

251

| VESSEL | | CRUISE ID | | PROJECT & LEG | | OSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-----------|--|---------------|--|-----------|--|---------------------|--|----------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|---|--|----|--|-----|--|---|--|-----|--|-----|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRL. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | | | | | |
| CAST # | | DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | | | | | |
| 001 | | 59 | | 40 | | .59 | | N | | 14 | | 92 | | 01 | | 21 | | 08 | | JUL | | 04 | | 21 | | 33 | | 17 | | .4 | | .11 | | 7 | | 32 | | 00 | | 5 | | 233 | | 501 | |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ _____ TIMES _____ JD/TIME _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN _____ DATA ON _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN _____ START DOWN _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN _____ AT DEPTH _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN _____ AT SURFACE _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN 121 PAR S/N 15001-1 FLUOR S/N 15001-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRID DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ROSETTE POSITION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SALT NUTRIENTS CHL. Bot. no. CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REMARKS Calibration G81 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAX. DEPTH = 225 m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Calibration for GB2a

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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRL | | WIND SPD | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 0065931.59 N | | 14311.52 W | | 08 JUL 04 | | 231015.11 | | 12 | | 720910 | | 218 | | 5021 | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | Local Date & Time = | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRID | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MAX. DEPTH = 218 m

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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE 52.58 | | LONGITUDE 41.64 | | DATE JD= | | TIME (GMT) 0426 | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH 196 (m) | | STA. NAME/ID 192 | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | °C | | °C | | (mb) | | * | | (deg) | | (m/s) | | * | | * | | * | | * | | (m) | | | | | |
| 00559 | | 52.69 | | N 14841.66 | | W 49 JUL 04 | | 4430 | | 18.8 | | | | 13 | | 7224 | | 461 | | 61 | | 194 | | 8 | | P | | 5 | | A | | | |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS Salween + myba Sealions here | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | MAX DEPTH = 192 m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRID DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

10/4/12

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | |
|----------------------------|----------|------------|-----|------------------|----|--------------------|-----|---------------------|----------|--------------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| DEG MIN | DEG MIN | DEG MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | (m) | |
| 046 | 5841.20 | N 14859.36 | | W 09 JUL 04 | | 070513.7 | | | | 14 | | | 7220 | 11 | | | | 2116 | SPB12A |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = 210 m | | | | | | | | | | | | | |
| FIRID | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no | | CHL. VOL. | | COMMENTS | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|------------|--|------------------|--|-----------|--|---------------------|--|---------------|--|-----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|---|--|-------|--|-----------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRL. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | |
| CAST # | | DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | °C | | °C | | (mb) | | * | | * (deg) | | (m/s) | | * | | * | | (m) | | | |
| 0075714 | | .04 | | N | | 14 | | 926 | | .07 | | W | | 09 | | J | | U | | L | | 04 | | 16 | | 18 | | 11 | | .2 | | .02 | | 7 | | 25315 | | 1997E3TK1 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRID | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | 1 200 | | | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Depth and Temperature Line

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|---------------------------|---------|--------------------|--------|------------------------------|----|-----------|----|-----------------------------|------|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION E4C6 | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | |
| 408 | 5713.87 | 14 | 727.90 | W | 10 | 4 | 03 | 46 | 13.6 |
| DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) |
| LOCAL DATE & TIME = | | JUL 04 | | JUL 04 | | JUL 04 | | JUL 04 | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FILLOR S/N | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
| SEQ. | DESIRED | | | | | | | | |
| 1 | 500 | 1 | | | | | | | |
| 2 | 400 | 2 | | | | | | | |
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| 4 | 200 | 4 | | | | | | | |
| 5 | 150 | 5 | | | | | | | |
| 6 | 100 | 6 | | | | | | | |
| 7 | 50 | 7 | | | | | | | |
| 8 | 40 | 8 | | | | | | | |
| 9 | 30 | 9 | | | | | | | |
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| bucket | | | | | | | | | |

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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 449 | | 5713.88 N | | 14748.94 W | | 10 JUL 04 | | 0541 | | 18.4 | | | | 12 | | 7 | | 81115 | | 1 | | 4862 | | | | | | | | E4C | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | (deg) | | (mph) | | * | | (m) | |
| Local Date & Time = | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRID | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 560 | | | | | | 13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 400 | | | | | | 14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 300 | | | | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 200 | | | | | | 16 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 150 | | | | | | 17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 100 | | | | | | 18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 50 | | | | | | 19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 40 | | | | | | 20 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | 30 | | | | | | 21 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | 20 | | | | | | 22 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | 10 | | | | | | 23 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | 0 | | | | | | 24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Looks like warm - Salty starts at 156-250
max 180-200 m
or cool blob 40-175 m

REMARKS
Data 43719

MAX. DEPTH = m

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|------|-----------|-----|------------------|-----|-----------|----|---------------------|-----|---------------|------|-----------|---|----------|-------|-----------|----|------------|-----|-----------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRL | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| CAST # | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | (m) | | | | | | | | | | | | | | |
| 015 | 57 | 13 | 99 | N | 14 | 06 | 06 | W | 10 | J | U | L | 0 | 4 | 20 | 20 | 14 | .8 | | | | | | | | | | | | | | | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRED | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | |
| 1 | 1500 | | | | | ✓ | 73 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 1000 | | | | | | 74 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 400 | | | | | | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 250 | | | | | | 76 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 200 | | | | | | 77 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 150 | | | | | | 78 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 100 | | | | | | 79 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 50 | | | | | | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 40 | | | | | | 81 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 30 | | | | | | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 10 | | | | | | 83 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 0 | | | | | | 84 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucklet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

lots of diatoms, Tons of copepods

lots of problems finding bottles, AT 1500 - maybe too mo.
AT 1000 m - needed computer after no fire,
Steve worked on it + got it to fire

| | | | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|---------------|--|---------------------|--|------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/HOCI | | DSDB I.D. | | STATION DESIGNATION | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | 0135 | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB (°C) | | WET BULB (°C) | |
| 17 51 18 | | 93 N | | 14 6 22 | | 83 W | | 11 JUL 04 | | 14.9 | |
| PRESS SN | | DATA ON | | JD/TIME | | PRESSURE (mb) | | SEA STATE | | WIND DIRN. | |
| PRI TEMP SN | | START DOWN | | | | * * | | * * | | WIND SPD. (m/s) | |
| SEC TEMP SN | | AT DEPTH | | | | * * | | * * | | CLOUD (amt) | |
| PRI COND SN | | AT SURFACE | | | | * * | | * * | | TYPE WEATHER | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | * * | | * * | | BOTTOM DEPTH (m) | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| SEQ. DESIRED | | | | | | | | | | CHL. VOL. | |
| 1 1500 | | 1+2 | | | | | | 97+98 | | | |
| 2 1000 | | 3 | | | | | | 99 | | | |
| 3 400 | | 4 | | | | | | 100 | | | |
| 4 250 | | 5 | | | | | | 101 | | | |
| 5 200 | | 6 | | | | | | 102 | | | |
| 6 150 | | 7 | | | | | | 103 | | | |
| 7 100 | | 8 | | | | | | 104 | | | |
| 8 50 | | 9 mo mutes | | | | | | | | | |
| 9 40 | | 10 | | | | | | 105 | | 10 | |
| 10 30 | | 11 | | | | | | 106 | | 11 | |
| 11 10 | | 12 | | | | | | 107 | | 12 | |
| 12 0 | | bucket | | | | | | 108 | | b | |

Communication problem at depth
First bottle line did not appear to work, second did

Confused some time
had to go further down
with 900-50m - No 104
and 200m, not 1500

REMARKS

MAX. DEPTH =

m

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | |
|-------------------------------|----------|------------|-----------|------------------|----------|-----------|------------|---------------------|----------|---------------|-----------|------------|------------|-----------------------------------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 4185713 | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | (m) | E404 |
| 13 | | | 14 | 34 | 11 | JUL | 04 | 08 | 57 | 14.4 | | 13 | | 71 | 26 | 18 | 87 | 24 | 170 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | |
| SBE 3+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | |
| FIRED | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | | |
| 1 | 1500 | | | ✓ | | 109 | | | | | | | | | | | | | |
| 2 | 1000 | | | | | 110 | | | | | | | | | | | | | |
| 3 | 400 | | | | | 111 | | | | | | | | | | | | | |
| 4 | 250 | | | | | 112 | | | | | | | | | | | | | |
| 5 | 200 | | | | | 113 | | | | | | | | | | | | | |
| 6 | 150 | | | | | 114 | | | | | | | | | | | | | |
| 7 | 100 | | | | | 115 | | | | | | | | Seawater leads - Sample not taken | | | | | |
| 8 | 50 | | | | | 116 | | | | | | | | | | | | | |
| 9 | 40 | | | | | 117 | | | | | | | | | | | | | |
| 10 | 20 | | | | | 118 | | | | | | | | | | | | | |
| 11 | 10 | | | | | 119 | | | | | | | | | | | | | |
| 12 | 0 | | | | | 120 | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 419 57 13.98 N | | 146 45.80 W | | 11 JUL 04 | | 06 57 14 | | 24.9 | |
| | | | | | | | | WET BULB | |
| | | | | | | | | (°C) | |
| | | | | | | | | PRESSURE | |
| | | | | | | | | (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | (deg) | |
| | | | | | | | | WIND DIRN. | |
| | | | | | | | | (m/s) | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH | |
| | | | | | | | | (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 4297 | |
| | | | | | | | | 0445 | |

| | | | | | | | |
|-------------|--|------------|--|-----------|--|----------------|--|
| SBE 3+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | |

| SEQ. | DEPTH | ROSETTE POSITION | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS |
|--------|-------|------------------|------|-----------|---------------|-----------|----------|
| 1 | 1500 | | | 121 | | | |
| 2 | 1000 | | | 122 | | | |
| 3 | 400 | | | 123 | | | |
| 4 | 250 | | | 124 | | | |
| 5 | 200 | | | 125 | | | |
| 6 | 150 | | | 126 | | | |
| 7 | 100 | | | 127 | | | |
| 8 | 50 | | | 128 | | | |
| 9 | 40 | | | 129 | | | |
| 10 | 20 | | | 130 | | | |
| 11 | 10 | | | 131 | | | |
| 12 | 0 | | | 132 | | | |
| bucket | | | | | | | |

buoy
down at
1000
200

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | |
|-------------------------------|-------------------|------------------|---|-----------------------|-------|----------------|------|---------------------|----------|--|-----------|------------|---------------|--------------|-------------|------|---------|-----------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 0205713.98 | N | 14657.20 | W | 11 | JUL04 | 0930 | 15.5 | 15 | 15 | 15 | * | * | 003 | 3 | * | * | * | 24407E406 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | | | | | | | | | | | | | |
| FIRED | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | |
| SEQ. | DESIRED | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | |
| 1 | 1500' (bottle 2?) | ✓ | | 133 | | | | | | gave error when tried to fire bottle 1 | | | | | | | | | |
| 2 | 1000' (1500m) | | | 134 | | | | | | software says bottle 2 fired at 1500m | | | | | | | | | |
| 3 | 400 | | | 135 | | | | | | Did not fire a bottle at 1000m | | | | | | | | | |
| 4 | 250 | | | 136 | | | | | | leaker All bottles were closed | | | | | | | | | |
| 5 | 200 | | | 137 | | | | | | when it came up - | | | | | | | | | |
| 6 | 150 | | | 138 | | | | | | 1 assume both bottles | | | | | | | | | |
| 7 | 100 | | | 139 | | | | | | leaker 1 & 2 Fired at 1500m | | | | | | | | | |
| 8 | 50 | | | 140 | | | | | | Sampled Nutrients | | | | | | | | | |
| 9 | 40 | | | 141 | | | | | | from both bottles | | | | | | | | | |
| 10 | 20 | | | 142 | | | | | | | | | | | | | | | |
| 11 | 10 | | | 143 | | | | | | | | | | | | | | | |
| 12 | 0 | | | 144 | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | |
|-------------------------------|----------|------------------|-----------|---------------|----------|----------------|------------|---------------------|----------|-----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|-----------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | |
| 02157 | 13 | 48 | N | 147 | 08 | 62 | W | 11 | J | U | L | 0 | 4 | 12 | 14 | 14 | 8 | 15 | 283 | 6 | 24516E407 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | | | | | | | | | | | | | | | |
| FIRED | DEPTH | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | | | | |
| 1 | 1500 | 145 | | | | | | | | | | | | | | | | | | | |
| 2 | 1000 | 146 | | | | | | | | | | | | | | | | | | | |
| 3 | 400 | 147 | | | | | | | | | | | | | | | | | | | |
| 4 | 250 | 148 | | | | | | | | | | | | | | | | | | | |
| 5 | 200 | 149 | | | | | | | | | | | | | | | | | | | |
| 6 | 150 | 150 | | | | | | | | | | | | | | | | | | | |
| 7 | 100 | 151 | | | | | | | | | | | | | | | | | | | |
| 8 | 50 | 152 | | | | | | | | | | | | | | | | | | | |
| 9 | 40 | 153 | | | | | | | | | | | | | | | | | | | |
| 10 | 20 | 154 | | | | | | | | | | | | | | | | | | | |
| 11 | 10 | 155 | | | | | | | | | | | | | | | | | | | |
| 12 | 0 | 156 | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 02 25 13.93 N | | 14 7 20.12 W | | 11 JUL 04 | | 14 50 | | 14.8 | |
| | | | | | | | | WET BULB | |
| | | | | | | | | (°C) | |
| | | | | | | | | (°C) | |
| | | | | | | | | PRESSURE | |
| | | | | | | | | (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DIRN. | |
| | | | | | | | | (deg) | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | (m/s) | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH | |
| | | | | | | | | (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 4615E408 | |

| | | | | | | | |
|-------------|--|------------|--|-----------|--|----------------|--|
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | |

