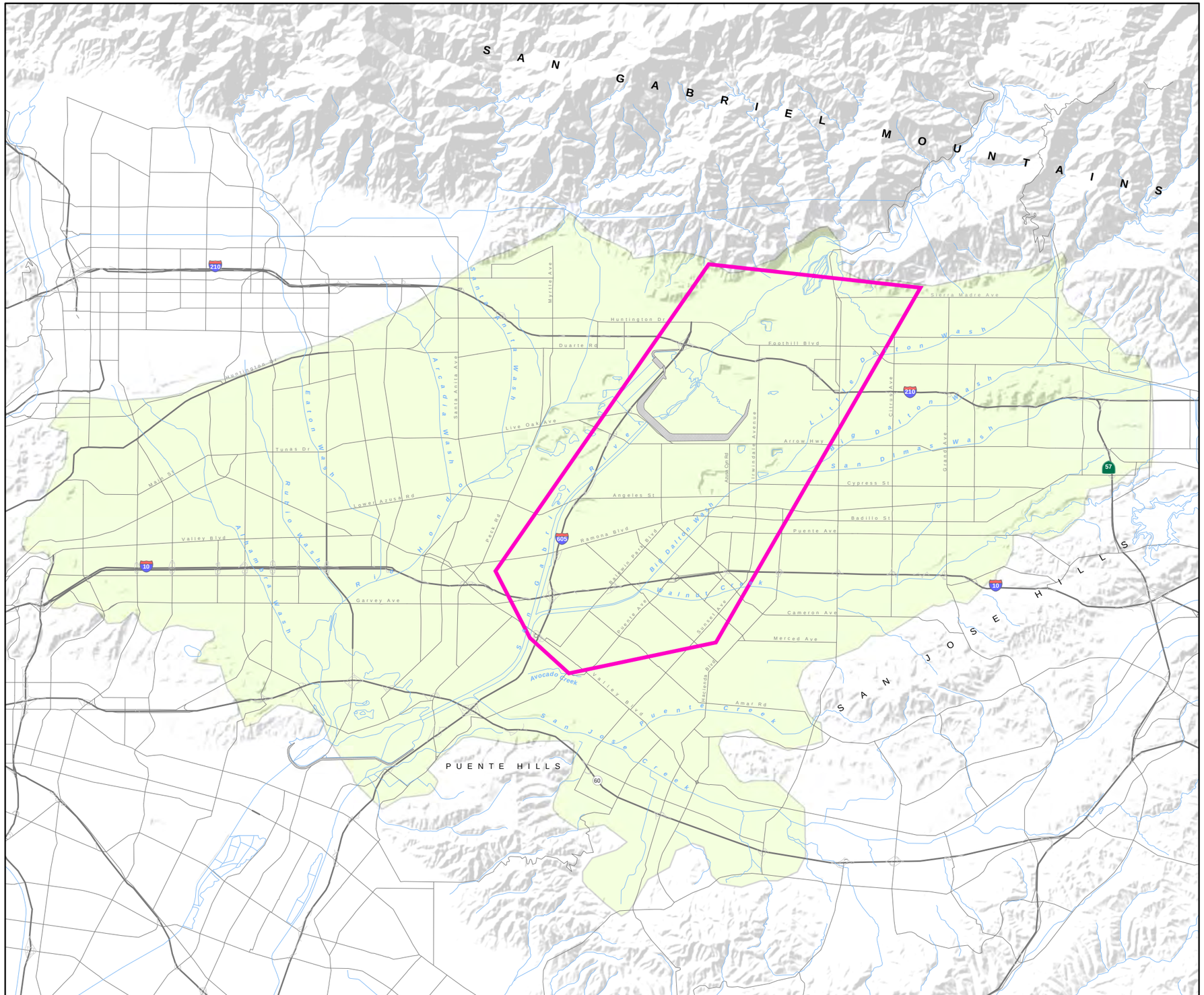
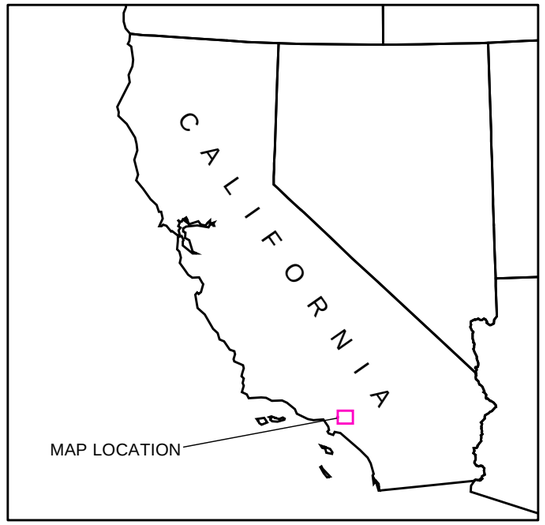




