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July 28, 2006

Christopher Guerre
Project Manager
California Department of Toxic Substances Control
Permitting and Corrective Action Branch
5796 Corporate Avenue
Cypress, California 90630

Robert Perdue
Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

Subject: Interim Measures Compliance Monitoring Program
Request for Approval to Implement Limited Sampling Frequency for Selected Metals/General Minerals PG&E Topock Compressor Station, Needles, California

Dear Mr. Guerre and Mr. Perdue:

This letter presents the rationale for Pacific Gas and Electric Company's request for approval to implement a limited sampling frequency for selected metals and general minerals currently included in the IM-3 injection monitoring program. The requested revision of monitoring parameters after one year is fully consistent with the approach outlined in the approved *Groundwater Compliance Monitoring Plan for Interim Measures No. 3 Injection Area* (herein referred to as the Compliance Monitoring Plan).

The Compliance Monitoring Plan, submitted to the California Regional Water Quality Control Board--Colorado River Basin Region (Regional Board) and the California Department of Toxic Substances Control (DTSC) on June 17, 2005, provides the objectives, proposed monitoring program, data evaluation methods, and reporting requirements for the Compliance Monitoring Program. Starting in July 2005 under the Compliance Monitoring Plan, samples were collected from groundwater wells according to the following schedule:

- In 2005:

    1. Nine observation wells (OW) located near the IM No. 3 injection wellfield were sampled monthly (July, August, September, October, November, and December 05 events).
    2. Eight compliance monitoring wells (CW) located around the IM No. 3 injection wellfield were sampled semiannually in December 2005, with an additional quarterly round of sampling added in September 2005.

- As of June 2006:

    3. Nine OW wells located near the IM No. 3 injection wellfield were sampled quarterly (March, June, September, and December events).
    4. Eight CW wells located around the IM No. 3 injection wellfield were sampled semiannually (June and December events).

For all monthly, quarterly and semiannual sampling events conducted in the first year, laboratory analyses included total dissolved chromium [Cr(T)], hexavalent chromium [Cr(VI)], metals, specific conductance, pH, total dissolved solids (TDS), turbidity, silica, and major inorganic cations and anions. Groundwater elevation data and field water quality data, including specific conductance, temperature, pH, oxidation-reduction potential, dissolved oxygen, turbidity and salinity, were also measured during each monitoring event.

In this letter, PG&E is requesting the reduction of sampling frequency of selected metals and general minerals from quarterly to semiannual. This reduction was previously outlined in the Compliance Monitoring Plan Section 4.3.2 and Tables 4-1 and 4-2. As described in that plan, the limited suite is proposed for only OW wells, and not CW wells. The minerals and metals petitioned for reduction in sampling frequency consist of the following:

- General Minerals (7 constituents) – Ammonia, Iron, Calcium, Magnesium, Potassium, Sodium, and Alkalinity (as CaCO3)

- Metals (18 constituents) – Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc

The attached table presents all analytical results as well as frequency of detection for these constituents at OW wells as of June 2006. Based on data collected to date, PG&E believes that reducing the sampling frequency of these constituents from quarterly to semiannually will affect neither the objectives nor the quality of the CMP because they fall into one of the following categories:

- <u>Constituents with zero to limited occurrences in OW wells</u> – As shown in the attached table, as of June 2006, ammonia, mercury, and thallium have not been detected in any samples collected from the OW wells. In addition, seven constituents were only detected at a frequency of less than 10% (defined as total number of detections divided by total number of samples for that constituent). They are:
    - Antimony and Cadmium (each detected in 1 out of 102 samples)
    - Cobalt (detected in 2 out of 102 samples)
    - Aluminum and Silver (each detected in 3 out of 102 samples)
    - Dissolved Iron (detected in 6 out of 102 samples)
    - Arsenic (detected in 9 out of 102 samples)

- Constituents routinely detected, with the variability between sampling events being minor and considered indicative of the natural variability of background water quality - With few exceptions, most of the constituents fall under this category. They include:
  - Alkalinity
  - Barium
  - Beryllium
  - Copper
  - Potassium
  - Magnesium
  - Manganese
  - Molybdenum
  - Nickel
  - Lead
  - Selenium
  - Zinc

- Constituents routinely detected and displaying a trend over time – Although there may be increasing trends and fluctuations associated with the concentrations of these compounds, PG&E believes that the semiannual sampling events will provide adequate resolution of the trend, and the data will be sufficient for the use of this data (performing water balance calculations and water typing). They include:
  - Calcium
  - Magnesium
  - Sodium

- Vanadium - Vanadium concentrations for OW wells are at low or non-detect levels with little variability over time, with the exception of results from October and November 2005 events. The data from October-November 2005 was anomalously high for most of the OW wells, and a review of the field and laboratory QA/QC data did not indicate any apparent reason for the anomalies. In general, the vanadium results for October-November 2005 are much higher than results from the previous month (September 2005) and the following months (December 2005, March 2006 and June 2006). The results for the remainder of the metals analyzed did not show this anomalous temporary concentration spike, and therefore, provide support that the variability is not due to seasonal changes in groundwater geochemistry. Working with the project laboratories, CH2M HILL chemists have identified matrix interference that appears to have affected at least some of the vanadium results. Because the vanadium values do not show a fluctuation on a quarterly basis, PG&E believes that semiannual sampling events will provide adequate resolution of the natural variability in this compound.

For these reasons, we believe that implementing the limited suite for quarterly sampling (first and third quarter sampling events) is warranted. If acceptable to DTSC and the Regional Board, PG&E requests that this change be approved beginning with the third quarter 2006 sampling event, which is scheduled to begin in late August.

Thank you for your consideration of this request. If you have questions, please do not hesitate to contact me at (805) 546-5243.

Sincerely,

Julie Eatherton for Yvonne Meeks

Yvonne Meeks

cc. Jose Cortez, RWQCB
Liann Chavez, RWQCB
Kate Burger/ DTSC

Enclosure

TABLE 1
Treated Water Quality Compared to OW and CW Pre-injection Water Quality
Addendum to the CMP Semiannual Groundwater Monitoring Report, PG&E Topock Compressor Station

Location	Sample Date	Hexavalent Chromium	Total Chromium	Fluoride	Molybdenum	Nitrate	Sulfate	TDS
Treated Water	29-Aug-05	ND(0.001)	ND(0.0021)	1.95	0.0083	3.7	450	3620
Treated Water	18-Mar-06	ND(0.001)	ND(0.001)	1.92	0.0082	2.79	482	4040
Treated Water	15-Jun-06	ND(0.002)	ND(0.001)	1.97	0.0062	2.44	471	4090
OW-01S	28-Jul-05	0.0194	0.0235	2.45	0.0172	3.2	114	1320
OW-01M	27-Jul-05	0.0163	0.0189	2.31	0.027	1.01	311	3450
OW-01D	27-Jul-05	ND(0.001)	ND(0.0013)	1.14	0.0461	0.321	441	6170
OW-02S	28-Jul-05	0.0153	0.0148	3.79	0.0356	3.81	126	1090
OW-02M	28-Jul-05	0.0054	0.0057	2.19	0.0324	0.735	342	4380
OW-02D	28-Jul-05	ND(0.001)	ND(0.0012)	0.966	0.0512	0.1	616	9550
OW-05S	28-Jul-05	0.0234	0.0256	2.3	0.0171	3.55	105	1060
OW-05M	28-Jul-05	0.0086	0.0088	2.74	0.0354	0.621	417	5550
OW-05D	28-Jul-05	ND(0.001)	ND(0.0012)	1.11	0.057	0.151	480	8970
CW-01M	15-Sep-05	0.0181	0.0178	2.34	0.0216	1.11	318	2990
CW-01D	15-Sep-05	ND(0.001)	0.0016	0.951	0.0321	0.972	379	6230
CW-02M	15-Sep-05	0.0158	0.0155	2.3	0.0231	0.908	342	3500
CW-02D	15-Sep-05	ND(0.001)	0.0016	0.982	0.0416	0.28	601	8770
CW-03M	16-Sep-05	0.0088	0.0081	2.57	0.0242	0.642	464	4740
CW-03D	16-Sep-05	ND(0.001)	ND(0.001)	1.4	0.0292	0.304	672	9550
CW-04M	13-Sep-05	0.0192	0.019	1.5	0.0123	1.18	240	3310
CW-04D	13-Sep-05	ND(0.001)	ND(0.001)	1.01	0.026	0.188	534	7470

All concentrations in mg/L.
ND(0.001) = Non-detect with a detection limit of 0.001 mg/L.

TABLE 2
Treated Water Quality Compared to OW and CW June 2006 Semiannual Groundwater Sampling Event Water Quality
Addendum to the CMP Semiannual Groundwater Monitoring Report, PG&E Topock Compressor Station

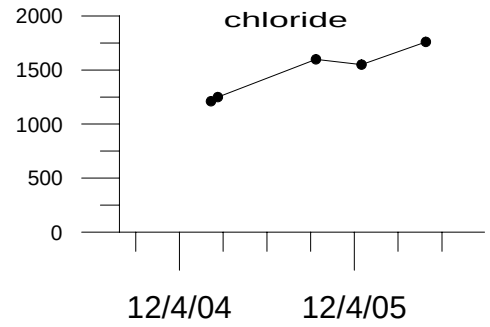
Location	Sample Date	Hexavalent Chromium	Total Chromium	Fluoride	Molybdenum	Nitrate	Sulfate	TDS
Treated Water	29-Aug-05	ND(0.001)	ND(0.0021)	1.95	0.0083	3.7	450	3620
Treated Water	18-Mar-06	ND(0.001)	ND(0.001)	1.92	0.0082	2.79	482	4040
Treated Water	15-Jun-06	ND(0.002)	ND(0.001)	1.97	0.0062	2.44	471	4090
OW-01S	06-Jun-06	0.0186	0.0165	2.2	0.0066	3.45	143	1370
OW-01M	06-Jun-06	0.0014	0.002	1.49	0.0075	2.73	538	4200
OW-01D	06-Jun-06	ND(0.001)	ND(0.001)	2.31	0.0088	3.32	545	4180
OW-02S	06-Jun-06	0.0353	0.0445	4.16	0.0319	4.41	137	1010
OW-02M	07-Jun-06	0.0012	0.0012	1.62	0.0088	2.37	532	4230
OW-02D	07-Jun-06	ND(0.001)	ND(0.001)	1.62	0.0082	3.44	516	4300
OW-05S	07-Jun-06	0.0254	0.0244	2.18	0.0153	3.89	121	995
OW-05M	07-Jun-06	0.0098	0.0086	2.97	0.0195	1.4	497	5100
OW-05D	07-Jun-06	ND(0.001)	ND(0.001)	3.03	0.0118	2.72	539	4220
CW-01M	02-May-06	0.0151	0.0171	2.72	0.0239	0.832	355	3670
CW-01D	06-Jun-06	0.0012	0.0022	3.27	0.0208	3.36	501	4790
CW-02M	02-May-06	0.0155	0.0157	2.82	0.0247	0.821	372	3630
CW-02D	07-Jun-06	0.0033	0.0031	3.26	0.0339	0.385	554	7700
CW-03M	07-Jun-06	0.0113	0.0097	2.28	0.0154	0.594	444	5130
CW-03D	07-Jun-06	0.0031	0.0034	2.23	0.03	0.251	615	8710
CW-04M	06-Jun-06	0.0214	0.0199	1.63	0.0073	1.72	262	3450
CW-04D	06-Jun-06	0.0026	0.0024	2.8	0.0218	0.417	504	7010

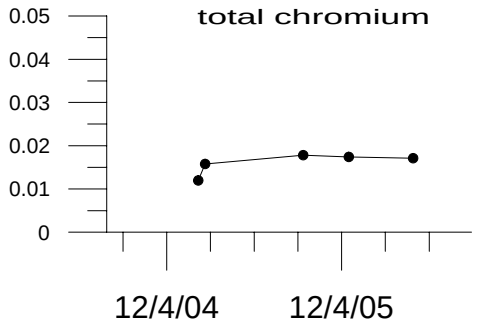
All concentrations in mg/L.
ND(0.001) = Non-detect with a detection limit of 0.001 mg/L.

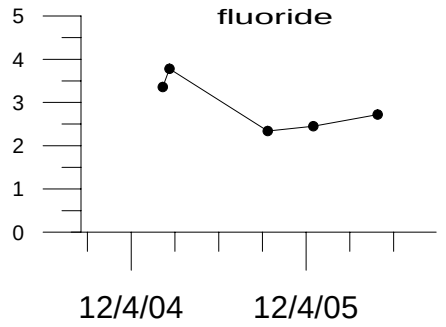
TABLE 3
Vertical Gradients within the OW and CW clusters
Addendum to the CMP Semiannual Groundwater Monitoring Report, PG&E Topock Compressor Station

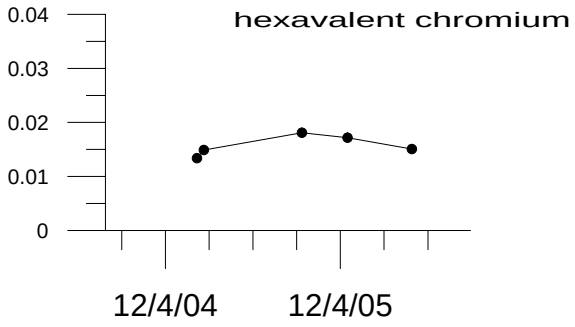
Well Pairs	Vertical Gradient (ft/ft)[a]
CW-01D to CW-01M	0.0073
CW-02D to CW-02M	0.0041
CW-03D to CW-03M	0.0079
CW-04D to CW-04M	0.0051
OW-01M to OW-01S	0.0054
OW-01D to OW-01M	0.0047
OW-02M to OW-02S	0.0078
OW-02D to OW-02M	0.0022

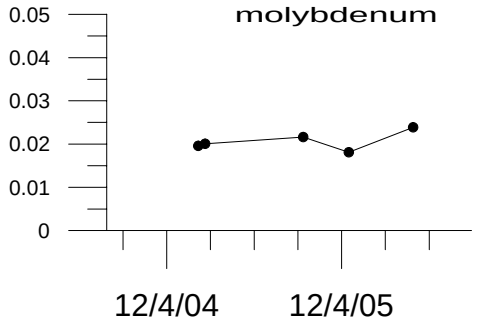
[a] Positive value signifies an upward gradient. Gradients calculated using May 15 through June 15, 2006 average groundwater levels.

