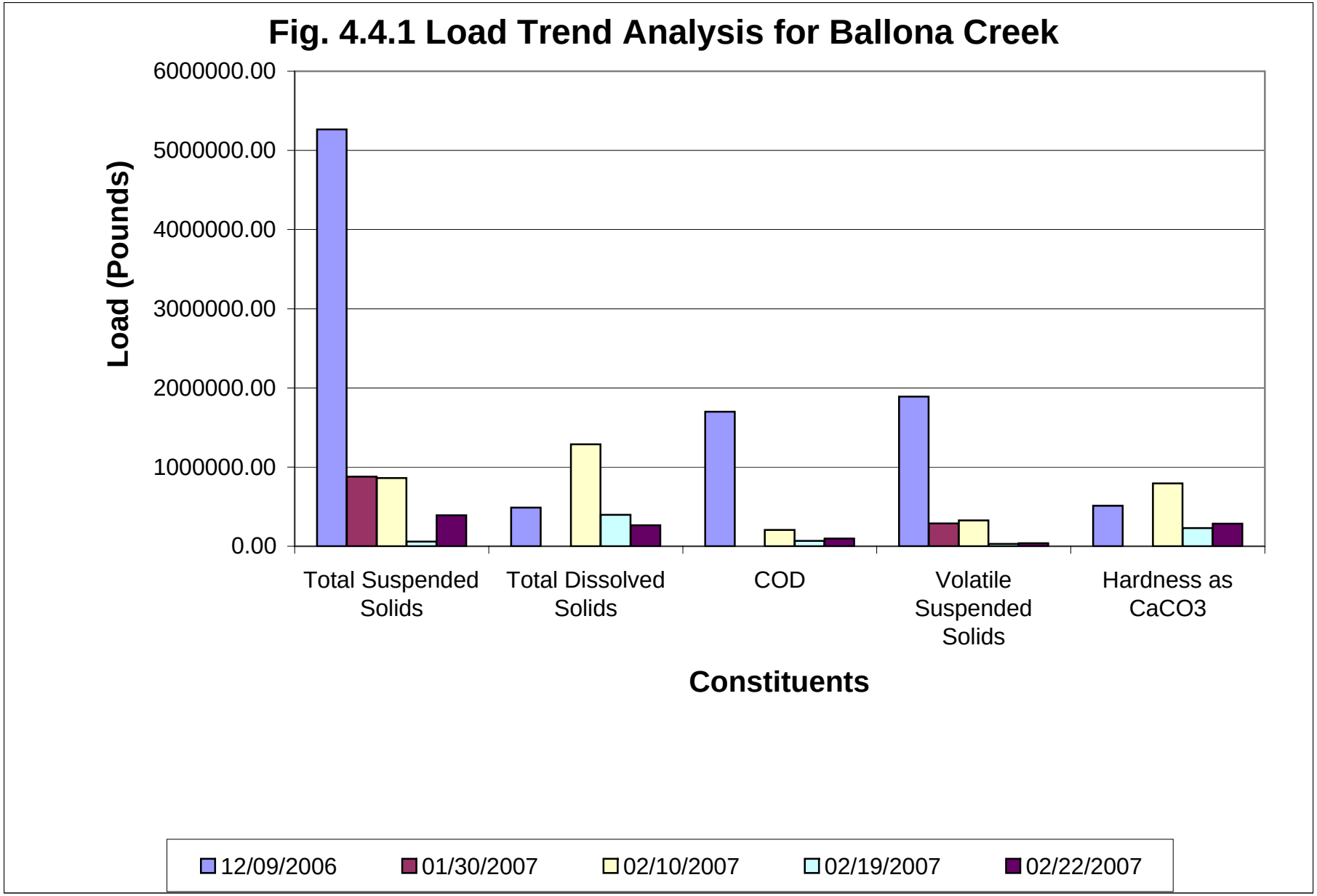


Fig. 4.4.1 Load Trend Analysis for Ballona Creek
Load (Pounds)
6000000.00
5000000.00
4000000.00
3000000.00
2000000.00
1000000.00
0.00
Total Suspended Solids
Total Dissolved Solids
COD
Volatile Suspended Solids
Hardness as CaCO3
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007

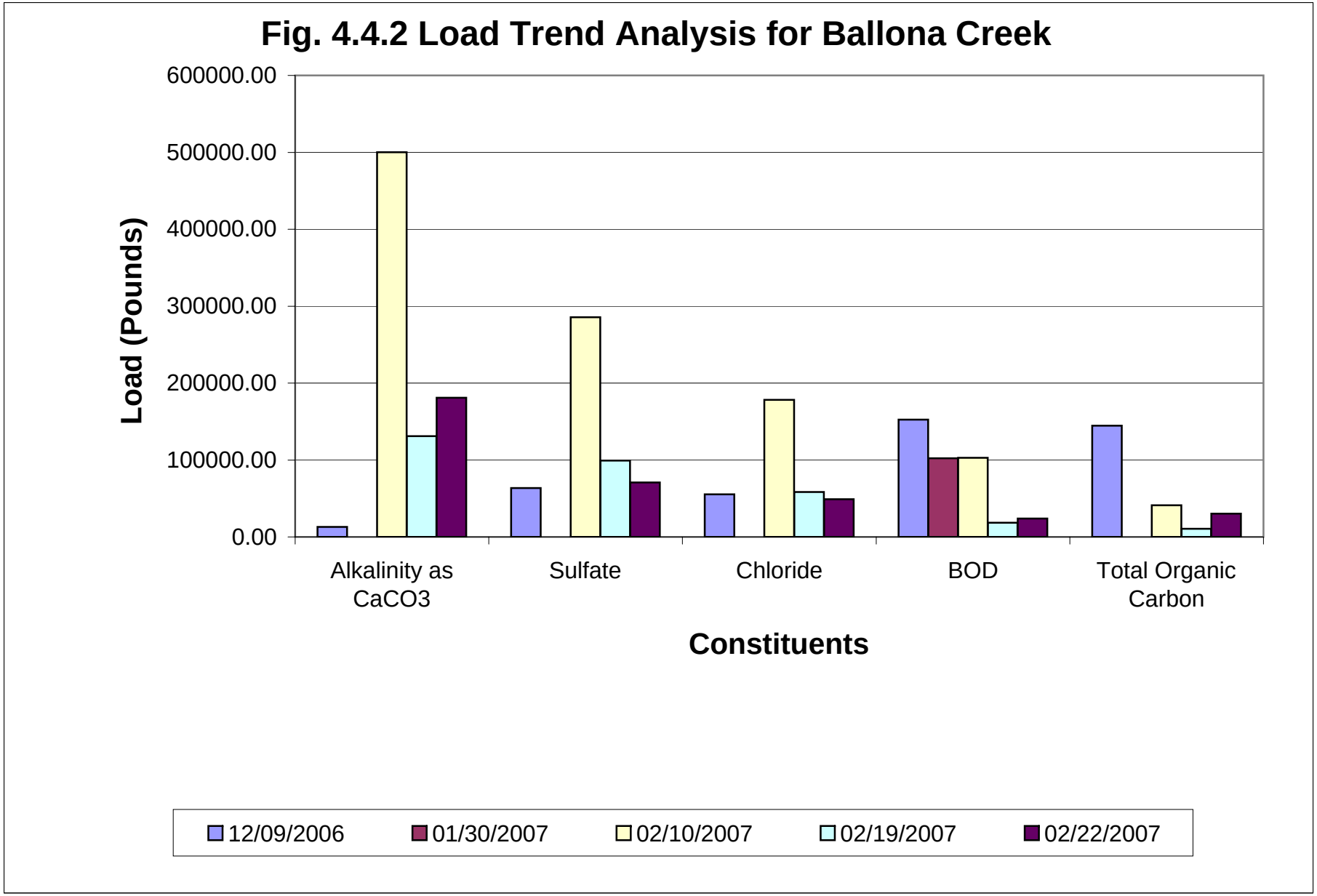


Fig. 4.4.2 Load Trend Analysis for Ballona Creek
600000.00
500000.00
400000.00
300000.00
200000.00
100000.00
0.00
Load (Pounds)
Alkalinity as CaCO3
Sulfate
Chloride
BOD
Total Organic Carbon
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007

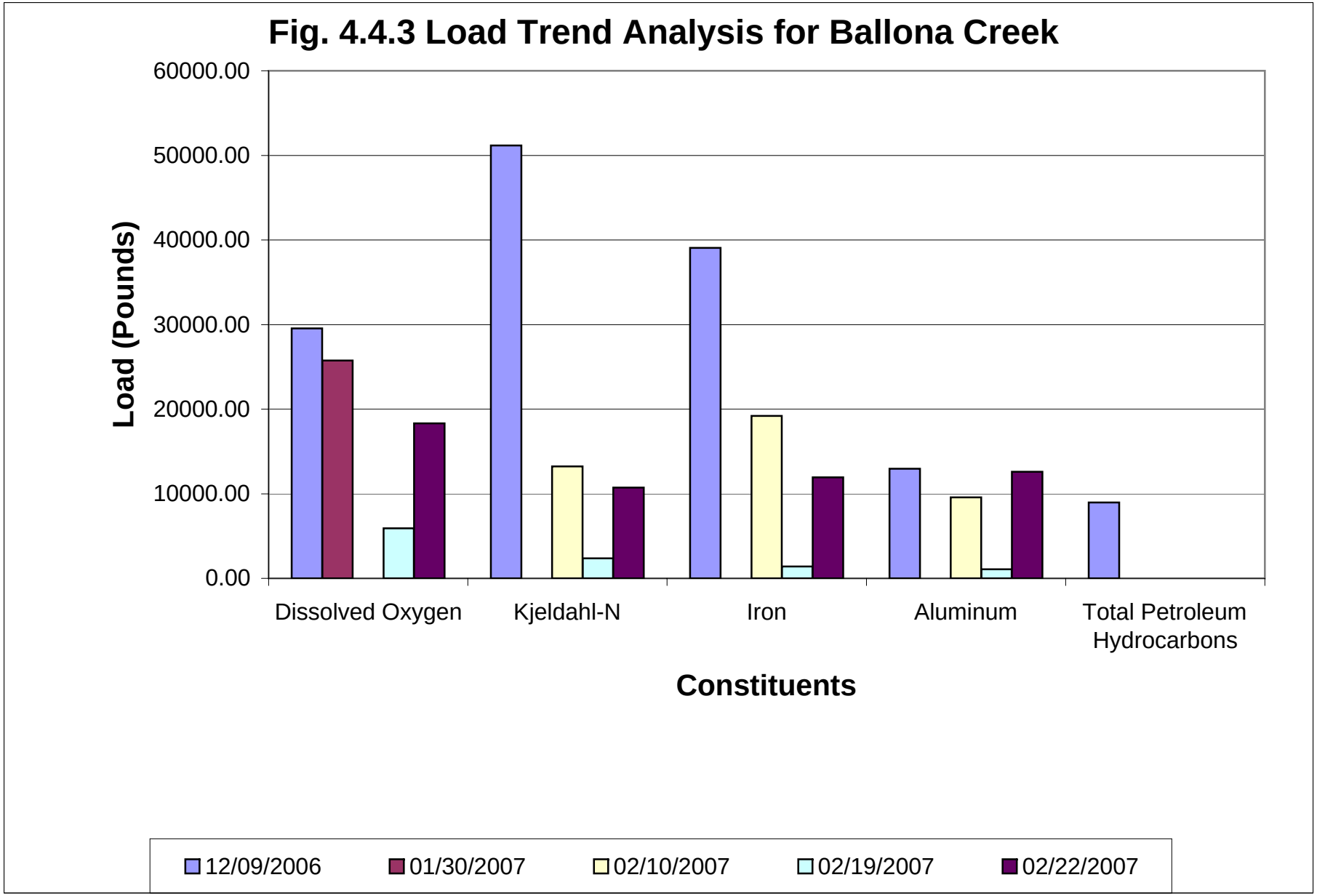


Fig. 4.4.3 Load Trend Analysis for Ballona Creek
Load (Pounds)
60000.00
50000.00
40000.00
30000.00
20000.00
10000.00
0.00
Dissolved Oxygen
Kjeldahl-N
Iron
Aluminum
Total Petroleum Hydrocarbons
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007

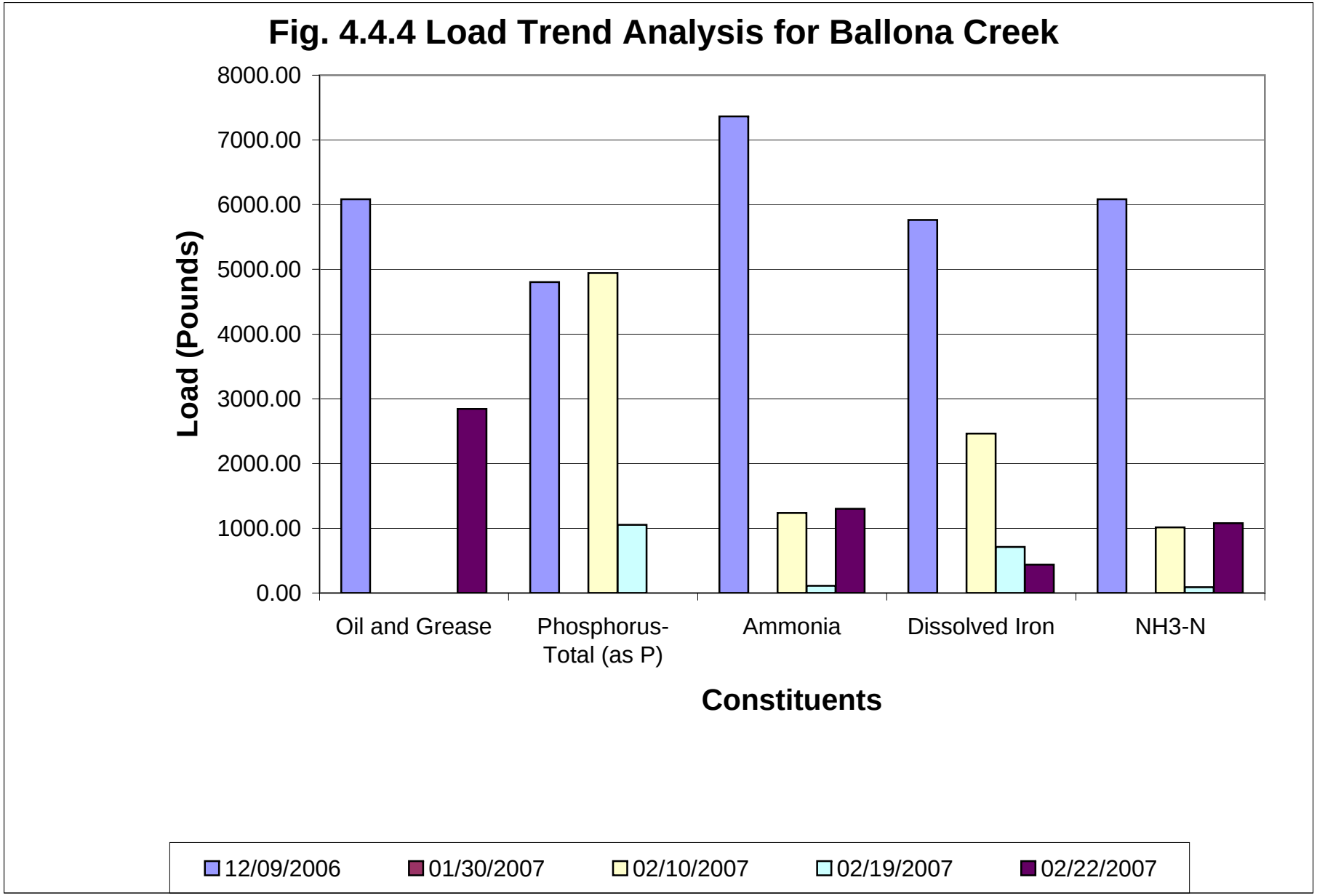


Fig. 4.4.4 Load Trend Analysis for Ballona Creek
Load (Pounds)
8000.00
7000.00
6000.00
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
Oil and Grease
Phosphorus-Total (as P)
Ammonia
Dissolved Iron
NH3-N
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007

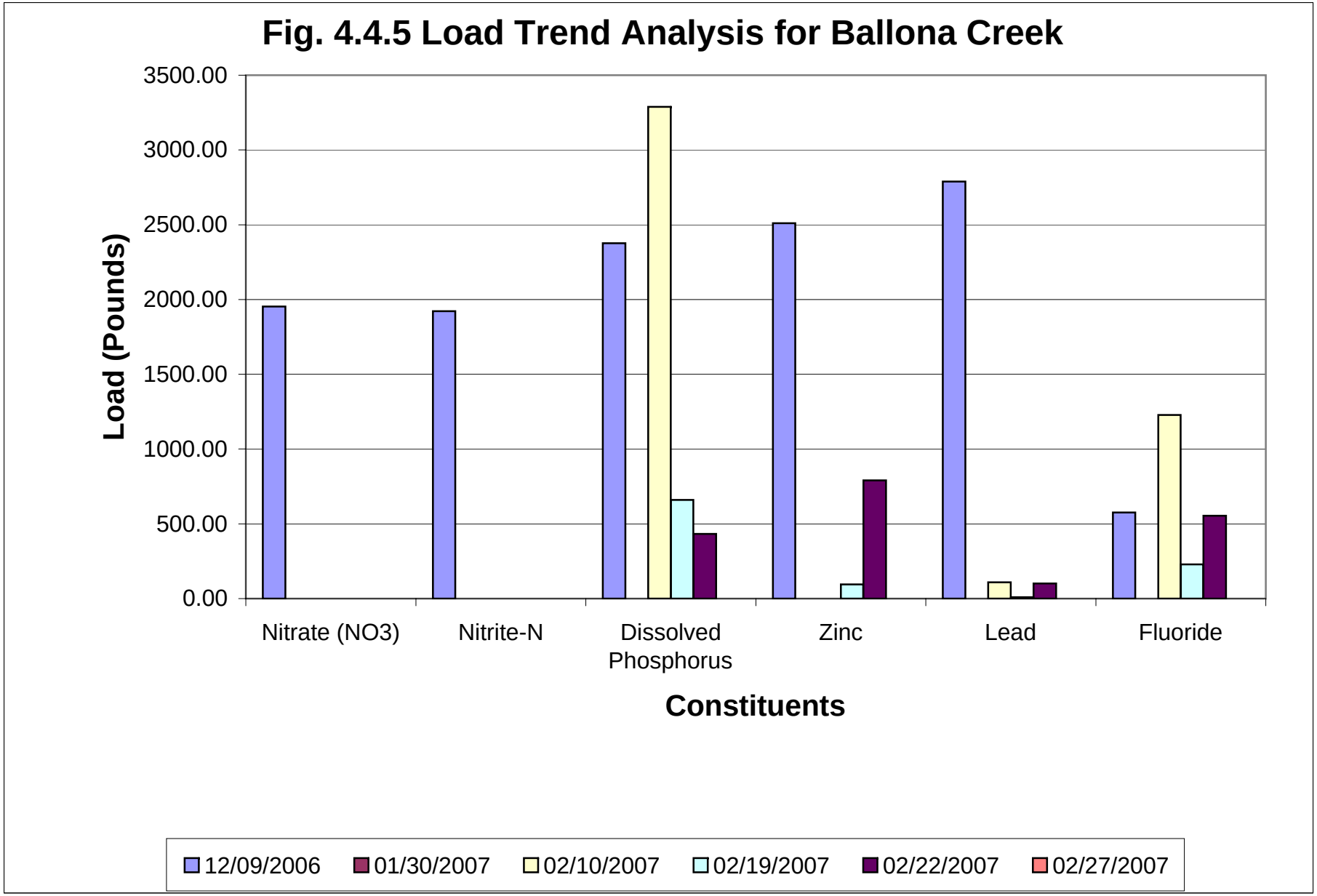


Fig. 4.4.5 Load Trend Analysis for Ballona Creek
Load (Pounds)
3500.00
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
Nitrate (NO3)
Nitrite-N
Dissolved Phosphorus
Zinc
Lead
Fluoride
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
02/27/2007

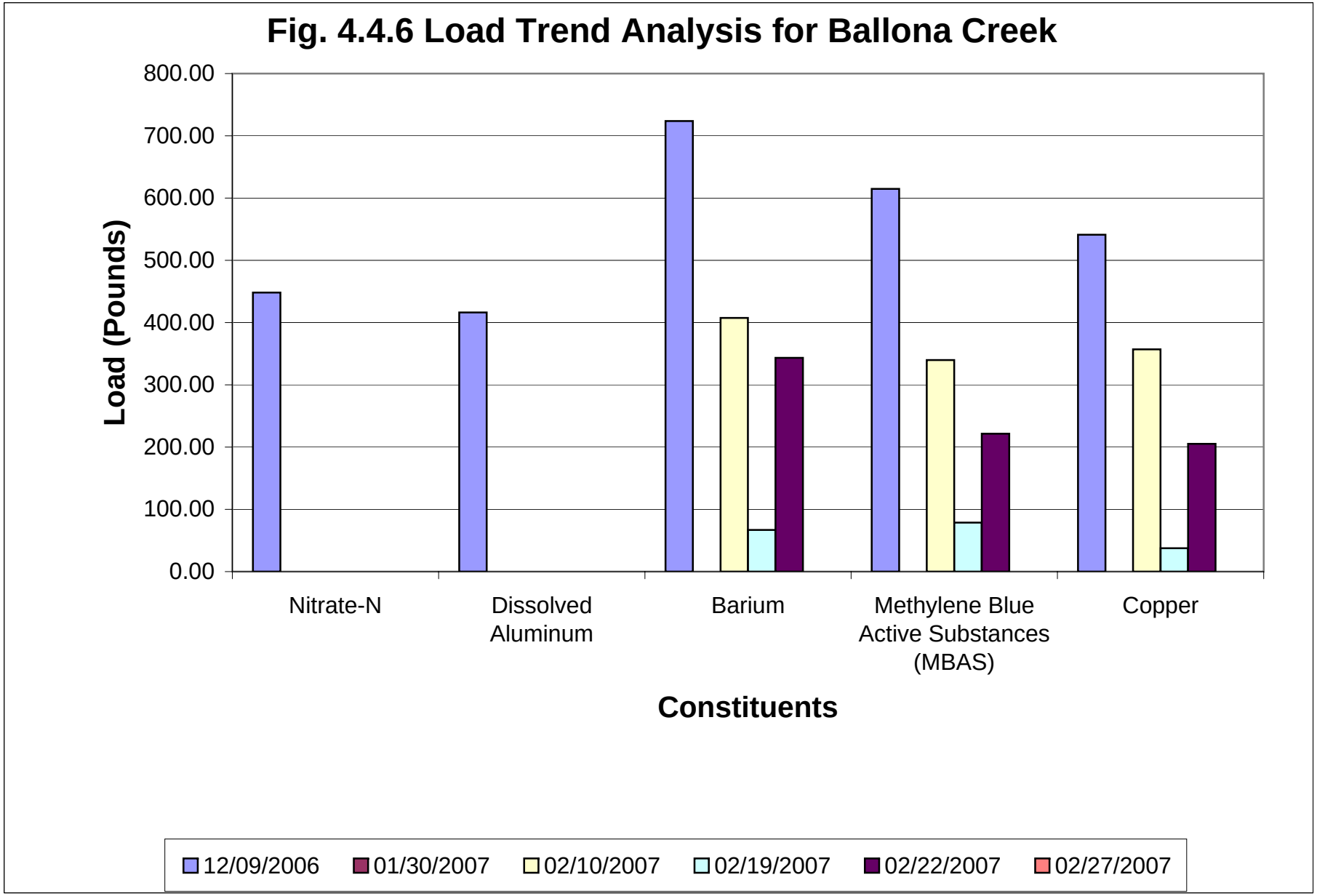


Fig. 4.4.6 Load Trend Analysis for Ballona Creek
Load (Pounds)
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
Nitrate-N
Dissolved Aluminum
Barium
Methylene Blue Active Substances (MBAS)
Copper
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
02/27/2007

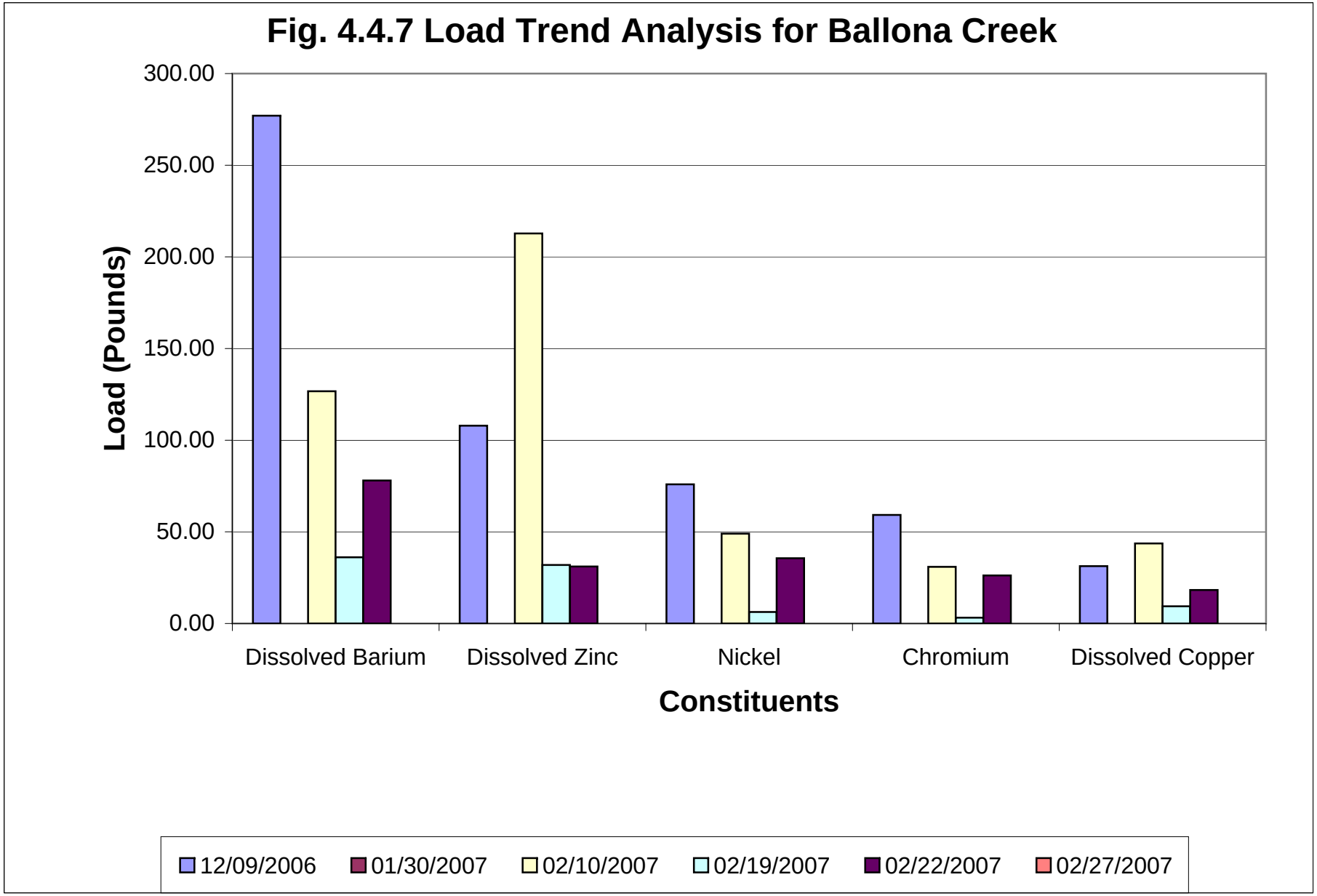


Fig. 4.4.7 Load Trend Analysis for Ballona Creek
Load (Pounds)
300.00
250.00
200.00
150.00
100.00
50.00
0.00
Dissolved Barium
Dissolved Zinc
Nickel
Chromium
Dissolved Copper
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
02/27/2007

