

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800207

- 1) File Type: F009
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR2910 - TR2913  
TR2908 - TR2909 F004

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

END OF STATION RECORDS (998 in vol. 11-13)	DELETED	✓
REPLICATE NO. (COL. 19) CHANGED A to 1, B to 2.		✓
END OF CRUISE RECORD (999 in vol. 11-13)	DELETED	✓
BLANKS IN TEMPERATURES REPLACED WITH ZEROS		✓
LATITUDE RANGE CHANGED TO 30° TO 40°		✓

III. Processor Name:

Charles B. Selkirk

# TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800207

TRACK NO(s): TR2910

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM438	SL	80	80	9-t 1600 BPI EBCDIC	
Duplicate	W10052	SL	80	4000	9-t 1600 BPI ASCII	
Reformatted						
First User	SEL DATA. FO09 TR 2910		80			
Final User	MPD75. TR2910/ FO09		80			

@CYCLE DNODC\*SEL DATA. TR2910,1

@PACK :SEL DATA.

DNODC\*MPD75.

@COPY, S. QUAL\*FN. element, DNODC\*MPD75. TR2910/FO09

ACCESSION/TRACK # 7800207/TR2910

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	2/24/83	<del>800</del>	VCMA438	3	80	80	
JADI/SCAN TAPE	2/24/83	<del>800</del>	W10052	3	4000	80	
ASSIGNED FOR PROCESS.							
OF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK	9/25/84	CBT	DNODC * SEL DATA, TR 2910 FO09 TR 2910	1		80	218
FIRST USER TAPE							
WORK DISK FILE	9/25/84	CBT	"	1		80	213
FINAL USER TAPE							
FINAL MULCHEK	9/26/84	CBT	"	1		80	213
EDITED DISK FILE	9/26/84	CBT	MPD 750 TR 2910/FO09	1		80	213
DATA SET "FINALIZED"	9/28/84	CBT	"	1		80	213

VCM438

## DATA DOCUMENTATION FORM

DEF A:1:06 TR 2910

NOAA FORM 24-13  
(4-77)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
WASHINGTON, DC 20235FORM APPROVED  
O.M.B. No. 41-R2651  
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

## A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Virginia Institute of Marine Sciences  
Gloucester Point, Virginia 23062

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH  
DATA WERE COLLECTED

BLM

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY  
DATA IN THIS SHIPMENT

BLM05B

4. PLATFORM NAME(S)

H. J.W. Fay

5. PLATFORM TYPE(S)  
(E.G., SHIP, BUOY, ETC.)

Ship

6. PLATFORM AND OPERATOR  
NATIONALITY(IES)

USA

USA

7. DATES

FROM: MO, DAY, YR TO: MO, DAY, YR

11/3/76

11/18/76

8. ARE DATA PROPRIETARY?

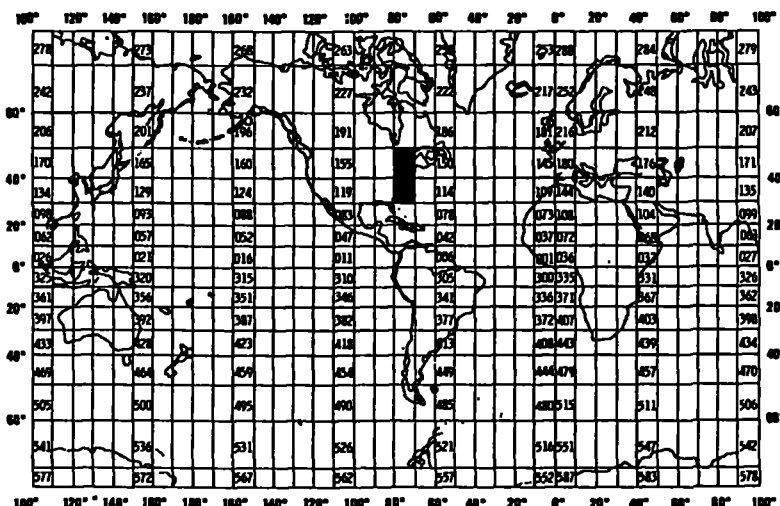
☒ NO ☐ YESIF YES, WHEN CAN THEY BE RELEASED  
FOR GENERAL USE? YEAR \_\_\_\_\_ MONTH \_\_\_\_\_9. ARE DATA DECLARED NATIONAL  
PROGRAM (DNP)?(I.E., SHOULD THEY BE INCLUDED IN WORLD  
DATA CENTERS HOLDINGS FOR INTERNA-  
TIONAL EXCHANGE?)☒ NO ☐ YES ☐ PART (SPECIFY BELOW)10. PERSON TO WHOM INQUIRIES CONCERNING  
DATA SHOULD BE ADDRESSED WITH TELE-  
PHONE NUMBER (AND ADDRESS IF OTHER  
THAN IN ITEM-1)

Dr. Gerald L. Engel  
VIMS

Gloucester Pt., Va. 23062

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA  
CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

## GENERAL AREA



NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS AND LABORATORY PROCEDURES)	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EP1 Model 4600 Recorder CRE 12KH <sub>2</sub> Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4877	Visual estimate		
Cloud type	IMO Codes 0813, 1515, 0509	Visual estimate		

## B SCIENTIFIC CONTENT

## Bacteriology

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4500	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		
Microcarotono-elastic bacteria	per ml if water per gram if sediment per m <sup>2</sup> if surface film	Water samples obtained with Niskin sterile bag sampler. Surface film with "Nutex" screen sampler. Sediment samples taken from undisturbed Smith-McIntyre grab sample using sterile "mini" lorers made from disposable syringes.	Most probably number (MPN) technique utilizing mineral salts enriched seawater & sterile crude oil broth	Mean ( $\bar{x}$ ) value calculated from replicate samples
heterotrophic bacteria	Per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film		Most probable number (MPN) technique utilizing a modified peptone-yeast extract seawater broth	Mean ( $\bar{x}$ ) value calculate from replicate sample

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "993" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "993" in position 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL  
☒ FORTRAN ☐ \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORD MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM439 Virginia Institute of Marine Science Bacteriology File Label = 'BACTER.009.BLMOSB'</p>
<p>8. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 336 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 80 13. LENGTH OF BYTES IN BITS 8</p>

## RECORD FORMAT DESCRIPTION

 RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FORM-1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"CC9" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identity (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) 12	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	17	Chars	17A1	



# RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

FIELD NAME	15. POSITION FROM-1 MEASURED IN FIELDS (e.g., B10, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Hathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	NAVIGATION: (see attached codes)
Procedure	52	1	Byte	I1	Analytical procedure: 1=Hydrocarbonoclastic bacteria MPN dilution procedure 2=Heterotrophic bacteria MPN dilution procedure 3=Both
Sample depth	53	4	Bytes	I4	Water sample depth (meters)
Sphere	57	1	Byte	I1	Sphere code: 1=surface water 2=sediment 3=microlayer (surface film) 4=thermocline water 5=bottom water
WTemp	58	3	Bytes	F3.1*	Surface water temperature (°C)
STemp	61	3	Bytes	F3.1*	Sediment temperature (°C)
Grab	64	1	Byte	I1	Grab replicate number (blank if not applicable)
Blank	65	16	Bytes	16X	Blank

\*Decimal place is IMPLIED: "period" is not present

# RECORD FORMAT DESCRIPTION

1-1-1-1

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN - 11-11-11 (e.g., 0111, 01111)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Blank	1	10	Bytes	A3,3I2,A	Same as Sample Header Record
Sequence	11	3	Chars	A3	"008" (constant)
Blank	14	66	Bytes	66X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"009" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	A1	Sample number identifier
Parameter	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25X	Blank

