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MILL'S QUALITY CERTIFICATE

SeAH Steel Corp.
(주)세아제강

HEAD OFFICE ; BONGNAE-DONG 1GA, JUNG-GU, SEOUL, KOREA
POHANG PLANT ; 14-1, JANGHEUNG-DONG, NAM-GU, POHANG

증명서번호 / CERTIFICATE NO. : E200704-0086-001171(5001422)
제 품 명 / COMMODITY : E.R.W STEEL PIPE
제 품 규 격 / SPECIFICATION : API 5LB PSL1/ASTM A53B(2005)

발 급 일 자 / DATE OF ISSUE : 2007.03.30
계 약 서 번 호 / L/C No. (P/O No.) : 47LI-B82946-TLJY(1103049204)
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
17	SB63959 (SHH2142130)	BBE	12 " X 0.406 " X 6.120 M	37	226.440 M	18.036	* DESCRIPTIION OF GOODS : 1,408.552MT (+/- 10 PCT) CARBON STEEL PIPES WELDED / ASTM A53 B
18	1-59101 (SHH2211010)	BBE	14 " X 0.438 " X 6.120 M	82	501.840 M	47.324	* STEEL GRADE : ASTM A53 B
19	SB66719 (SHH2211030)	BBE	14 " X 0.500 " X 6.120 M	58	354.960 M	38.119	
20	SB67363 (SHH2262030)	BBE	12 " X 0.250 " X 6.120 M	68	416.160 M	20.854	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 10 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 (℃) ENE-RGY Joule	SHEAR AREA %	HARD-NESS TEST	HEAT TREAT MENT SN *11	PROTECTIVE COATING & LINING THICK-NESS	P.H
																				2			3		2	2	2	2	3											
기준 SPEC									30										MAX	26		120	30	30	40	40	40	15	80											
																			MIN												60000	35000								
17	SB63959	1340	G	G	G	G			G										H	17	2	86	16	7																
	(SHH2142130)																		P	16	2	86	17	7	1	1	1	TR	1		T	74380	49350	40			G			
																			P	18	2	86	18	9	TR	1	2	TR	1		W	74957								
18	1-59101	1310	G	G	G	G			G										H	16	18	44	20	4																
	(SHH2211010)																		P	15	17	43	21	4	1	1	1	1	1		T	68840	49490	44			G			
																			P	15	18	43	18	2	1	1	1	1	1		W	69694								
19	SB66719	1500	G	G	G	G			G										H	17	1	77	14	9																
	(SHH2211030)																		P	16	2	76	16	8	TR	1	1	TR	1		T	73100	49070	39			G			
																			P	16	TR	78	13	8	TR	1	1	1	1		W	73819								
20	SB67363	820	G	G	G	G			G										H	16	1	64	13	6																
	(SHH2262030)																		P	17	TR	65	14	8	1	1	1	TR	1		T	74670	52620	31			G			
																			P	15	TR	65	13	5	1	1	1	TR	1		W	73535								

COPY

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

주식회사세아제강 포항경상통일경영팀장