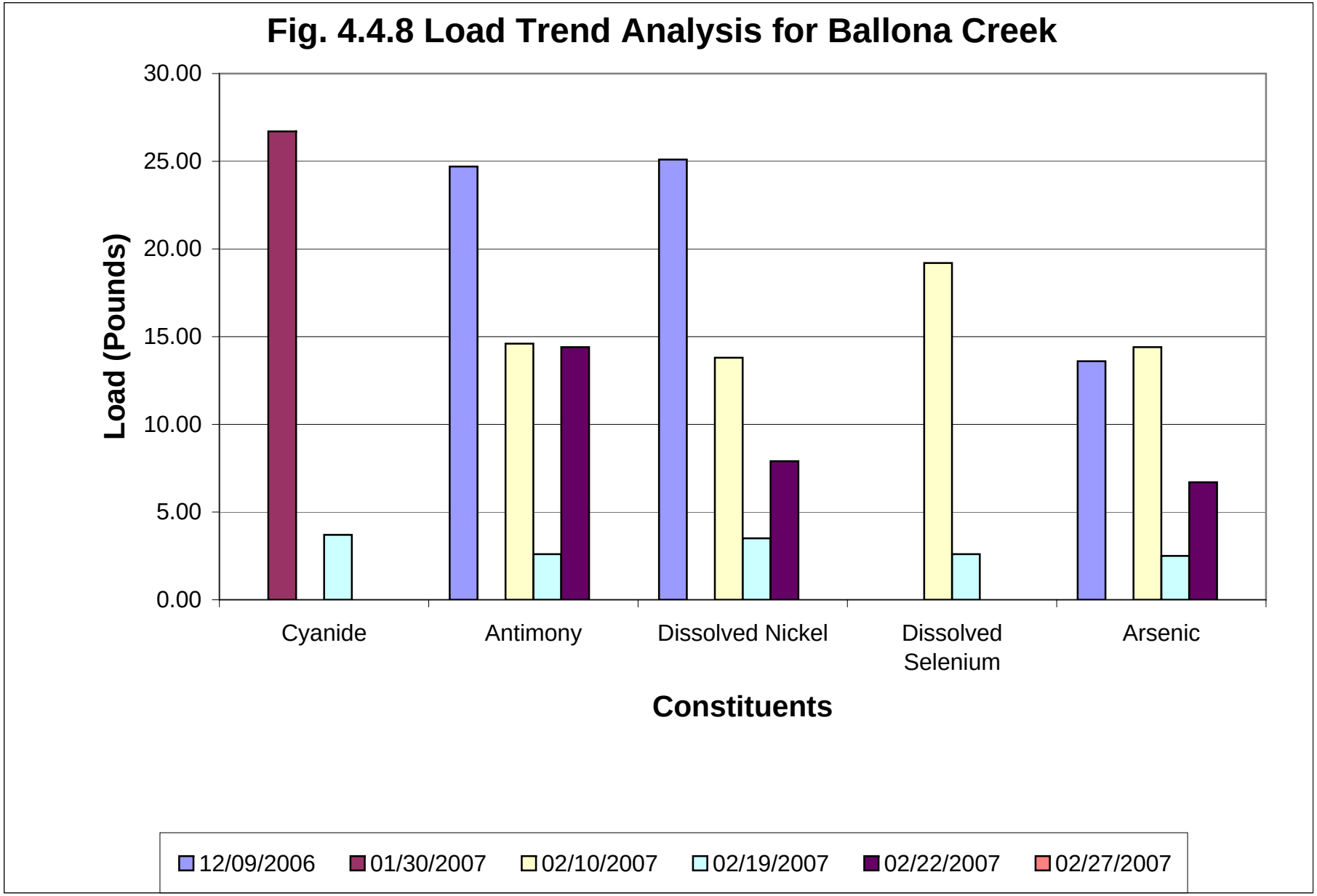


Fig. 4.4.8 Load Trend Analysis for Ballona Creek
Load (Pounds)
30.00
25.00
20.00
15.00
10.00
5.00
0.00
Cyanide
Antimony
Dissolved Nickel
Dissolved Selenium
Arsenic
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
02/27/2007

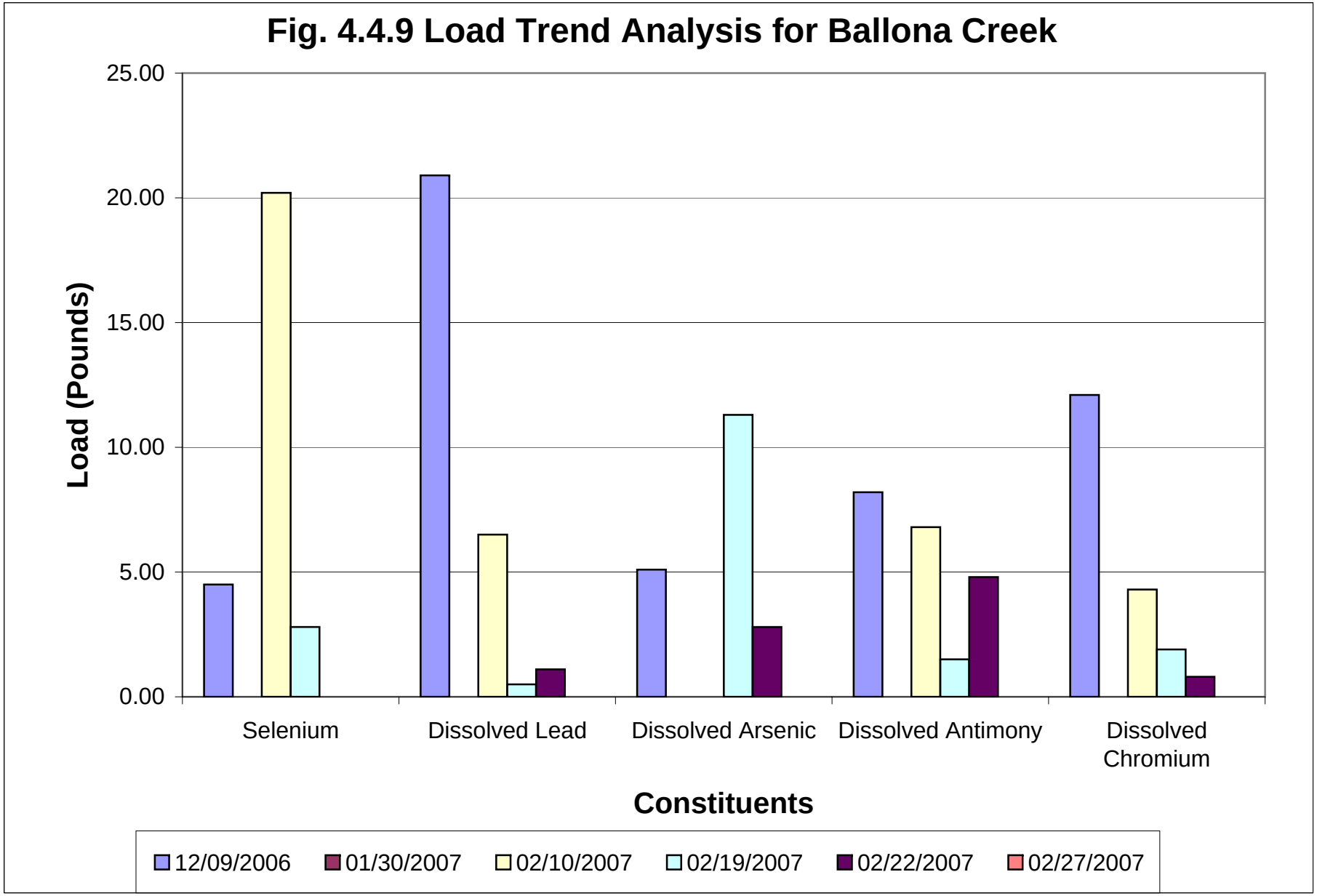


Fig. 4.4.9 Load Trend Analysis for Ballona Creek
Load (Pounds)
25.00
20.00
15.00
10.00
5.00
0.00
Selenium
Dissolved Lead
Dissolved Arsenic
Dissolved Antimony
Dissolved Chromium
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
02/27/2007

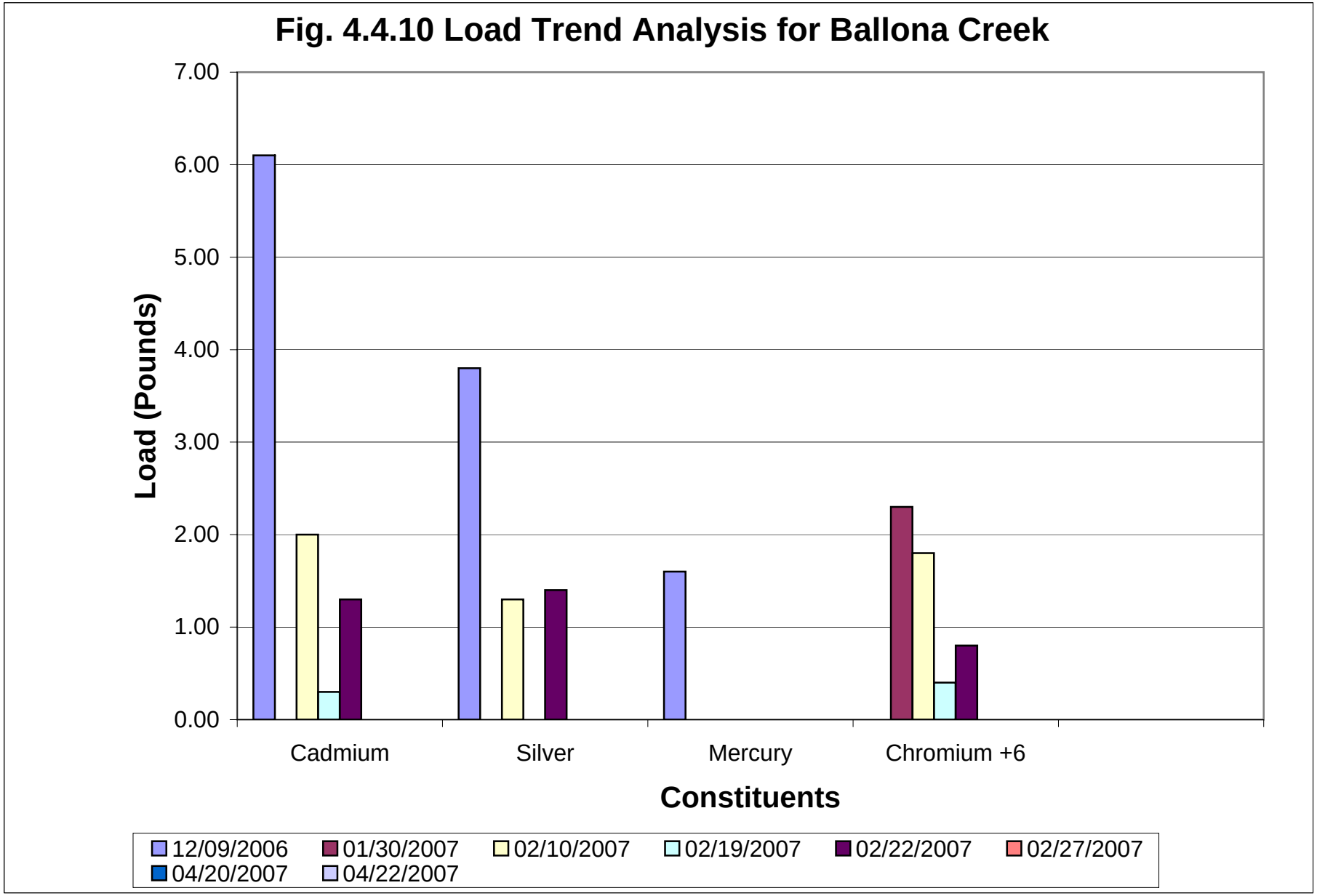


Fig. 4.4.10 Load Trend Analysis for Ballona Creek
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Load (Pounds)
Cadmium
Silver
Mercury
Chromium +6
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
02/27/2007
04/20/2007
04/22/2007

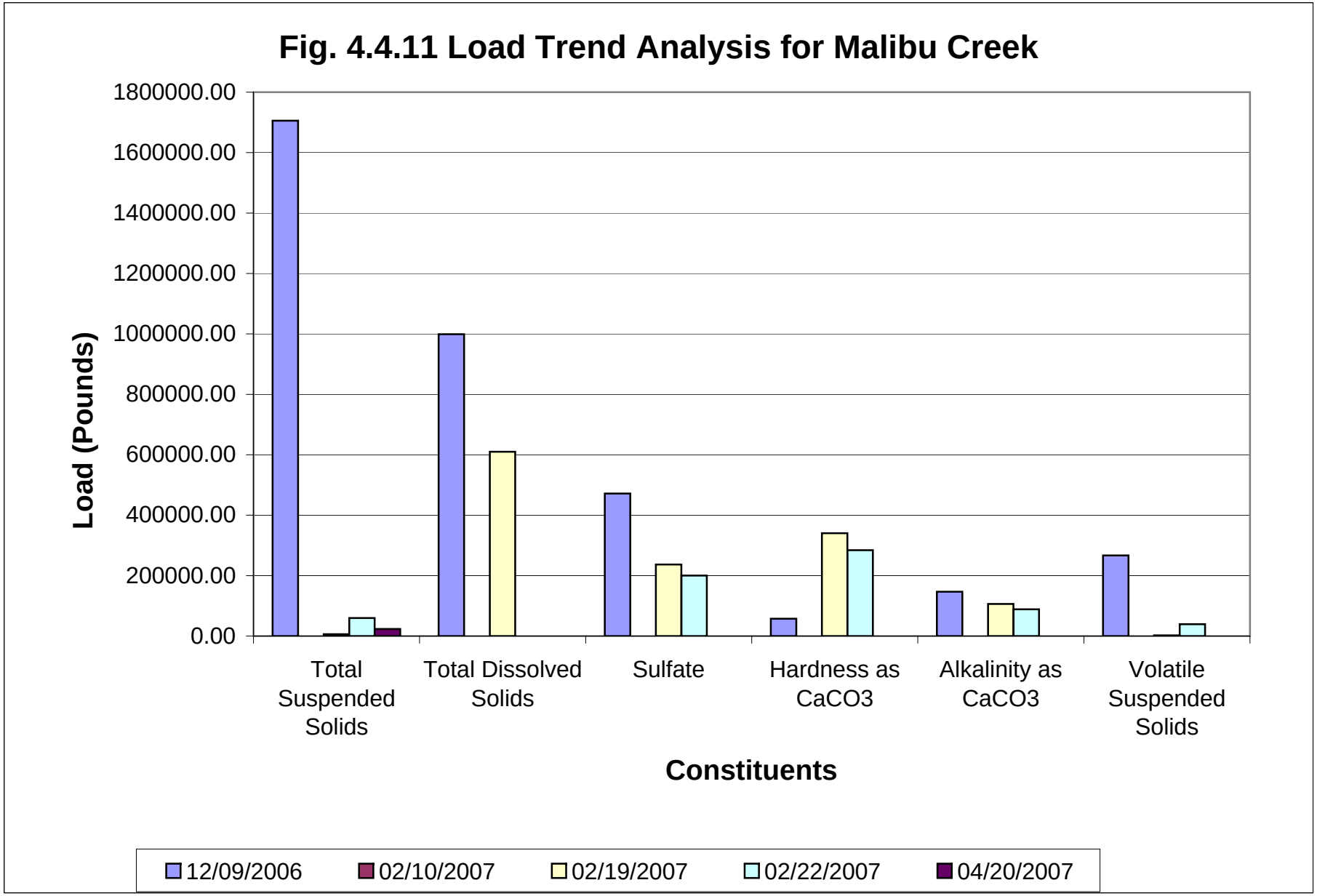


Fig. 4.4.11 Load Trend Analysis for Malibu Creek
1800000.00
1600000.00
1400000.00
1200000.00
1000000.00
800000.00
600000.00
400000.00
200000.00
0.00
Load (Pounds)
Total Suspended Solids
Total Dissolved Solids
Sulfate
Hardness as CaCO3
Alkalinity as CaCO3
Volatile Suspended Solids
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007
04/20/2007

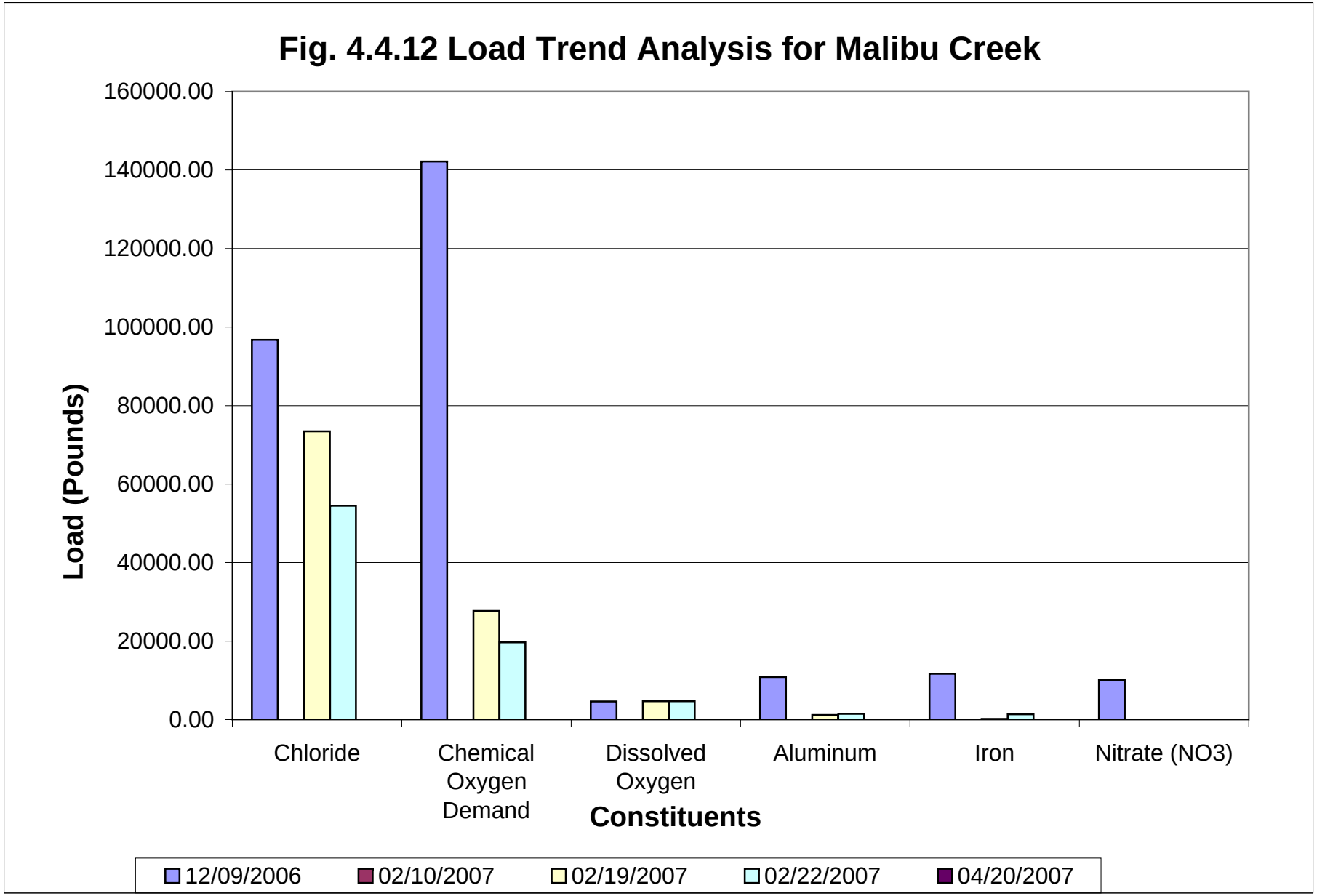


Fig. 4.4.12 Load Trend Analysis for Malibu Creek
160000.00
140000.00
120000.00
100000.00
80000.00
60000.00
40000.00
20000.00
0.00
Load (Pounds)
Chloride
Chemical Oxygen Demand
Dissolved Oxygen
Aluminum
Iron
Nitrate (NO3)
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007
04/20/2007

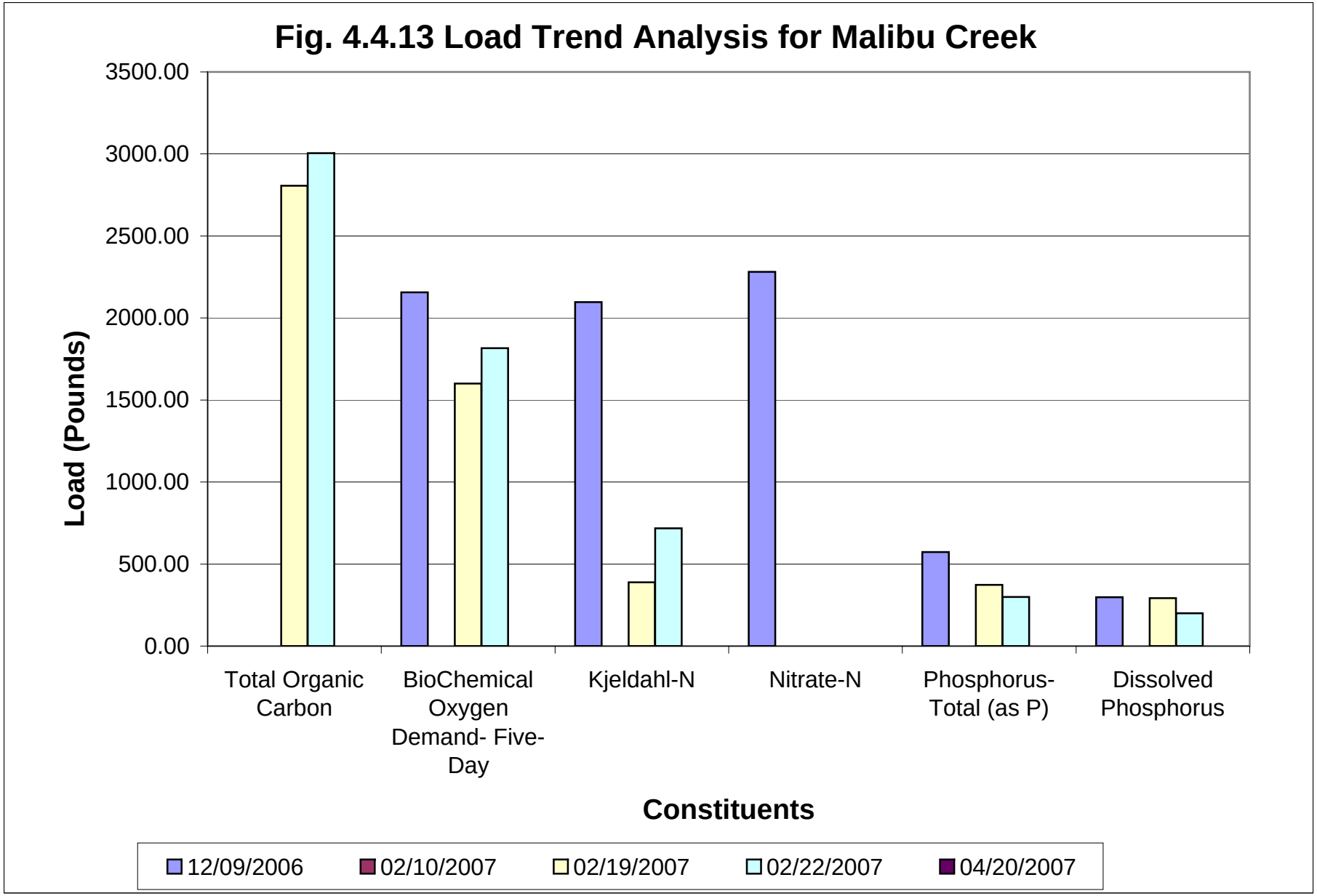


Fig. 4.4.13 Load Trend Analysis for Malibu Creek
3500.00
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
Load (Pounds)
Total Organic Carbon
BioChemical Oxygen Demand- Five-Day
Kjeldahl-N
Nitrate-N
Phosphorus-Total (as P)
Dissolved Phosphorus
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007
04/20/2007

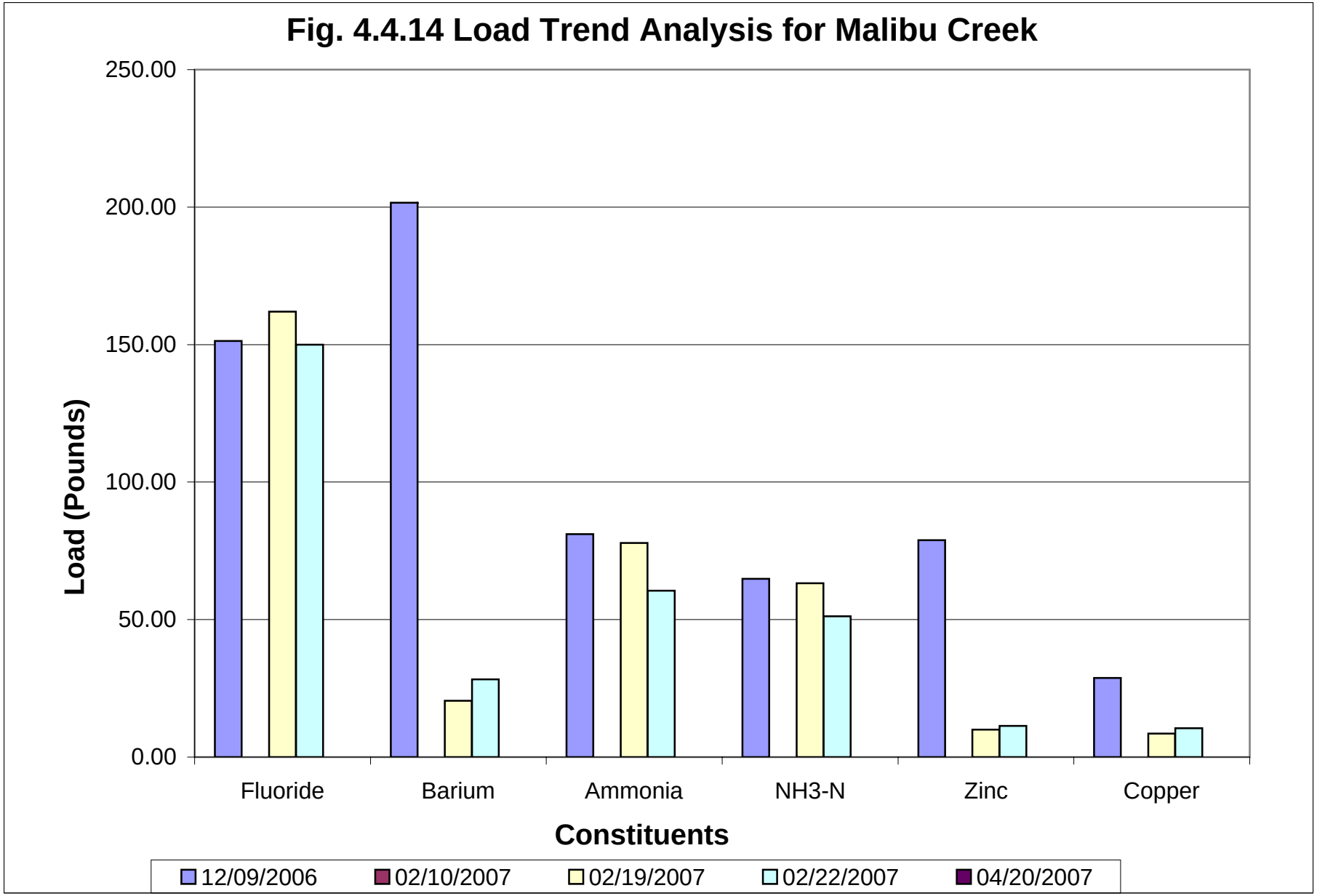


Fig. 4.4.14 Load Trend Analysis for Malibu Creek
250.00
200.00
150.00
100.00
50.00
0.00
Load (Pounds)
Fluoride
Barium
Ammonia
NH3-N
Zinc
Copper
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007
04/20/2007

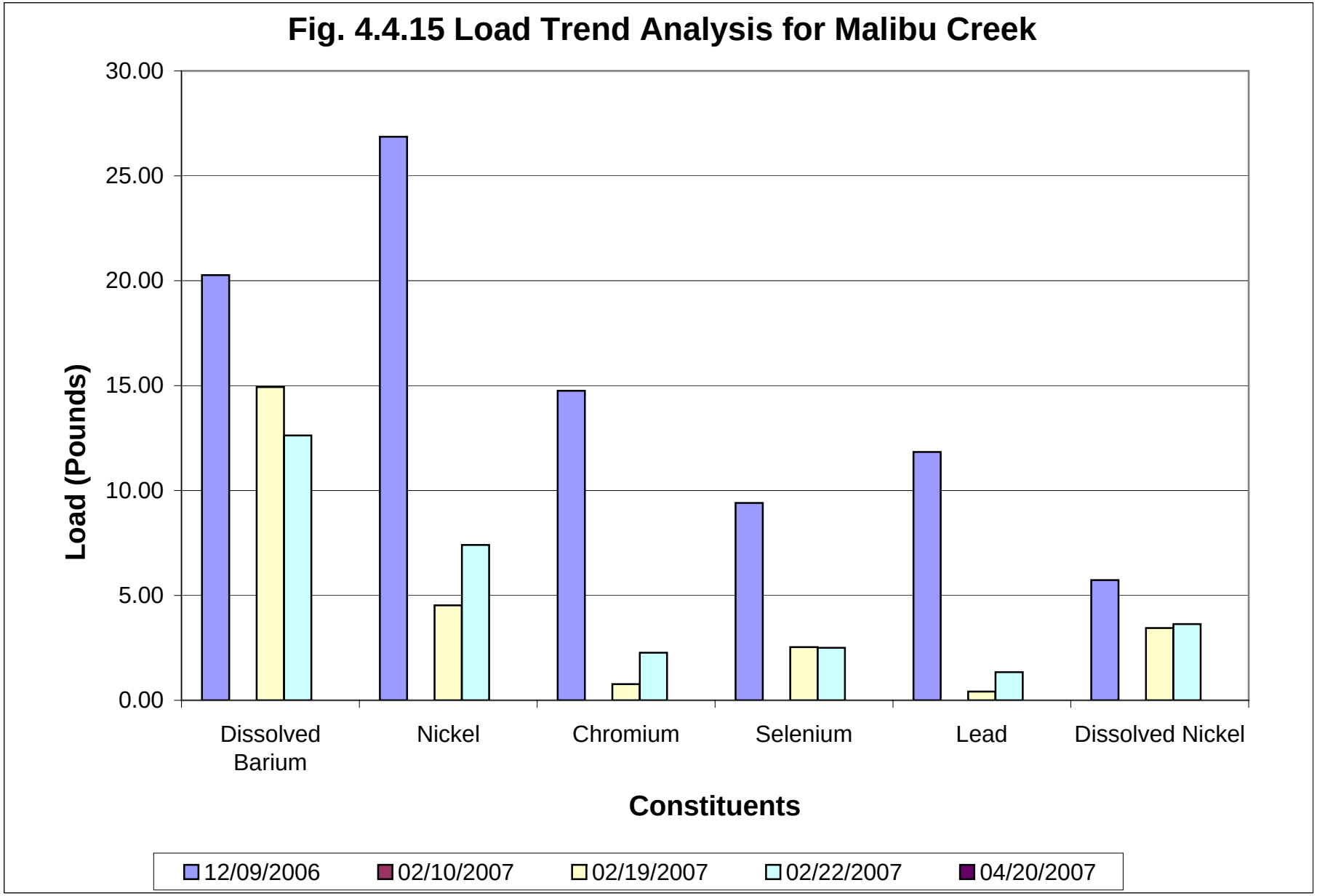


Fig. 4.4.15 Load Trend Analysis for Malibu Creek
30.00
25.00
20.00
15.00
10.00
5.00
0.00
Load (Pounds)
Dissolved Barium
Nickel
Chromium
Selenium
Lead
Dissolved Nickel
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007
04/20/2007