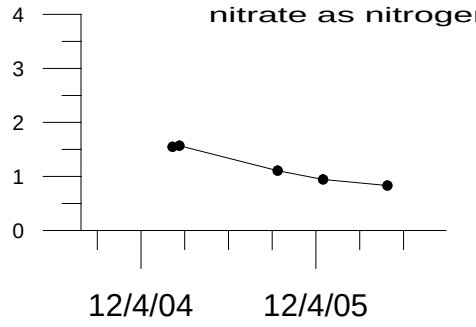


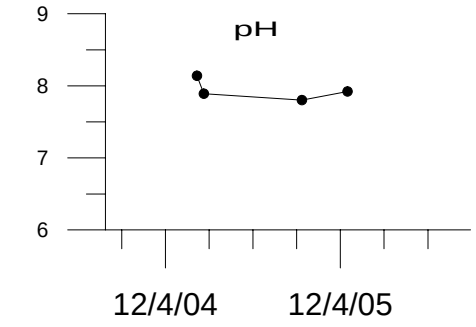


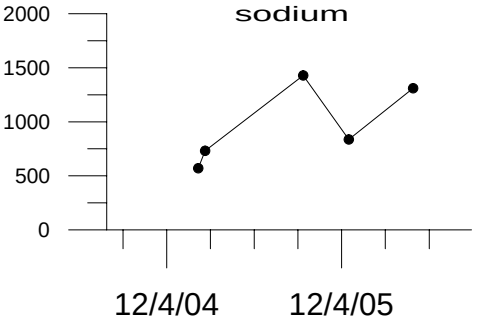


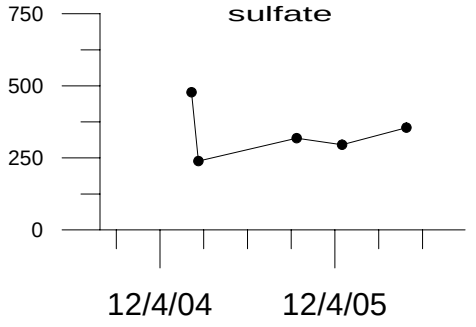


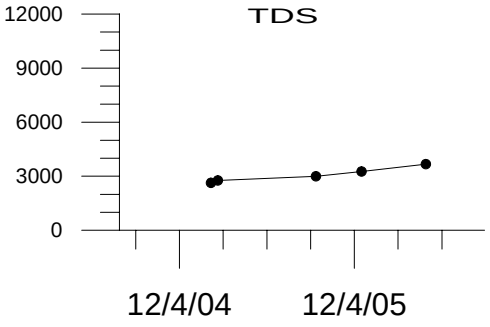


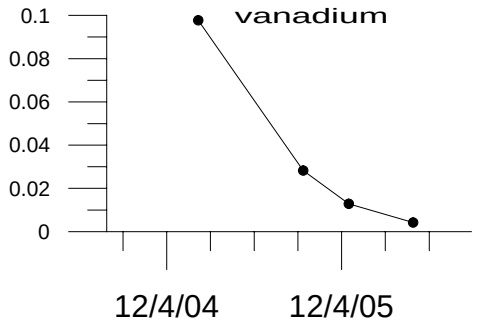








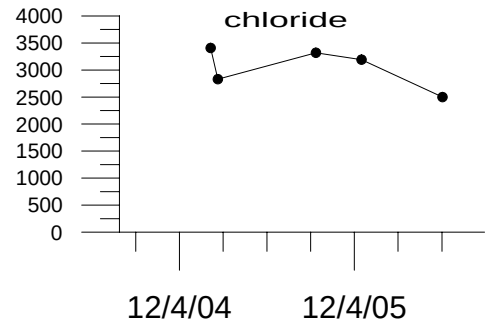


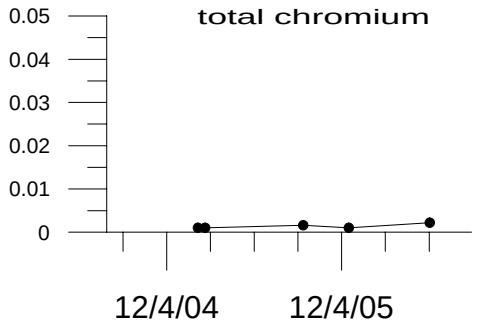


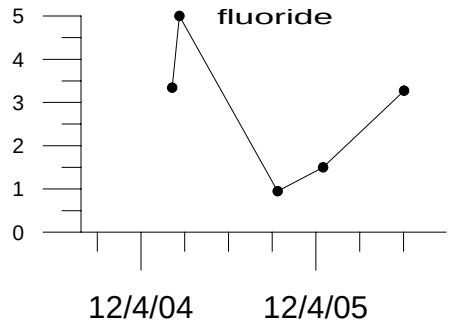
All concentration units in mg/L. pH in pH units

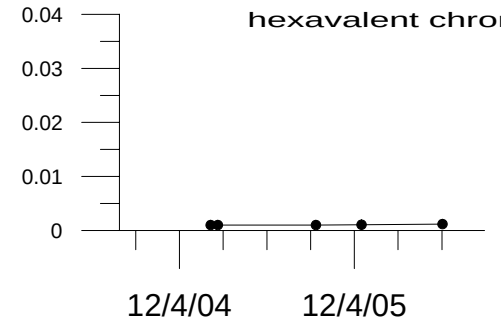
Figure 1
Water Quality Hydrographs
CW-01M

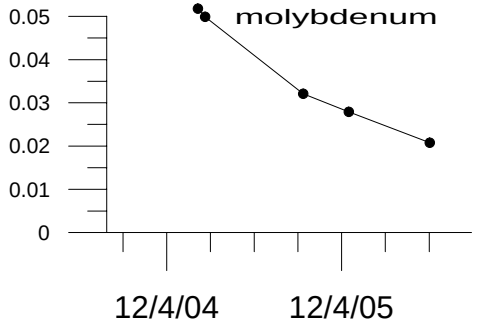
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

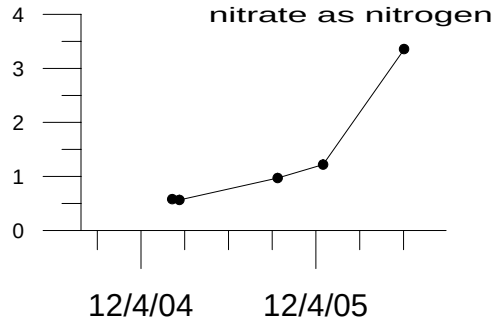


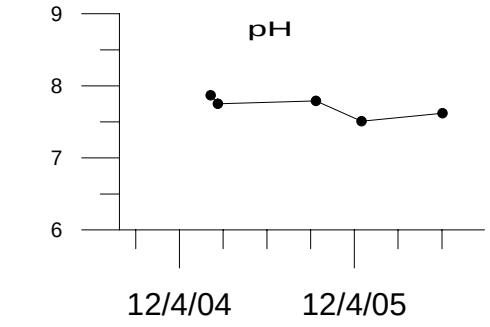


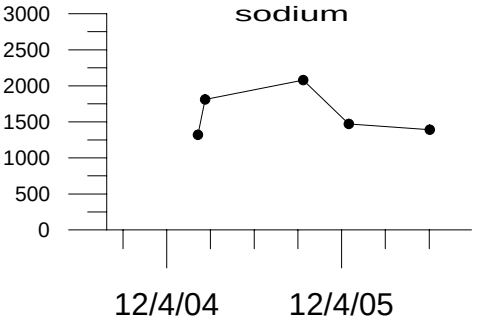


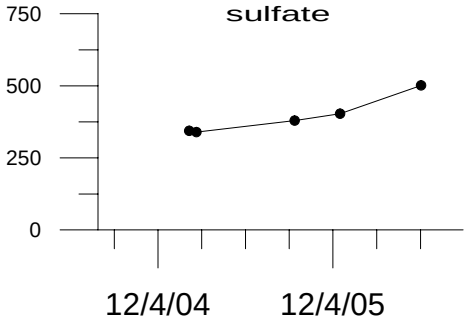


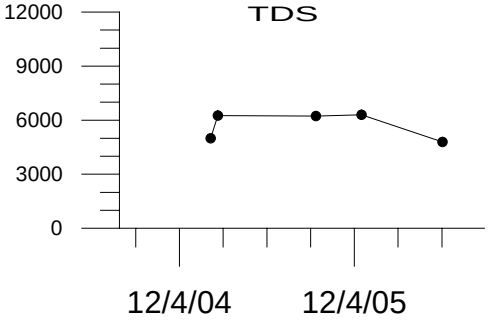


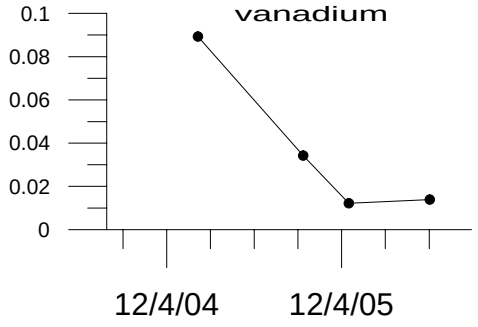








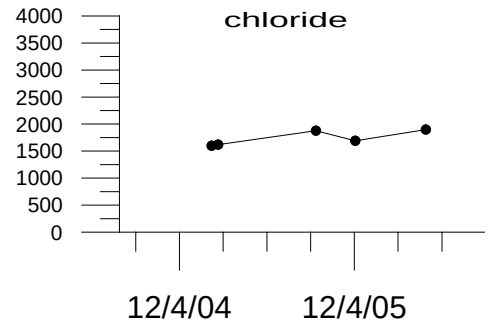


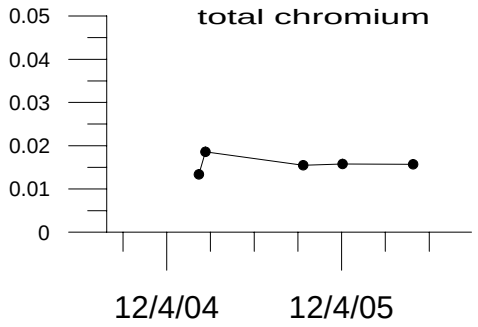


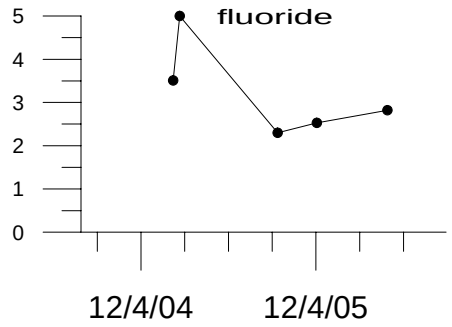
All concentration units in mg/L. pH in pH units

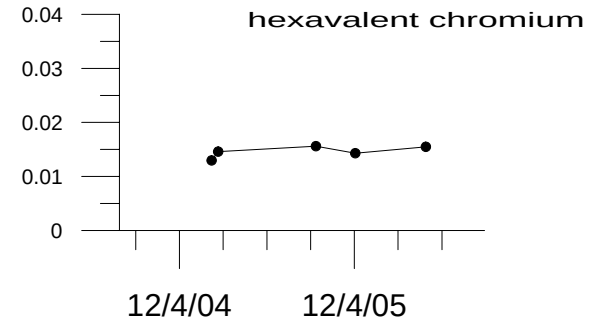
Figure 2
Water Quality Hydrographs
CW-01D

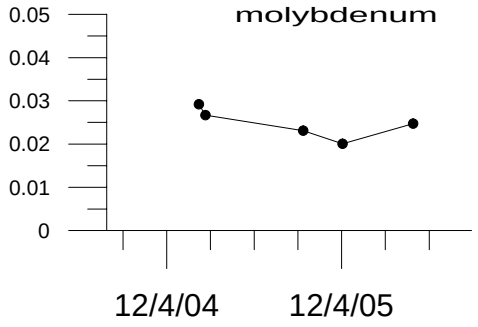
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

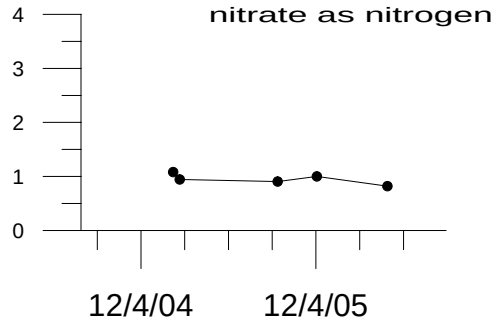


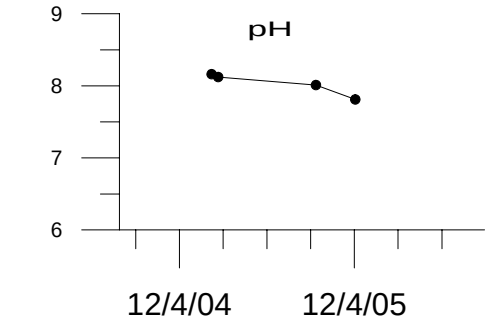


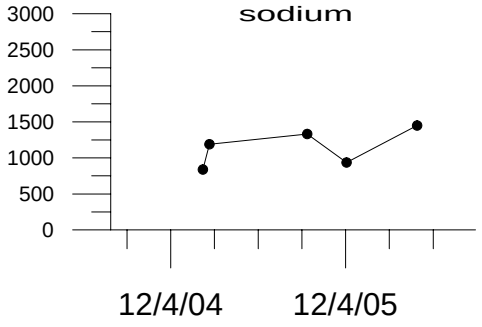


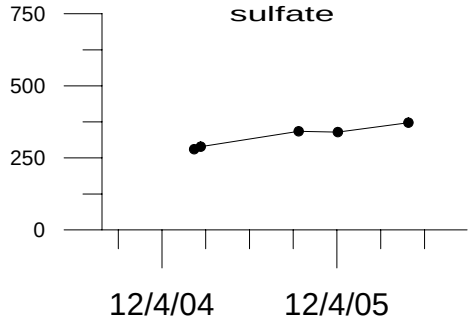


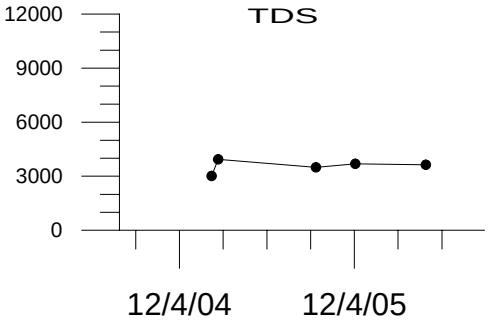


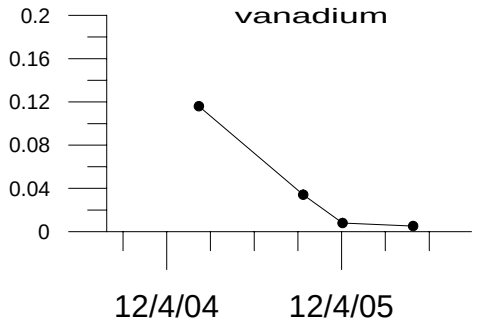








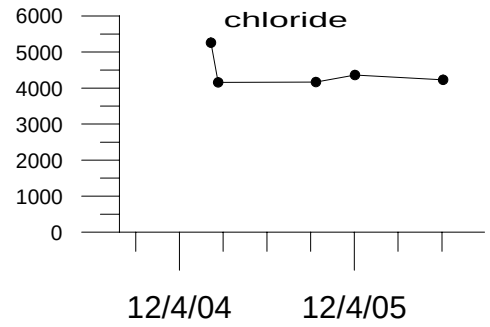


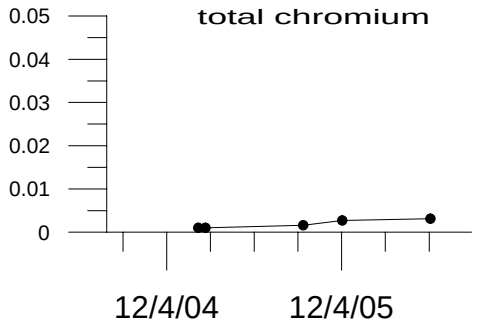


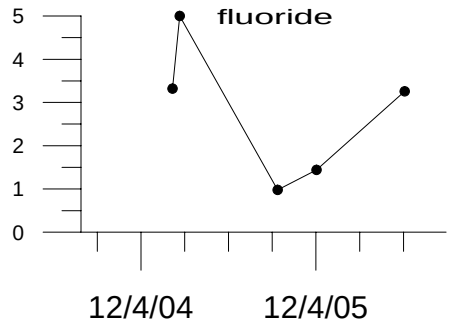
All concentration units in mg/L. pH in pH units

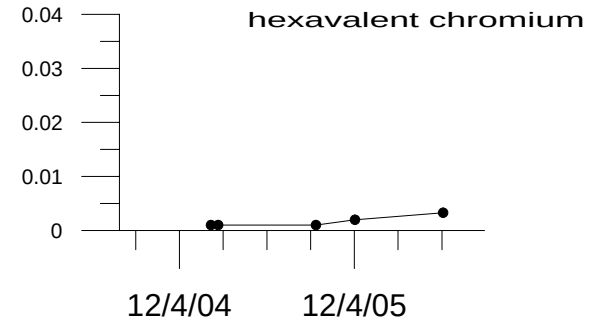
Figure 3
Water Quality Hydrographs
CW-02M

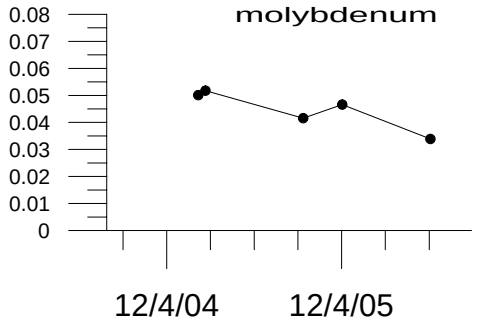
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