EXPLANATION

- Approximate BPOU boundary
- Extent of BPOU groundwater model

10,000 0 10,000

SCALE IN FEET

N

BPOU LOCATION MAP

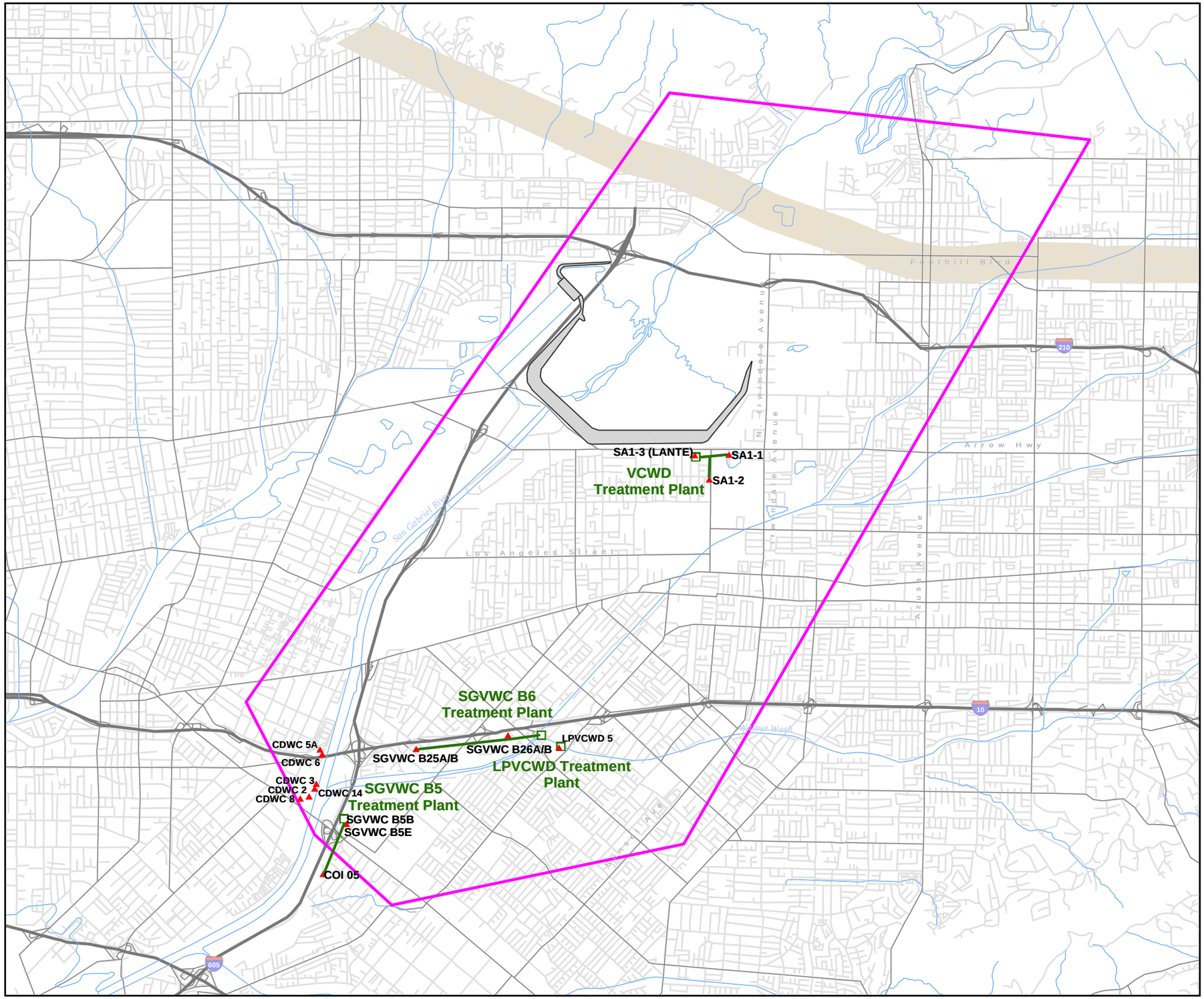
Baldwin Park Operable Unit
San Gabriel Valley, California