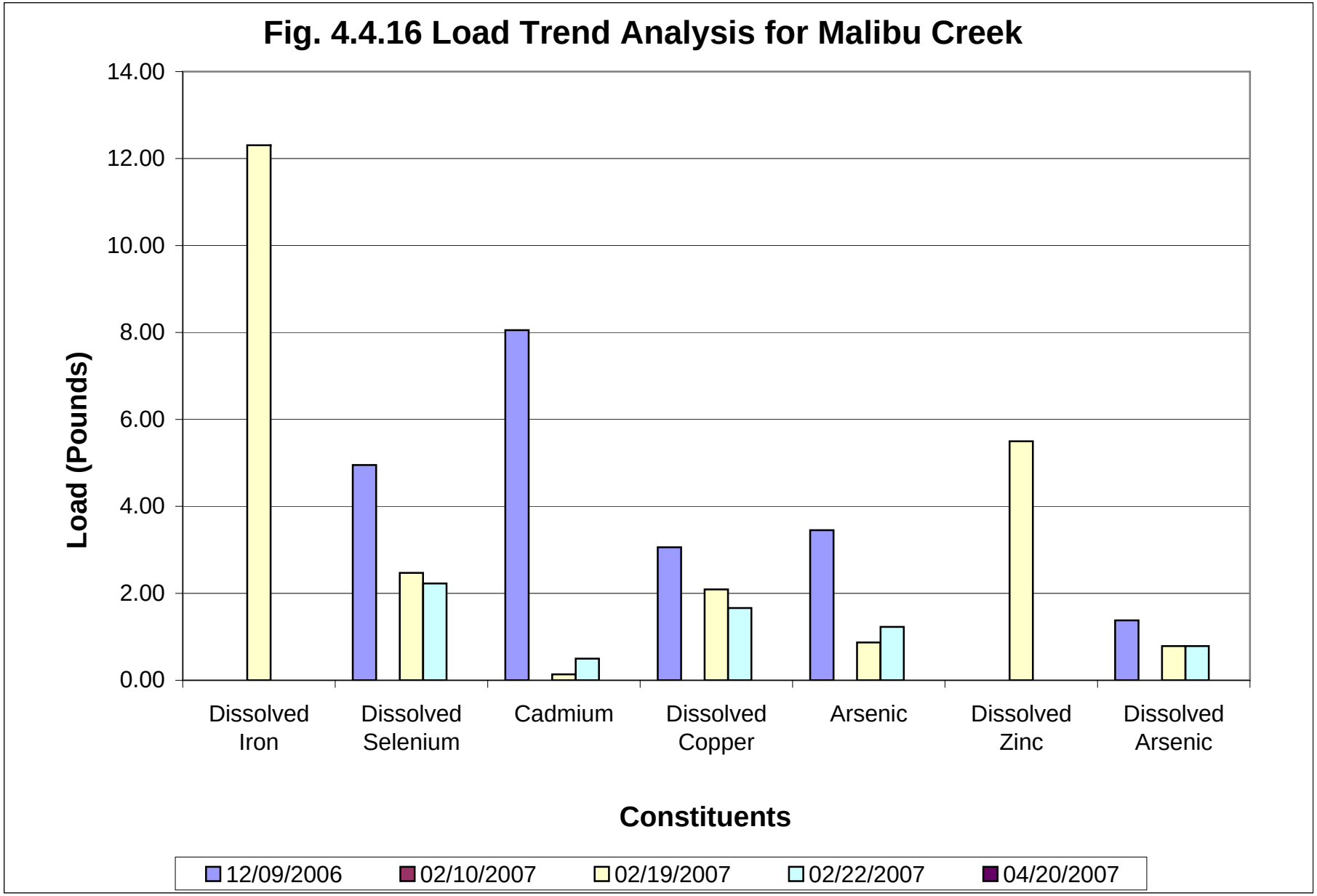


Fig. 4.4.16 Load Trend Analysis for Malibu Creek
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Load (Pounds)
Dissolved Iron
Dissolved Selenium
Cadmium
Dissolved Copper
Arsenic
Dissolved Zinc
Dissolved Arsenic
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007
04/20/2007

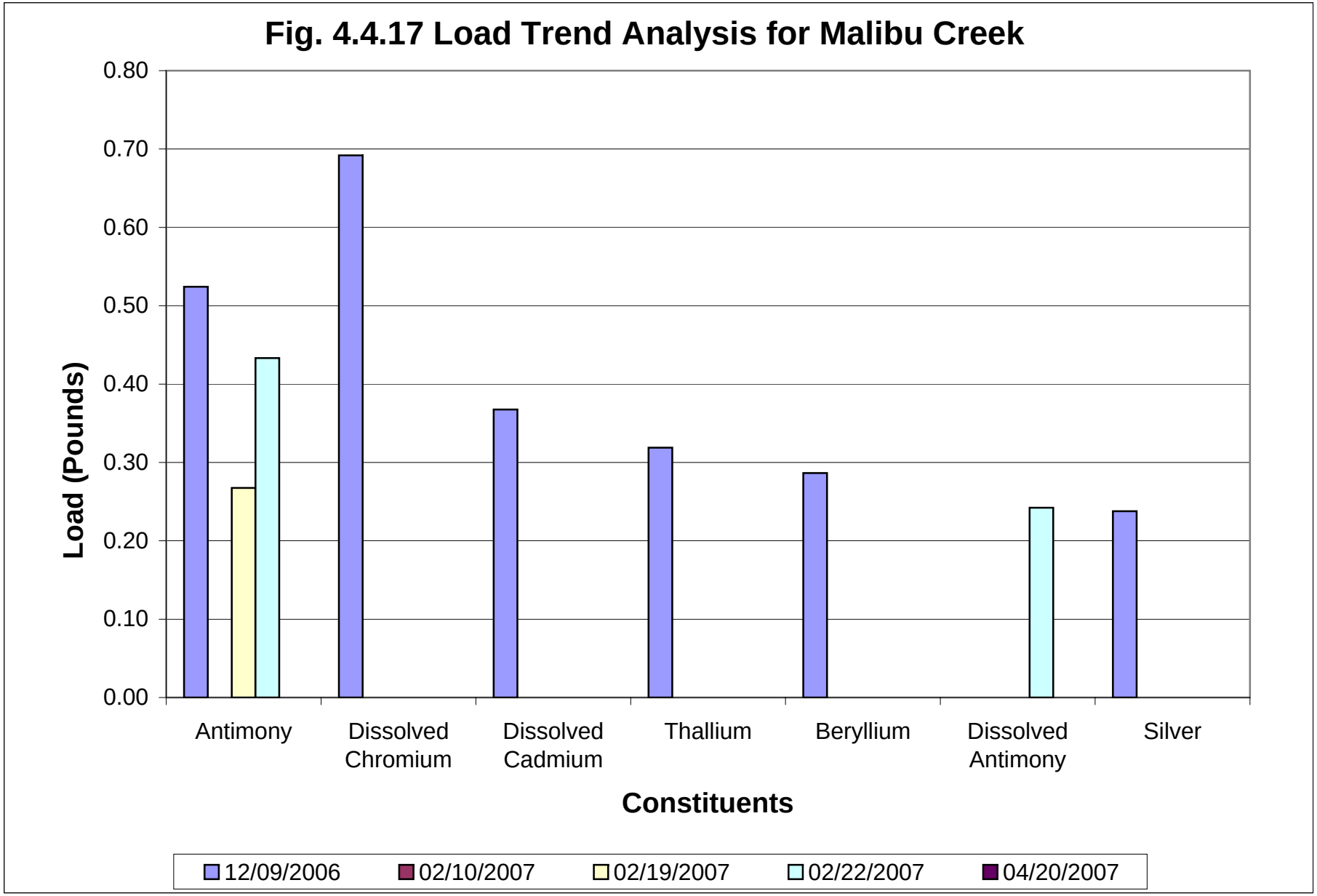


Fig. 4.4.17 Load Trend Analysis for Malibu Creek
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Load (Pounds)
Antimony
Dissolved Chromium
Dissolved Cadmium
Thallium
Beryllium
Dissolved Antimony
Silver
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007
04/20/2007

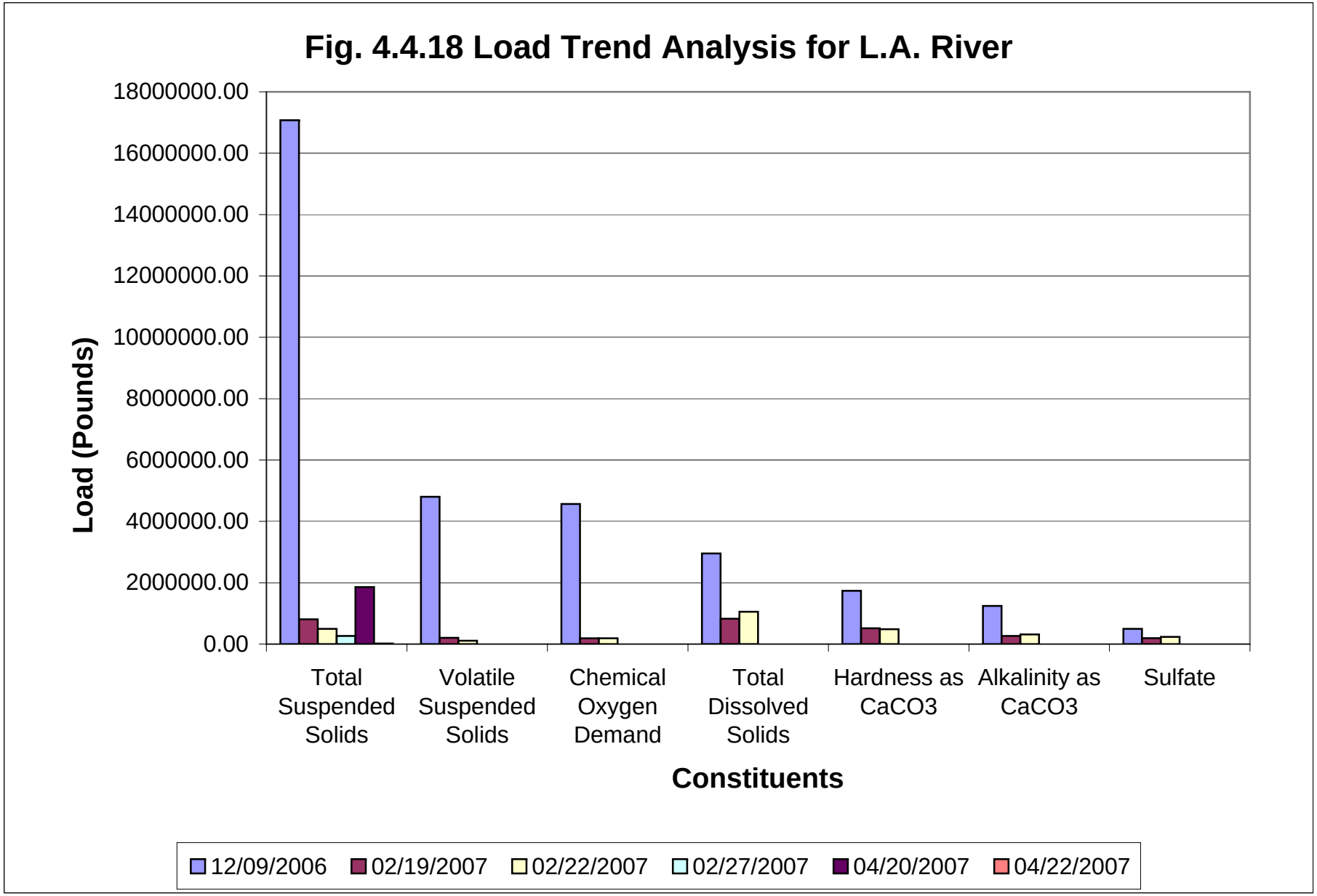


Fig. 4.4.18 Load Trend Analysis for L.A. River
18000000.00
16000000.00
14000000.00
12000000.00
10000000.00
8000000.00
6000000.00
4000000.00
2000000.00
0.00
Load (Pounds)
Total Suspended Solids
Volatile Suspended Solids
Chemical Oxygen Demand
Total Dissolved Solids
Hardness as CaCO3
Alkalinity as CaCO3
Sulfate
Constituents
12/09/2006
02/19/2007
02/22/2007
02/27/2007
04/20/2007
04/22/2007

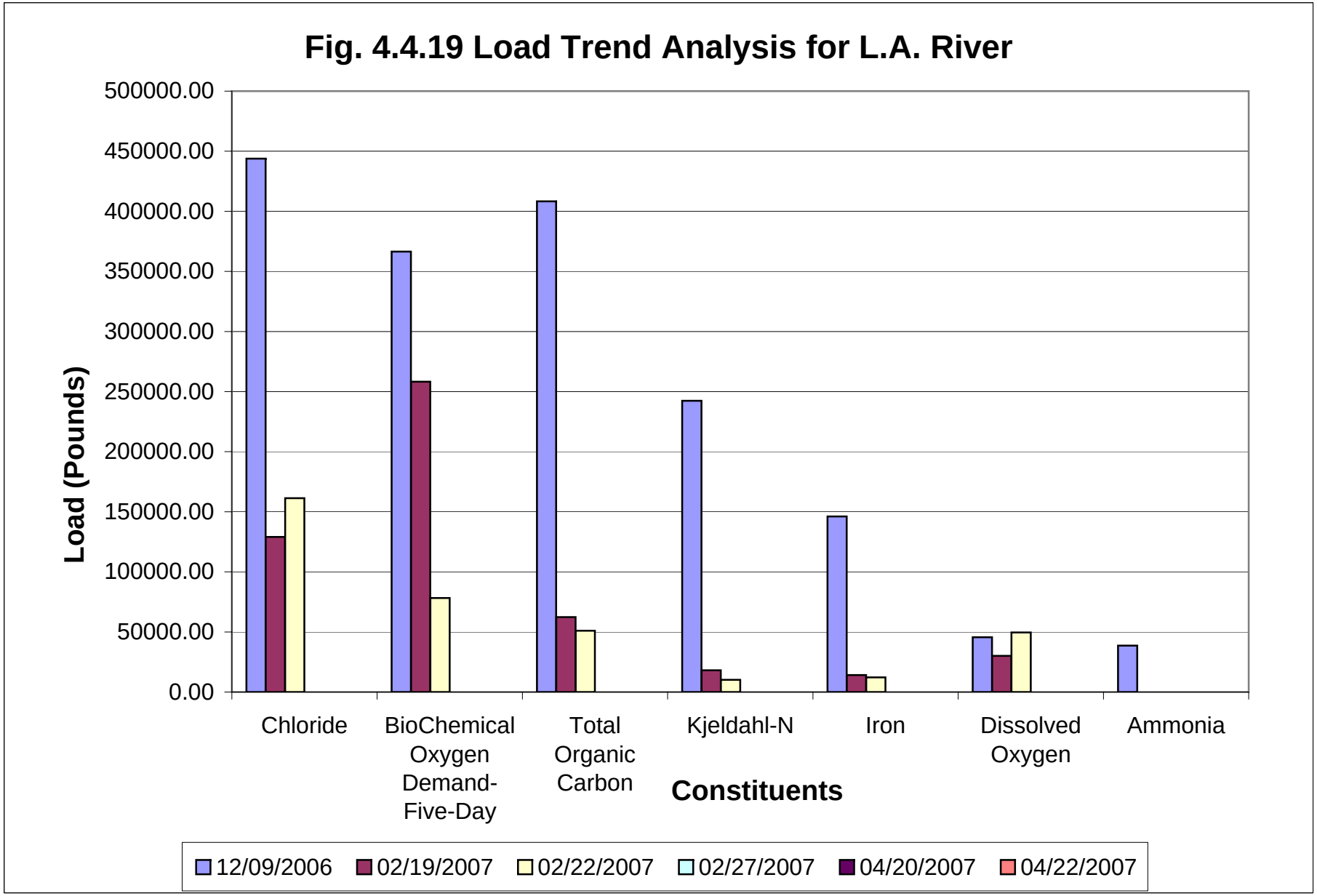


Fig. 4.4.19 Load Trend Analysis for L.A. River
Load (Pounds)
500000.00
450000.00
400000.00
350000.00
300000.00
250000.00
200000.00
150000.00
100000.00
50000.00
0.00
Chloride
BioChemical Oxygen Demand-Five-Day
Total Organic Carbon
Kjeldahl-N
Iron
Dissolved Oxygen
Ammonia
Constituents
12/09/2006
02/19/2007
02/22/2007
02/27/2007
04/20/2007
04/22/2007

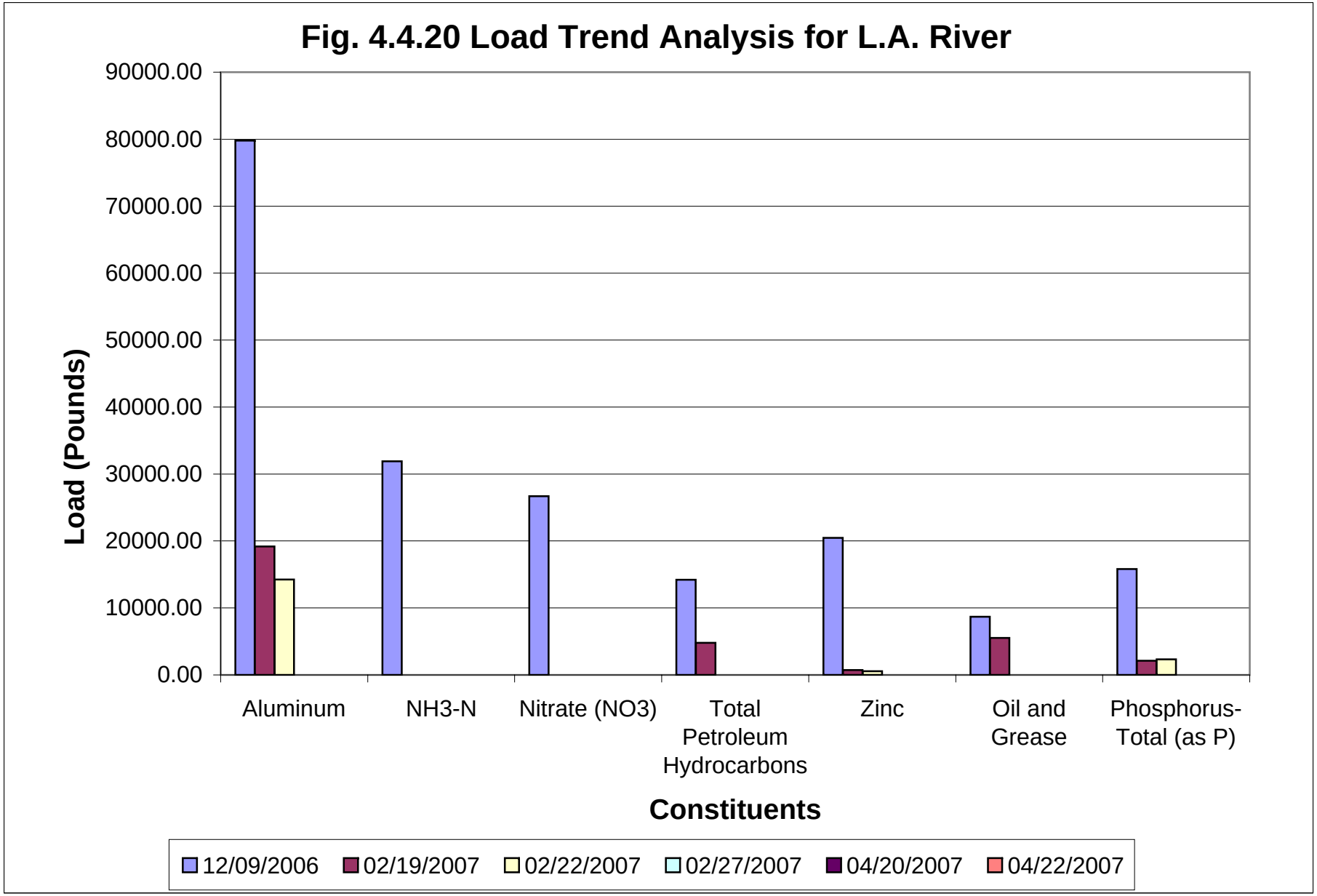


Fig. 4.4.20 Load Trend Analysis for L.A. River
90000.00
80000.00
70000.00
60000.00
50000.00
40000.00
30000.00
20000.00
10000.00
0.00
Load (Pounds)
Aluminum
NH3-N
Nitrate (NO3)
Total Petroleum Hydrocarbons
Zinc
Oil and Grease
Phosphorus-Total (as P)
Constituents
12/09/2006
02/19/2007
02/22/2007
02/27/2007
04/20/2007
04/22/2007

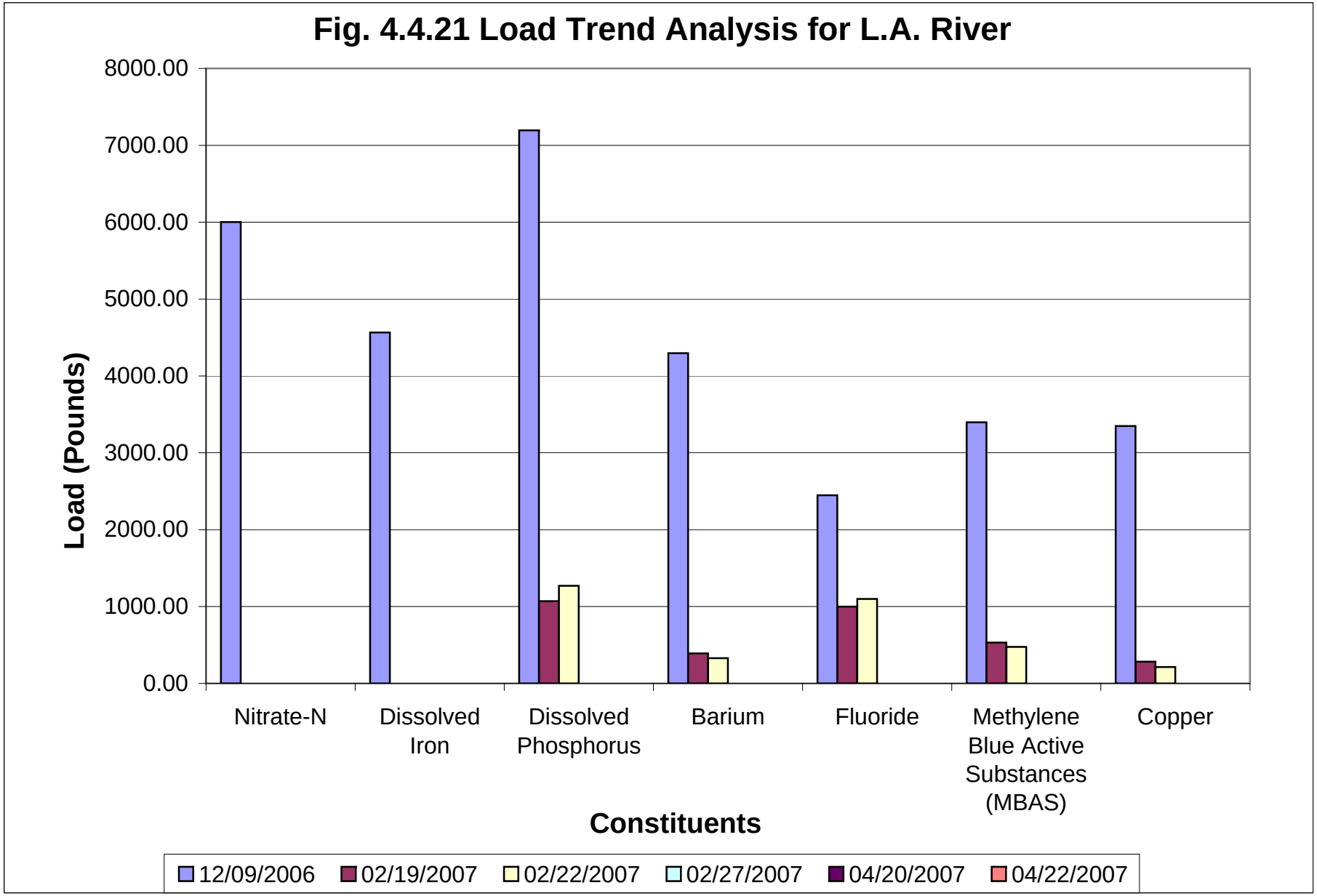


Fig. 4.4.21 Load Trend Analysis for L.A. River
8000.00
7000.00
6000.00
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
Load (Pounds)
Nitrate-N
Dissolved Iron
Dissolved Phosphorus
Barium
Fluoride
Methylene Blue Active Substances (MBAS)
Copper
Constituents
12/09/2006
02/19/2007
02/22/2007
02/27/2007
04/20/2007
04/22/2007

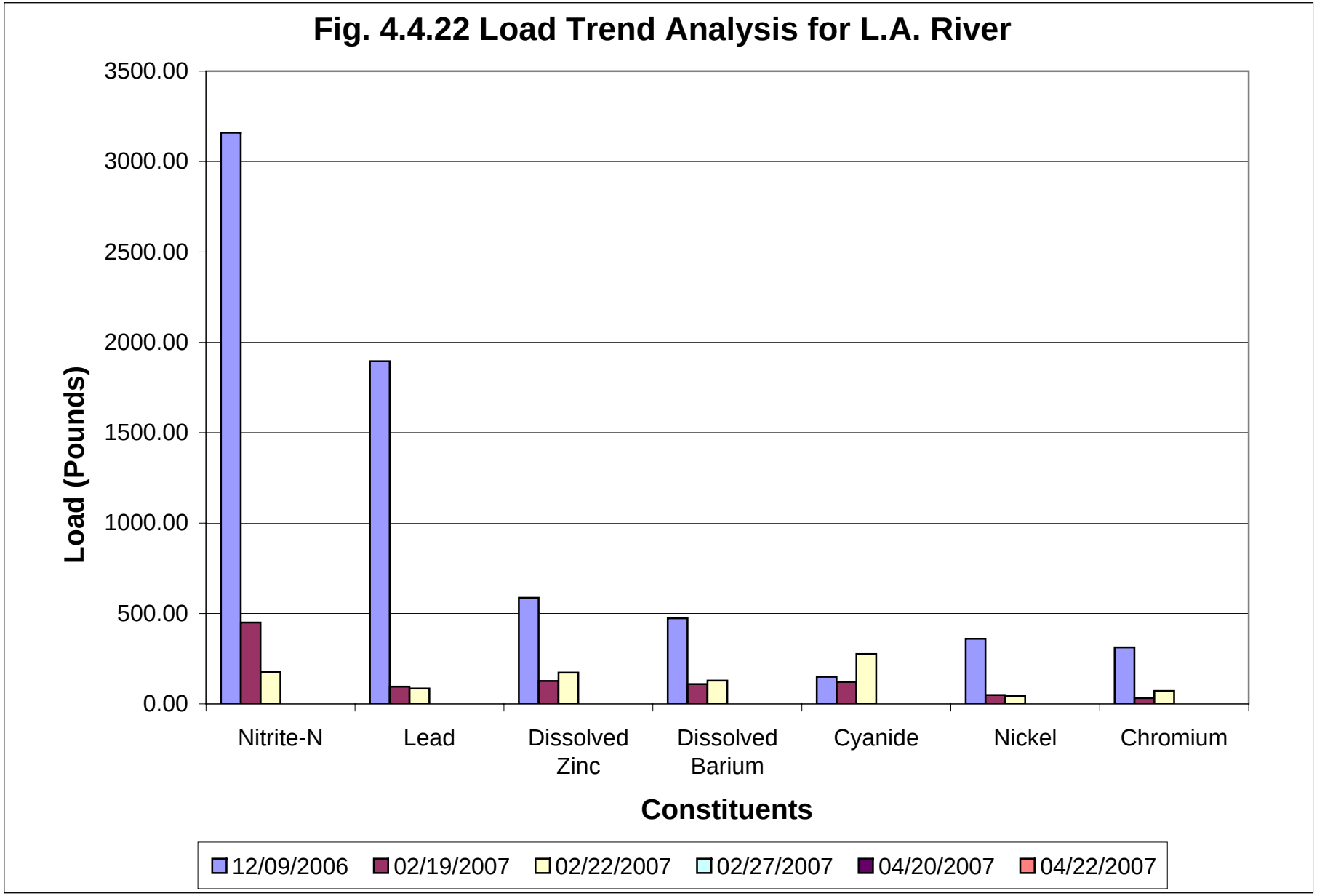


Fig. 4.4.22 Load Trend Analysis for L.A. River
3500.00
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
Load (Pounds)
Nitrite-N
Lead
Dissolved Zinc
Dissolved Barium
Cyanide
Nickel
Chromium
Constituents
12/09/2006
02/19/2007
02/22/2007
02/27/2007
04/20/2007
04/22/2007

