

Cruise # 319142

ACCESSION NUMBER

78-0310

3/24/78

DDF-B:1:24

DATA DOCUMENTATION FORM

TR2973

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  DATA MANAGEMENT INSTITUTE OF MARINE SCIENCE UNIVERSITY OF ALASKA FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED  OCSEAP		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT  SU 006 SU FILE ID 406JMS	
4. PLATFORM NAME(S)  SURVEYOR	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)  SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)  U.S. U.S.	7. DATES FROM: MO, DAY, YR TO: MO, DAY, YR 4/14/77 5/02/77
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.  GENERAL AREA 196	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1)  DATA PROCESSING C/O CYDNEY HANSEN (907)479-7833 (907)479-7074			

**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
SALINITY	0.001%	NANSEN BOTTLES & PLESSEY STD	SEE ATTACHED DATA PROCESSING PROCEDURE SHEETS	N/A
TEMPERATURE	°C	DSR THERMOMETERS & PLESSEY STD	SEE ATTACHED DATA PROCESSING PROCEDURE SHEETS	N/A
DEPTH	METERS (1M=1db)	THERMOMETRIC DEPTH & PLESSEY STD	SEE ATTACHED DATA PROCESSING PROCEDURE SHEETS	N/A

## IMS STD/CTD DATA REDUCTION

July 1976

### STDCOPY

Raw, 7-track mag tapes from 8400 or 8314 Plessey Digitizers are input, along with conversion equations specific for each sensor. These equations reflect the latest calibration or factory compliance data. If the FISH contains a conductivity sensor, it is converted to salinity by a relation based on the work of A. S. Bennett. (OSR, Vol. 23, No. 2, February 1976.)

Output of this program is on 9-track tape and includes digitally entered header data and all STD values on the 7-track tape. Output from this program is input for STDAV.

### CALVAL

Periods from a frequency counter, taken at the time discrete samples were taken, is input along with raw temperature and conductivity data from the discrete samples. Each set of such data constitute one field correction.

All of the field corrections are listed along with mean values and standard deviations for T and S. Generally, values for T and S are rejected if they fall beyond two standard deviations from the mean.

Subjective judgments as to the quality of the field correction data is made at this time.

Output from this program provides input for STDAV.

### STDAV

Data from STDCOPY and CALVAL are input with keypunched header information which includes station position, time and weather.

STD/V checks each parameter to insure it falls within sensor limits. Parameters are grouped into one meter intervals (1m = 1db) and averaged. Field corrections are added to the one meter averages.

STD Scan condition codes are set:

- 0 - Data processed prior to implementation code. All values will be labeled 0.
- 1 - Value obtained from raw data at that depth interval. Processing to obtain this value must be specified in a DDF.
- 2 - Values are linearly interpolated from adjacent depth intervals.
- 3 - Values are obtained by "Vertical Extrapolation" from the first depths for which a value is found that falls within sensor limits.

Output includes header information and all corrected data in one meter intervals.

FINAL PRINT-OUT: To include the following, in addition to header and data:

- 1) Print-out "FISH" serial No. and stations for which it was used if more than one was used.
- 2) Equations used to convert frequency to parameters for each FISH used.
- 3) Field corrections used, to include mean and S.D. for each parameter. (If more than one fish was used, this is given for all fish).
- 4) Indicate how many bottles were used to determine each field correction for each fish used.
- 5) Other comments pertinent to individual stations or whole cruise.

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPETHREE RECORD TYPES WITHIN FILE TYPE 22

DESIGNATED AS: "1" For Text Record (in 10th Byte position)

"2" for Master Record.

"3" for Detail Record

## 2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

FILE 22, STD/CTD: 0 to 99,999 Text Records, followed by

1 Master Record, followed by

0 to 99,999 Detail Records

REPEATS

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

## 4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Cydney Hansen, (907) 479-7836ADDRESS Institute of Marine Science, University of Alaska, Fairbanks, AK99701

## COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____	9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 - .6 inch
6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____	10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input checked="" type="checkbox"/> octal 23
7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN	11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) 427 022 006IMS Surveyer 006 Sta's. 1-16 4/14/77 - 05/02/77 Dr. Alexander 9TRK, 800BPI, EBCDIC, NO LABEL, ODD
8. DENSITY <input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input checked="" type="checkbox"/> 800 BPI <input type="checkbox"/> _____	12. PHYSICAL BLOCK LENGTH IN BYTES 120 bytes/block 13. LENGTH OF BYTES IN BITS 8 bit bytes

