

# **AV-Trend Sample Reports**

March, 2011

Real-Time Displays

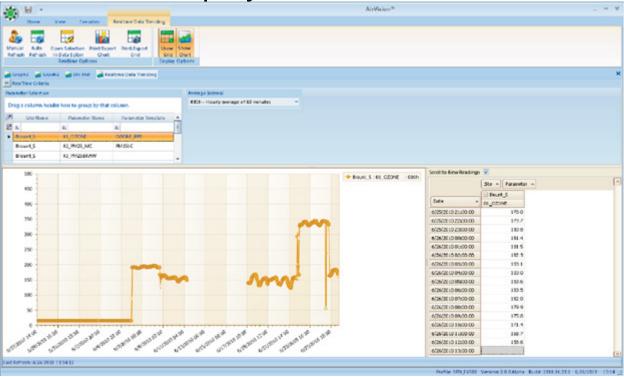
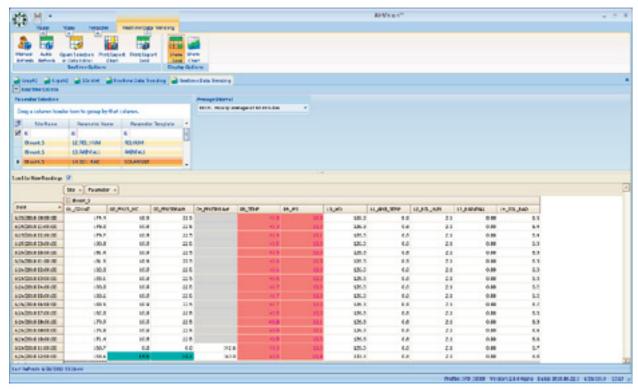


Chart + Tabular Display

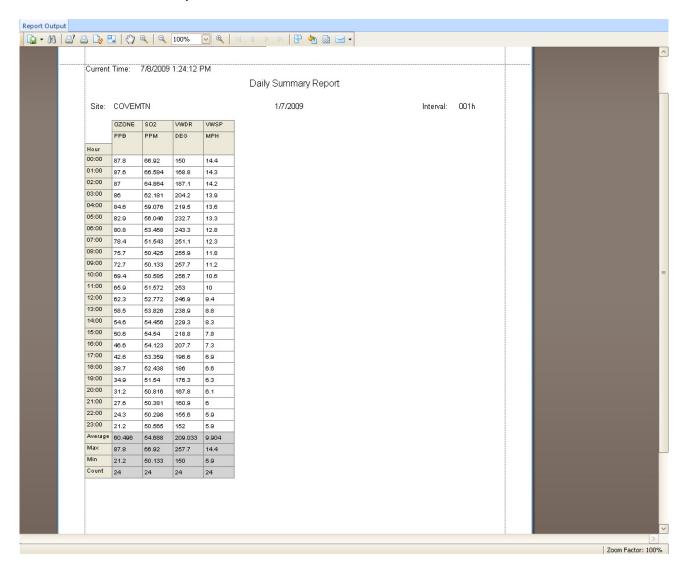


Tabular Display Only

### Routine Reports

#### **Daily Summary Report**

This report is usually used for the daily summary of hourly data for all parameters at a site (or a range of selected sites), but can be used to report any time range or average interval. Statistics are provided at the bottom of each column.



#### **Monthly Report**

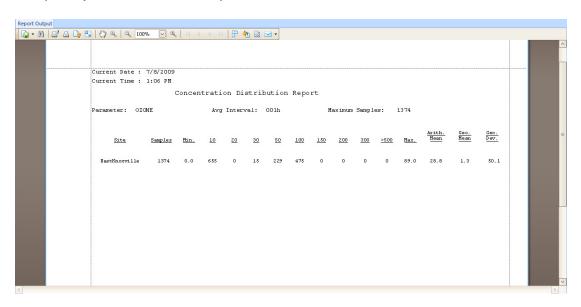
This report provides a matrix view of a single parameter, showing values for the entire month. Invalid or flagged data is shown with a color background or font change defining the data condition. Statistics are provided for each row (day) and column (hour).

