ANOMALOUS DATA

This section identifies data that have been determined to be erroneous and removed from the final data set by the 2003 Rescue Project Data Manager or NERR Technicians, provides justification for the removal of the inaccurate data, and identifies “questionable” data. Questionable or suspect data are data that may be compromised in quality but remain in the data set. Wherever possible, both questionable and erroneous data are correlated with information from relevant documentation that may help to explain any problems with the data. The user should evaluate and use these data with caution. Data that have been removed from the final data set are still present in unedited and/or raw data files. Please see the FGDC compliant metadata document for more information on the quality assurance/quality control procedures used to identify erroneous or suspect data. The following information is organized by parameter within each year.

Water Quality data were collected at Clambank Creek for the following dates:
10/25/1993 – 06/30/1995
01/04/1996 – 03/28/1996
08/17/2001 – 12/31/2002

1993

All Variables
12/11/93 23:30 – 12/12/93 00:00 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)
12/25/93 22:30 – 12/26/93 01:00 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)
12/26/93 23:00 – 12/27/93 01:00 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)
12/27/93 13:00 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)

1994

All Variables
01/04/94 18:30 – 01/04/94 19:30 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)
01/08/94 23:00 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)
01/25/94 12:00 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)
04/09/94 04:00 – 04/13/94 21:00 Questionable Data (voltage readings below 9 indicate battery failure, missing data are interspersed throughout this period, remaining data should be considered suspect but appear to be reasonable)
05/16/94 08:00 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)
08/01/94 14:30 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)
08/09/94 13:00 – 08/11/94 08:30 2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)

Temperature
08/01/94 15:25 NERR Technician cleaned membrane with methanol

Salinity
08/01/94 15:25 NERR Technician cleaned membrane with methanol

Dissolved Oxygen % and mg/L
05/10/94 14:55 NERR Technician cleaned membrane with methanol
05/24/94 14:40 NERR Technician cleaned membrane with methanol
<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/06/94</td>
<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>06/13/94</td>
<td>2003 Data Manager removed erroneous data (readings indicate a probable tear in the membrane or heavy fouling)</td>
</tr>
<tr>
<td>06/21/94</td>
<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>07/06/94</td>
<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>07/18/94</td>
<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>08/01/94</td>
<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>08/01/94</td>
<td>2003 Data Manager removed erroneous data (readings indicate a probable tear in the membrane or heavy fouling, occurred immediately after the membrane was cleaned)</td>
</tr>
<tr>
<td>08/15/94</td>
<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>08/22/94</td>
<td>2003 Data Manager removed erroneous data (readings indicate a probable tear in the membrane or heavy fouling, interspersed with missing readings in raw data)</td>
</tr>
<tr>
<td>09/06/94</td>
<td>2003 Data Manager removed erroneous data (reading was surrounded by data lost due to fouling or a technical problem)</td>
</tr>
<tr>
<td>09/12/94</td>
<td>2003 Data Manager removed erroneous data (readings were very high and surrounded by data lost due to fouling or a technical problem)</td>
</tr>
<tr>
<td>09/18/94</td>
<td>2003 Data Manager removed erroneous data (reading was very high and surrounded by data lost due to fouling or a technical problem)</td>
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<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>10/25/94</td>
<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>11/07/94</td>
<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>11/13/94</td>
<td>2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, one data point was missing in raw data)</td>
</tr>
<tr>
<td>11/21/94</td>
<td>NERR Technician cleaned membrane with methanol</td>
</tr>
<tr>
<td>12/10/94</td>
<td>2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)</td>
</tr>
<tr>
<td>12/11/94</td>
<td>2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)</td>
</tr>
</tbody>
</table>

