## Geomatic Solution

GEODETIC DATA MANAGEMENT

Geodetic data management ensures the consistency of exploration data by aligning it with recognized coordinate reference systems. As most exploration data contains a geo-spatial component, accuracy and compliance are essential. Applying the correct QC checks before data is used in decision-making preserves geospatial integrity and prevents legal, financial, and HSSE risks.

GEODETIC QC THAT PROTECTS DECISIONS

- Careful selection of geo-spatial parameters at project inception controls distortions and manages error budgets.
- Variability in project types increases the risk of errors if thresholds and tolerances are ignored.
- Maintaining data integrity requires informed decision-making in geospatial data management.
- Key practices include:
- Defining geodetic parameters when creating new workstation projects.
- Selecting appropriate CRSs when loading data.
- Understanding all coordinate operations applied during data handling.
- These steps preserve data characteristics and keep distortions within acceptable limits.
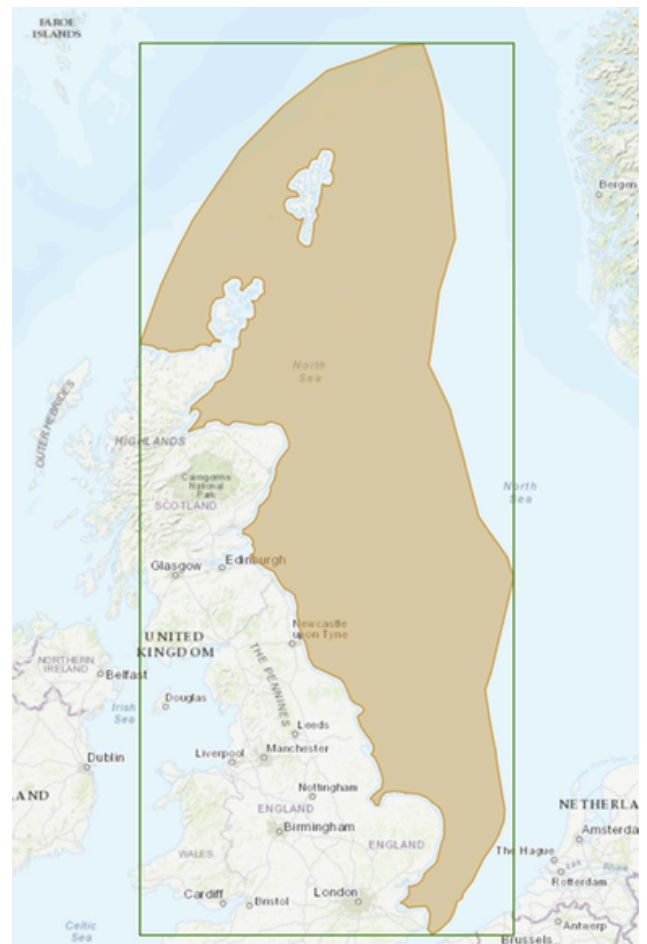
GEODETIC DATA MANAGEMENT

Our geo-spatial team has the tools and expertise to prevent geoscientists from being burdened with corrective geodetic decisions outside their area of knowledge. A short intervention from our specialists can save many hours or even days of project time. Since project teams often rely on multiple software applications that treat geo-spatial data differently—ranging from geodetic database inventories to coordinate operation algorithms—specialist oversight is essential to maintain precision and avoid mis-ties. Managing CRS parameters, conversions, and transformations is fundamental to establishing a reliable geodetic framework. Uncontrolled referencing, especially from open-source sources without audit trails, introduces unnecessary errors and delays. Maintaining a corporate catalogue with a centralized geodetic database ensures that all users, services, and applications apply a single, consistent system of record.

ENSURING CONSISTENCY ACROSS APPLICATIONS

COORDINATE SYSTEM:	Cartesian 2D CS. Axes: easting, northing (X,Y). Orientations: east, north. UoM: ftUS
BASE CRS:	NAD27
CONVERSION:	BLM zone 15N (US survey foot)

Conversion Details [VALID]

NAME:	BLM zone 15N (US survey foot)
CODE:	15915
USAGE:	

Usage Details

| SCOPE: | Topographic mapping. |
| EXTENT: | USA - 96°W to 90°W and GoM OCS |

| CONVERSION METHOD: | Transverse Mercator |

CONVERSION PARAMETERS:

Parameter	Value	Unit	Reversible
Latitude of natural origin	0	degree	No
Longitude of natural origin	-93	degree	No
Scale factor at natural origin	0.9996	unity	No
False easting	1640416.67	US survey foot	No
False northing	0	US survey foot	No

- Consistent geodetic data management across subsurface, GIS, and computational applications prevents errors from mismatched system definitions.
- Analysts apply specialist expertise to verify consistency in how application libraries perform coordinate operations on seismic and well data projects.
- Synchronization tools interface with the central geodetic database and leading platforms, including:
- SLB Petrel/Studio
- ESRI ArcGIS
- These tools ensure compliance and alignment of geo-spatial data across the organization.