MILL'S QUALITY CERTIFICATE

SeAH Steel Corp.

(주)세 아 제 강

HEAD OFFICE ; BONGNAE-DONG 1GA, JUNG-GU, SEOUL, KOREA

POHANG PLANT ; 14-1, JANGHEUNG-DONG, NAM-GU, POHANG

증명서번호 / CERTIFICATE NO.: E200706-0020-001526(5001625)

제 품 명 / COMMODITY : E.R.W STEEL PIPE

제 품 규 격 / SPECIFICATION : API 5LB PSL1/ASTM A53B(2006)

발 급 일 자 / DATE OF ISSUE : 2007.04.30

계 약 서 번 호 / L/C No. (P/O No.) : 47LI-B93402-TMA4

수 요 가 / CUSTOMER : DUFERCO SA

주 문 자 / SHIPPER : SEAH STEEL CORPORATION

NO.	HEAT NO. (BATCH NO.)	관 단 TYPE *1	주 문 치 수 ORDER SIZE			수 량 QUANTITY 본 수 PCS	총 길 이 TOTAL LENGTH	중량(M/T) WEIGHT	비 고 REMARK
43	SB69315 (SIH4111060)	BBE	14 "	X 0.250 "	X 6.120 M	196	1,199.520 M	66.106	
44	C721304 (SIH4181080)	BBE	24 "	X 0.250 "	X 6.120 M	31	189.720 M	18.072	
45	C721304 (SIH4182010)	BBE	24 "	X 0.250 "	X 6.120 M	44	269.280 M	25.652	
46	5-39083 (SIH4252080)	BBE	12 "	X 0.406 "	X 6.120 M	88	538.560 M	42.896	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 5 Sec. psi	RESULT	N·D·T U *2	VISUAL & DIMENSION	FLATTENING	SHOCK	COMPRESSION	RESIDUAL MAGNETISM GAUSS	BENDING *3	DRIFT	CRUSH	FLARING	FLANGE	REVERSE FLATTENING	ZINC COATING TEST WEIGHT OF ZINC COAT-ING	균일성 C.S *4	알칼리 ALK *5	DESIG *6	C	Si	Mn	P	S	CU	NI	CR	MO	V	CEQ *8	DIR *9	TENSILE TEST (Gage Length : 50mm) TENSILE STRENGTH psi	YIELD STRENGTH psi	E.L % *10	IMPACT TEST (℃) ENERGY Joule	SHEAR AREA %	HARDNESS TEST	HEAT TREAT MENT SN *11	PROTECTIVE COATING & LINING THICK-NESS	P.H
																				CHEMICAL COMPOSITION(%)																			
																					2		3		2	2	2	2	3										
기준 SPEC									30										MAX	26		120	30	30	40	40	40	15	80										
																			MIN													60000	35000						
43	SB69315	750	G	G	G	G			G										H	15	1	67	13	10															
	(SIH4111060)																		P	16	2	68	13	12	TR	1	1	TR	1		T	68980	51060	39				G	
																			P	14	2	67	11	11	TR	1	1	TR	1		W	68272						
44	C721304	440	G	G	G	G			G										H	13	14	72	18	4															
	(SIH4181080)																		P	12	14	73	19	4	2	1	1	1	2		T	75810	62720	44				G	
																			P	14	13	73	17	5	2	1	1	1	1		W	76522						
45	C721304	440	G	G	G	G			G										H	13	14	72	18	4															
	(SIH4182010)																		P	13	13	71	19	3	2	1	1	1	2		T	75090	63860	45				G	
																			P	14	13	73	18	5	2	1	1	2	1		W	75241						
46	5-39083	1340	G	G	G	G			G										H	17	18	45	18	4															
	(SIH4252080)																		P	16	18	45	16	4	1	1	1	1	TR		T	69970	51480	42				G	
																			P	17	17	46	19	3	1	1	1	1	1		W	70406						

NOTE: *1 ~ *12 : Refer To The Attached Section Designation

OTHER

Surveyor :

- 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.
- THE USE OF THE MATERIAL OUTSIDE THE SPECIFICATIONS INDICATED ON THIS CERTIFICATE MAY CAUSE SAFETY AND/OR MONETARY PROBLEMS. FURTHERMORE, ANY ORGANIZATION OR PERSON(S) WHO DELIBERATELY MODIFIES THE CERTIFICATE WILL BE PROSECUTED FOR FORGING AN OFFICIAL DOCUMENT (ACCORDING TO THE PROVISIONS OF THE CRIMINAL CODE 231)

Manager of Q.M Dept.

J. E. KIM

(주)세아제강 품질경영팀장