

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH-1

Fathogram No. 1

Date 22 OCT 1957

Lat. 29° ~~25~~ 25.5' N

Station No. DWH-1

Long. 120° ~~30~~ 26.5' W

SAMPLERS. KRAUSE & WORRELL

Bathymetry 20 miles SW of cont. Slope

DEPTH

Echo 2148 Fm 3930
~~4020~~ M

TYPE OF SAMPLE

Correction 49 Corrected Echo 2197 Fm 4020 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm 4000 M

Triple Gravity _____

Total wire out _____ Fm 4000 M

Hydrographic PBS ✓

TIME: Start down 1706

Other _____

On bottom 1815

On deck ~1930

Description of sample DARK BROWN PELAGIC CLAY.

Length or size of sample 28 CM. preserved as 27 cm core +
a cutter sample. Top few centimeters lost in recovery of core.

Preservation Goldberg poured wax into bottom end of core.

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment,
recovery of equipment, other operations at station, etc.)

Sky partially overcast, wind slight, moderate swell. Two ballbreakers used
with a Blenko ball and a Japanese ball. Hydrocast normal though slow.

Ball breakers came up tangled in the wire.

DOWNWIND CORE LOG

Ship HORIZONSample No. DWHG-2Fathogram No. 1Date 23 OCT 57Lat. 26° 45.0' NStation No. DWH-2Long. 123° 00.0' W

Samplers _____

Bathymetry HillyDEPTHEcho 2283 Fm 4180 MTYPE OF SAMPLECorrection 55 Corrected Echo 2338 Fm 4230 M

Piston & Trip Gravity _____

Wire out at ball break ~~4220~~ Fm 4290 M

Triple Gravity _____

Total wire out ~~4294~~ Fm 4294 M

Hydrographic PBS _____

TIME: Start down 1938Other Single GravityOn bottom ~2000On deck 2111Description of sample Mud smears on lower 6" of core barrel -
dark brown pelagic clayLength or size of sample nonePreservation none

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Wind & sea calm, swell light, sky clear. No pullout was observed.
The ball breakers were not tripped. Mud smears only on lower
6" of barrel. Cutter edges were dented ~~at~~ little in a few places.
No explanation as to why there was no core nor trip. The instruments
were heard to hit the bottom. Possibly the bottom was too hard or
too steep to give good penetration.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH-3

Fathogram No. 1

Date 23 OCT 57

Lat. 26° 45' N

Station No. DWH-2

Long. 123° 00' W

Bathymetry Hilly

DEPTH

Echo 2085 Fm M

TYPE OF SAMPLE

Correction 47 Corrected Echo 2132 Fm 3900 M

Piston & Trip Gravity

Wire out at ball break ~~3965~~ Fm 3965? M

Triple Gravity

Total wire out Fm 4000 M

Hydrographic PBS ✓

TIME: Start down 2209

Other

On bottom 2245?

On deck

Description of sample NONE

Length or size of sample

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Wind 16 kt. slight swell. Clear skies. No ball break heard.

BALL BREAK OBSERVED. NO CORE BUT MUD TRACES ON
CORE NISE. See comments on DWHH-2

DOWNWIND CORE LOG

Ship HORIZON
Fathogram No. 1
Lat. 24° 22' N
Long. 125° 00' W
Bathymetry Hilly

Sample No. DWHH-4
Date 25 Oct 57
Station No. DWH-3
Samplers Worrell & Goldberg

DEPTH
Echo 2305 Fm 4220 M

TYPE OF SAMPLE

Correction 59 Corrected Echo 2364 Fm 4330 M

Piston & Trip Gravity _____ Wire out at ball break _____ Fm 4407 M

Triple Gravity _____ Total wire out _____ Fm 4407 M

Hydrographic PBS

TIME: Start down 1235 0406

Other _____

On bottom 1322 0522

On deck 0715

Description of sample Dark brown pelagic clay

Length or size of sample 54 cm. core + ~8 cm in red plastic container (nose sample)

Preservation Stored in cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Good ball break. Weather fair. Overcast. C¹⁴ water sample taken also.
Top of core is very disturbed.

DOWNWIND CORE LOG

X

Ship HORIZON

Sample No. DW.H-H-5

Fathogram No. 2

Date 28 Oct 57

Lat. 15-00 S

Station No. DWH-5

Long. 127-35 W

WORREL, GOLOBERG

Bathymetry subdued

DEPTH

Echo _____ Fm _____ M

TYPE OF SAMPLE

Correction _____ Corrected Echo _____ Fm 3907 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm _____ M

Hydrographic PBS

Other _____

TIME: Start down 1100
0300
? 1228
On bottom 10428
On deck 1515

Description of sample NONE

Length or size of sample _____

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

BALLS did not break - probably was water bottom.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH-7

Fathogram No. 2

Date 29 OCT 57

Lat. ~ 11° 51' N

Station No. DWHH-6

Long. ~ 128° 34' W

NORREL & KRAUSE

Bathymetry Subdued hills

DEPTH

Echo 2535 Fm M

TYPE OF SAMPLE

Correction 71 Corrected Echo 2606 Fm 4770 M

Piston & Trip Gravity

Wire out at ball break Fm 5050 M ?

Triple Gravity

Total wire out 2300 Fm 5300 M

Hydrographic PBS ✓

Other

TIME: Start down 11 40

On bottom 2145

On deck 10 50

Description of sample Top 10 cm = globegirina ooze - rest = Pacific red clay. A Mn nodule was found caught in the upper ball breaker.

Length or size of sample 67 cm. + a manganese nodule of about 25 cc.

Preservation A sample from above the core liner, a catcher sample, and the Mn nodule were each placed in plastic container. Stored in cooler with core.

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Light rain, heavy swell, little wind. Probably much wire on bottom. Wire was tangled near 3rd bottle from bottom (150m) Wire wrapped about 2nd bottle - bottle damaged. Bottom bottle pulled down to ball breakers. One ball broken - other ball chipped but unbroken (ie. both ~~the~~ b-b tripped).

(Reds brown ooze?)

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHT-8

Fathogram No. 2

Date 30 OCT 1957

Lat. 9° ⁰³ 25' N

Station No. —

Long. 129° 25' W

Bathymetry submerged hills

DEPTH

Echo 2470 Fm — M

TYPE OF SAMPLE

Correction 68 Corrected Echo 2538 Fm 4650 M

Piston & Trip Gravity —

Wire out at ball break — Fm 4460 M

Triple Gravity ✓

Total wire out — Fm 4470 M

Hydrographic PBS —

TIME: Start down 1320

Other —

On bottom 1440

On deck 1639

Description of sample Three long cores of ooze & Pacific red clay

Length or size of sample DWHT-8a = 78 cm, DWHT-8b = 75 cm, DWHT-8c = 84 cm.

Preservation DWHT-8a was extruded for Williams organic sample. DWHT-8b was specially handled for Goldberg. DWHT-8c was handled normally.

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

OVERCAST, LIGHT WIND, heavy swell. Core came in within 100 m. past zero mark = slippage of meter wheel. DWHT-8c has lost 5-10 cm of its top

DWHT 8c and HT 8b were found to be much longer than noted above.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWAH-9

Fathogram No. 2

Date 31 OCT 1957

Lat. 7° 15' ~~8-45~~ N

Station No. DWH-7

Long. 129-15 W

Bathymetry CLARION FRAC ZONE

DEPTH

Echo _____ Fm _____ M

TYPE OF SAMPLE

Correction _____ Corrected Echo _____ Fm 4340 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm _____ M

Hydrographic PBS ✓

TIME: Start down 0945

Other _____

On bottom 1115

On deck 1330

Description of sample NONE

Length or size of sample _____

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

NO BALL BREAK

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWH H-10

Fathogram No. 2

Date 2 Nov 1957

Lat. 3° ~~40~~ 20' N

Station No. DWH-8

Long. 130° 37' W

Bathymetry Subdued

DEPTH

Echo 2385 Fm M

TYPE OF SAMPLE

Correction 67 Corrected Echo 2449 Fm 4490 M 4575

Piston & Trip Gravity

Wire out at ball break Fm 4540 M

Triple Gravity

Total wire out Fm 4540 M

Hydrographic PBS ✓

TIME: Start down 0100

Other

On bottom 0230

On deck ~0345

Description of sample Pacific red clay & globigerina ooze.

Length or size of sample 63 cm.

Preservation stored in cooler.

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Excellent ball break. Clear skies, little wind, moderate swell.

cut

DOWNWIND CORE LOG

Ship Horizon

Sample No. DWHH-11

Fathogram No. 2

Date 3 Nov 57

Lat. 2-08 S

Station No. DWHH-9

Long. 131-28 W

Bathymetry subdued

DEPTH

Echo 2410 Fm 4410 M

TYPE OF SAMPLE

Correction 66 Corrected Echo 2476 Fm 4540 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm _____ M

Hydrographic PBS ✓

TIME: Start down 2151

Other _____

On bottom 2241

On deck 22400

Description of sample Globegirina ooze

Length or size of sample 57 cm.

Preservation Placed in reefer

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Clear sky, moderate swell/sea. Fair ball break.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH-12

Fathogram No. 3

Date 5 Nov 57

Lat. 6°02' S

Station No. DWH-10

Long. 131°36' W

Bathymetry subdued hills

DEPTH

Echo 2505 Fm 2470 M 4710

Correction 71 Corrected Echo 2512 Fm 4650 M

TYPE OF SAMPLE

Piston & Trip Gravity _____

Wire out at ball break _____ Fm 5051 M

Triple Gravity _____

Total wire out _____ Fm _____ M

Hydrographic PBS

Other _____

TIME: Start down 0630

On bottom 0830

On deck 0940

Description of sample Typical ferromagnesian-manganese chlorite with clay of south equatorial type.

Length or size of sample 63 cm.

Preservation Placed in cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Wind - 080° - 6½ kt, swell: heavy, sea: moderate, sky: clear.
The thick ball of Dr. Rabe straw did not break. It was punctured by the ball breaker & it filled with water (or vice versa).