| Current Date:<br>Site Name:<br>Parameter: |        | e: Blount_S |         |      | 10:47 AM |      |      |      | Monthly Report<br>January 2006<br>Hours |      |      |      |      |      |      |      | Avg Interval:<br>Units: |      |        | 1 hour<br>PPB |      |      |      |      |       |         |       |
|---|--------|-------------|---------|------|----------|------|------|------|---|------|------|------|------|------|------|------|-------------------------|------|--------|---------------|------|------|------|------|-------|---------|-------|
|   |        |             | <u></u> | 100  |          | 5    | 6    | 7    | 8                                       | 9    | 10   |      | 10   | 10   |      |      | 40                      | 844  | 122    | -             |      | - 1  | 020  | 23   |       | Summary |       |
| ay  | 0      | 1           | 2       | 3    | 4        | 5    | 0    | ,    | ۰                                       | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16                      | 17   | 18     | 19            | 20   | 21   | 22   | 23   | Awg   | Max     | RDS   |
| D1  | 34.615 | 18.4        | 17.2    | 18.7 | 18.2     | 16.5 | 14.4 | 13.6 | 13.9                                    | 14   | 15.7 | 15.5 | 16.2 | 15.8 | 15.3 | 13.5 | 10.4                    | 7.7  | 6.4    | 5.4           | 3.9  | 1.2  | 1.6  | .6 E | 114.2 | 429.6   | 49    |
| 02  |        | .9          | 1.6     | .6   | .6       | .6 E | .7   | 1.6  | 3.6                                     | 8.1  | 9.7  | 11.4 | 11.7 | 9.9  | 8.8  | 8.6  | 4.7                     | 4.1  | 6.6    | 7.8           | 9.1  | 9.7  | 10.5 | 7.7  | 6     | 11.7    | 23    |
| 03  | <      | 7.2         | 5.8     | 6.8  | 10.6     | 14.6 | 16.8 | 19.1 | 24.1                                    | 24.4 | 26   | 27.4 | 30.4 | 30.9 | 32.3 | 32.2 | 32.1                    | 30.8 | 29.8   | 29            | 27.2 | 20.4 | 16.6 | 19.8 | 22.4  | 32.3    | 23    |
| 04  | 3:     | 22          | 23.1    | 24.3 | 16.2     | 17.8 | 14.2 | 11.3 | 16.2                                    | 26   | 26.6 | 30.5 | 29.9 | 30.9 | 29.3 | 28.4 | 27.1                    | 22.6 | 24.9   | 40.9          | 38.9 | 37.1 | 35.2 | 33.8 | 26.4  | 40.9    | 23    |
| 05  | Κ.     | 21.3        | 24.2    | 23   | 21.7     | 22.1 | 19.2 | 16.7 | 15.3                                    | 14.8 | 13.7 | 11.9 | 10   | 9.4  | 5.9  | 4.4  | 1.6                     | .6 E | .6 E   | .6 E          | .6 E | .6 E | 4.1  | 9.3  | 10.9  | 24.2    | 23    |
| 06  | *      | 17          | 18.5    | 19:5 | 20.1     | 19.4 | 18.6 | 18.1 | 17.6                                    | 16.8 | 17.9 | 19.8 | 22.4 | 22.2 | 22.8 | 22.5 | 26.8                    | 31.2 | 27.3   | 22.8          | 27.7 | 28.5 | 27.9 | 27.7 | 22.3  | 31.2    | 23    |
| 07  | <.     | 26.7        | 25.3    | 24   | 22.9     | 30.2 | 31.9 | 32.3 | 33.4                                    | 35.5 | 36.1 | 36.8 | 38.2 | 38.7 | 38.9 | 38.5 | 33.2                    | 26.1 | 26.6   | 25.7          | 29.5 | 28.9 | 27.2 | 30.4 | 31.2  | 38.9    | 23    |
| 08  | 3.3    | 29.1        | 27.3    | 24.6 | 22.2     | 19.6 | 17.4 | 15.3 | 13.9                                    | 14.4 | 15   | 14.4 | 15.2 | 18.7 | 19   | 16   | 11.4                    | 10.2 | 9      | 10.7          | 11.9 | 15.4 | 16.5 | 15.1 | 16.6  | 29.1    | 23    |
| 09  | <.     | 13.8        | 13.3    | 13.7 | 16.4     | 17.1 | 16.9 | 17   | 19.3                                    | 20   | 20.1 | 19.5 | 21.3 | 26.1 | 21.3 | 13   | <.                      |      | 12.3 P | 0 E           | 15.7 | 17.8 | 20.4 | 20.8 | 16.9  | 26.1    | 21    |
