

# Analytical Summary Report

Analysis Method: SM4500-SO4 E

ANALYST: AMANDEEP

Parameter: Dissolved Sulfate

SUPERVISOR REVIEW BY: apatel

Run Number: LB91804

| Reagent/Standard                   | Lot/Log # |
|------------------------------------|-----------|
| sulfate ICV 20ppm                  | WP59905   |
| Sulfate LCS std, 20ppm             | WP59906   |
| sulfate 0.0ppm                     | WP59895   |
| sulfate 5ppm                       | WP59896   |
| sulfate 10ppm                      | WP59897   |
| sulfate 20ppm                      | WP59899   |
| sulfate 30ppm                      | WP59901   |
| sulfate 40ppm                      | WP59903   |
| sulfate CCV 20ppm                  | WP59904   |
| Sulfate Buffer solution A          | WP58475   |
| Sulfate std, 15ppm                 | WP59898   |
| Sulfate std, 35ppm                 | WP59902   |
| Sulfate std, 25ppm                 | WP59900   |
| Sulfate Buffer solution A          | WP58475   |
| BARIUM CHLORIDE DIHYDRATE ACS 100G | W2210     |

Intercept: -0.2213

Slope: 2.9909

Regression: 0.999885

| Seq | Lab ID | True Val<br>(mg/l) | DF | MATRIX | Initial<br>Reading | Final<br>Reading | Difference | AnalDate   | Anal Time |
|-----|--------|--------------------|----|--------|--------------------|------------------|------------|------------|-----------|
| 1   | CAL1   | 0                  | 1  | Water  | 0.180              | 0.350            | 0.170      | 11/27/2017 | 09:40     |
| 2   | CAL2   | 5                  | 1  | Water  | 0.160              | 14.300           | 14.140     | 11/27/2017 | 09:46     |
| 3   | CAL3   | 10                 | 1  | Water  | 0.161              | 30.300           | 30.139     | 11/27/2017 | 09:51     |
| 4   | CAL4   | 15                 | 1  | Water  | 0.164              | 43.800           | 43.636     | 11/27/2017 | 09:57     |
| 5   | CAL5   | 20                 | 1  | Water  | 0.170              | 60.800           | 60.630     | 11/27/2017 | 10:03     |
| 6   | CAL6   | 25                 | 1  | Water  | 0.164              | 74.600           | 74.436     | 11/27/2017 | 10:10     |
| 7   | CAL7   | 30                 | 1  | Water  | 0.181              | 89.700           | 89.519     | 11/27/2017 | 10:16     |
| 8   | CAL8   | 35                 | 1  | Water  | 0.195              | 104.200          | 104.005    | 11/27/2017 | 10:22     |
| 9   | CAL9   | 40                 | 1  | Water  | 0.199              | 119.900          | 119.701    | 11/27/2017 | 10:29     |



