**MUSE Basis of Estimate**

**Element WBS #6**

I. General Information

Task Name: PMTs for Cerenkov

Unique ID Number

Date of Estimate: November 2, 2015 (last update)

Estimate Generator: R. Gilman, R. Ransome

Cost Category:

X M&S

SWF

Comments:

Vendor Quote Number if Applicable\_\_Sydor quote MCA 110215\_\_\_\_\_\_

Drawing Reference Number or Attachment:

Costing Method: Quote

Total Task Cost: $90,000

Total Contingency: $9,000

Task Name: Preamp/CFDs for Cerenkov

Unique ID Number

Date of Estimate: November 2, 2015 (last update)

Estimate Generator: R. Gilman, R. Ransome

Cost Category:

X M&S

SWF

Comments:

Vendor Quote Number if Applicable\_\_Ametek quote AK4603-1\_\_\_\_\_\_

Drawing Reference Number or Attachment:

Costing Method: Quote

Total Task Cost: $12,472

Total Contingency: $1,247

II. Cost Estimate Breakdown

Cost of each element, along with justification

Photek PMT240, $21,900 each

4 tubes will be ordered in year 1. Cost $87,600

5 tubes will be ordered in year 2 Cost $107,500

Total price is $195,100

III. Contingency and risk analysis

This is an off the shelf item, with low technical/price risk. However, it is produced in the UK, so we estimate a contingency of 10% should be applied for currency fluctuations.

Total contingency $19,510.