| 10  | 1365   | 19          | 21.5    | 24.1 | 26.9     | 28.6 | 28.4 | 28.6 | 29.2                                    | 31.7 | 31   | 28.4 | 28.1 | 28.1 | 30.4 | 31.2 | 27.7                    | 13.9 | 16.2   | 18.4          | 20   | 17   | 19   | 20.7 | 24.7  | 31.7    | 23    |
| 11  | <.     | 14.3        | 13.7    | 14.8 | 11.5     | 9.4  | 8.9  | 12   | 20.7                                    | 24.9 | 30.3 | 35.3 | 36.1 | 35.4 | 34   | 32.3 | 31.5                    | 28.3 | 25.6   | 28.1          | 26.5 | 28.9 | 23.8 | 15.2 | 23.5  | 36.1    | 23    |
| 12  | 3:     | 23.8        | 22.7    | 19.9 | 15.8     | 13.7 | 13.7 | 13.6 | 14.5                                    | 14.9 | 16.2 | 17.5 | *    | *    | 24.5 | 23.6 | 13.2                    | 5    | 5.7    | 10.4          | 9.3  | 8.8  | 8.9  | 4    | 14.3  | 24.5    | 21    |
| 13  | <.     | 4.1         | 4.7     | 5.6  | 4.5      | 4.6  | 3.5  | 2.6  | 6.9                                     | 10.1 | 12.2 | 18.3 | 33.7 | 36.9 | 34.7 | 32.2 | 31.9                    | 33.1 | 28.1   | 32.1          | 33.6 | 30.7 | 30.1 | 32.1 | 20.3  | 36.9    | 23    |
| 14  |        | 34.3        | 34.2    | 33   | 32.3     | 32.6 | 34.2 | 35.4 | 34                                      | 33.9 | 38.2 | 35.2 | 34.9 | 33   | 29.6 | 25.3 | 17.1                    | 12.3 | 14.7   | 20.9          | 25.4 | 26.6 | 30.5 | 34.4 | 29.7  | 38.2    | 23    |
| 15  | <.     | 33.7        | 33.3    | 32.7 | 33.3     | 34.4 | 35   | 35.7 | 37.2                                    | 38.4 | 39.1 | 39.2 | 39.2 | 39.1 | 39.5 | 39.7 | 39.6                    | 38.7 | 38     | 38            | 37.1 | 37   | 36.4 | 35.8 | 37    | 39.7    | 23    |
| 16  | 3:     | 34.6        | 34      | 32.2 | 30       | 29.7 | 27.9 | 25.9 | 29.1                                    | 32.4 | 33.3 | 34   | 34.8 | 35.4 | 34.8 | 33.6 | 30.3                    | 26.8 | 21.5   | 20.3          | 17.4 | 16.5 | 18.1 | 18.4 | 28.3  | 35.4    | 23    |
| 17  | 4.     | 18.8        | 19.6    | 16   | 15.9     | 9.6  | 7    | 5.6  | 12.2                                    | 23.6 | 23.5 | 26.1 | 29.1 | 29.4 | 31   | 28.6 | 32.6 P                  | 4    | 4      | *             | 32.6 | 30   | 30.8 | 33.6 | 22.8  | 33.6    | 20    |
| 18  | •      | 38.6        | 38.6    | 37.7 | 38.2     | 38.4 | 38.4 | 37.4 | 36.1                                    | 35.3 | 35.5 | 39.5 | 41.4 | 40   | 19.2 | 1.6  | 3.7                     | 9.4  | 11.4   | 10.6          | 13.2 | 16.1 | 20.3 | 25.2 | 27.2  | 41.4    | 23    |
| 19  | <.     | 29.2        | 29.2    | 29.1 | 28.7     | 27.8 | 27.2 | 26.1 | 27                                      | 27.4 | 27.7 | 27.3 | 27.8 | 29.3 | 29.5 | 28   | 21.9                    | 9.3  | 14     | 23.8          | 21.2 | 20   | 18.5 | 18.9 | 24.7  | 29.5    | 23    |
| 20  | 30     | 20.6        | 18.5    | 13.9 | 12       | 12   | 10.1 | 8.6  | 8.6                                     | 16.9 | 12.6 | 14.9 | 10   | 12.4 | 9.5  | 5.9  | 6.1                     | 4.1  | 4.4    | 4.7           | 6    | 8    | 10   | 8.5  | 10.4  | 20.6    | 23    |
| 21  | 4.     | 14.9        | 16      | 17   | 23.2     | 30.2 | 28.9 | 29.8 | 31.1                                    | 28.4 | 28.1 | 31.5 | 29.6 | 29.8 | *    | 4    | 4.                      | 4    | 4      | ě.            | *    | 6    | 33.4 | 33.5 | 27    | 33.5    | 15    |
| 22  | •      | 33.4        | 33.2    | 34.2 | 36.7     | 36.7 | 34.9 | 32.7 | 32                                      | 34.1 | 34.7 | 36.3 | 37.4 | 38.6 | 39.1 | 38.1 | 32.9                    | 22.7 | 17     | 23.9          | 18.9 | 17.8 | 19.1 | 20.7 | 30.7  | 39.1    | 23    |