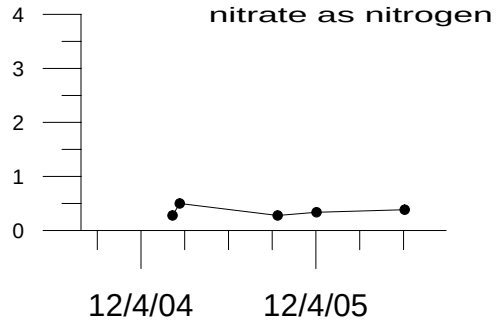


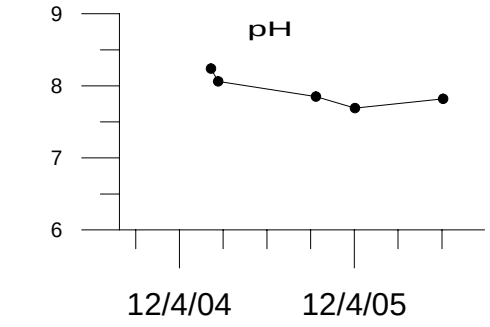


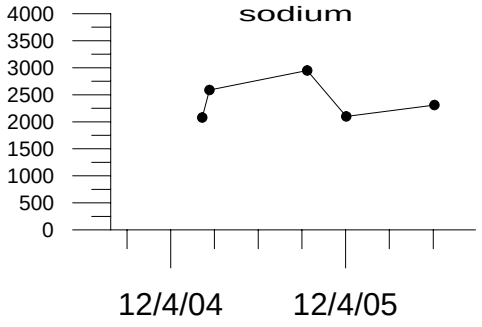


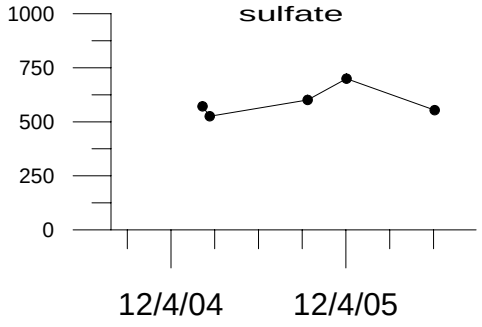


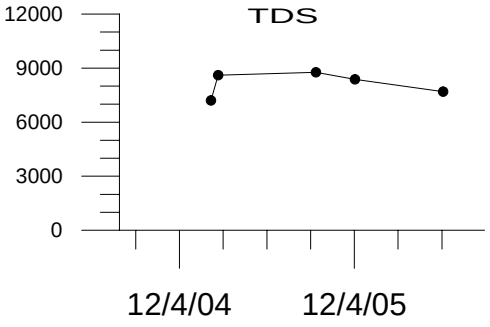


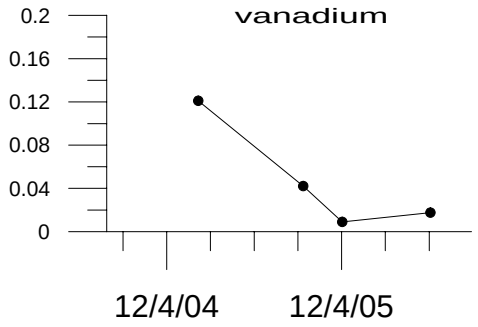








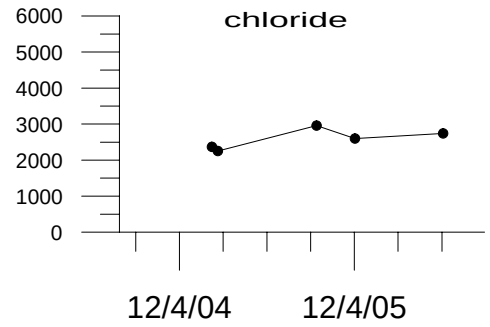


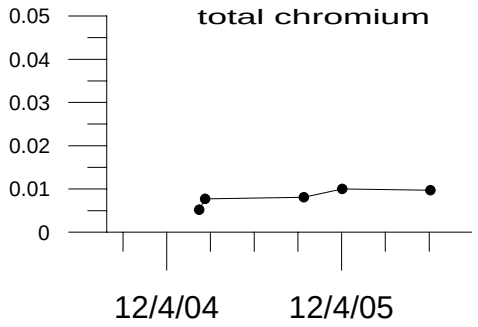


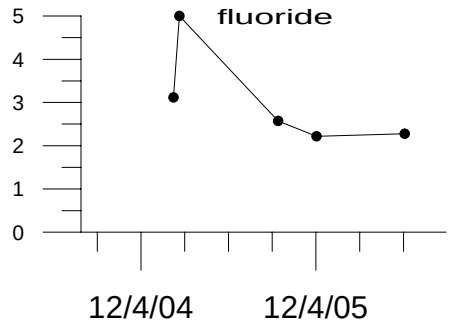
All concentration units in mg/L. pH in pH units

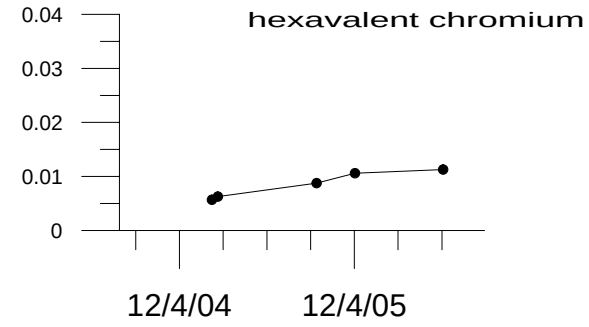
Figure 4
Water Quality Hydrographs
CW-02D

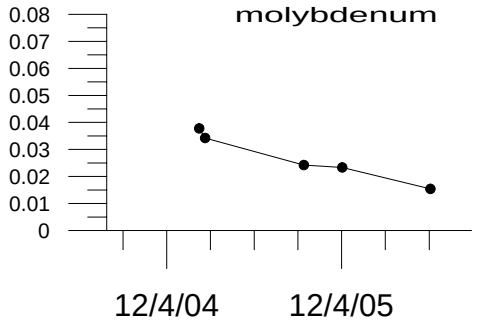
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

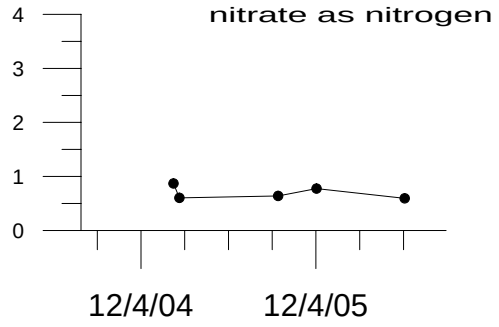


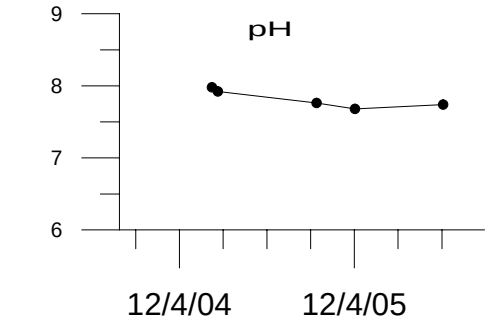


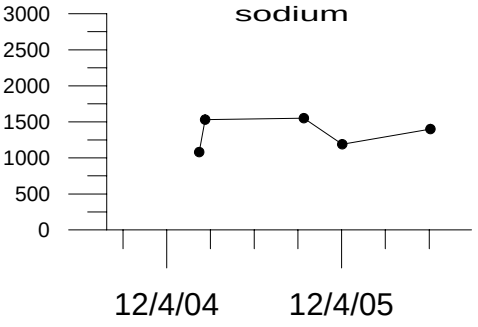


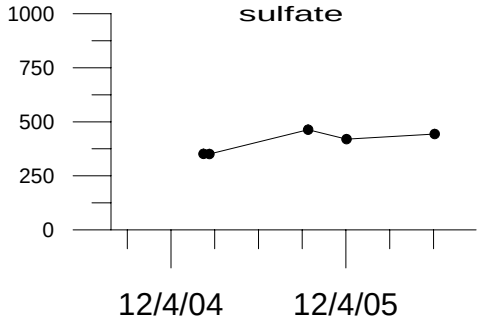


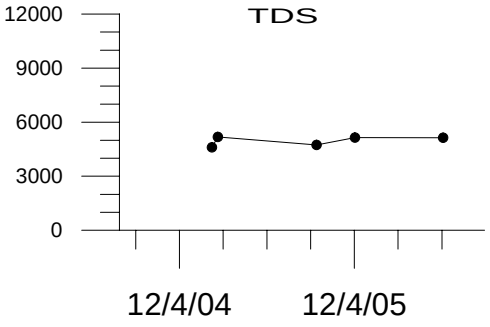


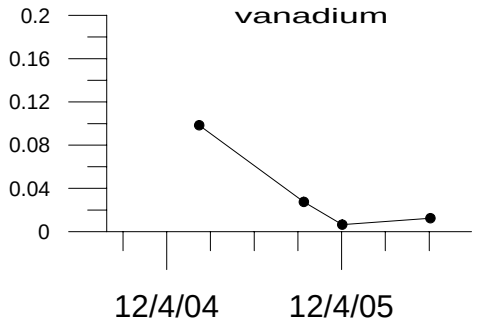








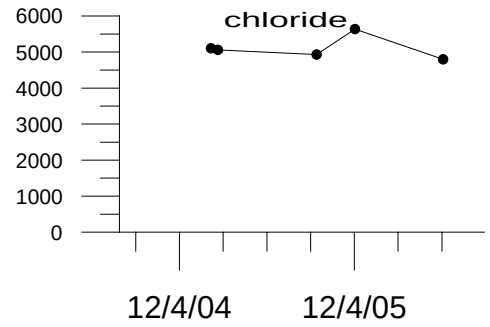


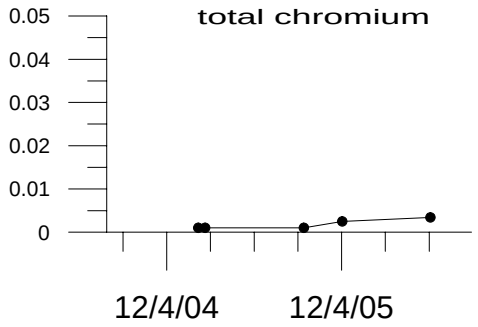


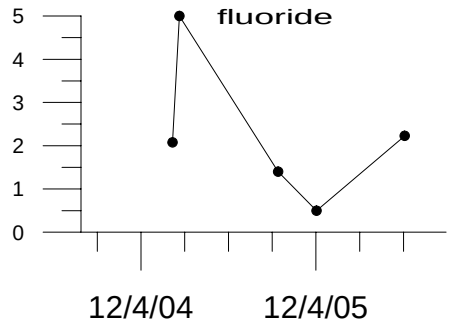
All concentration units in mg/L. pH in pH units

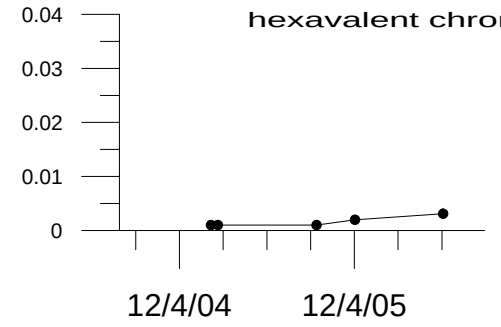
Figure 5
Water Quality Hydrographs
CW-03M

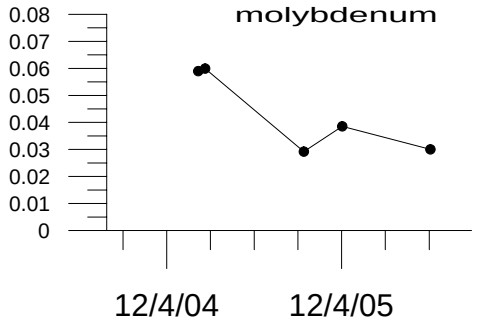
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

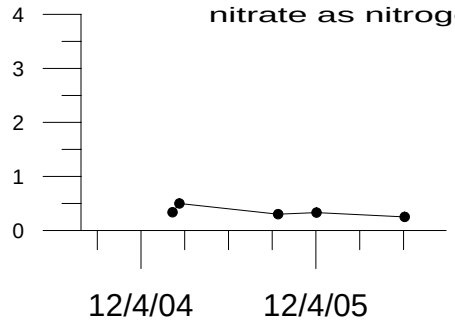


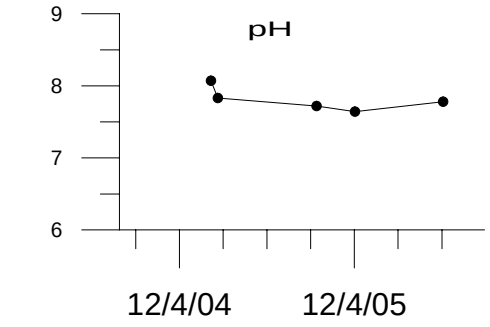


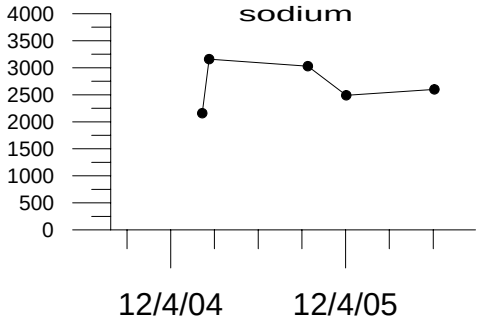


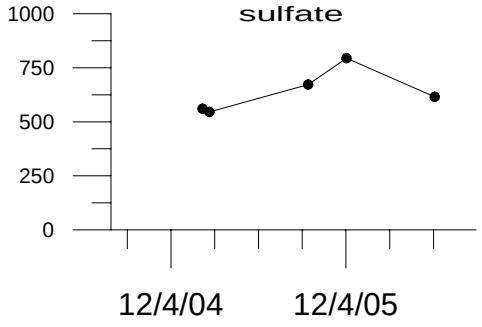


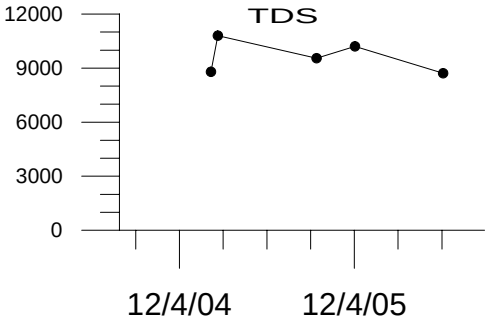


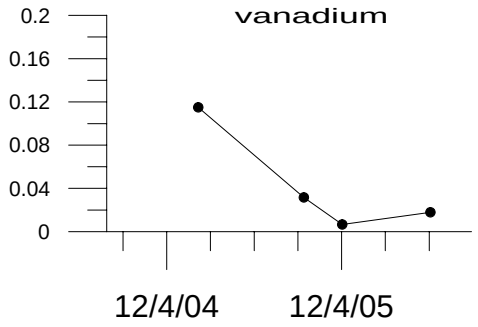








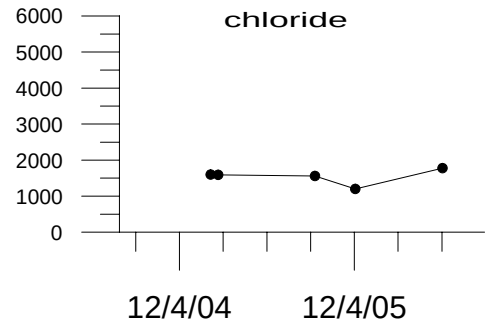


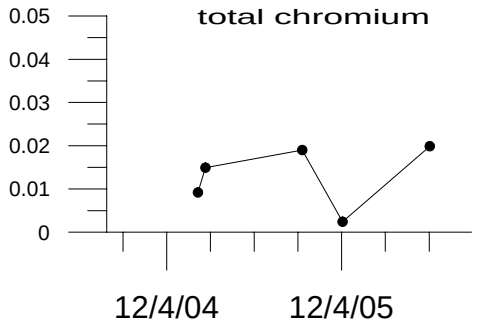


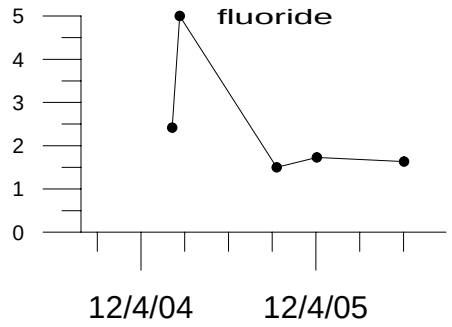
All concentration units in mg/L. pH in pH units