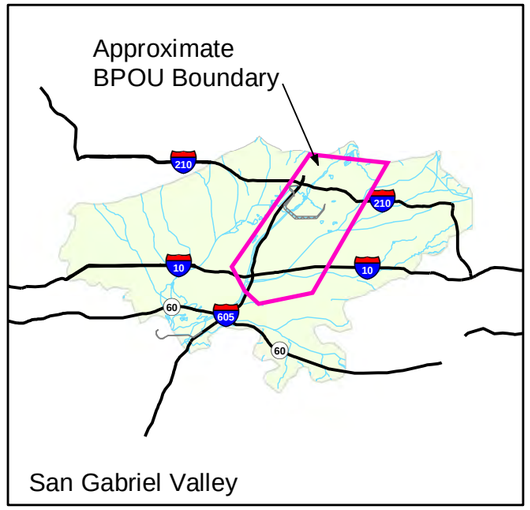
Geosyntec consultants

Project No.: SAC150

Figure **1-1**

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\1-01_BPOU_LocationMap.mxd





EXPLANATION

- Extraction well
- Treatment plant
- Raw water pipeline
- Approximate BPOU boundary
- Duarte Fault Zone

5,000 0 5,000

SCALE IN FEET

N

BPOU EXTRACTION WELL, RAW WATER PIPEPLINE, AND TREATMENT PLANT LOCATION MAP

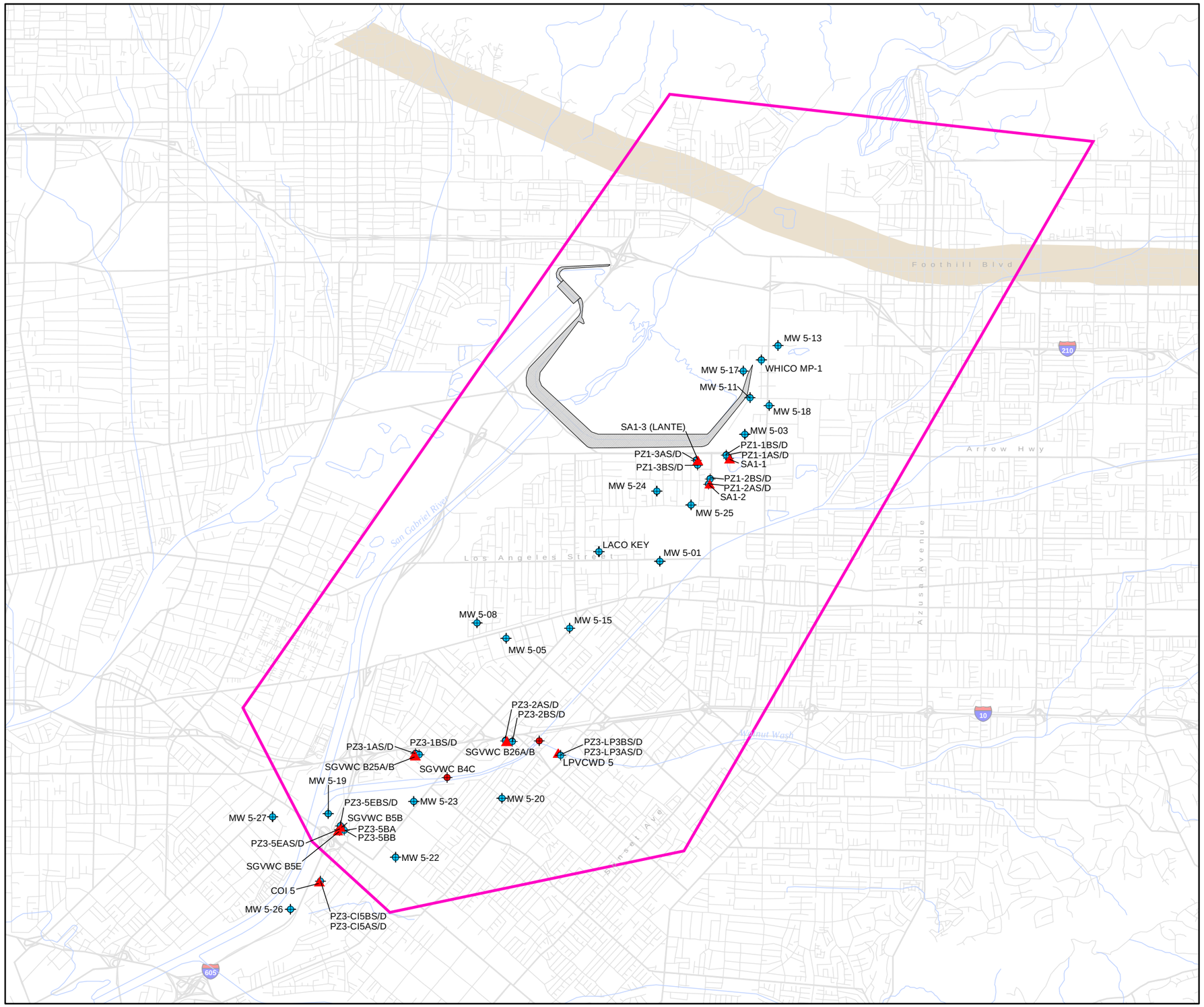
Baldwin Park Operable Unit
San Gabriel Valley, California