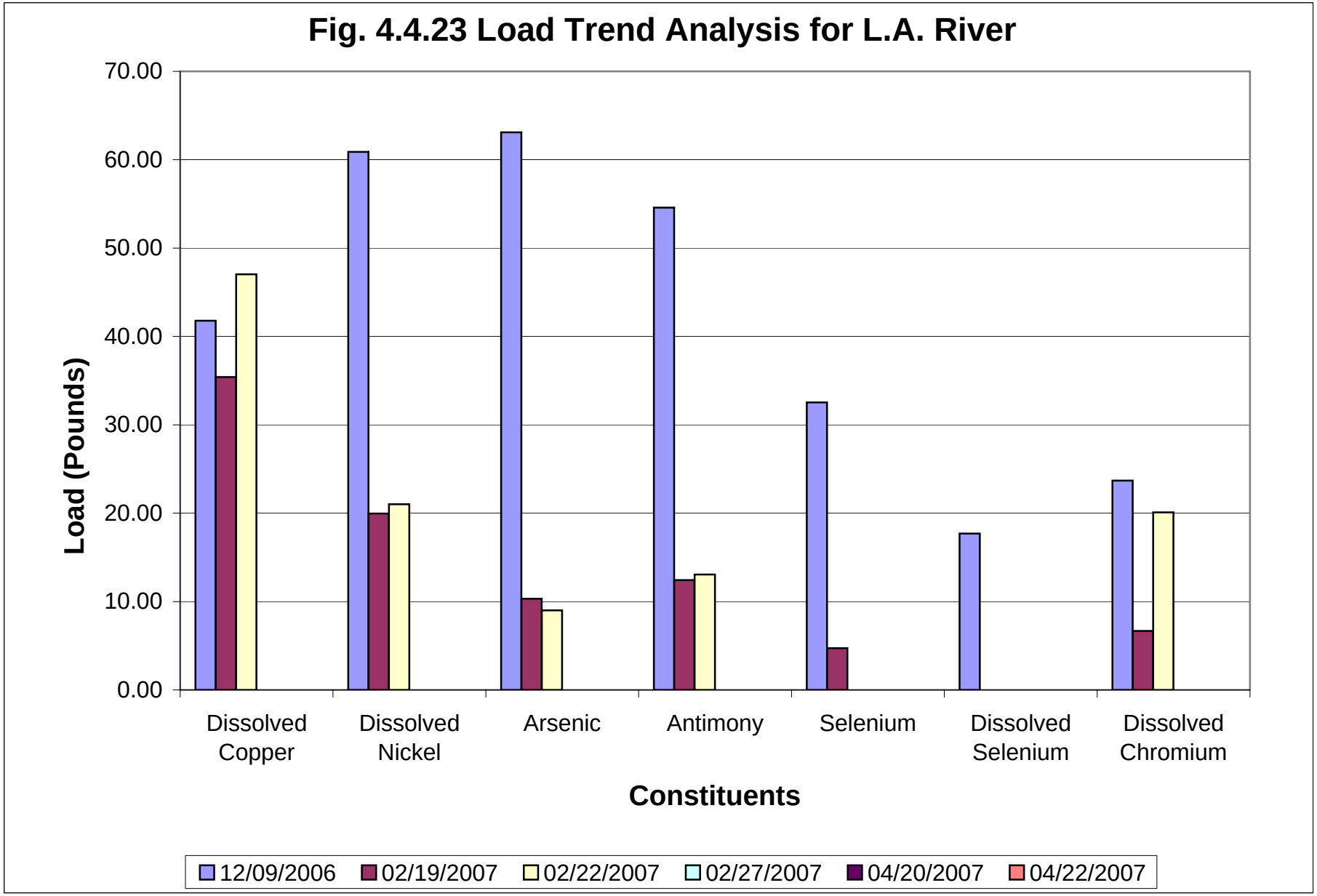


Fig. 4.4.23 Load Trend Analysis for L.A. River
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Load (Pounds)
Dissolved Copper
Dissolved Nickel
Arsenic
Antimony
Selenium
Dissolved Selenium
Dissolved Chromium
Constituents
12/09/2006
02/19/2007
02/22/2007
02/27/2007
04/20/2007
04/22/2007

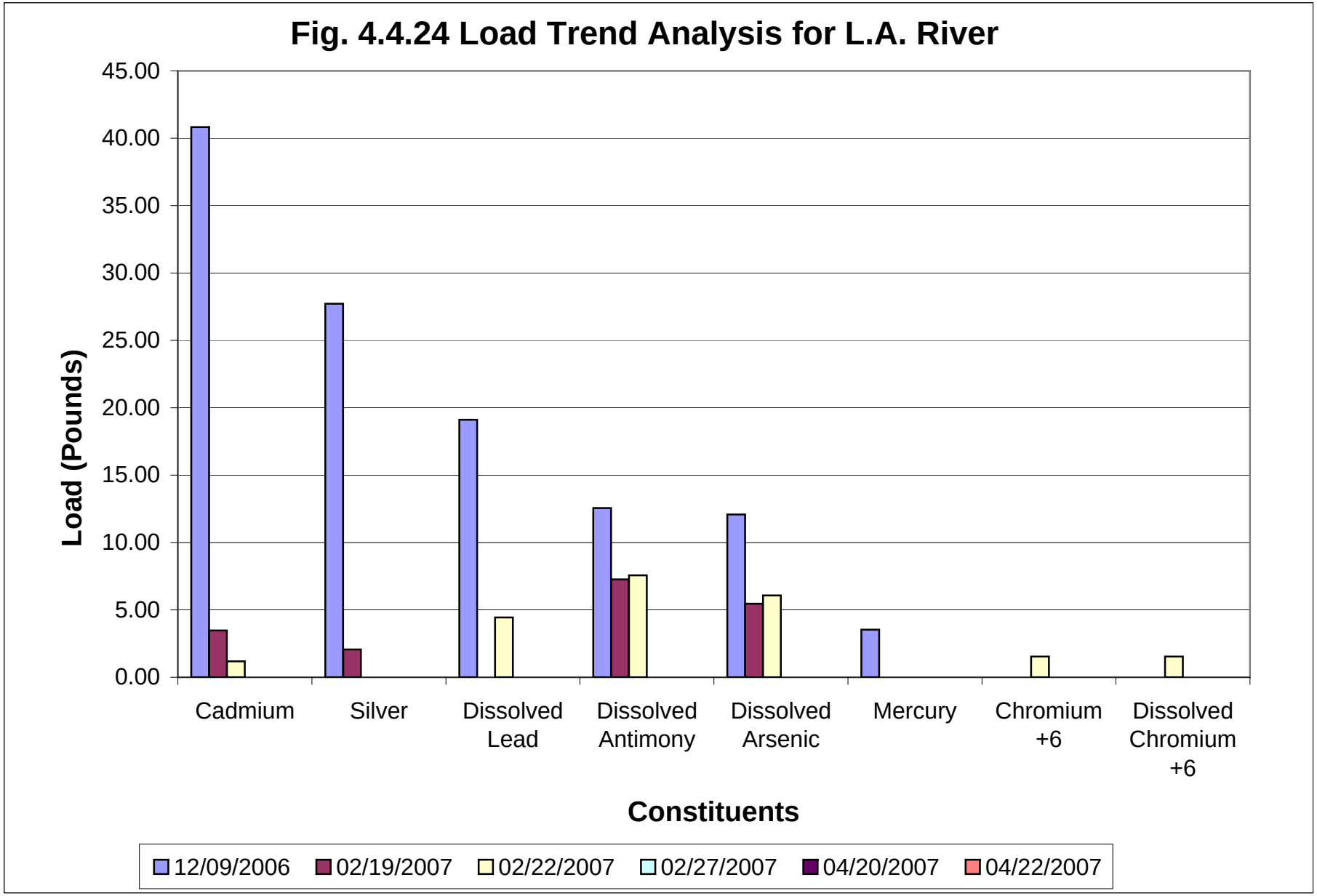


Fig. 4.4.24 Load Trend Analysis for L.A. River
Load (Pounds)
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
Cadmium
Silver
Dissolved Lead
Dissolved Antimony
Dissolved Arsenic
Mercury
Chromium +6
Dissolved Chromium +6
Constituents
12/09/2006
02/19/2007
02/22/2007
02/27/2007
04/20/2007
04/22/2007

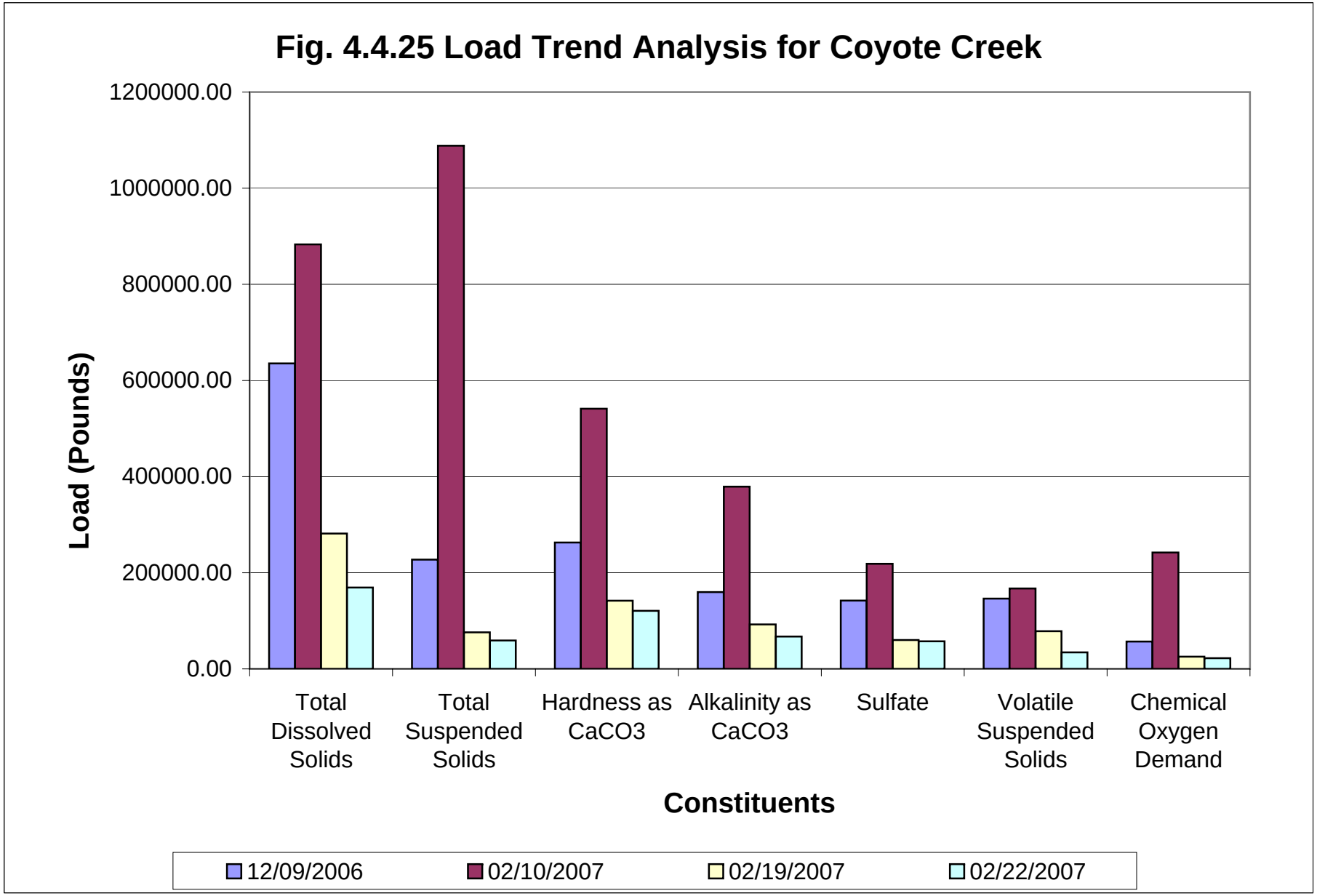


Fig. 4.4.25 Load Trend Analysis for Coyote Creek
1200000.00
1000000.00
800000.00
600000.00
400000.00
200000.00
0.00
Load (Pounds)
Total Dissolved Solids
Total Suspended Solids
Hardness as CaCO3
Alkalinity as CaCO3
Sulfate
Volatile Suspended Solids
Chemical Oxygen Demand
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007

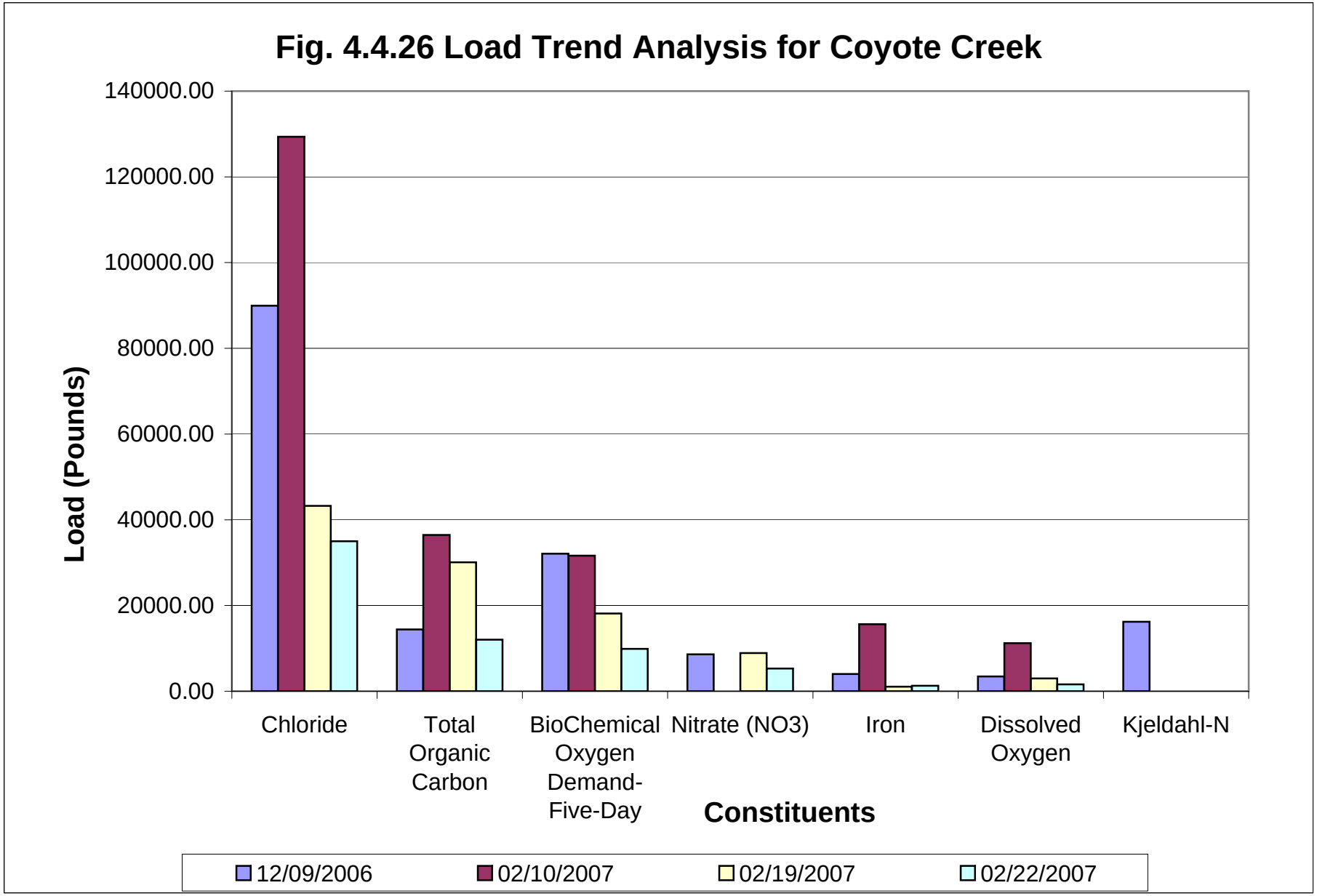


Fig. 4.4.26 Load Trend Analysis for Coyote Creek
140000.00
120000.00
100000.00
80000.00
60000.00
40000.00
20000.00
0.00
Load (Pounds)
Chloride
Total Organic Carbon
BioChemical Oxygen Demand-Five-Day
Nitrate (NO3)
Iron
Dissolved Oxygen
Kjeldahl-N
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007

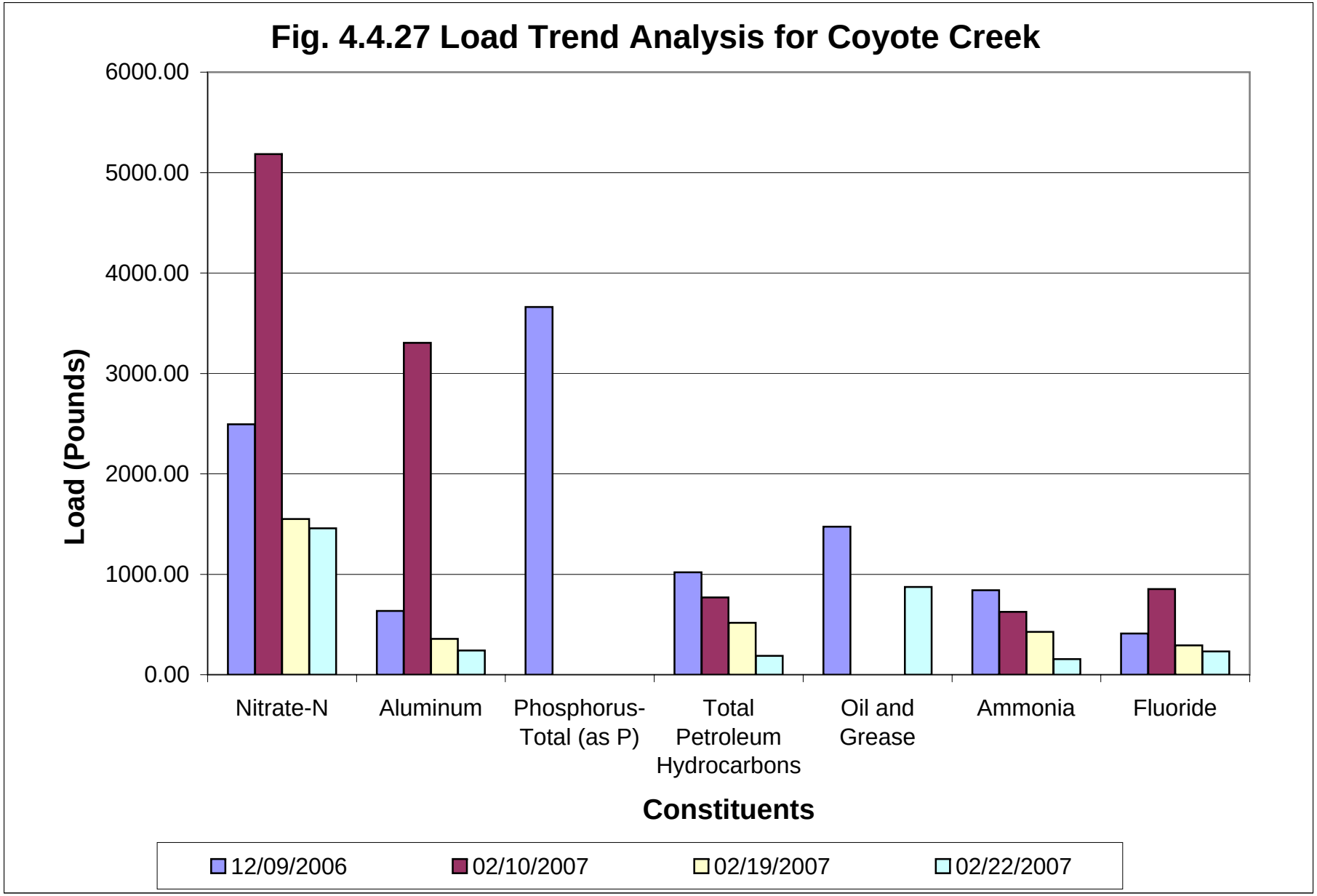


Fig. 4.4.27 Load Trend Analysis for Coyote Creek
6000.00
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
Load (Pounds)
Nitrate-N
Aluminum
Phosphorus-Total (as P)
Total Petroleum Hydrocarbons
Oil and Grease
Ammonia
Fluoride
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007

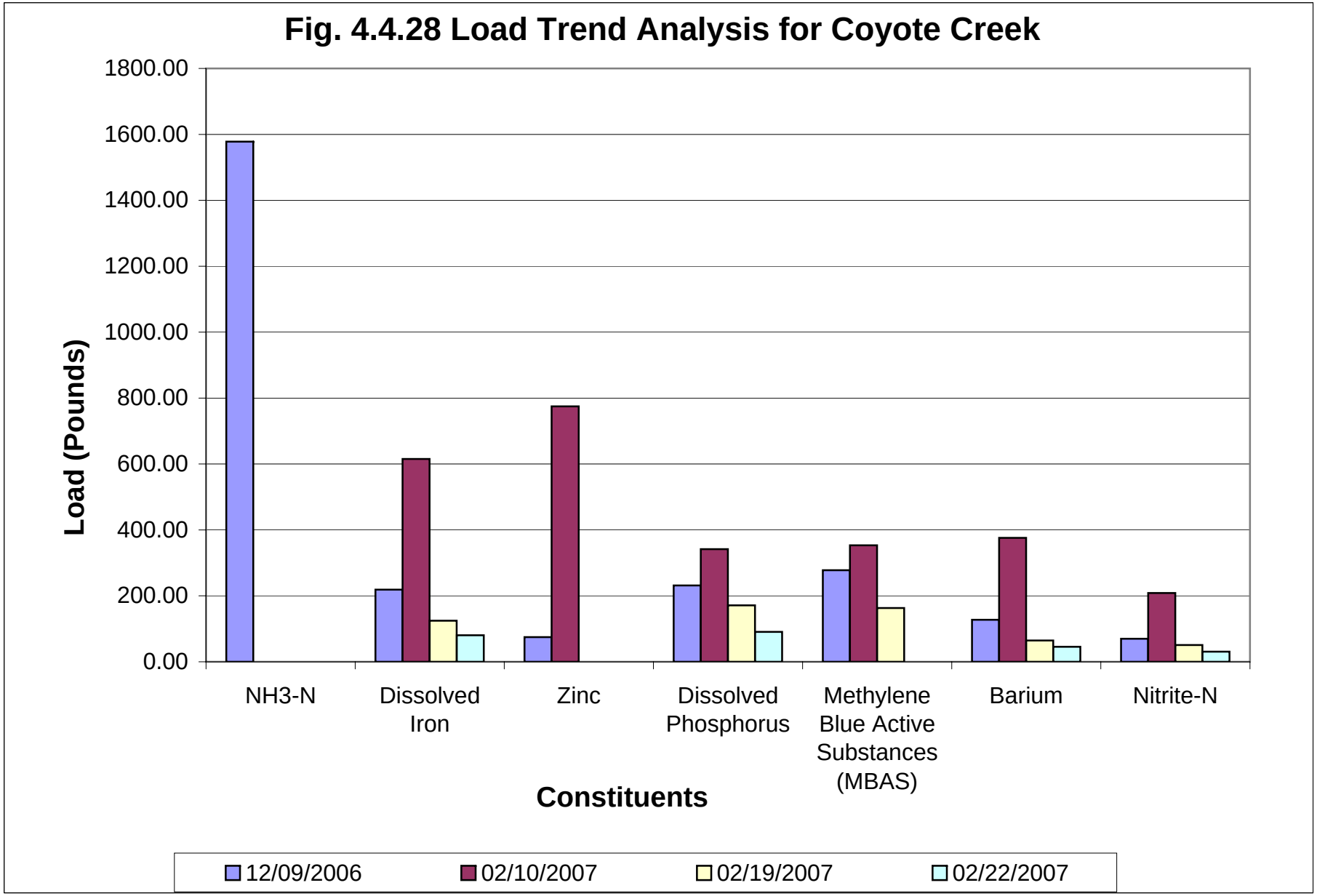


Fig. 4.4.28 Load Trend Analysis for Coyote Creek
1800.00
1600.00
1400.00
1200.00
1000.00
800.00
600.00
400.00
200.00
0.00
Load (Pounds)
NH3-N
Dissolved Iron
Zinc
Dissolved Phosphorus
Methylene Blue Active Substances (MBAS)
Barium
Nitrite-N
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007

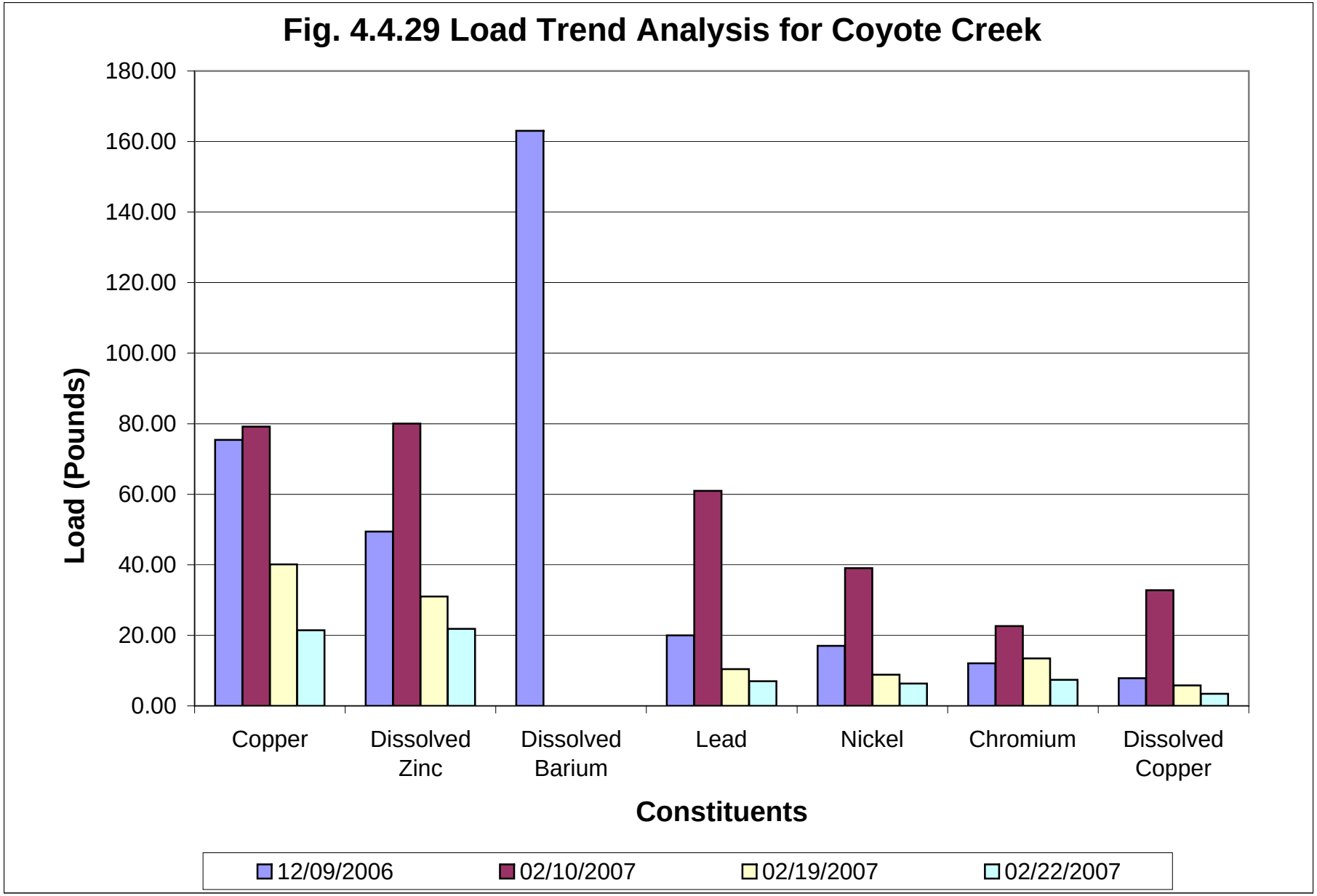


Fig. 4.4.29 Load Trend Analysis for Coyote Creek
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Load (Pounds)
Copper
Dissolved Zinc
Dissolved Barium
Lead
Nickel
Chromium
Dissolved Copper
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007