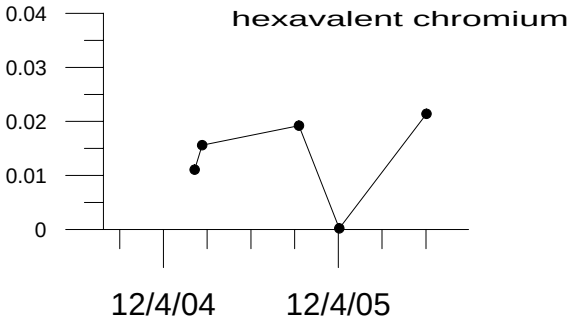
Figure 6
Water Quality Hydrographs
CW-03D

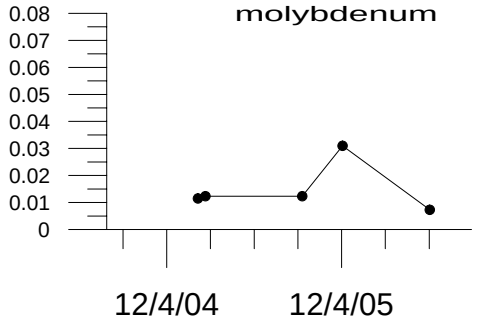
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

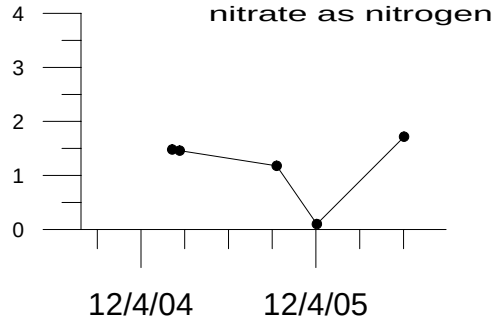


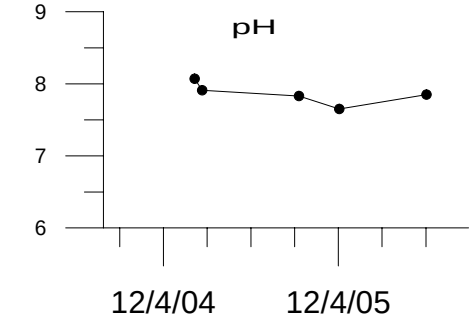


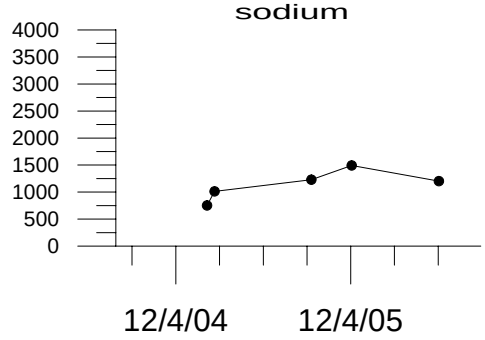


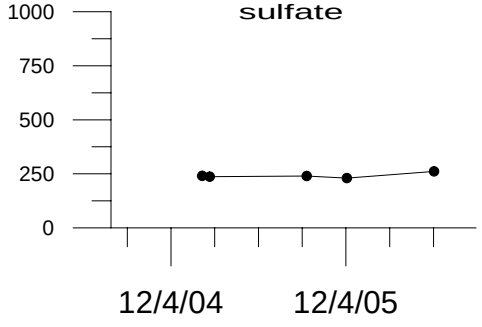


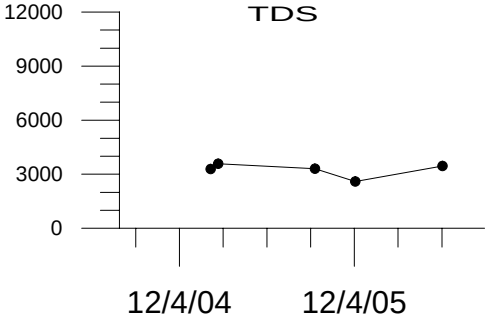


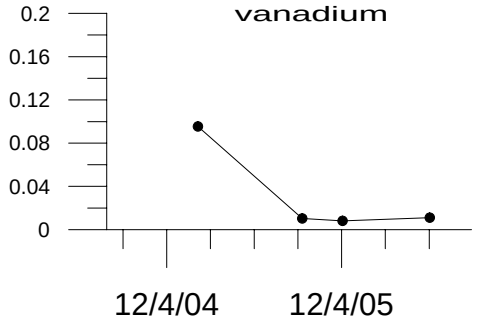








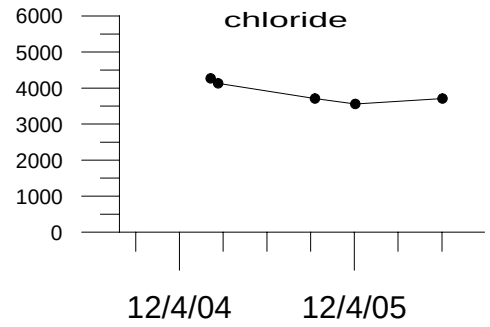


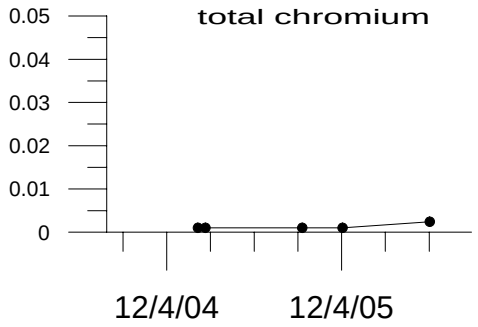


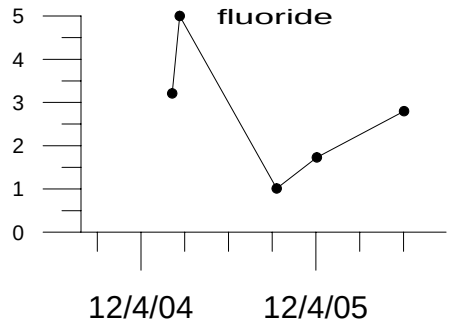
All concentration units in mg/L. pH in pH units

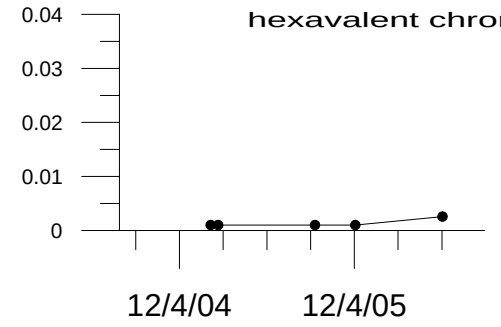
Figure 7
Water Quality Hydrographs
CW-04M

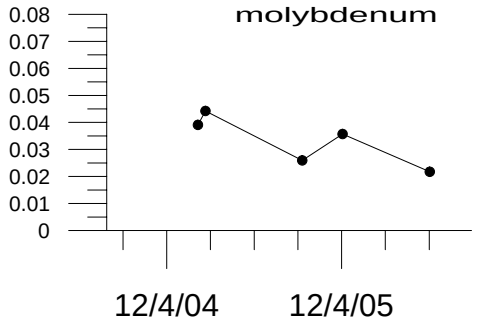
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

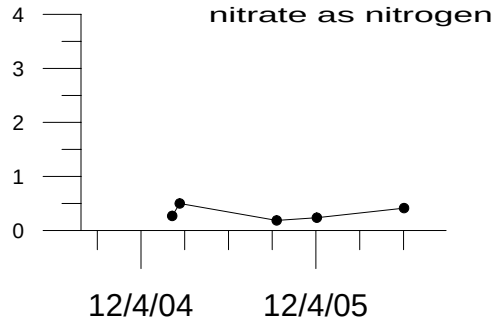


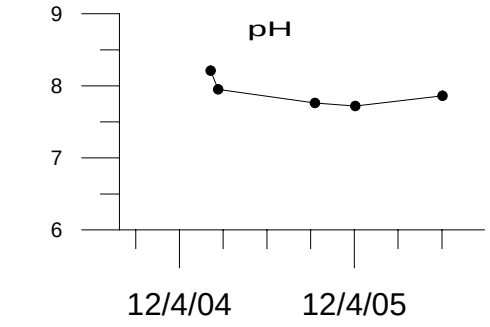


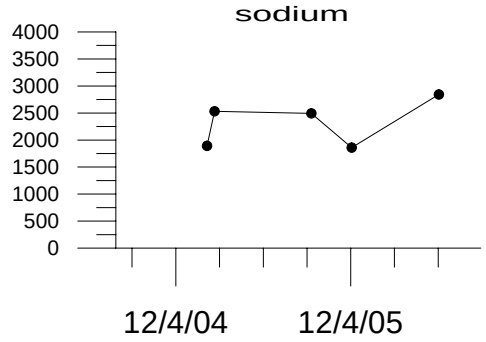


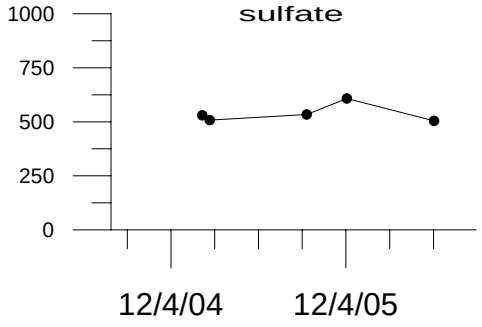


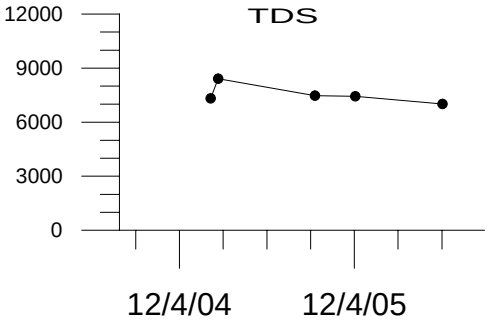


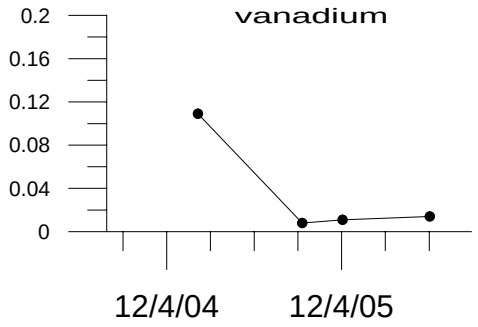








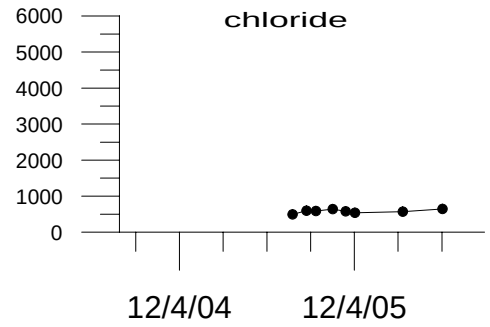


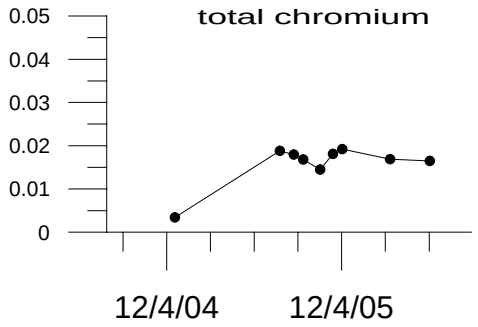


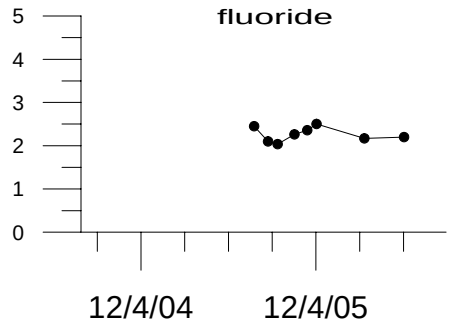
All concentration units in mg/L. pH in pH units

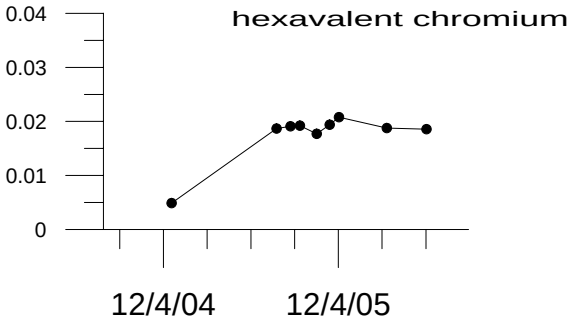
Figure 8
Water Quality Hydrographs
CW-04D

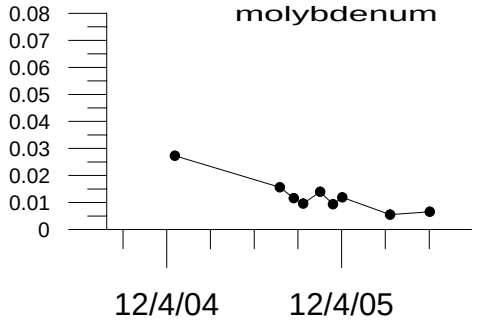
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