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH-13

Fathogram No. 3

Date 6 Nov 57

Lat. 9° 59' S

Station No. DWH-11

Long. 133° 23' W

Bathymetry Submerged hills

DEPTH

Echo 2215 Fm _____ M

TYPE OF SAMPLE

Correction 56 Corrected Echo 2371 Fm 4340 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm 4244 M

Triple Gravity _____

Total wire out _____ Fm _____ M

Hydrographic PBS

Other _____

TIME: Start down 1410

On bottom 1500

On deck 1630

Description of sample Calcareous (Globégerine 60%) over typical ferruginous-manganous chocolate clay of south equatorial type.

Length or size of sample 50 cm

Preservation In cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

cut

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH-14

Fathogram No. 3

Date 8 Nov 1957

Lat. 14° 28' S

Station No. DWH-12

Long. 135° 29' W

Bathymetry Hills & filled basins

DEPTH

Echo 2370 Fm M

TYPE OF SAMPLE

Correction 61 Corrected Echo 2401 Fm 1400 M

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm M

Hydrographic PBS

TIME: Start down 0210

Other

On bottom 0300

On deck 0445

Description of sample Dark chocolate brown calcareous clay -
ferruginous & manganeous typical south equatorial type

Length or size of sample 47 cm.

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Good ball break - moderate swell & drift.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHD-15

Fathogram No. 3

Date 8 Nov 57

Lat. 15° 23' S

Station No. -

Long. 136° 18' W

Samplers. KRAUSS & Mohrhans

Bathymetry Irregular

DEPTH

Echo 2380 Fm M

Correction 64 Corrected Echo 2444 Fm 4482 M

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm 5500 M

Hydrographic PBS

TIME: Start down 1900

Other Rock Dredge

On bottom

On deck 0130

Description of sample Manganese covered rocks. The rocks are white pumice, sharp edges, 1-5 cm, more or less rectangular. The average is brownish black, fine grained, 3 1/2 mm. thick.

Length or size of sample 10 lbs of pebbles

Preservation Gunny sack.

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Wind, rain, confused sea. The cable was let out at standard speed to 4400 m - then 4500 m. After 4500 m. it was paid out at about 10 m./min. This was too slow. We got under way at 30 rpm & paid it out at 30-50 m./min. At 2130, we had 5500 m out. We stopped the winch & continued w/w. We had 1/2 hr drift. We dredged for 1/2 hr. The accumulator head about 20". At 2200, we stopped the ship & began taking in the wire at about 15 m per minute. At about 5100 m. the accumulator showed relief pt strain to about "15" which occasional jumps. At 4900 m. we increased the winch speed to 40 m. per min. At 2345, the dredge was clear of the bottom. Brindley's net was placed at 2500 m.

DOWNWIND CORE LOG

Ship HORIZON
 Fathogram No. 4
 Lat. 16° 29' S
 Long. 145° 33' W
 Bathymetry GUYOT-

Sample No. DWHD-16
 Date 12 Nov 57
 Station No. —

DEPTH

Echo 680 Fm 1240 M
 Correction 15 Corrected Echo 695 Fm 1270 M ^{850 Fm} ₁₃₅₀

TYPE OF SAMPLE

Piston & Trip Gravity _____
 Triple Gravity _____
 Hydrographic PBS _____
 Other DREDGE

Wire out at ball break _____ Fm _____ M
 Total wire out _____ Fm _____ M ^{1600 m.}

TIME: Start down 19:50
 On bottom 20:25
 On deck 23:00

Description of sample 1000 lbs. of Manganese nodules & coral
Manganese nodules vary from golf-ball size to foot size. Biggest
piece of coral about 100 lbs.

Length or size of sample 500 lbs.

Preservation 7 gunny sacks plus explosives bag with pipe dredge sample

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Drifted north along 610 fathom contour at break in slope of guyot.
Dredge had 50% scope. Hung up once at 2045 - broke free with
winch let out 50 m again to 1450 m. Hung up shortly
again. Winch would not break it free at 1250 m. Manuevered with
ship upwind twice. Dredge finally broke free - 1600 m of wire
out then.

623-710 fm

1120-1300 m.

DOWNWIND CORE LOG

Ship HORIZONSample No. DWAG-17Fathogram No. 4Date 15 NOV 1957Lat. 16° 47' SStation No. —Long. 178° 29' WKRAUSEBathymetry PLAINDEPTHEcho 2228 Fm — MTYPE OF SAMPLECorrection 56 Corrected Echo 2284 Fm 4200 MPiston & Trip Gravity —Wire out at ball break — Fm 4200 MTriple Gravity —Total wire out — Fm 4500 MHydrographic PBS —Other SINGLE GRAVITYTIME: Start down 0735On bottom 0805On deck —Description of sample Chocolate brown silt & clay with forams
& manganese.Length or size of sample 69 cmPreservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

At 3900 m. The wire jumped the sheave & the ballbreakers tripped.At ~~390~~ 4200m. The winchman saw the wire slacken (though I
didn't know this - no ball break.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-18

Fathogram No. 4

Date 19 Nov 1957

Lat. 19° 21' S

Station No. DWH-

Long. 149° 20' W

Bathymetry Fault graben

DEPTH

Echo 2272 Fm M

TYPE OF SAMPLE

Correction 54 Corrected Echo 2330 Fm 4260 M

Piston & Trip Gravity

Wire out at ball break Fm 4595 M

Triple Gravity

Total wire out Fm 4595 M

Hydrographic PBS

Other ✓

TIME: Start down 2243

On bottom 2305

On deck ~2400

Description of sample a few sand grains

Length or size of sample

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

About a 45° wire angle. The gravity core hit something hard on the bottom, bent the center.

Cut

DOWNWIND CORE LOG

Ship HORIZON
Fathogram No. 4
Lat. 19° 20' S
Long. 149° 20' W
Bathymetry _____

Sample No. DWHH-19
Date 20 Nov 1957
Station No. DWH-14

DEPTH

Echo 2060-1770 Fm _____ M

TYPE OF SAMPLE

Correction _____ Corrected Echo 2100 Fm 3860 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm _____ M

Hydrographic PBS

TIME: Start down 0300

Other _____

On bottom 0435

On deck 0700

Description of sample FORAM. SAND-SILT-CLAY WITH
GIND STRATIFICATION, DARK PYROCLASTICS AND
FILMS INTERL. CORDED AT TWO LEVELS

Length or size of sample 47 cm.

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

MUCKED UP. CORE BARREL CAME TO SURFACE
UPSIDE DOWN, WATER POCKETS AT 2 LEVELS.

maybe artifact?

DOWNWIND CORE LOG

Ship HORIZON
 Fathogram No. 4
 Lat. 119° 36'S
 Long. 149° 21'W
 Bathymetry Fault craters

Sample No. DWHG-20
 Date 20 Nov 1957
 Station No. —

KEAUSE'S
DEPTH

Echo 2478 Fm — M

TYPE OF SAMPLE

Correction 70 Corrected Echo 2549 Fm 46.70 M

Piston & Trip Gravity — Wire out at ball break — Fm — M

Triple Gravity — Total wire out — Fm — M

Hydrographic PBS —

TIME: Start down 0920

Other GRAVITY

On bottom ~1000

On deck —

Description of sample Chocolate brown clay

Length or size of sample 110 cm

Preservation —

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Cloudy cover, 20 kt wind, moderate swell.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHD-21

Fathogram No. 4

Date 20 Nov 1957

Lat. 19° 40' S

Station No. -

Long. 149° 10' W

KRAUSE & HORNHAUS

Bathymetry GRAVEN & HORST

DEPTH

Echo 2480 Fm M

TYPE OF SAMPLE

Correction 70 Corrected Echo 2550 Fm 4670 M

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm 5597 M

Hydrographic PBS

Other ROCK DREDGE

TIME: Start down 1230

On bottom 1350 Surge out: 1430

On deck 1800

Description of sample 3 freezer boxes of chocolate mud from pipe dredge

Length or size of sample

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Cloudy, heavy swell, wind. At beginning, counter did not work - repaired. 5597 m let out. At 5650 m, had unlaying. Many individual small str. ls broken logs. 5600 m, because of wire digging into spool. 1530 h - started in. 250 m. of wire are kinked. Nothing in dredge - bag had come out top. Pipe dredge has 3 freezer boxes of chocolate mud

DOWNWIND CORE LOG

Ship Horizon

Sample No. DWHG-22

Fathogram No. 4

Date 21 Nov 1957

Lat. 21° 26' S

Station No. _____

Long. 148° 21' W

Bathymetry Hilly

DEPTH

Echo 2380 Fm _____ M

TYPE OF SAMPLE

Correction 64 Corrected Echo 2444 Fm 4472 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm 4650 M

Triple Gravity _____

Total wire out _____ Fm 4650 M

Hydrographic PBS _____

Pull out _____ 4565 m-

Other GRAVITY

TIME: Start down 0530

On bottom 0600

On deck ~ 0715

Description of sample Smear on core cutter - black

Length or size of sample None

Preservation None

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Drizzle moderate sea, low wind. Deck might have
broken ~~when~~ because ~~it~~ which was stopped at 4650 m. Net tow = 75 min.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-23

Fathogram No. 4

Date 22 Nov 1957

Lat. 24° 19' S

Station No.

Long. 145° 22' W

KRAUSIG & HORNBAUS

Bathymetry Submerged

DEPTH

Echo 2445 Fm M

TYPE OF SAMPLE

Correction 67 Corrected Echo 2512 Fm 4600 M

Piston & Trip Gravity

Wire out at ball break Fm 4709 M

Triple Gravity

Total wire out Fm 4709 M

Hydrographic PBS

Pullout 4687

Other GRAVITY

TIME: Start down 1035

On bottom 1100

On deck 1205

Description of sample chocolate brown clay

Length or size of sample 88 cm + cutter sample

Preservation cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Good ball break - good wire slack - good pullout. Rain, low wind, moderate swell.