| FIRE | DEPTH | ROSETTE POSITION | SAMPLE BOTTLE NUMBERS | | | | COMMENTS |
|--------|-------|------------------|-----------------------|-----------|---------------|-----------|-----------------------------------|
| | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | |
| 1 | 1000 | | | 157 | | | (Bottle would sink fine at 1500.) |
| 2 | 400 | | | 158 | | | |
| 3 | 250 | | | 159 | | | |
| 4 | 200 | | | 160 | | | |
| 5 | 150 | | | 161 | | | |
| 6 | 100 | | | 162 | | | |
| 7 | 50 | | | 163 | | | |
| 8 | 40 | | | 164 | | | |
| 9 | 30 | | | 165 | | | |
| 10 | 20 | | | 166 | | | |
| 11 | 10 | | | 167 | | | |
| 12 | 0 | | | 168 | | | |
| bucket | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | |
|----------------------------|----------|------------------|-----|---------------|-----|---------------------|------------|---------------|-----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|-----|---|----|---|----|------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSDB I.D. | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | DEG | MIN | DEG | MIN | DATE JD- | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | | | | | | |
| 0235713 | 13.96 | N | 14 | 7 | 31 | 59 | W | 11 | JUL | 04 | 17 | 29 | 13.6 | | | 16 | 7 | 22 | 20 | 108 | 7 | 24 | 7 | 23 | E409 |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | |
| FIRED | DEPTH | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | | | | | | |
| 1 | 1500 | | | ✓ | | 169 | | | | | | | | | | | | | | | | | | | |
| 2 | 1000 | | | | | 170 | | | | | | | | | | | | | | | | | | | |
| 3 | 400 | | | | | 171 | | | | | | | | | | | | | | | | | | | |
| 4 | 250 | | | | | 172 | | | | | | | | | | | | | | | | | | | |
| 5 | 200 | | | | | 173 | | | | | | | | | | | | | | | | | | | |
| 6 | 150 | | | | | 174 | | | | | | | | | | | | | | | | | | | |
| 7 | 100 | | | | | 175 | | | | | | | | | | | | | | | | | | | |
| 8 | 50 | | | | | 176 | | F | | | | | | | | | | | | | | | | | |
| 9 | 40 | | | | | 177 | | F | | | | | | | | | | | | | | | | | |
| 10 | 20 | | | | | 178 | | F | | | | | | | | | | | | | | | | | |
| 11 | 10 | | | | | 179 | | F | | | | | | | | | | | | | | | | | |
| 12 | 0 | | | | | 180 | | F | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | |
|---------------------------|---------|--------------------|----------|------------------------------|-----------|---------------------|-----------|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | |
| 024 | 5713.99 | N | 14742.99 | W | 11 | JUL | 04 |
| DEG MIN | | DEG MIN | | DAY MO YR | | TIME (GMT) | |
| 024 | 5713.99 | N | 14742.99 | W | 11 | JUL | 04 |
| LOCAL DATE & TIME | | LOCAL DATE & TIME | | LOCAL DATE & TIME | | LOCAL DATE & TIME | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | |
| FIRED | | DEPTH | | SAMPLE BOTTLE NUMBERS | | | |
| SEQ. | DESIRED | ROSETTE POSITION | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. |
| 1 | 1500 | | | | 181 | | |
| 2 | 1000 | | | | 182 | | |
| 3 | 400 | | | | 183 | | |
| 4 | 250 | | | | 184 | | |
| 5 | 200 | | | | 185 | | |
| 6 | 150 | | | | 186 | | |
| 7 | 100 | | | | 187 | | |
| 8 | 50 | | | | 188 | | |
| 9 | 40 | | | | 189 | | |
| 10 | 20 | | | | 190 | | |
| 11 | 10 | | | | 191 | | |
| 12 | 0 | | | | 192 | | |
| bucket | | | | | | | |

| | | | | | | | | | | | |
|-------------------------------|-----|--------------------|-----|------------------------------|----|-----------|----|-----------------------------|----------|---------------|----------|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION 1997 | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | 2114 | |
| DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | DRY BULB | WET BULB | PRESSURE |
| 25 | 57 | 13 | 97 | N | 47 | 54 | 38 | W | 11 | 11 | 04 |
| Local Date & Time = 11 JUL 04 | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| SEQ. | | DESIRED | | | | | | | | CHL. VOL. | |
| 1 | | 1500 | | | | | | 193 | | | |
| 2 | | 1080 | | | | | | 194 | | | |
| 3 | | 400 | | | | | | 195 | | | |
| 4 | | 250 | | | | | | 196 | | | |
| 5 | | 200 | | | | | | 197 | | | |
| 6 | | 150 | | | | | | 198 | | | |
| 7 | | 108 | | | | | | 199 | | | |
| 8 | | 50 | | | | | | 200 | | | |
| 9 | | 30 | | | | | | 201 | | | |
| 10 | | 20 | | | | | | 202 | | | |
| 11 | | 10 | | | | | | 203 | | | |
| 12 | | 0 | | | | | | 204 | | | |
| bucket | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|--|------------|--|------------------|--|----------------|--|---------------------|--|---------------|--|-----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|
| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 22757 | | 14.02 | | 34 | | 112 JUL 04 | | 0245 | | 15.3 | | | | 19 | | 1 | | 8291 | | 4 | | 2614 | | 937 | | 4413 | | | | | | | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | | | | | | | |
| N | | W | | 11 | | JUL 04 | | 0245 | | 15.3 | | | | 19 | | 1 | | 8291 | | 4 | | 2614 | | 937 | | 4413 | | | | | | | |
| Local Date & Time = 11 JUL 04 0245 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 1500 | | | | | | 217 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 1000 | | | | | | 218 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 400 | | | | | | 219 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 250 | | | | | | 220 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 200 | | | | | | 221 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 150 | | | | | | 222 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 100 | | | | | | 223 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 50 | | | | | | 224 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | 30 | | | | | | 225 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | 20 | | | | | | 226 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | 10 | | | | | | 227 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | 0 | | | | | | 228 | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

did not fire, not clipped at bottom

leaker

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|------------|--|---------------------|--|---------------|--|-----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|---|--|-----|--|--|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | |
| 028 | | 14.02 N | | 148.28.84 W | | 111 JUL 04 | | 0417 | | 14.7 | | 14.7 | | 19.1 | | 2 | | 2 | | 287 | | 5 | | 3 | | 6 | | 1 | | 4 | | 4914 | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | |
| Local Date & Time | | = | | 11 | | J | | U | | L | | 0 | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 1500 | | | | | | 229 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 1000 | | | | | | 230 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 400 | | | | | | 231 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 250 | | | | | | 232 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 200 | | | | | | 233 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 150 | | | | | | 234 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 100 | | | | | | 235 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 50 | | | | | | 236 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | 40 | | | | | | 237 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | 30 | | | | | | 238 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | 20 | | | | | | 239 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | 10 | | | | | | 240 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

for data

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSD8 I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 030 57 13 | | .98 N | | 148 51.67 W | | 12 JUL 04 | | 0950 14.7 | |
| | | | | | | | | WET BULB | |
| | | | | | | | | (°C) | |
| | | | | | | | | PRESSURE | |
| | | | | | | | | (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | (deg) | |
| | | | | | | | | WIND DIRN. | |
| | | | | | | | | (m/s) | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH | |
| | | | | | | | | (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 14199416 | |

| | | | | | | | |
|-------------|--|------------|--|-----------|--|----------------|--|
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | |

| SEQ. | DEPTH | ROSETTE POSITION | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS |
|--------|-------|------------------|------|-----------|---------------|-----------|----------|
| 1 | 1500 | | ✓ | 253 | | | |
| 2 | 1000 | | | 254 | | | |
| 3 | 400 | | | 255 | | | |
| 4 | 250 | | | 256 | | | |
| 5 | 200 | | | 257 | | | |
| 6 | 150 | | | 258 | | | |
| 7 | 100 | | | 259 | | | |
| 8 | 50 | | | 260 | | | |
| 9 | 30 | | | 261 | | | |
| 10 | 20 | | | 262 | | | |
| 11 | 10 | | | 263 | | | |
| 12 | 0 | | | 264 | | | |
| bucket | | | | | | | |

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 0325713.97 N | | 14914.50 W | | 12 JUL 04 | | 1430 | | 14.7 | |
| | | | | | | | | WET BULB | |
| | | | | | | | | (°C) | |
| | | | | | | | | PRESSURE | |
| | | | | | | | | (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | (deg) | |
| | | | | | | | | WIND DIRN | |
| | | | | | | | | (m/s) | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH | |
| | | | | | | | | (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 13140E418 | |

| | | | | | | | |
|-------------|--|------------|--|-----------|--|----------------|--|
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | |

| FIRID | DEPTH | ROSETTE POSITION | SAMPLE BOTTLE NUMBERS | | | | COMMENTS |
|--------|---------|------------------|-----------------------|-----------|---------------|-----------|----------|
| | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | |
| SEQ. | DESIRED | | | | | | |
| 1 | 1500 | | ✓ | 277 | | | |
| 2 | 1015 | | | 278 | | | |
| 3 | 400 | | | 279 | | | |
| 4 | 250 | | | 280 | | | |
| 5 | 200 | | | 281 | | | |
| 6 | 150 | | | 282 | | | |
| 7 | 100 | | | 283 | | | |
| 8 | 50 | | | 284 | | | |
| 9 | 30 | | | 285 | F | | |
| 10 | 20 | | | 286 | F | | |
| 11 | 10 | | | 287 | F | | |
| 12 | 0 | | | 288 | | | |
| bucket | | | | | | | |

Bucket

| | | | | | | | | | |
|-------------------------------|--|-------------|--|------------------|--|-----------|--|---|--|
| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 034 57 13.94 N | | 149 37.49 W | | 12 JUL 04 | | 1907 13.1 | | WET BULB | |
| | | | | | | | | PRESSURE | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DRN. | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 034 57 13.94 N 149 37.49 W 12 JUL 04 1907 13.1 20 7117 1787 12626 E 420 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN | | | | | | | | | |
| PAR S/N FLUOR S/N | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
| SEQ. DESIRED | | | | | | | | CHL. Bot. no. CHL. VOL. | |
| COMMENTS | | | | | | | | | |
| 1 1500 | | | | | | ✓ | | 301 | |
| 2 1000 | | | | | | | | 302 | |
| 3 400 | | | | | | | | 303 | |
| 4 250 | | | | | | | | 304 | |
| 5 200 | | | | | | | | 305 | |
| 6 150 | | | | | | | | 306 | |
| 7 100 | | | | | | | | 307 | |
| 8 50 | | | | | | | | 308 F | |
| 9 40 | | | | | | | | 309 F | |
| 10 30 | | | | | | | | 310 F | |
| 11 20 | | | | | | | | 311 F | |
| 12 0 | | | | | | | | 312 F | |
| bucket | | | | | | | | | |

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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 83 | | 57 | | 54 | | 10 | | 8 | | N | | 15 | | 0 | | 16 | | 00 | | W | | 13 | | J | | U | | L | | 0 | | 4 | | 01 | | 13 | | 13 | | 1 | | 20 | | 7 | | 8 | | 9 | | 11 | | 8 | | 7 | | 2 | | 13 | | 8 | | 57 | | 05 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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heavy leaker

Mr. J. H. P. R. S.

| | | | | | | | | | |
|--|-------|------------------|------|---------------|---------------|-----------|--|---------------------|--|
| VESSEL | | CRUISE ID | | PROJECT & LEG | | SDOB I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 0425807.22 N | | 14944.18 W | | 13 JUL 04 | | 0911 | | 12.6 | |
| | | | | | | | | WET BULB | |
| | | | | | | | | (°C) | |
| | | | | | | | | PRESSURE | |
| | | | | | | | | (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DIRN. | |
| | | | | | | | | (deg) | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | (m/s) | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH | |
| | | | | | | | | (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 221 STB3 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | |
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| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN | | | | | | | | | |
| PAR S/N FLUOR S/N | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | |
| SALT NUTRIENTS CHL. Bot. no. CHL. VOL. | | | | | | | | | |
| COMMENTS | | | | | | | | | |
| SEQ. | DEPTH | ROSETTE POSITION | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | | | |
| 1 | Bot | 216 | | 392 | | | | | |
| 2 | 200 | | | 393 | | | | | |
| 3 | 175 | | | 394 | | | | | |
| 4 | 150 | | | 395 | | | | | |
| 5 | 125 | | | 396 | | | | | |
| 6 | 100 | | | 397 | | | | | |
| 7 | 75 | | | 398 | | | | | |
| 8 | 50 | | | 399 | | | | | |
| 9 | 30 | | | 400 | F | | | | |
| 10 | 20 | | | 401 | F | | | | |
| 11 | 10 | | | 402 | F | | | | |
| 12 | 0 | | | 403 | F | | | | |
| bucket | | | | | | | | | |

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|---------------------------|----------|--------------------|--------------|------------------------------|--------------|------------|-----------|---------------------|-------------|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| 04758 | 210.88 N | 14941.04 W | 13 JUL 04 | 1457 | 12.6 | | | | |
| DEG | | MIN | DEG | MIN | DAY | MO | YR | HR | MIN |
| DRY BULB | | WET BULB | PRESSURE | | SEA STATE | VISIBILITY | WIND DIRL | WIND SPD | CLOUD (amt) |
| 19 | | 19 | 19 | | * | * | (deg) | (m/s) | * |
| 721001 | | 872 | 1585 | | 1308 | 1308 | 1585 | | 1308 |
| WIND TYPE | | WEATHER | BOTTOM DEPTH | | STA. NAME/ID | | | | |
| 1585 | | 1308 | 1585 | | 1308 | | | | |
| LOCAL DATE & TIME | | = | | JUL 04 | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | | | | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| SEQ. | | DESIRED | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| 1 Bot | | 155 | | | | 437 | | | |
| 2 125 | | | | | | 438 | | | |
| 3 100 | | | | | | 439 | | | |
| 4 75 | | | | | | 440 | | | |
| 5 50 | | | | | | 441 | | | |
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| bucket | | | | | | | | | |
| COMMENTS | | | | | | | | | |
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| MAX. DEPTH = | | m | | | | | | | |

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|-----------------|--|------------|--|------------------|--|---------------------|--|
| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSDB I.D. | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | |
| 0485932.6 | | N 14947.48 | | W 13 JUL 04 | | 161917.6 | |
| DEG MIN | | DEG MIN | | DAY MO YR | | TIME (GMT) | |
| 1357m | | ✓ | | 447 | | 448 | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
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| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | |
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| 1 Bot | | ✓ | | 447 | | 448 | |
| 2 125 | | | | 449 | | 450 | |
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| 12 | | | | 469 | | 470 | |
| bucket | | | | 471 | | 472 | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-----------|--|---------------|--|-----------|--|---------------------|--|----------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|--------------|--|--------------|--|--------------|--|----|--|-----|--|----|--|----|--|--|--|--|--|----|--|---|--|----|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|----|--|------|--|--|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRLN | | WIND SPD. | | CLOUD (amt) | | TYPE WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 049 | | 58 | | 25 | | 40 | | N | | 14 | | 9 | | 31 | | 06 | | W | | 13 | | J | | U | | L | | 0 | | 4 | | 17 | | 48 | | 12 | | .6 | | | | | | 19 | | 7 | | 15 | | 9 | | 0 | | 8 | | 8 | | 7 | | 2 | | 1 | | 27 | | PBDI | | | |
| Local Date & Time = J J U L O 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIREDD DEPTHT ROSETTE POSITION SALT NUTRIENTS CHL. Bot. no. CHL. VOL. COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | | | | | | | | | | | | |
|-------------------------------|-----------|------------------|------|---------------|---------------|---------------------|----------|----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSDR I.D. | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | | DATE JD- | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 0515816.70N | 14955.96W | 13 JUL 04 | | 192512.6 | | 19 | 2 | 1 | 1 | 1 | 1 | 160 | 09 | 072 | 155 | P | BD3 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | |
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| PRESS SN DATA ON | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | | | | | | | | | | | | | |
| PAR S/N FLUOR S/N | | | | | | | | | | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | |
| SEQ. | DEPTH | ROSETTE POSITION | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | | |
| 1 | Box | 51 | ✓ | 473 | | | | | | | | | | | | | | |
| 2 | 40 | | | 474 | | | | | | | | | | | | | | |
| 3 | 30 | | | 475 | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | |