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

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

USER TAPE

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

ATTRIBUTES AS EXPRESSED IN

PL-1

ALGOL

COBOL

FORTRAN

\_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER D 752 - NOAA/EDS/NODC - 202 634 7505

ADDRESS WASHINGTON, DC 20235

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</p> <p><input type="checkbox"/> _____</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><b>000331 (1,5L)</b></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</p> <p><b>4800</b></p> <p>13. LENGTH OF BYTES IN BITS</p> <p><b>120</b></p>

# RECORD FORMAT DESCRIPTION

RECORD NAME STD RECORD FORMAT DESCRIPTION, FILE TYPE 22

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
FILE TYPE "22" AS	DESIGNATED BY	OCSEP	AND	NODC.	THERE ARE NO INTENDED DEVIATIONS FROM THIS TYPE.

THE FACILITY OF MARINE SCIENCE IS RESPONSIBLE FOR THE DATA WHICH WAS COLLECTED  
 DURING THE SURVEYOR BETWEEN 04/14/77 AND 05/02/77 BY ALEXANDER  
 OF THE INSTITUTE OF MARINE SCIENCE.

THE CRUISE IS DIVIDED INTO TWO SECTIONS IN AN ATTEMPT TO COMPENSATE FOR THE  
 VARYING SALINITY CORRECTION. THE ACCURACY FOR SALINITY ON THIS CRUISE IS THERE-  
 FORE GREATLY IMPROVED. SPECIFIC GRAVITY FOR ANY GIVEN STATION IS PROBABLY UNAFFECTED.

CIT MODEL 90-C-2, SERIAL NUMBER 5914 WAS USED FOR STATIONS 1 THROUGH 11. AND  
 PARAMETERS FROM FREQUENCY FOLLOW:  
 $S = (-0.9713.918) * 0.9510007C$   
 $T = (-2.136.008) * 1.79195E-2 - 3.0000$   
 $SE = (-4.999.300) * 3.99988E-4 + 0.2331200$

CIT MODEL 90-C, SERIAL NUMBER 4211 WAS USED FOR STATIONS 12 THROUGH 16.  
 PARAMETERS FROM FREQUENCY FOLLOW:  
 $S = (-0.9713.918) * 0.9505007C$   
 $T = (-2.136.008) * 1.79195E-2 - 3.0000$   
 $SE = (-4.999.300) * 3.99365E-4 + 0.2331200$

FIELD CORRECTION FOR THIS CRUISE WAS TAKEN FROM SURVEYOR CRUISE 506.

FIELD CORRECTION FOR THE CTD DATA WAS DERIVED BY COMPARING SINGLE BOTTLE SAMPLES  
 TO RECORDED PERIODS FROM THE CTD SENSORS. THE FIELD CORRECTION IS BASED ON 7  
 SAMPLES FROM STATIONS 1 THROUGH 11 OR A TOTAL OF 11 STATIONS.

THE FIELD CORRECTION FOR THE FIRST CAST THROUGH CAST 11 IS:  
 TEMPERATURE MEAN (NANSEN-CTD) IS -0.06803  
 STANDARD DEVIATION OF DIFFS (NANSEN-CTD) IS 0.01348  
 SALINITY MEAN (NANSEN-CTD) IS -0.05298  
 STANDARD DEVIATION OF DIFFS (NANSEN-CTD) IS 0.01602

FIELD CORRECTION FOR THE CTD DATA WAS DERIVED BY COMPARING SINGLE BOTTLE SAMPLES  
 TO RECORDED PERIODS FROM THE CTD SENSORS. THE FIELD CORRECTION IS BASED ON 3  
 SAMPLES FROM STATIONS 12 THROUGH 16 OR A TOTAL OF 5 STATIONS.

THE FIELD CORRECTIONS HIGHLY TO STATION 12 THROUGH THE END OF CRUISE ARE:  
 TEMPERATURE MEAN (NANSEN-CTD) IS -0.00849  
 STANDARD DEVIATION OF DIFFS (NANSEN-CTD) IS 0.00859  
 SALINITY MEAN (NANSEN-CTD) IS 0.00206  
 STANDARD DEVIATION OF DIFFS (NANSEN-CTD) IS 0.01369

THE NEGATIVE FIELD CORRECTION IS A REASONABLE VALUE.  
 THE SALINITY FIELD CORRECTION VARIES CONSIDERABLY THROUGHOUT THE CRUISE  
 (+0.004). SINCE THE CORRECTION TRENDS (RAATHER THAN SHOWS SCATTER), IT  
 IS LIKELY TO BE A REAL EFFECT.