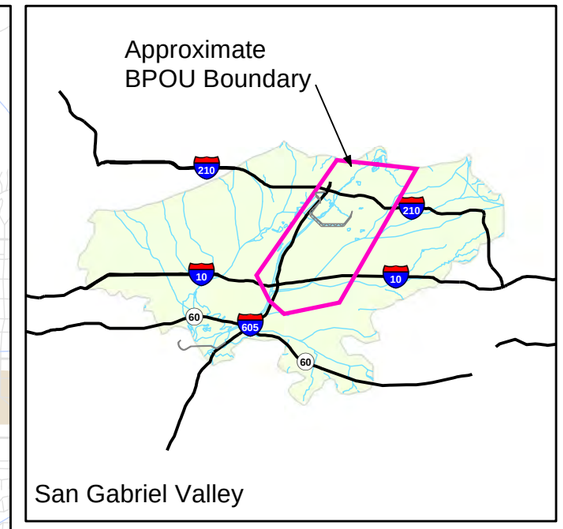
Geosyntec consultants

Project No.: SAC150

Figure 1-2

Path: P:\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\1-02_BPOU_Infrastructure.mxd





EXPLANATION

- Multiport or monitoring well
- Extraction well
- Production well
- Approximate BPOU boundary
- Duarte Fault Zone

5,000 0 5,000

SCALE IN FEET

N

BPOU POTENTIOMETRIC MONITORING NETWORK

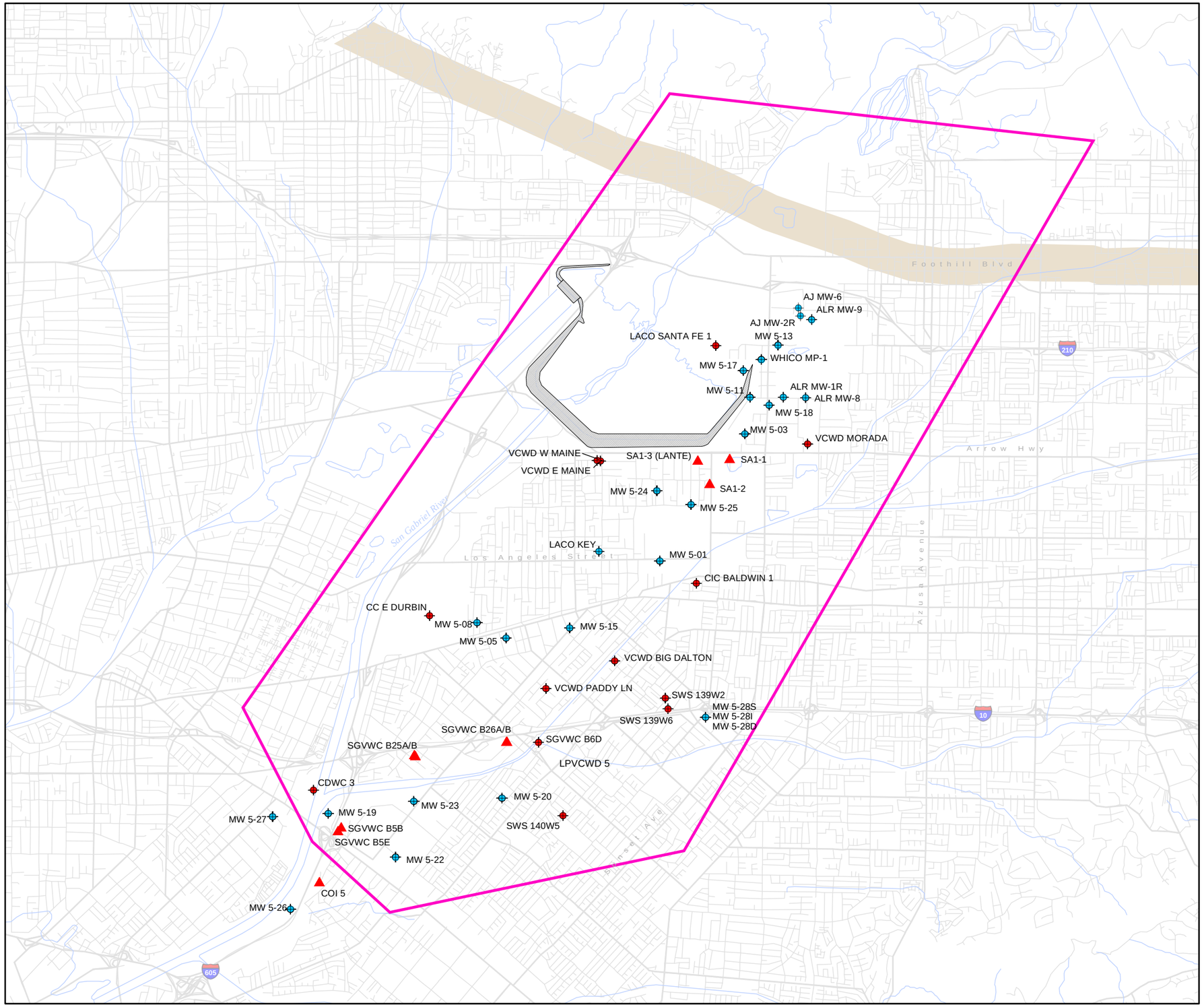
Baldwin Park Operable Unit
San Gabriel Valley, California

