



Washington State
Department of Transportation

RAM-0012

Request for Approval of Material

Contract 8078	FA Number _____	SR Interstate 5	Date 2/8/11
Section I-5 Columbia River Bridge (WA 0.3 to OR MP 308.0)		County WA and OR states	
Contractor American Construction Company, Inc.		Subcontractor _____	

This form shall be completed prior to submittal. If this form is not complete at time of submittal it may be returned for information that was omitted.
For assistance in completing, see Instructions and Example

For WSDOT Use Only
RAM # 12

Bid Item No.	Material or Product/Type	Name and Location of Fabricator, Manufacturer or Pit Number	Specification Reference	PE/QPL Code	Hdq./QPL Code
3.04.01	Telescoping Arm Assembly	Rainier Welding, Inc. 19020 NE 84th Street Redmond, WA 98053	Special Provisions Page 98	7	5
	Only for Unconfined Bubble Ring System				
3.04.02	Telescoping Arm Guide				
3.04.03	Telescoping Arm				
3.04.04	Hinge Plate				

Project Engineer <i>Ricki Peppers for Frank Green</i>	Date 2/17/11	State Materials Engineer Steve Hughes	Date 2-17-11
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Acceptance Action Codes for use by Project Engineer and State Materials Laboratory

1. Acceptance Criteria: Acceptance based upon 'Satisfactory' Test Report for samples of materials to be incorporated into project.
2. Acceptance Criteria: Mfg. Cert. of Compliance for 'Acceptance' prior to use of material.
3. Acceptance Criteria: Catalog Cuts for 'Acceptance' prior to use of material. Catalog Cut Approved Yes No
4. Acceptance Criteria: Submit Shop Drawings for 'Approval' prior to fabrication of material.
5. Acceptance Criteria: Only 'Approved for Shipment', 'WSDOT Inspected' or 'Fabrication Approved Decal' material shall be used.
6. Acceptance Criteria: Submit Certificate of Materials Origin to Project Engineer Office.
7. Acceptance Criteria: Request Transmitted to State Materials Laboratory for Approval Action.
8. Source Approved: _____
9. Approval Withheld: Submit samples for preliminary evaluation.
10. Approval Withheld: _____
11. Miscellaneous Acceptance Criteria.

Remarks: **Notify and forward approved shop drawings to the Fabrication Inspection office.**

* cc: American Construction, Peppers

Project Engineer Distribution

- Contractor
 Region Operations Engineer
 Fabrication Inspection
- Region Materials
 State Materials Lab
M/S 47365

State Materials Engineer Distribution

- General File
 Other _____
- Signing Inspection



Abnahmeprüfzeugnis 3.1 (EN 10204)
Inspection certificate – mill certificate

Zertifizierung nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Nr.: 85336910 03 / 6

Rev. 0
 Seite / page: 1 von / of 2
 Datum / date: 2010 07 20

RAI/NICK WELDING
PO# 2860-2
SALE / B 762582
DATE: 2-2-11
© BOB
WEISSNER

A02:32 05805

Auftraggeber / customer: Empire Resources Inc. 1 Parker Plaza FORT LEE NJ 07024 USA	Bestell Nr. / order no.: R133210/ER-4348-P Datum / date: 2010 04 27
	Auftragsbest. Nr. / order confirm. no.: 612989 Datum / date: 2010 04 28
Warenempfänger / consignee: Empire Resources, INC 6901 Quad Avenue BALTIMORE MD 21237-2403 USA	Lieferschein Nr. / delivery note: 85336910 Datum / date: 2010 07 20
	Akkreditiv Nr. / letter of credit no.:
Endkunde, Bestell-Nr. / Your cust., ord. no.:	

