

## **DECODING INFORMATION OF XCTD DATA**

XCTD Data files contain header information followed by Depth Vs. Temperature & Salinity data. Following are the decoding information.

Columns 1-2	: Record ID. (XX) two character code always blank.
Column 3	: XCTD probe type. (X) One character code. <b>3</b> for XCTD3 probe.
Column 4-8	: Ship Call Sign. (XXXX) Alpha numeric representation of Ship Call Sign. In present case a dot is followed by a radio code.
Column 10-19	: Alpha numeric representation of Ship name. (XXXXXXXXXX)
Column 20-26	: XCTD Cruise number. (XXXXXXX) Alphanumeric representation of cruise number.
Columns 27-30	: XCTD Station number. (XXXX) Alphanumeric representation of station number.
Columns 31-37	: Date (YYMMDD) Year, Month, Date
Columns 38-41	: Time. (HHMM) Hour, Minute
Columns 42-46	: Latitude. (DDMMX) Degrees, Minutes
Columns 47	: Latitude Hemisphere. (X) "N" or "S"
Columns 48-53	: Longitude. (DDDMMX) Degree, Minutes
Column 54	: Longitude Hemisphere. (X) "E" or "W"
Columns 60-63	: (XXXX) Number of depth temperature pairs for that particular XCTD Station.
Columns 65-70	: (XXXXX) Alphanumeric representation of the type of the data acquisition system used.

Columns 71-74 : (XXX) Type of depth correction equation followed .  
In the present case **SIP** stands for original Sippican equation followed.

### DATA Record

Columns 1-6 : Depth  
(XXXXX) Meters to tenth decimal point

Columns 7-10 : Temperature  
(XXXX) Degree Centigrade to hundreds decimal point.

Columns 11-15 : Salinity  
(XXXXX) PSU to thousands decimal point.

An example of Header & Data lines

```
3.VWFQ SAGARPURVI 127 1 09 4 2 84610 0 N 75 0 E 201 MK130 SIP
0304034170 10304034170 20304034170 30304034170 40304034170
```

Header part

3 : XCTD probe type (TSK make XCTD3 probe)  
.VWFQ : Ship Call Sign  
SAGARPURVI : Ship Name  
127 : XCTD Cruise number.  
1 : XCTD Station number.  
09 4 2 : Date (Year: 09, Month: 04, day: 02)  
846 : Time (08 Hours and 46 minutes)  
10 0 N : Latitude in Degree Minutes  
75 0 E : Longitude in Degree Minutes  
201 : Number of depth Vs. temperature & Salinity pairs  
MK130 : Type of XCTD data acquisition system used.  
SIP : Depth correction equation followed

Data part

0304034170	Depth : 0.0 mts	Temperature : 30.40 <sup>0</sup> C	Salinity : 34.170 psu
20304034170	Depth : 2.0 mts	Temperature : 30.40 <sup>0</sup> C	Salinity : 34.170 psu