

Leg 195 Scientific Prospectus Page 48

SITE SUMMARY

Site: KS-1

Priority: 2 Position: 24°48.24'N, 122°30.00'E Water Depth: 1270 meters below sea level (mbsl) Sediment Thickness: >410 m Target Drilling Depth: 410 mbsf Approved Maximum Penetration: Pending PPSP approval Seismic Coverage: Intersection of EW9509-1 and QCS524-30

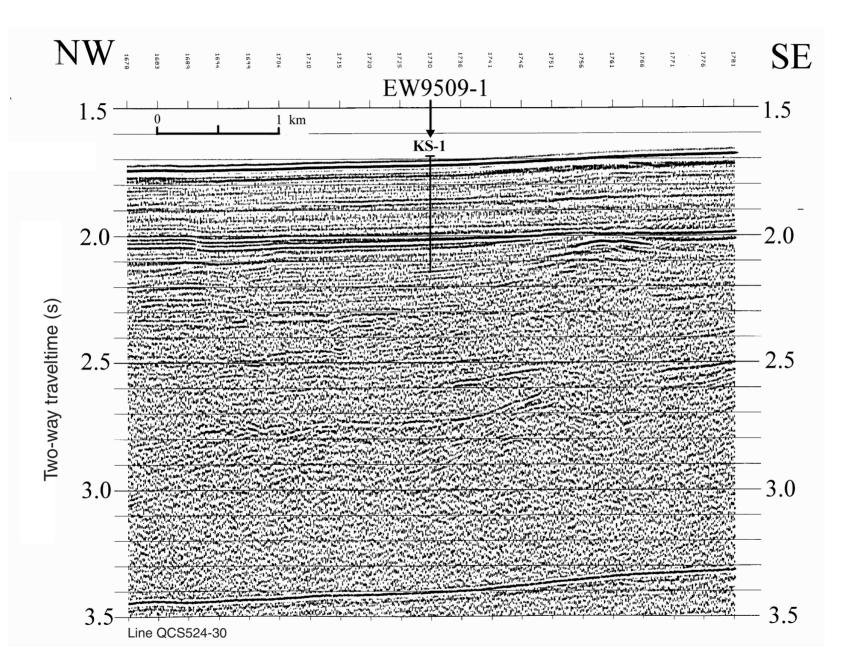
Objectives: The objectives of Site KS-1 are to sample Pleistocene high-resolution sedimentary records to obtain information about the circulation history of the Kuroshio Current by

- 1. Identifying patterns of long-term climate change associated with the western Pacific boundary current during the past 2.0 m.y.
- 2. Examining the western Pacific component of long-term changes due to orbital forcing in the mid-Pleistocene (~0.7 Ma) when Earth's climate system switched from a regime of dominant 41-k.y. cycles to 100-k.y. cycles
- 3. Exploring any long-term El Niño/La Niña type of climate oscillation in the low-latitude Pacific over the late Pleistocene glacial-interglacial cycles by comparing the Kuroshio record to other Pacific ODP records
- 4. Documenting the temporal and spatial variability of millennial climate changes in the Kuroshio Current

Drilling Program: Triple APC/XCB to 410 mbsf

Logging and Downhole Operations: Triple combo, FMS/sonic, GHMT

Nature of Rock Anticipated: Hemipelagic mud and silt



Site: MAF-4B

Priority: 1 Position: 13°46.99'N, 146°0.17'E Water Depth: 2930 meters below sea level (mbsl) Sediment Thickness: >1370 m Target Drilling Depth: 400 mbsf Approved Maximum Penetration: Pending PPSP approval Seismic Coverage: Six-channel seismic reflection profiles collected during 1997; location of seismic profiles A-A' and B-B' across the seamount is indicated on Figure 4

Objective: Determine composition of slab-derived fluids and deep-derived metamorphosed rock materials. Set casing, reentry cone, and CORK the hole to establish a seafloor observatory

Drilling Program: XCB (ADCB) pilot hole to 400 mbsf. Drill instrumented borehole to ~400 mbsf, install reentry cone, casing, and CORK

Logging and Downhole Operations: Triple combo, FMS/sonic

Nature of Rock Anticipated: Unconsolidated mud flows of clay to sand-sized serpentine containing pebbles to boulders of serpentinized ultramafic rock and metabasalts