### 1995

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/04/95</td>
<td>Questionable data (negative depth reading(s), probes may have been out of the water, reading(s) for other parameters appear reasonable)</td>
</tr>
<tr>
<td>04/20/95</td>
<td>2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)</td>
</tr>
<tr>
<td>05/08/95</td>
<td>2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)</td>
</tr>
<tr>
<td>05/19/95</td>
<td>2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)</td>
</tr>
<tr>
<td>05/20/95</td>
<td>2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)</td>
</tr>
<tr>
<td>06/12/95</td>
<td>2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)</td>
</tr>
<tr>
<td>06/19/95</td>
<td>2003 Data Manager removed erroneous data (readings indicate that probes were out of the water)</td>
</tr>
</tbody>
</table>

### Dissolved Oxygen % and mg/L
01/13/95 01:30 – 01/13/95 17:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)
01/13/95 20:30 – 01/14/95 03:30 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)
01/14/95 11:30 – 01/14/95 13:30 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)
01/15/95 01:00 – 01/15/95 02:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)
01/21/95 04:30 – 01/22/95 14:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/24/95 06:00 – 01/24/95 11:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/25/95 09:00 – 01/25/95 09:30 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/26/95 10:30 2003 Data Manager removed erroneous data (reading was very high and indicates a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/27/95 22:00 2003 Data Manager removed erroneous data (reading was very high and indicates a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/28/95 00:00 – 01/28/95 02:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/28/95 11:00 – 01/28/95 15:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/28/95 22:00 – 01/29/95 00:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/29/95 01:00 – 01/29/95 03:30 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/29/95 13:30 – 01/29/95 14:30 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/29/95 23:30 – 01/30/95 04:30 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/31/95 00:00 – 01/31/95 01:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
01/31/95 03:30 – 01/31/95 05:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
02/01/95 04:30 – 02/01/95 05:30 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)
2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, followed by missing raw data)

05/27/95 01:30 – 05/27/95 02:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)

05/28/95 02:00 2003 Data Manager removed erroneous data (reading was very high and indicates a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)

05/29/95 02:30 – 05/29/95 03:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)

05/29/95 13:30 – 05/29/95 14:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)

05/30/95 01:30 – 05/30/95 06:30 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)

05/30/95 14:30 – 05/30/95 19:00 2003 Data Manager removed erroneous data (readings were very high and indicate a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)

05/31/95 04:30 2003 Data Manager removed erroneous data (reading was very high and indicates a probable tear in the membrane or heavy fouling, preceded and followed by missing raw data)

2001

All Variables
08/15/01 NERR Technician installed PVC casing on south piling of pier
08/28/01 10:30 – 09/08/01 19:30 NERR Technician adjusted time stamps (were off by 52 seconds)
12/18/01 11:00 NERR Technician adjusted unit to sample at the correct time (time stamp was initially off by 1 minute 22 seconds)

Turbidity
09/24/01 05:00 Questionable Data (readings spiked up to 869 NTU, very large value for this site, possible debris or animal on optics)
09/27/01 03:00 – 10/09/01 10:00 NERR Technician removed erroneous data (probe malfunction, parked wiper blade)

2002

All Variables
05/23/02 NERR Technician replaced the PVC sonde tube, heavy fouling may have effected some data prior to this date
11/30/02 22:30 – 12/01/02 00:00 Questionable Data (negative depth reading(s), probes may have been out of the water, reading(s) for other parameters appear reasonable)
12/03/02 01:00 Questionable Data (negative depth reading(s), probes may have been out of the water, reading(s) for other parameters appear reasonable)
12/20/02 15:00 – 12/20/02 15:30 Questionable Data (negative depth reading(s), probes may have been out of the water, reading(s) for other parameters appear reasonable)
12/21/02 01:30 – 12/21/02 03:00 Questionable Data (negative depth reading(s), probes may have been out of the water, reading(s) for other parameters appear reasonable)
12/25/02 18:00 – 12/25/02 18:30 Questionable Data (negative depth reading(s), probes may have been out of the water, reading(s) for other parameters appear reasonable)

Dissolved Oxygen % and mg/L
01/03/02 22:00 – 01/16/02 11:00 NERR Technician removed erroneous data (probe failure)
**Turbidity**