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Run Number: LB91804

| Seq | Lab ID      | Initial Weight | Final Vol | True Value | DF | MATRIX | Initial Reading | Final Reading | Difference | Result (mg/L) | AnalDate   | Anal Time |
|-----|-------------|----------------|-----------|------------|----|--------|-----------------|---------------|------------|---------------|------------|-----------|
| 1   | ICV         |                |           | 20         | 1  | Water  | 0.193           | 59.100        | 58.907     | 19.769        | 11/27/2017 | 10:35     |
| 2   | ICB         |                |           |            | 1  | Water  | 0.179           | 0.349         | 0.170      | 0.131         | 11/27/2017 | 10:40     |
| 3   | CCV1        |                |           | 20         | 1  | Water  | 0.168           | 59.200        | 59.032     | 19.811        | 11/27/2017 | 13:09     |
| 4   | CCB1        |                |           |            | 1  | Water  | 0.169           | 0.289         | 0.120      | 0.114         | 11/27/2017 | 13:14     |
| 5   | LB91804BL   | 50             | 50        |            | 1  | Water  | 0.166           | 0.315         | 0.149      | 0.124         | 11/27/2017 | 13:20     |
| 6   | LB91804BS   | 50             | 50        | 20         | 1  | Water  | 0.175           | 59.200        | 59.025     | 19.809        | 11/27/2017 | 13:25     |
| 7   | I6575-11    | 50             | 50        |            | 1  | Water  | 0.198           | 164.000       | 163.802    | 54.841        | 11/27/2017 | 10:31     |
| 8   | I6575-12    | 50             | 50        |            | 1  | Water  | 0.222           | 45.600        | 45.378     | 15.246        | 11/27/2017 | 10:36     |
| 9   | CCV2        |                |           | 20         | 1  | Water  | 0.178           | 60.100        | 59.922     | 20.109        | 11/27/2017 | 10:40     |
| 10  | CCB2        |                |           |            | 1  | Water  | 0.180           | 0.351         | 0.171      | 0.131         | 11/27/2017 | 10:45     |
| 11  | I6575-13    | 50             | 50        |            | 1  | Water  | 0.226           | 52.300        | 52.074     | 17.485        | 11/27/2017 | 10:51     |
| 12  | I6575-14    | 50             | 50        |            | 1  | Water  | 0.237           | 51.300        | 51.063     | 17.147        | 11/27/2017 | 10:56     |
| 13  | I6575-15    | 50             | 50        |            | 1  | Water  | 0.268           | 112.000       | 111.732    | 37.431        | 11/27/2017 | 11:01     |
| 14  | I6575-16    | 50             | 50        |            | 1  | Water  | 0.187           | 0.502         | 0.315      | 0.179         | 11/27/2017 | 11:07     |
| 15  | CCV3        |                |           | 20         | 1  | Water  | 0.181           | 59.400        | 59.219     | 19.874        | 11/27/2017 | 11:12     |
| 16  | CCB3        |                |           |            | 1  | Water  | 0.161           | 0.304         | 0.143      | 0.122         | 11/27/2017 | 11:16     |
| 17  | I6575-17    | 50             | 50        |            | 1  | Water  | 0.392           | 79.200        | 78.808     | 26.423        | 11/27/2017 | 11:22     |
| 18  | I6575-17DUP | 50             | 50        |            | 1  | Water  | 0.269           | 79.300        | 79.031     | 26.498        | 11/27/2017 | 11:29     |
| 19  | I6575-17MS  | 50             | 50        | 20         | 1  | Water  | 0.416           | 121.000       | 120.584    | 40.391        | 11/27/2017 | 11:35     |
| 20  | I6575-17MSD | 50             | 50        | 20         | 1  | Water  | 0.415           | 120.600       | 120.185    | 40.258        | 11/27/2017 | 11:41     |
| 21  | CCV4        |                |           | 20         | 1  | Water  | 0.178           | 59.600        | 59.422     | 19.942        | 11/27/2017 | 11:46     |
| 22  | CCB4        |                |           |            | 1  | Water  | 0.160           | 0.285         | 0.125      | 0.116         | 11/27/2017 | 11:51     |
| 23  | I6575-18    | 50             | 50        |            | 1  | Water  | 0.298           | 286.000       | 285.702    | 95.598        | 11/27/2017 | 14:58     |
| 24  | I6575-19    | 50             | 50        |            | 1  | Water  | 0.572           | 275.000       | 274.428    | 91.828        | 11/27/2017 | 15:04     |
| 25  | I6575-20    | 50             | 50        |            | 1  | Water  | 0.276           | 0.834         | 0.558      | 0.261         | 11/27/2017 | 15:09     |
| 26  | I6575-11    |                |           |            | 2  | Water  | 0.237           | 57.300        | 57.063     | 19.153        | 11/27/2017 | 15:20     |
| 27  | I6575-17MS  |                |           | 20         | 2  | Water  | 0.210           | 70.000        | 69.790     | 23.408        | 11/27/2017 | 15:27     |
| 28  | I6575-17MSD |                |           | 20         | 2  | Water  | 0.210           | 71.900        | 71.690     | 24.043        | 11/27/2017 | 15:33     |
| 29  | I6575-18    |                |           |            | 5  | Water  | 0.376           | 38.900        | 38.524     | 12.954        | 11/27/2017 | 15:37     |
| 30  | I6575-19    |                |           |            | 5  | Water  | 0.226           | 34.500        | 34.274     | 11.533        | 11/27/2017 | 15:42     |
| 31  | CCV5        |                |           | 20         | 1  | Water  | 0.161           | 59.700        | 59.539     | 19.981        | 11/27/2017 | 15:48     |
| 32  | CCB5        |                |           |            | 1  | Water  | 0.181           | 0.306         | 0.125      | 0.116         | 11/27/2017 | 15:55     |

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : DSO4112717

WorkList ID : 105866

Date : 11/27/2017 10:08:43 AM

| Due Date   | Matrix | Sample   | Test              | Preservative | Customer | Storage Location | Customer Sample | Collect Date | Method       |
|------------|--------|----------|-------------------|--------------|----------|------------------|-----------------|--------------|--------------|
| 12/03/2017 | Water  | I6575-11 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MW9-055-1       | 11/20/2017   | SM4500-SO4 E |
| 12/03/2017 | Water  | I6575-12 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MW2S-055-1      | 11/20/2017   | SM4500-SO4 E |
| 12/03/2017 | Water  | I6575-13 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MW10M-055-1     | 11/20/2017   | SM4500-SO4 E |
| 12/03/2017 | Water  | I6575-14 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MW10M-055-2     | 11/20/2017   | SM4500-SO4 E |
| 12/03/2017 | Water  | I6575-15 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MW10D-055-1     | 11/20/2017   | SM4500-SO4 E |
| 12/03/2017 | Water  | I6575-16 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MW11M-055-3     | 11/20/2017   | SM4500-SO4 E |
| 12/03/2017 | Water  | I6575-17 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MWMMW11M-055-1  | 11/20/2017   | SM4500-SO4 E |
| 12/03/2017 | Water  | I6575-18 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MW11D-055-1     | 11/20/2017   | SM4500-SO4 E |
| 12/03/2017 | Water  | I6575-19 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MW4S-055-1      | 11/20/2017   | SM4500-SO4 E |
| 12/03/2017 | Water  | I6575-20 | Dissolved Sulfate | Cool 4 deg C | WEST04   | M53              | MW4D-055-1      | 11/20/2017   | SM4500-SO4 E |

Date/Time

Received by:

Relinquished by:

11/27/17 9:30

AK

CP

Date/Time

Received by:

Relinquished by:

11/27/17 16:15

CP

pk