# USGS DREDGE LOG

SHIP/LEG FZ-8I-SC

STATION # 17

DREDGE # D18

DEPTH INTERVAL(m) 1705 - 1675

DEPTH(m)corrected _____

DATE JD 348 LOCAL 12/13/87

TIME GMT 0844 LOCAL 0844

LATITUDE 30° 46.44' TO 30° 46.54'

LONGITUDE 123° 14.00' TO 123° 14.01'

TOTAL WEIGHT: DREDGE ☹ CRUST _____

PERCENTAGE OF ROCK COVERED BY CRUST _____

PERCENT BROKEN FROM: OUTCROP _____ TALUS _____

THICKNESS OF MN CRUST: MAXIMUM _____ MINIMUM _____ AVERAGE _____

DOMINANT SURFACE TEXTURE _____

SUBSTRATE LITHOLOGY _____

NODULES PRESENT _____

REMARKS: Lost Bag

CRUISE I.D. F7 87 SC

STATION NO. 17

DREDGE NO. D18

FLINT SMT.

local date 12/13 (month/day/year)

Chief Scientist Hein

Marine Tech on Watch Corky / KEVIN OZANNE O'TOOLE

| | ON STATION | DREDGE ON BOTTOM | DREDGE OFF BOTTOM | OFF STATION |
|---|---|---|---|---|
| GMT | 348/ | 0844 | 0957 | 1026 |
| LATITUDE | 3035.50 123 13.55 | 30° 36.47' | 30° 36.56' | 30° 37.05' |
| LONGITUDE | | 123° 14.00' | 123° 14.01' | 123° 14.08' |
| $H_2O$ DEPTH (M) | 1850 m | 1705 m | 1675? m. | |

at 1500m scope = 1950 m

| OPERATION (ON/OFF BOTTOM, BITES) | GMT | DEPTH (M) | WIRE OUT (M) | TENSION | COMMENTS |
|---|---|---|---|---|---|
| | | | | | |
| ~~ON BOTTOM~~ | 0755 | 1780 | 1200? | | PAY OUT TO 1350 WILL DREDGE 1500 TO 1250 |
| | 0757 | | 1230 | | |
| | 0816 | 1720 | | | |
| | 0842 | 1705 | 1800 | | NO HIT YET. ~~[illegible]~~ MAPPED BATHY. SEEMS |
| DREDGE ON BOTTOM | 0844 | 1705 | 1840 | | |
| | | 1600 | 2200 | | |
| | | ~~[illegible]~~ 1600 | | | |
| | ~~[illegible]~~ 0904 | ~~[illegible]~~ | | 1.6 | BITE. SLACK TAKEN UP. |
| | ~~0806~~ 0906 | ~~[illegible]~~ | | 3.4 | BITE. |
| | ~~[illegible]~~ 0908 | ~~[illegible]~~ | | | HUNG? |
| | ~~[illegible]~~ 0910 | ~~[illegible]~~ | | | PAYING SOME OUT. |
| | | | | 5.8 | TENSION UP TO 5.0, STILL HUNG. |
| | ~~[illegible]~~ 0919 | ~~[illegible]~~ | | | TURNING TO PULL IT OFF. |
| | ~~[illegible]~~ 0928 | | | | BROKE OFF! MAX PULL WAS 5.8 |
| | ~~[illegible]~~ 0932 | | | 3.0 | SMALL BITES - WHILE PULLING IN |
| | 0934 | | | | HUNG UP. |
| | 0950 | 1600 | | | BROKE OFF 6.7. |
| DREDGE OFF BOTTOM | 0957 | | | | OFF BOTTOM |
| | 1026 | | | | ON DECK NO BAG, BROKE AT |
| | | | | | WEAK LINK. |
| | | | | | |

LMB Ltd

OTHER COMMENTS: RATS.

# USGS DREDGE LOG

S[illegible]P/LEG [illegible]

STATION # 18

DREDGE # D19

DEPTH INTERVAL(m) 1450 - 1480

DEPTH(m)corrected _____

DATE JD 348 LOCAL 12-4-87

TIME GMT 1224 LOCAL 1424

LATITUDE 30° [illegible] TO 30° 36.29'

LONGITUDE 123° 13.33' TO 123° 13.01'