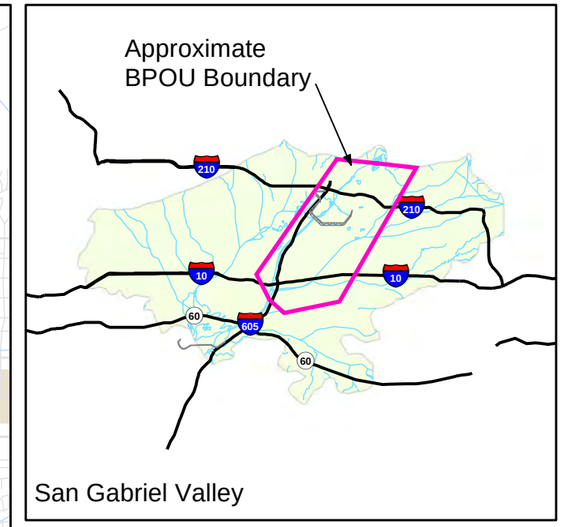
Geosyntec consultants

Project No.: SAC150

Figure **3-1**

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\3-01_Pot_network_map.mxd





EXPLANATION

- Multiport or monitoring well
- Extraction well
- Production well
- Approximate BPOU boundary
- Duarte Fault Zone

5,000 0 5,000

SCALE IN FEET

N

BPOU GROUNDWATER QUALITY MONITORING NETWORK