- **01/03/02 16:00**: Questionable data (negative reading(s), within known calibration error)
- **01/03/02 17:00 – 01/03/02 17:30**: Questionable data (negative reading(s), within known calibration error)
- **01/03/02 18:30**: Questionable data (negative reading(s), within known calibration error)
- **01/03/02 22:00 – 01/05/02 12:30**: NERR Technician removed erroneous data (very erratic and inconsistent readings, wiper may have partially obscured optics)
- **01/05/02 13:30 – 01/05/02 21:00**: Questionable data (negative reading(s), within known calibration error)
- **01/05/02 22:00 – 01/06/02 01:00**: Questionable data (negative reading(s), within known calibration error)
- **01/06/02 05:30 – 01/06/02 06:30**: Questionable data (negative reading(s), within known calibration error)
- **01/06/02 11:30**: Questionable data (negative reading(s), within known calibration error)
- **01/06/02 16:30 – 01/06/02 17:30**: Questionable data (negative reading(s), within known calibration error)
- **01/06/02 22:30 – 01/12/02 14:00**: Questionable data (negative reading(s), within known calibration error)
- **01/06/02 22:00 – 01/12/02 14:00**: Questionable data (negative reading(s), within known calibration error)
- **01/12/02 21:30**: Questionable data (negative reading(s), within known calibration error)
- **01/13/02 01:30 – 01/14/02 11:30**: Questionable data (negative reading(s), within known calibration error)
- **01/14/02 15:30**: Questionable data (negative reading(s), within known calibration error)
- **01/14/02 17:30 – 01/14/02 18:30**: Questionable data (negative reading(s), within known calibration error)
- **01/14/02 21:00**: Questionable data (negative reading(s), within known calibration error)
- **01/14/02 23:30 – 01/15/02 00:00**: Questionable data (negative reading(s), within known calibration error)
- **01/15/02 02:30 – 01/15/02 05:00**: Questionable data (negative reading(s), within known calibration error)
- **01/15/02 06:00 – 01/15/02 07:30**: Questionable data (negative reading(s), within known calibration error)
- **01/15/02 08:30**: Questionable data (negative reading(s), within known calibration error)
- **01/15/02 11:00**: Questionable data (negative reading(s), within known calibration error)
- **01/15/02 12:00 – 01/15/02 13:00**: Questionable data (negative reading(s), within known calibration error)
- **01/15/02 14:00**: Questionable data (negative reading(s), within known calibration error)
- **01/15/02 15:00 – 01/15/02 16:00**: Questionable data (negative reading(s), within known calibration error)
- **01/15/02 17:00 – 01/15/02 18:30**: Questionable data (negative reading(s), within known calibration error)
- **01/15/02 19:30 – 01/16/02 11:00**: Questionable data (negative reading(s), within known calibration error)
- **01/16/02**: Turbidity probe replaced due to probe malfunction
- **01/29/02**: NERR Technician began wrapping bottom of sonde in a wet, white towel and transporting in a bucket with small amount of water upon retrieval, during post calibration of dissolved oxygen, and prior to deployment. Previous protocol involved using YSI-supplied calibration cup.

