



LIBERIA ULTRA DEEP PSTM Processing Offshore Liberia - 15,391km MULTI-CLIENT 2-D SURVEY

ACQUISITION PARAMETERS

Acquisition Date: December 2009 – March 2010
Vessel: M/V Bergen Surveyor
Shooting Orientation: Strike and dip to the coastline
Recording Instrument: Sercel Seal
Airgun Source: 4100 cubic inches
Gun Depth: 7 meters
Shotpoint Interval: 37.5 meters
Group Interval: 12.5 meters
Recording Channels: 648
Streamer Depth: 10 meters
Streamer Length: 8100 meters
Record Length: 14 seconds
Sample Interval: 2 milliseconds
Nominal Fold: 108

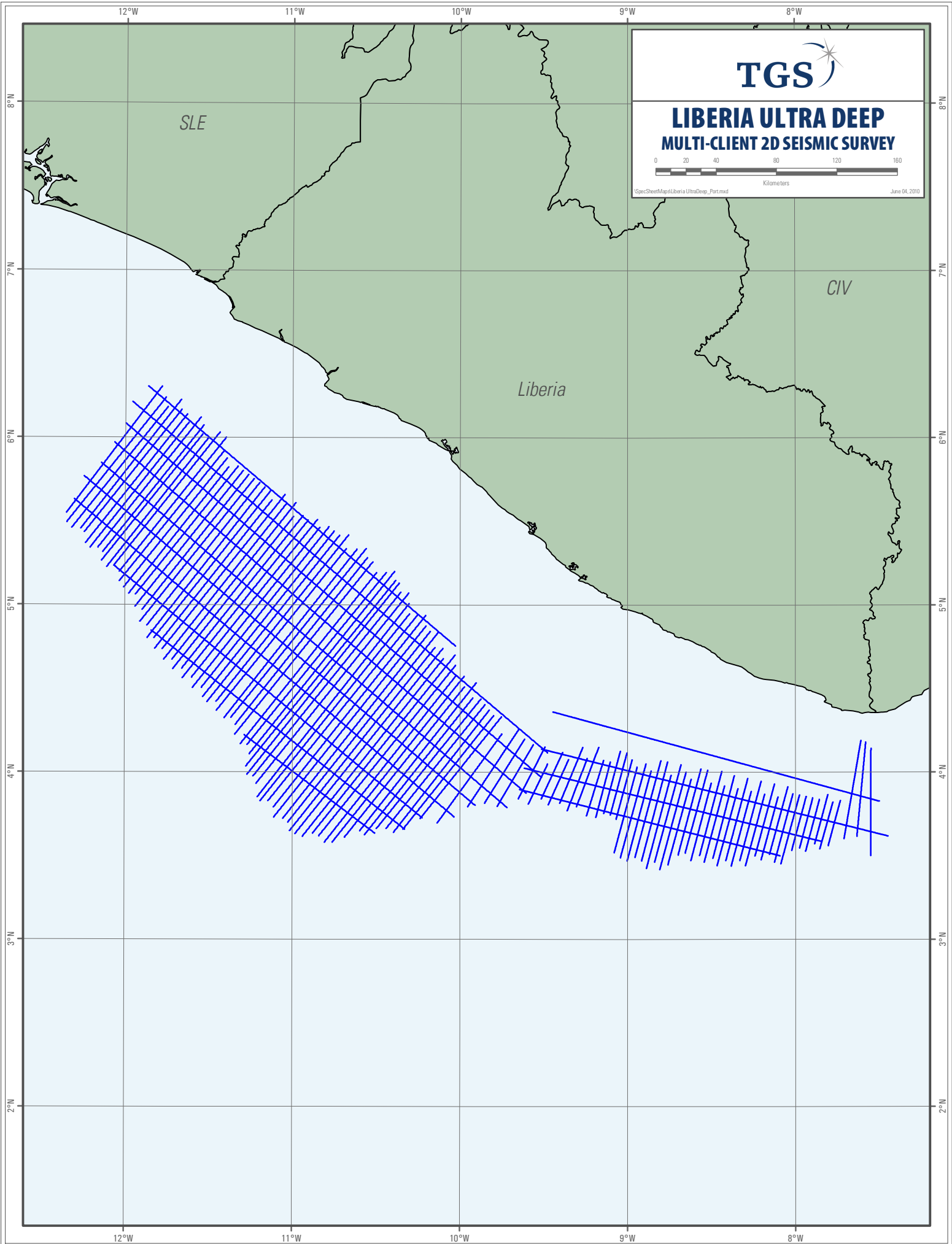
TIME PROCESSING SEQUENCE

Data processing performed by: TGS-Imaging Bedford

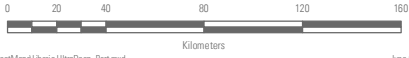
- Anti-alias filtering; Re-sample to 4 ms
- Merge source-receiver navigation and seismic – output NAVIGATION MERGE
- Update 2D bin geometry to trace headers
- Swell noise attenuation and noise editing
- Debubble / zero phasing
- Shot Domain Coherent noise suppression
- Surface related multiple elimination (SRME)
- K-filter and trace drop (to 25m group interval – 318 traces)
- Velocity analysis, one per two kilometers
- Radon multiple rejection using primary velocity – output RADON GATHERS
- Pre-migration conditioning
- Migration velocity analysis, one per kilometer – output MIGRATION VELOCITIES
- Prima Kirchhoff pre-stack time migration – output PSTM GATHERS NO NMO
- Automatic velocity picking (2nd & high order) – output STACKING VELOCITIES
- Final NMO
- Radon – output PSTM GATHERS WITH NMO & RADON
- Gun and cable static correction
- Stack – output RAW MIGRATION
- Filter and scale – output PROCESSED MIGRATION
- Angle stacks (near 2-17°, mid 17-32°, and far 32-47°) – Output ANGLE STACK SET

AVAILABLE TIME DELIVERABLES

- Raw field data / shot ordered (SEGD)
- Field data with navigation in the trace headers / shot ordered (648 traces/shot)
- Radon de-multiple CDP gathers (108 fold)
- Pre-stack time migrated CDP gathers without NMO (12.5m, 108 fold)
- Pre-stack time migrated CDP gathers with NMO (12.5m, 108 fold)
- Raw migration
- Processed migration
- Structure migration
- Angle stacks (near, mid and far)
- Migration velocities (ASCII)
- Stacking velocities (SEG Y & ASCII)
- Processed source-receiver navigation (UKOOA)
- Post stack navigation (UKOOA)
- Ship-borne gravity data
- Ship-borne magnetic data
- Workstation-ready tapes available in SMT, Landmark and Geoquest format



**LIBERIA ULTRA DEEP
MULTI-CLIENT 2D SEISMIC SURVEY**



SpecSheet\Map\Liberia UltraDeep_Port.mxd

June 04, 2010

SLE

CIV

Liberia

12°W

11°W

10°W

9°W

8°W

8°N

8°N

7°N

7°N

6°N

6°N

5°N

5°N

4°N

4°N

3°N

3°N

2°N

2°N

12°W

11°W

10°W

9°W

8°W