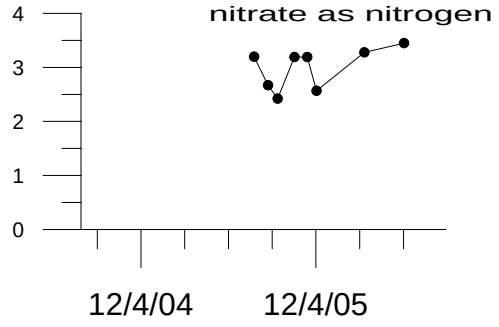


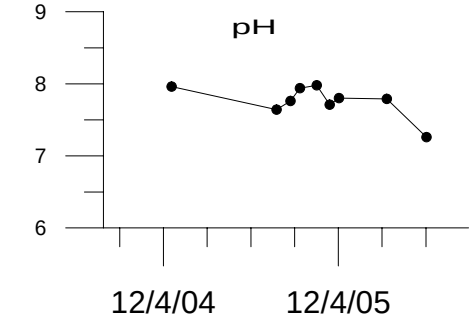


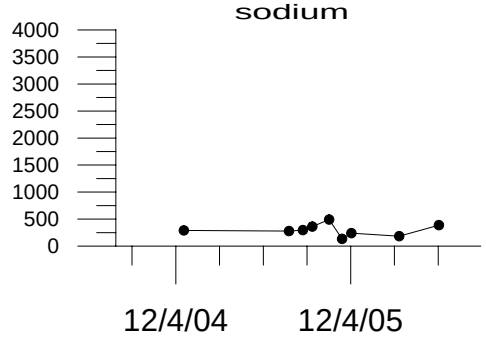


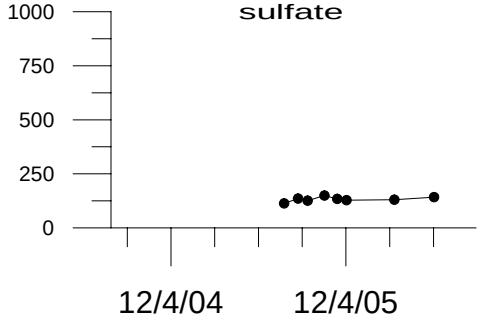


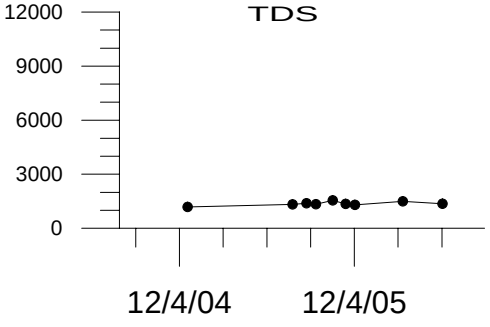


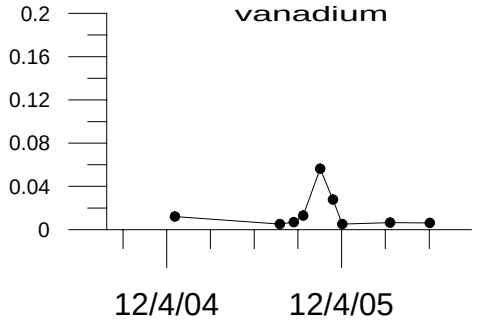








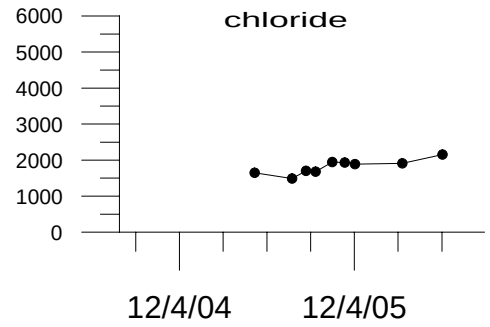


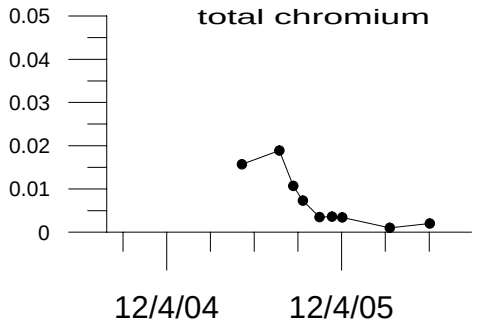


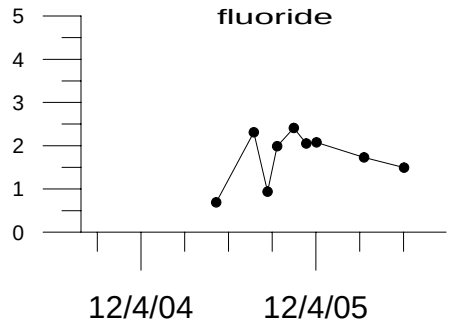
All concentration units in mg/L. pH in pH units

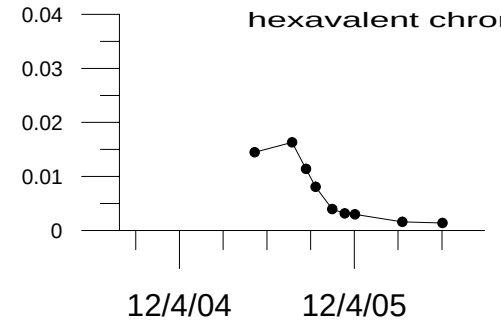
Figure 9
Water Quality Hydrographs
OW-01S

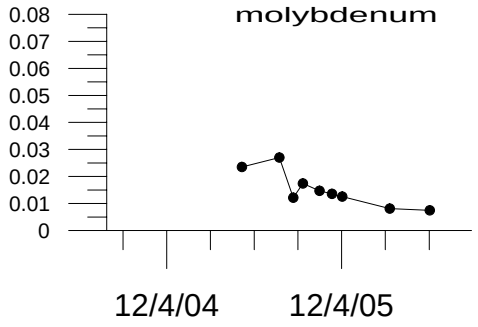
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

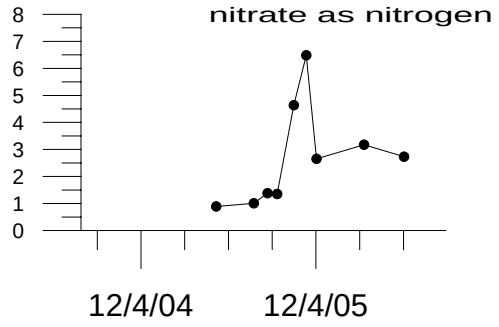


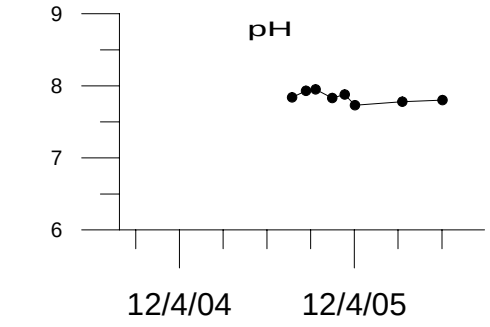


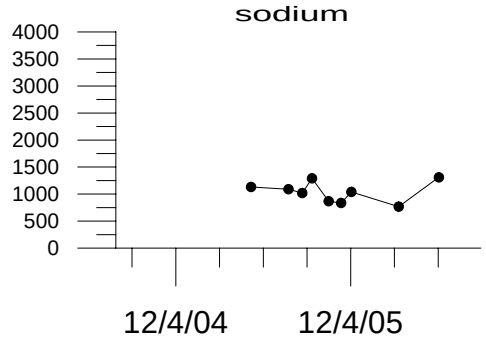


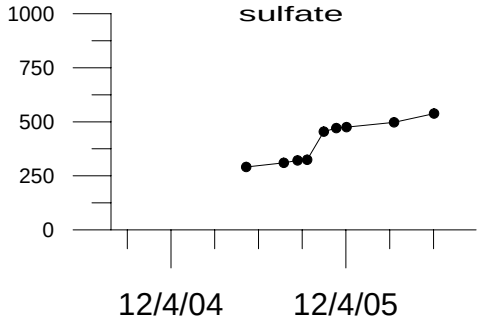


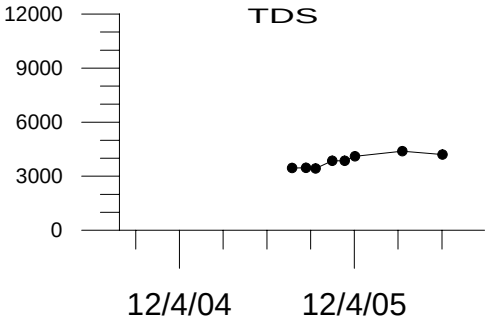


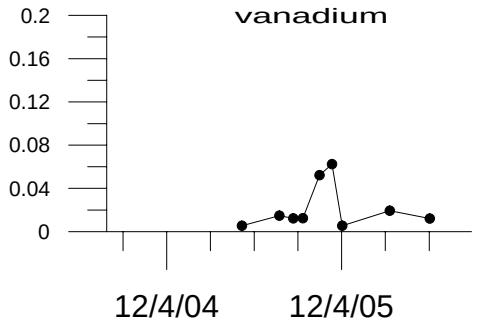








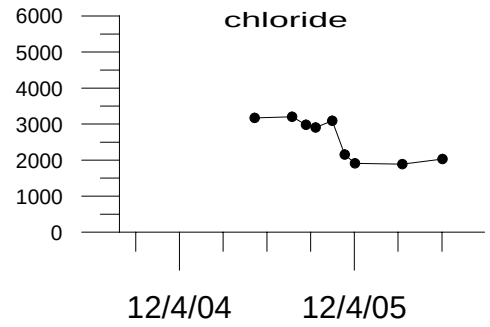


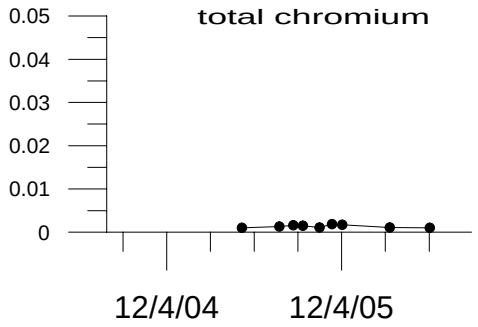


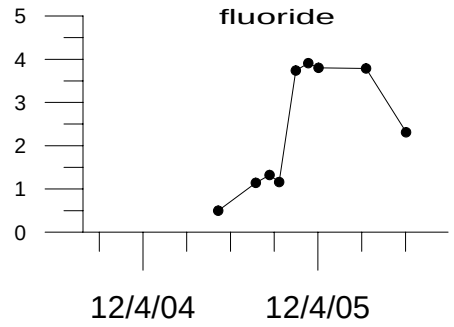
All concentration units in mg/L. pH in pH units

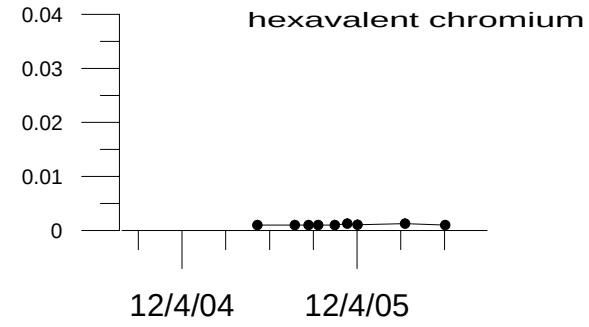
Figure 10
Water Quality Hydrographs
OW-01M

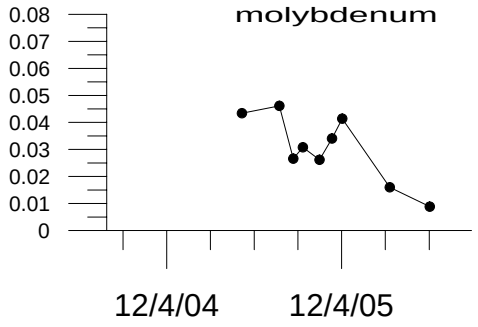
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

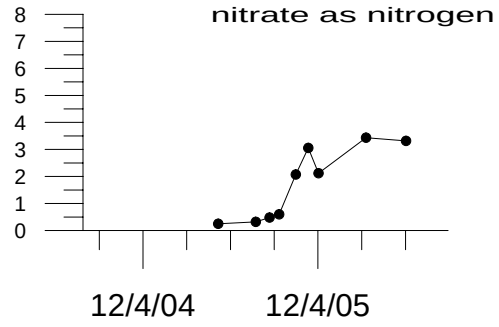


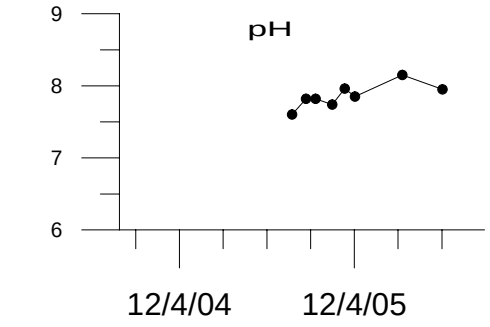


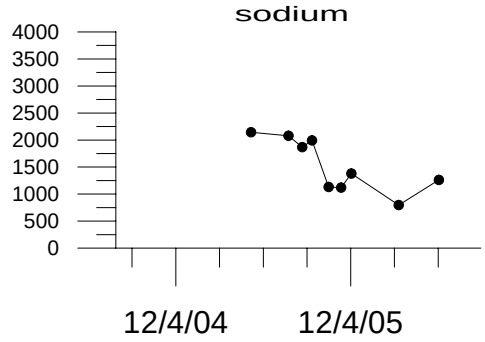


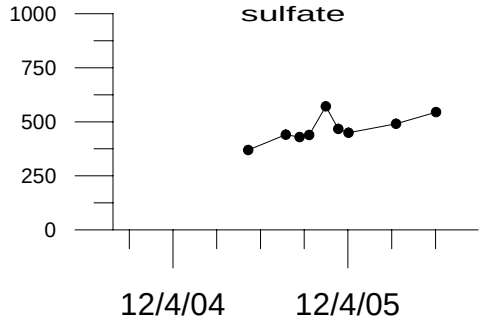


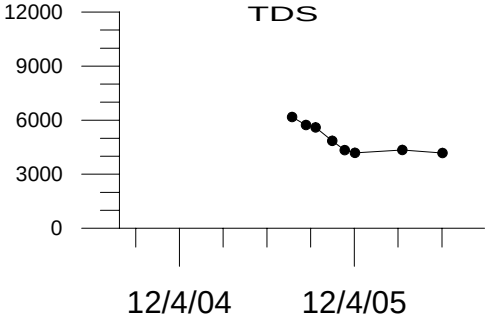


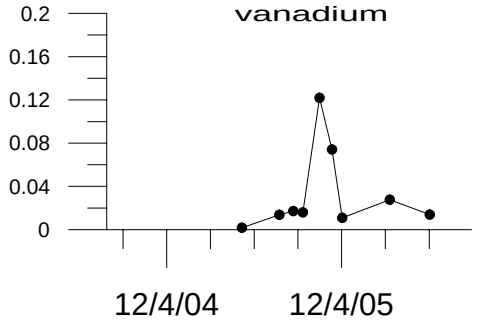








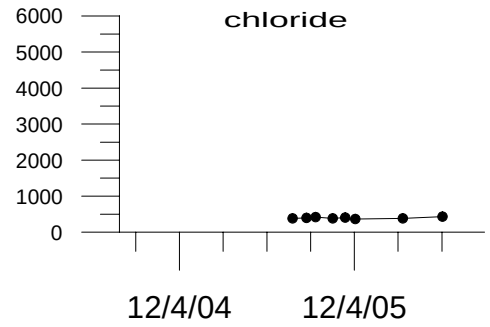


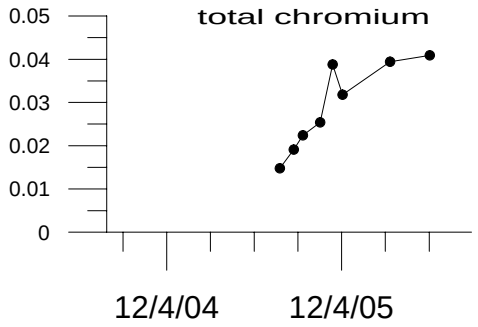


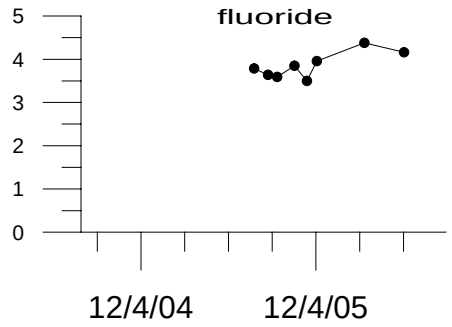
All concentration units in mg/L. pH in pH units

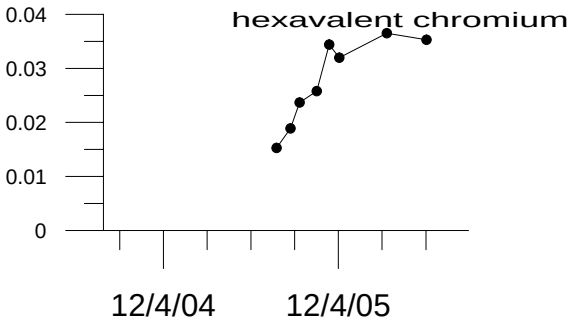
Figure 11
Water Quality Hydrographs
OW-01D

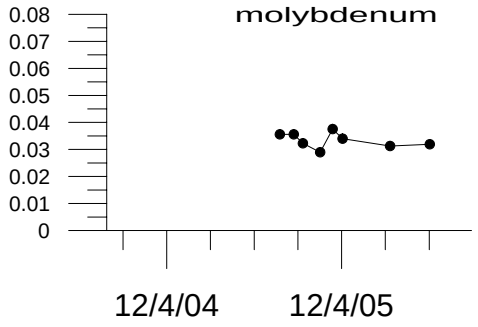
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