OTAL WEIGHT: DREDGE ☹ CRUST _____

PERCENTAGE OF ROCK COVERED BY CRUST _____

PERCENT BROKEN FROM: OUTCROP _____ TALUS _____

HICKNESS OF MN CRUST: MAXIMUM _____ MINIMUM _____ AVERAGE _____

DOMINANT SURFACE TEXTURE _____

SUBSTRATE LITHOLOGY _____

NODULES PRESENT _____

REMARKS: No Recovery

CRUISE I.D. F7 87 SC

STATION NO. 18

DREDGE NO. d19

FLINT SMT

local date 12/14/87 (month/day/year)

Chief Scientist Hein

Marine Tech on Watch O'TOOLE

| | ON STATION | DREDGE ON BOTTOM | DREDGE OFF BOTTOM | OFF STATION |
|---|---|---|---|---|
| GMT | ~1200 | 1224 | 1417 | 1445 |
| LATITUDE | 30° 36.34' | 30° 36.55 | 30° 36.29' | 30° 36.61 |
| LONGITUDE | 123° 13.01' | 123° 13.33 | 123° 13.01' | 123° 13.41 |
| $H_2O$ DEPTH (M) | ~1500 | 1450 m | 1480 m | |

| OPERATION (ON/OFF BOTTOM, BITES) | GMT | DEPTH (M) | WIRE OUT (M) | TENSION | COMMENTS |
|---|---|---|---|---|---|
| | | | | | |
| ~~BIG~~ IN WATER | ~1200 | ~1500 | | | |
| | 1215 | 1450 | 1270 | | ~~PAY OUT TO~~ |
| ON BOTTOM | 12.24 | 1450 | 1510 | | PAY OUT TO 2000 m |
| | 1230 | 1420 | | | |
| | 1240 | 1370 | 2000 | | SCOPE PAID OUT. |
| FIRST BITE | 1245 | 1350 | | 1.7 | BROKE OFF. |
| | 1248 | | | 3, 1.7, 2.4 | BROKE OFF + ? BROKE OFF 3rd BROKE |
| | 1250-53 | | | 2.9, 2.7, 2.1, 2.5, 3.0 | |
| HUNG UP | 1255 | | | ~~2.5~~ | ~~CHECK~~ HUNG UP, W |
| | 1258 | | | | WILL DRIFT BACK DOWN TO RELEASE. |
| | 1300 | | | | KEEP SLACK IN WIRE. TROUBLE IN TRACTION UNIT. |
| | 1305 | 1350 | | | |
| | 1315 | 1370 | | | STILL MANEUVERING TO RELEASE. |
| | 1330 | 1435 | | | TENSION UP TO 6T ON A HEAVE. |
| | 1335 | 1475 | | | DREDGE HAS BROKEN FREE. |
| | 1336 | | | | HUNG AGAIN. |
| | 1400 | 1420 | | | |
| | 1415 | 1480 | | | OFF AGAIN. |
| OFF BOTTOM | 1417 | ~~1500~~ 1500 | 1480 | | |
| ON DECK. | 1445 | | | | CAME UP EMPTY. |
| | | | | | |

OTHER COMMENTS:

LMB Ltd

# USGS DREDGE LOG

CRUISE/LEG F7-87-SC

STATION # 19

DREDGE # D20

DEPTH INTERVAL(m) 1325 - 1390

DEPTH(m)corrected _____

DATE JD 348 LOCAL 12/14/87

TIME GMT 1517 LOCAL 0717

LATITUDE 30°37.06 TO 30°37.33

LONGITUDE 123°13.44 TO 123°13.7

TOTAL WEIGHT: DREDGE ☹ CRUST _____

PERCENTAGE OF ROCK COVERED BY CRUST _____

PERCENT BROKEN FROM: OUTCROP _____ TALUS _____

THICKNESS OF MN CRUST: MAXIMUM _____ MINIMUM _____ AVERAGE _____

DOMINANT SURFACE TEXTURE _____

SUBSTRATE LITHOLOGY _____

NODULES PRESENT _____

REMARKS: Lost Bag. wire parted above weak link

CRUISE I.D. F7 87 SC

STATION NO. 19

DREDGE NO. D 20

FLINT SMT

local date 12/14/87 (month/day/year)

Chief Scientist Hein

Marine Tech on Watch O'TOOLE.