\*Decimal place is IMPLIED; "period" is not present

14. FILE NAME	15. POSITION OF FIRST MEASUREMENT IN (e.g., bits, bytes)	16. LENGTH		17. ALPHABETS	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "3" Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<b>Data Record</b>					
File type	1	3	Chars	A3	"009" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	SA1	Sample identifier
Replicate	19	1	Char	A1	Replicate I.D. for grab
Heterotrophic	20	7	Bytes	E7.0	Heterotrophic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
Hydrocarbonoclastic	27	7	Bytes	E7.0	Hydrocarbonoclastic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
	34	1	Bytes	F1	Heterotrophic bacteria too few for detecting if this col=1 and col 20-26 are blank
	35	1	Byte	F1	Hydrocarbonoclastic bacteria are too few for detection if this col=1 and col 27-33 are blank
Blank	36	45	Byte	45X	Blank
<b>Data Record Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<b>File Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant"
Blank	14	67	Bytes	67X	Blank

#### NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Eaydist without complications
- 04 = Eaydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

#### TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Flourometer; suspended solids calibration
- 4 = Nephelometer

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7700207

- 1) File Type: F009
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR2910

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

END OF STATION RECORDS (998 in vol. 11-13)	DELETED	✓
REPLICATE NO. (COL. 19) CHANGED A to 1, B to 2		✓
END OF CRUISE RECORD (999 in vol. 11-13)	DELETED	✓
BLANKS IN TEMPERATURES REPLACED WITH ZEROES		✓
LATITUDE RANGE CHANGED TO 30° TO 40°		✓

III. Processor Name:

Charles B. Selkirk

## TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700207

TRACK NO(s): TR2910

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM438	SL	80	80	9-t 1600 BPI EBCDIC	
Duplicate	W10052	SL	80	4000	9-t 1600 BPI ASCII	
Reformatted						
First User	SEL DATA. FOO9 TR 2910		80			
Final User	MPD75. TR2910/ FOO9		80			

@CYCLE DNO DC\*SEL DATA. TR2910,1 @PACK :SEL DATA.  
DNO DC\*MPD75.

@COPY, S. Qual\*FN. element, DNO DC\*MPD75. TR2910/FOO9

ACCESSION/TRACK # 7700207/TR2910

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	2/24/83	<del>DBA</del>	VCM438	3	80	80	
QUADI/SCAN TAPE	2/24/83	<del>DBA</del>	W10052	3	4000	80	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK	9/25/84	CBF	DNODC * SEL DATA, TR2910 F009 TR 2910	1		80	218
FIRST USER TAPE							
WORK DISK FILE	9/25/84	CBF	"	1		80	213
FINAL USER TAPE							
FINAL MULCHEK	9/26/84	CBF	"	1		80	213
EDITED DISK FILE	9/26/84	CBF	MPD 75 TR2910/F009	1		80	213
DATA SET "FINALIZED"	9/28/84	CBF	"	1		80	213

## DATA DOCUMENTATION FORM

REC'D 3/6/78 VCM083

WPHYSICS TR290

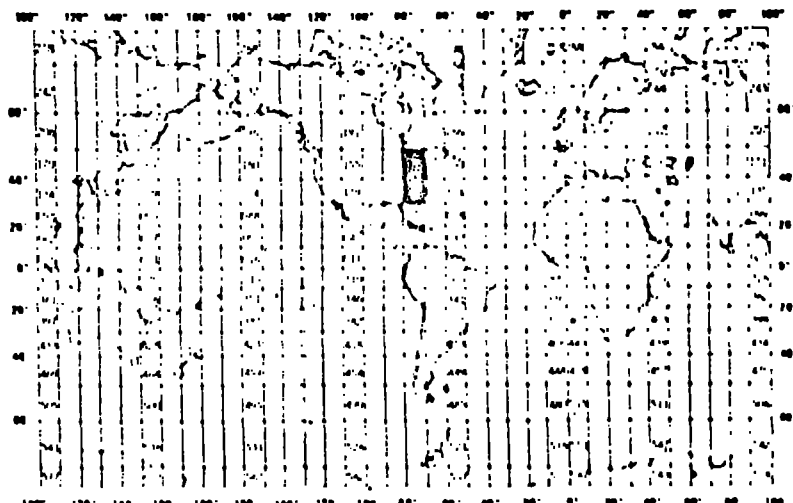
U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL CENTER FOR COASTAL AND ESTUARINE SCIENCE  
NATIONAL DATA CENTER  
ROOM 1010, MARINE BUILDING 20852FORM APPROVED  
O.M.B. No. 41-R-251

TR2908

This form should accompany all data submissions to NOIC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NOIC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

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1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLMUST	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
Cape Henlopen	Ship	Platform Operator	FROM MO/YR TO MO/YR
		Cape Henlopen Univ. of Delaware	11/08/76 11/18/76
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA A PART OF NATIONAL PROGRAM (Y/N)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM 1) Dr. Gerald E. Engel Virginia Institute of Marine Science Gloucester Pt., Va. 23062 44-612-2111			



NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees AMD Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees AMD Code 0877	Ship's Compass		
Wave height	1/2 meters AMD Code 1555	Visual estimate		
Swell direction	Tens of degrees AMD Code 0877	Ship's Compass		
Swell height	1/2 meters AMD Code 1555	Visual estimate		
Weather	AMD Code 4877	Visual estimate		
Cloud type	AMD Codes 0513, 0515, 0509	Visual estimate		

## B. SCIENTIFIC CONTENT

[illegible]

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.  
Following this are Data Records for that sample followed by Terminator record.  
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL  
☒ FORTRAN ☐ \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p>		<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p>		<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>		<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCMO83 Virginia Institute of Marine Science Water Physics &amp; Chemistry File Label = 'WPHYSC.014.BLM05T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 500 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p>		
		<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>80</p>
		<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

### RECORD FORMAT DESCRIPTION

RECORD NAME      FILE HEADER

14. FIELD NAME	15. POSITION FROM 1 MEASURED IN FILES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx. Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	17	Chars	16A1	

# RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	S31	Sample identifier
Latitude	19	5	Bytes	3I2	Degrees, minutes, seconds
Lat-hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Long-hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Method	52	1	Bytes	I1	Sampling method: 1=CTD 2=XBT 3=Water bottles 4=CTD & water bottles 5=CTD, water bottles, & XBT 6=GRAB 7=Meteorological
Blank	53	28	Bytes	28X	Blank

\*Decimal place is implied: "period" is not present

## RECORD FORMAT DESCRIPTION

## RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN PLACES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67 X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	SA1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25 X	Blank

\*Decimal place is IMPLIED; "period" is not present

## RECORD FORMAT DESCRIPTION

RECORD NAME \_\_\_\_\_

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3"</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File Type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Chars	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of rec. type w/in sample
Sample	14	5	Chars	5A1	Sample identifier
Depth	19	4	Bytes	I4	Sample depth (meters)
Pressure	23	5	Bytes	F5.1*	Pressure (decibars)
Conduct	28	5	Bytes	F5.3*	Conductivity (mmho/cm)
Temp.	33	5	Bytes	F5.3*	Water Temperature (°C)
Salin	38	4	Bytes	F4.2*	Salinity (PPT)
DO.	42	4	Bytes	F4.2*	Dissolved Oxygen (MG/L)
NO <sub>2</sub>	46	4	Bytes	F4.2*	Nitrite (microgram - atom/L)
NO <sub>3</sub>	50	4	Bytes	F4.2*	Nitrate (microgram - atom/L)
NH <sub>4</sub>	54	4	Bytes	F4.3*	Amonia (ppm)
O-PO <sub>4</sub>	58	4	Bytes	F4.2*	Ontho-phosphate (microgram - atom/L)
DOC	62	4	Bytes	F4.2*	Dissolved organic carbom (mg/L)
POC	66	4	Bytes	F4.2*	Particulate organic carbon(mg/L)
CSALI:	70	5	Bytes	F5.3*	Calculated salinity (ppt to nearest 0.003)**
C.D.O.:	75	4	Bytes	F4.2*	Calculated dissolved oxygen (mg/L)**
Blank	79	2	Bytes	2X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
*Decimal place is IMPLIED: "period" is not present					
**99.0 indicates a bad reading					

\*Decimal place is IMPLIED: "period" is not present

\*\*99.0 indicates a bad reading

#### NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

#### TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer



# D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the EDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking (✓) the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