MAX. DEPTH = m

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | | | | |
|-------------------------------|----------|------------|-----------|------------------|----------|----------------|------------|---------------------|----------|---------------|-----------|------------|------------|-------------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 0525813 | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | (m) | P1824 |
| | | | | | | | | | | | | | | | | | | | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | MAX. DEPTH = m | | | | | | | | | | | | | |
| FIRED | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | |
| 1 | ROT | | | | | | | 479 | | | | | | leaker | | | | | |
| 2 | 60 | | | | | | | 480 | | | | | | | | | | | |
| 3 | 50 | | | | | | | 481 | | | | | | | | | | | |
| 4 | 40 | | | | | | | 482 | | | | | | | | | | | |
| 5 | 30 | | | | | | | 483 | | | | | | not sampled | | | | | |
| 6 | 20 | | | | | | | 484 | | | | | | | | | | | |
| 7 | 10 | | | | | | | 485 | | | | | | | | | | | |
| 8 | 0 | | | | | | | 486 | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | |

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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIR. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 4555803.81 N | | 15003.71 W | | 13 JUL 04 | | 224012.6 | | 19 | | 7 | | 80 | | 17 | | 872 | | 321 | | 9627 | | | | | | | | | | | | | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRID DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 316 | | ✓ | | 509 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 275 | | | | 510 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 230 | | | | 511 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 225 | | | | 512 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 200 | | | | 513 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 150 | | | | 514 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 100 | | | | 515 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 50 | | | | 516 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | 40 | | | | 517 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | 20 | | | | 518 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | 10 | | | | 519 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | 0 | | | | 520 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Weather data fixed after leaving station - Bad for some time

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|---------------------------|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|---------------|--|-----------|--|-----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|---|--|-----|--|--|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | |
| 0566759 | | .02 N | | 15005.83 W | | 14 JUL 04 | | 001914.3 | | .1 | | 14 | | 731613672 | | 247 | | RED8 | | | | | | | | | | | | | | | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | |
| Local Date & Time | | = | | J | | U | | L | | O | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FILLOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. BOC. NO. | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 1301 | | 237 | | ✓ | | 522 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 200 | | ✓ | | | | 523 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 175 | | ✓ | | | | 524 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 150 | | ✓ | | | | 525 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 125 | | ✓ | | | | 526 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 100 | | ✓ | | | | 527 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 75 | | ✓ | | | | 528 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 50 | | ✓ | | | | 529 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | 25 | | ✓ | | | | 530 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | 30 | | ✓ | | | | 531 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | 10 | | ✓ | | | | 532 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | 0 | | ✓ | | | | 533 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 45757 | | 54.28 N | | 15008.64 W | | 14 JUL 04 | | 01/14/04 | | 13.5 | | | | 16 | | 7 | | 31 | | 21 | | 36 | | 72 | | 214 | | P609 | | | | | |
| Local Date & Time = 13 JUL 04 0514 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRID DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 209 | | Bot 210 | | | | 534 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 175 | | | | | | 535 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 150 | | | | | | 536 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 125 | | | | | | 537 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 100 | | | | | | 538 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 75 | | | | | | 539 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 50 | | | | | | 540 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 40 | | | | | | 541 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 30 | | | | | | 542 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 20 | | | | | | 543 | | | | | | No Fine | | | | | | | | | | | | | | | | | | | | | |
| 11 10 | | | | | | 544 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 0 | | | | | | 542 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB (°C) | |
| 05 8 57 50 | | 00 0 N | | 150 10 W | | 83 11 14 | | 14.1 | |
| | | | | | | | | WET BULB (°C) | |
| | | | | | | | | PRESSURE (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DIRN (deg) | |
| | | | | | | | | WIND SPD. (m/s) | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 05 8 57 50 00 0 N 150 10 W 83 11 14 14.1 15 71 30 10 6 7 2 1 8 9 7 B D 1 0 | |

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|-------------|--|------------|--|-----------|--|----------------|--|
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | |

| SEQ. | DEPTH | ROSETTE POSITION | SAMPLE BOTTLE NUMBERS | | | | COMMENTS |
|--------|-------|------------------|-----------------------|-----------|---------------|-----------|----------|
| | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | |
| 1 | 1844 | | | 543 | | | |
| 2 | 1504 | | | 544 | | | |
| 3 | 1254 | | | 545 | | | |
| 4 | 1004 | | | 546 | | | |
| 5 | 754 | | | 547 | | | |
| 6 | 504 | | | 548 | | | |
| 7 | 404 | | | 549 | | | |
| 8 | 204 | | | 550 | | | |
| 9 | 10 | | | 551 | | | |
| 10 | 0 | | | 552 | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| bucket | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| CAST # | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | (m) | | | | | | | | | | | | | |
| 59 | 57 | 48 | 55 | N | 15 | 02 | 8 | 06 | W | 14 | J | U | L | 04 | 04 | 00 | 11 | 7 | | | | | | | | | | | | | | | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 85 | | | | | | | 556 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 1.0 | | | | | | | 557 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 40 | | | | | | | 558 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 30 | | | | | | | 559 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 20 | | | | | | | 560 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 10 | | | | | | | 561 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 0 | | | | | | | 562 | | | | | | | | | | | | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|---------------------------|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSOB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | |
| 46 15 55 | | 02 N | | 15 02 41 | | 14 JUL 04 | | 05 33 | |
| DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | |
| 13.2 | | . | | 16 | | * | | 71344877 | |
| WIND DIR. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | |
| (deg) | | (m/s) | | % | | % | | % | |
| 148 | | 148 | | 148 | | 148 | | 148 | |
| BOTTOM DEPTH | | STA. NAME/ID | | LOCAL DATE & TIME | | JUL 04 | | JUL 04 | |
| 148 | | 148 | | Local Date & Time = | | JUL 04 | | JUL 04 | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| SEQ. DESIRED | | | | | | | | CHL. VOL. | |
| 1 146 | | | | | | | | | |
| 2 125 | | | | | | | | | |
| 3 100 | | | | | | | | | |
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| | | | | | | | | | |
|---|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | |
| 063 58 05 | | 14 N | | 150 20.96 W | | 14 JUL 04 | | 0735 | |
| DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | |
| 11.4 | | | | 15 | | * | | * | |
| WIND DIRN | | WIND SPD | | CLOUD (amt) | | TYPE | | WEATHER | |
| 23 | | 211 | | | | * | | * | |
| BOTTOM DEPTH | | STA. NAME/ID | | | | | | | |
| 226 | | 181411 | | | | | | | |
| Local Date & Time = | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN | | | | | | | | | |
| PAR S/N FLUOR S/N | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | |
| FIREDEPTH | | | | | | | | | |
| SEQ. DESIRED ROSETTE POSITION SALT NUTRIENTS CHL. BOT. NO. CHL. VOL. COMMENTS | | | | | | | | | |
| 1 245 - 1 591 | | | | | | | | | |
| 2 175 - 592 | | | | | | | | | |
| 3 150 - 593 | | | | | | | | | |
| 4 125 - 594 | | | | | | | | | |
| 5 100 - 595 | | | | | | | | | |
| 6 75 - 596 | | | | | | | | | |
| 7 50 - 597 | | | | | | | | | |
| 8 46 - 598 | | | | | | | | | |
| 9 30 - 599 | | | | | | | | | |
| 10 20 - 600 | | | | | | | | | |
| 11 10 - 601 | | | | | | | | | |
| 12 0 bucket 602 | | | | | | | | | |

* - SBE 9+ fire button did not work

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|------------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | |
| 464 5808.62 N | | 15020.00 W | | 14 JUL 04 | | 485113.2 | | 16 | |
| PRESS SN | | DATA ON | | JD/TIME | | DRY BULB | | WET BULB | |
| PRI TEMP SN | | START DOWN | | | | PRESSURE | | SEA STATE | |
| SEC TEMP SN | | AT DEPTH | | | | VISIBILITY | | WIND DIRN. | |
| PRI COND SN | | AT SURFACE | | | | WIND SPD. | | CLOUD (amt) | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | TYPE | | WEATHER | |
| SBE 9+ | | TIMES | | JD/TIME | | WIND (deg) | | WIND (m/s) | |
| PRESS SN | | DATA ON | | | | WIND (deg) | | WIND (m/s) | |
| PRI TEMP SN | | START DOWN | | | | WIND (deg) | | WIND (m/s) | |
| SEC TEMP SN | | AT DEPTH | | | | WIND (deg) | | WIND (m/s) | |
| PRI COND SN | | AT SURFACE | | | | WIND (deg) | | WIND (m/s) | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | WIND (deg) | | WIND (m/s) | |
| FIRE | | DEPTH | | SAMPLE BOTTLE NUMBERS | | PRESSURE | | SEA STATE | |
| SEQ. DESIRED | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no | |
| 1 Bx | | | | | | 603 | | CHL. VOL. | |
| 2 150 | | | | | | 604 | | | |
| 3 125 | | | | | | 605 | | | |
| 4 100 | | | | | | 606 | | | |
| 5 75 | | | | | | 607 | | | |
| 6 50 | | | | | | 608 | | | |
| 7 40 | | | | | | 609 | | | |
| 8 30 | | | | | | 610 | | | |
| 9 20 | | | | | | 611 | | | |
| 10 10 | | | | | | 612 | | | |
| 11 0 | | | | | | 613 | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |
| COMMENTS | | | | | | | | | |
| REMARKS | | | | | | | | | |
| MAX. DEPTH = | | | | | | | | | |
| m | | | | | | | | | |

5
6
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8
9
10
11
12

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | |
|-------------------------------|----------|------------------|-----------|---------------|----------|----------------|------------|---------------------|-----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|---------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | |
| | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | (m) | | |
| 06558 | 11 | 55 | N | 150 | 18 | 51 | W | 14 | JUL | 04 | 0935 | 13.2 | | | 16 | | 205 | 14 | 2 | 109PBA9 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | | | | | | | | | | | | | | |
| FIRED | DEPTH | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | | | |
| 1 | bot | 106 | | | | 614 | | | | | | | | | | | | | | |
| 2 | 75 | | | | | 615 | | | | | | | | | | | | | | |
| 3 | 50 | | | | | 616 | | | | | | | | | | | | | | |
| 4 | 40 | | | | | 617 | | | | | | | | | | | | | | |
| 5 | 30 | | | | | 618 | | | | | | | | | | | | | | |
| 6 | 20 | | | | | 619 | | | | | | | | | | | | | | |
| 7 | 10 | | | | | 620 | | | | | | | | | | | | | | |
| 8 | 0 | | | | | 621 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|-------------------------------|--|------------------|--|-----------------------|--|---------------|--|--|--|
| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB (°C) | |
| 05813.96 N | | 15017.30 W | | 14 JUL 04 | | 1040 | | 13.2 | |
| | | | | | | | | WET BULB (°C) | |
| | | | | | | | | PRESSURE (mb) | |
| | | | | | | | | SEA STATE * | |
| | | | | | | | | VISIBILITY * | |
| | | | | | | | | WIND DIRN. (deg) | |
| | | | | | | | | WIND SPD. (m/s) | |
| | | | | | | | | CLOUD (amt) * | |
| | | | | | | | | TYPE * | |
| | | | | | | | | WEATHER * | |
| | | | | | | | | BOTTOM DEPTH (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 06165813.96 N 15017.30 W 14 JUL 04 1040 13.2 16 13005 2 76P6A8 | |
| Local Date & Time = | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | FLUOR S/N | | REMARKS | |
| SEQ. DESIRED | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | |
| 1 608 | | ✓ | | 622 | | F | | | |
| 2 50 | | | | 623 | | 1 | | | |
| 3 40 | | | | 624 | | | | | |
| 4 30 | | | | 625 | | | | | |
| 5 20 | | | | 626 | | F | | | |
| 6 10 | | | | 627 | | F | | | |
| 7 0 | | | | 628 | | F | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | |
| 01025818.29N | | 15015.93W | | 14 JUL 04 | | 111313.2 | | 16 | |
| PRESS SN | | TIMES | | JD/TIME | | REMARKS | | | |
| PRI TEMP SN | | DATA ON | | | | | | | |
| SEC TEMP SN | | START DOWN | | | | | | | |
| PRI COND SN | | AT DEPTH | | | | | | | |
| SEC COND SN | | AT SURFACE | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
| SEQ. DESIRED | | | | | | | | CHL. Bot. no. | |
| 1 | | 30 | | 49.2m | | | | 629 F | |
| 2 | | 20 | | | | | | 630 F | |
| 3 | | 10 | | | | | | 631 F | |
| 4 | | 0 | | | | | | 632 F | |
| 5 | | | | | | | | 633 F | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|-------------------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 06 58 24 | | 41 N | | 15 01 3 | | 14 JUL 04 | | 13 16 13.2 | |
| WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN | |
| 16 | | 16 | | * | | * | | 138 | |
| WIND SPD | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | |
| 10 | | * | | * | | * | | 62 | |
| 2 | | 2 | | 2 | | 2 | | 62 | |
| STA. NAME/ID | | STA. NAME/ID | | STA. NAME/ID | | STA. NAME/ID | | STA. NAME/ID | |
| 06 58 24 | | 41 N | | 15 01 3 | | 14 JUL 04 | | 13 16 13.2 | |
| LOCAL DATE & TIME | | LOCAL DATE & TIME | | LOCAL DATE & TIME | | LOCAL DATE & TIME | | LOCAL DATE & TIME | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | REMARKS | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = | | m | |
| FIRED | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
| SEQ. | | DESIRED | | | | CHL. BOT. NO. | | CHL. VOL. | |
| 1 | | bot | | 65 | | 640 | | | |
| 2 | | 50 | | | | 641 | | | |
| 3 | | 40 | | | | 642 | | | |
| 4 | | 30 | | | | 643 | | | |
| 5 | | 20 | | | | 644 | | | |
| 6 | | 10 | | | | 645 | | F | |
| 7 | | 0 | | | | 646 | | P | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |

