

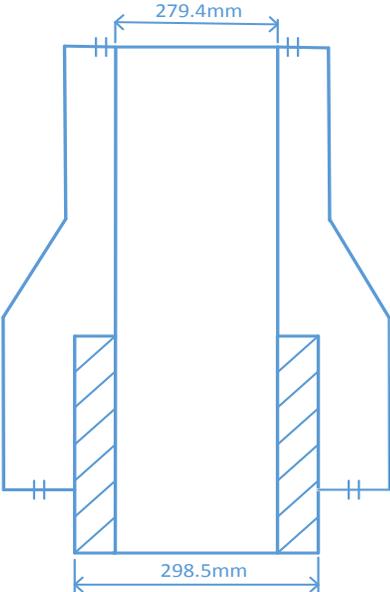


TENDER FOR SUPPLY OF GEOTHERMAL WELLHEADS (KGN-GDD-091-2016)

Date: 1st December 2016

CLARIFICATION No. 2

In accordance with the tender for supply of geothermal wellheads, KenGen hereby issues Clarification No.2.

No.	BIDDER'S QUESTION	KENGEN'S RESPONSE
1	<p>Double studed adaptor flange 13 5/8" API 6A, 3000 psi ring joint (R-57) bottom x 10" ANSI 1500 (11" API 5000 psi) ring joint (R-54) top, complete with ASTM grade B6 stud bolts & nuts (20 sets) for 13 5/8" 3000 psi flange and 10"- Class 1500 flange (12 sets) and 4" long erosion shield welded on the bottom.</p> <p>Clarification 1: 4" Long erosion shield welded on the bottom, OD 298.5, ID 279.4</p> <p>In the past tenders of Kenya, it's never demanded as tender. And it's not API standard products. Please kindly clarify what this shield will protect? Protect the inner of 13-5/8" casing head when you drilling (Same function as ware bushing of API 6A)? Protect the master valve? (While, it get 11" ID, it will protect nothing for the valve.)</p> <p>Please kindly clarify, or remove this demand.</p> <p>Also we wish you could kindly give a draft drawing and material advice of it. (We prefer use 304 to do the shield, is that acceptable?</p>	<p>The double studed adaptor flange has a bore or ID of 279.4 mm. The erosion shield will be welded at the bottom of the 13 5/8" API 6A, 3000 psi flange. This flange will be mounted on a 13 5/8" API 6A, 3000 psi casing housing with a bore or ID of 317.5 mm. The erosion shield is meant to protect the bottom flange of the adaptor which has a smaller bore than the casing housing.</p> <p>304 stainless steel is acceptable material for the erosion shield. Below is a sketch</p> 

2	<p>The drawing of your tender book is floating Seat. Also you demand metal to metal seal.</p> <p>The floating seat need a elastomer seal to realize, furthermore, the normal elastomer can only satisfied 200C. Your project is 650F (340C)</p> <p>So your design for floating seat is not suitable. We advise solid weld seat. So it no need the Elastomer Seal, which can realize Metal to Metal Seal.</p> <p>Please kindly accept.</p>	<p>The drawing provided in the tender document is meant for illustration and is not a design drawing. KenGen has specified an expanding gate valve with metal seat rings fixed to the body for metal-to-metal sealing</p>
3	<p>Handwheel operated.</p> <p>We advise Handwheel with gear, since the torque is very big for 10" 900#. Also if consider the thermal expansion and contraction of material. Man power is difficult to turn the handwheel.</p> <p>Please kindly accept it</p>	<p>KenGen prefer "direct handwheel operated" as illustrated in the drawing provided in the tender document.</p>
4	<ol style="list-style-type: none"> 1. valve body material : is made of forged steel or cast steel or other material 2. sealing type : soft or metal seal or valve disk material 3. if soft seal ,what is the seat material ? PTFE or Nylon or others ? 4. other trim parts material 5. Performance Requirement(PR) Level: 6. Material Class: 	<ol style="list-style-type: none"> 1. Cast carbon steel ASTM A216 Gr. WCC as per API 6D 2. Metal-to-metal 3. Not applicable 4. As per tender specifications 5. PSL-1 6. As per API 6D and 6A

ACKNOWLEDGEMENT OF CLARIFICATION NO. 2

We, the undersigned hereby certify that the clarification is an integral part of the document and the alterations set out in the clarification has been incorporated in the tender proposal.

Signed _____

Tenderer _____