BLM05T,

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MOE8400	Oct., 1976	✓			✓				

## DATA DOCUMENTATION FORM

REC'D 3/6/78

TR 2909

VCM 143

WPHYSL

AA FORM 24-13

14-721

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
ROCKVILLE, MARYLAND 20852

FORM APPROVED  
O.M.B. No. 41-R-2631

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

## A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM06T	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
James M. Gilliss	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		James M. Gilliss Univ. of Miami	03/18/77 03/28/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MAJORED SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA INCLUDED NATIONAL PROGRAM (Y/N)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTER HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM 1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH CORRECTIONS AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist watch checked daily with WWV		
Water depth	to nearest tenth of a meter.	Precision Depth Recorder		
Water sample depth	to nearest meter	G.M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem Thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4677	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		



1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File terminator Positions 1-10 identical to last data record, "998" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL  
☒ FORTRAN ☐ \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCMI43 Virginia Institute of Marine Science Water Physics &amp; Chemistry File Label = 'WPHYSC.014.BLMQ6T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 80</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

## RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM 1 TO IN FILES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identifier (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day ending year, month, day
Senior scientist	45	19	Chars	19A1	(left-justified)
Investigator	64	17	Chars	16A1	Investigators & Institutions Responsible for data.

# RECORD FORMAT DESCRIPTION

ORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Method	52	1	Bytes	I1	Sampling method: 1=CTD 2=XBT 3=Water bottles 4=CTD & water bottles 5=CTD, water bottles, & XBT 6=GRAB 7=Meteorological
Blank	53	28	Bytes	28X	Blank

\*Decimal place is implied: "period" is not present

## RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN FIELD  (e.g., Bits, Bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67 X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WHO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WHO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WHO code 1555
Swell Direction	37	2	Bytes	I2	WHO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WHO code 1555
Weather	40	2	Bytes	I2	WHO code 4677
Cloud type	42	3	Bytes	I3	WHO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WHO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WHO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25 X	Blank

\*Decimal place is IMPLIED; "period" is not present



# RECORD FORMAT DESCRIPTION

RECORD NAME \_\_\_\_\_

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File Type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Chars	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of rec. type w/in sample
Sample	14	5	Chars	5A1	Sample identifier
Depth	19	4	Bytes	I4	Sample depth (meters)
Pressure	23	5	Bytes	F5.1*	Pressure (decibars)
Conduct	28	5	Bytes	F5.3*	Conductivity (mmho/cm)
Temp.	33	5	Bytes	F5.3*	Water Temperature (°C)
Salin	38	4	Bytes	F4.2*	Salinity (PPT)
D.O.	42	4	Bytes	F4.2*	Dissolved Oxygen (MG/L)
NO <sub>2</sub>	46	4	Bytes	F4.2*	Nitrite (microgram - atom/L)
NO <sub>3</sub>	50	4	Bytes	F4.2*	Nitrate (microgram - atom/L)
NH <sub>4</sub>	54	4	Bytes	F4.3*	Amonia (ppm)
O-PO <sub>4</sub>	58	4	Bytes	F4.2*	Ontho-Phosphate (microgram - atom/L)
DCC	62	4	Bytes	F4.2*	Dissolved organic carbon (mg/L)
PCC	66	4	Bytes	F4.2*	Particulate organic carbon(mg/L)
CSALI:	70	5	Bytes	F5.3*	Calculated salinity (ppt to nearest 0.003)**
C.D.O:	75	4	Bytes	F4.2*	Calculated dissolved oxygen (mg/L)**
Blank	79	2	Bytes	2X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank

\*Decimal place is IMPLIED: "period" is not present  
 \*\*99.0 indicates a bad reading

#### NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raylist without complications
- 04 = Raylist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

#### TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

## D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for volunteer acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

BLM06T

INSTRUMENT TYPE (SER., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MOD8400	Jan., 1977	✓			✓				

Cancelled

REC'D 3/6/78 VCM 438

~~BACTR~~

3/1/82

ACCESSION  
NUMBER

28-0207

DDF 4:1:06

DATA DOCUMENTATION FORM

TR 2910

NOAA FORM 24-13  
(4-72)

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECEIVED SECTION  
ROCKVILLE, MARYLAND 20852

FORM APPROVED  
O.N.B. No. 41-R2631

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Virginia Institute of Marine Science  
Gloucester Point, Virginia 23062

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

BIM

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

BIM05B

4. PLATFORM NAME(S)

H.J.W. Fay

5. PLATFORM TYPE(S)  
(E.G., SHIP, BUOY, ETC.)

Ship

6. PLATFORM AND OPERATOR  
NATIONALITY(IES)

PLATFORM

OPERATOR

H.J.W.  
Fay

Tracor  
Marine

7. DATES

FROM: MO/DAY/YR TO: MO/DAY/YR

11/03/76

11/18/76

8. ARE DATA PROPRIETARY?

☐ NO ☐ YES

IF YES, WHEN CAN THEY BE RELEASED  
FOR GENERAL USE? YEAR MONTH

9. ARE DATA DECLARED NATIONAL  
PROGRAM (ON)?

(I.E., SHOULD THEY BE INCLUDED IN WORLD  
DATA CENTER HOLDINGS FOR INTERNA-  
TIONAL EXCHANGE?)

☒ NO ☐ YES ☐ PART (SPECIFY BELOW)

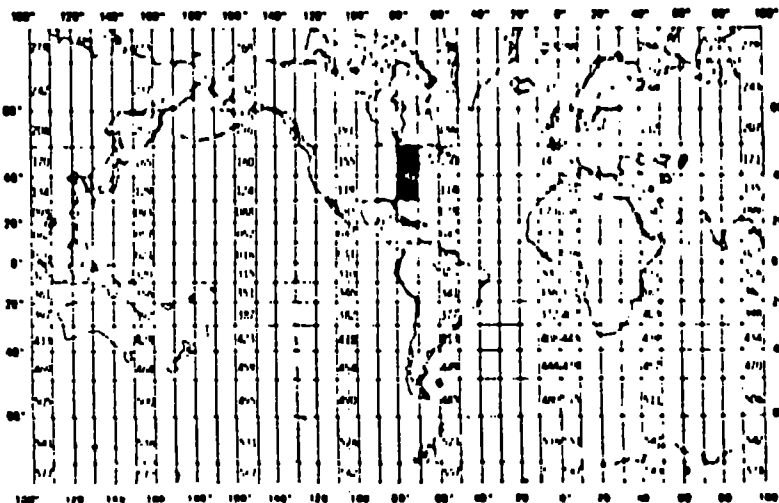
10. PERSON TO WHOM INQUIRIES CONCERNING  
DATA SHOULD BE ADDRESSED WITH TELE-  
PHONE NUMBER (AND ADDRESS IF OTHER  
THAN IN ITEM-1)

Gerald L. Engel  
VI. Institute of Marine Science  
Gloucester Pt., Va. 23062

11-42-0111

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA  
CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



## B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	ETC Model 4600 Recorder ORE 12Khz Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

## B. SCIENTIFIC CONTENT

## Bacteriology

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Whist watch - visual observation		
Swell period	Seconds	Whist watch - visual observation		
Hydrocarbon-elastic bacteria	per ml if water per gram if sediment per m <sup>2</sup> if surface film	Water samples obtained with Niskin sterile bag sampler. Surface film with "Nutex" screen sampler. Sediment samples taken from undisturbed Smith-McIntyre grab sample using sterile "mini" lorers made from disposable syringes.	Most probably number (MPN) technique utilizing mineral salts enriched seawater & sterile crude oil broth	Mean ( $\bar{X}$ ) value calculated from replicate samples
Heterotrophic bacteria	Per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film		Most probable number (MPN) technique utilizing a modified peptone-yeast extract seawater broth	Mean ( $\bar{X}$ ) value calculate from replicate sample

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "999" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL  
☒ FORTRAN ☐ \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VC438 Virginia Institute of Marine Science Bacteriology File Label = 'BACTER.009.BLM05B'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	
<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>80</p>	
<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>	

## RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MINIMUM IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I?	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	17	Chars	17A1	Responsible for data.



# RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

FIELD NAME	15. POSITION FROM - 1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	NAVIGATION: (see attached codes)
Procedure	52	1	Byte	I1	Analytical procedure: 1=Hydrocarbonoclastic bacteria MPN dilution procedure 2=Heterotrophic bacteria MPN dilution procedure 3=Both
Sample depth	53	4	Bytes	I4	Water sample depth (meters)
Sphere	57	1	Byte	I1	Sphere code: 1=surface water 2=sediment 3=microlayer (surface film) 4=thermocline water 5=bottom water
WTemp	58	3	Bytes	F3.1*	Surface water temperature (°C)
STemp	61	3	Bytes	F3.1*	Sediment temperature (°C)
Grab	64	1	Byte	I1	Grab replicate number (blank if not applicable)
Blank	65	16	Bytes	16X	Blank

\*Decimal place is IMPLIED: "period" is not present

## RECORD FORMAT DESCRIPTION

Page 1 of 1

## RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN FIELD (e.g., b/n, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"009" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25X	Blank

\*Decimal place is IMPLIED; "period" is not present

14. FIELD NAME	15. POSITION FROM 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"009" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	1	Char	A1	Replicate I.D. for grab
Heterotrophic	20	7	Bytes	E7.0	Heterotrophic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
Hydrocarbonoclastic	27	7	Bytes	E7.0	Hydrocarbonoclastic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
	34	1	Bytes	F1	Heterotrophic bacteria too few for detecting if this col=1 and col 20-26 are blank
	35	1	Byte	F1	Hydrocarbonoclastic bacteria are too few for detection if this col=1 and col 27-33 are blank
Blank	36	45	Byte	45X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant"
Blank	14	67	Bytes	67X	Blank

#### NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

#### TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

## D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

BLM05B, BLM05W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Oct., 1976	✓			✓				
Beckman Minds D.O. Sensor	Oct., 1976	✓			✓				
Guildline Autosac MOES400	Oct., 1976	✓			✓				

REC'D 3/6/78 VCM439 BACTER

Cancelled

ACCESSION  
NUMBER

78-0207

3/1/82

DATA DOCUMENTATION FORM

TR 2911

NOAA FORM 24-13  
(4-72)

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
ROCKVILLE, MARYLAND 20852

FORM APPROVED  
O.M.B. No. 41-R2651

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

### A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Virginia Institute of Marine Science  
Gloucester Point, Virginia 23062

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

BLM

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

BLM07B

4. PLATFORM NAME(S)

H.J.W. Fay

5. PLATFORM TYPE(S)  
(E.G., SHIP, BUOY, ETC.)

Ship

6. PLATFORM AND OPERATOR  
NATIONALITY(IES)

H.J.W.  
Fay

Tracor  
Marine

7. DATES

FROM: MO, DAY, YR	TO: MO, DAY, YR
05/30/77	06/05/77

8. ARE DATA PROPRIETARY?

☒ NO ☐ YES

IF YES, WHEN CAN THEY BE RELEASED  
FOR GENERAL USE? YEAR \_\_\_\_\_ MONTH \_\_\_\_\_

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA

ARE DATA DECLARED NATIONAL  
PROGRAM (NMP)?

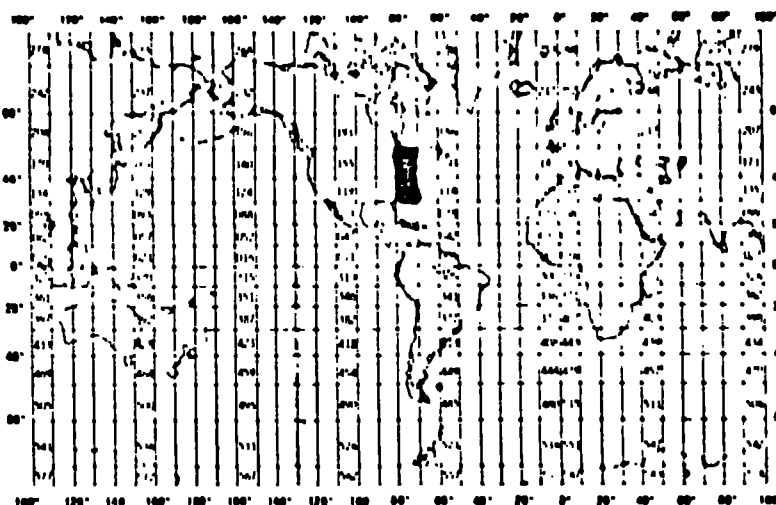
IF YES, SHOULD THEY BE INCLUDED IN WORLD  
DATA CENTERS HOLDINGS FOR INTERNA-  
TIONAL EXCHANGE?

☒ NO ☐ YES ☐ PART (SPECIFY BELOW)

10. PERSON TO WHOM INQUIRIES CONCERNING  
DATA SHOULD BE ADDRESSED WITH TELE-  
PHONE NUMBER (AND ADDRESS IF OTHER  
THAN IN ITEM-1)

Mr. Gerald L. Engel  
Va. Institute of Marine Science  
Gloucester Pt., Va. 23062

804-642-2111



## B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS AND LABORATORY PROCEDURES)	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal hemisphere	N or S			
Longitudinal hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EPC Model 4600 Recorder ORE 12KH <sub>2</sub> Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's Compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

## B. SCIENTIFIC CONTENT

## Bacteriology

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS AND LABORATORY PROCEDURES)	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Whist watch - visual observation		
Swell period	Seconds	Whist watch - visual observation		
Hydrocarbonoclastic bacteria	per ml if water per gram if sediment per m <sup>2</sup> if surface film	Water samples obtained with Niskin sterile bag sampler. Surface film with "Nutex" screen sampler. Sediment samples taken from undisturbed Smith-McIntyre grab sample using sterile "mini" lorers made from disposable syringes.	Most probably number (MPN) technique utilizing mineral salts enriched seawater & sterile crude oil broth	Mean ( $\bar{X}$ ) value calculated from replicate samples
Heterotrophic bacteria	Per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film		Most probable number (MPN) technique utilizing a modified peptone-yeast extract seawater broth	Mean ( $\bar{X}$ ) value calculate from replicate sample



1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.  
Following this are Data Records for that sample followed by Terminator record.  
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL  
☒ FORTRAN ☐ \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE <input type="checkbox"/> RCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM439 Virginia Institute of Marine Science Bacteriology File Label = 'BACTER.009.BLM07B'</p>
<p>8. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 356 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 80 13. LENGTH OF BYTES IN BITS 8</p>

## RECORD FORMAT DESCRIPTION

 RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., b1n, bym)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I?	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	17	Chars	17A1	

## RECORD FORMAT DESCRIPTION

 RECORD NAME SAMPLE HEADER 1

FIELD NAME	15. POSITION FROM - 1 MEASURED IN Bytes (e.g., 510, bytes)	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	NAVIGATION: (see attached codes)
Procedure	52	1	Byte	I1	Analytical procedure: 1=Hydrocarbonoclastic bacteria MPN dilution procedure 2=Heterotrophic bacteria MPN dilution procedure 3=Both
Sample depth	53	4	Bytes	I4	Water sample depth (meters)
Sphere	57	1	Byte	I1	Sphere code: 1=surface water 2=sediment 3=microlayer (surface film) 4=thermocline water 5=bottom water
WTemp	58	3	Bytes	F3.1*	Surface water temperature (°C)
STemp	61	3	Bytes	F3.1*	Sediment temperature (°C)
Grab	64	1	Byte	I1	Grab replicate number (blank if not applicable)
Blank	65	16	Bytes	16X	Blank

\*Decimal place is IMPLIED: "period" is not present

# RECORD FORMAT DESCRIPTION

Page 1

## RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A	Same as Sample Header Record
Sequence	11	3	Chars	A3	"008" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"009" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25X	Blank