Bottle didn't close

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | |
|-------------------------------|----------|------------------|-----------|-----------------------|-----------|---------------|------------|---------------------|----------|----------|----------|-----------|------------|---------------|--------------|-------------|------|---------|-----------------|--------------|-------|---------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | | |
| 071 | 58 | 32.07 | N | 150 | 08.85 | W | 14 | J | U | L | 0 | 4 | 1503 | 12.0 | | | | 15 | 7 | 120 | 46472 | 112PBA3 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | |
| FREQ | | DEPTH | | SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | |
| SEQ. | DESIRED | ROSETTE POSITION | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | | | | | |
| 1 | bot | 108 | | ✓ | 655 | | | | | | | | | | | | | | | | | |
| 2 | 75 | | | | 656 | | | | | | | | | | | | | | | | | |
| 3 | 50 | | | | 657 | | | | | | | | | | | | | | | | | |
| 4 | 40 | | | | 658 | | | | | | | | | | | | | | | | | |
| 5 | 30 | | | | 659 | | | | | | | | | | | | | | | | | |
| 6 | 20 | | | | 660 | F | | | | | | | | | | | | | | | | |
| 7 | 10 | | | | 661 | | | | | | | | | | | | | | | | | |
| 8 | 0 | | | | 662 | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | |

| VESSEL | CRUISE ID | PROJECT & LEG | DSDB I.D. | STATION DESIGNATION | |
|-------------------------------|------------|-----------------------|-----------|---|--|
| R/V Alpha Helix | HX287 | GLOBEC/FOCI | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | DATE JD= | TIME (GMT) | |
| DEG MIN | DEG MIN | DAY MO YR | HR MIN | DRY BULB WET BULB PRESSURE SEA STATE VISIBILITY WIND DIRN. WIND SPD. CLOUD (amt) TYPE WEATHER BOTTOM DEPTH STA. NAME/ID | |
| 0725836 | .55 N | 15007.58 W | 14 JUL 04 | 160613.1 . 15 911706872 11 SPBAZ | |
| Local Date & Time = J U L 0 4 | | | | | |
| SBE 9+ | TIMES | JD/TIME | REMARKS | | |
| PRESS SN | DATA ON | | | | |
| PRI TEMP SN | START DOWN | | | | |
| SEC TEMP SN | AT DEPTH | | | | |
| PRI COND SN | AT SURFACE | | | | |
| SEC COND SN | PAR S/N | FILOR S/N | | | |
| FIRED | DEPTH | SAMPLE BOTTLE NUMBERS | | | |
| SEQ. | DESIRED | ROSETTE POSITION | SALT | NUTRIENTS CHL. Bot. no. CHL. VOL. COMMENTS | |
| 1 | bot | 112 | | 1063 | |
| 2 | 100 | | | 664 | |
| 3 | 75 | | | 665 | |
| 4 | 50 | | | 666 | |
| 5 | 40 | | | 667 | |
| 6 | 30 | | | 668 | |
| 7 | 20 | | | 669 F | |
| 8 | 10 | | | 670 | |
| 9 | 0 | | | 671 | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| bucket | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|---------------|--|-----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|---|--|-----|--|--|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | |
| 0745838 | | .74 N | | 15030.05 W | | 14 JUL 04 | | 1853 | | 13.7 | | .1 | | 15 | | 7 | | 7 | | 7 | | 7 | | 7 | | 7 | | 7 | | 7 | | 7 | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | |
| Local Date & Time | | = | | J | | U | | L | | 0 | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 bot | | 206 | | | | | | 682 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 175 | | | | | | | | 683 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 150 | | | | | | | | 684 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 125 | | | | | | | | 685 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 100 | | | | | | | | 686 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 75 | | | | | | | | 687 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 50 | | | | | | | | 688 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 40 | | | | | | | | 689 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 30 | | | | | | | | 690 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 20 | | | | | | | | 691 | | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 10 | | | | | | | | 692 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 0 | | | | | | | | 693 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

bottle did not close - bucket sample

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | |
|----------------------------|----------|------------------|-----|-----------------------|-----------|---------------|------------|---------------------|----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | DEG | MIN | DEG | MIN | DATE JD= | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 07558 | 34.49 | N | 150 | 32.57 | W | 14 JUL 04 | 202713.7 | | | 15 | | | 15 | 62 | 14 | 872 | | 182 | BB2 |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | |
| SBE 3+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | |
| FRED | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | |
| SEQ. | DESIRED | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | | |
| 1 | 179 | | | ✓ | 694 | | | | | | | | | | | | | | |
| 2 | 150 | | | | 195 | | | | | | | | | | | | | | |
| 3 | 125 | | | | 696 | | | | | | | | | | | | | | |
| 4 | 100 | | | | 697 | | | | | | | | | | | | | | |
| 5 | 75 | | | | 698 | | | | | | | | | | | | | | |
| 6 | 50 | | | | 699 | | | | | | | | | | | | | | |
| 7 | 30 | | | | 700 | | | | | | | | | | | | | | |
| 8 | 20 | | | + | 701 | | | | | | | | | | | | | | |
| 9 | 10 | | | + | 702 | | | | | | | | | | | | | | |
| 10 | 0 | | | + | 703 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|-------------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | |
| 07 58 | | 21 05 | | 33 16 | | W 14 JUL 04 | | 21 55 | |
| DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | |
| 21.3 | | 13.7 | | 15 | | 7 | | 7 | |
| WIND DIR. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | |
| 167 | | 13 | | 8 | | 2 | | 2 | |
| BOTTOM DEPTH | | STA. NAME/ID | | LOCAL DATE & TIME | | JUL 04 | | JUL 04 | |
| 112 | | PBR4 | | Local Date & Time | | JUL 04 | | JUL 04 | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | 50 surface currents | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | |
| FIRID DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| SEQ. DESIRED | | | | | | | | CHL. VOL. | |
| 1 103 | | | | | | | | | |
| 2 75 | | | | | | | | | |
| 3 50 | | | | | | | | | |
| 4 30 | | | | | | | | | |
| 5 20 | | | | | | | | | |
| 6 10 | | | | | | | | | |
| 7 0 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|---------------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB (°C) | |
| 0 18 58 28 | | 0 5 N | | 15 03 4.07 W | | 14 JUL 04 | | 22 32 13.4 | |
| WET BULB (°C) | | PRESSURE (mb) | | SEA STATE | | VISIBILITY | | WIND DIRN. (deg) | |
| 15 | | 31 | | 44 | | 78 | | 2 | |
| WIND SPD. (m/s) | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH (m) | |
| 78 | | 2 | | 78 | | 2 | | 78 | |
| STA. NAME/ID | | PBB5 | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
| SEQ. DESIRED | | | | | | CHL. Bot. no. | | CHL. VOL. | |
| 1 75 | | | | | | | | | |
| 2 40 | | | | | | | | | |
| 3 40 | | | | | | | | | |
| 4 30 | | | | | | | | | |
| 5 20 | | | | | | | | | |
| 6 10 | | | | | | | | | |
| 7 0 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | delta | | | | | | | |

did not fire

laker

| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | | | | | | | | | | | | | |
|-------------------------------|----------|------------------|-----|-----------------------|-----|---------------------|------------|-----------|----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSDB I.D. | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | DEG | MIN | DEG | MIN | DATE JD= | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 0805819 | 19.80 N | 15 | 50 | 75 | 14 | W 15 JUL 04 | 0020 | 11.6 | | 15.7 | 2 | 2 | 67 | 12 | 87 | 2 | | 60 | 9667 |
| Local Date & Time = 15 JUL 04 | | | | | | | | | | | | | | | | | | | |
| SBE 3+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | bottom bottle | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | attached | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | MAX. DEPTH = m | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | |
| FIRED | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | |
| SEQ. | DESIRED | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | |
| 1 | 60 | | | 734 | | | | | | | | | | | | | | | |
| 2 | 55 | | | 735 | | | | | | | | | | | | | | | |
| 3 | 40 | | | 736 | | | | | | | | | | | | | | | |
| 4 | 35 | | | 737 | | | | | | | | | | | | | | | |
| 5 | 20 | | | 738 | | | | | | | | | | | | | | | |
| 6 | 10 | | | 739 | | | | | | | | | | | | | | | |
| 7 | 0 | | | 740 | | | | | | | | | | | | | | | |
| 8 | X | | | 741 | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|-------------------------------|--|--------------------|--|------------------------------|--|----------------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDR I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB (°C) | |
| WET BULB (°C) | | PRESSURE (mb) | | SEA STATE | | VISIBILITY | | WIND DIRN. (deg) | |
| WIND SPD. (m/s) | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH (m) | |
| STA. NAME/ID | | | | | | | | | |
| 815815.58N | | 15034.92W | | 15 JUL 04 | | 129 | | 11.9 | |
| | | | | | | 15 | | 29212 | |
| | | | | | | | | 268 | |
| | | | | | | | | 9668 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| SEQ. DESIRED | | | | | | | | CHL. VOL. | |
| 1 | | 66 | | | | 742 | | | |
| 2 | | 40 | | | | 743 | | | |
| 3 | | 36 | | | | 744 | | | |
| 4 | | 20 | | | | 745 | | | |
| 5 | | 10 | | | | 746 | | | |
| 6 | | 0 | | | | 747 | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|------------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | |
| WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | |
| STA. NAME/ID | | | | | | | | | |

| | | | | | | | | | |
|-------------|--|------------|--|-----------|--|-------------------|--|-----|--|
| SBE 9+ | | TIMES | | JD/TIME | | Local Date & Time | | 346 | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | |

| SEQ. | DEPTH | ROSETTE POSITION | SAMPLE BOTTLE NUMBERS | | | COMMENTS |
|--------|-------|------------------|-----------------------|-----------|---------------|----------|
| | | | SALT | NUTRIENTS | CHL. Bot. no. | |
| 1 | 123 | | | 756 | | |
| 2 | 100 | | | 757 | | |
| 3 | 75 | | | 758 | | |
| 4 | 50 | | | 759 | | |
| 5 | 30 | | | 760 | | |
| 6 | 20 | | | 761 | | |
| 7 | 10 | | | 762 | | |
| 8 | 0 | | | 763 | | |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| bucket | | | | | | |

| | |
|------------------------|--|
| REMARKS | |
| lots of porpoise seals | |
| rain | |
| MAX. DEPTH = m | |

did not close

| | | | | | | | | | |
|--|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 48 55 80 00 . 70 N 15 04 11 . 70 W 15 JUL 04 04 45 12 . 5 . . 14 | | | | | | | | (°C) (°C) (mb) * | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DIRN. | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 124 | |
| | | | | | | | | P66112 | |
| Local Date & Time = | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| SEQ. DESIRED | | | | | | | | CHL. VOL. | |
| 1 120 ✓ | | | | ✓ | | 772 | | | |
| 2 100 ✓ | | | | | | 773 | | | |
| 3 75 ✓ | | | | | | 774 | | | |
| 4 50 ✓ | | | | | | 775 | | | |
| 5 30 ✓ | | | | | | 776 | | | |
| 6 20 ✓ | | | | | | 778 | | | |
| 7 12 | | | | | | 779 | | | |
| 8 0 | | | | | | 780 | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |
| COMMENTS | | | | | | | | | |
| REMARKS | | | | | | | | | |
| MAX. DEPTH = m | | | | | | | | | |

0 12 30, 30 50

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|--|--------------------|--|------------------------------|--|-------------|--|---------------------|--|---------------|--|-----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|-------|--|---------|--|--------------|--|--------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIR/L | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 68757 | | 53.04 | | N 15043.22 | | W 15 JUL 04 | | 0635 | | 12.3 | | | | 14 | | 6 | | 134 | | 15872 | | 3596614 | | | | | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | (deg) | | (m/s) | | * | | (m) | |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 82 | | | | | | 787 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 60 | | | | | | 788 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 50 | | | | | | 789 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 46 | | | | | | 790 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 20 | | | | | | 791 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 15 | | | | | | 792 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 0 | | | | | | 793 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

01520 L16

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | |
|-------------------------------|----------|------------|-----------|------------------|----------|----------------|------------|---------------------|----------|---------------|-----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 0885749 | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | (m) | 8895615 |
| 15044.93W | | | | | 15 | JUL | 04 | 07 | 16 | 12.3 | | | | | 13 | | | | | |
| Local Date & Time = 15 JUL 04 | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | MAX. DEPTH = m | | | | | | | | | | | | | | |
| FIRED | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | |
| 1 | | 86 | | | | | | 794 | | | | | | | | | | | | |
| 2 | | 60 | | | | | | 795 | | | | | | | | | | | | |
| 3 | | 40 | | | | | | 796 | | | | | | | | | | | | |
| 4 | | 25 | | | | | | 797 | | | | | | | | | | | | |
| 5 | | 20 | | | | | | 798 | | | | | | | | | | | | |
| 6 | | 10 | | | | | | 799 | | | | | | | | | | | | |
| 7 | | 0 | | | | | | 800 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|----------|--------------------|-----------|------------------------------|-----------|----------------|------------|---------------------|-----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|---|---|----|-------|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD = | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | | | | |
| 089 | 58 | 01.55 | N | 151 | 02.03 | W | 15 | JUL | 04 | 09 | 18 | 12.4 | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | 2 | 87 | P8C10 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | | | | | | | | | | | | | | | | | |
| FIRID | DEPTH | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | | | | | | |
| 1 | bot | | | | | 801 | | | | | | | | | | | | | | | | | |
| 2 | 75 | | | | | 802 | | | | | | | | | | | | | | | | | |
| 3 | 50 | | | | | 803 | | | | | | | | | | | | | | | | | |
| 4 | 40 | | | | | 804 | | | | | | | | | | | | | | | | | |
| 5 | 30 | | | | | 805 | | F | | | | | | | | | | | | | | | |
| 6 | 20 | | | | | 806 | | F | | | | | | | | | | | | | | | |
| 7 | 10 | | | | | 807 | | | | | | | | | | | | | | | | | |
| 8 | 0 | | | | | 808 | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | |

- inverted bottle before taking sample

| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | | | | | | | | | | | | |
|------------------------|----------|------------------|-----|---------------|-----------|---------------------|-----------|----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSDB I.D. | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | | DATE JD- | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | (m) | |
| 091 | 5812.04 | N 151 00.22 | | W 15 JUL 04 | | 11 | 24 | 12.2 | | | 14 | | 090 | 13 | | 2 | 105 | PBC8 |
| Local Date & Time = | | | | | | | | | | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | | | | | | | | | | | | | |
| PAR S/N FLUOR S/N | | | | | | | | | | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | |
| FIRED | DEPTH | ROSETTE POSITION | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | |
| 1 | bet | | | ✓ | 817 | | | | | | | | | | | | | |
| 2 | 75 | | | | 818 | | | | | | | | | | | | | |
| 3 | 50 | | | | 819 | | | | | | | | | | | | | |
| 4 | 40 | | | | 820 | | | | | | | | | | | | | |
| 5 | 30 | | | | 821 | | | | | | | | | | | | | |
| 6 | 20 | | | | 822 | F | | | | | | | | | | | | |
| 7 | 10 | | | | 823 | F | | | | | | | | | | | | |
| 8 | 0 | | | | 824 | F | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|--------------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 09 35 17 | | 7 79 N | | 15 05 8 61 W | | 15 JUL 04 | | 13 02 11.8 | |
| WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | |
| (°C) | | (mb) | | * | | * (deg) | | (m/s) | |
| 74.9 | | 15 | | 3 | | 74.9 | | 14 | |
| CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| * (m) | | * (m) | | * (m) | | 86 | | PBC6 | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = | | m | |
| FIRID | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
| SEQ. | | DESIRED | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| 1 | | Bot | | ✓ | | 835 | | | |
| 2 | | 50 | | | | 836 | | | |
| 3 | | 40 | | | | 837 | | | |
| 4 | | 30 | | | | 838 | | | |
| 5 | | 20 | | | | 839 | | F | |
| 6 | | 10 | | | | 840 | | F | |
| 7 | | 0 | | | | 841 | | F | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | |
|-------------------------------|-----------|------------------|--|---------------|--|------------|--|---------------------|-----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRLN | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 094 | 5821.82 N | 15058.11 W | | 15 JUL 04 | | 140412.2 | | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | (m) | 597BC5 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | |
| FIRID DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | |
| 1 | bot | 54.8 m | | | | 842 | | | | | | | | | | | | | |
| 2 | 40 | | | | | 843 | | | | | | | | | | | | | |
| 3 | 30 | | | | | 844 | | | | | | | | | | | | | |
| 4 | 20 | | | | | 845 | | F | | | | | | | | | | | |
| 5 | 10 | | | | | 846 | | F | | | | | | | | | | | |
| 6 | 0 | | | | | 847 | | F | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|-------------------|--|------------------|--|---------------|--|-----------|--|---------------------|--|
| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| 09105828.75N | | 15056.76W | | 15 JUL 04 | | 153313.2 | | 153313.2 | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | SEC | |
| 09 10 58 28 | | 15 05 6.76 | | 15 JUL 04 | | 15 33 13 | | 2 | |
| LOCAL DATE & TIME | | = | | JUL 04 | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | |
| PRESS SN | | DATA ON | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | |
| FIRID DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| SEQ. DESIRED | | | | | | | | | |
| 1 bot | | 84 | | | | 855 | | | |
| 2 50 | | | | | | 856 | | | |
| 3 40 | | | | | | 857 | | | |
| 4 30 | | | | | | 858 | | | |
| 5 20 | | | | | | 859 | | | |
| 6 10 | | | | | | 860 | | | |
| 7 0 | | | | | | 861 | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | |
|----------------------------|----------|------------------|-----------|---------------|----------|-----------|------------|---------------------|-----------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 09758 | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | (m) | 1547BC2 |
| 32 | | | 34 | | 15 | 05 | 6 | 24 | 13 | 11 | | | | 15 | | | | | |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | |
| SBE 3+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | | | | | | | | | | | | | | |
| | | PAR S/N | | | | FLUOR S/N | | | | | | | | | | | | | |
| FIRED | DEPTH | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | | |
| 1 | bot | 150 | | | | 862 | | | | | | | | | | | | | |
| 2 | 125 | | | | | 863 | | | | | | | | | | | | | |
| 3 | 100 | | | | | 864 | | | | | | | | | | | | | |
| 4 | 75 | | | | | 865 | | | | | | | | | | | | | |
| 5 | 50 | | | | | 866 | | | | | | | | | | | | | |
| 6 | 40 | | | | | 867 | | | | | | | | | | | | | |
| 7 | 30 | | | | | 868 | | | | | | | | | | | | | |
| 8 | 20 | | | | | 869 | | | | | | | | | | | | | |
| 9 | 10 | | | | | 870 | | | | | | | | | | | | | |
| 10 | 0 | | | | | 871 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | | |
|---|-------|------------------|-----|---------------|------|-----------|------------|---------------------|----------|-----------|-----------|--------------------|------------|-----------|-------------|------|---------|--------------|--------------|------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | |
| CONSC CAST # | DEG | MIN | DEG | MIN | DATE | JD | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | |
| 0985 | 83 | 7 | 150 | 55 | 03 | W | 15 | 14 | 12.9 | 15 | 3 | 7 | 48 | 4 | 13 | 8 | 7 | 2 | 202 | PBC1 |
| Local Date & Time = J U L 0 4 1 7 1 4 1 2 . 9 | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | |
| FREQ | DEPTH | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | |
| 1 | bot | 1916 | | ✓ | | 872 | | | | | | | | | | | | | | |
| 2 | 175 | | | | | 873 | | | | | | | | | | | | | | |
| 3 | 150 | | | | | 874 | | | | | | | | | | | | | | |
| 4 | 125 | | | | | 875 | | | | | | | | | | | | | | |
| 5 | 100 | | | | | 876 | | | | | | | | | | | | | | |
| 6 | 75 | | | | | 877 | | | | | | | | | | | | | | |
| 7 | 50 | | | | | 878 | | | | | | | | | | | | | | |
| 8 | 40 | | | | | 879 | | | | | | | | | | | | | | |
| 9 | 30 | | | | | 880 | | | | | | | | | | | | | | |
| 10 | 20 | | | | | 881 | | F | | | | Bottle didn't fire | | | | | | | | |
| 11 | 10 | | | | | 882 | | | | | | | | | | | | | | |
| 12 | 0 | | | | | 883 | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | |
|---------------------|------------|------------------|-----------|-----------------------|----------|---------------------|-------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSD8 I.D. | |
| CONSC CAST # | LATITUDE | LONGITUDE | DATE JD= | TIME (GMT) | DRY BULB | WET BULB | PRESSURE |
| DEG MIN | DEG MIN | DEG MIN | DAY MO YR | HR MIN | (°C) | (°C) | (mb) * |
| 16 58 11.36 N | 50 18.88 W | 51 04 | 22 18 | 13.3 | 15 | 74 | 74 |
| Local Date & Time = | | | | JUL 04 | (deg) | (m/s) | CLOUD (amt) |
| SBE 9+ PRESS SN | | | | TIMES | | REMARKS | |
| PRI TEMP SN | | | | DATA ON | | | |
| SEC TEMP SN | | | | START DOWN | | | |
| PRI COND SN | | | | AT DEPTH | | | |
| SEC COND SN | | | | AT SURFACE | | | |
| PAR S/N | | | | FLUOR S/N | | MAX. DEPTH = m | |
| FIRE | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | COMMENTS | |
| SEQ. | DESIRED | SALT | | NUTRIENTS | | CHL. BOT. NO. | |
| | | CHL. VOL. | | | | | |
| 1 | 168 | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| bucket | | | | | | | |

| | | | | | | | | | |
|-------------------------------|--|-----------|--|---------------|--|-----------|--|---------------------|--|
| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 1 45 8 | | 12. 45 N | | 15 01 8. 27 W | | 15 JUL 04 | | 223513.2 | |
| | | | | | | | | WET BULB | |
| | | | | | | | | (°C) | |
| | | | | | | | | PRESSURE | |
| | | | | | | | | (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DIRLN. | |
| | | | | | | | | (deg) | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | (m/s) | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH | |
| | | | | | | | | (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 496 | |
| | | | | | | | | 96 | |
| | | | | | | | | 08-3 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN | | | | | | | | | |
| PAR S/N FLUOR S/N | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | |
| FIRED DEPTH | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | |
| ROSETTE POSITION | | | | | | | | | |
| SALT | | | | | | | | | |
| NUTRIENTS | | | | | | | | | |
| CHL. Bot. no. | | | | | | | | | |
| CHL. VOL. | | | | | | | | | |
| COMMENTS | | | | | | | | | |
| 1 97 1 892 | | | | | | | | | |
| 2 80 1 893 | | | | | | | | | |
| 3 60 1 894 | | | | | | | | | |
| 4 40 1 895 | | | | | | | | | |
| 5 20 1 896 | | | | | | | | | |
| 6 10 1 897 | | | | | | | | | |
| 7 0 1 898 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |
| leaker - use bucket | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | |
|-----------------------|--|-------------------|--|-----------------------|--|---------------------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSDB I.D. | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | |
| DEG MIN | | DEG MIN | | DAY MO YR | | TIME (GMT) | |
| 1 4 3 5 8 1 4 . 8 4 N | | 1 5 0 1 7 . 5 1 W | | 1 5 J U L 0 4 | | 2 3 1 1 1 3 . 0 | |
| Local Date & Time | | = | | J U L 0 4 | | 2 3 1 1 1 3 . 0 | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
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| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | |
| FIRID DEPTH | | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | |
| SEQ. DESIRED | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
| 1 137.11 | | 70' | | | | CHL. VOL. | |
| 2 100 | | 60' | | | | | |
| 3 80 | | 40' | | | | | |
| 4 40 | | 20' | | | | | |
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| bucket | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | |
|---------------------------------|----------|------------|-----|------------------|-----|-----------|-----|---------------------|----|---------------|----------|-----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | |
| CONSC | CASE # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| | | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | * | (m) | |
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| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GL08EC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | |
| | | DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | ('C) | | ('C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | |
| 1865818 | | 38 | | N | | 15 | | 015 | | 91 | | W | | 16 | | J | | U | | L | | 0 | | 4 | | | | | | | | | | | | | | | | | |
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| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRD | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | | | (m) | | | |
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| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 51 | | | | | | 909 | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
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| 443 | | C | | 12.8 | | | | | |
| DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | |
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| 162 | | 70 | | 70 | | 70 | | 70 | |
| WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | |
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| PRI TEMP SN START DOWN | | | | | | | | | |
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| PAR S/N FLUOR S/N | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | |
| SALT NUTRIENTS CHL. Bot. no. CHL. VOL. | | | | | | | | | |
| COMMENTS | | | | | | | | | |
| SEQ. DESIRED | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | SDSB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | |
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| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | |
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| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | MAX. DEPTH = m | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIREO DEPTH | | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | |
| 1 214 | | ✓ | | 913 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 4 150 | | | | 916 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 125 | | | | 917 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 100 | | | | 918 | | | | | | d.d wet fire | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt.) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | 05 | | 80 | | 7.19 | | N | | 15 | | 02 | | 0.38 | | W | | 16 | | J | | U | | L | | 04 | | 04 | | 25 | | 4 | | 13.5 | | . | | 16 | | 7 | | 7 | | 7 | | 7 | | 2 | | 2 | | 07 | | 06 | | 2 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ TIMES JD/TIME REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| PRI TEMP SN START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| FIRE | | DEPTH | | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | FLUOR S/N | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|------------------|--|---------------|--|-----------|--|---------------------|--|-----------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|-------|--|---------|--|--------------|--|--------------|--|--|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | (deg) | | (m/s) | | * | | (m) | | | |
| 1111 | | 5808.61 | | N | | 15019.87 | | W | | 16 | | JUL | | 04 | | 0325 | | 13.5 | | | | 16 | | * | | 7488 | | 019 | | 872 | | 1790963 | | | |
| Local Date & Time = | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 174 | | | | 924 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 160 | | | | 925 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 140 | | | | 926 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 120 | | | | 927 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 100 | | | | 928 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 75 | | | | 929 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 50 | | | | 930 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 30 | | | | 931 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | 20 | | | | 932 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | 0 | | | | 933 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-----------|--|---------------|--|-------------|--|---------------------|--|----------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | * * | | (deg) | | (m/s) | | * * | | * * | | (m) | | | | | | | |
| 11 | | 25810.04 | | N 15019.29 | | W 16 JUL 04 | | 0345 | | 13.5 | | | | 16 | | 7474 | | 48872 | | 120 | | 0964 | | | | | | | | | | | |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAR S/N FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| no bottles fired | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAX. DEPTH = m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FRIED DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ROSETTE POSITION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SALT NUTRIENTS CHL. Bot. no. CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | | | | | | | | | | | | |
|-------------------------------|------------|------------------|-----------|-----------------------|-----------|---------------------|-----------|----------|----------|-----------|------------|--------------|--------------|-------------|------|---------|-----------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSDB I.D. | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRL | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | (m) | |
| 113 | 58 | 11 | 23 | N | 15 | 01 | 16 | JUL | 04 | 04 | 03 | 13 | .5 | | | | 114 | 0905 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | |
| SBE 9+ | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | |
| FIREO | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | |
| SEQ. | DESIRIED | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | |
| 1 | 102 | | | | 934 | | | | | | | | | | | | | |
| 2 | 80 | | | | 935 | | | | | | | | | | | | | |
| 3 | 60 | | | | 936 | | | | | | | | | | | | | |
| 4 | 46 | | | | 937 | | | | | | | | | | | | | |
| 5 | 20 | | | | 938 | | | | | | | | | | | | | |
| 6 | 10 | | | | 939 | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|-----------|--|------------------|--|-----------|--|---------------------|--|---------------|--|-----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|-------|--|---------|--|--------------|--|--------------|--|-----|--|----|--|-------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | °C | | °C | | (mb) | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | | | |
| 1145812.47 | | N | | 15018.28 | | W | | 16 | | JUL | | 04 | | 04 | | 25 | | 13.5 | | | | 16 | | * | | 7 | | 47 | | 47 | | 87 | | 72 | | 96 | | 00066 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRED | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 94 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | |
| 115 | | 58.13.63 N | | 150.17.78 W | | 16 J U L 0 4 | | 0441 | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB (°C) | |
| 115 | | 58.13.63 | | 150.17.78 | | 16 J U L 0 4 | | 0441 | |
| | | | | | | | | WET BULB (°C) | |
| | | | | | | | | PRESSURE (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DIRLN (deg) | |
| | | | | | | | | WIND SPD. (m/s) | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 83 0167 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | |
| SSE 9+ TIMES JD/TIME | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | |
| FIREF DEPTH | | | | | | | | | |
| SEQ. DESIRED ROSETTE POSITION SALT NUTRIENTS CHL. Bot. no. CHL. VOL. COMMENTS | | | | | | | | | |
| 1 82 941 942 944 problems with bottle | | | | | | | | | |
| 2 60 942 943 944 | | | | | | | | | |
| 3 40 943 944 | | | | | | | | | |
| 4 30 944 945 | | | | | | | | | |
| 5 20 945 946 | | | | | | | | | |
| 6 10 946 947 | | | | | | | | | |
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| bucket | | | | | | | | | |

