

Benthic Tape Format
85 Character Records

Record 1, File Header

Characters 1-3	"002"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year, month, day)
Character 10	"1"	Fixed-record type (denotes file header)
Characters 11-21	11 alpha	Vessel (left-justified)
Characters 22-27	6 alpha	Cruise number
Characters 28-44		Cruise dates in form xx/xx/xx-xx/xx/xx (year, month, day)
Characters 45-63	19 alpha	Senior scientist (left-justified)
Characters 64-85	22 alpha	Investigator and institution responsible for data (left-justified)

Record 2, Sample Header 1

Characters 1-3	"002"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year, month, day)
Character 10	"2"	Fixed-record type (denotes sample header)
Characters 11-13	"001"	Sequence number of record type*
Characters 14-18	5 alpha	Sample number
Characters 19-25	6 numeric	Latitude (degrees, minutes, seconds,
	1 alpha	hemisphere -N or S)
Characters 26-33	7 numeric	Longitude (degrees, minutes, seconds,
		hemisphere -E or W)
Characters 34-36	3 numeric	Sample time (GMT to nearest tenth of a hour)
Characters 37-44		Sample date in form xx/xx/xx (year, month, day)
Characters 45-49	5 numeric	Water depth (to nearest meter)
Character 50	1 numeric	Gear:
		1-Smith-McIntyre Grab
		2-Peterson-Grab
		3-Spade box corer
		4-Anchor dredge
		5-Small biological trawl
		6-Rockingchair dredge
Characters 51-52	2 numeric	Number of replicates (taken at this station)
Characters 53-56	4 numeric	Screen size (mm, 3 decimals)
Characters 57-58	2 numeric	Navigation
		01-Loran A
		02-Loran C
		03-Radar and/or Fixes
		04-Raydist (w/o complications)
		05-Raydist (with errors, drifting, etc.)
		06-Satellite
		07-Omega
Characters 59-62	4 numeric	Surface area of sample (square meters, 3 decimals)
Characters 63-66	4 numeric	Depth of sample penetration (cm, 1 decimal)
Characters 67-69	3 numeric	Duration of tow (hours, two decimals)
Character 70	1 numeric	Type of sample
		1-Benthic Macrofauna
		2-Benthic Microfauna
		3-Benthic Megafauna
Characters 71-85	Blank	

* The last sample header for each sample is followed by a terminator record with characters 1-10 identical to the last sample header, followed by 998 as characters 11-13 and with all other characters blank.

Record 3, Sample Header 2

Characters 1-3	"002"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year, month, day)
Character 10	"2"	Fixed-Record type (denotes sample header)
Characters 11-13	"002"	Sequence number of record type*
Characters 14-18	5 alpha	Sample number
Characters 19-21	3 numeric	Barometric pressure (in tens, units and tenths of millibars)
Characters 22-25	4 numeric	Dry-bulb Air temperature (°C to nearest tenth)
Characters 26-29	4 numeric	Wet-bulb Air temperature (°C to nearest tenth)
Characters 30-31	2 numeric	Wind direction (code indicating tens of degrees according to the WMO Code 0877)
Characters 32-33	2 numeric	Wind speed (to nearest knot)
Characters 34-35	2 numeric	Sea Direction (code indicating tens of degrees according to WMO Code 0885)
Character 36	1 numeric	Sea height (code indicating height of waves according to WMO Code 1555)
Characters 37-38	2 numeric	Swell direction (code indicating tens of degrees according to WMO Code 0885)
Character 39	1 numeric	Swell height (code indicating height of swell according to WMO Code 1555)
Character 40	1 numeric	Weather (code indicating weather according to WMO Code 4501)
Character 41	1 numeric	Cloud type (code indicating cloud type according to WMO Code 0500)
Character 42	1 numeric	Cloud cover (code indicating percent cloud cover according to WMO Code 2700)
Character 43	1 numeric	Visibility (code indicating visibility according to WMO Code 4300)
Characters 44-47	4 numeric	Secchi Disk Depth (to nearest tenth of a meter)
Character 48	1 numeric	Turbidity measurement technique 1-Turbidometer, in JTU 2-Transmissometer, in % light transmission over 10cm path 3-Fluorometer, suspended solid colibration
Characters 49-85	Blank	

* The last sample header for each sample is followed by a terminator record with characters 1-10 identical to the last sample header followed by 998 as characters 11-13, and with all other characters blank.

Record 4, Data Record

Characters 1-3	"002"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year, month, day)
Character 10	"3"	Fixed-record type (denotes data record)
Characters 11-13	3 numeric	Sequence number of record type *
Characters 14-18	5 alpha	Sample number
Characters 19-20	2 numeric	Replicate number (replicates without specimens not entered on tape)
Characters 21-30	10 numeric	Species code (VIMS Code)
Characters 31-35	5 numeric	Count (number of individuals)
Characters 36-85	Blank	

* The last data record of each sample is followed by a sample terminator with characters 1-10 identical to the last data record, followed by 998 as characters 11-13, and with all other characters blank. The last sample terminator of the file (at the end of all data) is followed by a file terminator record with 999 in characters 11-13 (characters 1-10 identical to the last data record) and with all other characters blank.