\*Decimal place is IMPLIED; "period" is not present

14. FIELD NAME	15. POSITION FROM 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"009" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	1	Char	A1	Replicate I.D. for grab
Heterotrophic	20	7	Bytes	E7.0	Heterotrophic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
Hydrocarbonoclastic	27	7	Bytes	E7.0	Hydrocarbonoclastic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
	34	1	Bytes	F1	Heterotrophic bacteria too few for detecting if this col=1 and col 20-26 are blank
	35	1	Byte	F1	Hydrocarbonoclastic bacteria are too few for detection if this col=1 and col 27-33 are blank
Blank	36	45	Byte	45X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)"
Blank	14	67	Bytes	67X	Blank

#### NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

#### TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

## D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

BLM07B, BLM07W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	May, 1977	✓			✓				
Beckman Minds D.O. Sensor	May, 1977	✓			✓				
Guildline Autosac MOD 8400	May, 1977	✓			✓				

REC'D 3/6/78 VCM448 BACTER

ACCESSION  
NUMBER

78-0207

## DATA DOCUMENTATION FORM

TR2912

NOAA FORM 24-13  
(4-72)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
ROCKVILLE, MARYLAND 20852FORM APPROVED  
O.M.B. No. 41-R2631

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

## A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM06B	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		H.J.W. Fay Tracor Marine	02/04/77 02/17/77 03/06/77 03/13/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNPI)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER AND ADDRESS IF OTHER THAN IN ITEM 1			
Gerald L. Engel V.I. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			



## B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal hemis.	N or S			
Longitudinal Hemisphere	E or W			
Station time	SMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444D/248D Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Water	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

## B. SCIENTIFIC CONTENT

## Bacteriology

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		
Hydrocarbonoplastic bacteria	per ml if water per gram if sediment per m <sup>2</sup> if surface film	Water samples obtained with Niskin sterile bag sampler. Surface film with "Nutex" screen sampler. Sediment samples taken from undisturbed Smith - McIntyre grab sample using sterile "mini" lorers made from disposable syringes.	Most probably number (MPN) technique utilizing mineral salts enriched seawater & sterile crude oil broth	Mean ( $\bar{x}$ ) value calculated from replicate samples
Heterotrophic bacteria	Per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film		Most probable number (MPN) technique utilizing a modified peptone-yeast extract seawater broth	Mean ( $\bar{x}$ ) value calculate from replicate sample

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL  
☒ FORTRAN ☐ \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM448</p> <p>Virginia Institute of Marine Science</p> <p>Bacteriology</p> <p>File Label = 'BACTER.009.BLM06B'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	
<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>80</p>	<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

## RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"C09" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I?	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	17	Chars	17A1	

# RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

FIELD NAME	15. POSITION FROM - 1 MEASURED IN Bytes (e.g., bfm, bytes)	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
lab sample no.	14	5	Chars	5A1	Sample identifier
latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
lonhem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	NAVIGATION: (see attached codes)
Procedure	52	1	Byte	I1	Analytical procedure: 1=Hydrocarbonoclastic bacteria MPN dilution procedure 2=Heterotrophic bacteria MPN dilution procedure 3=Both
Sample depth	53	4	Bytes	I4	Water sample depth (meters)
Sphere	57	1	Byte	I1	Sphere code: 1=surface water 2=sediment 3=microlayer (surface film) 4=thermocline water 5=bottom water
WTemp	58	3	Bytes	F3.1*	Surface water temperature (°C)
STemp	61	3	Bytes	F3.1*	Sediment temperature (°C)
Grab	64	1	Byte	I1	Grab replicate number (blank if not applicable)
Blank	65	16	Bytes	16X	Blank

\*Decimal place is IMPLIED: "period" is not present

## RECORD FORMAT DESCRIPTION

Part of 1

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A	Same as Sample Header Record
Sequence	11	3	Chars	A3	"008" (constant)
Blank	14	66	Bytes	66X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"009" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25X	Blank

\*Decimal place is IMPLIED; "period" is not present

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "2" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"009" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	1	Char	A1	Replicate I.D. for grab
Heterotrophic	20	7	Bytes	E7.0	Heterotrophic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
Hydrocarbonoclastic	27	7	Bytes	E7.0	Hydrocarbonoclastic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
	34	1	Bytes	F1	Heterotrophic bacteria too few for detecting if this col=1 and col 20-26 are blank
	35	1	Byte	F1	Hydrocarbonoclastic bacteria are too few for detection if this col=1 and col 27-33 are blank
Blank	36	45	Byte	45X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant"
Blank	14	67	Bytes	67X	Blank

#### NAVIGATION:

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BLM06B, BLM06W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED  (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Jan., 1977	✓			✓				
Beckman Minds D.O. Sensor	Jan., 1977	✓			✓				
Guildline Autosac MOD8400	Jan., 1977	✓			✓				

ACCESSION  
NUMBER

78-0207

DATA DOCUMENTATION FORM REC'D 3/6/78 VCM 449  
BACTER 78 TR 2913

NOAA FORM 24-13

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
HELOH'S SECTION  
ROCKVILLE, MARYLAND 20802FORM APPROVED  
O.M.B. No. 41-R2651

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

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Virginia Institute of Marine Science  
Gloucester Point, Virginia 230622. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH  
DATA WERE COLLECTED

BLP

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY  
DATA IN THIS SHIPMENT

BLM08B

4. PLATFORM NAME(S)

H.J.W. Fay

5. PLATFORM TYPE(S)  
(E.G., SHIP, BUOY, ETC.)

Ship

6. PLATFORM AND OPERATOR  
NATIONALITY(IES)H.J.W.  
FayTracor  
Marine

7. DATES

FROM: MO/DAY/YR TO: MO/DAY/YR

08/03/77

08/17/77

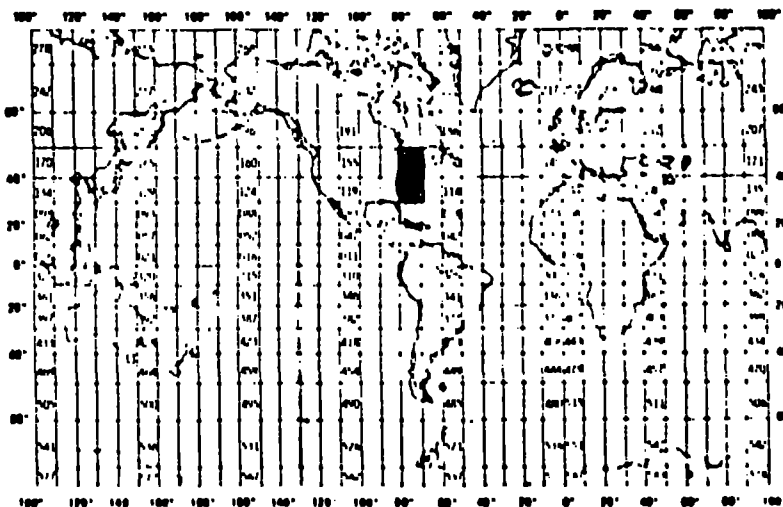
8. ARE DATA PROPRIETARY?