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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/OCI | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 1165814.79N | | 15617.37W | | 16 JUL 04 | | 450113.2 | | 173 | | 7670 | | 46872 | | 72 | | 0968 | | | | | | | | | | | | | | | | | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | °C | | °C | | (mb) | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | | | | | | | |
| Local Date & Time | | Local Date & Time | | J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

REMARKS
no bottles

MAX. DEPTH = m

| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | |
|-------------------|--|------------------|--|-----------------------|--|-------------------------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSCB I.D. | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | |
| DEG MIN | | DEG MIN | | DAY MO YR | | TIME (GMT) | |
| 11 17 58 15.9 7 N | | 50 16.88 W | | 16 JUL 04 | | 05 14 | |
| Local Date & Time | | = | | J U L 0 4 | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | |
| FIRID DEPTH | | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | |
| SEQ. DESIRED | | SALT | | NUTRIENTS | | CHL. Bot. no. CHL. VOL. | |
| 1 60 | | 948 | | | | | |
| 2 50 | | 949 | | | | | |
| 3 45 | | 950 | | | | | |
| 4 30 | | 951 | | | | | |
| 5 20 | | 952 | | | | | |
| 6 10 | | 953 | | | | | |
| 7 0 | | 954 | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| bucket | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|------------------|--|---------------|--|-----------|--|---------------------|--|-----------|--|----------|--|----------|--|-----------|--|------------|--|-----------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD = | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) + | | + (deg) | | (m/s) + | | + | | (m) | | | | | | | | | | | |
| 11 05 17 | | 17.17 N | | 150 16.47 W | | 16 JUL 04 | | 05 33 | | 12.3 | | | | 16 | | 797 | | 996 | | 872 | | 54 | | 54 | | V | | P | | 10 | | D | |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ _____ TIMES _____ JD/TIME _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN _____ DATA ON _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN _____ START DOWN _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN _____ AT DEPTH _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN _____ AT SURFACE _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN _____ PAR S/N _____ FLUOR S/N _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE D. DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|---|-----|------------|---|---------------|-----|-----------|--|---------------------|--|
| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| 1195818.31 N | | 15016.05 W | | 16 JUL 04 | | 054812.4 | | 17 | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB (°C) | |
| | | | | | | | | WET BULB (°C) | |
| | | | | | | | | PRESSURE (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DIRLN (deg) | |
| | | | | | | | | WIND SPD. (m/s) | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 530611 | |
| Local Date & Time = j u l 0 4 | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN | | | | | | | | | |
| PAR S/N FLUOR S/N | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | |
| FIRED DEPTH | | | | | | | | | |
| SEQ. DESIRED ROSETTE POSITION SALT NUTRIENTS CHL. Bot. no. CHL. VOL. COMMENTS | | | | | | | | | |
| 1 | 524 | | ✓ | ✓ | 955 | | | | |
| 2 | 304 | | ✓ | ✓ | 956 | | | | |
| 3 | 104 | | ✓ | ✓ | 957 | | | | |
| 4 | 0 | | ✓ | ✓ | 958 | | | | |
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| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |

0,10,30

| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | |
|-----------------|--|------------------|--|---------------|--|---------------------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | DSDB I.D. | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | |
| DEG MIN | | DEG MIN | | DAY MO YR | | TIME (GMT) | |
| 1205819.83 N | | 15015.58 W | | 16 JUL 04 | | 061012.4 | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PNI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PNI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
| SEQ. DESIRED | | | | CHL. Bot. no. | | CHL. VOL. | |
| 1 | | | | | | | |
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| 11 | | | | | | | |
| 12 | | | | | | | |
| bucket | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | |
|-------------------------------|----------|------------------|-----------|-----------------------|-----------|-----------|------------|---------------------|----------|----------|-----------|------------|---------------|--------------|-------------|------|---------|-----------------|--------------|----|----|----|----|----|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | | | | | |
| | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | (m) | | | | | | |
| 121 | 58 | 21 | 35 | N | 15 | 07 | 50 | 16 | 04 | 06 | 25 | 12.4 | | | 17 | * | 7 | 10 | 40 | 98 | 72 | 52 | 66 | 13 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | |
| FIRE | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | | | |
| SEQ. | DESIRED | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | | | | | | | | | |
| 1 | 50 | ✓ | ✓ | 959 | | | | | | | | | | | | | | | | | | | | |
| 2 | 20 | ✓ | ✓ | 960 | | | | | | | | | | | | | | | | | | | | |
| 3 | 10 | ✓ | ✓ | 961 | | | | | | | | | | | | | | | | | | | | |
| 4 | 0 | ✓ | ✓ | 962 | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | |

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|-------------------------------|---------|--------------------|--|------------------------------|--|------------|--|---------------------|-----------|----------|----------|-----------|------------|-----------|-----------|-------------|------|---------|------------------|--------------|
| VESSEL R/V Alpha Heix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH (m) | STA. NAME/ID |
| 1225806.02 | | N 14904.00 | | W 16 J U L 0 4 | | 11 09 14.2 | | 17 | 20 | 45 | 2 | 89 | STA10 | | | | | | | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | |
| SSE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | MAX DEPTH = m | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | | | |
| 1 | bot | | | | | 963 | | | | | | | | | | | | | | |
| 2 | 75 | | | | | 964 | | | | | | | | | | | | | | |
| 3 | 50 | | | | | 965 | | | | | | | | | | | | | | |
| 4 | 40 | | | | | 966 | | | | | | | | | | | | | | |
| 5 | 30 | | | | | 967 | | | | | | | | | | | | | | |
| 6 | 20 | | | | | 968 | | | | | | | | | | | | | | |
| 7 | 10 | | | | | 969 | | | | | | | | | | | | | | |
| 8 | 0 | | | | | 970 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | |
|-------------------------------|----------|------------------|---------|-----------------------|-----------|---------------|-----------|---------------------|----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | |
| CONSC | LATITUDE | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| CAST # | DEG MIN | DEG MIN | DEG MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | (m) | |
| 1235803 | 79N | 149 | 10 | 34 | W | 16 | J | U | L | 0 | 4 | 12 | 04 | 13 | 19 | | | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | | | | | | | | | | |
| FREQ | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | REMARKS | | | | | | | | | | | | |
| SEQ. | DESIRED | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | |
| 1 | bot | | | ✓ | 971 | | | | | | | | | | | | | |
| 2 | 75 | | | | 972 | | | | | | | | | | | | | |
| 3 | 50 | | | | 973 | | | | | | | | | | | | | |
| 4 | 40 | | | | 974 | | | | | | | | | | | | | |
| 5 | 30 | | | | 975 | | | | | | | | | | | | | |
| 6 | 20 | | | | 976 | | | | | | | | | | | | | |
| 7 | 10 | | | | 977 | | | | | | | | | | | | | |
| 8 | 0 | | | | 978 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
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| 12 | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | |

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|-------------------------------|-----|--------------------|----|------------------------------|-----|-----------|----|---------------------|-----------|----------|----------|-----------|------------|-----------|-----------|-------------|------|---------|--------------|--------------|-----|---|---|----|-----|------|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRL | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | | | | | | |
| 125 | 57 | 58 | 49 | N | 149 | 25 | 01 | W | 16 | J | U | L | 0 | 4 | 14 | 17 | 13 | 1 | 18 | 2 | 144 | 9 | 8 | 32 | 209 | STAZ |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | | | | | | | |
| 1 | 207 | | | | | 991 | | | | | | | | | | | | | | | | | | | | |
| 2 | 175 | | | | | 992 | | | | | | | | | | | | | | | | | | | | |
| 3 | 150 | | | | | 993 | | | | | | | | | | | | | | | | | | | | |
| 4 | 125 | | | | | 994 | | | | | | | | | | | | | | | | | | | | |
| 5 | 100 | | | | | 995 | | | | | | | | | | | | | | | | | | | | |
| 6 | 75 | | | | | 996 | | | | | | | | | | | | | | | | | | | | |
| 7 | 50 | | | | | 997 | | | | | | | | | | | | | | | | | | | | |
| 8 | 40 | | | | | 998 | | | | | | | | | | | | | | | | | | | | |
| 9 | 30 | | | | | 999 | | | | | | | | | | | | | | | | | | | | |
| 10 | 20 | | | | | 1000 | | | | | | | | | | | | | | | | | | | | |
| 11 | 10 | | | | | 1001 | | | | | | | | | | | | | | | | | | | | |
| 12 | 0 | | | | | 1002 | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | |

| VESSEL | | | CRUISE ID | | | PROJECT & LEG | | | DSD8 I.D. | | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----------|-----------|-----------|--|------------------|--|-----------|-----------------------|------------|----------|---------------------|----------|--|---------------|--|-----------|-----------|------------|---------|------------|--|-----------|--|-------------|--|--------------|--|--------------|--|--------------|--|--|--|--|
| R/V Alpha Helix | | | HX287 | | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY MO YR | | | HR MIN | | (°C) | | (°C) | | (mb) * | | * | | (deg) | | (m/s) * | | * | | (m) | | | | | | | | |
| Local Date & Time = J U L 0 4 14 S T 13 . 1 17 7 1400 06 07 Z 1975 ST 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | | | | | | | | | TIMES | | | | | | | | | | JD/TIME | | | | | | | | | | | | | | | |
| PRI TEMP SN | | | | | | | | | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | | | | | | | | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | | | | | | | | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | | | | | | | | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAR S/N | | | | | | | | | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | |
| FREQ | | | DEPTH | | | ROSETTE POSITION | | | SAMPLE BOTTLE NUMBERS | | | COMMENTS | | | REMARKS | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | | DESIRID | | | | | | SALT | | | NUTRIENTS | | | CHL. Bot. no. | | | CHL. VOL. | | | | | | | | | | | | | | | | | |
| 1 | | | Bot | | | | | | ✓ | | | 1003 | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | 175 | | | | | | | | | 1004 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | 150 | | | | | | | | | 1005 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | 125 | | | | | | | | | 1006 | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | 100 | | | | | | | | | 1007 | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | 75 | | | | | | | | | 1008 | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | 50 | | | | | | | | | 1009 | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | 40 | | | | | | | | | 1010 | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | 30 | | | | | | | | | 1011 | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | 20 | | | | | | | | | 1012 | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | 10 | | | | | | | | | 1013 F | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | 0 | | | | | | | | | 1014 | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | |
|-------------------------------|----------|------------|----------|------------------|------------|-----------|----------|---------------------|-----------|---------------|-----------|-----------|-------------|----------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN | WIND SPD | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| 12657 | 52.166 N | 14940.97 W | 16 | 104 | 1704 | 12.9 | | 18 | | | 718 | 45 | 872 | | | 233 | STA4 |
| DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | |
| REMARKS | | | | | | | | | | | | | | | | | |
| SBE 3+ | | TIMES | | JD/TIME | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | |
| 1 | 229 | | | ✓ | | 1024 | | | | | | | | | | | |
| 2 | 200 | | | | | 1025 | | | | | | | | | | | |
| 3 | 175 | | | | | 1026 | | | | | | | | | | | |
| 4 | 150 | | | | | 1027 | | | | | | | | | | | |
| 5 | 125 | | | | | 1028 | | | | | | | | | | | |
| 6 | 100 | | | | | 1029 | | | | | | | | | | | |
| 7 | 75 | | | | | 1030 | | | | | | | | | | | |
| 8 | 50 | | | | | 1031 | | | | | | | | | | | |
| 9 | 30 | | | | | 1032 | | | | | | | | | | | |
| 10 | 20 | | | | | 1033 | | | | | | | | | | | |
| 11 | 10 | | | | | 1034 | | | | | | | | | | | |
| 12 | 0 | | | | | 1035 | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | |

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|-------------------------------|--|--------------------|--|------------------------------|--|------------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | SDSB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 131 57 46.3 4 N | | 149 59.8 2 W | | 16 JUL 04 | | 20 20 13.6 | | WET BULB | |
| | | | | | | | | PRESSURE | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DIRN. | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 182 | |
| | | | | | | | | 815T142a | |
| Local Date & Time = JUL 04 | | | | | | | | | |
| SPE 9+ TIMES JD/TIME | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | |
| FIREO DEPTH | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | |
| ROSETTE POSITION | | | | | | | | | |
| SALT | | | | | | | | | |
| NUTRIENTS | | | | | | | | | |
| CHL. Bot. no. | | | | | | | | | |
| CHL. VOL. | | | | | | | | | |
| COMMENTS | | | | | | | | | |
| 1 ~171d 1061 | | | | | | | | | |
| 2 150d ✓ 1067 | | | | | | | | | |
| 3 125d 1063 | | | | | | | | | |
| 4 100d 1064 | | | | | | | | | |
| 5 75d 1065 | | | | | | | | | |
| 6 50d 1066 | | | | | | | | | |
| 7 25d 1067 | | | | | | | | | |
| 8 30d 1068 | | | | | | | | | |
| 9 20d 1069 | | | | | | | | | |
| 10 0d 1070 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |
| REMARKS | | | | | | | | | |
| MAX. DEPTH = m | | | | | | | | | |

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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | SDSB ID. | | STATION DESIGNATION <i>rain</i> | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRL | | WIND SPD | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 1325744.14N | | 15006.97W | | 16 JUL 04 | | 2132 | | 11.4 | | .1 | | 7 | | 70 | | 85 | | 10 | | 87 | | 2 | | 196 | | Sta 2 | | | | | | | |
| SSE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 193 | | | | | | 1070 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 175 | | | | | | 1071 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 150 | | | | | | 1072 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 125 | | | | | | 1073 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 100 | | | | | | 1074 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 75 | | | | | | 1075 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 50 | | | | | | 1076 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 40 | | | | | | 1077 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 30 | | | | | | 1078 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 20 | | | | | | 1079 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 0 | | | | | | 1080 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