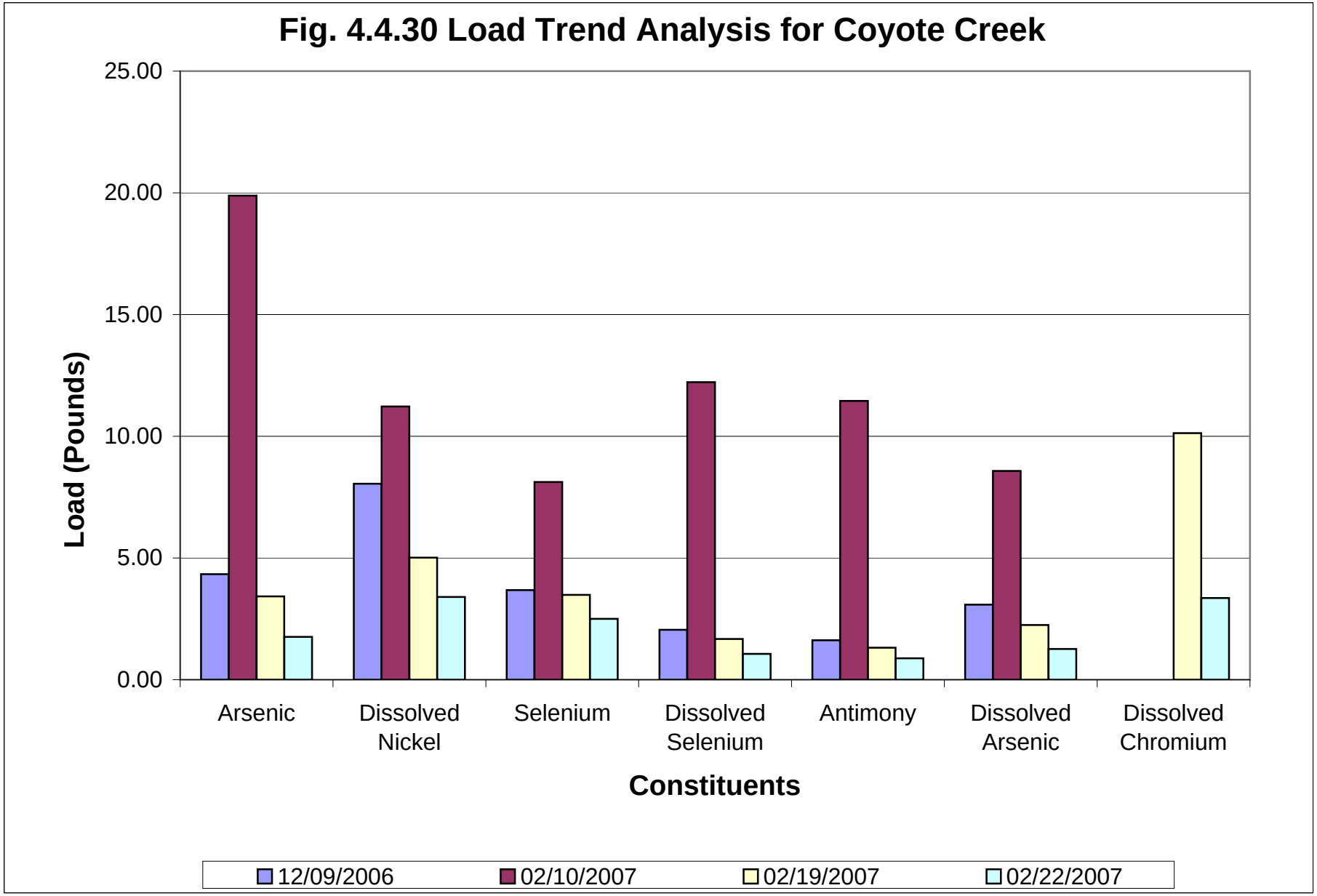


Fig. 4.4.30 Load Trend Analysis for Coyote Creek
25.00
20.00
15.00
10.00
5.00
0.00
Load (Pounds)
Arsenic
Dissolved Nickel
Selenium
Dissolved Selenium
Antimony
Dissolved Arsenic
Dissolved Chromium
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007

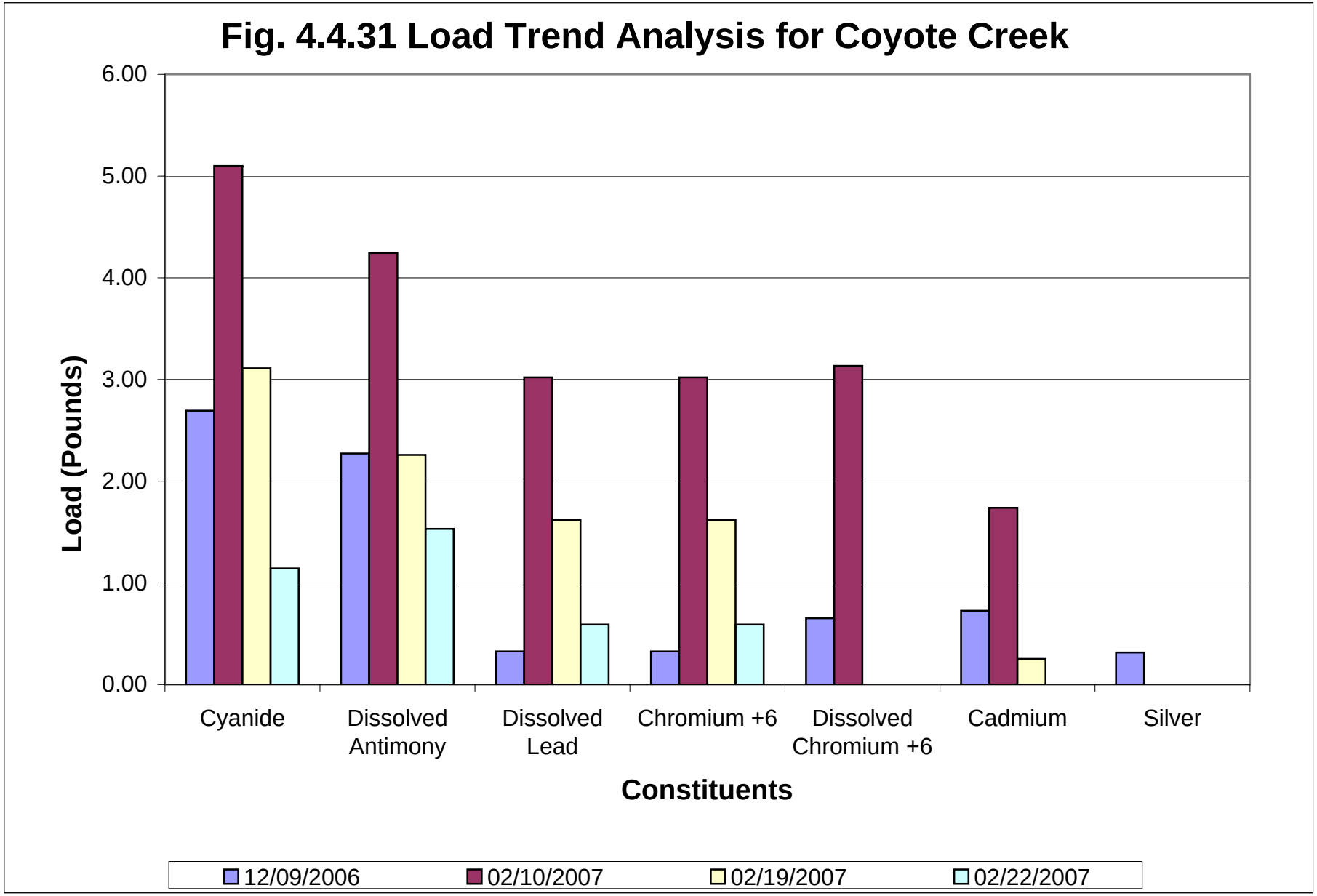


Fig. 4.4.31 Load Trend Analysis for Coyote Creek
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Load (Pounds)
Cyanide
Dissolved Antimony
Dissolved Lead
Chromium +6
Dissolved Chromium +6
Cadmium
Silver
Constituents
12/09/2006
02/10/2007
02/19/2007
02/22/2007

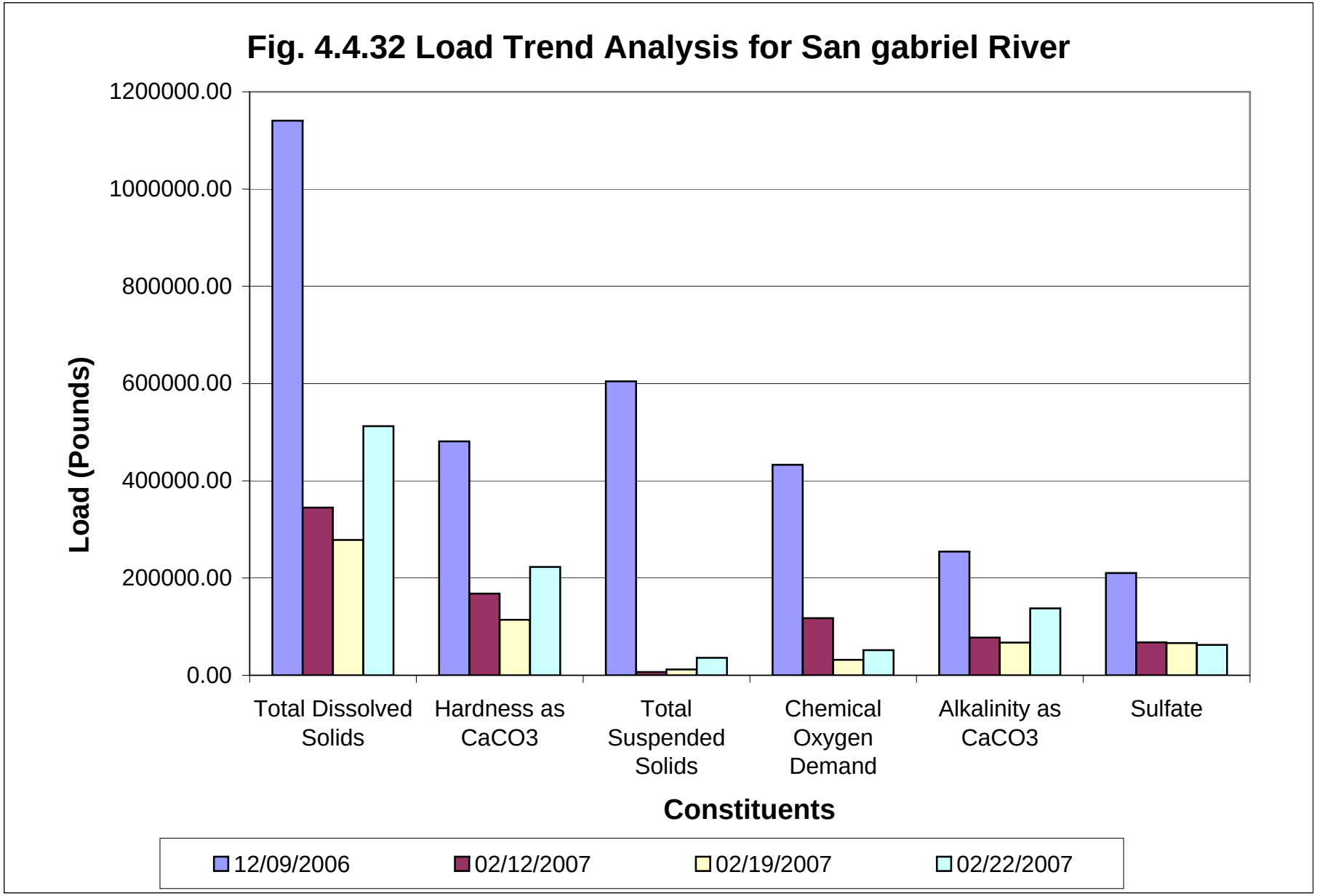


Fig. 4.4.32 Load Trend Analysis for San gabriel River
1200000.00
1000000.00
800000.00
600000.00
400000.00
200000.00
0.00
Load (Pounds)
Total Dissolved Solids
Hardness as CaCO3
Total Suspended Solids
Chemical Oxygen Demand
Alkalinity as CaCO3
Sulfate
Constituents
12/09/2006
02/12/2007
02/19/2007
02/22/2007

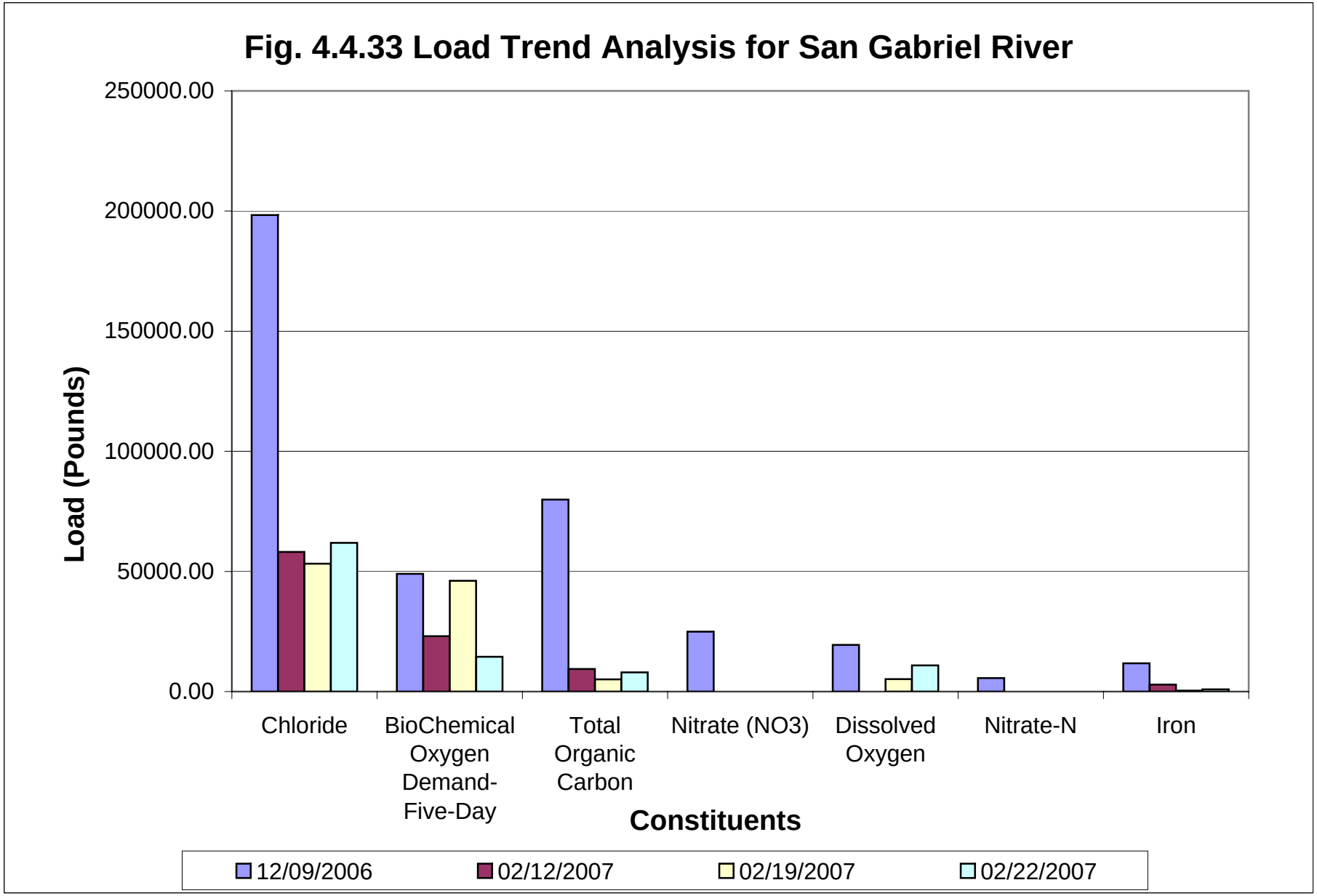


Fig. 4.4.33 Load Trend Analysis for San Gabriel River
250000.00
200000.00
150000.00
100000.00
50000.00
0.00
Load (Pounds)
Chloride
BioChemical Oxygen Demand-Five-Day
Total Organic Carbon
Nitrate (NO3)
Dissolved Oxygen
Nitrate-N
Iron
Constituents
12/09/2006
02/12/2007
02/19/2007
02/22/2007

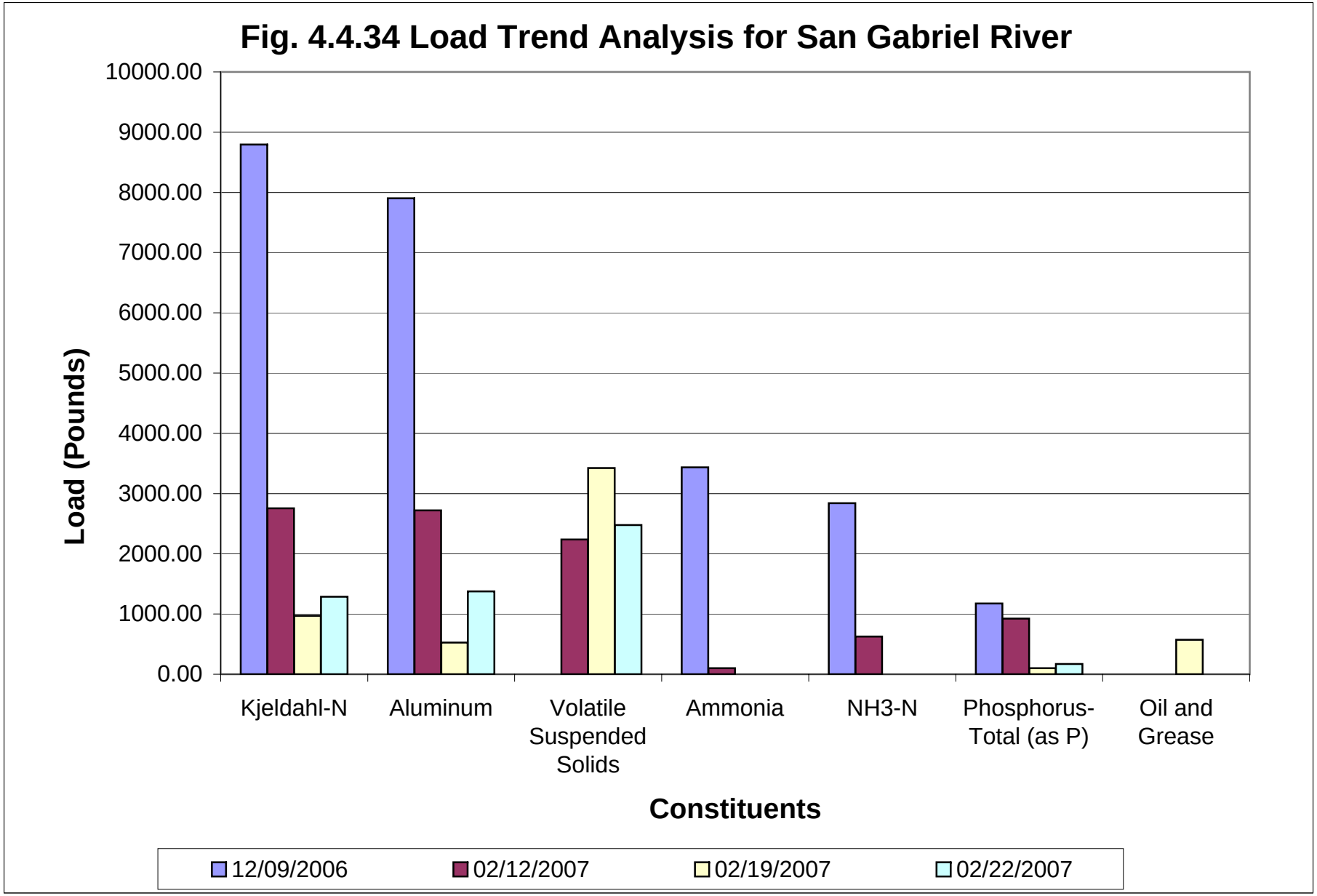


Fig. 4.4.34 Load Trend Analysis for San Gabriel River
10000.00
9000.00
8000.00
7000.00
6000.00
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
Load (Pounds)
Kjeldahl-N
Aluminum
Volatile Suspended Solids
Ammonia
NH3-N
Phosphorus-Total (as P)
Oil and Grease
Constituents
12/09/2006
02/12/2007
02/19/2007
02/22/2007

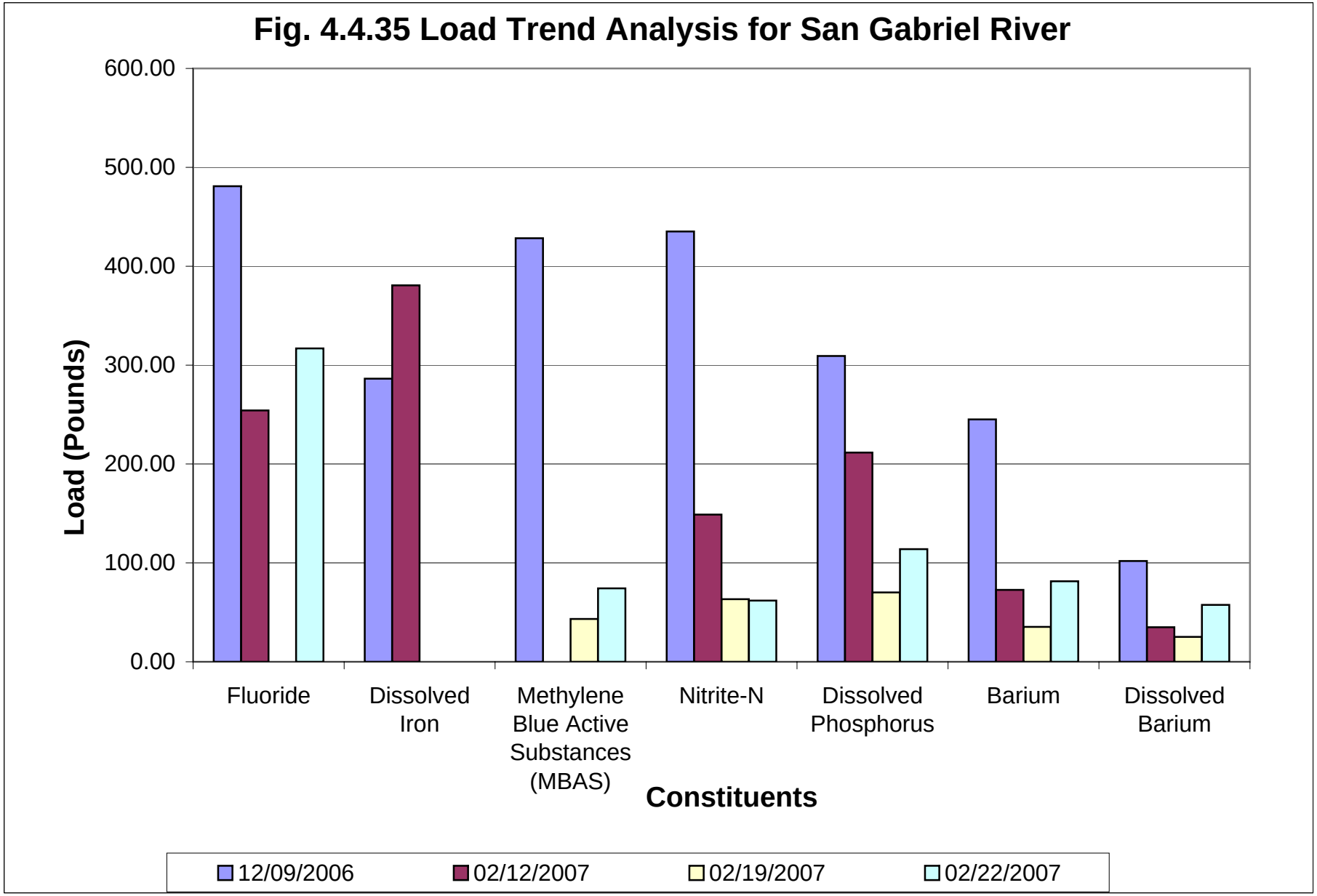


Fig. 4.4.35 Load Trend Analysis for San Gabriel River
600.00
500.00
400.00
300.00
200.00
100.00
0.00
Load (Pounds)
Fluoride
Dissolved Iron
Methylene Blue Active Substances (MBAS)
Nitrite-N
Dissolved Phosphorus
Barium
Dissolved Barium
Constituents
12/09/2006
02/12/2007
02/19/2007
02/22/2007

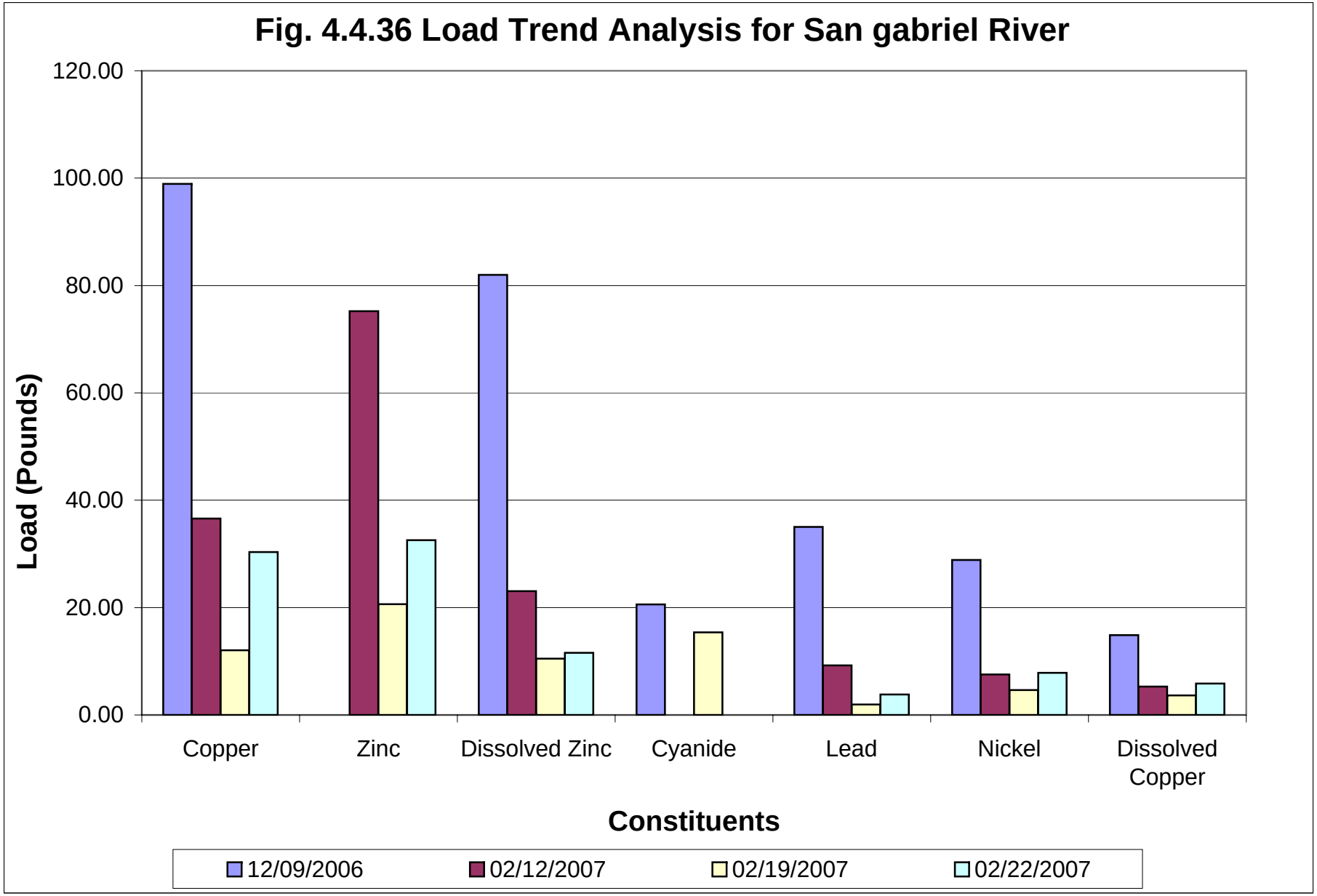


Fig. 4.4.36 Load Trend Analysis for San gabriel River
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Load (Pounds)
Copper
Zinc
Dissolved Zinc
Cyanide
Lead
Nickel
Dissolved Copper
Constituents
12/09/2006
02/12/2007
02/19/2007
02/22/2007