☒ NO ☐ YESIF YES, WHEN CAN THEY BE RELEASED  
FOR GENERAL USE? YEAR MONTH9. ARE DATA DECLARED NATIONAL  
PROGRAM (DNP)?(I.E., SHOULD THEY BE INCLUDED IN WORLD  
DATA CENTERS HOLDINGS FOR INTERNA-  
TIONAL EXCHANGE?)☒ NO ☐ YES ☐ PART (SPECIFY BELOW)10. PERSON TO WHOM INQUIRIES CONCERNING  
DATA SHOULD BE ADDRESSED WITH TELE-  
PHONE NUMBER (AND ADDRESS IF OTHER  
THAN IN ITEM-1)Dr. Gerald L. Engel  
Va. Institute of Marine Science  
Gloucester Pt., Va. 23062

804-642-2111

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA  
CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



## B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal hemis.	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444 Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Ship's Annemometer Bendix Model 120/135		
Wind direction	Tens of degrees IMO Code 0877	Ship's Annemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's compass		
Wave direction	Tens of degrees IMO Code 0877	Visual estimate		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4877	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

## B. SCIENTIFIC CONTENT

## Bacteriology

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Whist watch - visual observation		
Swell period	Seconds	Whist watch - visual observation		
Hydrocarbonoclastic bacteria	per ml if water per gram if sediment per m <sup>2</sup> if surface film	Water samples obtained with Niskin sterile bag sampler. Surface film with "Nutex" screen sampler. Sediment samples taken from undisturbed Smith - McIntyre grab sample using sterile "mini" lorers made from disposable syringes.	Most probably number (MPN) technique utilizing mineral salts enriched seawater & sterile crude oil broth	Mean ( $\bar{X}$ ) value calculated from replicate samples
Heterotrophic bacteria	Per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film		Most probable number (MPN) technique utilizing a modified peptone-yeast extract seawater broth	Mean ( $\bar{X}$ ) value calculate from replicate sample

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header, "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for each sample Positions 1-10 identical to last data record, "998" in positions 11-13
8. File terminator Positions 1-10 identical to last data record, "998" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.  
Following this are Data Records for that sample followed by Terminator record.  
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL  
☒ FORTRAN ☐ \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM449 Virginia Institute of Marine Science Bacteriology File Label = 'BACTER.009.BLM08B'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 80</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

## RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I?	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	17	Chars	17A1	Responsible for data.

# RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	NAVIGATION: (see attached codes)
Procedure	52	1	Byte	I1	Analytical procedure: 1=Hydrocarbonoclastic bacteria MPN dilution procedure 2=Heterotrophic bacteria MPN dilution procedure 3=Both
Sample depth	53	4	Bytes	I4	Water sample depth (meters)
Sphere	57	1	Byte	I1	Sphere code: 1=surface water 2=sediment 3=microlayer (surface film) 4=thermocline water 5=bottom water
WTemp	58	3	Bytes	F3.1*	Surface water temperature (°C)
STemp	61	3	Bytes	F3.1*	Sediment temperature (°C)
Grab	64	1	Byte	I1	Grab replicate number (blank if not applicable)
Blank	65	16	Bytes	16X	Blank

\*Decimal place is IMPLIED: "period" is not present

# RECORD FORMAT DESCRIPTION

Page 1

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident.	1	10	Bytes	A3,3I2,A	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"009" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25X	Blank

\*Decimal place is IMPLIED; "period" is not present



14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"009" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	1	Char	A1	Replicate I.D. for grab
Heterotrophic	20	7	Bytes	E7.0	Heterotrophic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
Hydrocarbonoclastic	27	7	Bytes	E7.0	Hydrocarbonoclastic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
	34	1	Bytes	F1	Heterotrophic bacteria too few for detecting if this col=1 and col 20-26 are blank
	35	1	Byte	F1	Hydrocarbonoclastic bacteria are too few for detection if this col=1 and col 27-33 are blank
Blank	36	45	Byte	45X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)"
Blank	14	67	Bytes	67X	Blank

#### NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

#### TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

#### D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

BLM08B, BLM08W

[illegible]

# RECORD FORMAT DESCRIPTION

RECORD NAME

78-0207

BACTI

TR 2910 - TR 2913

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
				(1)	DEPTHS ZERO-FILLED EX. 405 → 400 FOR ALL STATIONS
				(2)	WAVE DIRECTION FILLED 65 → 60
				TR 2911	SAMPLE N3001, N3003 N3004, N3005
				(3)	SURFACE TEMP CHANGED FROM -05 to 05 in
				TR 2912	RECORDS C1001, C2000 C4000 TR 2912
				(4)	SEDIMENT TEMP CHANGED FROM -05 to 05 in
				TR 2912	C1002 TR 2912
				(5)	SAMPLE B2000 DRY BULB TEMP
				TR 2913	245 → 240
				(6)	SAMPLE F2005 COL 55 FOR LENGTH OF 4
				TR 2913	SHIFTED 1 LEFT.
				(7)	ALL TERMINATOR RECORDS ELIMINATED

DATE:

TO: 0C12

FROM: 0C13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800207

- 1) File Type: F009  
2) Project Ident.: VIMS-OCS  
3) Track Nos.: TR2911

## I. Error Corrections as reported to Principal Investigator:

ErrorCorrection Completed (Check)

## II. Additional error corrections:

ErrorCorrection Completed (Check)

CHANGED WIND DIR. CODE FROM 90 TO 09 and 6 to 06.  
END OF STATION RECORDS (998 in vol 11-13) DELETED  
END OF CRUISE RECORD (999 in vol 11-13) DELETED  
REPLICATE NO. (COL. 19) CHANGED A to 1, B to 2.  
LATITUDE RANGE CHANGED TO 30°-40°

III. Processor Name: Charles B. Selkirk

## TAPE ASSIGNMENT SHEET

ACCESSION NO.: 78000207

TRACK NO(s): TR2911

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCMA439	<del>SL</del> SL	80	80	9-tr 1600 BPI EBCDIC	
Duplicate	W11024	SL	80	4000	9-tr 1600 BPI ASCII	
Reformatted						
First User	DNODC* SEL DATA. FOO9 TR 2911		80			
Final User	DNODC* MP075. TR2911/ FOO9		80			

ACCESSION/TRACK # 78000207/TR2911

Step	Completion Date/Init.	Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	4/6/83 <i>(JED)</i>	VCMA439	3	80	80	
QUADI/SCAN TAPE	4/6/83 <i>(JED)</i>	W11024	3	4000	80	
ASSIGNED FOR PROCESS.						
DDF EVALUATION						
QUALITY REVIEW						
PRELIMINARY DATA SORT						
PRELIMINARY MULCHEK	9/25/84 <i>CBT</i>	DNODE * SELE DATA FO09 TR 2911	1		80	
FIRST USER TAPE						
WORK DISK FILE	9/25/84 <i>CBT</i>	"	1		80	
FINAL USER TAPE						
FINAL MULCHEK	9/26/84 <i>CBT</i>	"	1		80	
EDITED DISK FILE	9/26/84 <i>CBT</i>	MPD * 75. TR 2911 / F009	1		80	
DATA SET "FINALIZED"	9/27/84 <i>CBT</i>	"	1		80	

REC'D 3/6/78 VCM439 BAC

DDF A: 1: 06

ACCESSION  
NUMBER

78-0207

## DATA DOCUMENTATION FORM

TR 2911

2910

NOAA FORM 24-13  
(4-72)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
ROCKVILLE, MARYLAND 20852FORM APPROVED  
O.M.B. No. 41-R2651

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A 106

## A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BIM		BLM07B	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		H.J.W. Fay Tracor Marine	05/30/77 06/05/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA RELEASED NATIONAL PROGRAM (NRP)? IF YES, SHOULD THEY BE INCLUDED IN WORLD DATA CENTER HOLDINGS FOR INTERNATIONAL EXCHANGE? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM 1)			
Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062			



## B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS AND LABORATORY PROCEDURES)	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EPC Model 4500 Recorder ORE 12KH <sub>2</sub> Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4877	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

## B SCIENTIFIC CONTENT

## Bacteriology

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4500	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		
Hydrocarbon- lastic bacteria	per ml if water per gram if sediment per m <sup>2</sup> if surface film	Water samples obtained with Niskin sterile bag sampler. Surface film with "Nutex" screen sampler. Sediment samples taken from undisturbed Smith - McIntyre grab sample using sterile "mini" lorers made from disposable syringes.	Most probably number (MPN) technique utilizing mineral salts enriched seawater & sterile crude oil broth	Mean ( $\bar{x}$ ) value calculated from replicate samples
Heterotrophic bacteria	Per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film		Most probable number (MPN) technique utilizing a modified peptone-yeast extract seawater broth	Mean ( $\bar{x}$ ) value calculate from replicate sample

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File terminator Positions 1-10 identical to last data record, "998" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.  
Following this are Data Records for that sample followed by Terminator record.  
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL  
☒ FORTRAN ☐ \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE <input type="checkbox"/> RCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM439 Virginia Institute of Marine Science Bacteriology File Label = 'BACTER.009.BLM07B'</p>
<p>8. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 356 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 80 13. LENGTH OF BYTES IN BITS 8</p>

# RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 TO - 1000 IN BYTES (e.g., 100, 1000)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identifier (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) 1?	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigator's name (left-justified)
Investigator	64	17	Chars	17A1	Investigator's Institution Responsible for data.

# RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., 010, bytes)	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	NAVIGATION: (see attached codes)
Procedure	52	1	Byte	I1	Analytical procedure: 1=Hydrocarbonoclastic bacteria MPN dilution procedure 2=Heterotrophic bacteria MPN dilution procedure 3=Both
Sample depth	53	4	Bytes	I4	Water sample depth (meters)
Sphere	57	1	Byte	I1	Sphere code: 1=surface water 2=sediment 3=microlayer (surface film) 4=thermocline water 5=bottom water
WTemp	58	3	Bytes	F3.1*	Surface water temperature (°C)
STemp	61	3	Bytes	F3.1*	Sediment temperature (°C)
Grab	64	1	Byte	I1	Grab replicate number (blank if not applicable)
Blank	65	16	Bytes	16X	Blank

\*Decimal place is IMPLIED: "period" is not present

## RECORD FORMAT DESCRIPTION

[ Page 1 ]

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN FIELD (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A	Same as Sample Header Record
Sequence	11	3	Chars	A3	"008" (constant)
Blank	14	66	Bytes	66X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"009" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25X	Blank

\*Decimal place is IMPLIED; "period" is not present

\*Decimal place is IMPLIED; "period" is not present

14. FIELD NAME	15. POSITION FROM - 1 ML ADDRESS IN (e.g., bfr, byte)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "2"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"009" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	1	Char	A1	Replicate I.D. for grab
Heterotrophic	20	7	Bytes	E7.0	Heterotrophic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
Hydrocarbonoclastic	27	7	Bytes	E7.0	Hydrocarbonoclastic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
	34	1	Bytes	F1	Heterotrophic bacteria too few for detecting if this col=1 and col 20-26 are blank
	35	1	Byte	F1	Hydrocarbonoclastic bacteria are too few for detection if this col=1 and col 27-33 are blank
Blank	36	45	Byte	45X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant"
Blank	14	67	Bytes	67X	Blank

#### NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

#### TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer



W B

## D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

BLM07E, BLM07W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY RE-EN- DED (✓)	
Neil Brown Inst. CTD MK III	May, 1977	✓			✓				
Beckman Minds D.O. Sensor	May, 1977	✓			✓				
Guildline Autosac MCD 8400	May, 1977	✓			✓				

# ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800207

- 1) File Type: F009
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR2911

## I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

## II. Additional error corrections:

Error

Correction Completed (Check)

CHANGED WIND DIR. CODE FROM 90 TO 09 and 68 to 06.  
 END OF STATION RECORDS (998 in col 11-13) DELETED  
 END OF CRUISE RECORD (999 in col 11-13) DELETED  
 REPLICATE NO. (COL. 19) CHANGED A to 1, B to 2.  
 LATITUDE RANGE CHANGED TO 30°-40°

III. Processor Name: Charles B. Selkirk

## TAPE ASSIGNMENT SHEET

ACCESSION NO.: 78000207

TRACK NO(s): TR2911

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCMA439	<del>SL</del> S	80	80	9-tu 1600 BPI EBCDIC	
Duplicate	W11024	SL	80	4000	9-tu 1600 BPI ASCII	
Reformatted						
First User	DNODC* SEL DATA. F009 TR 2911.		80			
Final User	DNODC* MP075. TR2911/ F009		80			

ACCESSION/TRACK # 78000209/TR2911

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	4/6/83	<del>800</del>	VCM439	3	80	80	
QUADI/SCAN TAPE	4/6/83	<del>800</del>	W11024	3	4000	80	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK	9/25/84	CBT	DNODE * SELOATA F009 TR 2911	1		80	
FIRST USER TAPE							
WORK DISK FILE	9/25/84	CBT	"	1		80	
FINAL USER TAPE							
FINAL MULCHEK	9/26/84	CBT	"	1		80	
EDITED DISK FILE	9/26/84	CBT	MPD * 75. TR 2911 / F009	1		80	
DATA SET "FINALIZED"	9/27/84	CBT	"	1		80	

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: 0C12

FROM: 0C13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800207

- 1) File Type: F009
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR2912

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

DELETE END OF STATION CARDS (998 IN COL. 11-13) ✓  
REPLICATE NO. (COL 19) CHANGED A to 1, B to 2  
END OF CRUISE RECORD (999 IN 11-13) DELETED  
LATITUDE RANGE CHANGED TO 30° TO 40°  
WHERE 60 SECONDS OF LAT OR LONG, ~~E~~ ADDED 1 MIN AND CHANGED TO .00 SEC.  
BLANKS IN TEMP FILLED WITH ZEROES.

III. Processor Name: Charles. Felber

TAPE ASSIGNMENT SHEET

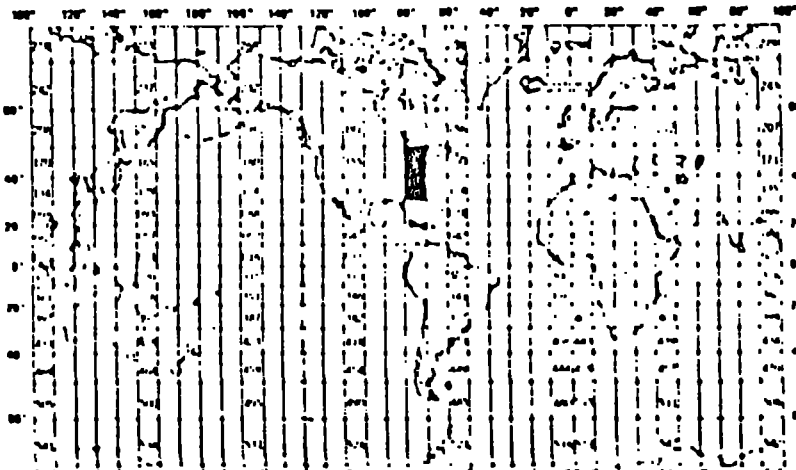
ACCESSION NO.: 7800207

TRACK NO(s): TR2912

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM448	SL	80	80	9-tr 1600 BPI EBCDIC	
Duplicate	W10631	SL	80	4000	9-tr 1600 BPI ASCII	
Reformatted						
First User	SEL DATA, FOO9 TR 2912		80			
Final User	MPD75. TR2912/ FOO9		80			

ACCESSION/TRACK # 7800207/ TR2912

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
TOR TAPE	4/7/83	<del>88P</del>	VCMA448	3	80	80	
CAN TAPE	4/7/83	<del>88P</del>	W10631	3	4000	80	
D FOR PROCESS.							
EVALUATION							
REVIEW							
BINARY DATA SORT							
BINARY MULCHEK	9/25/84	CBF	DNODCK SEL DATA FOO9 TR 2912	1		80	294
USER TAPE							
DISK FILE	9/25/84	CBF	"	1		80	294
USER TAPE							
MULCHEK	9/26/84	CBF	"	1		80	293
DISK FILE	9/26/84	CBF	MPD 75 TR 2912/FOO9	1		80	293
SET "FINALIZED"	9/26/84	CBF	"	1		80	293





## B SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SINRAD Model LC 101		Program used to convert from Loran C coordinate to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenths of a meter	EDO Model 55A Recorder EDO Model 444D/248D Transceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4077	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Whist watch - visual observation		
Swell period	Seconds	Whist watch - visual observation		
Hydrocarbon-elastic bacteria	per ml if water per gram if sediment per m <sup>2</sup> if surface film	Water samples obtained with Niskin sterile bag sampler. Surface film with "Nutex" screen sampler. Sediment samples taken from undisturbed Smith-McIntyre grab sample using sterile "mini" lorers made from disposable syringes.	Most probably number (MPN) technique utilizing mineral salts enriched seawater & sterile crude oil broth	Mean ( $\bar{x}$ ) value calculated from replicate samples
Heterotrophic bacteria	Per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film		Most probable number (MPN) technique utilizing a modified peptone-yeast extract seawater broth	Mean ( $\bar{x}$ ) value calculate from replicate sample