| 23  | 4      | 26          | 32.4    | 33   | 33       | 31.7 | 33.8 | 34.9 | 36                                      | 35.2 | 35.5 | 32.4 | 28.7 | 28   | 28.5 | 28.3 | 24.1                    | 21.5 | 19.6   | 20.9          | 19.9 | 19.8 | 22.6 | 22.2 | 28.2  | 36      | 23    |
| 24  | 3:     | 17.9        | 16.6    | 15.9 | 14.5     | 9.6  | 5.2  | 8.8  | 10.6                                    | 20.7 | 27.6 | 30.3 | 31.8 | 33   | 33   | 32.5 | 27.8                    | 30.9 | 32.2   | 29.3          | 28.5 | 28.5 | 26.7 | 21.2 | 23.2  | 33      | 23    |
| 25  | 4.     | 14.9        | 12.6    | 9.2  | 7.3      | 6.1  | 10.7 | 12.8 | 10                                      | 16.7 | 23   | 21.3 | 18.4 | 20.1 | 20.9 | 20.2 | 18.6                    | 16.6 | 15.1   | 17.1          | 24.1 | 26.6 | 26   | 25.7 | 17.1  | 26.6    | 23    |
| 26  | - 60   | 24.3        | 25.3    | 26.3 | 26.6     | 26.6 | 26.8 | 26   | 25.7                                    | 26.6 | 27.5 | 28.6 | *    | *    | 26.5 | 27.8 | 27.6                    | 27.6 | 27.5   | 27.6          | 27.8 | 27.7 | 28.1 | 27.6 | 27    | 28.6    | 21    |
| 27  | 4.     | 25.6        | 24.5    | 22.4 | 19.7     | 15.8 | 15.5 | 11.4 | 14.9                                    | 20   | 25.1 | 28.3 | 29.4 | 31.6 | 34.2 | 33.6 | 26.5                    | 16.9 | 16.1   | 22.4          | 19.1 | 13.5 | 13.5 | 13.8 | 21.5  | 34.2    | 23    |
| 28  | 3:     | 12.3        | 14.3    | 14.5 | 14.4     | 15.2 | 13.6 | 12.5 | 13.2                                    | 16.6 | 24.8 | 28.5 | 26.7 | 26.4 | 25.5 | 23.5 | 21.5                    | 20.8 | 21     | 19.7          | 15.3 | 15.3 | 12.8 | 10.2 | 18.2  | 28.5    | 23    |
| 29  | <.     | 5.8         | 6.6     | 4.9  | 4.9      | 3.4  | 3.7  | 2.4  | 7.4                                     | 9.6  | 12.7 | 15.4 | 21.1 | 28.7 | 28.5 | 25.3 | 25.3                    | 24.2 | 20.3   | 18.2          | 20.2 | 21.5 | 14.9 | 12.6 | 14.7  | 28.7    | 23    |
| 30  | *      | 12.5        | 13.6    | 13.3 | 13.7     | 11.2 | 7.9  | 8.3  | 10.3                                    | 14.8 | 15.5 | 24.2 | 26.6 | 28   | 26.1 | 23   | 21.6                    | 21.5 | 21.6   | 22            | 22.2 | 23.2 | 23.8 | 25.3 | 18.7  | 28      | 23    |
| 31  | <.     | 25.2        | 27.2    | 27.3 | 27       | 27   | 26.4 | 26.7 | 26.9                                    | 26.8 | 27.4 | 24.5 | 24   | 24.7 | 23.8 | 22.7 | 22.9                    | 22.4 | 21.3   | 19            | 16.2 | 15.2 | 21.9 | 24.1 | 23.9  | 27.4    | 23    |
| Max                                       | 429.6  | 38.6        | 38.6    | 37.7 | 38.2     | 38.4 | 38.4 | 37.4 | 37.2                                    | 38.4 | 39.1 | 39.5 | 41.4 | 40   | 39.5 | 39.7 | 39.6                    | 38.7 | 38     | 40.9          | 38.9 | 37.1 | 36.4 | 35.8 | 429.6 | 429.6   | 429.6 |
| 4werage                                   | 204.6  | 20.7        | 20.9    | 20.4 | 20       | 19.7 | 19.1 | 18.8 | 20.4                                    | 23   | 24.6 | 25.9 | 27   | 27.9 | 26.5 | 24.5 | 22.5                    | 19.3 | 18.4   | 19.7          | 20.6 | 20.3 | 20.9 | 20.9 | 28.4  | 28.4    | 28.4  |
| Count                                     | 26     | 31          | 31      | 31   | 31       | 31   | 31   | 31   | 31                                      | 31   | 31   | 31   | 29   | 29   | 30   | 30   | 29                      | 28   | 29     | 29            | 30   | 30   | 31   | 31   | 722   | 722     | 722   |