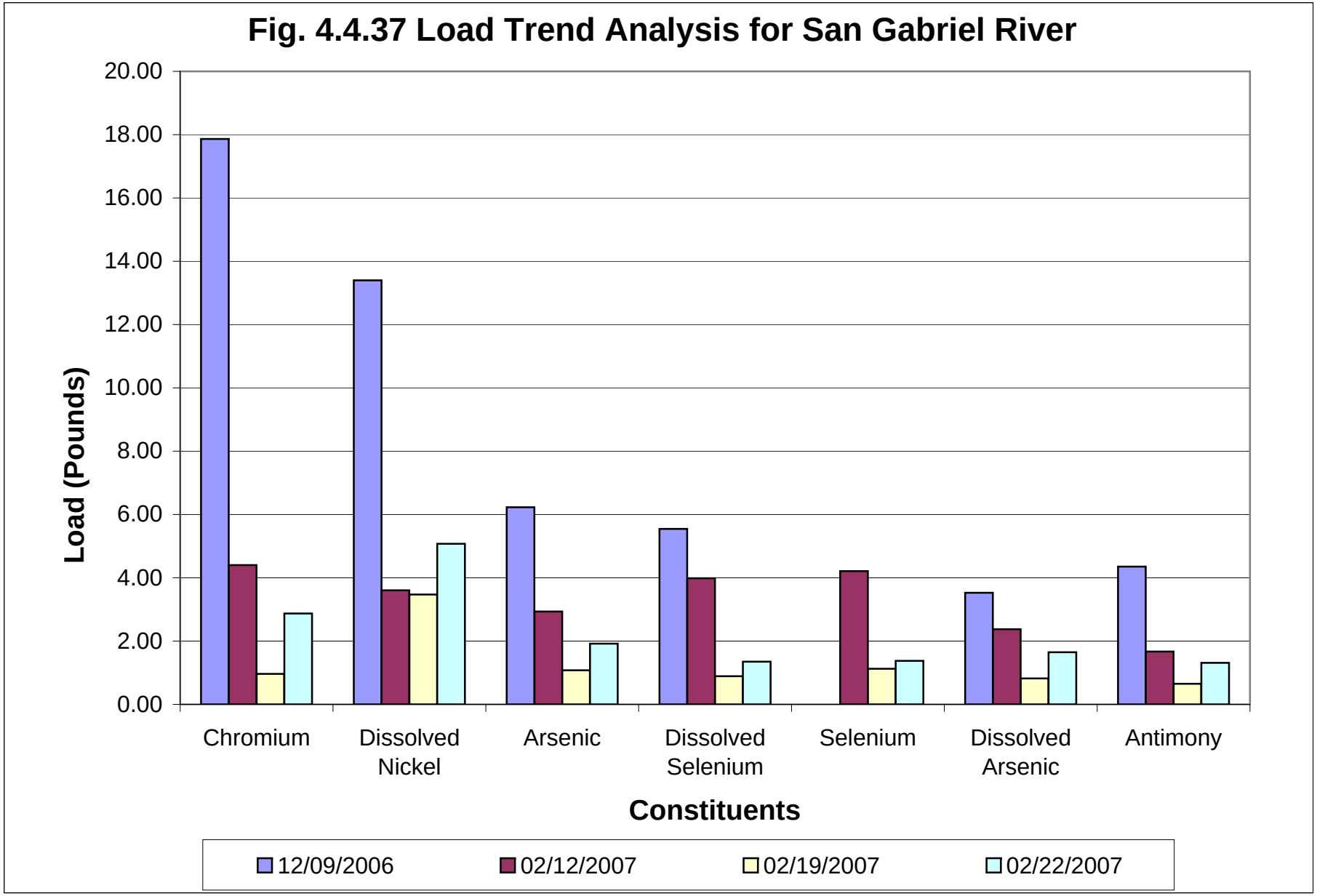


Fig. 4.4.37 Load Trend Analysis for San Gabriel River
Load (Pounds)
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Chromium
Dissolved Nickel
Arsenic
Dissolved Selenium
Selenium
Dissolved Arsenic
Antimony
Constituents
12/09/2006
02/12/2007
02/19/2007
02/22/2007

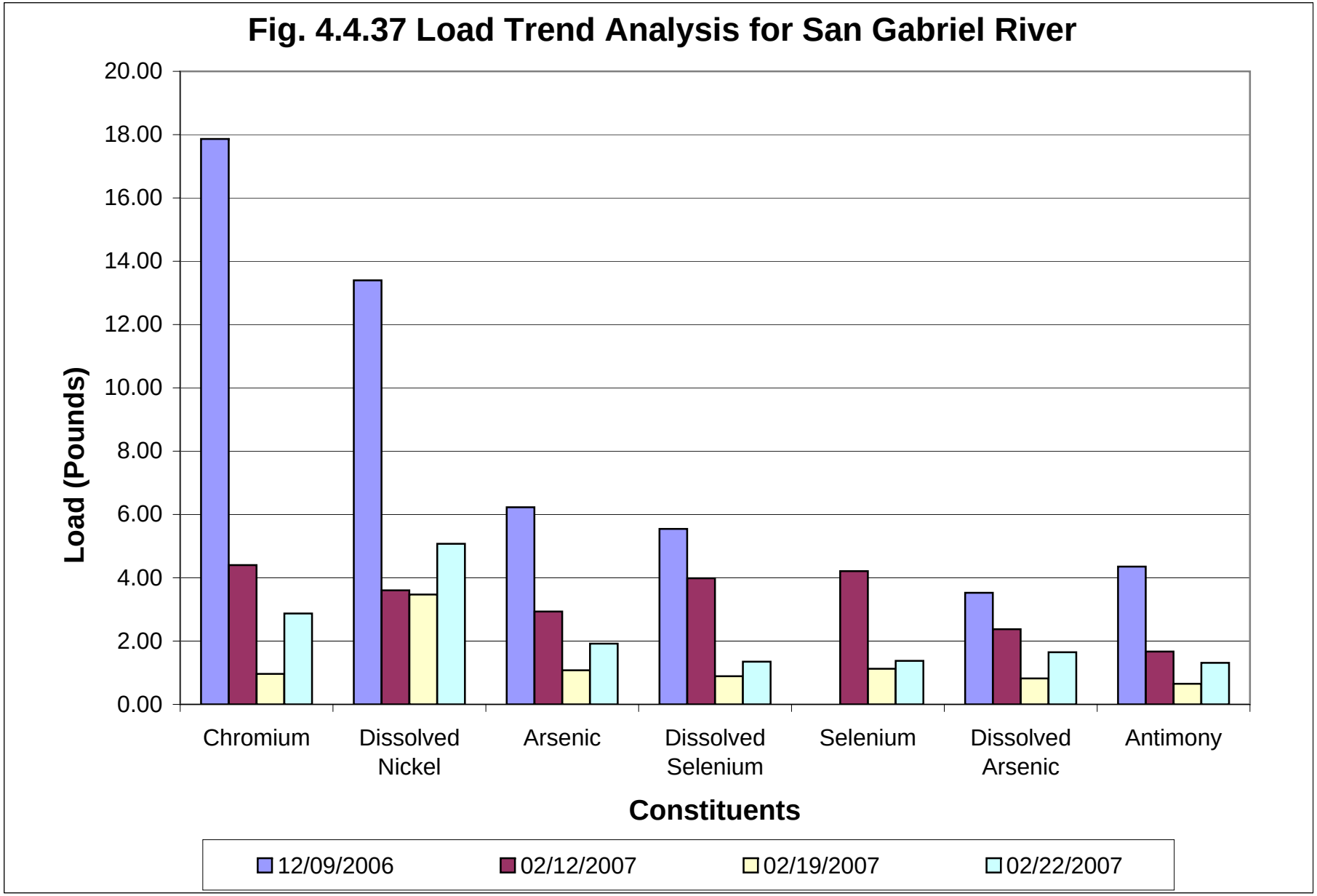


Fig. 4.4.37 Load Trend Analysis for San Gabriel River
Load (Pounds)
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Chromium
Dissolved Nickel
Arsenic
Dissolved Selenium
Selenium
Dissolved Arsenic
Antimony
Constituents
12/09/2006
02/12/2007
02/19/2007
02/22/2007

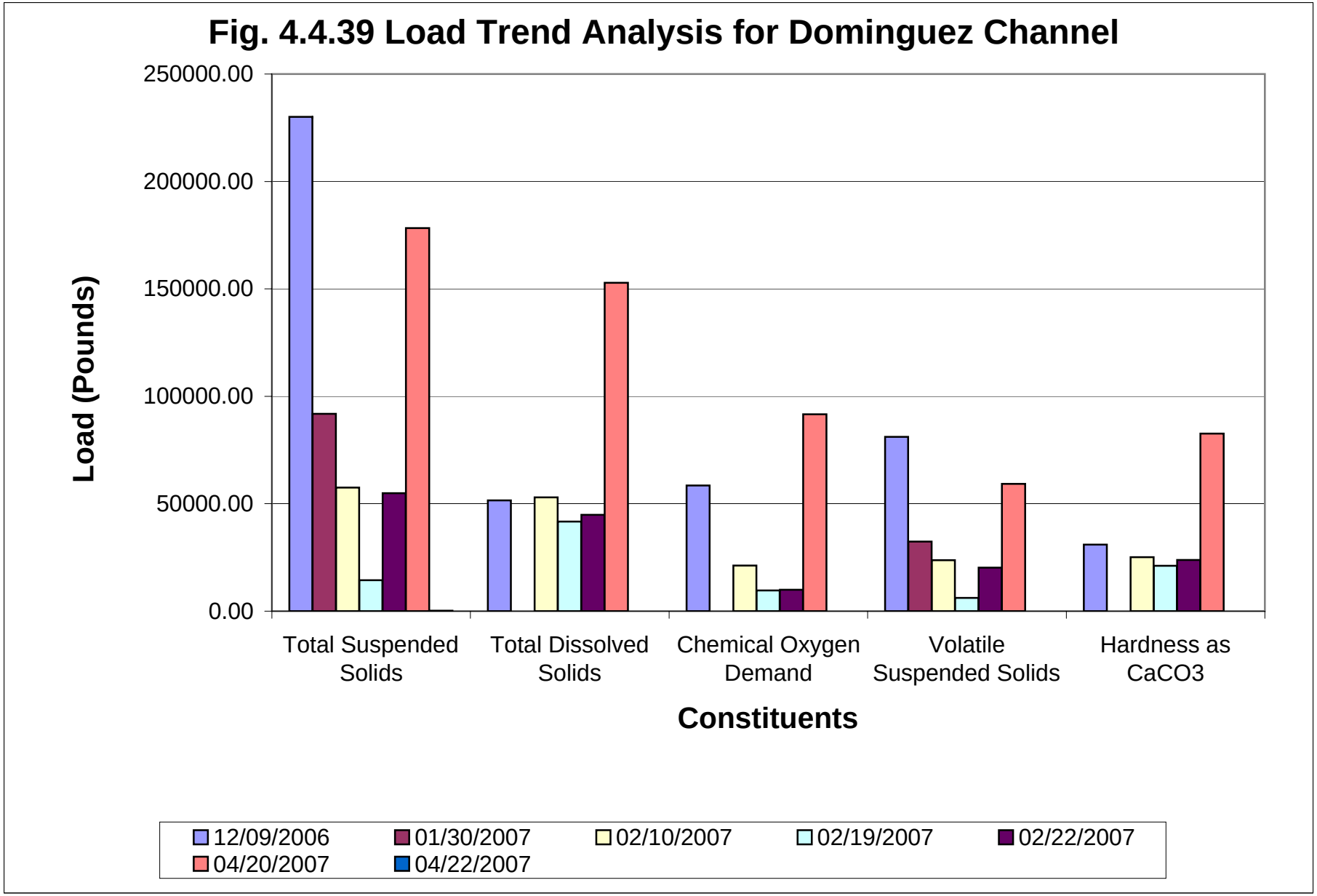


Fig. 4.4.39 Load Trend Analysis for Dominguez Channel
Load (Pounds)
250000.00
200000.00
150000.00
100000.00
50000.00
0.00
Total Suspended Solids
Total Dissolved Solids
Chemical Oxygen Demand
Volatile Suspended Solids
Hardness as CaCO3
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

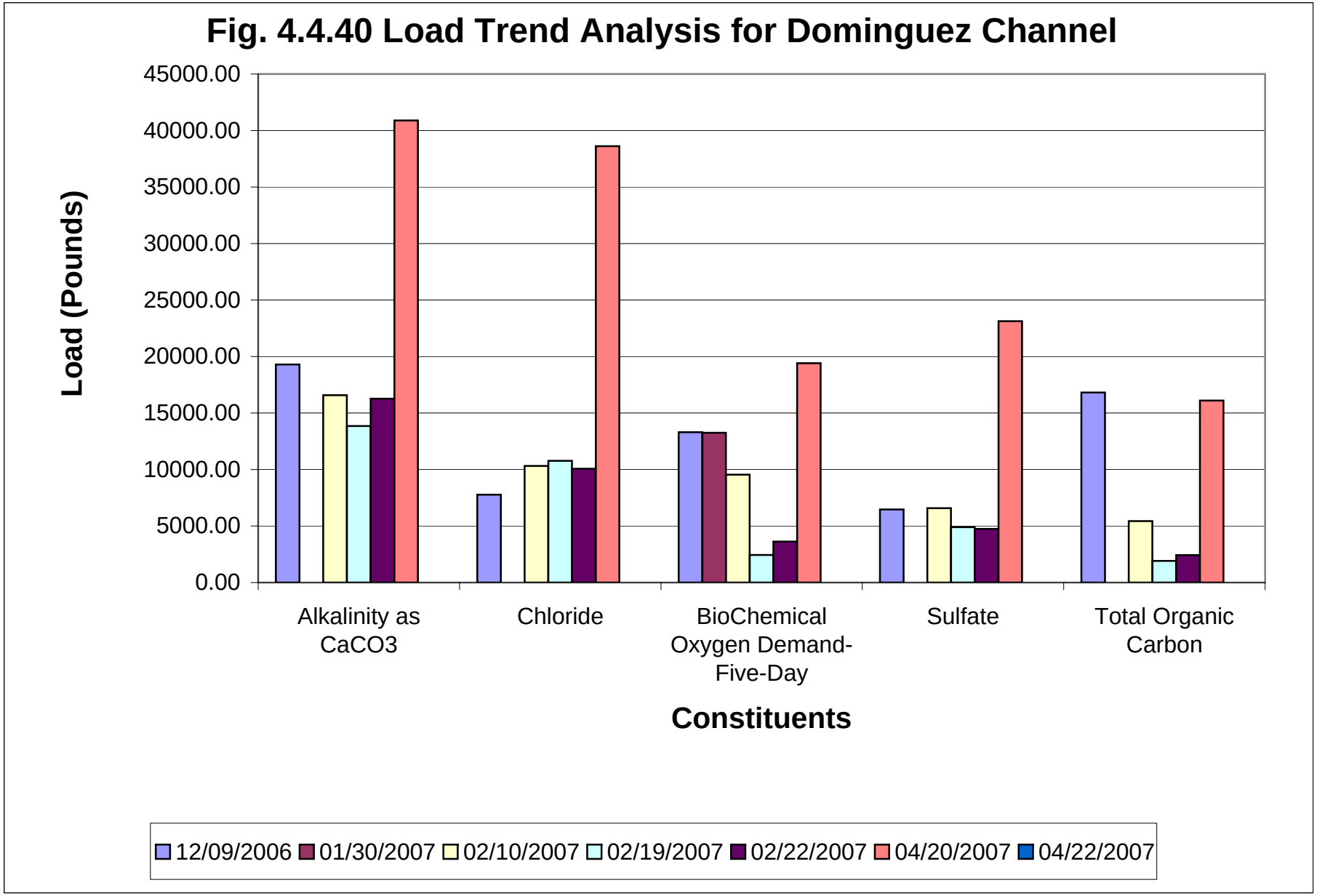


Fig. 4.4.40 Load Trend Analysis for Dominguez Channel
Load (Pounds)
45000.00
40000.00
35000.00
30000.00
25000.00
20000.00
15000.00
10000.00
5000.00
0.00
Alkalinity as CaCO3
Chloride
BioChemical Oxygen Demand-Five-Day
Sulfate
Total Organic Carbon
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

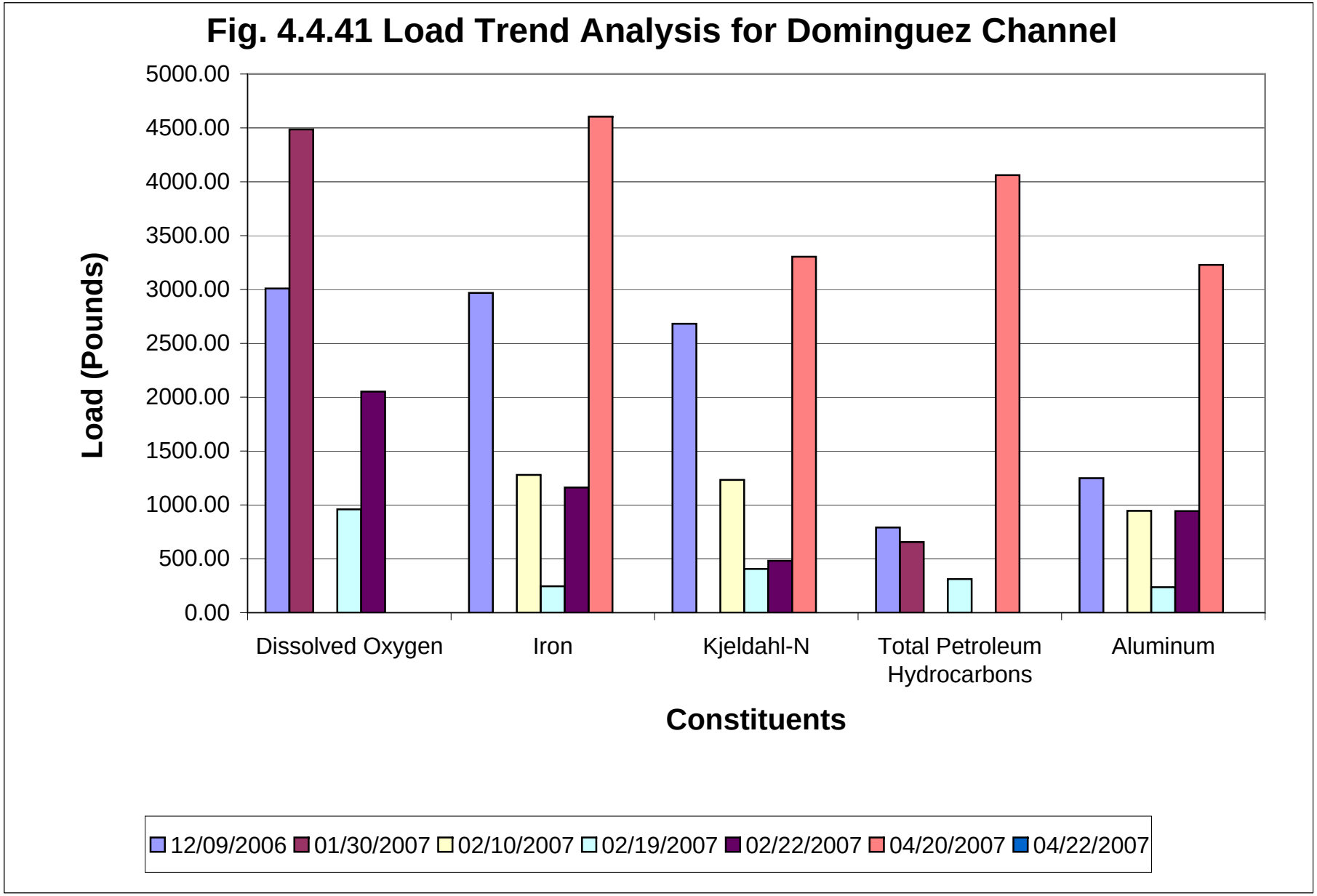


Fig. 4.4.41 Load Trend Analysis for Dominguez Channel
Load (Pounds)
5000.00
4500.00
4000.00
3500.00
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
Dissolved Oxygen
Iron
Kjeldahl-N
Total Petroleum Hydrocarbons
Aluminum
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

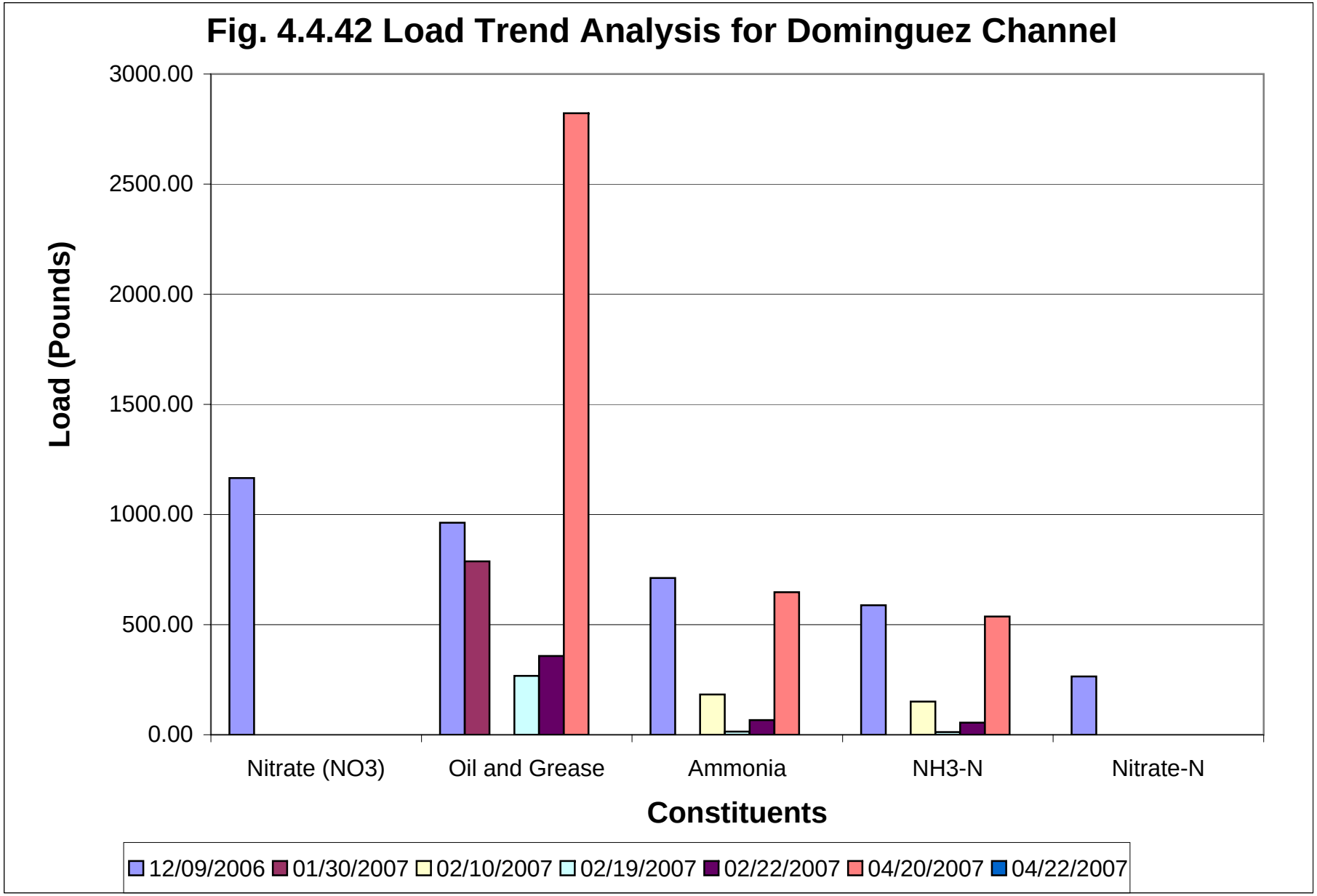


Fig. 4.4.42 Load Trend Analysis for Dominguez Channel
Load (Pounds)
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
Nitrate (NO3)
Oil and Grease
Ammonia
NH3-N
Nitrate-N
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

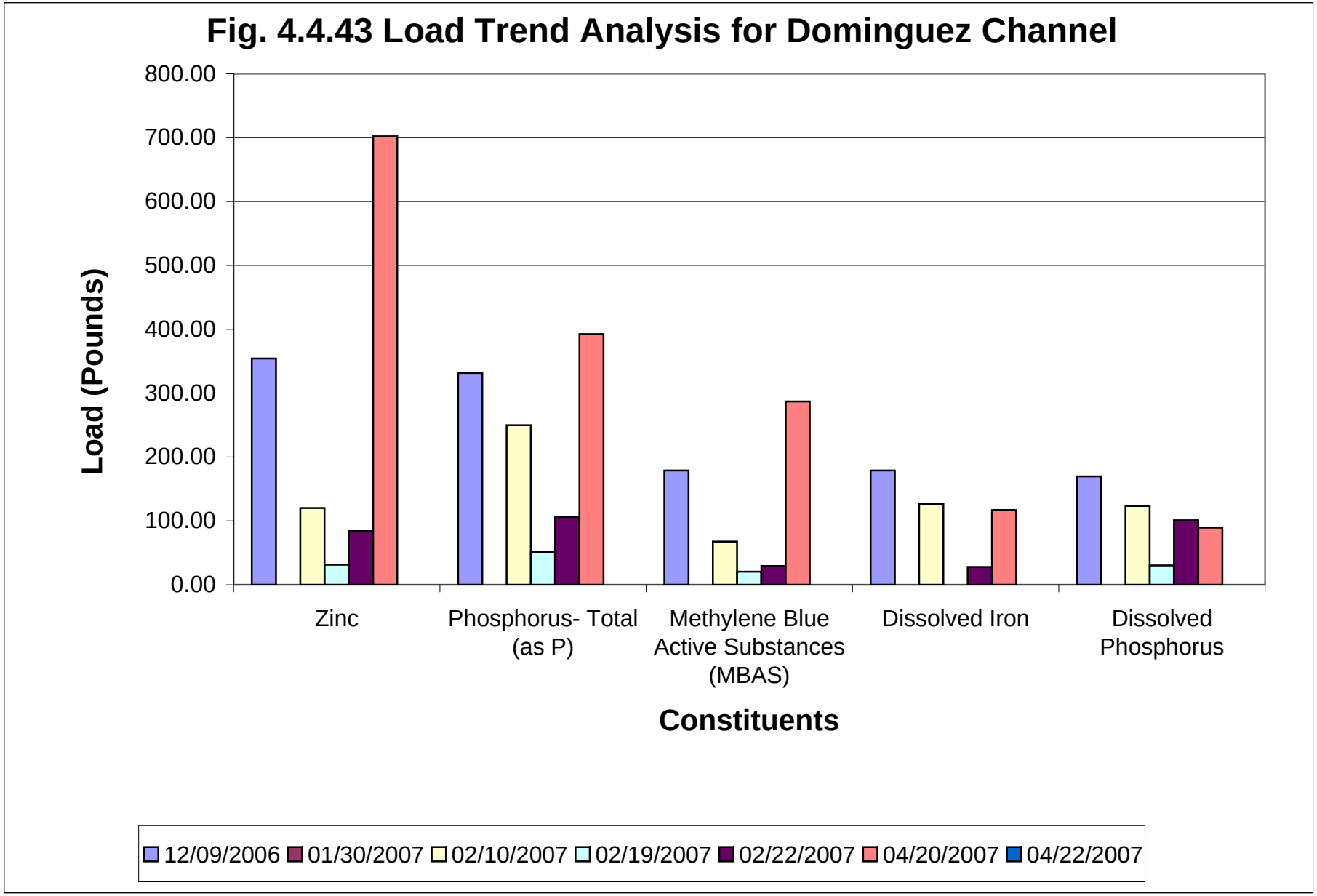


Fig. 4.4.43 Load Trend Analysis for Dominguez Channel
Load (Pounds)
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
Zinc
Phosphorus- Total (as P)
Methylene Blue Active Substances (MBAS)
Dissolved Iron
Dissolved Phosphorus
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

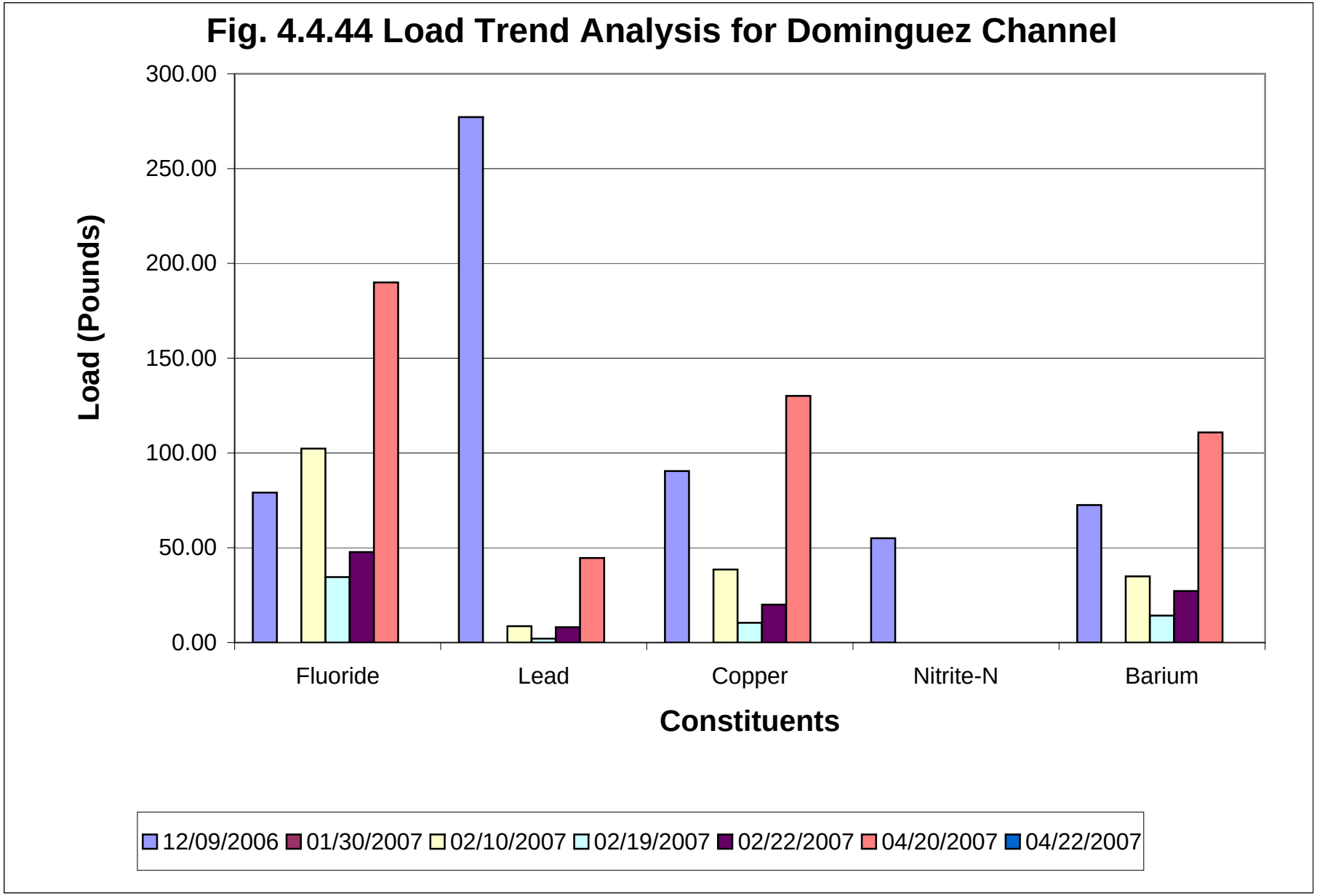


Fig. 4.4.44 Load Trend Analysis for Dominguez Channel
Load (Pounds)
300.00
250.00
200.00
150.00
100.00
50.00
0.00
Fluoride
Lead
Copper
Nitrite-N
Barium
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