Produkt/product Form / form: Plate, stretched Werkstoff / material: 6061 Zustand / temper: T651 Dim. / dim: [Inch]: 0,500x48,50x144,50 Kundenartikel-Nr / customer article no.:	Bedingungen/terms Techn. Lieferbedingungen / techn. spec.: AMS-QQ-A-250/11, 08.1997 ASTM B 209 - 07 Material meets also AMS 4027N, 07.2000, but not marked ASTM B 594 - 06 ANSI H35.2-2006 ASME SB 209, 2007 Sondervorschrift / special terms:
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AB-Pos. / ord.-item.	BNr/Los/Tellos / Lot/No./Part	Guss Nr. / cast no.	Werkstoff / material	Kollo / packng.	Gewicht netto / weight net	Stk. / pcs.
06	44738/04/00	80/0066747/0	6061.1	6129890046	4283,51 lbs	12
06	44738/05/00	80/0067078/0	6061.1	6129890122	1761,464 lbs	5
06	44738/06/00	80/0067078/0	6061.1	6129890125	1748,236 lbs	5

Chemische Zusammensetzung / chemical composition: [%] Gewichtanteile / Weight proportion											
Guss Nr. / cast no.	AMAG designation	Si	Pb	Cu	Mn	Mg	Cr	Ni	Zn	Ti	
80/0066747/0	8061.1										
	actual	0,70	0,43	0,21	0,15	0,82	0,17	0,01	0,06	0,03	
80/0067078/0	8061.1										
	actual	0,65	0,45	0,23	0,02	0,86	0,17	<0,01	0,13	0,02	

10077756



Abnahmeprüfzeugnis 3.1 (EN 10204)
Inspection certificate - mill certificate

Nr.: 85336910 03 / 6

Rev. 0
 Seite / page: 2 von / of 2
 Datum / date: 2010 07 20

Handwritten: 2011

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, ENAS 9100, ISO 14001, NADCAP

Zugversuch / Tensile test						
BNr/Los Lot/No.	Zustand temper	Richtung direction		Rm [ksi]	Rp0.2 [ksi]	A2 [%]
44738/04	T651	LT		46,7	43,1	13
44738/04	T651	LT		47,0	43,2	13
44738/04	T651	LT		48,8	42,9	13
44738/04	T651	LT		46,8	43,1	13
44738/04	T651	LT		46,8	42,9	14
44738/05	T651	LT		46,7	43,4	13
44738/05	T651	LT		46,7	43,2	13
44738/05	T651	LT		47,4	43,2	11
44738/05	T651	LT		47,1	43,8	11
44738/05	T651	LT		47,0	43,5	13
44738/06	T651	LT		47,0	43,7	13
44738/06	T651	LT		46,7	43,2	13
44738/06	T651	LT		47,4	44,1	13
44738/06	T651	LT		47,3	43,8	13
44738/06	T651	LT		47,3	43,2	12

Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht.
 We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Werkssachverständiger / factory specialist	E-Mail / e-mail
Josef Klämpfer	j.klaempfer@amag.at

Herstellortland: Österreich / goods origin: The goods are of Austrian origin.
 Maschinell erstellt - Gültig ohne Unterschrift / Automated - valid without being signed.

CERTIFIED INSPECTION REPORT A10:58 050760

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material meet the composition limits and that the mechanical properties shown on the basis of this sheet are correct.

John P. Young
 Director of Manufacturing Operations Works
 Quality Assurance Manager

1195221 Ship Date 0 B.L. No. Invoice No. Alcoa No. Item Page 1
 2010-12-28 5519258 00000 1000253275-1 DS-53275-1
 P.O. No./Govt Contract No. Customer Alcoa Item
 10077445 Lath: 1 ALASKAN COPPER & BRASS G041107416R06

Ship To: ALASKAN COPPER & BRASS COMPANIES, I
 ALASKAN COPPER AND BRASS
 27402 72ND AVE S
 KENT, WA 98032

Item Description
 0.25 IN TX (+.014 -0.000) X 48.5 IN W (+.375 -0.000) X 144.5 IN LN (+.5 -0.0) CAT X 134100 (N) A/T 5061-
 T651 TYPE 200 PROUGHT TOOLING PLATE MILL
 FINISH: AMS4027 REV N ANS1H5.2 REV 2009 EXC_NRK ASME-S9-
 209 REV 10 EXC_NRK ASTM209 REV 07
 (MARKED) KRAFT PAPER INTERLEAVED
 NEX GROSS SKID WGT: 4500 LB QUAN TOL +/-
 40 % COR D164055 REV 06 CUST REQ 10-12-27 *** W/R 11-01-01 ***