### Quality Assurance / Analysis Reports

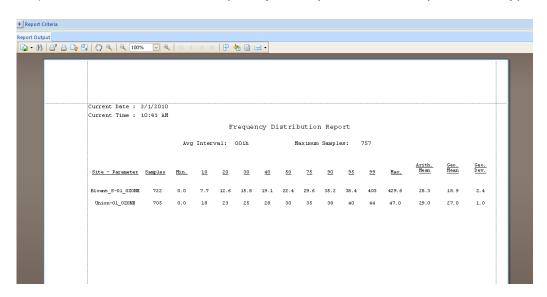
#### **Concentration Distribution Report**

This report shows the number of readings that fall into user-defined concentration ranges. The user defines the concentration ranges for each parameter type in the Frequency/Concentration Report Editor.



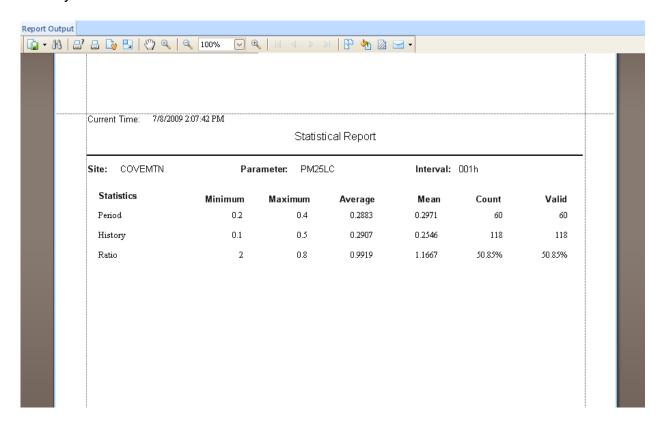
#### **Frequency Distribution Report**

A companion to the Concentration Distribution report, this reports shows the concentration values that correspond to user-defined percentiles (e.g., 95<sup>th</sup> percentile, etc). The user can define frequency breakpoints for each parameter type.



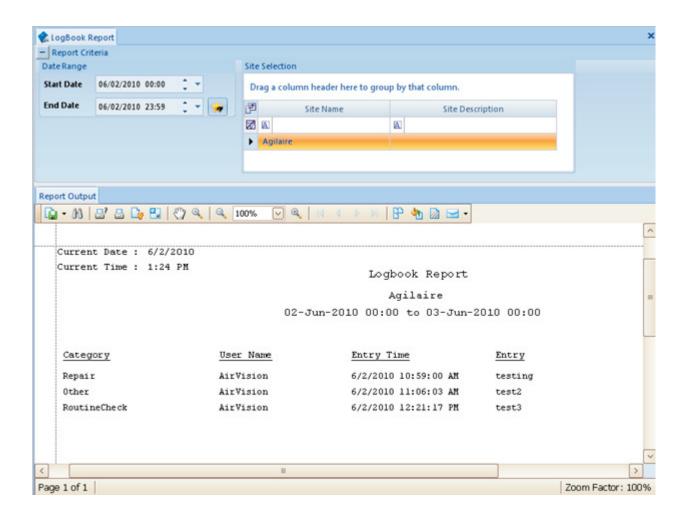
#### **Statistical Report**

This report provides statistics for any defined time range, as well as a comparison against previous years of the same parameter and date/time range, with calculated ratios. This report is similar to the Statistical functions in the Data Editor and used to identify outliers.