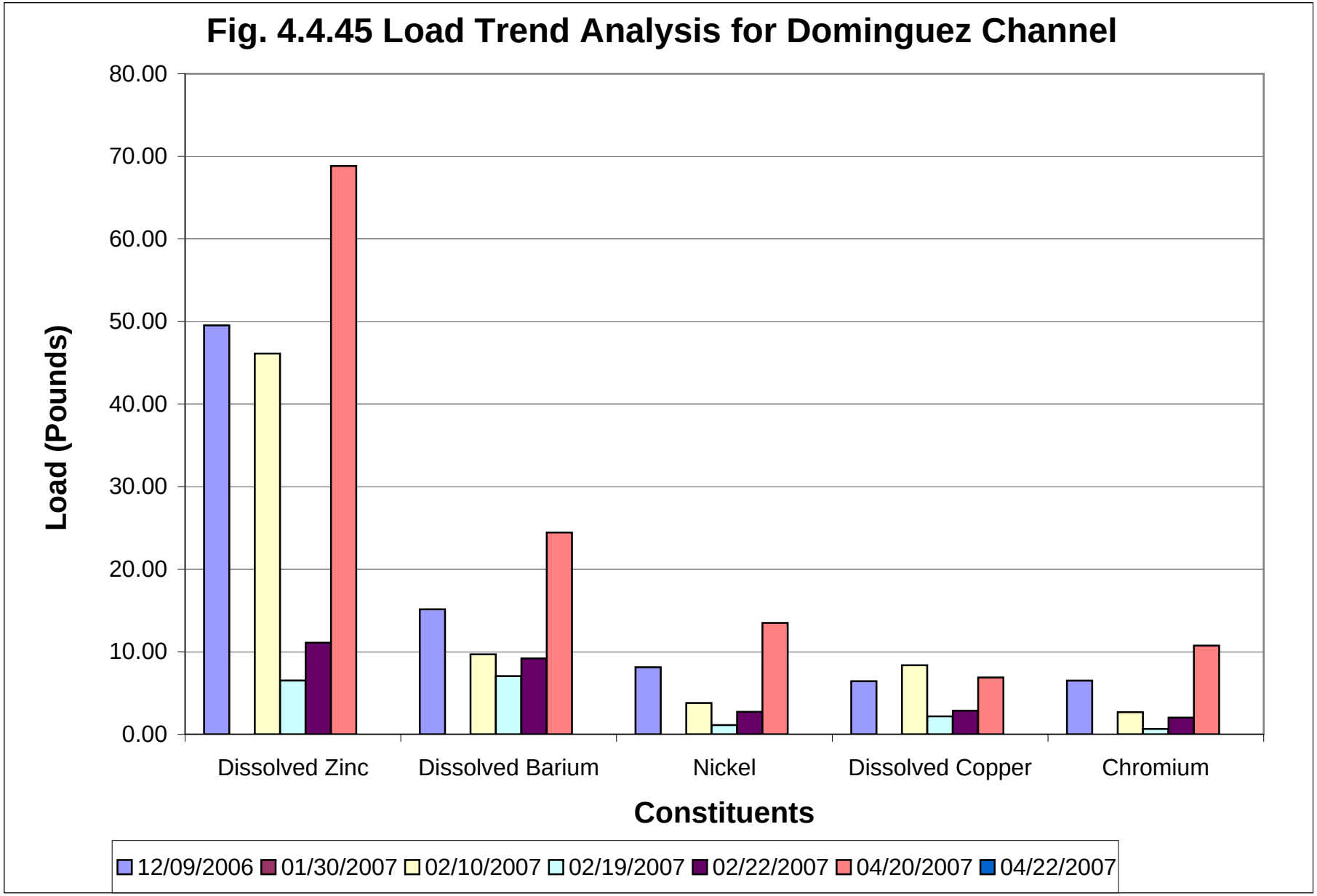


Fig. 4.4.45 Load Trend Analysis for Dominguez Channel
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Load (Pounds)
Dissolved Zinc
Dissolved Barium
Nickel
Dissolved Copper
Chromium
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

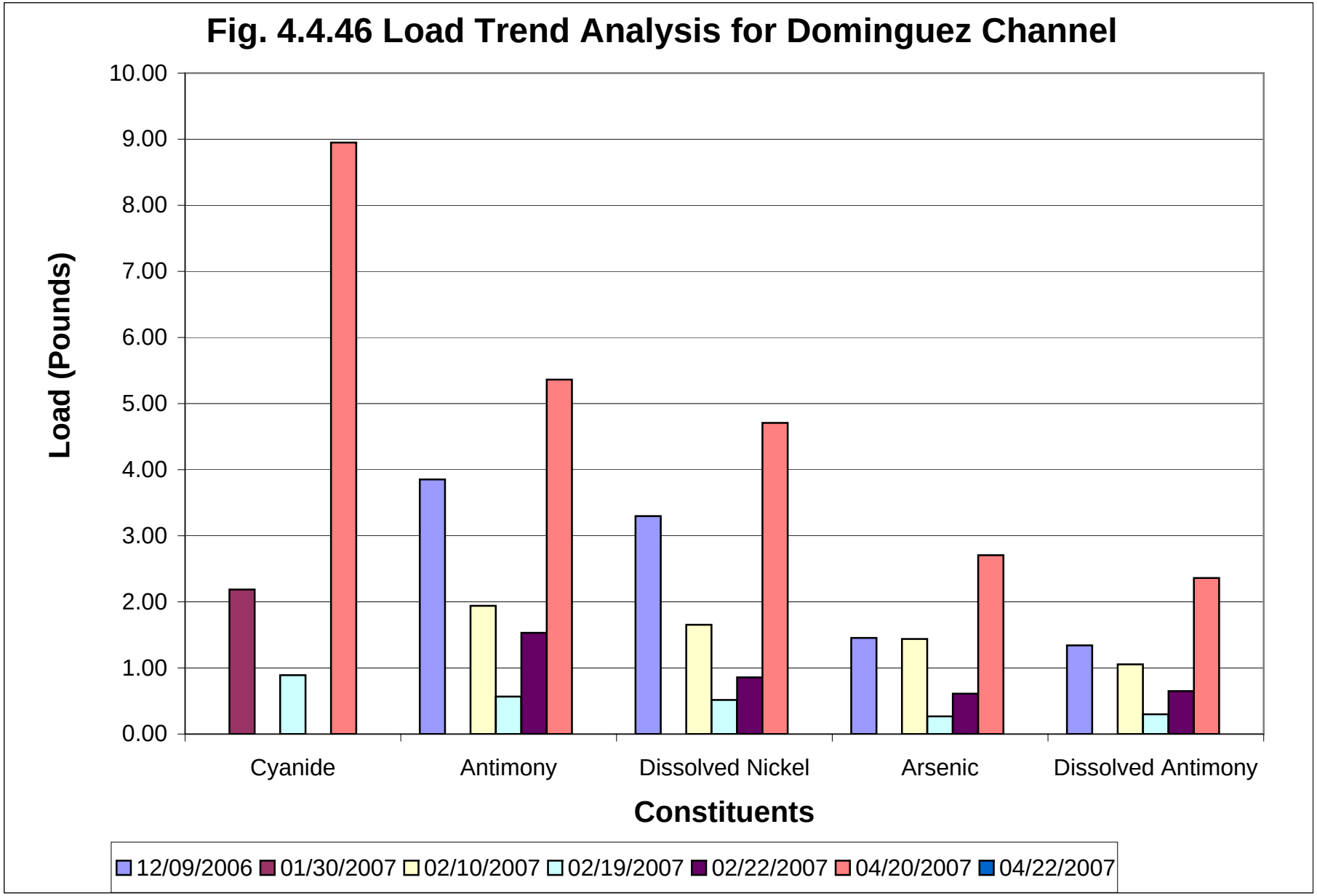


Fig. 4.4.46 Load Trend Analysis for Dominguez Channel
Load (Pounds)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Cyanide
Antimony
Dissolved Nickel
Arsenic
Dissolved Antimony
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

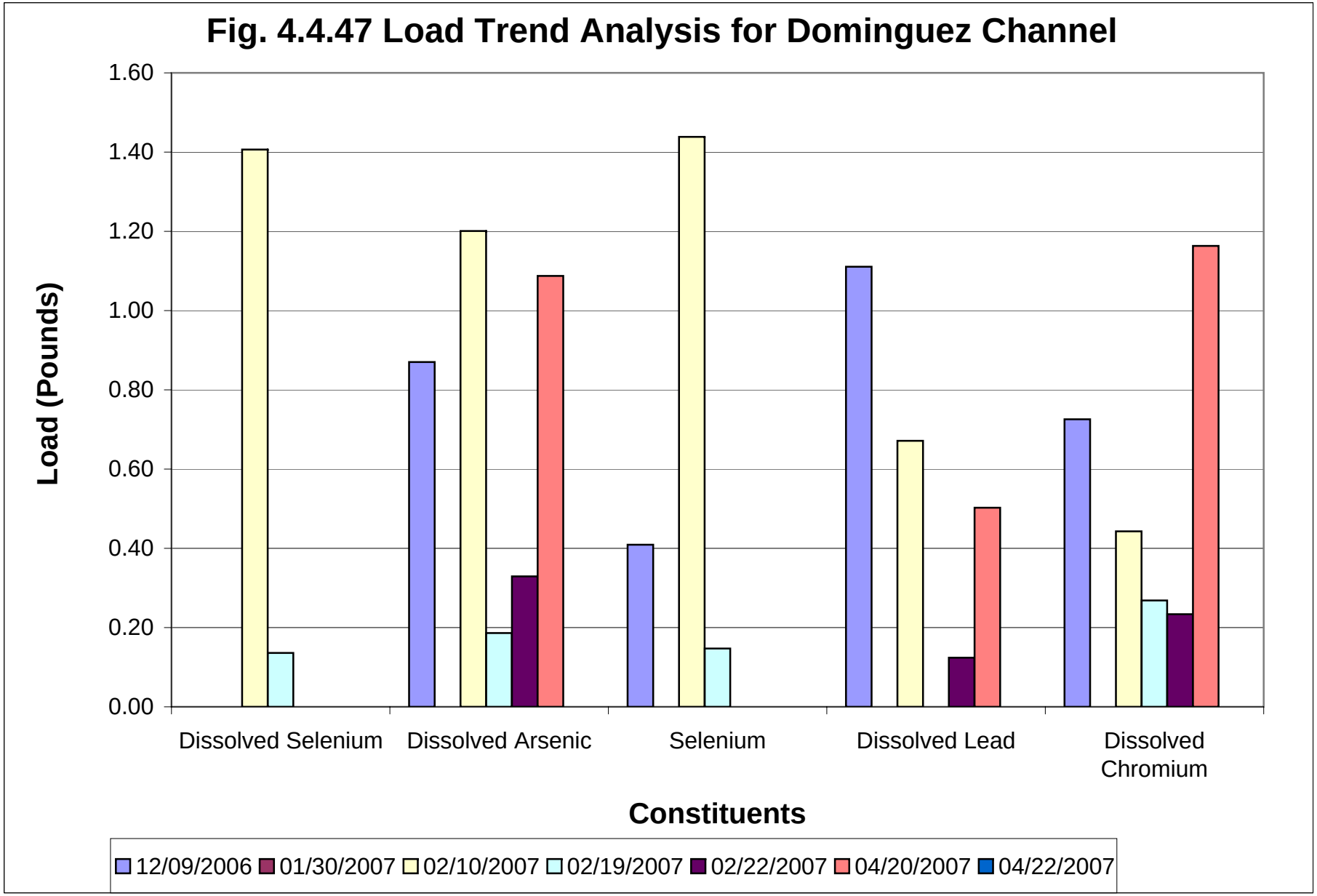


Fig. 4.4.47 Load Trend Analysis for Dominguez Channel
Load (Pounds)
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Dissolved Selenium
Dissolved Arsenic
Selenium
Dissolved Lead
Dissolved Chromium
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

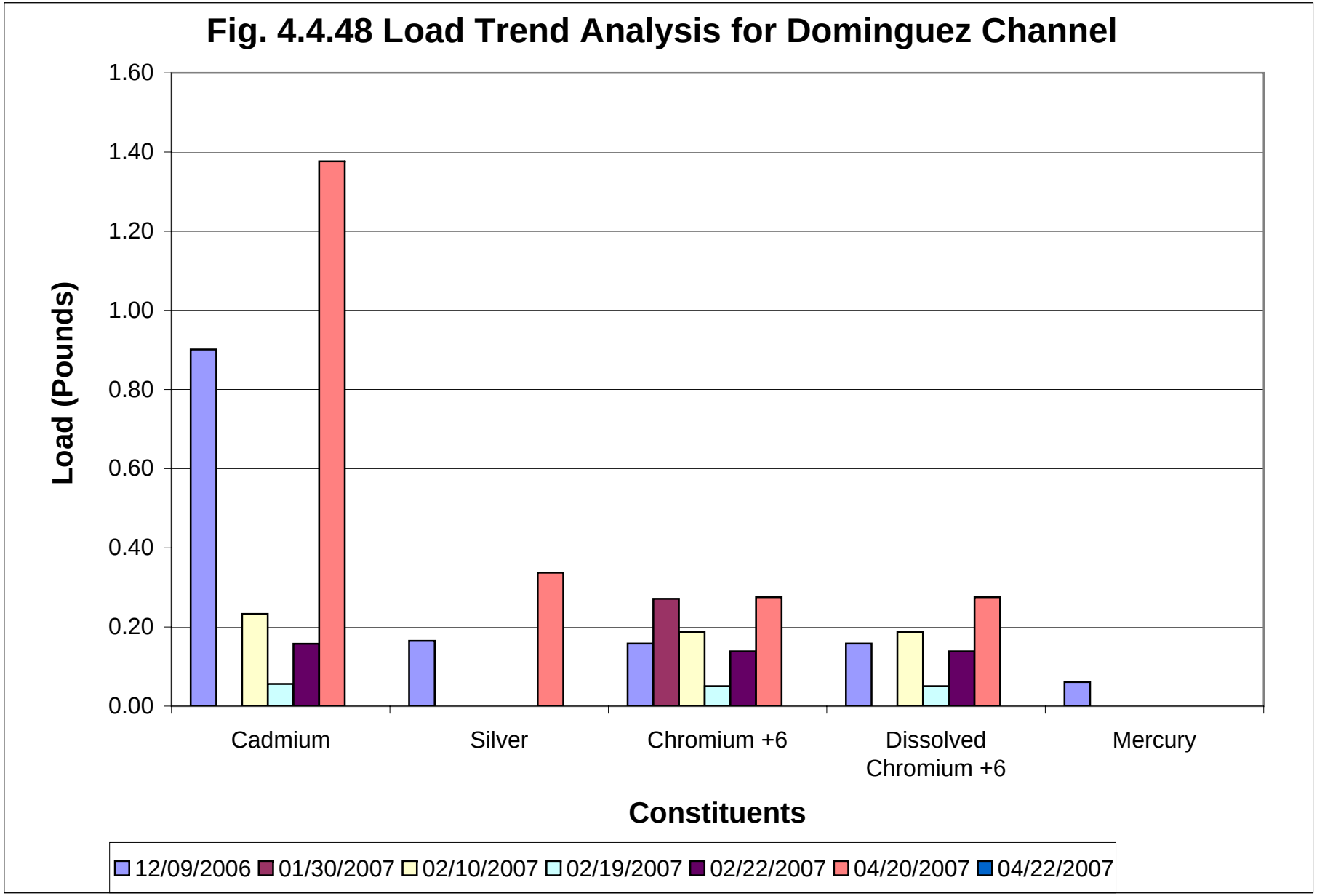


Fig. 4.4.48 Load Trend Analysis for Dominguez Channel
Load (Pounds)
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Cadmium
Silver
Chromium +6
Dissolved Chromium +6
Mercury
Constituents
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

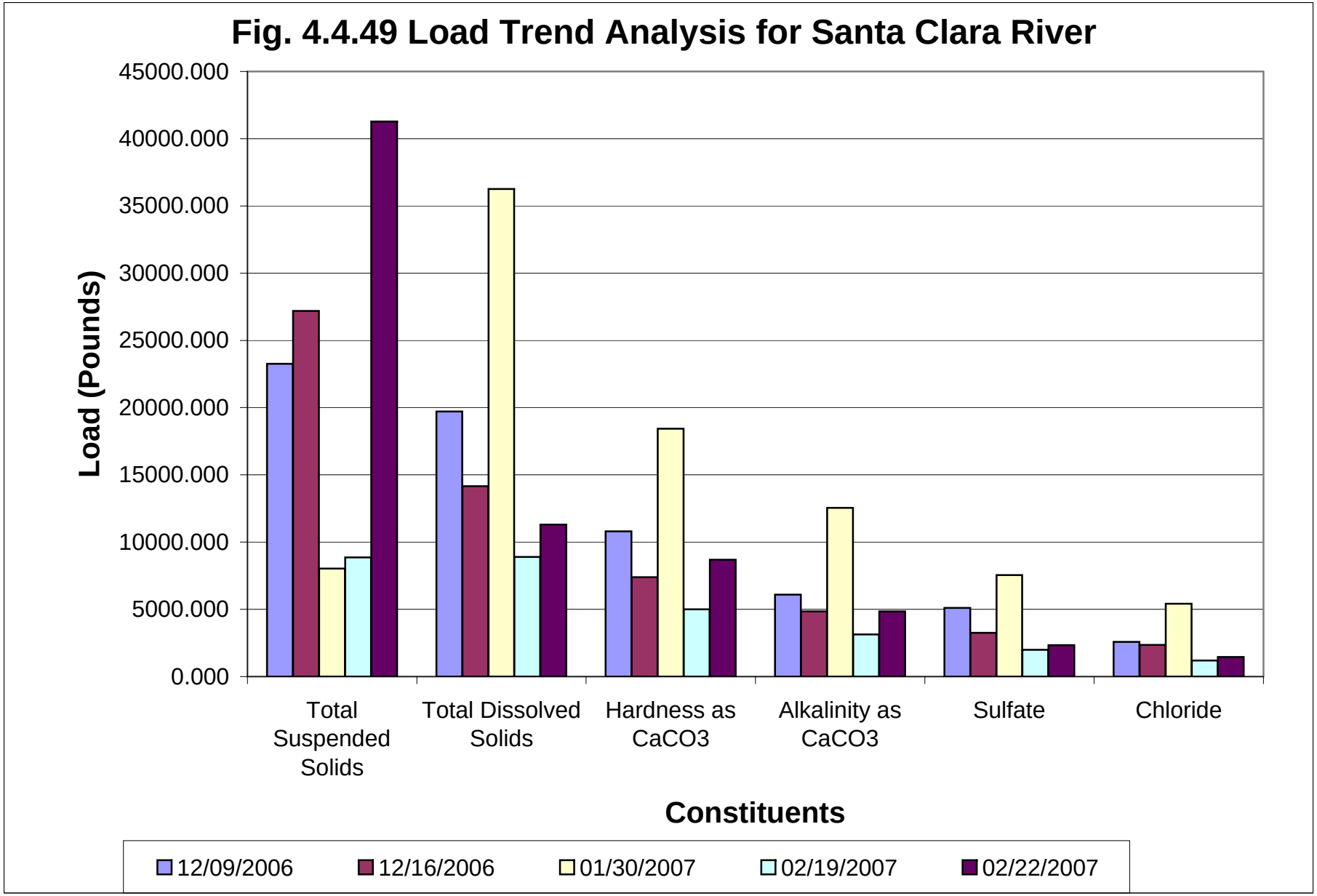


Fig. 4.4.49 Load Trend Analysis for Santa Clara River
Load (Pounds)
45000.000
40000.000
35000.000
30000.000
25000.000
20000.000
15000.000
10000.000
5000.000
0.000
Total Suspended Solids
Total Dissolved Solids
Hardness as CaCO3
Alkalinity as CaCO3
Sulfate
Chloride
Constituents
12/09/2006
12/16/2006
01/30/2007
02/19/2007
02/22/2007

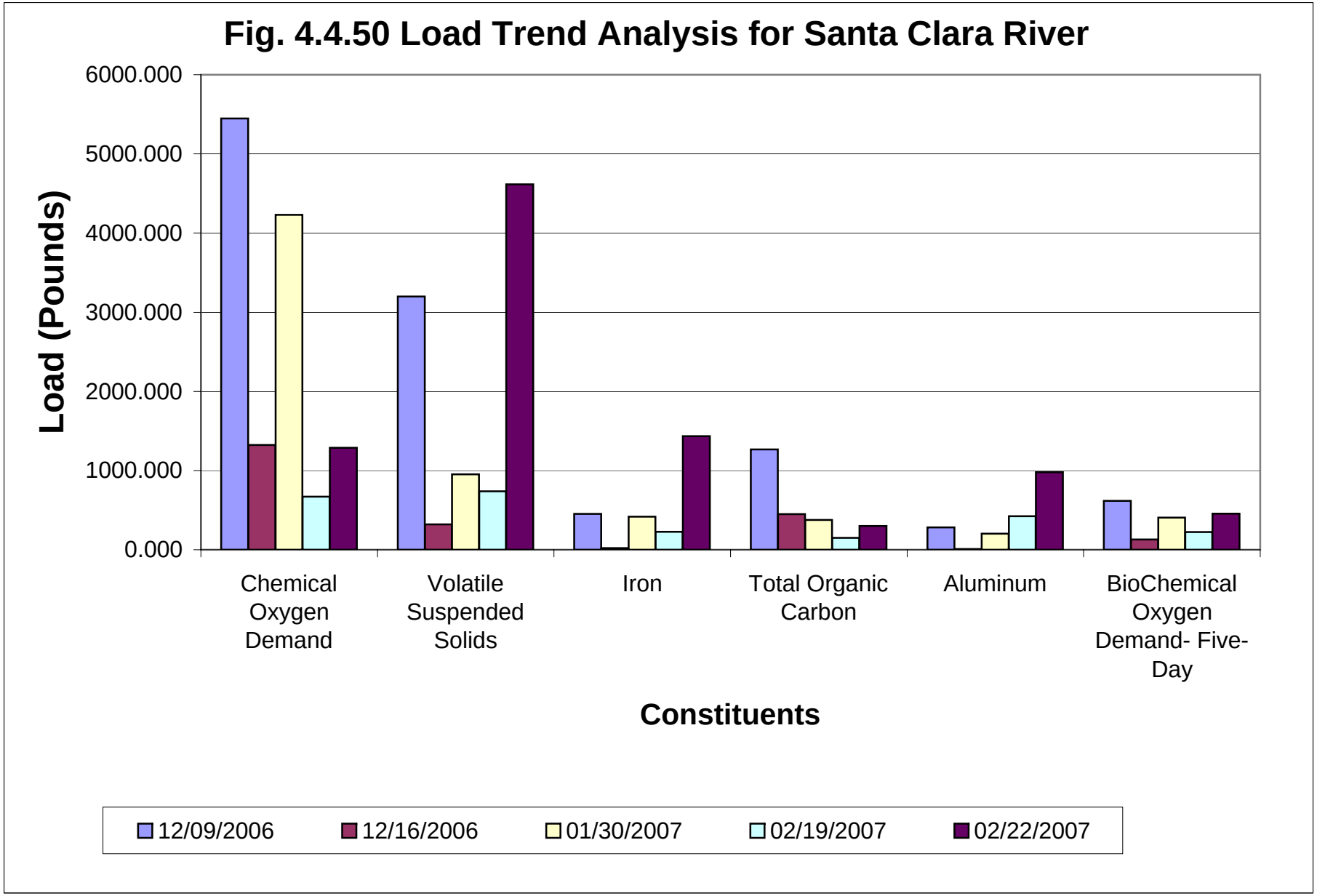


Fig. 4.4.50 Load Trend Analysis for Santa Clara River
Load (Pounds)
6000.000
5000.000
4000.000
3000.000
2000.000
1000.000
0.000
Chemical Oxygen Demand
Volatile Suspended Solids
Iron
Total Organic Carbon
Aluminum
BioChemical Oxygen Demand- Five-Day
Constituents
12/09/2006
12/16/2006
01/30/2007
02/19/2007
02/22/2007

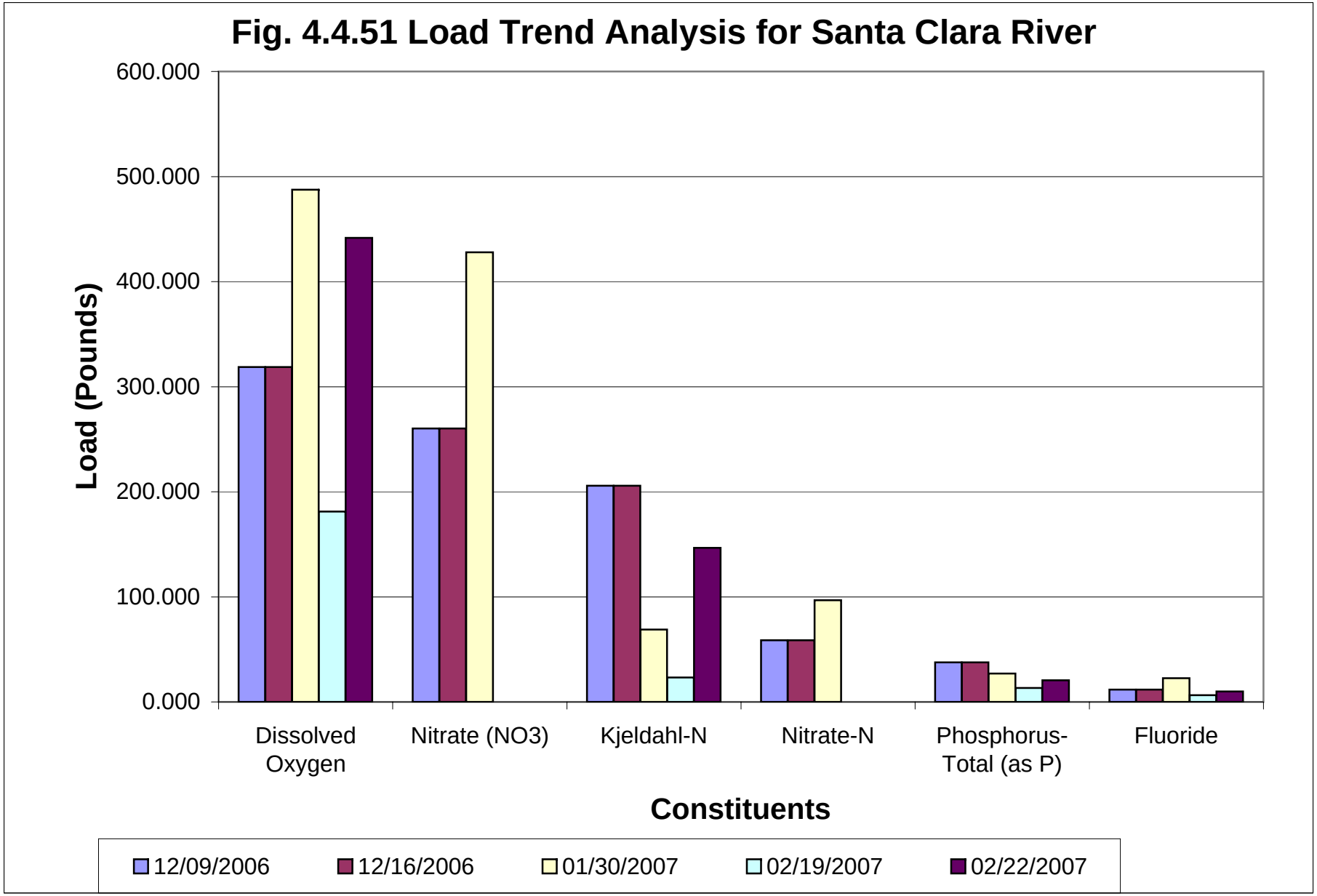


Fig. 4.4.51 Load Trend Analysis for Santa Clara River
600.000
500.000
400.000
300.000
200.000
100.000
0.000
Load (Pounds)
Dissolved Oxygen
Nitrate (NO3)
Kjeldahl-N
Nitrate-N
Phosphorus-Total (as P)
Fluoride
Constituents
12/09/2006
12/16/2006
01/30/2007
02/19/2007
02/22/2007