DOWNWIND CORE LOG

Ship Horizon
Fathogram No. 4
Lat. 24° 56 S
Long. 145° 00' W
Bathymetry Hilly but subdued

Sample No. DWHH 24
Date 23 NOV 1957
Station No. DWH-15

DEPTH

Echo 2320 Fm M

TYPE OF SAMPLE

Correction 60 Corrected Echo 2380 Fm 4350 M

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm 7900 M

Hydrographic PBS

TIME: Start down

Other

On bottom 0250

On deck

Description of sample Typical South Pacific Chocolate
Brown clay

Length or size of sample 22 cm + cutter sample

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Shallow & deep hydro cast, C¹⁴ sample, net tow

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWA D-25

Fathogram No. 4

Date 23 Nov 57

Lat. 25° 50' S

Station No. —

Long. 144° 29' W

KRAUSE & HORNHAUSE
DEPTH

Bathymetry PLAIN WITH HILLS

Echo 2270 Fm — M

TYPE OF SAMPLE

Correction 58 Corrected Echo 2328 Fm 4260 M

Piston & Trip Gravity —

Wire out at ball break — Fm — M

Triple Gravity —

Total wire out — Fm 5233 M

Hydrographic PBS —

5200-End of good wire

Other DREDGE

TIME: Start down 1224

On bottom 1335

STARTED DREDGING 1430

On deck 1810

STARTED IN 1530

Description of sample 1 specimen of rounded pumice (Pleistocene)

glacial? - probably rounded on some beach or river - then flattened here
- no Mn coating + 1 specimen of a Mn-coated

shark's tooth about 1 inch long. Also pipe dredge full of

Length or size of sample mud. Mud fills 3 freezer boxes - specimens

fill one. Specimen found in chain bag dredge

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

OVERCAST, MODERATE SWELL. NO LARGE STRAINS

DOWNWIND CORE LOG

Ship HORIZON
Fathogram No. 5
Lat. 28° 34' S
Long. 143° 48' W
Bathymetry Flat

Sample No. DWHG-26
Date 24 Nov 57
Station No. KRAUSE & HOLLNAGS
DEPTH
Echo 2260 Fm M

TYPE OF SAMPLE
Piston & Trip Gravity
Triple Gravity
Hydrographic PBS
Other GRAVITY

Correction 57 Corrected Echo 2317 Fm 4240 M 1.83
Wire out at ball break Fm 4360? M
Total wire out Fm 4600 M
Pull out 4495
TIME: Start down 2310
On bottom 2340
On deck ~ 0045

Description of sample Chocolate clay with calcareous siliceous concretions near surface.

Length or size of sample 110cm

Preservation Cooler + Core case sample.

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

OVERCAST, HEAVY SWELL, FAIR DRIFT. No ball break.
Possible wire slackening. Good pull out. 75 m. of wire
tangled

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DW HH-27

Fathogram No. 5

Date 26 NOV 1957

Lat. 29° 55' S

Station No. 16

Long. 140° 05' W

WORRELL & GOLDBERG
DEPTH

Bathymetry Plain & hills

Echo 2325 Fm M

TYPE OF SAMPLE

Correction 61 Corrected Echo 2386 Fm 1360 M

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm M

Hydrographic PBS ✓

TIME: Start down 0440

Other

On bottom ~~135~~ 545

On deck

Description of sample Chocolate clay with whitish
(sedimentary) material at surface. Bram says that
coccolith ooze at 0-2 cm is Upper Eocene

Length or size of sample Cooler + core nose sample + some
material that auto-extruded from bottom 48 cm.
Total length → 48 cm.

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Small Mn nodule at bottom of plastic box
containing core nose material.
core nose material

The box containing the auto-extruded "catcher sample" also contains
two 1-cm. manganese nodules

DOWNWIND CORE LOG

Ship M/V HORIZON

Sample No. DWH D-28

Fathogram No. 5

Date 26 Nov 1957

Lat. 29° 56' S

Station No. DWH-16

Long. 140° 04' W

HANN HAUS & KRAUSE
DEPTH

Bathymetry HILLS & PLAIN

Echo 2320 Fm M

TYPE OF SAMPLE

Correction 60 Corrected Echo 2380 Fm 4350 M

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm 5207 M

Hydrographic PBS

TIME: Start down

Other ROCK DREDGE

On bottom ~ ~~0800~~ 0800

Start up ~ 1000

On deck

Description of sample A little foram ooze in pipe dredge

Length or size of sample

Preservation cooler in freezer bag

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Heavy (15') swell. Moderate wind. scattered clouds.

DOWNWIND CORE LOG

Ship M/V HORIZON

Sample No. DWHG-29

Fathogram No. 5

Date 27 Nov 1957

Lat. 33° 25' S

Station No. —

Long. 137° 13' W

KRAUSE & JOHNSON

Bathymetry PLAIN, DEEP

DEPTH

Echo 2505 Fm — M

TYPE OF SAMPLE

Correction 69 Corrected Echo 2574 Fm 4710 M

Piston & Trip Gravity —

Wire out at ball break — Fm 4880 M

Triple Gravity —

Total wire out — Fm 4880 M

Hydrographic PBS —

TIME: Start down 1305

Other GRAVITY

On bottom 1335

On deck 1845

Description of sample NONE

Length or size of sample —

Preservation —

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

PARTLY CLOUDY - 18 KT WIND - HEAVY SWELL

At 1345, the winch was stopped - smoke was pouring out of the reostat. Repairs were commenced. The core came on deck at 1645 - ball was not broken. Probably meter wheel on winch reads long. NO CORE PROBABLY DID NOT HIT BOTTOM.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWH H-30

Fathogram No. 5

Date 23 Nov 1957

Lat. 34° 46'

Station No. DWH 17

Long. 135° 53'

Bathymetry DEEP PLAIN & HILLS

DEPTH

Echo _____ Fm _____ M

TYPE OF SAMPLE

Correction _____ Corrected Echo _____ Fm 4260M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm _____ M

Hydrographic PBS

TIME: Start down _____

Other _____

On bottom 10 20

On deck _____

Description of sample NOTHING - DID NOT HIT BOTTOM

Length or size of sample _____

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

1.134 * depth = meter reading depth.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-31

Fathogram No. 5

Date 28 Nov 57

Lat. 35° 11' SOUTH

Station No. —

Long. 135° 32' WEST

Bathymetry HILLS

DEPTH

Echo 2500 + Fm — M Meter

Correction 69 Corrected Echo 2569 Fm 4700 M 5340

TYPE OF SAMPLE

Piston & Trip Gravity —

Wire out at ball break — Fm 5890"

Triple Gravity —

Total wire out — Fm 5890"

Hydrographic PBS —

^{2530 + 70} ^{2600 = 760} ¹⁹ "5830 - 5840"
¹⁹ (6014.5 ft)
TIME: Start down 0710

Other GRAVITY

On bottom 0750

On deck 2150

Description of sample One Mn nodule - Mn crust
about obsidian(?) core

Length or size of sample —

Preservation Cooler in refrigerator box

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

43° wire angle - moderate wind & swell. Apparently
fast current. Good ballbreak. Fair pull out. (Could it
have)

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWH 52

Fathogram No. 5

Date 30 Nov 1957

Lat. 40° 33' S

Station No. 18

Long. 131° 50' W

Bathymetry Hills

DEPTH

Echo 2660 Fm _____ M

Correction 76 Corrected Echo 2736 Fm 5010 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm _____ M

6487.

Hydrographic PBS

TIME: Start down _____

Other _____

On bottom 2155

On deck _____

Description of sample _____

This does not seem to be a sample W.R.R. 7 Jul 58

Length or size of sample _____

Shipped by dense conglomeration of clay and Mn nodules

Preservation ?

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

DOWNWIND CORE LOG

Ship HORIZON
 Fathogram No. 6
 Lat. 42° 14' SOUTH
 Long. 129° 52' WEST
 Bathymetry Submerged hills

Sample No. DWHG-33
 Date 1 Dec 1957
 Station No. _____

KRAUSE & SONNHAUS
DEPTH

Echo 2700 Fm _____ M

TYPE OF SAMPLE

Correction 78 Corrected Echo 2778 Fm 5130 M 5820

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out 3570 Fm Fm 6530 M 7412
21,400 FT

Hydrographic PBS _____

TIME: Start down 1510

Other GRAVITY

On bottom 1550

On deck _____

Description of sample NONE

Length or size of sample _____

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

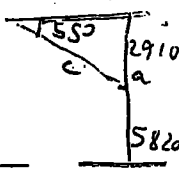
55° wire 4-

$$\frac{a}{c} = \cos 55$$

$$c = \frac{a}{\cos 55} = \frac{5080}{.5736} = 8856$$

$$c - a = 8856 - 5080 = 3776$$

$$7970 - 7500 = 470$$



60.39. The wire was put down twice. The first time the wire 4 was 55° we let out as much wire as we could (7412m-on meter wheel) Wire broke at shieve

DOWNWIND CORE LOG

Ship Horizon

Sample No. DWITG - 34

Fathogram No. 6

Date 2 DEC 1957

Lat. 44° 13' S

Station No. —

Long. 127° 20' W

KRAUSE & HORNHAUS

Bathymetry Gubbred hills

DEPTH

Echo 2500 Fm 4600 M 5220 ^{corr}

Correction 6 f Corrected Echo 2564 Fm 4760 M 5400

TYPE OF SAMPLE

Piston & Trip Gravity

Wire out at ball break Fm M 5541

Triple Gravity

Total wire out Fm M 5541

Pull out 5532

Hydrographic PBS

TIME: Start down 0945

Other GRAVITY

On bottom 1015

On deck 1105

Description of sample ~~Catamaran~~ Light grey to white ooze with Forams. Ooze composition unknown. Two small manganese nodules on top of core.

Length or size of sample 118 cm + cutter sample

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Low wind, partially cloudy, heavy swell. Steamed on station. CO₂ expt. 35-45 wire 4. Fair ball break - good pull out

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH-35

Fathogram No. 6

Date 2 DEC 1957

Lat. 44° 21' S

Station No. DWH-17

Long. 127° 14' W

WORKALLEY COSTELLO

Bathymetry SUBMERGED HILLS

DEPTH

Echo 2490 Fm _____ M

Correction 64 Corrected Echo 2554 Fm 4675 M

TYPE OF SAMPLE

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm _____ M

Hydrographic PBS ✓

TIME: Start down _____

Other _____

On bottom 22-2300

On deck _____

Description of sample TAN TO LIGHT TAN SOFT CLAY WITH FORAMS.

Length or size of sample 58 cm.

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

PRE TRIP CAST

DOWNWIND CORE LOG ^{Midships wind}

Ship HORIZON
Fathogram No. 6
Lat. 45° 30' S
Long. 119° 50' W
Bathymetry ?