- **02/28/02**: NERR Technician began using new YSI-approved turbidity standard to calibrate
- **03/07/02 09:30**: Questionable data (negative reading(s), within known calibration error)
- **04/18/02**: Questionable data (negative reading(s), within known calibration error)
- **04/19/02 13:00**: Questionable data (negative reading(s), within known calibration error)
- **04/20/02 02:00**: Questionable data (negative reading(s), within known calibration error)
- **04/20/02 14:00**: Questionable data (negative reading(s), within known calibration error)
- **04/21/02 03:00**: Questionable data (negative reading(s), within known calibration error)
- **04/22/02 04:00**: Questionable data (negative reading(s), within known calibration error)
- **04/22/02 16:30**: Questionable data (negative reading(s), within known calibration error)
- **04/23/02 05:00**: Questionable data (negative reading(s), within known calibration error)
- **04/23/02 23:30**: Questionable data (negative reading(s), within known calibration error)
- **04/24/02 06:00**: Questionable data (negative reading(s), within known calibration error)
- **04/24/02 12:00 – 04/24/02 12:30**: Questionable data (negative reading(s), within known calibration error)
- **04/24/02 18:30 – 04/24/02 19:00**: Questionable data (negative reading(s), within known calibration error)
- **04/25/02 07:00**: Questionable data (negative reading(s), within known calibration error)
- **04/26/02 14:00**: Questionable data (negative reading(s), within known calibration error)
- **04/27/02 21:30**: Questionable data (negative reading(s), within known calibration error)
- **04/28/02 16:30**: Questionable data (negative reading(s), within known calibration error)
- **04/28/02 22:00 - 04/28/02 22:30**: Questionable data (negative reading(s), within known calibration error)
04/29/02 04:30  Questionable data (negative reading(s), within known calibration error)
04/29/02 05:30  Questionable data (negative reading(s), within known calibration error)
04/29/02 10:30  Questionable data (negative reading(s), within known calibration error)
04/29/02 23:00  Questionable data (negative reading(s), within known calibration error)
04/30/02 04:30  Questionable data (negative reading(s), within known calibration error)
04/30/02 11:30  Questionable data (negative reading(s), within known calibration error)
05/01/02 05:30 – 05/01/02 06:00  Questionable data (negative reading(s), within known calibration error)
05/01/02 07:00  Questionable data (negative reading(s), within known calibration error)
05/01/02 08:00  Questionable data (negative reading(s), within known calibration error)
05/15/02 12:00 – 5/28/02 12:00  No cloth chum bag was placed over the sonde guard, readings could have been effected during this period.
08/27/02 09:30 – 09/09/02 09:00  Turbidity unit was not calibrated prior to this deployment, suspected problem with the APS turbidity standard.
08/31/02 22:00  Questionable data (greater than 1000, object may have passed in front of optics during sampling)
11/24/02 11:00  Questionable data (negative reading(s), within known calibration error)
12/05/02 14:30  Questionable data (negative reading(s), within known calibration error)
12/05/02 15:30 – 12/05/02 16:30  Questionable data (negative reading(s), within known calibration error)
12/05/02 17:30  Questionable data (negative reading(s), within known calibration error)
12/05/02 21:30  Questionable data (negative reading(s), within known calibration error)
12/06/02 02:00  Questionable data (negative reading(s), within known calibration error)
12/06/02 03:00 – 12/06/02 04:00  Questionable data (negative reading(s), within known calibration error)
12/06/02 10:00 – 12/06/02 10:30  Questionable data (negative reading(s), within known calibration error)
12/06/02 15:00 – 12/06/02 18:30  Questionable data (negative reading(s), within known calibration error)
12/06/02 22:00  Questionable data (negative reading(s), within known calibration error)
12/07/02 03:30 – 12/07/02 04:00  Questionable data (negative reading(s), within known calibration error)
12/07/02 05:30 – 12/07/02 06:00  Questionable data (negative reading(s), within known calibration error)
12/07/02 11:00  Questionable data (negative reading(s), within known calibration error)
12/07/02 15:00 – 12/07/02 20:30  Questionable data (negative reading(s), within known calibration error)
12/07/02 22:00 – 12/07/02 23:30  Questionable data (negative reading(s), within known calibration error)
12/08/02 02:00  Questionable data (negative reading(s), within known calibration error)
12/08/02 03:00 – 12/08/02 08:00  Questionable data (negative reading(s), within known calibration error)
12/08/02 10:30 – 12/08/02 12:30  Questionable data (negative reading(s), within known calibration error)
12/08/02 14:00 – 12/08/02 18:30  Questionable data (negative reading(s), within known calibration error)
12/08/02 19:30 – 12/09/02 01:00  Questionable data (negative reading(s), within known calibration error)
12/09/02 04:00 – 12/09/02 05:00  Questionable data (negative reading(s), within known calibration error)
12/09/02 07:30 – 12/09/02 09:00  Questionable data (negative reading(s), within known calibration error)