| | ON STATION | DREDGE ON BOTTOM | DREDGE OFF BOTTOM | OFF STATION |
|---|---|---|---|---|
| GMT | 1451 | 1517 | 1627 | 1650 |
| LATITUDE | 30° 36.66 | 30° 37.06' | 30° 37.33' | 30° 37.68' |
| LONGITUDE | 123° 13.44 | 123° 13.52' | 123° 13.71' | 123° 14.00' |
| $H_2O$ DEPTH (M) | | 1325 | 1390m | |

| OPERATION (ON/OFF BOTTOM, BITES) | GMT | DEPTH (M) | WIRE OUT (M) | TENSION | COMMENTS |
|---|---|---|---|---|---|
| DREDGE IN WATER | 1451 | | | | |
| D 20 ON BOTTOM | 1517 | 1325 | 1425 | | |
| | ~~1525~~ | 1330 | 1800 | | SCOPE IS OUT TAKING UP SLACK |
| | 1530 | 1400 | 1800 | | |
| | 1538 | ~~1425~~ | | | INCREASED TENSION; START OF BITES? |
| | 1543 | VERY | | 2.2 | |
| | 1548 | 1440 | | 2.1 | |
| | 1556 | | | | HUNG UP |
| | 1600 | 1450 | | 5.5 | ~~HUNG~~ SLIPPED OFF. NOT BROKE OFF. |
| | 1606 | | | 5.5 | OFF A BITE AND ON ANOTHER. |
| | 1613 | | | 4.5,3.5 | |
| | 1624 | 1390 | | | BROKE WEAK LINK? NO? 6th ONE |
| OFF BOTTOM | 1627 | 1390 | | | |
| | 1650 | | | | ~~CABLE~~ CABLE SHEARED. |

OTHER COMMENTS:

LMB Ltd

# USGS DREDGE LOG

CRUISE/LEG F7-87-SC

STATION # 20

DREDGE # D21

DEPTH INTERVAL(m) 1455 - 1470

DEPTH(m)corrected _____

DATE JD 319 LOCAL 12-15-87

TIME GMT 0829 LOCAL _____

LATITUDE 30°36.57 TO 30°36.51

LONGITUDE 123° 13.12 TO 123° 13.11

TOTAL WEIGHT: DREDGE 2.5 CRUST 1.5

PERCENTAGE OF ROCK COVERED BY CRUST 100

PERCENT BROKEN FROM: OUTCROP 100 TALUS 0

THICKNESS OF MN CRUST: MAXIMUM 15 mm MINIMUM patina AVERAGE 8 mm

DOMINANT SURFACE TEXTURE Botryoidal, ø

SUBSTRATE LITHOLOGY Basalt

1 massive, 1 scoriaceous,

NODULES PRESENT _____

REMARKS: 4 small crust fragments w/out substrate; 5 basalt w/ basalt

CRUISE I.D. F7 87 SC

STATION NO. 21

DREDGE NO. 21

FLINT SMT.

local date 12/15/87 (month/day/year)

Chief Scientist Hein

Marine Tech on Watch DEANNE/O'TOO

| | ON STATION | DREDGE ON BOTTOM | DREDGE OFF BOTTOM | OFF STATION |
|---|---|---|---|---|
| GMT | 0751 | 0829 | 0941 | 1007 |
| LATITUDE | 30° 35.92 | 30° 36.57' | 30° 36.51 | 30° 36.71' |
| LONGITUDE | 123° 12.77 | 123° 13.82' | 123° 13.11 | 123° 13.55' |
| $H_2O$ DEPTH (M) | | 1455 | 1470 | |

| OPERATION (ON/OFF BOTTOM, BITES) | GMT | DEPTH (M) | WIRE OUT (M) | TENSION | COMMENTS |
|---|---|---|---|---|---|
| IN WATER | 0751 | | | | |
| | 0813 | | 1300 | | 1300 m CABLE OUT AND HOLDING |
| ON BOTTOM. | 0829 | 1455 | 1480 | | ~~1900 SCOPE~~ |
| | 0839 | | 2000 | | 2000 SCOPE OUT. |
| | 0851 | | | | SLACK TAKEN UP. 1914 ALT |
| BITES START. | 0856 | | | 1.4, 1.5 | |
| | 0900 | 1355 | | | |
| | 0905 | | | 2.0 | AMP HUNG UP. |
| | 0907 | | | 3. | AMP HUNG UP. |
| | | | | 3.3 | |
| | 0909 | | | 3.7 | BROKE OFF. |
| | 0914 | | 1845 | | |
| | 0919 | | | 4. | BROKE OFF. |
| | 0925 | | | 4.5 | TRYING TO BREAK OFF 4.5 BITE |
| | 0930 | 1470 | | | STILL HUNG UP. |
| OFF BOTTOM. | 0941 | 1470 | | 5.1 | UNHUNG AMP OFF BOTTOM MAX TENS OF 5.1. |
| DREDGE ON DECK | 1007 | | | | ~~RECOVERY~~ |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

OTHER COMMENTS: ~~RECOVERY~~ RECOVERED A FEW SMALL FRAGMENTS. LMB Ltd (FIST-SIZED?)

