



	<b>QTR Qualification Test Record</b> <b>NORSOK M-650 EDITION 4</b>				QTR. No.: 1	
					Rev. No.:6	
Manufacturer	TTI Tubacex Tubos Inoxidables SAU					
name/address/ Web	Tres Cruces, 8 01400 Llodio (Alava) Spain <a href="http://www.tubacex.com">www.tubacex.com</a>					
Reference standard	NORSOK M-650 EDITION 4 ASTM A790 ASTM A789					
Material designation and MDS No.:	SEAMLESS PIPES TUBES UNS S31803 – S32205 NORSOK M-630:2020: MDS D41-rev. 6 , MDS 48- rev6					
Manufacturing summary doc. No.:	1. MS 31803 HF1 2. MS 31803 HF2 3. MS 31803 CF3				Rev. No.: 5 Rev. No.: 5 Rev. No.: 5	
Products and manufacturing process(es):	1. SEAMLESS PIPES AND TUBES HOT FINISHED DIRECT WATER QUENCHING 2. SEAMLESS PIPES AND TUBES HOT FINISHED, HEAT TREATMENT IN CONTINUOUS FURNACE 3. SEAMLESS PIPES AND TUBES COLD FINISHED, HEAT TREATMENT IN CONTINUOUS FURNACE					
Mandatory conditions and sub-contractors:	Acería de Alava, S.A.U. (Sister Company to TTI Tubacex Tubos Inoxidables, S.A.U.) is the main supplier of raw material. Extruded hollows from Schoeller Bleckmann or trepanned hollows from IBF can also be used as raw material for cold rolling. TTI-ACERALAVA do have in house testing facilities to cover all the testing required by S31803-S32205 reference standards. These laboratories are included in the ISO 9001 QA system and are accredited under ISO 17025 for tensile, impact and hardness testing. Materials manufactured with processes HF2 and CF3 are to be mandatorily heat treated in Guinea furnace #3.					
Other information:	Verification of heat treatment as per instruction TX-INOX-42 and TX-INOX-51, witnessed by qualifying company SFF: <ul style="list-style-type: none"> <li>• TTI Llodio Direct water quenching (report VHT-003)</li> </ul> Verification of heat treatment witnessed by Lloyd's register: <ul style="list-style-type: none"> <li>• TTI Amurrio Guinea continuous Furnace #3 (report VHT-009)</li> </ul> Verification of heat treatment for Umbilical tubing witnessed by Qualifying Company Nexans: <ul style="list-style-type: none"> <li>• TTI Guinea continuous furnace #3 (report VHT-007)</li> </ul> Material heat treated in Guinea Furnace #3: Transfer time is < 60 seconds for standard production, except for the heaviest walled pipes where furnace speed is < 30 m/h – where this increased transfer time is verified through specific qualification testing.					
Expiry date	02.06.2027					
<b>Tested and Qualified Thickness and Weight</b>						
Process number	Test record No.	Test date	Tested Thickness (mm)	Qualified thickness (mm)	Test piece weight	Qualified weight (kg)
1	ZID220-10	Apr 2022	29,00 mm	36,25 mm	NA	NA
2	ZID220-20	May 2022	29,00 mm	36,25 mm	NA	NA
3	TT366538-20	May 2022	10,60 mm	13,25 mm	NA	NA
<b>Qualification/Acceptance signatures</b>						
Manufacturer:	Prepared by/Date:  Iñigo Arriola May 2022			Checked by/Date:  Aitor González May 2022		
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. 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.						
Qualified/Accepted by (company name/address): 				Signature/Date: 02.06.2022  INGE STANGELAND		

**Gamle Forusvei 11**  
**4031 Stavanger, Norway**  
**Ingve Stangeland**