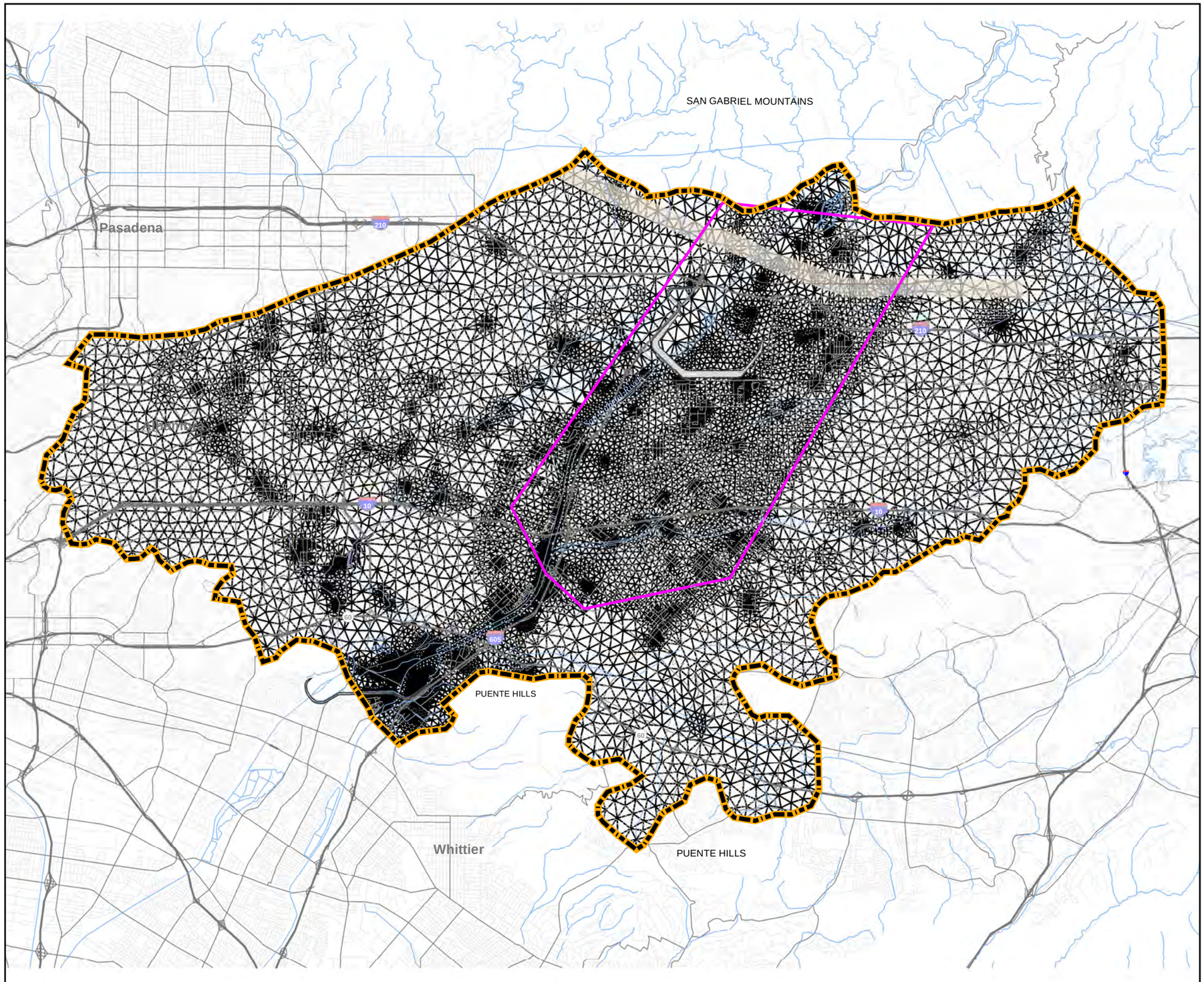
Baldwin Park Operable Unit
San Gabriel Valley, California

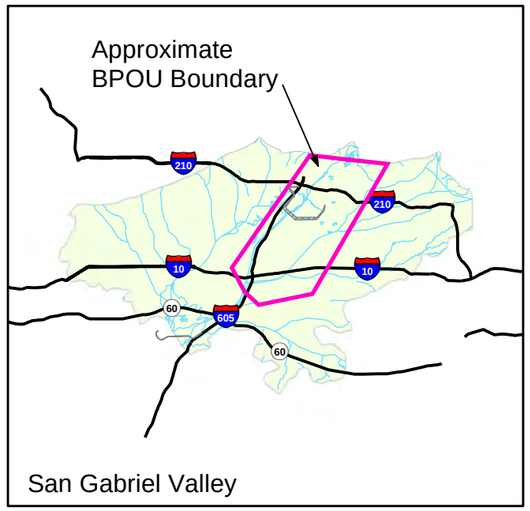
Geosyntec consultants

Project No.: SAC150

Figure 3-2

\\den-fs1\GIS\Projects\Aerojet_7190\GIS_maps\Annual_Report-Maps\20123-02_Qual_network_map.mxd





EXPLANATION

- FEFLOW Numerical Grid
- Approximate BPOU FEFLOW Model Domain
- Approximate BPOU boundary
- Duarte Fault Zone