# USGS DREDGE LOG

?/LEG F7-87-SC

TATION # 22

REDGE # D22

DATE JD 349 LOCAL 12-15-87

TIME GMT 1115 LOCAL 1215

EPTH INTERVAL(m) 1450-1470

EPTH(m)corrected _____

LATITUDE 30° 36.53' TO 30° 36.52'

LONGITUDE 123° 13.11' TO 123° 13.25'

OTAL WEIGHT: DREDGE 2 CRUST 0

ERCENTAGE OF ROCK COVERED BY CRUST _____

ERCENT BROKEN FROM: OUTCROP _____ TALUS _____

HICKNESS OF MN CRUST: MAXIMUM _____ MINIMUM _____ AVERAGE _____

OMINANT SURFACE TEXTURE _____

UBSTRATE LITHOLOGY _____

NODULES PRESENT _____

REMARKS: No Rocks, No Geology! We have a dredge of Biology 7 to 10 Large brittle stars - (wrapped around coral stems) at least 3 types of Coral; Golden, Goegonian (?) + (?) 1 small crab - Spider like Some coral was luminesent (ie glowing in the dark)

local date 12/15/87
(month/day/year)

CRUISE I.D. F7 87 SC FLINT SMT.

STATION NO. 22

DREDGE NO. D 22

Chief Scientist Hein

Marine Tech on Watch O'TOOLE

| | ON STATION | DREDGE ON BOTTOM | DREDGE OFF BOTTOM | OFF STATION |
|---|---|---|---|---|
| GMT | 1031 | 1115 | 1215 | ~1240 |
| LATITUDE | 30° 36.34' | 30° 36.53' | 30° 36.52' | 30° 36.52' |
| LONGITUDE | 123° 12.89' | 123° 13.17' | 123° 13.23 | 123° 1310' |
| $H_2O$ DEPTH (M) | | 1450 | 1470 | |

| OPERATION (ON/OFF BOTTOM, BITES) | GMT | DEPTH (M) | WIRE OUT (M) | TENSION | COMMENTS |
|---|---|---|---|---|---|
| IN WATER | 1031 | | | | |
| | 1048 | | 920 | | |
| | 1100 | 1450 | | | |
| | ~~1140~~ | | | | |
| BAG ON BOTTOM | 1115 | 1450 | 1470 | | WILL SCOPE TO 1900m |
| | 1130 | | 1900 | | WILL TAKE UP SLACK - |
| | 1135 | | | 2.0, 2.7 | BITES |
| | ~~1140~~ | | | 2.2 | BITE. |
| | 1148 | | | 3.2 | |
| | 1150 | | | 3.4 | ON A BITE. BROKE OFF AND ON ANOTHER. |
| | 1157 | 1400 | | | |
| OFF BOTTOM | 1215 | 1470 | 1420 | | WORKED OFF A 3.8 BITE, AND OFF BOTTOM |
| ON DECK | ~1240 | | | | BROUGHT UP CORALS AND STARFISH |

OTHER COMMENTS:

LMB Ltd

# USGS DREDGE LOG

Finally gives up a little roc

S[illegible]/LEG F7-87-SC

STATION # 23

DREDGE # D 23

DEPTH INTERVAL(m) 2855 - 2890

DEPTH(m)corrected _____

DATE JD 349 LOCAL December 15 1987

TIME GMT 1530 LOCAL 0730

LATITUDE 30°33.56 TO 30° 33.67'

LONGITUDE 123° 11.27' TO 123° 10.19'

OTAL WEIGHT: DREDGE 150 kg CRUST 20 kg

ERCENTAGE OF ROCK COVERED BY CRUST 100%

ERCENT BROKEN FROM: OUTCROP 100% TALUS 0

HICKNESS OF MN CRUST: MAXIMUM 40 mm MINIMUM 1 mm AVERAGE 20 mm

OMINANT SURFACE TEXTURE Botryoidal & granular

UBSTRATE LITHOLOGY Basalt

NODULES PRESENT None

REMARKS: One very large Boulder, one large boulder 1 small rock; Took photos of large boulder, then broke it apart, looked like a pillow.

local date 12/15/87
(month/day/year)

CRUISE I.D. F7 87 SC
STATION NO. STA 23
DREDGE NO. 23

FLINT SMT.