#### **Logbook Report**

This report provides a summary of logbook entries made by the users and operators.



## Data Logger Reports

#### **Power Failure Report**

This report shows the starting and ending time of a power failure detected by the logger.

| Site Name Blount_S | Site Description                |                       |  |
|--------------------|---------------------------------|-----------------------|--|
| Logger Name 12_30  | Logger Identifier <sup>30</sup> | 75                    |  |
|                    | Failure Time                    | Restored Time         |  |
|                    | 1/25/2010 11:36:32 AM           | 1/25/2010 11:36:45 AM |  |
|                    | 1/25/2010 11:38:05 AM           | 1/25/2010 11:38:27 AM |  |
|                    | 1/25/2010 11:52:06 AM           | 1/25/2010 11:52:17 AM |  |
|                    | 1/25/2010 12:33:51 PM           | 1/25/2010 12:34:07 PM |  |
|                    | 1/28/2010 10:09:03 AM           | 1/28/2010 10:09:19 AM |  |
|                    | 1/28/2010 10:27:25 AM           | 1/28/2010 10:27:35 AM |  |

#### **Input Status Line Change Report**

This report shows the time and state of a status input line change detected by the logger.

### Input Line Report

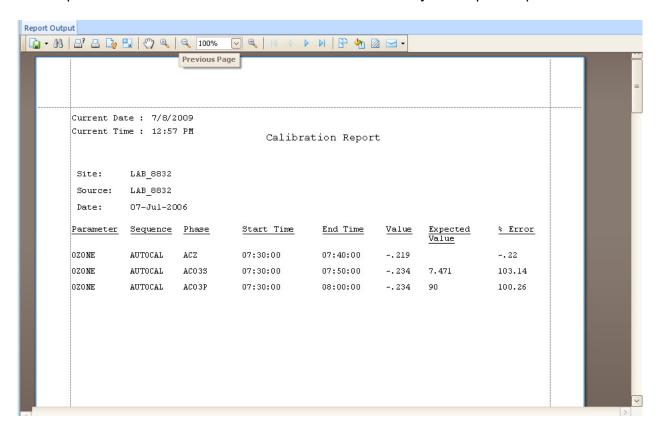
Site Name Blount S

Logger Name 12\_30 Logger Identifier 30

| Line Number | Line Name    | Line State | Time Qf Change       | Line Description |
|-------------|--------------|------------|----------------------|------------------|
| 33          | NOX FAULT    | ~          | 2/1/2010 11:06:10 AM |                  |
| 33          | NOX FAULT    |            | 2/1/2010 11:06:11 AM |                  |
| 34          | INTRUSION    | ~          | 3/1/2010 11:06:12 AM |                  |
| 36          | 802 FAULT    | ~          | 3/1/2010 11:06:12 AM |                  |
| 36          | SO2 FAULT    |            | 3/1/2010 11:06:13 AM |                  |
| 37          | SO2 IN MAINT | ~          | 3/1/2010 11:06:13 AM |                  |
| 34          | INTRUSION    |            | 3/1/2010 11:06:14 AM |                  |

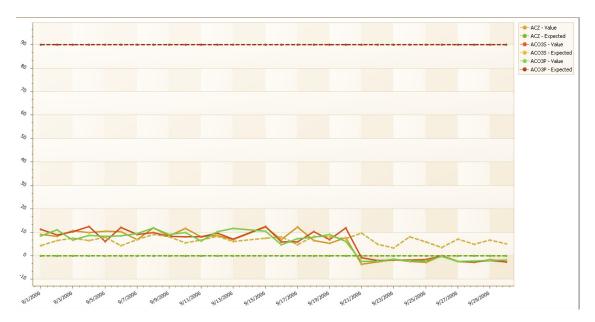
#### **Calibration Report**

This report shows the calibration event and results for any zero/span or precision check.



#### **Cal Trend Graph**

This graph provides a long-term view of calibration zero/span results over a user-defined period of time (month, quarter, etc).



#### **Calibration Response Graph**

This graph combines calibration records with 1-minute data records to create a graph of the analyzer response over a single calibration. The back/next button can be used to quickly cycle through several days in a single query.