STATION	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	TEMP	SALINITY	
1	14.77	417	6151	1010172	25	32126246	79040	5914.	4211	NCNE	148	133																					
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1	14.77	417	6151	1010172	25	32126246</																											



### 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.

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 (✓)	
Sta's. 1-11 MODEL 9040-2 PLESSEY STD	7/76		NRCC	1 YR.					
Sta's. 12-16 MODEL 9040 PLESSEY STD	7/76		NRCC	1 YR.					

022TR29731 12THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED 1  
 ?????  
 STATION NUMBER HAS CHANGED WITHOUT A MASTER  
 \*\*\*\*\*  
 C22TR29731 13THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED 1  
 ?????  
 STATION NUMBER HAS CHANGED WITHOUT A MASTER  
 \*\*\*\*\*  
 C22TR29731 14THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED 1  
 ?????  
 STATION NUMBER HAS CHANGED WITHOUT A MASTER  
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 C22TR29731 15THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED 1  
 ?????  
 STATION NUMBER HAS CHANGED WITHOUT A MASTER  
 \*\*\*\*\*  
 C22TR29731 16THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED 1  
 ?????  
 STATION NUMBER HAS CHANGED WITHOUT A MASTER  
 THE FIELDS BELOW WERE CHECKED AS FOLLOWS(S=SIGN/B=BLANK/T=TAXONOMIC CODE/N=NUMERIC/M=MANDATORY NUMERIC

TYPE	REC	POS	LENGTH	NAME	RANGE TESTED LOW HIGH	ACTUAL RANGE LOWEST HIGHEST	MEAN	S. DEV	COUNT
C	2	30	1	LON HEM	W W				
M	2	16	2	LAT DEG	40 89	54 59	56.75	1.67	16
M	2	18	2	LAT MIN	00 59	0 55	30.68	18.87	16
N	2	20	2	LAT MIN 1/100	00 99	0 90	51.87	32.64	16
C	2	22	1	LAT HEM	N N				
M	2	23	3	LON DEG	50 179	160 175	167.81	4.12	16
M	2	26	2	LON MIN	00 59	2 59	30.37	18.82	16
N	2	28	2	LON MIN 1/100	00 99	0 90	38.68	21.82	16
N	2	41	5	NUM. OF SCANS	NO RANGE CHECKING	53 1002	147.37	222.48	16
M	2	46	2	OBS YR	74 80	77 77	77.00	00	16
M	2	48	2	OBS MON	01 12	4 5	4.12	38	16
M	2	50	2	OBS DAY	01 31	1 30	19.75	8.38	16
M	2	52	2	OBS HR	00 23	2 22	13.81	5.27	16
N	2	54	2	OBS MIN	00 59	5 56	38.68	13.60	16
N	2	56	1	DEPTH INTERVAL INDIC	0 1	1 1	1.00	00	16
N	2	57	3	DEPTH INTVL	00 99	10 10	10.00	00	16
N	2	60	4	BAROMETRIC PRESSURE	0944 1050	985 1029	1003.87	12.61	16
N	2	65	4	WET-BULB TEMPERATURE	-300 0400	-25 35	5.87	19.39	16
N	2	69	4	DRY-BULB TEMPERATURE	-300 0400	-22 45	11.12	21.40	16
N	2	73	2	WIND DIRECTION	00 36	4 34	18.68	9.62	16
N	2	75	2	WIND SPEED	00 70	5 30	15.18	6.49	16
N	2	77	1	WEATHER	NO RANGE CHECKING	1 7	2.53	1.56	13
N	2	78	1	SEA STATE	NO RANGE CHECKING	0 5	2.93	1.26	16
N	2	79	1	VISIBILITY	NO RANGE CHECKING	4 7	6.19	1.10	15
N	2	81	1	CLOUD AMOUNT	NO RANGE CHECKING	4 8	7.23	1.42	13
N	2	108	5	BOTTOM DEPTH	00000 11000	60 1850	208.00	425.12	16
N	3	16	4	DEPTH1	0000 6000	5 1000	246.46	294.48	462
N	3	20	1	DEPTH1 1/1000	0 9	0 0	00	00	478
N	3	36	4	DEPTH2	0001 6000	1 1001	240.13	293.57	475
N	3	40	1	DEPTH2 1/1000	0 9	0 0	00	00	478
N	3	56	4	DEPTH3	0002 6000	2 997	240.27	292.18	472
N	3	60	1	DEPTH3 1/1000	0 9	0 0	00	00	472
N	3	76	4	DEPTH4	0003 6000	3 998	242.57	293.07	468
N	3	80	1	DEPTH4 1/1000	0 9	0 0	00	00	468
N	3	96	4	DEPTH5	0004 6000	4 999	244.49	293.79	465
N	3	100	1	DEPTH5 1/1000	0 9	0 0	00	00	465
N	3	21	4	TEMPER1	-200 2000	-170 412	200.71	192.81	478

