST - ELONGATION RESULT SPECIMEN TYPE: STRIP WIDTH: 38.10MM #3 - C.E. CARBON EQUIVALENT #4 - P+P-F-FERRITE P-PEARLITE																									
SURVEYOR TO		WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION THE PIPES COVERED IN THE ABOVE CERTIFICATE COMPLY TO APPENDIX B, MATERIAL REQUIREMENTS FOR SQA, WELLS OF DIRECTIVE 10 IN CANADA.																									
		TENSION STEEL INDUSTRIES CO., LTD. Liam Chen																									

TENSION STEEL INDUSTRIES CO., LTD.

Pass Lien Chen



TENSION STEEL INDUSTRIES CO., LTD

MILL TEST CERTIFICATE

9F, NO. 127, SEC. 2, CHIEN KUO N.
ROAD, TAIPEI, TAIWAN 104
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		CERTIFICATE NO.	100092304	ISSUE DATE	SEP. 23. 2011
COMMODITY	PRIME NEWLY MANUFACTURED WELDED CASING ITEM(S) 7" 22.65 LBS/FT J55 PE R3 (SPECIAL DRIFT 6.250")	PURCHASE NUMBER	AGP0235	SHIPPING DATE	OCT. 05. 2011
SPECIFICATION	IN ACCORDANCE WITH API 5CT (LATEST EDITION)	CUSTOMER NO.	W0032	INVOICE NO.	11091401

LOT NO.	HEAT NO.	MATERIAL DESCRIPTION	QUANTITY	TENSILE				HYDROSTATIC TEST	OTHER TEST	CHEMICAL COMPOSITION %														REMARK
				Y.S.	T.S.		EL.			C	Mn	Si	P	S	Cu	Ni	Cr	Al	Mo	Nb	V	Ti	C.E.	
					BODY	WELD																		
OD X THICKNESS X LENGTH	PCS/T	MPa	%	PS	x10 ²	x10 ²	x10 ²	x10 ²	x10 ²	x10 ²				x10 ²	x10 ²	x10 ²								
C110915001	1W075	7"X0.317"X42'	77/33.213	522	597	—	27.4	4000	GOOD	12	95	14	13	5										
C110915001	2QZ68	7"X0.317"X42'	44/18.979	510	557	—	30.4	4000	GOOD	13	98	13	16	7										
C110915001	2G292	7"X0.317"X42'	46/17.253	510	609	—	27.4	4000	GOOD	12	101	13	19	5										
C110915001	3M171	7"X0.317"X42'	114/49.172	547	596	—	27.4	4000	GOOD	13	101	13	19	5										
C110915001	3M171	7"X0.317"X42'	114/49.172	547	596	—	28.3	4000	GOOD	11	91	13	12	6										
C110915001	4R058	7"X0.317"X42'	77/33.213	548	601	—	28.3	4000	GOOD	12	95	13	14	3										
C110915001	4R058	7"X0.317"X42'	77/33.213	548	601	—	28.8	4000	GOOD	13	95	15	13	6										
C110915001	4QZ43	7"X0.317"X42'	90/38.820	524	580	—	31.2	4000	GOOD	13	98	14	10	4										
C110915001	4QZ43	7"X0.317"X42'	90/38.820	524	580	—	31.2	4000	GOOD	13	97	14	11	5										
C110915001	4QZ43	7"X0.317"X42'	90/38.820	524	580	—	31.2	4000	GOOD	13	95	15	15	5										
C110915001	4QZ43	7"X0.317"X42'	90/38.820	524	580	—	31.2	4000	GOOD	13	93	16	14	6										
		TOTAL	442/190.649																					

#1 DESCRIPTION OF TEST	VISUAL/ DIMENSION	DRIFT TEST	METALLOGRAPH EXAM	FLATTENING TEST	ULTRASONIC TEST	LOCATION OF TENSIL	ISSUED BY TENSION STEEL INDUSTRIES CO., LTD. WE CERTIFYING THAT MATERIAL IS MANUFACTURED IN ACCORDANCE WITH API 5CT AND TRACEABLE PER API 5CT SR15.2 MILL TEST CERTIFICATE MUST CERTIFY COMPLIANCE WITH PURCHASE CONTRACT AGP0235 AND API 5CT.
RESULT	GOOD	6.250"	F+P #4	GOOD	GOOD	EL DT DW	