10,000 0 10,000

SCALE IN FEET

N

BPOU MODEL DOMAIN AND NUMERICAL GRID

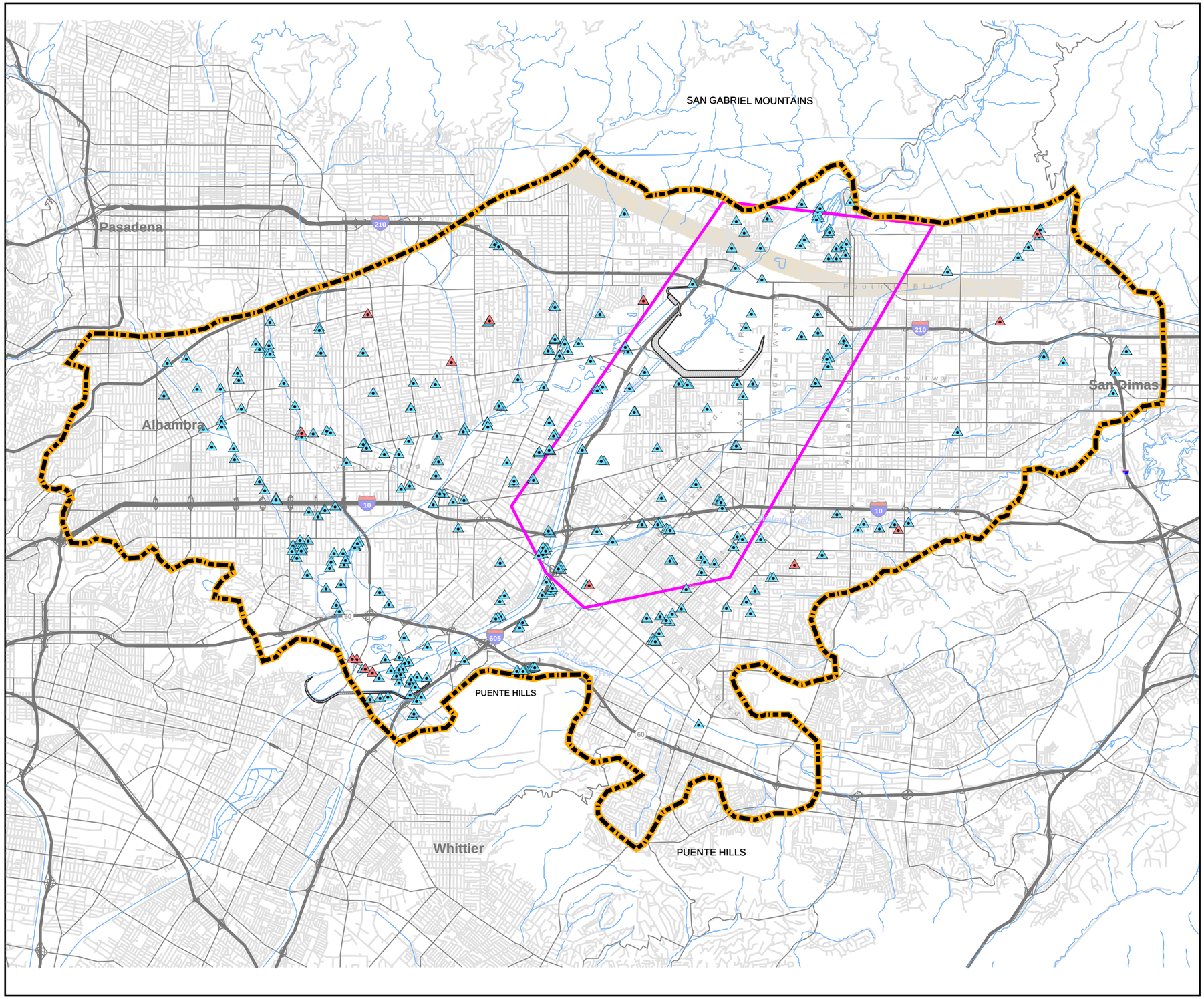
Baldwin Park Operable Unit
San Gabriel Valley, California

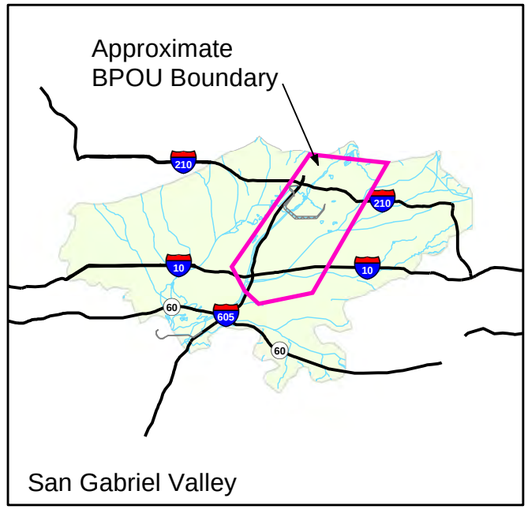
Geosyntec consultants

Project No.: SAC150

Figure 3-3

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\3-03_BPOU_ModelDomain.mxd





EXPLANATION

- Pumping Well added to model in 2015 update
- Pumping Well included in model previously
- Approximate BPOU FEFLOW Model Domain
- Approximate BPOU boundary
- Duarte Fault Zone

