

## C. Vertical and Horizontal Control

Additional information discussing the vertical or horizontal control for this survey can be found in the accompanying HVCR.

### C.1 Vertical Control

The vertical datum for this project is Mean Lower Low Water.

#### ERS Methods Used:

ERS via Poor Mans VDATUM

#### Ellipsoid to Chart Datum Separation File:

OPR-P377-KR-18\_NSPMVD\_EPSG6332\_NAD83-MLLW\_Revised.csar

All soundings were reduced to MLLW using the NSPMVD grid provided by NOAA using ERS methodology. Discrete tide zones were provided but used only for preliminary corrections in the field, as well as comparisons. See HVCR for additional information.

### C.2 Horizontal Control

The horizontal datum for this project is North American Datum 1983.

The projection used for this project is Projected UTM 3.

#### The following PPK methods were used for horizontal control:

Smart Base

CORS station geometry allowed for Applanix SmartBase (ASB) processing on this project, with AB06 (False Pass) used as the the primary control station. However, ASB was only used on lines that experienced issues with PP-RTX. Lines using ASB are itemized in the Data Acquisition and Processing section of this report.

The following CORS Stations were used for horizontal control:

HVCR Site ID	Base Station ID
AB06	False Pass

*Table 11: CORS Base Stations*

The Trimble PP-RTX subscription-based correction service within POSPac was used for final positioning for the majority of lines. Results were good overall, usually at 0.10 m or better vertically.

WAAS was used for real-time positioning only.