



NIPPON STEEL &
SUMITOMO METAL
CORPORATION

NIPPON STEEL & SUMITOMO METAL CORPORATION
WAKAYAMA WORKS
1850, MINATO, WAKAYAMA, JAPAN

INSPECTION CERTIFICATE

CERTIFICATE NO. :WYYK6447-02

PAGE : 1/3 DATE : 2015-03-23

CUSTOMER

ORDER NO. :TV13615154
SHIPPER :SUMITOMO CORPORATION 057 KEA 2173/8 5P13S218401
COMMODITY :SEAMLESS STEEL CASING, PLAIN END PIPES
STANDARD :API 5CT GROUP3 GR. P110 PSL 2
SPECIFICATION :TSP-3697R0
MILL WORK NO. :WYYK6447
O. D. :9-5/8inch W. T. :53.50lb/ft LENGTH:MIN. 12.00m MAX. 13.00m
QUANTITY:37pcs. TOTAL LENGTH:477.16m MASS:37562kg

HEAT NO. :J5L1383 J5L1389 J5L2089 J5L3104 J5L3107
PRODUCTS PCS. :1 1 2 8 25

HEAT TREATMENT :QUENCHED & TEMPERED

CHEMICAL COMPOSITION (%)

			C	Si	Mn	P	S	Cr	Mo	Ti	Al
		#1				#2	#2			#2	#2
SPEC. MIN.		R	-	-	-	-	-	-	-	-	-
MAX.		R	-	-	-	30	30	-	-	-	-
HEAT NO.											
J5L1383		L	27	26	88	8	4	50	21	5	22
		P	26	26	87	8	3	50	20	5	22
J5L1389		L	27	28	88	8	5	52	20	6	26
		P	27	28	89	8	5	52	20	6	27
J5L2089		L	27	26	88	7	4	50	21	5	27
		P	27	26	89	7	4	50	20	5	26
		P	27	26	89	7	4	51	20	5	27
J5L3104		L	27	28	91	7	4	52	21	5	28
		P	27	28	90	6	4	51	20	5	28
		P	27	28	91	6	4	51	20	5	28
J5L3107		L	27	26	92	9	4	50	21	6	34
		P	27	25	91	8	4	49	20	6	33
		P	27	25	91	8	3	50	20	6	33

*1 R:LADLE & PRODUCT ANALYSIS L:LADLE ANALYSIS P:PRODUCT ANALYSIS *2:X1000 OTHER:X100

TENSILE TEST

		#1 #2	YS #3	TS #3	EL %
SPEC. MIN.	HEAT-	L B	P 110.0	P 125.0	15
MAX.	LOT NO.	L B	P 140.0	P -	-
HEAT NO.					
J5L1383	008	L B	P 121.1	P 134.7	29
J5L1389	009	L B	P 119.9	P 134.6	29
J5L2089	010	L B	P 117.0	P 136.9	29
	011	L B	P 119.8	P 135.2	28
J5L3104	001	L B	P 119.4	P 134.7	29
	002	L B	P 116.9	P 133.3	30
	003	L B	P 115.7	P 134.2	30

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.

T. Takano

TAKASHI TAKANO

HEAD OF DEPARTMENT
QUALITY ASSURANCE DEPARTMENT

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This certification is intended only for products listed. Modification to or unauthorized use of this certification is strictly prohibited. Offences may be regarded as forgery of documents and be subject to criminal prosecution. If you have any questions on this certification, you can contact us by facsimile or e-mail as shown below:
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NO. 296158W15



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TENSILE TEST

		*1 *2	YS *3	TS *3	EL %
SPEC. MIN.	HEAT-	L B	P 110.0	P 125.0	15
MAX.	LOT NO.	L B	P 140.0	P -	-
HEAT NO.					
J5L3107	004	L B	P 117.5	P 133.9	30
	005	L B	P 117.9	P 133.3	30
TYPE OF SPECIMEN: STRIP 1-1/2in. WIDTH *1 SAMPLING DIRECTION L: LONGITUDINAL *2 SAMPLING POSITION B: BASE METAL *3 UNIT P: ksi GAUGE LENGTH: 2.0in. KIND OF YS: 0.6% EXTENSION UNDER LOAD					

IMPACT TEST (#32.0°F 2mm V-Notch 10X7.50)

		*1 *2	*3 *4	AVG			*3 *4	AVG		
SPEC. MIN.	HEAT-	T B	E F	*5	9/13	13	S %	*6	75	-
MAX.	LOT NO.	T B	E F		-/-	-	S %		-	-
				[1]	[2]	[3]		[1]	[2]	[3]
HEAT NO.										
J5L1383	008	T B	E F	49	48	46	48	S %	100	100
J5L1389	009	T B	E F	49	49	49	49	S %	100	100
J5L2089	010	T B	E F	49	47	47	48	S %	100	100
	011	T B	E F	49	49	49	49	S %	100	100
J5L3104	001	T B	E F	52	49	49	50	S %	100	100
	002	T B	E F	46	49	48	48	S %	100	100
	003	T B	E F	49	49	49	49	S %	100	100
J5L3107	004	T B	E F	58	58	58	58	S %	100	100
	005	T B	E F	58	57	58	58	S %	100	100

[1] [2] [3]: SPECIMEN NO.

ABSORBED ENERGY *5: VALUE OF ONE PIECE/EACH VALUE OF TWO PIECES AVG: AVERAGE VALUE OF ONE SET (3 PIECES)

SHEAR AREA *6: VALUE OF ONE PIECE AVG: AVERAGE VALUE OF ONE SET (3 PIECES)

*1 SAMPLING DIRECTION T: TRANSVERSE *2 SAMPLING POSITION B: BASE METAL *3 E: ABSORBED ENERGY S: SHEAR AREA

*4 UNIT F: ft-lbf %: %

VISUAL & DIMENSIONS: ACCEPTABLE

DRIFT TEST: ACCEPTABLE (SPECIAL O.D.: 8.5in.)

HYDROSTATIC TEST 10000psiX5sec.: ACCEPTABLE

ULTRASONIC EXAMINATION

APPLICABLE STANDARD/REFERENCE STANDARD: API 5CT SEC. 10 (L2 NOTCH): ACCEPTABLE

ULTRASONIC WALL THICKNESS CHECK: ACCEPTABLE

EN 10204 3.1

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TEMPERING TEMPERATURE

HEAT NO.	PRODUCT PCS. (PCS.)	HEAT LOT/NO.	SETTING TEMPERING TEMPERATURE (°C)
J5L1383	1	008	580
J5L1389	1	009	580
J5L2089	1	010	580
J5L2089	1	011	580
J5L3104	1	002	585
J5L3104	7	003	585
J5L3107	22	004	585
J5L3107	3	005	585
TOTAL	37		
REMARKS : TEMPERING TEMPERATURE CONTROL RANGE : SETTING TEMPERATURE $\pm$ -10°C			

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