Sample No. DWH G-36
Date 6 DEC 1957
Station No. DWH-19A

DEPTH

Echo 2015 Fm M

Correction 46 Corrected Echo 2061 Fm 3770 M

TYPE OF SAMPLE

Piston & Trip Gravity
Triple Gravity
Hydrographic PBS
Other GRAVITY

Wire out at ball break Fm ? M
Total wire out Fm 4100 M
Pull out 3980

TIME: Start down 1715
On bottom 1745
On deck ~1900

Description of sample WHITE OOZE - GLOBIGIRINA

Length or size of sample 112 cm.

Preservation COOLER

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

HEAVY SWELL - HIGH WIND. STEAMED ON STA - GOOD WIRE & GOOD PULLOUT. NO BALL BREAK. ABOUT 25 meters OF TANGLED WIRE

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-37

Fathogram No. 6

Date 7 DEC 1957

Lat. 46° 03' S

Station No. —

Long. 116° 11' W

Bathymetry WEST FLANK OF
EASTER ISLAND RISE

DEPTH

Echo 1790 Fm 3275 M

Correction 34 Corrected Echo 1824 Fm 3340 M

TYPE OF SAMPLE

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm 3508 M

Hydrographic PBS _____

Pull out 3493

Other GRAVITY

TIME: Start down 1015

On bottom 1100

On deck 1200

Description of sample CORE LOST -

Length or size of sample _____

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Heavy swell. Moderate wind. Steaming on station.

WINCH WAS NOT REPAIRED. WAITED AN HOUR.

CORER CAME UP WITH VALVE BROKEN. CORE LOST

BT WINCH BROKE OFF DUE WATER COMING OVER SIDE.

ONE READY BOX BROKE LOOSE. NO ball break. Good wire

slack. Fair pull out

DOWNWIND CORE LOG

Ship HORIZONSample No. DWHG-37'Fathogram No. 6Date 7 DEC 1957Lat. 46°03' SStation No. Long. 116°11' WBathymetry EASTER ISLAND RISEDEPTHEcho 1823 Fm MCorrection 34 Corrected Echo 1857 Fm 3400 MPiston & Trip Gravity Wire out at ball break Fm 37 MTriple Gravity Total wire out Fm 3700 MHydrographic PBS Other GRAVITYTIME: Start down 1215On bottom 1245On deck 1400

Description of sample Layered globagirina ooze. May show distinct evidences of turbidity currents very soapy at top. Grades from light grey to tan at base. large forams.

Length or size of sample 150 cm.Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

HEAVY SWELL, HIGH WIND. STEAMED ON STA. No ball break heard. ~~Poor~~ No pull and noted. No wire slack noted. Wire came up tangled at 124 m.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-38

Fathogram No. 6

Date 7 DEC

Lat. 46° 20' S

Station No. —

Long. 114° 19' W

Krause & Johannaus

Bathymetry West flank of
Rader Island Rise

DEPTH

Echo 7480 Fm — M

TYPE OF SAMPLE

Correction 25 Corrected Echo 1505 Fm 2750 M

Piston & Trip Gravity —

Wire out at ball break — Fm 2860 M?

Triple Gravity —

Total wire out — Fm 2891 M

Hydrographic PBS —

Pull out

2874

Other GRAVITY

TIME: Start down 2105

On bottom 2130

On deck 2215

Description of sample BUT NO CORE

Length or size of sample —

Preservation —

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Heavy swell - ^{heavy} moderate wind. Steaming on sta. No ball break heard. Slight wire slack. Core pull out

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-38'

Fathogram No. 6

Date 7 DEC

Lat. 46° 20'

Station No. —

Long. 114° 19'

KRAUSE & HORNBAUS

Bathymetry West Flank of Easter Island keel

DEPTH

Echo ~1515 Fm — M

TYPE OF SAMPLE

Correction 27 Corrected Echo 1542 Fm 2820 M

Piston & Trip Gravity —

Wire out at ball break — Fm — M

Triple Gravity —

Total wire out — Fm 3000 M

Hydrographic PBS —

pull out 2981

Other gravity

TIME: Start down 22 20

On bottom 22 35 ?

On deck 23 45

Description of sample NONE

Length or size of sample —

Preservation —

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Same as DWHG-38. Apparently bottom is very soupy or very sandy. Core apparently slips out on way to surface.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-39

Fathogram No. 6

Date 8 DEC 1957

Lat. ~ 46° 35' S

Station No. DWH-20

Long. ~ 113° 10' W

KRAUSE & HONNHARDT

Bathymetry CREST OF EASTER IS. RISE

DEPTH

Echo 1470 ⁻²⁵⁵⁰ Fm M

TYPE OF SAMPLE

Correction 25 ⁻²⁸ Corrected Echo 1495 ¹⁵⁷⁸ Fm 2730 ⁻²⁸⁹⁰ M

Piston & Trip Gravity

Wire out at wire slack ball break Fm 2901 M

Triple Gravity

Total wire out Fm 2901 M

Hydrographic PBS

TIME: Start down 0935

Other GRAVITY

On bottom 0955

On deck 1045

Description of sample NONE

Length or size of sample

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

HEAVY SWELL & WIND. STRAM ON STA. NETTOW (1 1/2 Ls)
& Hydro CASE (SHALLOW). GOOD WIRE SLACK. NO(?) MUTICENS
PULL OUT. NO CORE

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-39'

Fathogram No. 6

Date 8 DEC 1957

Lat. 46° 39' S

Station No. DWH-20

Long. 113° 25' W

CREATED BY DOWNWIND

Bathymetry CREST OF EASTERN IRISE

DEPTH

Echo 1470-1550 Fm M

Correction 25-28 Corrected Echo 1495-1570 Fm 2130-2890 M

TYPE OF SAMPLE

Piston & Trip Gravity

Wire out at ball break 2 Fm ~~3245~~ M

Triple Gravity

Total wire out Fm 3245 M

Hydrographic PBS

Other GRAVITY

TIME: Start down 1100

On bottom 1125

On deck ~1300

Description of sample NONE - MANGANESE SMEAR
ON CORE BARREL

Length or size of sample

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

HEAVY SWELL & HIGH WIND. STEAM ON STATION.
A COUPLE OF WIRE SLACKS. A GOOD ONE AT 3245 M.
ON STARTING UP, THE METER WHEEL STOPPED. FIXED. JERKING
OF WIRE SHOWED CORE DRUG ALONG BOTTOM TO 2950 M.
WIRE TANGLED AT 420 M. & ~100 M. WEIGHT STAND CAME IN
WITH ONE WELD ~~BAR~~ BROKEN, BRIDLE BENT, CORE CUTTER LOST.
CORE LOST (IF WE EVER HAD ONE) - BOTTOM IS ROCKY.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-40

Fathogram No. 6

Date 9 DEC 1957

Lat. 46° 23' S

Station No. —

Long. 112° 37' W

KEAUSE & HORNHAUS

Bathymetry CREST OF FEASTER IS
RISE

DEPTH 545 - 28

Echo 1450 Fm 2860 M

TYPE OF SAMPLE

Correction 25 Corrected Echo 1475 Fm 2700 M

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm 3050 M

Hydrographic PBS

TIME: Start down 1210

Other GRAVITY CORE

On bottom 1300 ±

On deck

Description of sample AT LEAST A FEW CM, IF NOT
MORE, OF TOP LOST.

Length or size of sample 182 cm + cutter sample

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

HEAVY SWELL. ~~MADE~~ STRONG WIND. METER WHEEL ~~HAVE~~ DID

NOT WORK AT FIRST. CORE BROUGHT UP FROM ~300 M.

& SENT DOWN AGAIN. NO BALL BREAK AT 2900 M. DEPTH TESTED-

FOUND DEEPER. CORER SENT TO 3050 M. NO BALL BREAK

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DW H G - 41

Fathogram No. 6

Date 9-10, DEC. 1957

Lat. ~ 45° 13' S

Station No. _____

Long. ~ 112° 25' W

Williams, Worrall, Brinton

Bathymetry CREST OF EASTER IS. RISE

DEPTH

Echo 1330 Fm _____ M

TYPE OF SAMPLE

Correction 21 Corrected Echo 1351 Fm 2470 M

Piston & Trip Gravity KE

Wire out at ball break _____ Fm 2692 M

Triple Gravity _____

Total wire out _____ Fm 2692 M

Hydrographic PBS _____

TIME: Start down 2330

Other Gravity

On bottom 0015

On deck 0040

Description of sample _____

Black igneous chips - obsidian chips

Length or size of sample _____

c.A. 5 gms.

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Routine

Ballbreak observed on PDR Trace

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWH D-42

Fathogram No. 6

Date 10-11 DEC 57

Lat. ~ 44° 18' S

Station No. END OF SEISMIC STA

Long. ~ 109° 32' W

No 13
KAUF 9 / GOLDBERG

Bathymetry EAST FLANK OF
EASTER IS RISE

DEPTH 1669 (± 6 TNT) - 12 inch Fuse
Fm M

TYPE OF SAMPLE

Correction 50+32 Corrected Echo 1750 Fm 3210 M

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm 4300 M

Hydrographic PBS

TIME: Start down 2015

Other DREDGE

On bottom 2130

Start dredging 2225

On deck 0145

Description of sample 2 small rocks (ice rafted) covered
with thin manganese stain.

Length or size of sample

Preservation Freezer box ?

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Rocky area
High swell (4-5) - low wind. DEPTH 3270 m at 2130h. Same
at 2225 h. Towed under power - good wire angle -
occasional jerks

Cut

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-43

Fathogram No.

Date 11 DEC 57

Lat. ~ 44° 18' S

Station No. -Bredge DWH D-42

Long. ~ 109° 30' W

KRAUSE & Brinton

Bathymetry EAST FLANK OF
EASTER I. RISE

DEPTH

Echo 1633 Fm M

TYPE OF SAMPLE

Correction 83 Corrected Echo 1716 Fm 3140 M

Piston & Trip Gravity

Wire out at ball break Fm ~~3482~~ M

Triple Gravity

Total wire out Fm 3482 M

Hydrographic PBS

Pull out

3450

Other Gravity

TIME: Start down 0215

On bottom 0235

On deck 0435

Description of sample Light tan globigerina ooze with
fine clay and v. fine dark rock fragments.