N	3	25	1	TEMPER1	1/1000	0	9	0	9	4.54	2.96	478
N	3	41	4	TEMPER2		-200	2000	-169	413	201.64	192.35	475
N	3	45	1	TEMPER2	1/1000	0	9	0	9	4.56	2.92	478
N	3	61	4	TEMPER3		-200	2000	-169	414	202.52	192.14	472
N	3	65	1	TEMPER3	1/1000	0	9	0	9	4.35	2.86	472
N	3	81	4	TEMPER4		-200	2000	-169	412	203.29	191.15	468
N	3	85	1	TEMPER4	1/1000	0	9	0	9	4.45	2.86	468
N	3	101	4	TEMPER5		-200	2000	-169	412	203.50	191.05	465
N	3	105	1	TEMPER5	1/1000	0	9	0	9	4.23	2.89	465
N	3	26	4	SALINITY1		1000	3650	3117	3435	3287.85	95.58	478
N	3	46	4	SALINITY2		1000	3650	2427	3435	3285.30	104.55	475
N	3	66	4	SALINITY3		1000	3650	3117	3435	3287.79	95.28	472
N	3	86	4	SALINITY4		1000	3650	3117	3435	3289.73	95.12	468
N	3	106	4	SALINITY5		1000	3650	3116	3435	3290.47	95.05	465
N	3	31	4	SIGMA-T1		0315	3000	2509	2742	2628.23	69.32	478
N	3	51	4	SIGMA-T2		0315	3000	1935	2742	2626.15	77.67	475
N	3	71	4	SIGMA-T3		0315	3000	2509	2742	2628.12	69.31	472
N	3	91	4	SIGMA-T4		0315	3000	2509	2742	2629.68	69.34	468
N	3	111	4	SIGMA-T5		0315	3000	2509	2742	2630.23	69.27	465
N	3	35	1	SCANCON1		NO RANGE CHECKING		1	3	1.19	49	478
N	3	55	1	SCANCON2		NO RANGE CHECKING		1	3	1.21	50	478
N	3	75	1	SCANCON3		NO RANGE CHECKING		0	3	1.14	44	478
N	3	95	1	SCANCON4		NO RANGE CHECKING		0	3	1.15	39	478
N	3	115	1	SCANCON5		NO RANGE CHECKING		0	3	1.13	40	478
N	4	16	5	DEPTH6		00005	60000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	36	5	DEPTH7		00006	60000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	56	5	DEPTH8		00007	60000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	76	5	DEPTH9		00008	60000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	96	5	DEPTH10		00009	60000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	21	5	DISSOLVXYGEN1		00000	15000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	41	5	DISSOLVXYGEN2		00000	15000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	61	5	DISSOLVXYGEN3		00000	15000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	81	5	DISSOLVXYGEN4		00000	15000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	101	5	DISSOLVXYGEN5		00000	15000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	35	1	SCANCON6		NO RANGE CHECKING		NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	55	1	SCANCON7		NO RANGE CHECKING		NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	74	1	SCANCON8		NO RANGE CHECKING		NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	95	1	SCANCON9		NO RANGE CHECKING		NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	115	1	SCANCON10		NO RANGE CHECKING		NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	26	5	TRANSMISSIVITY1		00000	99000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	46	5	TRANSMISSIVITY2		00000	99000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	66	5	TRANSMISSIVITY3		00000	99000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	86	5	TRANSMISSIVITY4		00000	99000	NO 'VALUES FOUND FOR THIS PARAMETER				
N	4	106	5	TRANSMISSIVITY5		00000	99000	NO 'VALUES FOUND FOR THIS PARAMETER				
B	4	31	4									0
B	4	51	4									0
B	4	71	4									0
B	4	91	4									0
B	4	111	4									0

RECORDS READ :

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