*PRINTED WORKING *
 DATE: 28 APR 2011
 TIME: 2:52:01
 USER: 79250
 @ 505 WERTON
 (200)*

Item	Package Ticket	Lot	Weight	Quantity	UOM	Inspector	Clock Numbers
1	265577 ✓	421752 ✓	355	2	PC	47118	
2	265612	207038	1594	9	PC	47007	
3	265612	421751	1416	8	PC	47007	
4	265612	421758	511	1	PC	47007	
5	265614	207038	1593	9	PC	47007	
6	265614	421758	2654	15	PC	47007	
			8145	46			

Notes for COR: D164055.6
 PRODUCT PRODUCED TO THE REQUIREMENTS OF AMS4027 REV N ALSO MEET THE REQUIREMENTS OF AMS-QQ-A-250 L1 ORIGINAL REVISION N DATED 1997-08-01.

COR: D164055.6 - Specification Limits

TEMP DIR	UTS	EYS	ELAD
T651 Long Transv.	KSI	KSI	PCT
Max	42.0	35.0	10
Min			

Chemical Composition	SI	FE	CU	MN	MG	CR	ZN	TI	Other
Alloy 6061	Max	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.05
	Min	0.40	0.15	0.8	0.04				
									Back Total
									0.15
									ALUMINUM
									REMAIN

Notes for Lot: 207038
 TENSILE TEST VALUES IN MPa = 330, 330 YIELD TEST VALUES IN MPa = 294, 293.

CERTIFIED INSPECTION REPORT

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From:

Page 2

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

Melchior Murphy
Director of Manufacturing Development Works

Kenneth P. Young
Quality Assurance Manager

1195221 Ship Date 0 B.I. No. Invoice No. Alcoa No. Item Page 2
 2010-12-28 5519258 00000 1000253279-1 05-53279-1
 P.O. No./Govt Contract No. Customer Alcoa Item
 10077485 Inv#: 1 ALASKAN COPPER & B G041107416R06

Lot: 207038 - Mechanical, physical, Metallurgy, Quantometer Results (cont.)
 Lot: 207038 - Mechanical, physical, Metallurgy, Quantometer Results

Temp Dir No-> DTS TYS
 T651 Long Transv. 2 Test KSI KSI
 47.8 42.6
 47.8 42.5

Cast Number Chemical - OBS SI PE CU MN MG CR ZN TI
 H9844092 Actuals 0.64 0.4 0.25 0.06 1.0 0.19 0.04 0.02

Notes for lot: 423751
 TENSILE TEST VALUES IN MPA = 325, 326 YIELD TEST VALUES IN MPA = 292, 292
 Lot: 423751 - MECHANICAL, PHYSICAL, METALLOGRAPHY, QUANTOMETER RESULTS

Temp Dir No-> UTS TYS
 T651 Long Transv. 2 Test KSI KSI
 47.2 42.3
 47.3 42.4

Cast Number Chemical - OBS SI PE CU MN MG CR ZN TI
 H9844092 Actuals 0.64 0.4 0.25 0.06 1.0 0.19 0.04 0.02

Notes for lot: 423752
 TENSILE TEST VALUES IN MPA = 331, 332 YIELD TEST VALUES IN MPA = 297, 296.
 Lot: 423752 - Mechanical, physical, Metallurgy, Quantometer Results

Temp Dir No-> UTS TYS
 T651 Long Transv. 2 Test KSI KSI
 48 43.1
 48.2 42.9

Cast Number Chemical - OBS SI PE CU MN MG CR ZN TI
 H9844092 Actuals 0.64 0.4 0.25 0.06 1.0 0.19 0.04 0.02

Notes for lot: 423758
 TENSILE TEST VALUES IN MPA = 330, 328 YIELD TEST VALUES IN MPA = 293, 294.

