MILL'S QUALITY CERTIFICATES

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.: E200807-0215-001542(5002660)

제 품 명
COMMODITY : E.R.W STEEL PIPE

제 품 규 격
SPECIFICATION : API 5LB PSL1/ASTM A53B(2007)

발 급 일 자
DATE OF ISSUE : 2008.07.18

계 약 서 번 호
L/C No. (P/O No.) : 47LI-C45661-TJFE(0801844)

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
5	SB10229 (SHI7081040)	BBE	12 " X 0.225 " X 6.120 M	143	875.160 M	39.146	
6	SB96269 (SHI7081050)	BBE	12 " X 0.225 " X 6.120 M	101	618.120 M	27.649	

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
기준 SPEC									30									
5	SB10229 (SHI7081040)	740	G	G	G	G			G									
6	SB96269 (SHI7081050)	740	G	G	G	G			G									

NO.	HEAT NO (BATCH NO.)	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	ENERGY Joule	SHEAR AREA %	HARDNESS TEST	HEAT TREATMENT SN *11	THICKNESS	P.H
			CHEMICAL COMPOSITION(%) *7												TENSILE TEST (Gage Length : 50mm)			IMPACT TEST (℃)				PROTECTIVE COATING & LINING	
			2			3		2	2	2	2	3											
기준 SPEC		MAX	26		120	30	30	40	40	40	15	80											
		MIN													60000	35000							
5	SB10229 (SHI7081040)	H	15	1	63	13	5																
		P	14	1	64	15	7	TR	1	1	TR	1		T	69550	51480	38				G		
		P	14	2	62	13	7	TR	TR	1	TR	1		W	72690								
6	SB96269 (SHI7081050)	H	14	1	67	11	8																
		P	13	2	68	11	8	1	1	1	TR	1		T	68270	50060	38				G		
		P	14	TR	67	9	10	TR	TR	1	TR	1		W	73830								

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

OTHER: DESCRIPTION OF GOODS : 1,409.329 MT (+/- 10 PCT.)RIE ERW PIPES / GRADE: API 5L-B/ ASTM A53B.GRADE:P 5L-B/ ASTM A53B.
PHYSICAL PROPERTIES SAME AS TENSILE TEST & IMPACTST.

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 SeAH 품질경영팀장