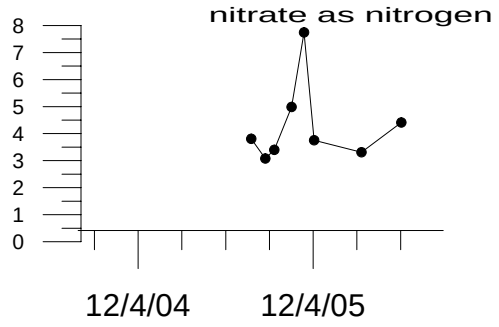


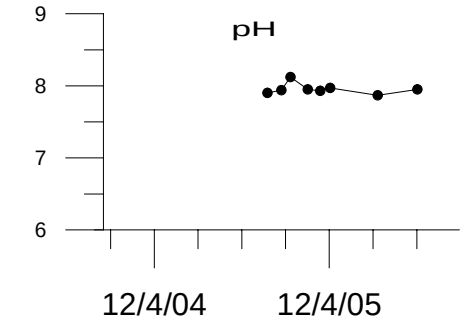


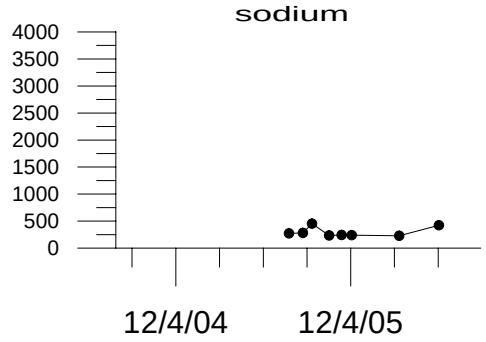


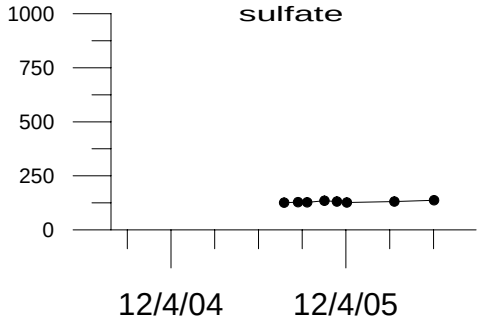


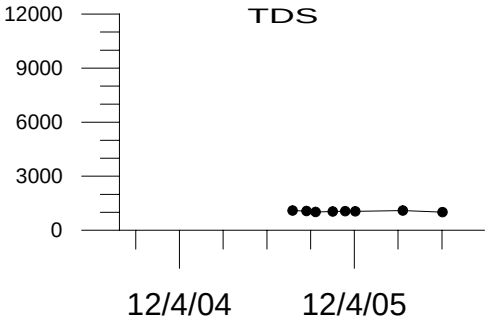


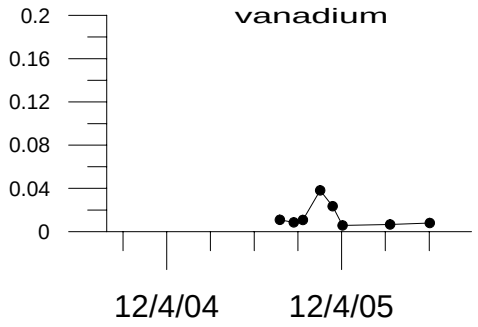








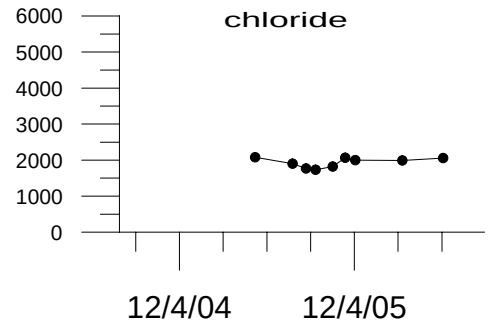


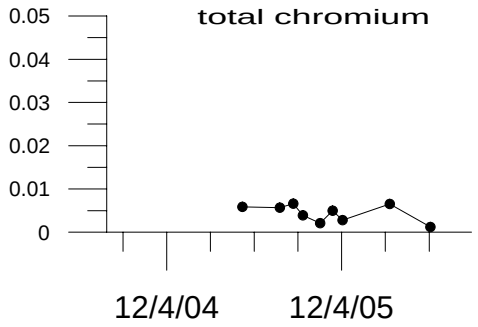


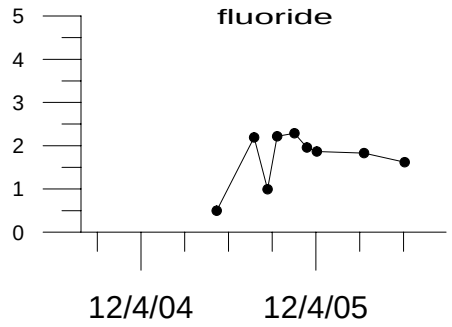
All concentration units in mg/L. pH in pH units

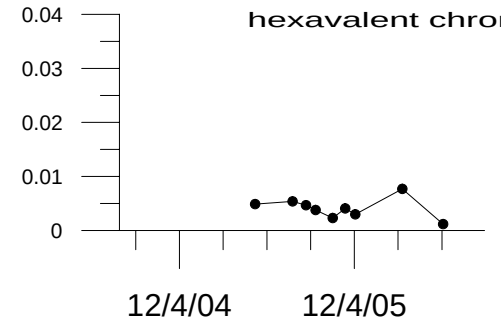
Figure 12
Water Quality Hydrographs
OW-02S

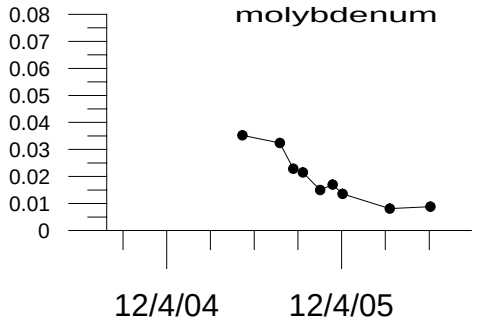
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

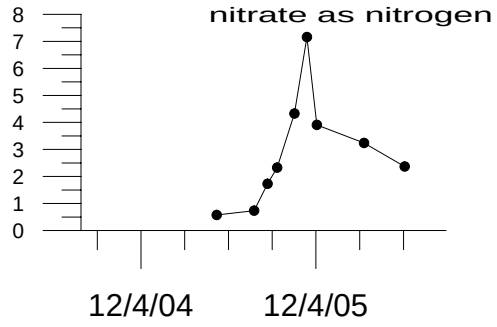


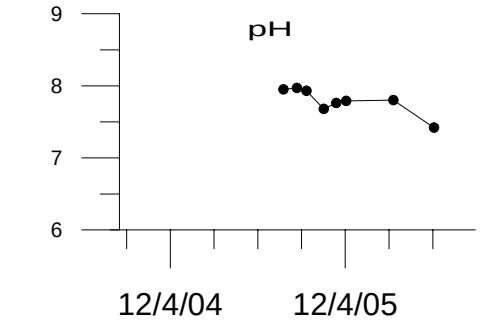


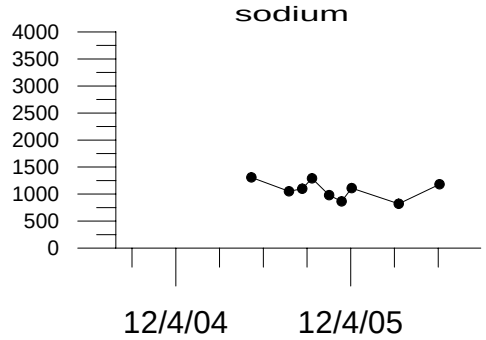


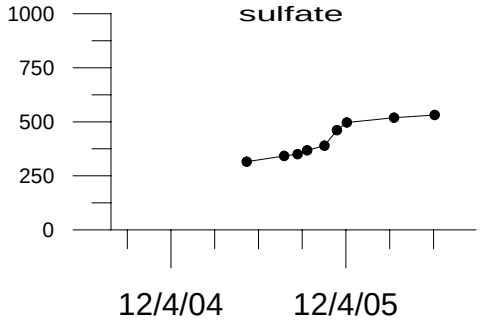


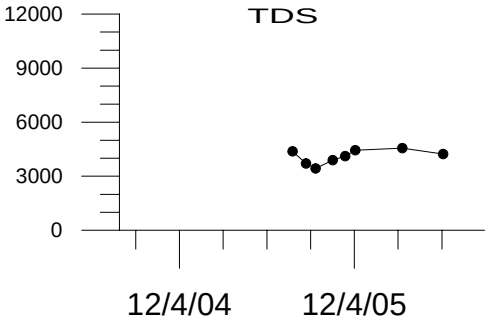


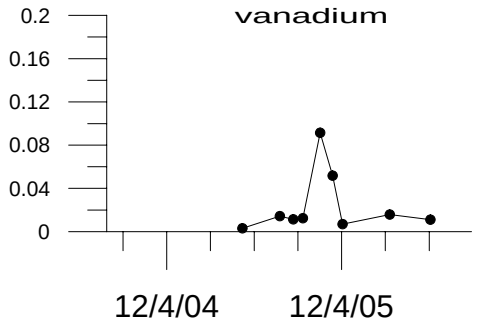








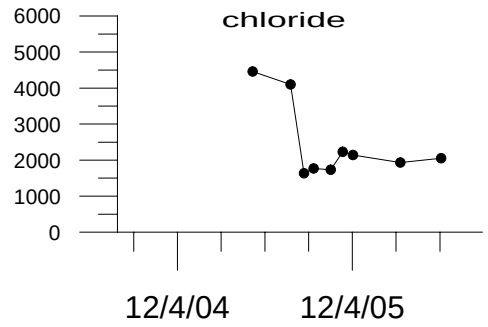


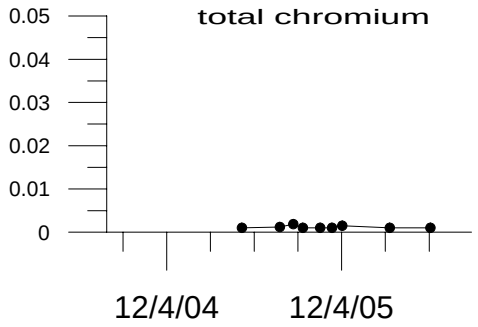


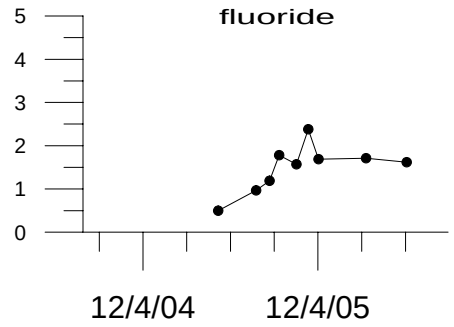
All concentration units in mg/L. pH in pH units

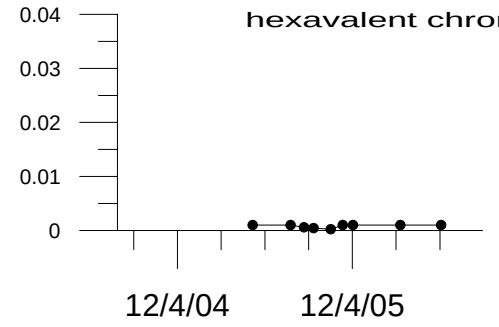
Figure 13
Water Quality Hydrographs
OW-02M

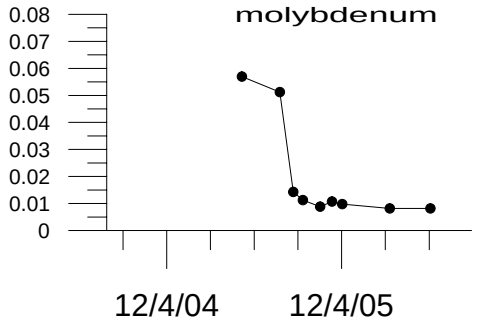
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

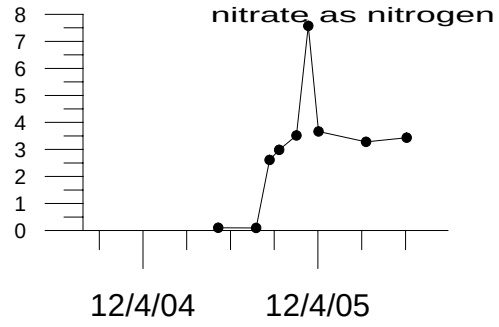


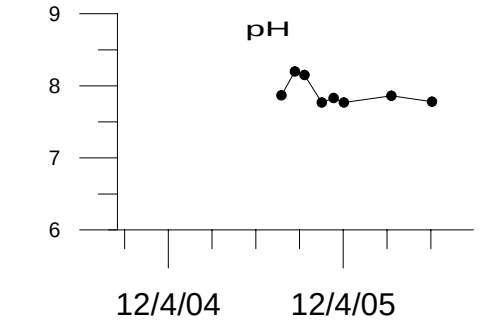


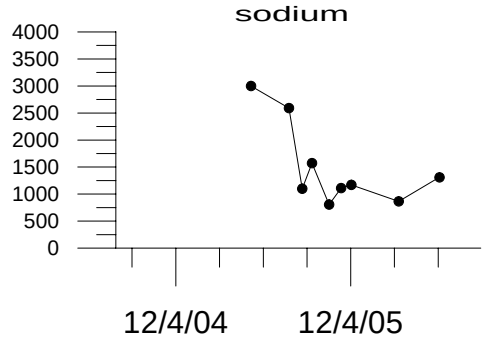


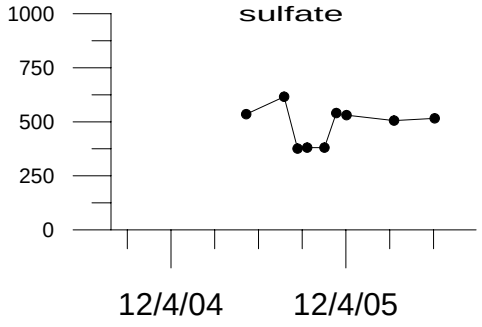


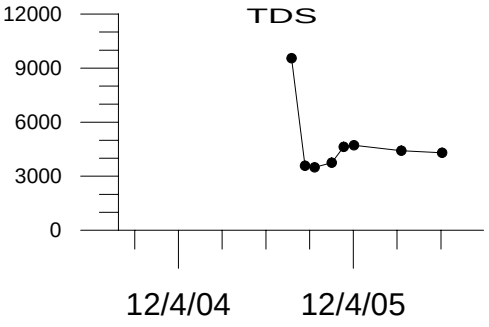


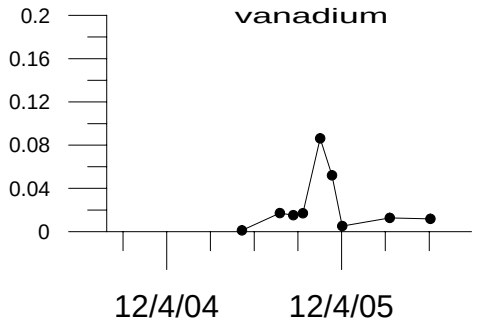








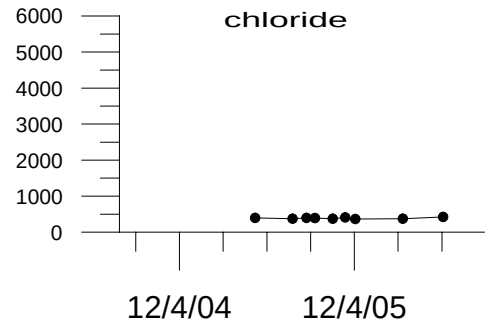


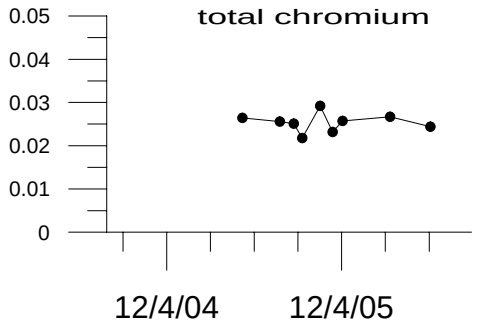


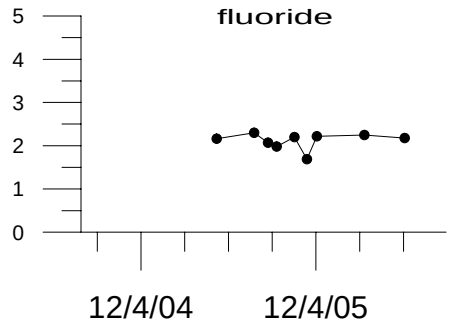
All concentration units in mg/L. pH in pH units

