

Format for physnut.loadrep filesSurvey Header – always starts on line 3

SADCO survey-id	1 st line:	A7	
Project Name	2 nd line	A100	
Cruise / survey Name	3 rd line	A50	
Chief Scientist 1	4 th line	A40	blank if unknown
Chief Scientist 2	5 th line	A40	blank if none / unknown
Institute	6 th line	A100	
Country	7 th line	A20	
Ship (callsign)	8 th line	A60	
Start date	9 th line	A10	yyyy-mm-dd
End date	10 th line	A10	yyyy-mm-dd
Latitude range	11 th line	F7.4 ' to ' F7.4	decimal degrees, positive = south
Longitude range	12 th line	F7.4 ' to ' F7.4	decimal degrees, positive = east
Number of stations	13 th line	integer	
Notes	15 th line	up to 4 lines of up to 200 characters each	

Station header data – always starts on second line after a line of dashes, or next line after the text

'Station Id'			
SADCO station-id	1:12	A12	
Station name	15:24	A10	
Latitude	27:35	F9.5	decimal degrees, positive = south
Longitude	38:47	F10.5	decimal degrees, positive = east
Date	50:59	A10	yyyy-mm-dd
Time	62:69	A8	hh:mi:ss, UTC
Maximum sample depth	71:77	F7.2	m
Station depth	79:85	F7.2	m
Offshore distance	87:93	F7.3	m - not used

Station weather data – always on fourth line after station header data

Navigation equipment type	1:10	A10	
Atmospheric pressure	12:18	F7.2	mBars
Surface temperature	20:24	F5.1	deg C
Drybulb	26:30	F5.1	deg C
Wetbulb	32:36	F5.1	deg C
Cloud	38:42	A5	
Visibility code	44:48	A5	coded
Weather code	50:54	A5	c coded
Water colour	56:57	i2	coded
Transparency	62:63	i2	coded
Wind direction	69:71	i3	degrees TN
Wind speed	73:76	F4.1	m/s
Swell direction	80:82	i3	degrees TN
Swell height	84:87	F4.1	m
Swell period	90:91	i2	s

Profile flags - third line after station weather data

Depth flag	21	i1
DOx flag	29	i1
Salinity flag	40	i1
Temperature flag	49	i1
Sound Velocity flag	58	i1
Pressure flag	68	i1
Turbidity flag	77	i1
Fluorescence flag	87	i1
NO2 flag	96	i1
NO3 flag	105	i1
PO4 flag	114	i1
PTot flag	124	i1

SIO3 flag	134	i1
Current speed flag	144	i1
Current direction flag	154	i1

Data Values - repeated for all depths – ends with a dashed line

Substation descriptor	5:11	A7	e.g. OSD/BOTTLE/DISCR/CONT/CTD/XBT
Sample Depth	13:19	F7.2	m
Sample Depth flag	21	i1	
DOx	23:25	F5.2	ml / litre
DOx flag	29	i1	
Salinity	31:38	F8.3	ppt
Salinity flag	40	i1	
Temperature	42:47	F6.2	deg C
Temperature flag	49	i1	
Sound velocity	51:56	F6.1	not used
Sound Velocity flag	58	i1	
Pressure	51:56	F6.1	dBar
Pressure flag	58	i1	
Turbidity	51:56	F6.1	NTU
Turbidity flag	58	i1	
Fluorescence	51:56	F6.1	µgm / litre
Fluorescence flag	58	i1	
NO2	60:65	F6.2	µgm atom / litre = µM
NO2 flag	67	i1	
NO3	69:74	F6.2	µgm atom / litre = µM
NO3 flag	76	i1	
PO4	78:83	F6.2	µgm atom / litre = µM
PO4 flag	85	i1	
PTot	87:93	F7.3	µgm atom / litre = µM
PTot flag	95	i1	
SiO3	97:103	F7.2	µgm atom / litre = µM
SIO3 flag	105	i1	
Current speed	107:113	F7.2	m/s
Current speed flag	115	i1	
Current direction	117:123	F7.2	degrees TN
Current direction flag	125	i1	