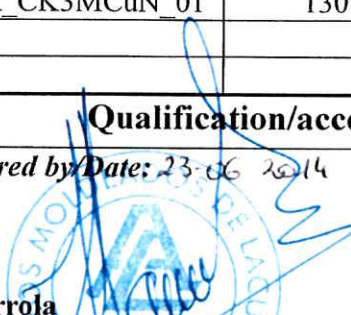



	Qualification Test Record (QTR) NORSOK M-650				<i>QTR.No.:</i> TR_CK3MCuN_01	
	<i>Rev. No.:</i> 1					
<i>Manufacturer name/address/ Web page:</i>	ACEROS MOLDEADOS DE LACUNZA, SA LAKUNTZA / ARBIZU (SPAIN) www.amlsa.com					
<i>Reference standard</i>	NORSOK M-650, Edition 4					
<i>Material designation and MDS No.:</i>	<ul style="list-style-type: none"> • ASTM A351 Gr. CK-3MCuN • NORSOK M-630 Ed. 6 (MDS R16, Rev. 5) 					
<i>Manufacturing Summary doc. No.:</i>	MS_CK3MCuN_01				<i>Rev. No.:</i> 1 ¹	
<i>Products and manufacturing process(es):</i>	CASTINGS (sacrificial component valve body DN450 (18") Cl. 600) Sand Molding with Furan Binder AOD route: remelting of 100% AOD refined charge material Production to follow the process of the approved QTR					
<i>Mandatory conditions and sub-contractors:</i>	<ul style="list-style-type: none"> - Castings heat treated in current furnaces (H-05 and/or H-06) - Raw material: AOD scrap material - Not destructive tests: radiographic (subcontracted to external qualified company S.C.I.) & dye penetrant - Destructive tests (subcontracted to external qualified laboratory AZTERLAN) : tensile test & corrosion test 					
<i>Other information:</i>	<ul style="list-style-type: none"> • PWHT to be carried out of all weld repairs • Verification of heat treatment procedure carried out for furnaces H-5 (Lakuntza) and H-6 (Arbizu), reports n° IN-8513 & IN-8512 respectively. 					
<i>Qualification expires:</i>	December 2018					
Tested and qualified thickness and weight						
<i>Products and manufacturing process(es):</i>	<i>Test record No.</i>	<i>Tested thickness mm</i>	<i>Qualified thickness mm</i>	<i>Test piece weight kg</i>	<i>Qualified weight kg</i>	
Sand casting	TR_CK3MCuN_01	130	130	645	All	
Qualification/acceptance signatures						
<i>Manufacturer:</i>	<i>Prepared by/Date:</i> 23-06-2014  I. Ibarrola		<i>Checked by/Date:</i> 23-06-2014  C. Blazquez			
The manufacturer and this QTR are evaluated and found to be in compliance with the requirements of NORSOK M-650 for supply of the above listed products and materials. <i>This acceptance does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of NORSOK M-650.</i>						
<i>Qualified/Accepted by (company name /address):</i>  Aker Solutions Aker Engineering & Technology AS Reg.nr. 879 817 552			<i>Signature/Date:</i> 27/06/2014 			

¹ Rev.1: MS revised because of revision of heat treatment procedure (June the 23rd, 2014)