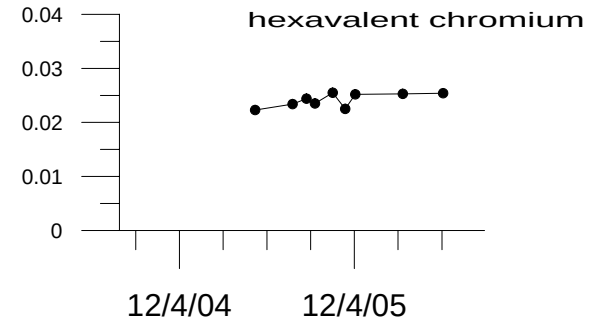
Figure 14
Water Quality Hydrographs
OW-02D

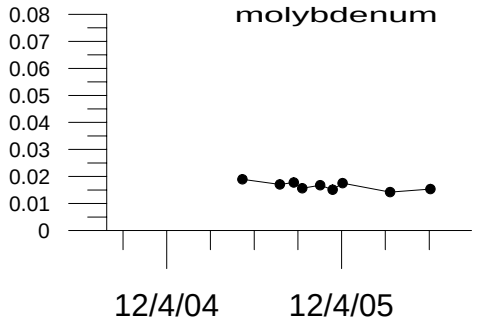
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

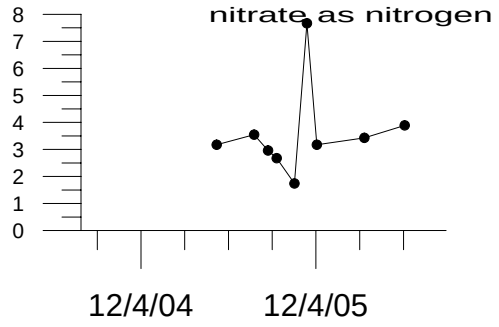


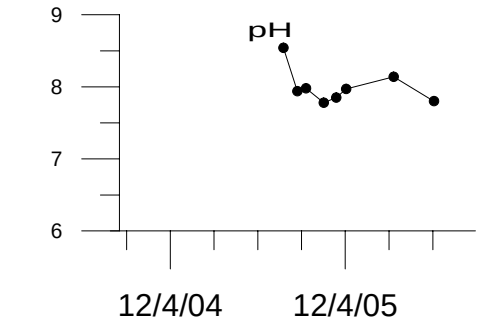


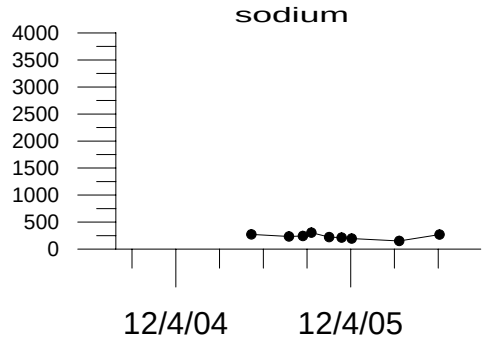


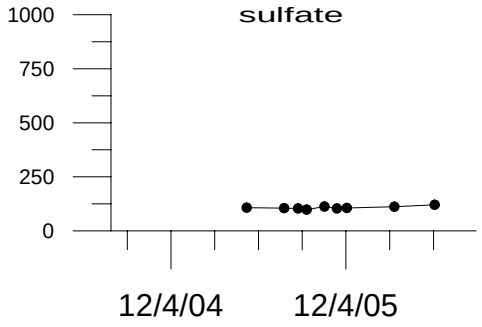


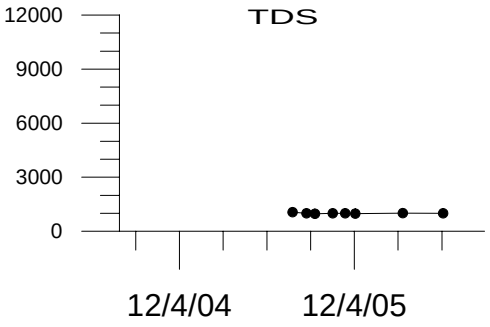


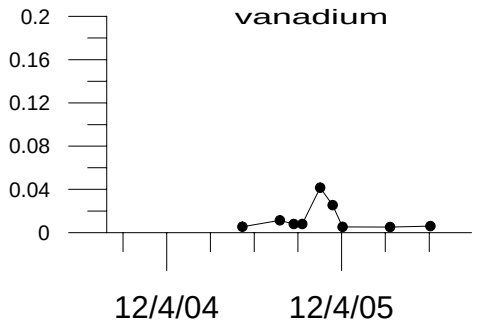








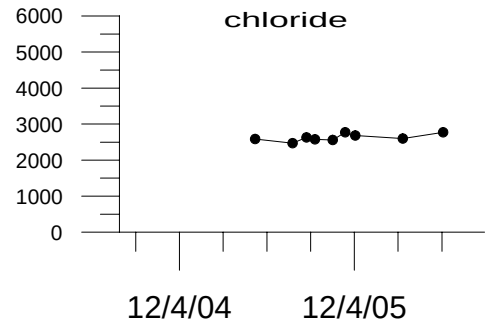


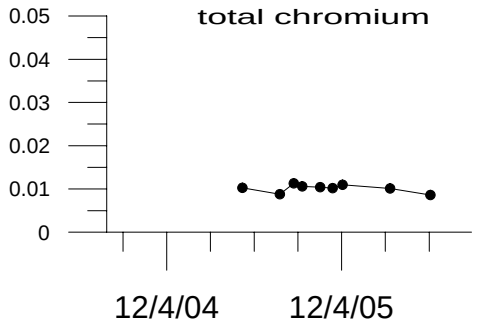


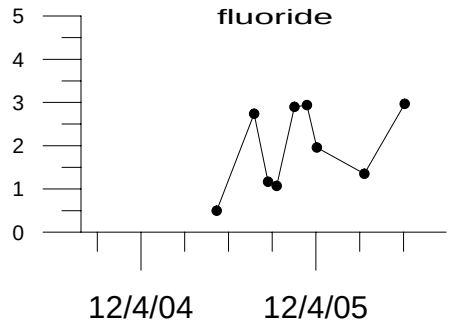
All concentration units in mg/L. pH in pH units

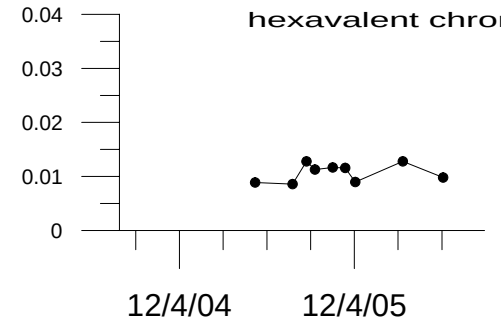
Figure 15
Water Quality Hydrographs
OW-05S

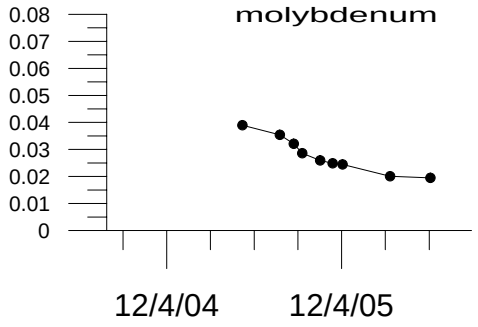
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

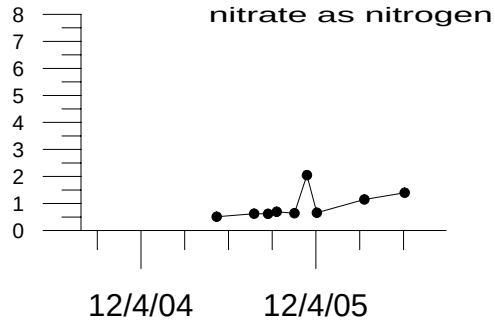


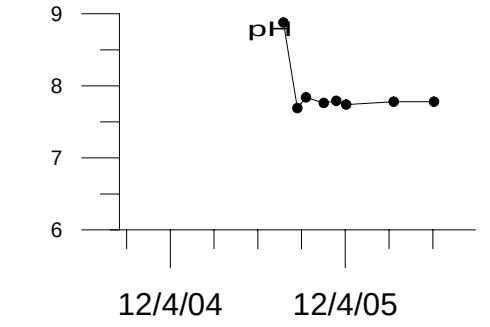


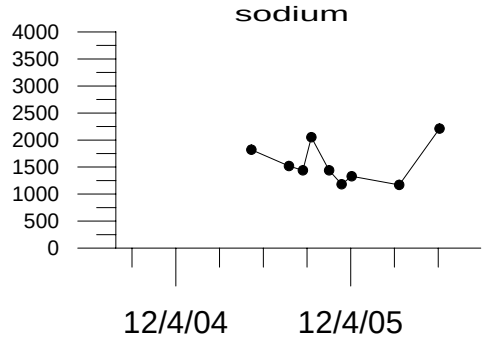


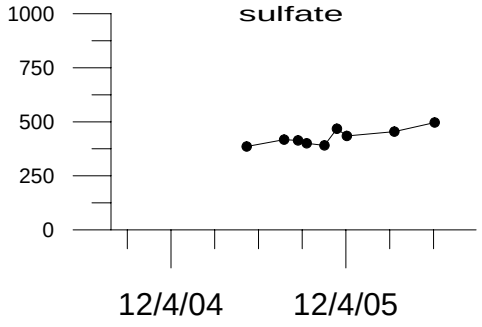


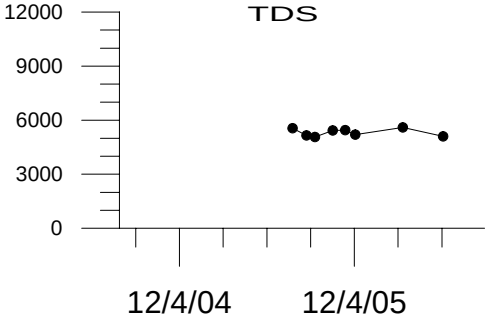


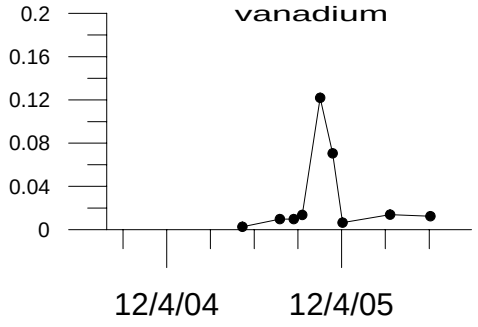








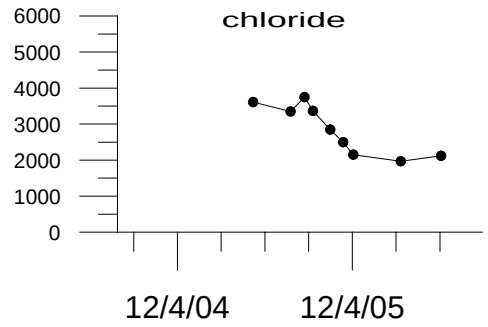


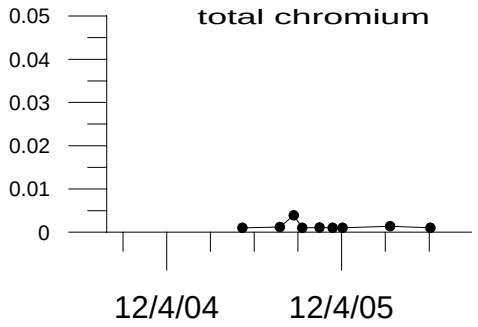


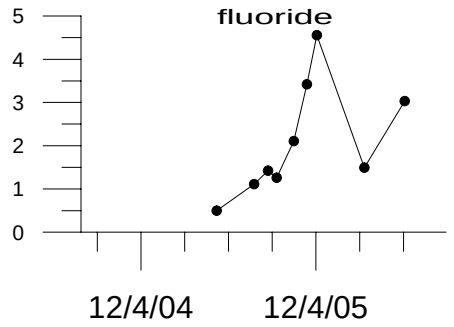
All concentration units in mg/L. pH in pH units

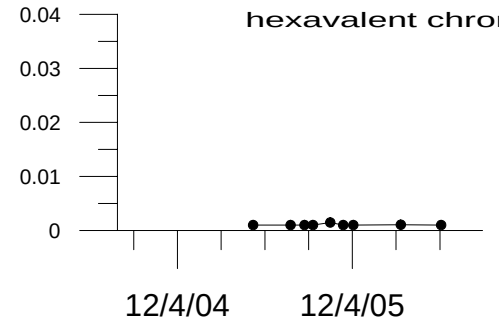
Figure 16
Water Quality Hydrographs
OW-05M

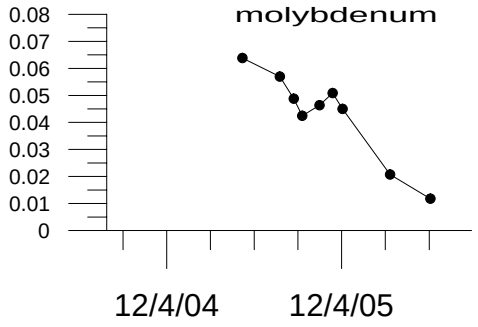
IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

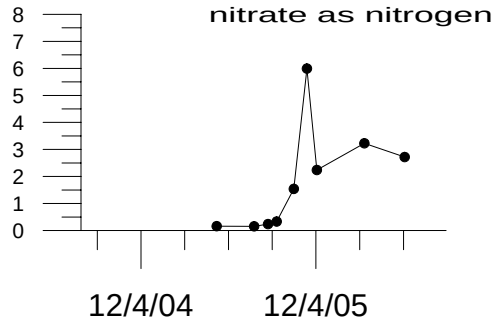


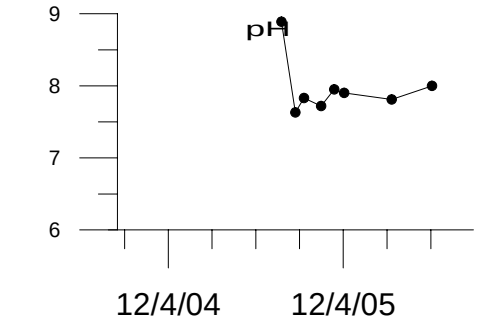


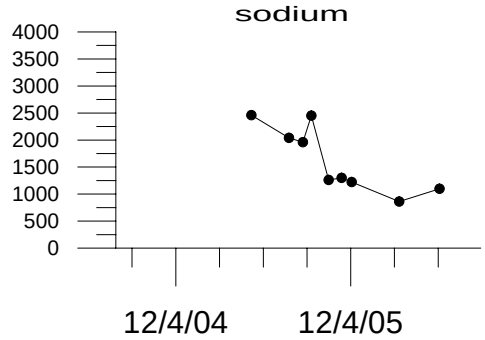


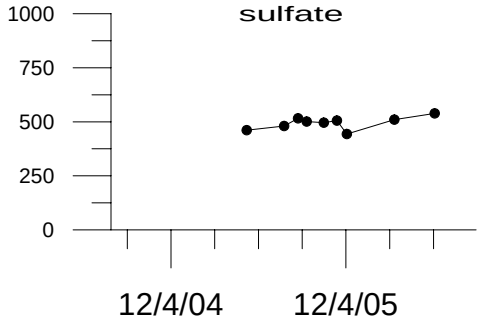


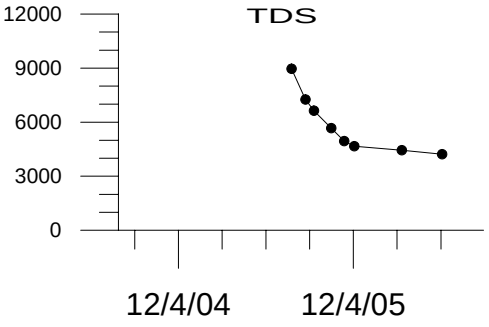


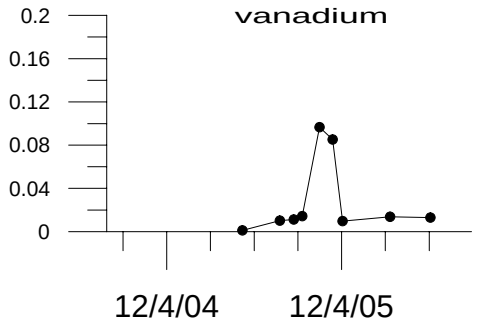












All concentration units in mg/L. pH in pH units

Figure 17
Water Quality Hydrographs
OW-05D

IM3 Compliance Monitoring Program
PG&E Topock Compressor Station
Needles, California