Length or size of sample 98 cm.

Preservation Cooler.

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

MODERATE SWELL, LOW WIND, 52° F. NO BALLBREAK -
V. POOR WIRE SLACK. Good pull out.

DOWNWIND CORE LOG

Ship Horizon
 Pathogram No. 6
 Lat. 44° 04' S
 Long. 107° 59' W
 Bathymetry _____

Sample No. DW HG 44
 Date 11 DEC 1957
 Station No. _____

DEPTH

Echo 1790 Fm 3280 M

Correction 40 Corrected Echo 1830 Fm 3420 M

TYPE OF SAMPLE
 Piston & Trip Gravity _____
 Triple Gravity _____
 Hydrographic PBS _____
 Other GRAVITY

Wire out at ball break _____ Fm 3530 M
~~Total wire out~~ Fm 3571 M
PULLOUT
TOTAL WIRE OUT 3580

TIME: Start down 1010
 On bottom 1040
 On deck 1125

Description of sample Calcareous ooze. Possible stratification in upper layers. Little differentiation of color in lower levels.

Length or size of sample 151 cm

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-45

Fathogram No. 6

Date 11 DEC 1957

Lat. 43° 55' S

Station No. —

Long. 106° 20' W

KRAUSE, HOHNHAUSE

Bathymetry EAST FLANK OF
EASTER IS RISE

DEPTH

Echo 1877 Fm — M

TYPE OF SAMPLE

Correction 38 Corrected Echo 1915 Fm 3500 M

Piston & Trip Gravity —

Wire out at ball break — Fm 3696 M

Triple Gravity —

Total wire out — Fm 3696 M

Hydrographic PBS —

Pull out

3686

Other GRAVITY

TIME: Start down 1805

On bottom 1830

On deck ~ 1730

Description of sample Tan ooze

Length or size of sample 160 cm.

Preservation —

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Swell building up, high cold wind. Good ball break & pull out

DOWNWIND CORE LOG

Ship Horizon
 Pathogram No. 6
 Lat. 43° 51' S
 Long. 105° 24' W
 Bathymetry Hilly

Sample No. DWH 44
 Date 12 Dec 1957
 Station No. DWH-21

DEPTH

Echo 1940 Fm _____ M

TYPE OF SAMPLE

Correction 41 Corrected Echo 1981 Fm 3627 M

Piston & Trip Gravity _____ Wire out at ball break _____ Fm 3750 M

Triple Gravity _____ Total wire out _____ Fm 4060 M

Hydrographic PBS ✓

TIME: Start down _____

Other _____

On bottom ~0345

On deck _____

Description of sample Carbonaceous ooze calcareous?

Length or size of sample 63cm

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHD-47

Fathogram No. 6

Date 13 DEC 1957

Lat. 41° 59.5 S

Station No.

Long. 102° 00.5 W

Bathymetry Hilly

DEPTH

Echo 2220 Fm M

TYPE OF SAMPLE

Correction 52 Corrected Echo 2272 Fm 4160 M

Piston & Trip Gravity

Wire out at ^{bottom} ball break Fm 3900 M

Triple Gravity

Total wire out Fm 5100 M

Hydrographic PBS

TIME: Start down 0800

Other DREDGE

On bottom 0915
Stopped paying out 1015
On deck 1515

Description of sample About 15 kilos of manganese nodules ranging from marble sized to plate sized. Most are about the size of golf balls. The nodules are crumbly

Length or size of sample 15 kilos

Preservation Stored in gunny sack in magazine

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Moderate wind & swell, low temperature, mist & fog. Min depth at 0945 h of 1910 Fm. At 1030 h, depth = 2040 Fm. The dredge hung up hard while bringing it in. So at 4434 m, we let out wire again to 5100 m and at the same time tried to bring the ship into the wind. The ship was then stopped and wire brought in again. At about 4550 m, the brake on the

(OVER)

1954 - 2085 fms } True depth
3580 - 3830 " }

topping lift started to slip. The big sheave slowly fell toward the deck. The ~~wire~~ small ~~chain~~ chain holding the pipes to the sheave broke on the whole affair fell almost to the deck. Apparently, this violent motion broke the dredge loose. The topping lift was started, and the sheave was pulled up about halfway to the top of the A-frame and the big winch again took in wire.

The dredge came up with its bale bent up and one side of the dredge bent out.

CORE DWAG-48 Taken here.

Much of what is accomplished on this cruise is due to the diligence, intelligence and experience of George Hohnhaus. He should be encouraged to stay on with Scripps. He is invaluable in the position of rigging equipment & knowing what to do with it at sea. This is exactly what most sea going scientists do not know.

DKK.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWKG-48

Fathogram No. 6

Date 13 DEC 1957

Lat. 42° 00' S

Station No. Dredge - DWKD-47

Long. 102° 00' W

Kranse & Hohenhaus

Bathymetry Hilly

DEPTH

Echo 2260 Fm M

TYPE OF SAMPLE

Correction 54 Corrected Echo 2314 Fm 4240 M

Piston & Trip Gravity

Wire out at ball break Fm 4280 M

Triple Gravity

Total wire out Fm 4280 M

Hydrographic PBS

Pull out 4275

Other Gravity

TIME: Start down 1520

On bottom 1550

On deck 1705

Description of sample Chocolate clay grading to dark chocolate at base. Top is largely globigerina ooze. M. & dark sds out top of core

Length or size of sample 136 cm.

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Moderate swell & wind. Sunny. Ball breaker's core came up tangled in about 3m of wire.

DOWNWIND CORE LOG

Ship HORIZON
Fathogram No. 6
Lat. 42° 02' S
Long. 98° 01' W
Bathymetry HILLS.

Sample No. DWHT-49A,B,C
Date 14 DEC 1957
Station No. _____

DEPTH

Echo 2313 Fm _____ M

Correction 60 Corrected Echo 2373 Fm 4350 M

TYPE OF SAMPLE

Piston & Trip Gravity _____

Wire out at ball break _____ Fm 4380 M

Triple Gravity _____

Total wire out _____ Fm 4383 M

Pullout

Hydrographic PBS _____

TIME: Start down 0835

Other _____

On bottom 1010

On deck 1200

Description of sample Dark chocolate brown manganese
clay of typical south Pacific type, about 50 cm of
core "B" auto extruded.

Length or size of sample A = 130 cm.

B = 82 cm + cutter sample 1

Preservation C = 136 cm. - extruded for P. Williams

organic analysis

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment,
recovery of equipment, other operations at station, etc.)

FAIR BALL BREAK, NO PULL OUT.

DOWNWIND CORE LOG

Ship HORIZON
Fathogram No. 6
Lat. 42° 54' S
Long. 97° 05' W
Bathymetry Hills

Sample No. DWHG-50
Date 14 Dec 1957
Station No. DWH-22

DEPTH
Echo 24 10 Fm _____ M

TYPE OF SAMPLE

Correction 70 ± Corrected Echo 2480 Fm 4530 M

Piston & Trip Gravity _____ Wire out at ball break _____ Fm _____ M

Triple Gravity _____ Total wire out _____ Fm 4621 M

Hydrographic PBS _____

Pull out

4665

Other GRAVITY

TIME: Start down 18 10

On bottom 18 50

On deck _____

Description of sample ~~50 cm~~ Chocolate brown clay

Length or size of sample 91 cm.

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

High swell wind, & drift, steamed on station. Fair ball break with echo. Good pull out.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-51

Fathogram No. 7

Date 16 DEC 1957

Lat. 41° 43' S

Station No. —

Long. 92° 14' W

Bathymetry Sharp hills

DEPTH

Echo 19.30 - 2002 Fm — M
3610 - 3745

TYPE OF SAMPLE

Correction 41 - 44 Corrected Echo 1971 - 2046 Fm — M

Piston & Trip Gravity —

Wire out at ball break — Fm — M

Triple Gravity —

Total wire out — Fm 4100 M

Hydrographic PBS —

Pull out 3989

Other GRAVITY

TIME: Start down 0815

On bottom 0850

On deck 1000

Description of sample Only a few manganese grains & smear.

Length or size of sample —

Preservation —

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Low swell, low wind, SUN!!!

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-5.2

Fathogram No. 7

Date 16 DEC 1957

~~Lat.~~ ^{Long} 91° 25' W

Station No. /

~~Long.~~ ^{Lat.} 41° 26' S

Bathymetry Hilly

DEPTH

Echo 1730 - 1770 Fm M

TYPE OF SAMPLE

Correction 35 Corrected Echo 1765 Fm 3230 M

Piston & Trip Gravity

Wire out at ball break Fm M

~~Triple~~ Gravity ✓

Total wire out Fm 3550 M

Hydrographic PBS

TIME: Start down 1345

Other

On bottom 1420

On deck 15-

Description of sample NONE

Length or size of sample

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

DID NOT HIT BOTTOM.
DEPTH MISREAD

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH - 53

Fathogram No. 7

Date 17 DEC 1957

Lat. 41° 25' S

Station No. DWAH - 23

Long. 86° 09' W

Bathymetry _____

DEPTH

Echo _____ Fm _____ M

TYPE OF SAMPLE

Correction _____ Corrected Echo _____ Fm 4317 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

~~Triple Gravity~~

Total wire out _____ Fm _____ M

Hydrographic PBS

TIME: Start down 1930

Other _____

On bottom 2010

On deck 2270

Description of sample NONE - DID HIT BOTTOM?

Length or size of sample _____

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

DOWNWIND CORE LOG

Ship Horizon

Sample No. DWHG-54

Pathogram No. 7

Date 18 DEC 1957

Lat. 38° 49' S

Station No. —

Long. 83° 28' W

GOLDBERG & KRAVIR
DEPTH

Bathymetry Submerged hills
(Compared to last few days)

Echo 2180 Fm — M

TYPE OF SAMPLE

Correction 50 Corrected Echo 2230 Fm 4080 M

Piston & Trip Gravity —

Wire out at ball break — Fm 4245 M

Triple Gravity —

Total wire out — Fm 4245 M

Hydrographic FBS —

Pullout 4220

Other GRAVITY

TIME: Start down 2318

On bottom 2345

On deck 0052

Description of sample Chocolate brown Foraminiferal clay. The
core was stopped upon penetration into about 1 1/2 cm of yellow
soft clay.

