

PO Box 518  
620 Applegate St.  
Philomath, OR 97370



(541) 929-5650  
Fax (541) 929-5277  
[www.wetlabs.com](http://www.wetlabs.com)

## NTU Characterization Sheet

Date: 5/29/2015

Customer: MBARI

Job #: E0508021

S/N#: WL-30007

Tech: SML

Output channel: 2

NTU output range: 400

### Nephelometric Turbidity Unit (NTU) Scale Factor

Turbidity units expressed in NTU can be derived using the equation:

$$\text{NTU} = \text{Scale Factor} \times (\text{Output} - \text{Dark Counts})$$

|                                        | Digital          |
|----------------------------------------|------------------|
| Dark Counts                            | 49 counts        |
| NTU Solution Value                     | 4977 counts      |
| Scale Factor (SF)                      | 0.0399 NTU/count |
| Resolution                             | 1.5 counts       |
| Ambient temperature during calibration | 22.3 °C          |

**Dark Counts:** Signal output of the meter in clean water with black tape over detector.

**NTU Solution Value:** Signal output of the turbidity sensor when measuring a sample of interest.

**SF:** Scale factor is determined using the following equation:  $\text{SF} = \text{xx} \div (\text{Output} - \text{Dark Counts})$ , where xx is the value of a Formazin concentration. For example:  $12.2 \div (2011 - 50) = 0.0062$ .

**Resolution:** standard deviation of 1 minute of collected data.