Chief Scientist Hein
Marine Tech on Watch O'TOOLE

| | ON STATION | DREDGE ON BOTTOM | DREDGE OFF BOTTOM | OFF STATION |
|---|---|---|---|---|
| GMT | 1438 | 1530 | 1734 | ~~1821~~ |
| LATITUDE | 30° 33.22 | 30° 33,56' | 30° 33,67' | approx. 30° 34.51 |
| LONGITUDE | 123° 11.24 | 123° 11.27' | 123° 10,91' | 123° 10.14 |
| $H_2O$ DEPTH (M) | | 2855 | 2890 | |

| OPERATION (ON/OFF BOTTOM, BITES) | GMT | DEPTH (M) | WIRE OUT (M) | TENSION | COMMENTS |
|---|---|---|---|---|---|
| BAG IN WATER | 1438 | 2920 | | | |
| ON BOTTOM | 1530 | 2865 | 2855 | | |
| | 1536 | | | | PAYING OUT SCOPE. |
| | 1545 | 2840 | | | |
| | 1600 | 2730 | 3300 | | TAKING UP SLACK. |
| | 1615 | 2660 | | | SLACK TAKEN UP, FEELING SOME TENSION |
| BITES START | 1620-25 | | | | ON A 4-TON BITE. |
| | 1628 | | | | BROKE OFF BUT HOOKED AGAIN. |
| | 1631-3 | | | 2.8, 2.9 | 2.5, 3.7, 3.3 |
| | 1635 | | | 3.7, | |
| | 1638 | | | 5.0, | |
| | 1640 | | | | MANEUVER TO GET OFF. |
| | 1700 | | | | STILL MANEUVERING TO GET UNHUNG |
| OFF BOTTOM | 1734 | 2880 | ~~2890~~ | | |
| ON DECK | ~~1821~~ | | | | RECOVERED BIG MAMA BOULDER. |

OTHER COMMENTS:

LMB Ltd

# USGS DREDGE LOG

S'''P/LEG F7-87-SC

STATION # 24

DREDGE # D24

DEPTH INTERVAL(m) _____

DEPTH(m)corrected _____

DATE JD 349 LOCAL _____

TIME GMT _____ LOCAL _____

LATITUDE _____ TO _____

LONGITUDE _____ TO _____

OTAL WEIGHT: DREDGE 2 CRUST _____

ERCENTAGE OF ROCK COVERED BY CRUST _____

ERCENT BROKEN FROM: OUTCROP _____ TALUS _____

HICKNESS OF MN CRUST: MAXIMUM _____ MINIMUM _____ AVERAGE _____

OMINANT SURFACE TEXTURE _____

UBSTRATE LITHOLOGY _____

NODULES PRESENT _____

REMARKS: Empty Bag

Sample #

local date 12/15/87
(month/day/year)

CRUISE I.D. F7 87 SC — FLINT SMT.

STATION NO. 24

DREDGE NO. 24

Chief Scientist Hein

Marine Tech on Watch O'TOOLE/OZANNE

| | ON STATION | DREDGE ON BOTTOM | DREDGE OFF BOTTOM | OFF STATION |
|---|---|---|---|---|
| GMT | 1918 | | 2112 | |
| LATITUDE | 30° 34.39' | | 30 34.35 | |
| LONGITUDE | 123° 12.54' | | 123 11.53 | |
| $H_2O$ DEPTH (M) | | | 2670 | |

| OPERATION | LON/OFF BOTTOM, BITES) | GMT | DEPTH (M) | WIRE OUT (M) | TENSION | COMMENTS |
|---|---|---|---|---|---|---|
| BAG IN WATER | | 1918 | | | | |
| | | 1955 | | 2220 | | |
| | | 1959 | | 2300 | | |
| 1st bites | | 2024 | 2024 m | [illegible] | 3.1, 3.4 | 30 35.28 / 123 11.45 |
| going to bring up bag | | 2030 | 2390 m | 3060 w/o | | |
| bite | | 2051 | 2560 m | | 3.8 | 30 34.72 / 123 11.45 |
| bite | | 2057 | 2400 | 2800 w/o | 4.2 3.2 | |
| OFF BOTTOM | | 2112 | 2670 | 2650 | | 30 34.35 / 123 11.53 |
| | | | | | | N/R |

OTHER COMMENTS:

LMB Ltd