Length or size of sample 91 cm.

* The yellow material is in the plastic box

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Weather - good. Poor ball break - good pull out.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHD-55

Fathogram No. 7

Date 19 DEC 1957

Lat. 37° 04' S

Station No. _____

Long. 81° 50' W

Bathymetry _____

DEPTH

Echo 2140 Fm _____ M

TYPE OF SAMPLE

Correction 49 Corrected Echo 2189 Fm 400 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm 5200 M

Hydrographic PBS _____

TIME: Start down 1315

Other Dredge

On bottom 1430
~~STARTED DREDGING~~ 1530
~~STARTED~~ 1630
 On deck 1855

Description of sample 17 manganese nodules ranging from 1-6 cm across. Several have smooth surfaces while others

have typically the rough surface. There is one sample 5 cm long and 2 cm in diameter of yellow material (hard clay?) + clay

Preservation 4 plastic containers

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Good weather - no more than "13" on dynamometer - ie. not much pull. Core DW#G-56 taken

DOWNWIND CORE LOG

Ship Horicon
 Fathogram No. 7
 Lat. 37° 03' S
 Long. 81° 50' W
 Bathymetry Hilly

Sample No. DWHG-56
 Date 19 Dec 1957
 Station No. DWH-55

DEPTH

Echo 230 Fm _____ M
 Correction 48 Corrected Echo 278 Fm 3994 M

TYPE OF SAMPLE

Piston & Trip Gravity _____
 Triple Gravity _____
 Hydrographic PBS _____
 Other Gravity

Wire out at ball break _____ Fm _____ M
 Total wire out _____ Fm 4138 M
Pull out 4130

TIME: Start down 1905
 On bottom 1935
 On deck 2045

Description of sample DARK BROWN CLAY

Length or size of sample 126 cm.

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Good ball break - good pull out - good weather - good wire.

DOWNWIND CORE LOG

Ship 110212 m

Sample No. DWHG-57

Fathogram No. 7

Date 20 DEC 1957

Lat. 35°02'S

Station No. DWHG 57

Long. 80°02' W

Bathymetry _____

DEPTH

Echo 2045 Fm _____ M

TYPE OF SAMPLE

Correction 50 Corrected Echo 2095 Fm _____ M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm None M

~~Temp~~ Gravity

Total wire out _____ Fm 4300 M

Hydrographic PBS _____

Pullout

4180

Other _____

TIME: Start down 1015

On bottom 1040

On deck _____

Description of sample NONE

Length or size of sample _____

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

No core. Penetration. Core somehow worked out. Sediment on core barrel and shackles

DOWNWIND CORE LOG

DW/HH

Ship HORISON
Fathogram No. 7
Lat. 34° 30' S
Long. 79° 30' W
Bathymetry _____

Sample No. ~~DWHH~~ D-58
Date 20 DECEMBER 1957
Station No. 04

DEPTH

Echo 2020 Fm _____ M

Correction _____ Corrected Echo 2060 Fm 3780 M

TYPE OF SAMPLE
Piston & Trip Gravity _____
Triple Gravity _____
Hydrographic PBS
Other _____

Wire out at ball break _____ Fm 3750 M

Total wire out _____ Fm 3750 M

TIME: Start down 1620
On bottom 1700
On deck 1855

Description of sample Brown ooze

Length or size of sample 44 cm

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Ball break -

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-59

Fathogram No. 8

Date 30 DEC 1957

Lat. 27-30

Station No. —

Long. 71-02

Bathymetry shelf

DEPTH

Echo 66 Fm 121 M

TYPE OF SAMPLE

Correction — Corrected Echo — Fm — M

Piston & Trip Gravity —

Wire out at ball break — Fm — M

~~Triple~~ Gravity ✓

Total wire out — Fm — M

Hydrographic PBS —

TIME: Start down —

Other —

On bottom 1410 ÷ 1425

On deck —

Description of sample Small gravel of various types

Length or size of sample a few grams

Preservation In plastic box

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Heavy swell. Nothing obtained on first try. Recovered some gravel on second try

1.134 x depth = meter
depth

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-60

Fathogram No. 8

Date 30 DEC 1957

Lat. 27° 17' S

Station No. KRAUSE & NEWTON

Long. 71° 22' W

Bathymetry Continental slope

DEPTH

Echo 1930 Fm M (2073)
3880

TYPE OF SAMPLE

Correction 37 Corrected Echo 1867 Fm 3420 M 3880

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

~~Trip~~ Gravity ✓

Total wire out _____ Fm 4300 M 4224

Hydrographic PBS _____

Pull out

Other _____

TIME: Start down 2005

On bottom 2030 ~

On deck 2145

Description of sample Smear on core cutter = smear
is brown silt with multi-colored rock specks.

Length or size of sample None

Preservation _____

Remarks: (where appropriate—weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Heavy swell. No ball break. Pull out good.

Baror came up with smear on cutter & bent cutter
edge

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH-62

Fathogram No. 8

Date 1-JAN 58

Lat. ~~24-35 S~~ 22-36 S

Station No. DWH-2829

Long. ~~72-22 W~~ 72-03 W

WARRALL

Bathymetry RISE TO WEST
OF ATACAMA TRENCH

DEPTH

Echo _____ Fm _____ M

TYPE OF SAMPLE

Correction _____ Corrected Echo 2340 Fm 4280M

Piston & Trip Gravity _____ Wire out at ball break _____ Fm _____ M

Triple Gravity _____ Total wire out _____ Fm _____ M

Hydrographic PBS ✓

TIME: Start down 1901

Other _____

On bottom 2045

On deck 2330

Description of sample Dark brown clay

Length or size of sample 64 cm.

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Good weather, heavy swell Deep & shallow hydro cast.
Net tow.

DOWNWIND CORE LOG

Ship R/V Horizon

Sample No. DWHG # 63

Fathogram No. 8

Date 2 Jan. 1958

Lat. 24-24 S

Station No. _____

Long. 70-33 W

Bathymetry Edge of slope

1 mile from shore

TYPE OF SAMPLE

DEPTH

Echo 135 ^{1st} 130 ^{2nd} 112 ^{3rd} Fm _____ M

Correction _____ Corrected Echo _____ Fm _____ M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm 238 M ^{2nd 3rd} 254 280

Hydrographic FBS _____

TIME: Start down 2236 ^{1st} 55 ^{2nd} 01 ^{3rd}

Other _____

On bottom 2248 58 04

On deck 2254 01 08

Description of sample Yellowish green sand and gravel

Length or size of sample only sample remaining around catcher

Preservation preserved in plastic container

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

No ballbreaker used.

Good slack-wire bottom.

No Core

No Core

Core fell out on recovery.

Sand and gravel in catcher.

1st

2nd

3rd

DOWNWIND CORE LOG

Ship M/V HORIZON

Sample No. DWHG-64

Fathogram No. 8

Date 3 JAN 1958

Lat. 24-30 S

Station No. —

Long. 70-49 W

KRAUSE & BRINTON

Bathymetry CONTINENTAL SLOPE

DEPTH 725

Echo 8 762 Fm 1390 M

Second

TYPE OF SAMPLE

Correction 7 Corrected Echo 732 Fm 1340 M

1520

Piston & Trip Gravity —

Wire out at ball break — Fm — M

Triple Gravity ✓

Total wire out — Fm 1600 M

1575

1565

Hydrographic PBS —

TIME: Start down 00 40 ^{Pull out 1st time} 01 14

Second time

Other —

On bottom — 01 25

On deck 01 13 01 44

Description of sample odd bit's of rock grains, hard clay, & a very small clam.

Length or size of sample .1 gram

Preservation Refrigerator box

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Good weather. 1st lowering did not reach bottom because of meter wheel error. Good wire & second try - good ball break - good pull out. No core - probably sand which washed out.

CUT

DOWNWIND CORE LOG

Ship M/V HORIZON
Fathogram No. 8
Lat. 24-36 S
Long. 71-01 W
Bathymetry Continental Slope

Sample No. DWHG-65
Date 3 Jan 1957
Station No. _____

DEPTH
Echo 1721 Fm _____ M X1.134

TYPE OF SAMPLE
Piston & Trip Gravity _____
~~Triple~~ Gravity
Hydrographic PBS _____
Other _____

Correction 34 Corrected Echo 1755 Fm 3210 M 3645
Wire out at ball break _____ Fm _____ M
Total wire out _____ Fm _____ M 3640
Pull out _____ M 3635

TIME: Start down 0315
On bottom 0335
On deck _____

Description of sample Light brown clay

Length or size of sample 60 cm + Cutler nose sample

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Good weather - moderate swell - good ball break - good pull out. Shoaled about 30 fm by time of core.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHD-66

Fathogram No. 8

Date 4 JAN 1958

Lat. 23° 16'

Station No. _____

Long. 70° 53'

Bathymetry CONTINENTAL SLOPE

DEPTH ~~17~~

Echo 1788 Fm _____ M

TYPE OF SAMPLE

Correction 35 Corrected Echo 1820 Fm 3330 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm 4403 M

Hydrographic PBS _____

DEPTHS DREDGED 1770-1776

Other DREDGE

TIME: Start down 1415 - 1630

On bottom 1730
 AT END OF WIRE - 1830
 DREDGED WEATHERSHIP UNTIL 1930
 ON DECK (STARTED IN WITH WIRE)
 CLEARED BOTTOM - 2020
2140

Description of sample _____

NOTHING - MUST HAVE

BEEN ALL SAND & MUD

Length or size of sample _____

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

1/3 x 3330 = 1110 . 1110 + 3330 = 4440. Weather:

fair; partially overcast; moderate wind, sea & swell.

With 2370 meters out, it was found that the wire was not sheaved properly. It was brought back in, resheaved and payed out again.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHH-67

Fathogram No. 9

Date 8 JAN 1958

Lat. 78° 29'

Station No. DWH-31

Long. 22° 30'

Bathymetry PHILLY

) reversed

DEPTH

Echo 2520 Fm M

Correction 70 Corrected Echo 2590 Fm 4740 M

TYPE OF SAMPLE

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm M

Hydrographic PBS ✓

TIME: Start down 0615 0525

Other

On bottom 0700 0610

On deck 0820

Description of sample BROWN CLAY

Length or size of sample 65 cm.