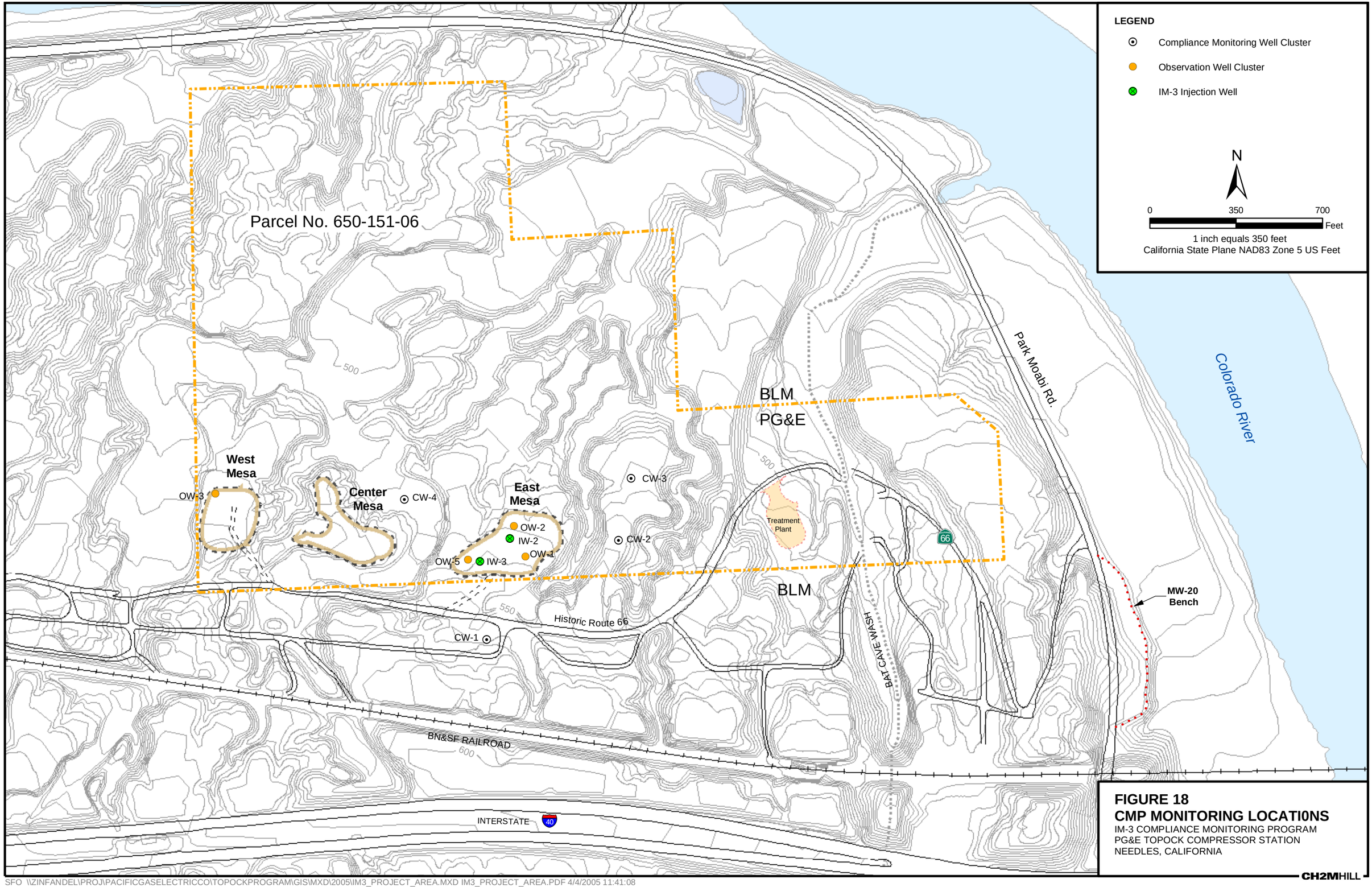


FIGURE 18
CMP MONITORING LOCATI0NS
IM-3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

PARK
M@ABI

Colorado River

66

455.0

455.5

456.0

MW-35-060
455.34

MW-33-040*
455.03

MW-31-060*
454.44

MW-28-025*
455.01

MW-19
454.70

MW-25
454.77

454.5

454.0

TW-2D
TW-3D

PE-01

MW-20-070*
453.53

MW-27-020*
455.01

MW-43-025*
455.10

MW-26
454.44

MW-24A
NA

MW-21
(455.56)

MW-22*
454.44

MW-12
NA

MW-41S
455.31

MW-13
455.23

BAT CAVE WASH

OW-03S
456.0

OW-05S
(456.0)

OW-02S
455.71

OW-01S
455.83

MW-17
NA

MW-18
455.93

MW-14
455.60

BN & SF RAILROAD

40 INTERSTATE

MW-07
(455.40)

MW-04
(455.66)

NEW
EVAPORATION
PONDS

MW-08
456.14

MW-16
456.27

MW-06
456.07

MW-05
455.98

MW-03
(456.67)

MW-01
NA

MW-11
NA

MW-38S
NA

MW-10*
455.36

MW-09
NA

TOPOCK
COMPRESSOR
STATION

MW-15
455.94

FORMER
EVAPORATION
POND SITE

DEBRIS RAVINE

N

0 700 1,400 Feet

1 inch equals 700 feet

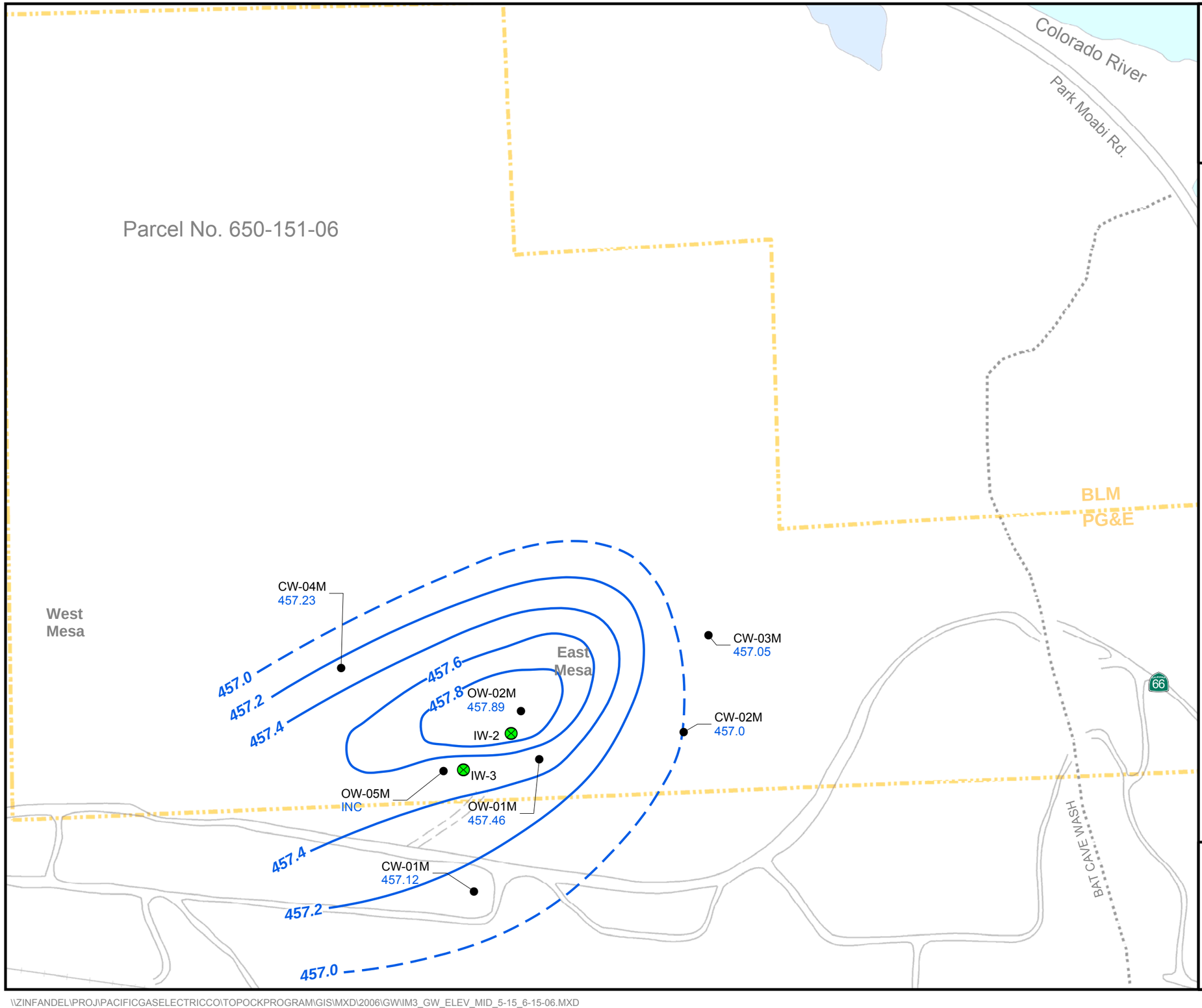
LEGEND

- Extraction well
- Groundwater monitoring / observation well
- MW-20-100 454.75 — Well name with water level elevation (ft MSL)
- MW-20-100 (454.75) — Well name with water level elevation (ft MSL) not used in contouring
- MW-20-100* 454.75 — Groundwater Elevation from Transducer
- Groundwater Elevation Contour 0.5 ft
- Inferred or Approximate Groundwater Elevation Contour 0.5 ft
- NA — Data not available

Notes:
1. Water level contours for the floodplain area are presented in Performance Monitoring Reports.
2. TW-3D and PE-1 are pumping from lower portion of the aquifer.
3. Floodplain well data taken from pressure transducers at the time of manual measurements (9:00 AM).
4. Gradients shown on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average groundwater flow directions.

FIGURE 19
GROUNDWATER ELEVATION CONTOURS FOR SHALLOW WELLS
MARCH 8, 2006 WATER LEVEL SURVEY
1ST QUARTER 2006 MONITORING EVENT
IM 3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

BAO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2005\GMP_SITE_SNAP_UA_MAR06.MXD



N

0 250 500 Feet

1 inch equals 250 feet

California State Plane NAD83 Zone 5 US Feet

LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

Groundwater Elevations for Mid-depth Wells in IM-3 Injection Area

- **MW-41M** 454.75 — Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
- Groundwater elevation contour in feet above MSL (0.2 foot interval), dashed where inferred

Note: Average monthly groundwater elevations are calculated with pressure transducer data measured at 30 minuet intervals.
INC = Data incomplete or unavailable over reporting period.

FIGURE 20
GROUNDWATER ELEVATION CONTOURS FOR MID-DEPTH WELLS MAY 15 TO JUNE 15, 2006

IM-3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

\\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2006\GW\IM3_GW_ELEV_MID_5-15_6-15-06.MXD

heads measured with tranducers at 30 minuet intervals.

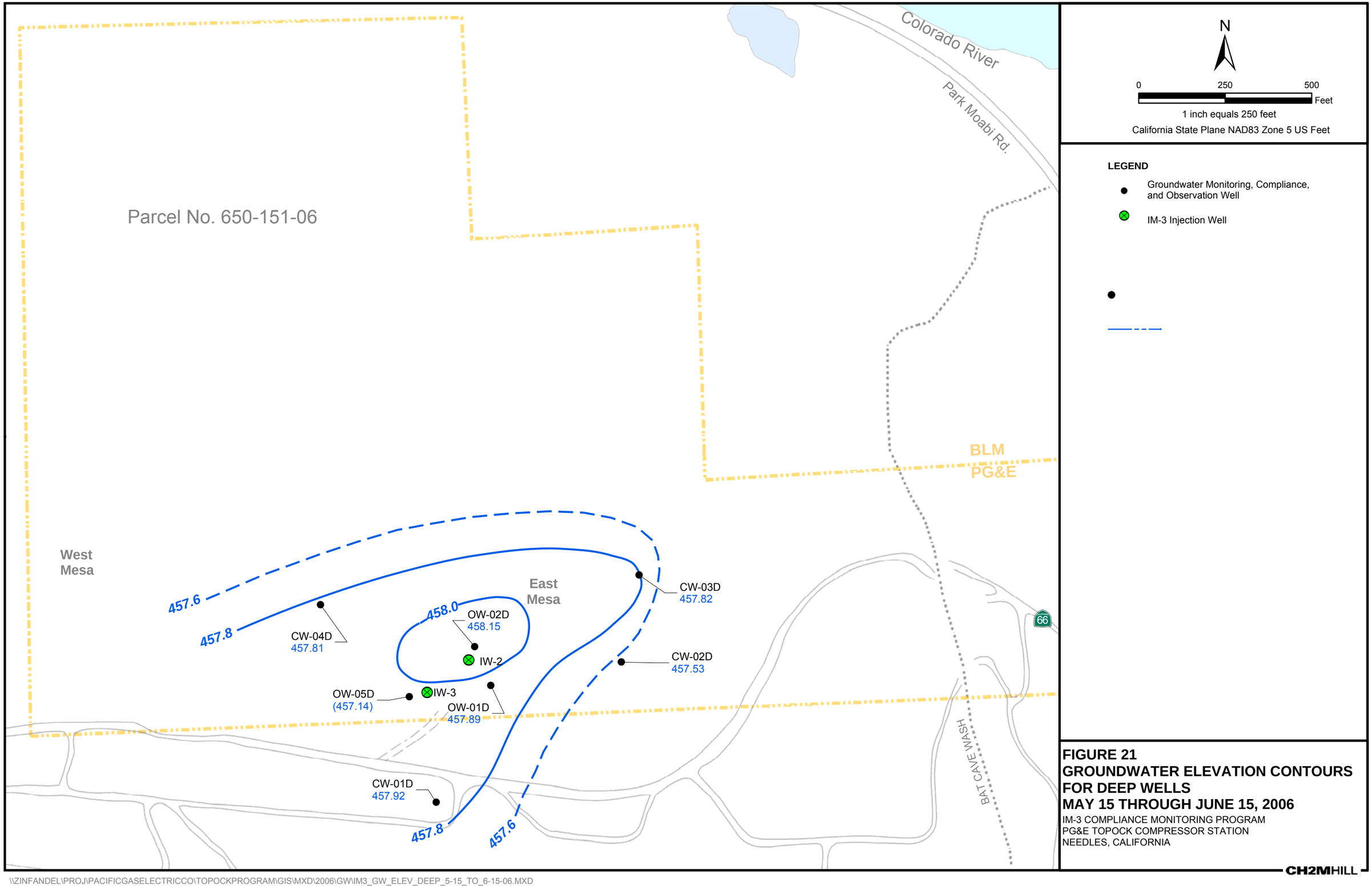


FIGURE 21
GROUNDWATER ELEVATION CONTOURS FOR DEEP WELLS
MAY 15 THROUGH JUNE 15, 2006
IM-3 COMPLIANCE MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

\\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2006\GW\IM3_GW_ELEV_DEEP_5-15_TO_6-15-06.MXD