MILL'S QUALITY CERTIFICATE

SeAH 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
16	C730916 (SHH3221040)	BBE	12 " X 0.250 " X 6.120 M	70	428.400 M	21.467	
17	C730919 (SHH3221050)	BBE	12 " X 0.250 " X 6.120 M	71	434.520 M	21.774	
18	1-59104 (SHH3231040)	BBE	12 " X 0.500 " X 6.120 M	60	367.200 M	35.787	
19	1-59103 (SHH3231050)	BBE	12 " X 0.500 " X 6.120 M	24	146.880 M	14.315	

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 STRENGTH psi	YIELD STRENGTH psi	E.L % *10	IMPACT TEST (℃) ENERGY Joule	IMPACT TEST (℃) SHEAR AREA %	HARDNESS TEST	HEAT TREATMENT SN *11	PROTECTIVE COATING & LINING THICKNESS	PROTECTIVE COATING & LINING P.H
																				CHEMICAL COMPOSITION(%) 2			3		2	2	2	2	3			TENSILE TEST (Gage Length : 50mm)			IMPACT TEST (℃)					
기준 SPEC									30										MAX	26		120	30	30	40	40	40	15	80											
																			MIN											60000	35000							
16	C730916 (SHH3221040)	820	G	G	G	G			G										H	16	2	76	18	8														
																			P	17	2	77	18	7	1	2	1	1	1		T	69550	51480	43				G		
																			P	17	3	75	17	10	1	2	2	1	1		W	70406								
17	C730919 (SHH3221050)	820	G	G	G	G			G										H	16	2	79	17	8														
																			P	16	2	79	19	7	1	1	1	1	2		T	74100	57030	41				G		
																			P	15	2	79	18	10	1	1	1	1	1		W	74815								
18	1-59104 (SHH3231040)	1650	G	G	G	G			G										H	15	18	46	17	5														
																			P	14	17	45	19	7	1	1	1	TR	TR		T	69550	48780	46				G		
																			P	15	17	46	15	7	1	1	1	TR	TR		W	67134								
19	1-59103 (SHH3231050)	1650	G	G	G	G			G										H	15	18	43	21	6														
																			P	16	18	43	20	8	1	1	1	1	1		T	66560	47640	46				G		
																			P	14	17	42	21	8	1	1	1	1	2		W	66423								

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