REQUEST FOR PALEONTOLOGICAL ANALYSIS

TO	CHIEF, PALEONTOLOGY AND STRATIGRAPHY BRANCH	SHIPMENT NUMBER 1
FROM	NAME Ann Gibbs / James Hein	DATE 9 NOV. 1992
	BRANCH Pacific Marine Geology	PROJECT (Name & Number) F6-87-NC

STRATIGRAPHIC RANGE ≤ Miocene ?

GENERAL LOCALITY (State, County, or Ocean) Ocean; Central California continental margin

QUADRANGLE or AREA 34° 55.35'N > Santa Lucia Escarpment
121° 59.07'W

REGION (County, Province, or Sea) PACIFIC OCEAN

FOSSIL TYPES Diatoms, Radiolarian

LITHOSTRATIGRAPHIC UNIT(S) ?

FIELD LOCALITY NUMBER(S) D8-2 D8-8 D8-5 D8-9D(1)

DOMINANT LITHOLOGY, FOLLOWED BY MODIFIERS Mudstone

DETAILED LOCALITY DESCRIPTION
Water depth = @ 2500m
Base of Santa Lucia Escarpment approximately 100 km offshore of California, west of Pt. Arguello, CA.

LATITUDE	LONGITUDE
34° 55.35'N	121° 59.07'W

TOWNSHIP —

RANGE —

SECTION —

REMARKS (Statement of problem, information requested, urgency, etc.)
We require a paleontological age of the mudstone to constrain the age of the overlying Fe-Mn crusts and hydrothermal activity in the area. Any age information you can provide would be appreciated. We would like to obtain the information as soon as you can provide it.

☐ DISCARD
☒ RETURN Specimens or samples not desired by P&S

Signature of Chief of submitting ganization	Approved (Signature of Chief, Paleontology and Stratigraphy)
[signature]	

November 9, 1992

MS 915

TO: John Barron
FROM: Ann Gibbs/James Hein
RE: Samples for dating

Please date the enclosed 4 samples if possible. All samples are from cruise F6-87-NC, off the central California continental margin (Santa Lucia Escarpment), Lat. 34° 55.35' N, Long. 121° 59.07' W. They are most likely Miocene or younger.

Paula Quinterno found rare fragments of diatom hoops in sample D8-2 and rare fragments of diatoms and radiolarians in sample D8-9D(1). No calcareous nannofossils were found.

Samples enclosed:

D8-2
D8-5
D8-8
D8-9D(1)

We appreciate your help in this matter. If you have any questions, do not hesitate to contact me at x 3151.

Thank you

Ann E. Gibbs

To: Jim Hein/Ann Gibbs
From: John Barron
RE: Diatom analysis of samples

November 30, 1992

Four samples from cruise F6-87-NC off the central California margin (Santa Lucia Escarpment) at Lat. 34° 55.35'N, Long. 121° 59.07'W were processed for diatoms.

Unfortunately, diatoms were very rare or absent in the samples. Microscopic analysis revealed the following diatoms:

Sample D8-2
Sponge spicules
Thalassionema nitzschioides
Many organic fragments

Sample D8-5
Thalassiothrix longissima

Sample D8-8
Barren of diatoms

Sample D-8-9D(1)
Sponge spicules
Coscinodiscus marginatus
Actinocyclus ingens

The diatoms in Samples D8-2, D8-5, and D8-9D(1) indicate a Miocene or younger age. The clastic nature of the rocks and the rarity of diatoms suggests to me that these samples may be part of the Pliocene-Pleistocene turbidite cover that typically covers diatom-rich middle and upper Miocene rocks (Monterey Fm. equivalent) in the offshore regions of California.

November 5, 1992

To: Jim Hein
From: Paula Quinterno
Subject: Nannofossils (lack of) in F6-87-NC

These five samples are barren of calcareous nannofossils:

→ -D8-2 = fragments of diatom hoops (rare)

-D8-7

-D8-8

→ -D8-9D (1) MS in boxwork =fragment of diatom; fragments of radiolarians (all rare)

-D8-9D (2)

34 55.35 N
121 59.07 W
@ 2500m

JOHN BARON
MC - see if he can date diatoms

Try D8-5

~~D8-6~~ Mn dendrite

Another 8-8 w/out bwk

~~Another 8-7~~