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE.  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "999" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header, "999" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "999" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL  
☒ FORTRAN ☐ \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER- HOLE GAP (IF KNOWN) <input type="checkbox"/> 3/4 inch <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM448 Virginia Institute of Marine Science Bacteriology File Label = 'BACTER.009.BLM06B'</p>
<p>8. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 80 13. LENGTH OF BYTES IN BITS 8</p>

## RECORD FORMAT DESCRIPTION

 RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MINIMUM IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"C09" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	17	Chars	17A1	

# RECORD FORMAT DESCRIPTION

WORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., 31a, byte)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"009" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	NAVIGATION: (see attached codes)
Procedure	52	1	Byte	I1	Analytical procedure: 1=Hydrocarbonoclastic bacteria MPN dilution procedure 2=Heterotrophic bacteria MPN dilution procedure 3=Both
Sample depth	53	4	Bytes	I4	Water sample depth (meters)
Sphere	57	1	Byte	I1	Sphere code: 1=surface water 2=sediment 3=microlayer (surface film) 4=thermocline water 5=bottom water
WTemp	58	3	Bytes	F3.1*	Surface water temperature (°C)
STemp	61	3	Bytes	F3.1*	Sediment temperature (°C)
Grab	64	1	Byte	I1	Grab replicate number (blank if not applicable)
Blank	65	16	Bytes	16X	Blank

\*Decimal place is IMPLIED: "period" is not present

## RECORD FORMAT DESCRIPTION

[Page 1]

RECORD NAME \_\_\_\_\_

14. FIELD NAME	15. POSITION FROM - 1 MEASUREMENT IN FIELD (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminator	3			
Ident	1	10	Bytes	A3,3I2,A	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"009" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degree
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degree
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degree
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25X	Blank

\*Decimal place is IMPLIED; "period" is not present

14. FILE TYPE	15. RECORD TYPE FROM 1 TO 2 IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "2"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"009" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	1	Char	A1	Replicate I.D. for grab
Heterotrophic	20	7	Bytes	E7.0	Heterotrophic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
Hydrocarbonoclastic	27	7	Bytes	E7.0	Hydrocarbonoclastic bacteria (per ml. if water, per gram if sediment, per m <sup>2</sup> if surface film: MPN value)(see sphere code)
	34	1	Bytes	F1	Heterotrophic bacteria too few for detecting if this col=1 and col 20-26 are blank
	35	1	Byte	F1	Hydrocarbonoclastic bacteria are too few for detection if this col=1 and col 27-33 are blank
Blank	36	45	Byte	45X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant"
Blank	14	67	Bytes	67X	Blank

#### NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

#### TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer



## D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

BLM06B, BLM06W

INSTRUMENT TYPE (INSTR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Jan., 1977	✓			✓				
Beckman Minds D.O. Sensor	Jan., 1977	✓			✓				
Guildline Autosac MODE400	Jan., 1977	✓			✓				

# ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: 0C12

FROM: 0C13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800207

- 1) File Type: F009
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR2912

## I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

## II. Additional error corrections:

Error

Correction Completed (Check)

DELETE END OF STATION CARDS (998 IN COL. 11-13) ✓  
 REPLICATE NO. (COL 19) CHANGED A to 1, B to 2  
 END OF CRUISE RECORD (999 IN 11-13) DELETED  
 LATITUDE RANGE CHANGED TO 30° TO 40°  
 WHERE 60 SECONDS OF LAT OR LONG; ~~CH~~ ADDED 1 MIN AND CHANGED TO 00 SEC.  
 BLANKS IN TEMP FILLED WITH ZEROS.

III. Processor Name: Charles. Felder

## TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800207

TRACK NO(s): TR2912

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM448	SL	80	80	9-tr 1600 BPI EBCDIC	
Duplicate	W10631	SL	80	4000	9-tr 1600 BPI ASCII	
Reformatted						
First User	SEL DATA, F009 TR 2912		80			
Final User	MPD75. TR2912/ F009		80			

ACCESSION/TRACK # 7800207/ TR2912

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
FOR TAPE	4/7/83	<del>8BP</del>	VCMA48	3	80	80	
CAN TAPE	4/7/83	<del>8BP</del>	W10631	3	4000	80	
D FOR PROCESS.							
LUATION							
REVIEW							
NARY DATA SORT							
NARY MULCHEK	9/25/84	CAT	DNODCK SEL DATA F009TR2912	1		80	294
USER TAPE							
SK FILE	9/25/84	CAT	"	1		80	294
USER TAPE							
MULCHEK	9/26/84	CAT	"	1		80	293
DISK FILE	9/26/84	CAT	MPD 75. TR2912/F009	1		80	293
ET "FINALIZED"	9/26/84	CAT	"	1		80	293

# ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: 0C12

FROM: 0C13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800207

- 1) File Type: F009
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR2913

## I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

## II. Additional error corrections:

Error

Correction Completed (Check)

END OF STATION RECORDS DELETED (998 in COL 11-13)  
 END OF CRUISE RECORD DELETED (999 in COL 11-13)  
 REPLICATE NO. (COL 19) CHANGED A to 1, B to 2,  
 BLANKS IN TEMP REPLACED WITH ZEROS  
 LATITUDE RANGE CHANGED TO 30° to 40°

## III. Processor Name:

Charles B. Selkirk

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800207

TRACK NO(s): TR2913

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCMA449	SL	80	80	9-tu 1600 BPI EBCDIC	
Duplicate	WID573	SL	80	4000	9-tu 1600 BPI ASCII	
Reformatted						
First User	SEL DATA. FOO9TR 2913		80			
Final User	MPD751 TR2913/ FOO9		80			

ACCESSION/TRACK # 7800207/TR2913

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	4/8/83	<del>833P</del>	VCMA449	3	80	80	
QUADI/SCAN TAPE	4/8/83	<del>833P</del>	W10573	3	4000	80	
ASSIGNED FOR PROCESS.							
DGF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK	9/25/84	CBL	DWDCX SELDATA, F009 TR 2913		8	80	583
FIRST USER TAPE							
WORK DISK FILE	9/25/84	CBL	"			80	583
FINAL USER TAPE							
FINAL MULCHEK	9/26/84	CBL	"			80	333
EDITED DISK FILE	9/26/84	CBL	MPD 75 TR 2913/F009			80	333
DATA SET "FINALIZED"	9/27/84	CBL	"			80	333

Password:

accNo	fleA	refNo	proj	inst	ship	startDate	cruise	catId
7800207	F004	TR2908	0084	3128	32CW	1976/11/08	BLM05T	306681
7800207	F004	TR2909	0084	3128	31GI	1977/03/18	BLM06T	306682
7800207	F009	TR2910	0084	3128	31FY	1976/11/05	BLM05B	306683
7800207	F009	TR2911	0084	3128	31FY	1977/05/30	BLM07B	306684
7800207	F009	TR2912	0084	3128	31FY	1977/02/04	BLM06B	306685
7800207	F009	TR2913	0084	3128	31FY	1977/08/04	BLM08B	306686

(6 rows affected)



Password:

accNo	fileA	refNo	ship	staCnt	recCnt	startDate	endDate
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7800207	F004	TR2908	32CW	70	0	76/11/08	76/11/18
7800207	F004	TR2909	31GI	65	0	77/03/18	77/03/28
7800207	F009	TR2910	31FY	53	213	76/11/05	76/11/18
7800207	F009	TR2911	31FY	60	241	77/05/30	77/06/05
7800207	F009	TR2912	31FY	73	293	77/02/04	77/03/13
7800207	F009	TR2913	31FY	83	333	77/08/04	77/08/16

(6 rows affected)