# C. Vertical and Horizontal Control

No Horizontal and Vertical Control Report (HVCR) is required for this survey.

## **C.1 Vertical Control**

The vertical datum for this project is Low Water Datum IGLD-1985.

#### ERS Datum Transformation

The following ellipsoid-to-chart vertical datum transformation was used:

Method	Ellipsoid to Chart Datum Separation File
ERS via VDATUM	OPR-W386-TJ-22_NAD83_2011_VDatum_LWD_IGLD85

Table 11: ERS method and SEP file

## **C.2 Horizontal Control**

The horizontal datum for this project is North American Datum of 1983 (NAD 83).

The projection used for this project is Universal Transverse Mercator (UTM) Zone 17.

### <u>RTK</u>

Trimble-RTX service was used with an Applanix POS MVv5 GNSS\_INS system to obtain highly accurate ellipsoidally referenced position data to meet ERS specifications for H13611 MBES data from vessels HSL 2903 and S-222.

#### WAAS

The Wide Area Augmentation System (WAAS) was used for real-time horizontal control during data acquisition on vessels HSL 2903 and S-222.