0,20,30,40,50

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|--|------------|--|------------------|--|-----------|--|---------------------|--|--------------|--|-----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|-------|--|---------|--|--------------|--|--------------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 1335742 | | 26 N | | 15014.24 W | | 16 JUL 04 | | 2219 | | 13.0 | | . | | 16 | | . | | 7170 | | 4786 | | 2 | | 133 | | 5421 | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | °C | | °C | | (mb) | | . | | (deg) | | (m/s) | | . | | (m) | |
| Local Date & Time | | - | | 16 JUL 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FREQ | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 1314 | | | | ✓ | | 1081 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 1004 | | | | | | 1082 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 754 | | | | | | 1083 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 504 | | | | | | 1084 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 464 | | | | | | 1085 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 304 | | | | | | 1086 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 10 | | | | | | 1087 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 0 | | | | | | 1088 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

did not sample

MAX. DEPTH = m

REMARKS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--------------------|--|------------------------------|--|-------------|--|---------------------|--|-------------|--|--------------|--|----------|--|------------------|--|------------|--|------------|--|---------------|--|-------------|--|----------|--|---------|--|--------------|--|--------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSOB I.D. | | STATION DESIGNATION | | | | VPE1 pbd8 | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD = | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 1345758.98N15005.94W | | 17 JUL 04 | | 020312.5 | | 16 | | 5184 | | 10872 | | 24.3 | | 09C1 | | | | | | | | | | | | | | | | | | | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | °C °C | | (mb) * | | (deg) * | | (m/s) * | | * * | | (m) | | | | | | | | | | | | | | | |
| Local Date & Time | | JD/TIME | | TIMES | | DATA ON | | START DOWN | | AT DEPTH | | AT SURFACE | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | |
| SBE 9+ | | PRESS SN | | PRI TEMP SN | | SEC TEMP SN | | PRI COND SN | | SEC COND SN | | FRIED | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Boc. no. | | CHL. VOL. | | COMMENTS | | | | | | | |
| 1 | | 237.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 200.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 175.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 150.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 125.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 100.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 75.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 50.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | 30.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | 20.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | 10.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

big leaker

lil leaker

MAX. DEPTH = m

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|------------------|--|---------------|--|------------|--|---------------------|--|-----------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| CAST # | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | | | (m) | | | |
| 1 | | 355863. | | 92 N | | 15043.51 W | | 17 JUL 04 | | 44344 | | 12.8 | | | | 1637 | | 18449 | | 872 | | 318 | | UPCZ | | | | | | | | | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SRE 9+ TIMES JD/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 138 | | 5807.95 N | | 15001.33 W | | 17 JUL 04 | | 0417 | | 12.7 | | | | 15 | | 6180 | | 6180 | | 6180 | | 6180 | | 6180 | | 6180 | | 6180 | | 6180 | | 6180 | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | * * | | * * | | (deg) | | (m/s) | | * * | | * * | | (m) | | 01005 | | | |
| 138 | | 5807.95 | | 15001.33 | | 17 JUL 04 | | 0417 | | 12.7 | | | | 15 | | 6180 | | 6180 | | 6180 | | 6180 | | 6180 | | 6180 | | 6180 | | 6180 | | | |
| Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FREQ | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. BOT. NO. | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | |
| SEQ | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | X | | 235 | | ✓ | | 1112 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 230 | | 1 | | | | 1113 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 200 | | 2 | | | | 1114 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 175 | | 3 | | | | 1115 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 150 | | 4 | | | | 1116 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 100 | | 5 | | | | 1117 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 50 | | 6 | | | | 1118 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 20 | | 7 | | | | 1119 | | | | | | | | | | | | | | | | | | | | | | | | | |
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| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

bottom sampler bottle

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| VESSEL | | CRUISE ID | | PROJECT & LEG | | OSD8 ID. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | |
| | | DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | °C | | °C | | (mb) | | ° | | ° | | (deg) | | (m/s) | | ° | | ° | | (m) | | | |
| 14458 | | 10 | | 02 | | N | | 15000 | | 08 | | W | | 17 | | JUL | | 04 | | 05 | | 15 | | 12 | | 08 | | 15 | | 71 | | 80 | | 48 | | 72 | | 157 | | 0907 | |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FRIED DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ | | DESID | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 150 | | X | | | | 1122 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 145 | | 1 | | | | 1123 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 125 | | 2 | | | | 1124 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 100 | | 3 | | | | 1125 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 75 | | 4 | | | | 1126 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 50 | | 5 | | | | 1127 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 30 | | 6 | | | | 1128 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 20 | | 7 | | | | 1129 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | 10 | | 8 | | | | 1130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | 0 | | 9 | | | | 1131 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | OSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
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| 1415811.34N | | 14959.42W | | 17 JUL 04 | | 0541 | | 13.1 | |
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| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | |
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| PRI TEMP SN | | START DOWN | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | MAX. DEPTH = m | | | |
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| FIREO DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD = | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 142 | | 58 12.6 | | 9 N 49 58.5 | | 7 W 17 J U L 0 4 | | 0401 | | 13.2 | | | | 15 | | 7 | | 7 | | 33 | | 09 | | 87 | | 2 | | 97 | | 0909 | | | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | • | | (deg) | | (m/s) | | • | | • | | (m) | | | | | | | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| SBE 9+ | | TIMES | | JO/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FREQ | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | |
| SEQ | | DESIRED | | | | | | | | | | | | bottom before bottle. turned 1m from bottom | | | | | | | | | | | | | | | | | | | |
| 1 | | 95 | | X | | | | 1132 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 90 | | 1 | | | | 1133 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 75 | | 2 | | | | 1134 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 58 | | 3 | | | | 1135 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 30 | | 4 | | | | 1136 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 15 | | 5 | | | | 1137 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 0 | | 6 | | | | 1138 | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | pbd 3 | | | | | | | | | | | | |
| CONSC | LATITUDE | LONGITUDE | | DATE JD | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | |
| CAST # | DEG MIN | DEG MIN | DEG MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | (m) | |
| 1445816.71 | N | 14955.92 | W | 17 | JUL | 04 | 06 | 47 | 12.9 | . | 15 | * | * | 72 | 11 | 07 | 872 | * | 550 | PC111 |
| Local Date & Time = 16 JUL 04 | | | | | | | | | | | | | | | | | | | | |
| SSE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | |
| FIRID | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | | | |
| 1 | 544 | | | ✓ | | 1135 | | | | | | | | | | | | | | |
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| 3 | 304 | | | | | 1137 | | | | | | | | | | | | | | |
| 4 | 204 | | | | | 1138 | | | | | | | | did not close | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRL | | WIND SPO | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | |
| CAST # | | DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | °C | | °C | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | |
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| FIRED DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ROSETTE POSITION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SALT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NUTRIENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHL. Bot. no. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | PBD 10 | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD = | | TIME (GMT) | |
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| Local Date & Time = JUL 04 | | | | | | | | | |
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| SEC COND SN PAR S/N FLUOR S/N | | | | | | | | | |
| FIRED | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
| SEQ. | | DESIRED | | | | CHL. Bot. no. | | CHL. VOL. | |
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| COMMENTS | | | | | | | | | |
| NO sample | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | |
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| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD = | |
| 1495808.00 | | N 15001.32 | | W 17104 | | 111712.3 | |
| DEG MIN | | DEG MIN | | DAY MO YR | | TIME (GMT) | |
| 1495808.00 | | N 15001.32 | | 17 JUL 04 | | 111712.3 | |
| SBE 3+ | | TIMES | | JD/TIME | | REMARKS | |
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| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | |
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| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | |
| FREQ | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
| SEQ. | | DESIRED | | | | CHL. Bot. no. | | CHL. VOL. | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | |
| 151 | | 5810.06 | | N | | 14959.90 | | W | | 17 | | JUL | | 04 | | 1213 | | 12.5 | | . | | 14 | | . | | (deg) | | 16012 | | . | | 2 | | 1500007 | | PBDS | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | (deg) | | (m/s) | | * | | (m) | | | | | |
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| REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FREQ | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | bot | | 145 | | | | 1173 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 125 | | | | | | 1174 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 100 | | | | | | 1175 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 75 | | | | | | 1176 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 50 | | | | | | 1177 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | OSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 1625811 | | 34N | | 14959.24W | | 17 JUL 04 | | 123712.2 | | 14 | | 3336 | | 7872 | | 121 | | UPD8 | | | | | | | | | | | | | | | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | °C | | °C | | (mb) | | * * | | (deg) | | (m/s) | | * * | | * * | | (m) | | | | | | | | | |
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| SBE 3+ PRESS SN PRI TEMP SN SEC TEMP SN PRI COND SN SEC COND SN | | TIMES DATA ON START DOWN AT DEPTH AT SURFACE | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | LATITUDE | LONGITUDE | | DATE JD= | | | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| CAST # | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | * | (m) | | | | | | | | | | |
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| REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| SALT _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NUTRIENTS _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHL. Bot. no. _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHL. VOL. _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIR/L | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 156 | | 5802.04 N | | 14846.97 W | | 17 JUL 04 | | 175013.4 | | 13 | | 7 | | 16014822 | | 6957BX1 | | | | | | | | | | | | | | | | | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | °C | | °C | | °C | | °C | | °C | | °C | | °C | | °C | | °C | | °C | | °C | | °C | | °C | |
| Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | |
| SBE 9+ PRESS SN PRI TEMP SN SEC TEMP SN PRI COND SN SEC COND SN | | TIMES DATA ON START DOWN AT DEPTH AT SURFACE | | JD/TIME | | PAR S/N | | FLUOR S/N | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. BOT. NO. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | Box | | | | ✓ | | 1188 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 500 | | | | | | 1189 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 300 | | | | | | 1190 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 200 | | | | | | 1191 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 150 | | | | | | 1192 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | 100 | | | | | | 1193 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | 75 | | | | | | 1194 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 50 | | | | | | 1195 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | 30 | | | | | | 1196 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | 20 | | | | | | 1197 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | 10 | | | | | | 1198 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | 0 | | | | | | 1199 | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

78

6+7 Fired @ 100m

| | | | | | | | | | | | | | | | | |
|----------------------------|---------------------|----------------------|-----------------------|------------------------------|----------------------|------------------|------------------|---|----------------|-----------------|---------------------|--------------------|------------------|--------------|------------------------|--------------|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | |
| CONC CAST # | LATITUDE DEG MIN | LONGITUDE DEG MIN | DATE JD= DAY MO YR | | TIME (GMT) HR MIN | DRY BULB (°C) | WET BULB (°C) | PRESSURE (mb) | SEA STATE * | VISIBILITY * | WIND DIRN. (deg) | WIND SPD. (m/s) | CLOUD (amt) * | WEATHER * | BOTTOM DEPTH (m) | STA. NAME/ID |
| 1575803 | 14847.90 | 17 JUL 04 | 1933 | 12.8 | 13 | 7 | 14 | 12872 | 4112 | PBX2 | | | | | | |
| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLOR S/N | | MAX. DEPTH = m | | | | | | | | | | |
| FIRE | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | COMMENTS | | | | | | | | | | |
| SEQ. | DESIRED | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | | | | | | | | | |
| 1 | Bot | 408 | | | | | | <p>No samples taken</p> <p>rotted all fired at 40 (1 thick)</p> | | | | | | | | |
| 2 | 300 | | | | | | | | | | | | | | | |
| 3 | 200 | | | | | | | | | | | | | | | |
| 4 | 150 | | | | | | | | | | | | | | | |
| 5 | 100 | | | | | | | | | | | | | | | |
| 6 | 75 | | | | | | | | | | | | | | | |
| 7 | 50 | | | | | | | | | | | | | | | |
| 8 | 40 | | | | | | | | | | | | | | | |
| 9 | 30 | | | | | | | | | | | | | | | |
| 10 | 20 | | | | | | | | | | | | | | | |
| 11 | 40 | | | | | | | | | | | | | | | |
| 12 | 20 | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | |

[illegible]

| | | | | | | | | | |
|--|--|--------------------|--|------------------------------|--|-----------|--|---------------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD = | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB | |
| 16 45 58 05.94 N | | 149 04.29 W | | 17 JUL 04 | | 07 49 | | 13.1 | |
| | | | | | | | | WET BULB | |
| | | | | | | | | (°C) | |
| | | | | | | | | PRESSURE | |
| | | | | | | | | (mb) | |
| | | | | | | | | SEA STATE | |
| | | | | | | | | VISIBILITY | |
| | | | | | | | | WIND DIRN. | |
| | | | | | | | | (deg) | |
| | | | | | | | | WIND SPD. | |
| | | | | | | | | (m/s) | |
| | | | | | | | | CLOUD (amt) | |
| | | | | | | | | TYPE | |
| | | | | | | | | WEATHER | |
| | | | | | | | | BOTTOM DEPTH | |
| | | | | | | | | (m) | |
| | | | | | | | | STA. NAME/ID | |
| | | | | | | | | 87 | |
| | | | | | | | | 895 + 0.16 | |
| Local Date & Time = JUL 04 | | | | | | | | | |
| SBE 9+ TIMES JD/TIME | | | | | | | | | |
| PRESS SN DATA ON | | | | | | | | | |
| PRI TEMP SN START DOWN | | | | | | | | | |
| SEC TEMP SN AT DEPTH | | | | | | | | | |
| PRI COND SN AT SURFACE | | | | | | | | | |
| SEC COND SN | | | | | | | | | |
| PAR S/N FLUOR S/N | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | |
| FIRED DEPTH | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | |
| ROSETTE POSITION | | | | | | | | | |
| SALT NUTRIENTS CHL. Bot. no. CHL. VOL. | | | | | | | | | |
| COMMENTS | | | | | | | | | |
| 1 89 ✓ 1218 ✓ | | | | | | | | | |
| 2 60 ✓ 1219 ✓ | | | | | | | | | |
| 3 40 ✓ 1220 ✓ | | | | | | | | | |
| 4 20 ✓ 1221 ✓ | | | | | | | | | |
| 5 0 ✓ 1222 ✓ | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| bucket | | | | | | | | | |
| REMARKS | | | | | | | | | |
| MAX. DEPTH = m | | | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | |
|-------------------------------|----------|------------------|-----------|---------------|------|------------|------|---------------------|----------|-----------|-----------|------------|------------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | |
| CONSC | LATITUDE | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIR/L | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| CAST # | DEG MIN | DEG MIN | DAY MO YR | HR MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | * | * | * | (m) | |
| 161 | 58.74 | 149.22 | 08W | 18 | 04 | 00 | 23 | 17.7 | | 11 | | | 7130 | 11 | 87 | 2 | | 121 | 96X5 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | |
| SSE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. BOT. NO. | | CHL. VOL. | | COMMENTS | | | | | | | |
| SEQ. | DESIRED | | | | | | | | | | | | | | | | | | |
| 1 | 115 | | | ✓ | | 1223 | | | | | | | | | | | | | |
| 2 | 106 | | | | | 1224 | | | | | | | | | | | | | |
| 3 | 80 | | | | | 1225 | | | | | | | | | | | | | |
| 4 | 60 | | | | | 1226 | | | | | | | | | | | | | |
| 5 | 40 | | | ← | | 1227 | | | | | | | | | | | | | |
| 6 | 30 | | | ← | | 1228 | | | | | | | | | | | | | |
| 7 | 20 | | | ← | | 1229 | | | | | | | | | | | | | |
| 8 | 10 | | | | | 1230 | | | | | | | | | | | | | |
| 9 | 0 | | | | | 1231 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | |

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|-----------------|--|------------|--|------------------|--|---------------------|--|
| VESSEL | | CRUISE ID | | PROJECT & LEG | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | |
| 1625811.22N | | 14943.72W | | 18 JUL 04 | | 0134 | |
| DEG MIN | | DEG MIN | | DAY MO YR | | TIME (GMT) | |
| 1625811.22N | | 14943.72W | | 18 JUL 04 | | 0134 | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | |
| SEQ. DESIRED | | | | | | NUTRIENTS | |
| 1 | | | | | | CHL. Bot. no. | |
| 2 | | | | | | CHL. VOL. | |
| 3 | | | | | | | |
| 4 | | | | | | | |
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| 11 | | | | | | | |
| 12 | | | | | | | |
| bucket | | | | | | | |

| VESSEL | | CRUISE ID | | PROJECT & LEG | | | | | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------|------------------|--|---------------|-----------|---------------|-----------|------------|--|---------------------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|----|--|----|--|------|--|--|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | DSDB I.D. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRLN | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | |
| CAST # | | DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | * | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | |
| 16358 | | 13 | | 47 N | | 14936 | | 20 W | | 18 J | | U L | | O 4 | | 04 | | 213 | | 12.5 | | | | 10 | | * | | * | | 116 | | 148 | | 62 | | 69 | | 5461 | | | |
| Local Date & Time = _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AT SURFACE _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAR S/N _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FLOR S/N _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REMARKS _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAX. DEPTH = _____ m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | DEPTH | ROSETTE POSITION | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | DESIR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|---------------------------|--|--------------------|--|------------------------------|--|-------------------|--|---------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|-------------------|--|--------------|--|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 1665828.56N | | 15035.00W | | 18 JUL 04 | | 061011.6 | | 09 | | 7108 | | 09 | | 872 | | 448 | | P666 | | | | | | | | | | | | | | | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | * * | | (deg) | | (m/s) | | * * | | * * | | (m) | | | | | | | | | |
| Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | | |
| SBE 9+ | | TIMES | | JD/TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. BOT. NO. | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| bucket | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

REMARKS
light drizzle

MAX. DEPTH = m

[illegible]

| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | |
|-------------------------------|----------|-------------|---------|------------------|----|------------|--------|---------------------|----------|---------------|-----------|------------|------------|-----------------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | |
| CONSC | LATITUDE | LONGITUDE | | DATE | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| CAST # | DEG MIN | DEG MIN | DEG MIN | DAY | MO | YR | HR MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | (m) | |
| 173 | 5827.42 | N 151 08.57 | | W 18 | | JUL 04 | | 1346 | 11.9 | .07 | 6 | 15 | 6 | 14 | 87 | 2 | | 99 | 499 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | |
| SSE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | |
| SEQ. | DESID | | | | | | | | | | | | | | | | | | |
| 1 | 1241 | | | | | | | | | | | | | Chl & nutrients | | | | | |
| 2 | 1242 | | | | | | | | | | | | | | | | | | |
| 3 | 1243 | | | | | | | | | | | | | | | | | | |
| 4 | 1244 | | | | | | | | | | | | | | | | | | |
| 5 | 1245 | | | | | | | | | | | | | | | | | | |
| 6 | 1246 | | | | | | | | | | | | | | | | | | |
| 7 | 1247 | | | | | | | | | | | | | | | | | | |
| 8 | 1248 | | | | | | | | | | | | | | | | | | |
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| 10 | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| Bucket | | | | | | | | | | | | | | | | | | | |

| | | | | | | | |
|---------------------------|-----------|--------------------|-----------|------------------------------|-----------|----------------------------------|------------|
| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | STATION DESIGNATION DSDB I.D. | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | |
| 174 | 5828.18 N | 150 | 56.70 W | 18 | JUL | 04 | 145311.9 |
| DEG | MIN | DEG | MIN | DAY | MO | YR | TIME (GMT) |
| 174 5828.18 | | 150 56.70 | | 18 JUL | | 04 | 145311.9 |
| Local Date & Time = | | JUL 04 | | HR | | MIN | SEC |
| SEC 9+ | | TIMES | | JD/TIME | | REMARKS | |
| PRESS SN | | DATA ON | | | | | |
| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | COMMENTS | |
| SEQ. | DESIRED | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD = | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 17658 | | 32.28 N | | 15046.59 W | | 18 JUL 04 | | 1609 | | 11.4 | | . | | 08 | | 6 | | 197 | | 07872 | | 1366 | | P7a | | | | | | | | | |
| DEG MIN | | DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | ('C) | | ('C) | | (mb) | | * | | (deg) | | (m/s) | | * | | * | | (m) | | | | | | | |
| Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | DATA ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRED | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | |
| SEQ. | | DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | |
| CONSC | CASE # | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | | | | | |
| DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | (m) | | | | | | |
| 172 | 58 | 35 | 53 | N | 150 | 48 | 04 | W | 18 | J | U | L | 0 | 4 | 16 | 43 | 11 | .6 | .08 | 6 | 114 | 048 | 72 | 182 | 917 |
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| SSE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | |
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| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | |
| FREQ | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | | COMMENTS | | | | | | | | | | | | | | | | | |
| SEQ. | DESIRED | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 1785840 | | 48 N | | 15050.08 W | | 18 JUL 04 | | 1730 | | 11.9 | | | | 08 | | 7 | | 180 | | 8 | | 88 | | 72 | | 187 | | 416 | | 6a | | | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | (deg) | | (m/s) | | | | | | | | | | | | (m) | | | | | |
| Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | Local Date & Time | | | |
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| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRID DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | OSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | 046P36a | | | | | | | | | | | | |
| CONSC | LATITUDE | LONGITUDE | | DATE | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | |
| CAST # | DEG MIN | DEG MIN | DEG MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | (m) | |
| 1795844 | 96 | 15051 | 78 | 16 | JUL | 04 | 18 | 16 | 12.0 | | 08 | | | 7170 | 07872 | | | 1826196 | | |
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| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | |
| FREQ | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | COMMENTS | | | | | | | | | | | | | | |
| SEQ. | DESIRED | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | | | | | | | | | | | | | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| 180 | | 5849.23 N | | 15052.86 W | | 18 JUL 04 | | 185512.4 | | 08 | | 716008872 | | 1186 | | 9P5 | | | | | | | | | | | | | | | | | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | (°C) | | (°C) | | (mb) | | ° | | (deg) | | (m/s) | | ° | | ° | | (m) | | | | | | | | | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRED DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | | | | | |
| CAST # | | DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | ° | | ° | | (deg) | | (m/s) | | ° | | ° | | (m) | | | | | | | |
| 181 | | 58 | | 52 | | .88 | | N | | 150 | | 53 | | .91 | | W | | 18 | | JUL | | 04 | | 2008 | | 12 | | .7 | | | | | | 08 | | 7 | | 15504 | | 872 | | 1409 | | 4 | |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SALT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NUTRIENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHL. Bot. no. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHL. VOL. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAX. DEPTH = m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | |
|-------------------------------|----------|------------------|-------|-----------------------|-----|---------------|-----|---------------------|----------|----------|----------|-----------|------------|-----------|-----------|-------------|------|---------|--------------|--------------|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | |
| CONSC | LATITUDE | LONGITUDE | | DATE JD- | | | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID |
| CAST # | DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | (m) | |
| 1825857 | .88 | N | 15055 | .87 | W | 18 | JUL | 04 | 20 | 42 | 13.3 | . | 08 | 2 | 7 | 185 | 04 | 872 | 140 | SRL3 |
| Local Date & Time = J U L 0 4 | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ | | | | | | | | | | | | | | | | | | | | |
| PRESS SN | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | |
| PRI TEMP SN | | DATA ON | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT DEPTH | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | |
| PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | | |
| FIRE | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | | | | | | | | | | | | | | |
| SEQ. | DESIRED | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | |
| 1 | 139 | | | 1241 | | | | | | | | | | | | | | | | |
| 2 | 50 | | | 1242 | | | | | | | | | | | | | | | | |
| 3 | 40 | | | 1243 | | | | | | | | | | | | | | | | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSOB I.D. | | STATION DESIGNATION | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | |
| DEG MIN | | DEG MIN | | DAY MO YR | | HR MIN | | DRY BULB (°C) | |
| 18 45 9 06 | | 46 N | | 15 05 9 | | 18 JUL 04 | | 22 37 13.3 | |
| WET BULB (°C) | | PRESSURE (mb) | | SEA STATE | | VISIBILITY | | WIND DIRN. (deg) | |
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| WIND SPD. (m/s) | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH (m) | |
| 09 | | 8 | | 6 | | 3 | | 165 | |
| ST. NAME/ID | | ST. NAME/ID | | ST. NAME/ID | | ST. NAME/ID | | ST. NAME/ID | |
| 881 | | 881 | | 881 | | 881 | | 881 | |

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| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | |
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| PRI TEMP SN | | START DOWN | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | |
| PRI COND SN | | AT SURFACE | | | | MAX. DEPTH = m | |
| SEC COND SN | | PAR S/N | | FLUOR S/N | | | |

| SEQ. | DEPTH DESIRED | ROSETTE POSITION | SAMPLE BOTTLE NUMBERS | | | | COMMENTS |
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| | | | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | | | | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HXZ87 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | | LONGITUDE | | | DATE JD- | | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| | | DEG MIN | | | DEG MIN | | | DAY MO YR | | | HR MIN | | (°C) | | (°C) | | (mb) * * | | * * | | (deg) | | (m/s) * * | | * * | | * * | | (m) | | | | | | | |
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| SEC 9+ PRESS SN PRI TEMP SN SEC TEMP SN PRI COND SN SEC COND SN | | TIMES DATA ON START DOWN AT DEPTH AT SURFACE | | JD/TIME | | REMARKS 800-82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRE | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS RAIN | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. DESIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC | | LATITUDE | | LONGITUDE | | DATE JD= | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAST # | | DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | • | | • | | (deg) | | (m/s) | | • | | • | | (m) | | | | | | | | | | | | | | | | | | | | | |
| 126 | | 58 | | 41 | | 05 | | N | | 14 | | 8 | | 56 | | 84 | | W | | 19 | | J | | U | | L | | 0 | | 4 | | 06 | | 54 | | 13 | | 3 | | 08 | | 37 | | 31 | | 51 | | 88 | | 73 | | 24 | | 48 | | 61 | | 12 | |
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| ROSETTE POSITION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NUTRIENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHL. Bot. no. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| COMMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | SD88 I.D. | | STATION DESIGNATION | |
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | |
| 1875902 | | 52 N | | 14841.63 W | | 19 JUL 04 | | 071313.2 | |
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| Local Date & Time = JUL 04 | | | | | | | | | |
| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | |
| PRESS SN | | DATA ON | | | | 5486950 missing | | | |
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| FREQ | | DEPTH | | ROSETTE POSITION | | SALT | | NUTRIENTS | |
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| VESSEL R/V Alpha Helix | | CRUISE ID HX287 | | PROJECT & LEG GLOBEC/FOCI | | DSOB I.D. | | STATION DESIGNATION | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | | DATE JD= | | TIME (GMT) | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRL | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/D | |
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| Local Date & Time = JUL 04 | | | | | | | | | | | | | | | | | | | |
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| FREQ | DEPTH | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | CHL. VOL. | COMMENTS | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | | | | | STATION DESIGNATION | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | OSD8 I.D. | | STATION DESIGNATION | | | | | | | | |
| CONSC CAST # | LATITUDE | LONGITUDE | | DATE JD- | | TIME (GMT) | | DRY BULB | WET BULB | PRESSURE | SEA STATE | VISIBILITY | WIND DIRN. | WIND SPD. | CLOUD (amt) | TYPE | WEATHER | BOTTOM DEPTH | STA. NAME/ID | |
| DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | (deg) | (m/s) | * | * | * | (m) | | |
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| PRI TEMP SN | START DOWN | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | AT DEPTH | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | AT SURFACE | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | PAR S/N | | FLUOR S/N | | | | | | | | | | | | | | | | | |
| FREQ | DEPTH | ROSETTE POSITION | | SAMPLE BOTTLE NUMBERS | | | | COMMENTS | | | | | | | | | | | | |
| SEQ. | DESIRED | SALT | NUTRIENTS | CHL. Bot. no. | CHL. VOL. | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSDB I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | |
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| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | |
| DEG | MIN | DEG | MIN | DAY | MO | YR | HR | MIN | (°C) | (°C) | (mb) | * | * | (deg) | (m/s) | * | * | * | * | (m) | | | | | | | | | | | | |
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| SBE 9+ | | TIMES | | JD/TIME | | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| PRI TEMP SN | | START DOWN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC TEMP SN | | AT DEPTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRI COND SN | | AT SURFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEC COND SN | | PAR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FREQ | | DEPTH | | SAMPLE BOTTLE NUMBERS | | FLUOR S/N | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEQ. | DESIRED | ROSETTE POSITION | | SALT | | NUTRIENTS | | CHL. Bot. no. | | CHL. VOL. | | COMMENTS | | | | | | | | | | | | | | | | | | | | |
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| VESSEL | | CRUISE ID | | PROJECT & LEG | | DSD8 I.D. | | STATION DESIGNATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|-----------|--|---------------|--|-----------|--|---------------------|--|----------|--|----------|--|----------|--|-----------|--|------------|--|------------|--|-----------|--|-------------|--|------|--|---------|--|--------------|--|--------------|--|-----|--|-----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|---|--|
| R/V Alpha Helix | | HX287 | | GLOBEC/FOCI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSC CAST # | | LATITUDE | | LONGITUDE | | DATE JD- | | TIME (GMT) | | DRY BULB | | WET BULB | | PRESSURE | | SEA STATE | | VISIBILITY | | WIND DIRN. | | WIND SPD. | | CLOUD (amt) | | TYPE | | WEATHER | | BOTTOM DEPTH | | STA. NAME/ID | | | | | | | | | | | | | | | | | | | | | |
| DEG | | MIN | | DEG | | MIN | | DAY | | MO | | YR | | HR | | MIN | | (°C) | | (°C) | | (mb) | | • | | • | | (deg) | | (m/s) | | • | | • | | (m) | | | | | | | | | | | | | | | | | |
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| Local Date & Time - J U L 0 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBE 9+ _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| AT SURFACE _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| ROSETTE POSITION _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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