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

wire & 30°

DOWNWIND CORE LOG

Ship M/V HORIZON

Sample No. DWHD-68

Fathogram No. 9

Date 10 JAN 1957

Lat. 17-11 S

Station No. -

Long. 77-01 W

Bathymetry Side of ridge

DEPTH

Echo 2373 Fm M

TYPE OF SAMPLE

Correction Corrected Echo Fm 3680 M

Piston & Trip Gravity

Wire out at ball break Fm M

Triple Gravity

Total wire out Fm 4900 M

Hydrographic PBS

Other DRSDG15

TIME: Start down 1310

On bottom 1410

^{radolium?} On deck 1810

Description of sample White globigerina ooze

Length or size of sample 1 plastic box from rock dredge -
3 plastic boxes in pipe dredge.

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Excellent weather. Dredge hung up several times
but pull was only 18 units. Dredged in depths
1700-1950 fathoms (echo).

True depth -- 1941-1993 m
3550-3650 m

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHTG-69

Fathogram No. 9

Date 10 9 am 56

Lat. 17-10 S

Station No. DWHD-68

Long. 77-01 W

Bathymetry Edge of rise

DEPTH

Echo 2915 Fm M

Correction 40 Corrected Echo 1955 Fm 3500 M 3980

TYPE OF SAMPLE

Piston & Trip Gravity

Wire out at ball break Fm M

~~Triple~~ Gravity ✓

Total wire out Pull out Fm M 4075
4080

Hydrographic PBS

Other

TIME: Start down 1835

On bottom 1855

On deck 1950

Description of sample Top 5 cm is brown soft clay. The rest of the clay is a light ~~blue~~ stiff, light blue-grey clay. (Streaks of brown in nose sample are of rest from core cutter).

Length or size of sample 178 cm + nose sample

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Excellent weather. Poor ball breaks - poor pull out.

cut

DOWNWIND CORE LOG

Ship M/V Horizon

Sample No. DWHG-70

Fathogram No. 9

Date 12 Jan 1958

Lat. 14° 18' S

Station No. -

Long. 78° 18' W

Bathymetry Plain

DEPTH 2293

Echo ~~2250~~ Fm M

TYPE OF SAMPLE

Correction 58 Corrected Echo 2351 Fm 4200 M

Piston & Trip Gravity

Wire out at ^{pull out} ball break Fm 4385 M

~~Triple~~ Gravity ✓

Total wire out Fm 4408 M

Hydrographic PBS

Ret

Other

TIME: Start down 0250

On bottom 0315

On deck 0410

Description of sample Olive clay

Length or size of sample 84 cm. + a little from nose in box

Preservation Cooler.

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Calm weather Fair ball-break - good pull out
1/2 hrs of net tow.

DOWNWIND CORE LOG

Ship M/V Horizon
Fathogram No. 9
Lat. 17° 13' S
Long. 79° 00' W

Sample No. DWH-71
Date 22 JAN
Station No. DWH-33

Bathymetry Northern slope of Nasca Ridge
TYPE OF SAMPLE

DEPTH
Echo 1954 Fm M
Correction 43 Corrected Echo 1997 Fm 3655 M

Piston & Trip Gravity
~~Triple Gravity~~
Hydrographic PBS ✓
Other

Wire out at ball break Fm M
Total wire out Fm M
TIME: Start down 7940
On bottom 7230
On deck 0120

Description of sample Light tan calcareous ooze

Length or size of sample 66 cm + nose sample

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Hydro sta 33 - Fair weather - drifting up northern slope of Nasca Ridge

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHD-72

Fathogram No. 10

Date 26 JUN 58

Lat. 25° 30' S

Station No. —

Long. 85° 14' S

KRAUSE, HONNHANS, NEWTON

Bathymetry Top of flat seamount
(i.e. guyot)

DEPTH

Echo 502 Fm 920 M

TYPE OF SAMPLE

Correction — Corrected Echo — Fm — M

Piston & Trip Gravity —

Wire out at ball break — Fm — M

Triple Gravity —

Total wire out — Fm 1400 M

Hydrographic PBS —

TIME: Start down 1150

Other DRAGG

On bottom 1205 - All wire out at 1235
Ship stopped 1300 - Started in 1310
On deck 1330

Description of sample Flat manganese nodules & corals. The pipe dredge contained ~~for~~ globigerina sand. The nodules ranged from 1 inch to 1 foot across. The corals ranged through the same limits - they were manganese stained. There were also contemporaneous glass sponges & alcyonarians.

Length or size of sample

300 lbs. in 6 bags + a plastic box (with biological specimens)

Preservation Magazine

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Depth of dredging: 480-495 fm.

Excellent weather. Dredging operation went well.

True depth: 491-503 fm

900-922 m,

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHD- 73

Fathogram No. 10

Date 26 JAN 1958

Lat. 25° 44' S

Station No. _____

Long. 85° 25' W

KRAUSIE, HORNBAUS, NEWTON

Bathymetry Shoal Guyot

DEPTH

Echo 125 Fm 228 M

TYPE OF SAMPLE

Correction _____ Corrected Echo _____ Fm _____ M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm 500 M

Hydrographic PBS _____

TIME: Start down 1520

Other _____

On bottom 1530

On deck 1600

Description of sample Completely biological: Thin shelled Limas(?), Pectins, Terebratula, various gastropods, echinoids, star fish, alcyonarians, crabs, etc. Pavements of cemented worm tubes, gastropod tubes, etc.

Length or size of sample 50-100 lbs in two sacks + biological material preserved separately.

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Depth: 117-126 fathoms. Excellent weather. Dredge went well.

True depth: 120-129 m
220-237 m.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. D.W.H.G. - 74

Fathogram No. 11

Date 1 FEB 1958

Lat. 28° 29' S

Station No. SEISMIC STA 30

Long. 106° 30' W

1665 + 34 = 1699 = 3110 m.

Bathymetry Hilly

DEPTH

Echo 1620 Fm M

TYPE OF SAMPLE

Correction 33 Corrected Echo 1653 Fm 3030M

Piston & Trip Gravity

Wire out at ball break Fm 3385M?

Triple Gravity ✓

Total wire out Fm 3399M

Hydrographic PBS

Pull out 3387

Other

TIME: Start down 0915

On bottom 0935

On deck 1020

Description of sample Top - 1/2 cm. of fluid brown clay - middle - 14 cm of globigerina ooze (light colored) - Bottom - 61 cm brown clay

Length or size of sample 77 cm.

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Heavy swell. Moderate wind. Fair ball break. Good pull out.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWH D-75

Fathogram No. _____

Date 2-Feb-1958

Lat. 27° 04' S

Station No. _____

Long. 109° 16' W

KRAUSE PARKER NEWTON

Bathymetry North of Paite Peninsula -
Easter Island.

DEPTH

Echo 100 Fm 183 M

TYPE OF SAMPLE

Correction _____ Corrected Echo _____ Fm _____ M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm 490 M

Hydrographic PBS _____

TIME: Start down 0110

Other Dredge

On bottom 0505

On deck 0530

Description of sample Coquina, loose shells & dead coral

Length or size of sample 50 lbs.

Preservation 2 Sacks

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

70-92 fm. Heavy swell, fast current. Overcast.
lost pipe dredge & bent bail.

True depth: 72-95 fm

132-174 m.

DOWNWIND CORE LOG

Ship Horizon

Sample No. DWHD-76

Fathogram No. 11

Date 2 FEB 1958

Lat. 27° 04'

Station No. _____

Long. 109° 18'

Bathymetry La Perouse Bay -
Easter Island

DEPTH

Echo 22-53 Fm 40-100 M

TYPE OF SAMPLE

Correction _____ Corrected Echo _____ Fm _____ M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity _____

Total wire out _____ Fm 252 M

Hydrographic PBS _____

Other DREDGE

TIME: Start down 0600

On bottom 0615

On deck 0645

Description of sample Calcareous material & basalt cobbles.

Calc mat is coral, pysters, worm tubes, etc. Basalt cobbles
covered with calc mat & Lithothamnion

Length or size of sample about a ton. Good dept 100 lbs

basalt cobbles, 100 lbs calcareous material, & misc. biologic specimens

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Heavy swell, clouds & occasional rain.

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-77

Fathogram No. 12

Date 5 FEB 57

Lat. _____

Station No. DWH-36

Long. _____

KRAUSE & NEWTON

DEPTH

Bathymetry ON RISE

Echo 1400 Fm _____ M

TYPE OF SAMPLE

Correction 26 Corrected Echo 1426 Fm 2620 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Trip Gravity ✓

Total wire out _____ Fm 2850 M

Hydrographic PBS _____

TIME: Start down 0510

Other _____

On bottom 0520?

On deck 0610

Description of sample NONE

Length or size of sample _____

Preservation _____

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

Heavy swell - no ball break, no pull out -
wire angle fair. CORE DID NOT HIT

BOTTOM. BALL BREAKER PRE-TRIPPED IN SHALLOW
WATER DEPTH.

CUT

DOWNWIND CORE LOG

Ship Horizon
Fathogram No. 12
Lat. 23° 39' S
Long. 118° 12' W
Bathymetry WEST SIDE OF
RIS

Sample No. DWHA-78
Date FEB 58
Station No. DWA-37
NORRALL & COSTELLO

DEPTH
Echo 1843 Fm M

TYPE OF SAMPLE

Correction 39 Corrected Echo 1882 Fm 3445 M 3520

Piston & Trip Gravity
Triple Gravity
Hydrographic PBS ✓
Other

Wire out at ball break Fm M 3597
Total wire out Fm M

TIME: Start down 2145
On bottom 2220
On deck

Description of sample Dark brown clay

Length or size of sample 62 cm. + nose sample in bottle.

Preservation

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

$1843 + 39 = 3445 \quad 1.3 = 103.3 \quad 3445 + 75 = 3520$

$4 \quad 22^\circ ; \cos 22^\circ \times 103.3 =$
 $\frac{95.8}{75}$

DOWNWIND CORE LOG

Ship HORIZON

Sample No. DWHG-79

Fathogram No. 12

Date 7-FEB 58

Lat. 23-36.5 S.

Station No. DWH-37

Long. 118-13.5 W.