NOTES	HEAT TREATMENT / DELIVERY CONDITION : WELD SEAM HEAT TREATMENT		TENSION STEEL INDUSTRIES CO., LTD.
	#1 TENSILE TEST - ELONGATION RESULT SPECIMEN TYPE: STRIP WIDTH: 38.10MM		
	#3 - C.E. : CARBON EQUIVALENT #4 - F+P-FERRITE P-PEARLITE		
URVEYOR TO	WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE		
	MATERIAL SPECIFICATION. THE PIPES COVERED IN THE ABOVE CERTIFICATE COMPLY TO APPENDIX B, MATERIAL REQUIREMENTS FOR SOUR WELLS, OF DIRECTIVE 110/2008/EC		

Ben Lien Chen



TENSION STEEL INDUSTRIES CO., LTD

MILL TEST CERTIFICATE

9F, NO.127, SEC.2 CHIEN KUO N.
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		CERTIFICATE NO	100092305	ISSUE DATE	SEP.23.2011
COMMODITY	PRIME NEWLY MANUFACTURED WELDED CASING ITEM(S) 7" 22.65 LBS/FT J55 PE R3 (SPECIAL DRIFT 6.250")	PURCHASE NUMBER	AGP0235	SHIPPING DATE	OCT.05.2011
SPECIFICATION	IN ACCORDANCE WITH API 5CT (LATEST EDITION)	CUSTOMER NO.	W0032	INVOICE NO.	11091401

LOT NO.	HEAT NO.	MATERIAL DESCRIPTION	QUANTITY	TENSILE				HYDROSTATIC TEST	OTHER TEST	CHEMICAL COMPOSITION %														REMARK
				Y.S.	T.S.		EL.			C	Mn	Si	P	S	Cu	Ni	Cr	Al	Mo	Nb	V	Ti	C.E.#1	
					BODY	WELD																		
		O.D.*THICKNESS*LENGTH	PCS/T	MPa		%	PSI																	
C110915001	4QZ44	7"x0.317"x42'	45/19.410	481	606	—	30.2	4000	GOOD	13	101	13	19	5										
C110915001	4QZ45	7"x0.317"x42'	45/19.410	486	572	—	30.6	4000	GOOD	13	102	13	20	5										
C110915001	4R056	7"x0.317"x42'	134/57.799	451	584	—	32.2	4000	GOOD	12	101	13	19	5										
										13	101	13	20	5										
										11	94	13	14	4										
										12	93	15	15	5										
TOTAL			224/96.619																					
#2 DESCRIPTION OF TEST		VISUAL/ DIMENSION	DRIFT TEST	METALLOGRAPH EXAM.		FLATTENING TEST	ULTRASONIC TEST	LOCATION OF TENSIL	ISSUED BY TENSION STEEL INDUSTRIES CO., LTD. WE CERTIFYING THAT MATERIAL IS MANUFACTURED IN ACCORDANCE WITH API 5CT AND TRACEABLE PER API 5CT															
RESULT		GOOD	6.250"	P+P #4		GOOD	GOOD	W L D T C W	SR152 MILL TEST CERTIFICATE MUST CERTIFY COMPLIANCE WITH PURCHASE CONTRACT AGP0235 AND API 5CT.															
NOTES		HEAT TREATMENT / DELIVERY CONDITION : WELD SEAM HEAT TREATMENT #1 TENSILE TEST - ELONGATION RESULT SPECIMEN TYPE: STRIP WIDTH: 38.10MM #3 - C.E. : CARBON EQUIVLENT #4 - F+P+P-FERRITE P-PEARLITE																						
URVEYOR TO		WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE																						
		MATERIAL SPECIFICATION, THE PIPES COVERED IN THE ABOVE CERTIFICATE COMPLY TO APPENDIX B, MATERIAL REQUIREMENTS FOR SOUR WELLS, OF DIRECTIVE 10 IN CANADA.																						
		TENSION STEEL INDUSTRIES CO., LTD. Don Lien Chao																						

For Lien Chen