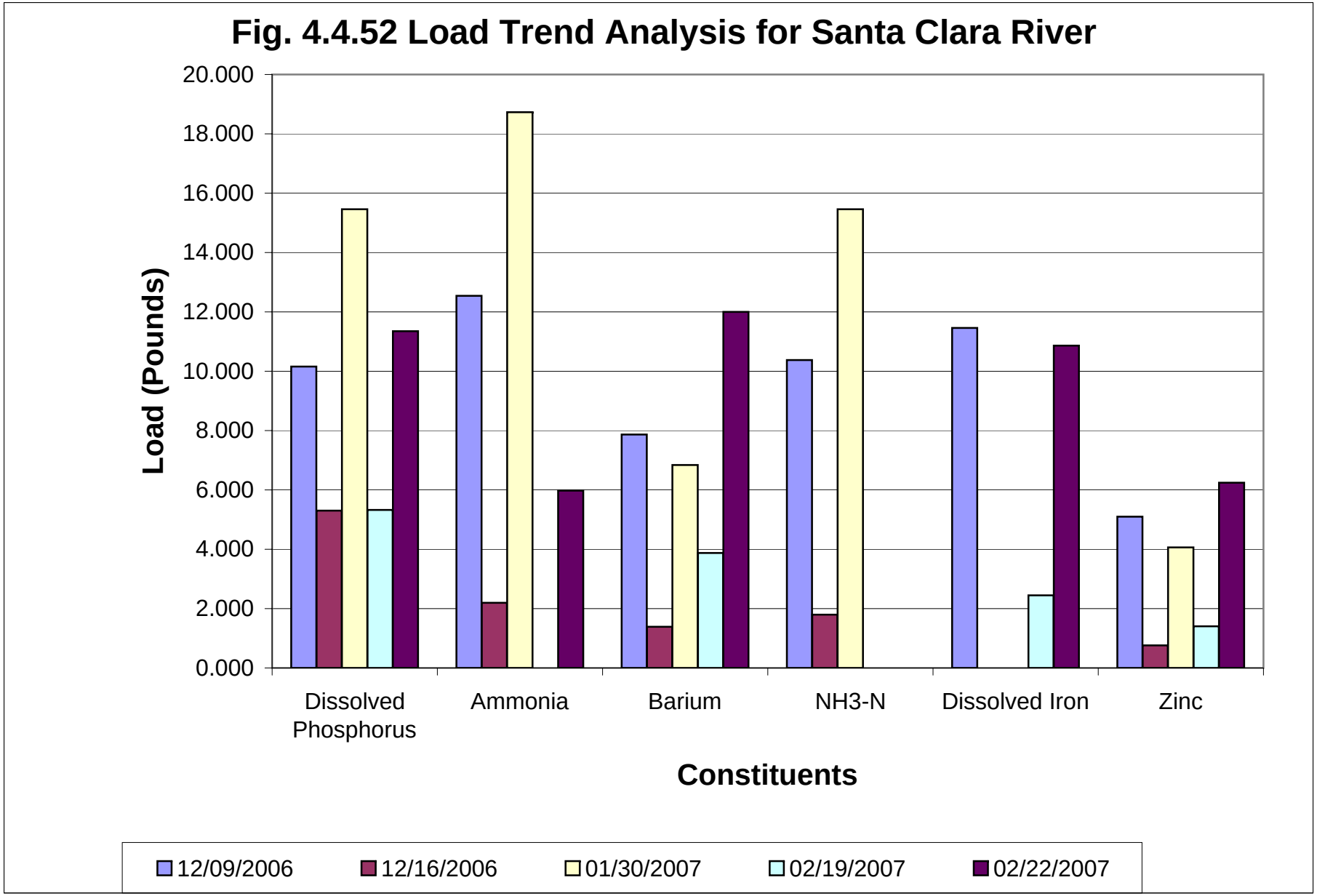


Fig. 4.4.52 Load Trend Analysis for Santa Clara River
Load (Pounds)
20.000
18.000
16.000
14.000
12.000
10.000
8.000
6.000
4.000
2.000
0.000
Dissolved Phosphorus
Ammonia
Barium
NH3-N
Dissolved Iron
Zinc
Constituents
12/09/2006
12/16/2006
01/30/2007
02/19/2007
02/22/2007

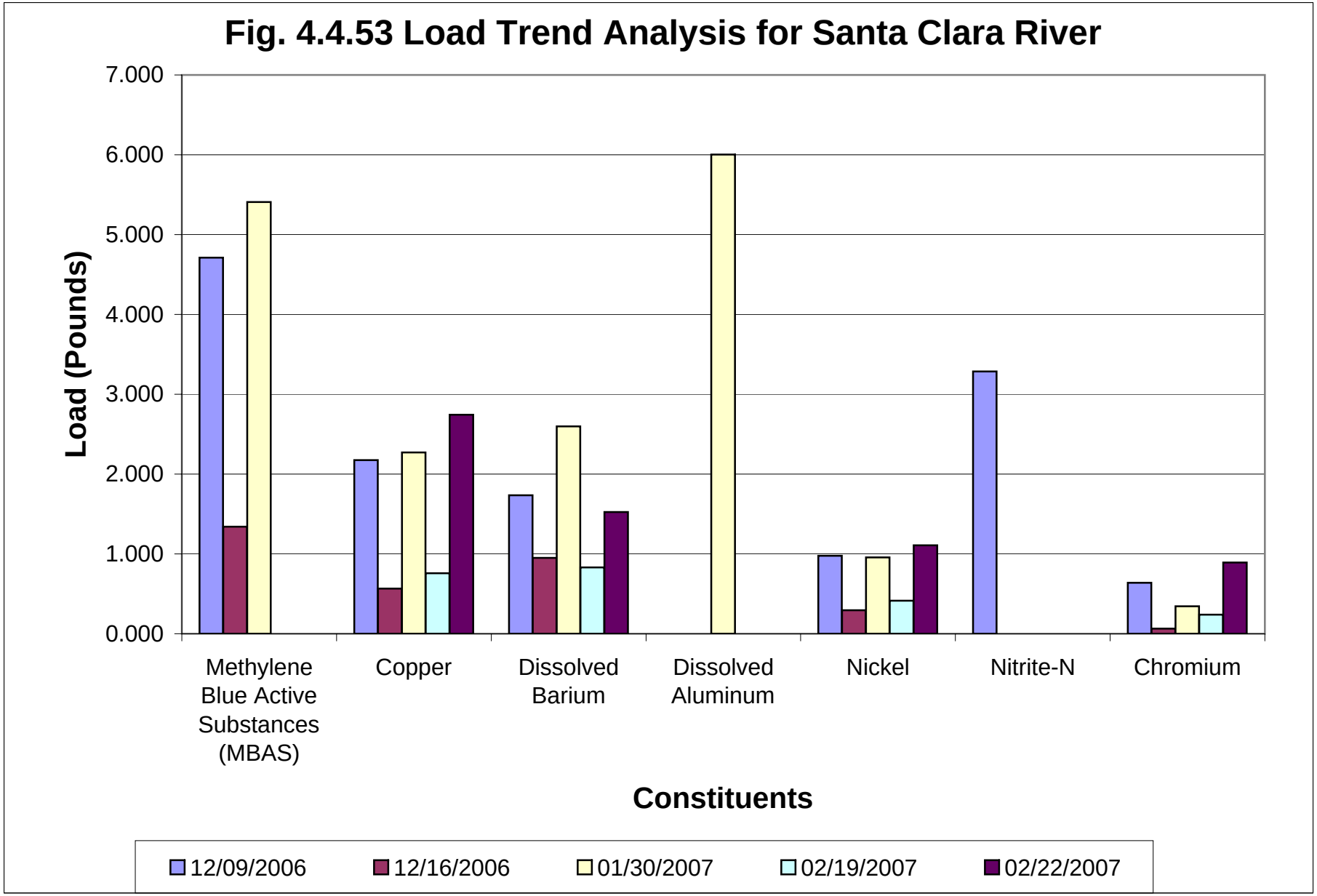


Fig. 4.4.53 Load Trend Analysis for Santa Clara River
Load (Pounds)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Methylene Blue Active Substances (MBAS)
Copper
Dissolved Barium
Dissolved Aluminum
Nickel
Nitrite-N
Chromium
Constituents
12/09/2006
12/16/2006
01/30/2007
02/19/2007
02/22/2007

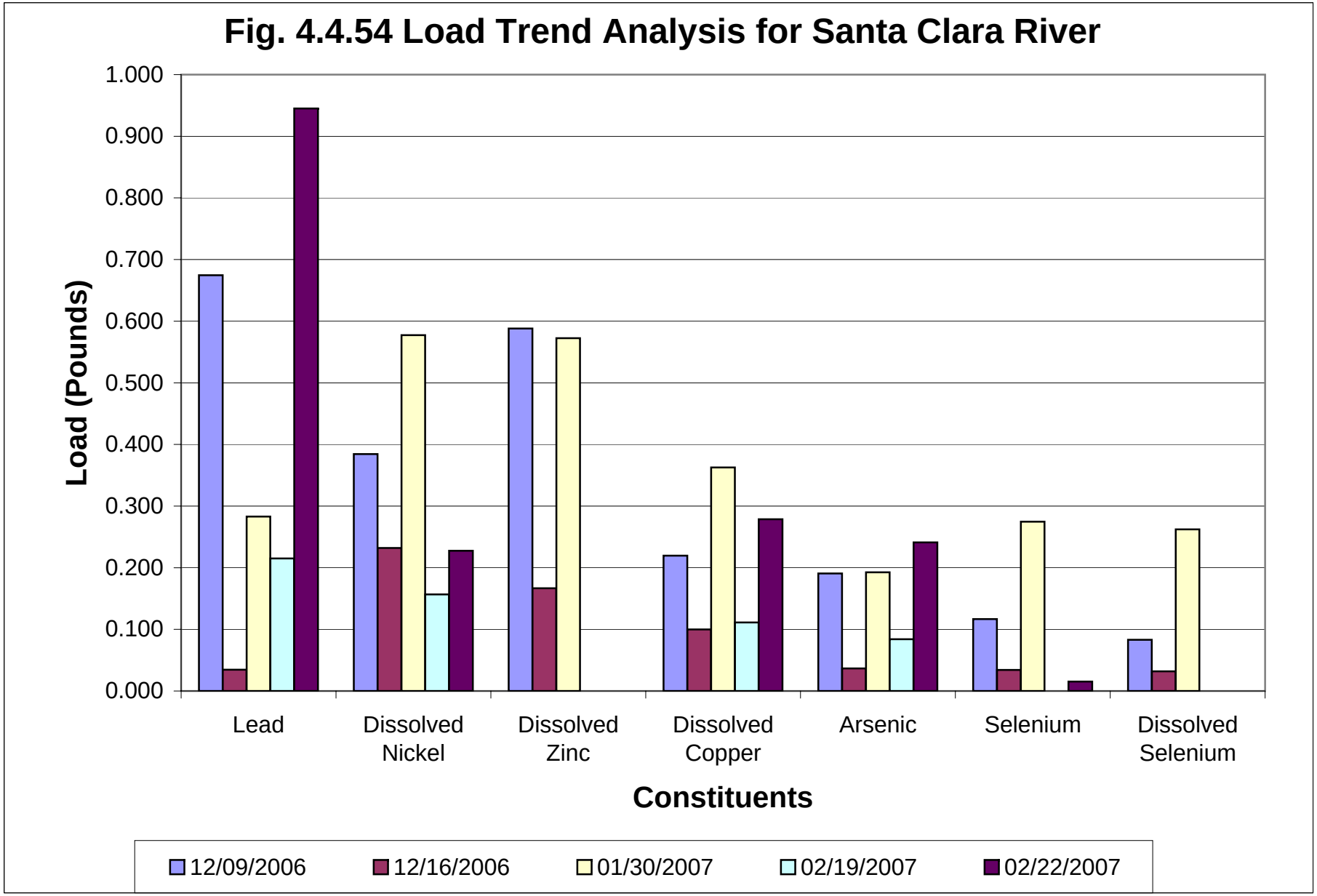


Fig. 4.4.54 Load Trend Analysis for Santa Clara River
Load (Pounds)
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
Lead
Dissolved Nickel
Dissolved Zinc
Dissolved Copper
Arsenic
Selenium
Dissolved Selenium
Constituents
12/09/2006
12/16/2006
01/30/2007
02/19/2007
02/22/2007

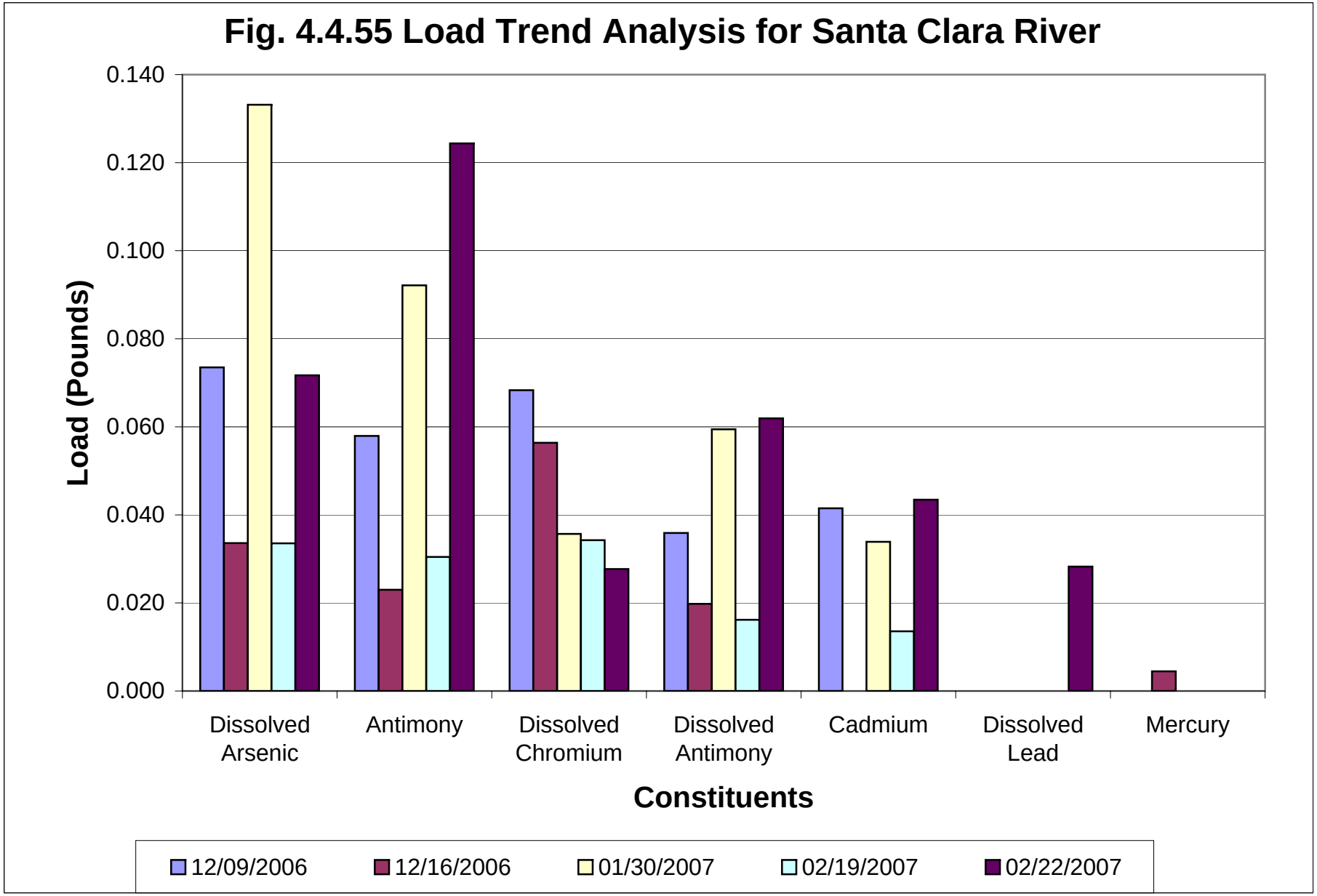
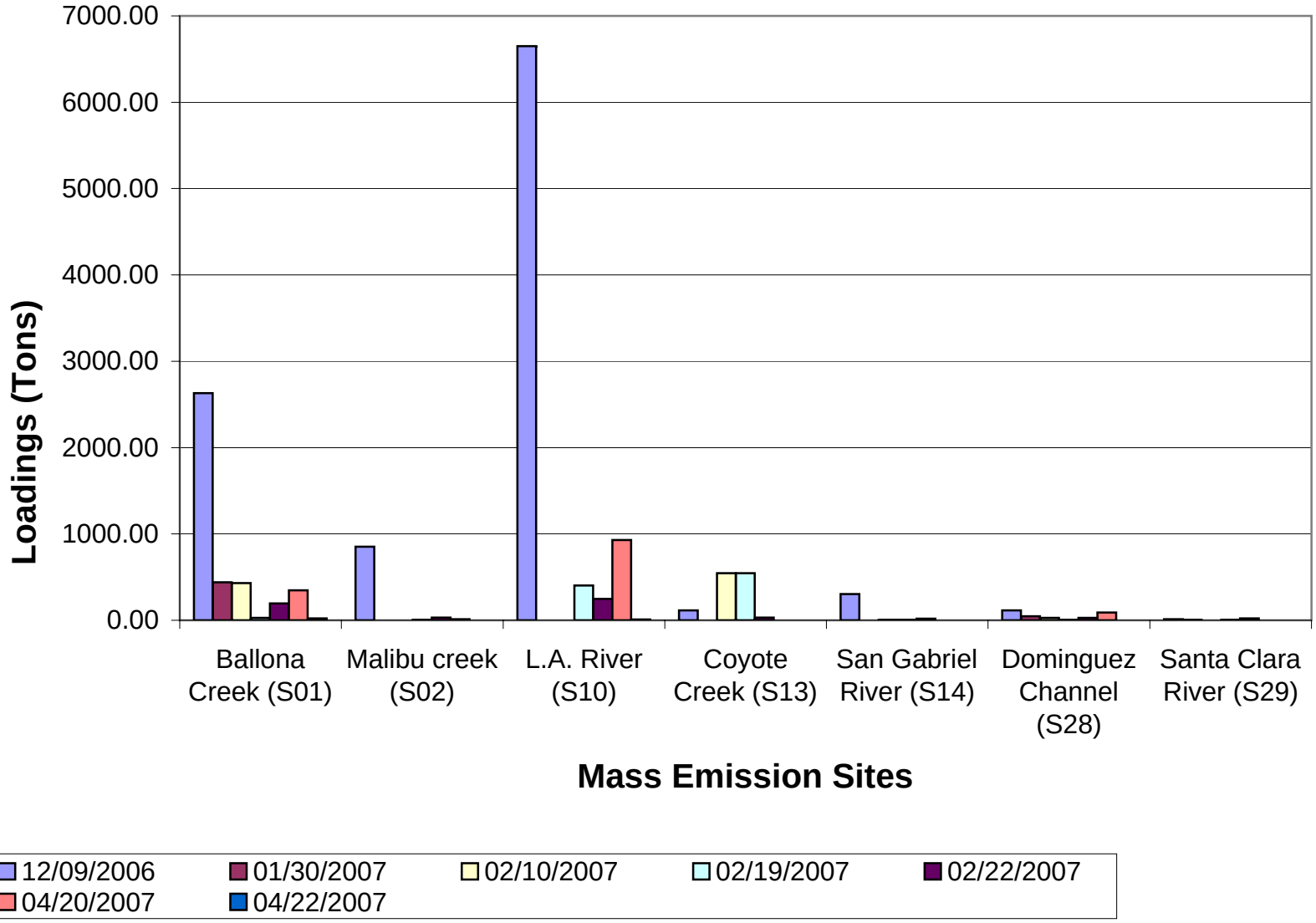


Fig. 4.4.55 Load Trend Analysis for Santa Clara River
Load (Pounds)
0.140
0.120
0.100
0.080
0.060
0.040
0.020
0.000
Dissolved Arsenic
Antimony
Dissolved Chromium
Dissolved Antimony
Cadmium
Dissolved Lead
Mercury
Constituents
12/09/2006
12/16/2006
01/30/2007
02/19/2007
02/22/2007

Fig. 4.4.56 Mass Emission Loadings Total Suspended Solids



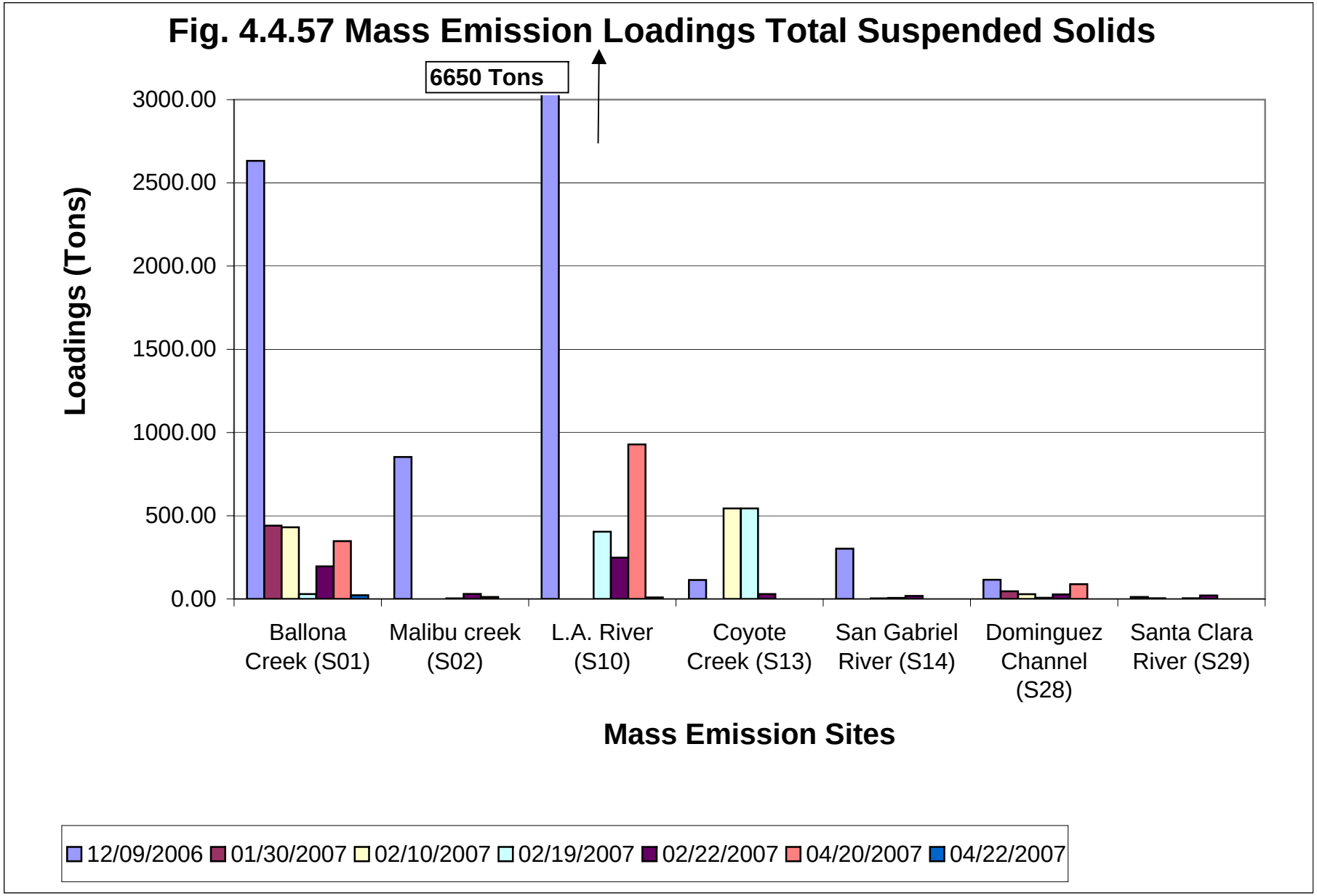


Fig. 4.4.57 Mass Emission Loadings Total Suspended Solids
6650 Tons
Loadings (Tons)
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
Ballona Creek (S01)
Malibu creek (S02)
L.A. River (S10)
Coyote Creek (S13)
San Gabriel River (S14)
Dominguez Channel (S28)
Santa Clara River (S29)
Mass Emission Sites
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007

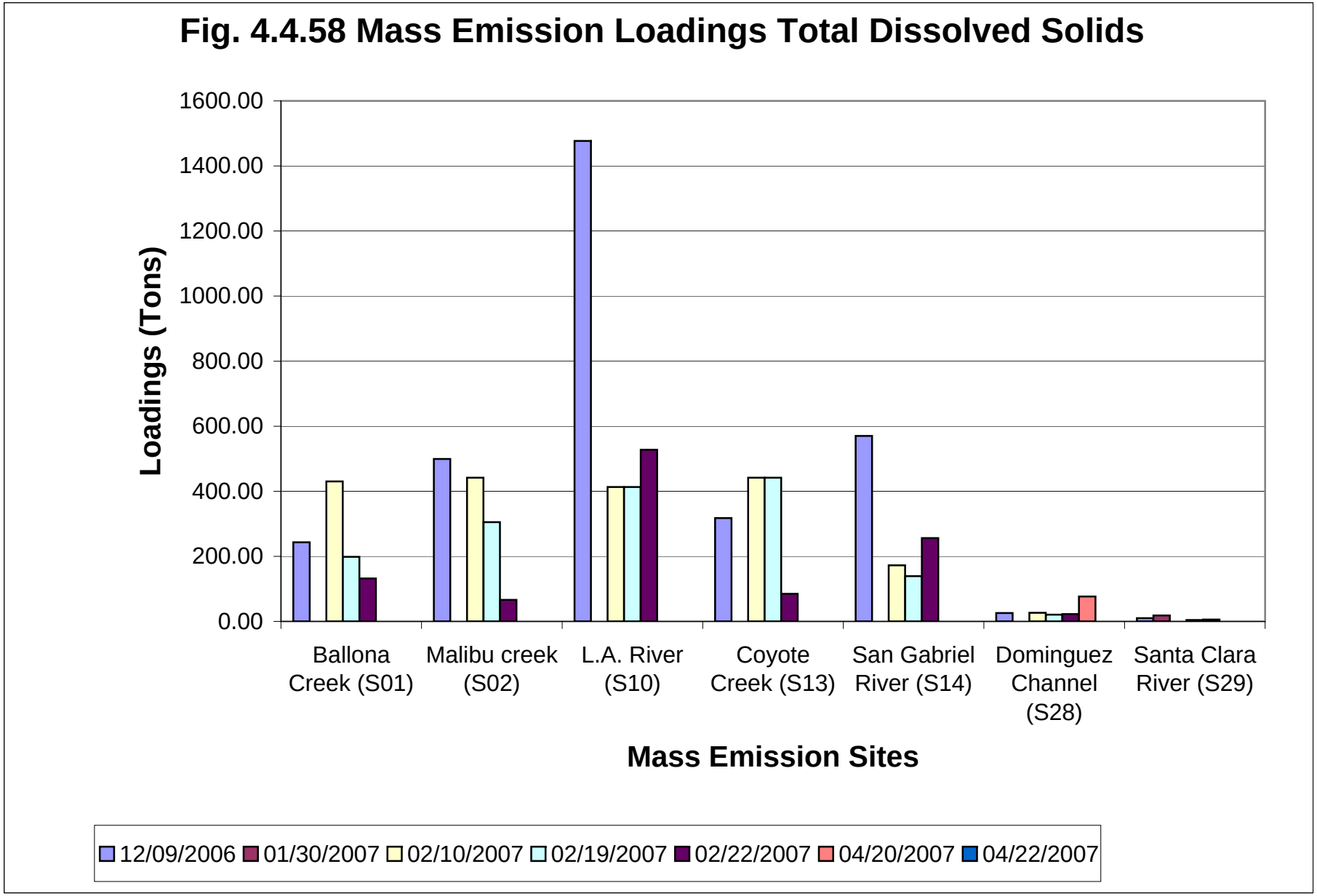


Fig. 4.4.58 Mass Emission Loadings Total Dissolved Solids
Loadings (Tons)
1600.00
1400.00
1200.00
1000.00
800.00
600.00
400.00
200.00
0.00
Ballona Creek (S01)
Malibu creek (S02)
L.A. River (S10)
Coyote Creek (S13)
San Gabriel River (S14)
Dominguez Channel (S28)
Santa Clara River (S29)
Mass Emission Sites
12/09/2006
01/30/2007
02/10/2007
02/19/2007
02/22/2007
04/20/2007
04/22/2007