KRAUSE & NEWTON

Bathymetry WEST SIDE OF RISE

DEPTH

Echo 1840 Fm _____ M

TYPE OF SAMPLE

Correction .39 Corrected Echo 1879 Fm 3440 M

Piston & Trip Gravity _____

Wire out at ball break _____ Fm _____ M

Triple Gravity ✓ _____

Total wire out _____ Fm 3576 M

Hydrographic PBS _____

PULL OUT 3563

Other _____

TIME: Start down 0405

On bottom 0430

On deck 0515

Description of sample Dark brown on top grading to
very dark brown on bottom.

Length or size of sample 138 cut nose sample in bottle

Preservation Cooler

Remarks: (where appropriate--weather, ballbreak, accidents, defective equipment, recovery of equipment, other operations at station, etc.)

MODERATE SWELL. LOW WIND. CLEAR. Excellent ball break
excellent pull out. Cover came up tangled in 2-3 m. of
wire.

DOWNWIND
MV HORIZON
LEG D

DWAGE - 80

FEB 7 1958

West side of Abbotross
Plateau

Krause & Newton

FATHOGRAM #15

DEPTH: Echo 1670 FM

CORR. 35 TOTAL 1705 FM 3175 FM

GRAVITY CORE

TOTAL: 3307

PULL OUT: 3292

22° 24' S

TIME

116° 24' W

Down: 2105

Ballbreak: 2154

ON DECK: 2245

NOTHING - CORE EMPTY

REMARKS: Good weather - moderate swell. Good
ballbreak & pull out. Winch has needed
adjustment for last few operations.

DOWNWIND
MV HORIZON
LEG D

DWHD - 81

FEB 8 1958

PDR ROLL #12

TOP OF ALBATROSS PLATEAU

ROCK DREDGE WITH CANVAS

BAG FOR DREDGING MUD

FOR BULLARD,

KRAUSE & HINNHAUSE, NEWTON

22° 07' S

115° 10' W

~~22~~

ECHO DEPTH: 1710 FM

CORR 35 FM. 1745 FM. 3190 M

TOTAL 4700

TIME: START: 0755

DESCRIPTION: 200-300 lb.

ON BOTTOM: 0855

foraminiferal

of brown mud preserved

START DREDGING: 0955

in 4 powder sacks, 1 large

START IN 1040

fuse container, 1 small fuse container,

OFF BOTTOM 1140

1 plastic bucket, 1 jar.

ON DECK. 1255

Also one fossilized bone(?)

Preserved in canvas bag + 2 small bags.

REMARKS: WEATHER excellent, moderate swell. Dredge pulled with constant force while dredging. Ship was noticeably stopped (with 40 rpm) after 25 minutes of dredging. Manuevering did not free dredge. ship stopped at 1040.

DEPTH 1710-1635 FM. BAG WAS

FULL OF MUD. True depth: 1670-1747 fm

3060-3200 m

DOWNWIND
MV HORIZON
LEG D

FEB 8 1958

DWHTG-82
GRAVITY CORPS

KRAUSE

TOP OF ALBATROSS

PLATEAU

22° 05' S

115° 12' W

ECHO DEPTH: 1660 fm

34 fm 169 fm 3100 m

Ball break: 3288 m.

PULLOUT: 3279 m.

START DOWN: 1313

Ball break: 1337

ON DECK: 1420

DESCRIPTION - 57 cm. of dark brown
foraminiferal clay.

REMARKS: VERY GOOD WEATHER Good ball break
& pull out.

DOWNWIND
MV HORIZON
LEG D

DWHT-83

HYDRO CORE

DWH-39

MURRAY & CASTELLO

FEB 10 1958

ON ALBATROSS PLATEAU.

RECORD DEPTH: 1680

15° 45' S

CORR: 35

TOTAL ¹⁷¹⁵ 1680 = 3140 m.

112° 09' W

Wire # 38°

CORR

^{384.1 = 2000}
¹⁷¹⁵
470

470

3610 m.

BALL BREAK

3501 m.

TIME: START DOWN 2255

ON BOTTOM 2335

ON DECK 0130

DESCRIPTION: 42 CM OF ~~very~~ coarse globegirina ooze, light
^{tan}_{grey} in color.

REMARKS: GOOD WEATHER. GOOD BALLBREAK. ONE BALL DID NOT
BREAK BUT WAS ONLY SLIGHTLY PUNCTURED. IT WAS 1/4 FULL
OF WATER. THIS WAS WITH THE TEMPERMENTAL BALL BREAKER.

Cut

DOWNWIND
MV HORIZON
LEG D

DWHTG-84
GRAVITY CORAL

KRAUSE

FEB 11 1958

ECHO DEPTH: 1715 FM

ON TOP OF ALBATROSS

CORR: 38 FM

1753 FM

3200 FM

PLATON

15° 44' S

TOTAL OUT

3650 FM

112° 13' W

PULL OUT

3507 FM

TIME: START DOWN: 0420

ON BOTTOM: 0437

ON DECK: 0530

DESCRIPTION: 145 CM OF ~~COARSE~~ light tan coarse
globegirina ooze.

REMARKS: MODERATE SWELL & WIND. PARTIALLY OVERCAST.
FAIR DRIFT. 30° WIRE & NO BALL BREAK. GOOD PULL OUT,
CAME UP TANGLED IN ABOUT 25' OF WIRE, BALL
BREAKER UNTRIPPED, AND BALL TO WEIGHT STAND BENT
& BROKEN. EXCELLENT CORP.

DOWNWIND
MV HORIZON
LEG D

FEB 12 1958

DWING - 85 CUT
Gravity Core
Time Down at 0907
^{Stop}
~~Ball break~~ 0943
Up at 1036

Krause & Newton

Depth 1656 fms.

Correction 36 fms.

Albatross plateau

1692

13° 09' S

3100 meters

110° 38' W

Out

3500 m.

Pullout

3474

165.75 cm. core - tan globigerina ooze
becoming coarser toward the top and with some
dark streaks toward the bottom.

Remarks - 6 ft. swell, 8 knots of wind, 35°
wire angle. No ballbreak, good pullout.

Cat

DOWNWIND
MV HORIZON
LEG D

DWHH # 86

HYDRO STA DWH-40

Depth: fms.

1950 FM 3580 M.

Wire out:

FEB 13 1958

Albatross plateau

14° 16' S

108° 50' W

Start down: ~~0020~~
0020

On bottom: 0112

On deck: 0305

PBS Hydrographic

Description - 59 cm. long. Globigerina ooze, buff colored.

Taken on hydrographic station number 40.
Good haulbreak.

20.20 1230 130
21.30 1330 500
22.30 1430 500
CUT

DOWNWIND
MV HORIZON
LEG D

DWHH # 87

DWH 41

Depth: fms.
1430 fm. 2613 m.

FEB 15 1958

Albatross Plateau Start down: 2030
No. stops of 600 fm. Seamount On bottom: 2130
PBS - Hydrographic On deck: 2150

Description: 66 cm. Dark brown ~~calcareous~~ globigerina
core. Tests of Globigerina tests are very large
and more numerous toward top of core?

Taken on Hydrographic station # 41
Good bottom break

9° 13' S
109° 37' W

DOWNWIND
HORIZON,
LEG D

DW HG # 88

Hohmann & Newton

Depth: 1835 fms.

Correction: 42 fms.

1877 fms.

Depth 3435 m.

FEB 16 1958

8° 03' S

110° 00' W

Start down - 1526

On bottom - 1550 ~

On deck - 1650

Wire out - 3800 m.

Description - 141 cm. brown clayey globigerina ooze.

Remarks -

Wind from 130°, 8 knots, swell 7 feet, moderate wire angle. Questionable pullout 3670 m. No ball-break. Ballbreaker came up untripped - evidently the mechanism jammed.

Sta. DWH 42

DOWNWIND
MV HORIZON
LEG D

DWH # 89

Depth: ^{Km} fms.

EEB 18 1958

corr. 2260 m. 4140

4° 02' S

Shot Down:

113° 18' S

On Bottom: 0215

Hydrographic PBS

On Deck:

Description: Light tan foraminiferal ooze
throughout.

Remarks:

Tested settling of sediment:

Original length	- 33.5 cm	+ (not recorded)
+ 7 hours	33.5 cm.	?
+ 12 hours	32.9 cm.	.6 cm
+ 12 hours	32.75 cm.	.15 cm.
+ 12 hours	32.70 cm.	.05 cm.

Zone 41

DOWNWIND
MV HORIZON
LEG D

DWHG - 90

Krause & Newton

Depth: 2307 fms.

Correction: 60 fms.

2367 fms.

4335 m.

FEB 18 1958

Small basin to ^{north-west} ~~west~~ of
rolling topography - north of
Gravity Core Albatross Plateau

Wire out - 4800 m.

Minimum Depth 2298 Maximum Depth 2390

Start down - 1945

On bottom - 2030

Description: ——— No Core On Deck - 2135

Neutered in slow to 4600 m.

Remarks: No ballbreak, No pullout. High wire angle. Wind from 080°, 8 kts. 4 ft. swell.

No evidence of hitting bottom and ballbreaker was untripped.

DW H H - 91

DOWNWIND
MV HORIZON
LEG D

Hydro Sta DWA 43

FEB 20 1958

No core

720 meters extra let
out.
High current.

on Sta. DWH-44

Cut

DOWNWIND
MV HORIZON
LEG D

FEB 23 1958

9° 59' N

118° 00' W

DWH # 92

Worrall & Brinton

Depth 2288 fms

Corr: 2346 fm - 4295' m.

Wire out: 5000 ±

Phleger corer attached
to hydrographic cast

Start Down 0530

On Bottom 0612

On Deck 0800

Description: 55.7 cm. red clay capped by a piece of manganese crust.

Preservation: Very bottom of core (very coarse black material manganese crust) found in core tube preserved in plastic container #1. ^{Near} Bottom of core preserved in container #2. Core preserved in core liner.

Remarks - good haulbreak, wind from 045° 12 knots, 6 foot swell, Bullbreaker bit bucket while being retrieved - lost core cutter, catcher and part of core. The wind was being run too fast.

Core either penetrated coarser material or old manganese crust

Settling:	0815 ^{23rd}	55.7 cm.
	1200 ^{23rd}	55.2 cm.
	0900 ^{24th}	54.7 cm.