DP 283

CERTIFIED INSPECTION REPORT

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From:

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described herein, including any special conditions forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

Michael Murphy
Director of Manufacturing Davenport Works

Kenneth P. Young
Quality Assurance Manager

1195221 Ship Date 9 B.I. No. Invoice No. Alcoa No. Item Page 3
 2010-12-28 5519258 00000 1000253279-1 DS-53279-1
 P.O. No./Draw Contract No. Customer Alcoa Item
 10077445 Int# : 1 ALASKAN COPPER & B 0041107416R06

Lot: 423758 - Mechanical, Physical, Metallurgy, Quantometer Results (cont.)
 Loc: 423758 - Mechanical, Physical, Metallurgy, Quantometer Results

Thrd	Dir	Long Transv.	Test	DTS	TYS	EL#D
T651			2	47.8	42.5	15
				47.5	42.6	14.9

Cast Number Chemical - OES SI FE CU MN MG CR ZN TI
 H5844092 Actuals 0.64 0.4 0.25 0.06 1.0 0.19 0.04 0.02

PR 3 013

This material was melted in the United States or a Qualifying Country [RR DRARS 225.872.1(a)], it was manufactured in the United States



Phone: (206) 343-0700 WATS: (800) 835-4545
Fax: (206) 343-1366 In State: (800) 233-3660
3660 East Marginal Way South, P.O. Box 3625, Seattle, WA 98124

Certification of Compliance

Sold to	
RAINIER WELDING	
19020 N.E. 84TH REDMOND	WA 98053

Work Order: G2087
All W/O Certifications

Page: 1

Additional Information	
Customer Order: 2860-1 Order Date: 1/19/2011	Ordered By: BOB Salesman: RP

Seaport Steel certifies that Mill Certification documents for materials shipped on this work order have been verified to comply with grade/specification requirements as listed below by material description and heat number.

A36 PL 3 X 96 30' 0"

Heat # 0504750

NUCOR
PLATE MILL

P.O. Box 279
Winton, NC 27986
(252) 356-3700

Mill Test Report
Page 4



Issuing Date : 08/16/2010 B/L No. : 269904 Our Order No. : 83561/A Cust. Order No. : E32813
 Vehicle No. : ATW 116052 Sold To : SEAPORT STEEL COMPANY Ship To : SEAPORT STEEL COMPANY
 Specification : 3.0000" x 96.000" x 360.000" P.O. BOX 3625 3660 EAST MARGINAL WAY SOUTH SEATTLE, WA 98134
 ASTM A36-08/A36M A709 Grade 36-09a/AASHTO M270 Grade 36/ASME SEATTLE, WA 98124

E02813

Marking :

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al(%)	V	Nb	Ti	N	Ca	B	Sn	Ceq	Pcm
0504750	0.18	0.99	0.009	0.003	0.17	0.16	0.05	0.05	0.01	0.019	0.004	0.002	0.001		0.0016	0.0001	0.009	0.36	0.25

Plate Serial No	Tensile Test			Charpy Impacts																		
	Pieces	Tons	Dir.	Dir.	(F) shear	(F) shear	(F) shear	Size	Temp	Ave.	Min											
0504750-07	1	14.70	T	40,000	70,700	31.6																
			T	38,600	69,800	32.2																

Manufactured to fully killed practice by Electric Arc Furnace. Welding or weld repair was not performed on this material. We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications, including customer specifications.

Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast discrete plate as-rolled, unless otherwise noted in Specification.

Yield by 0.002" method unless otherwise specified. Ceq = C+(Mn/6)+(Cr+Mo+V/5)+(Cu+Ni/15)
 Pcm = C+(Si/20)+(Mn/20)+(Cr/20)+(Ni/20)+(Cu/20)+(Mn/15)+(V/10)+S
 Melled and manufactured in the USA. ISO 9001:2000 certified (#006461) by SRI Quality System Registrar (#0965-08), PED 9723/VEC 712 Annex 1, Param. 4.3 Compliant.
 DN 50049 3.1:BVEN 10204 3.1B(2004), DIN EN 10204 3.1(2005) compliant. For ABS grades only. Quality Assurance certificate 06-MM-POA-383

T. A. Depretis, Metallurgist
 08/16/2010 3:24:29 PM