10,000 0 10,000

SCALE IN FEET

N

PUMPING WELLS IN BPOU GROUNDWATER MODEL

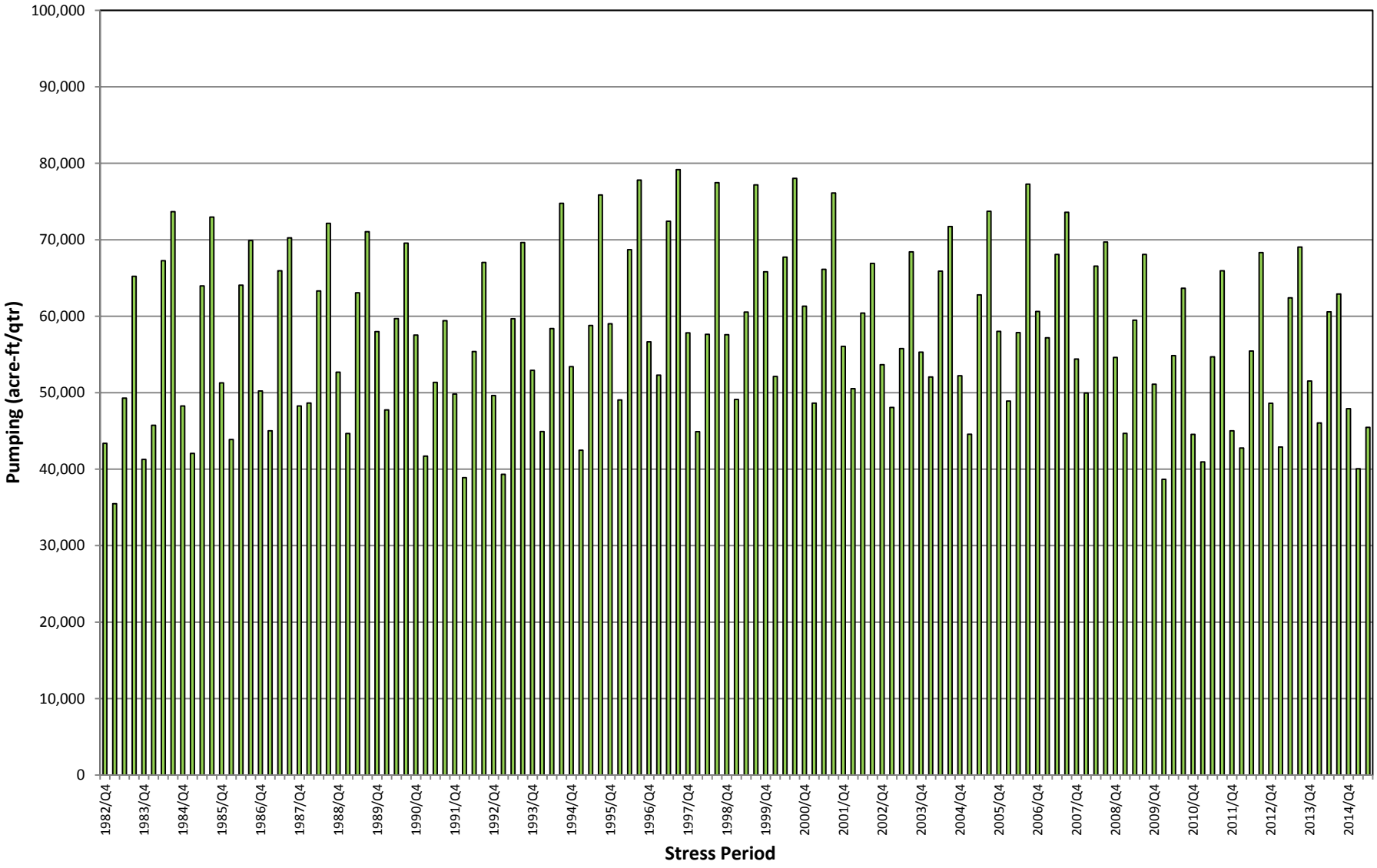
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure **3-4**

Path: P:\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\3-04_BPOU_PumpingWells.mxd

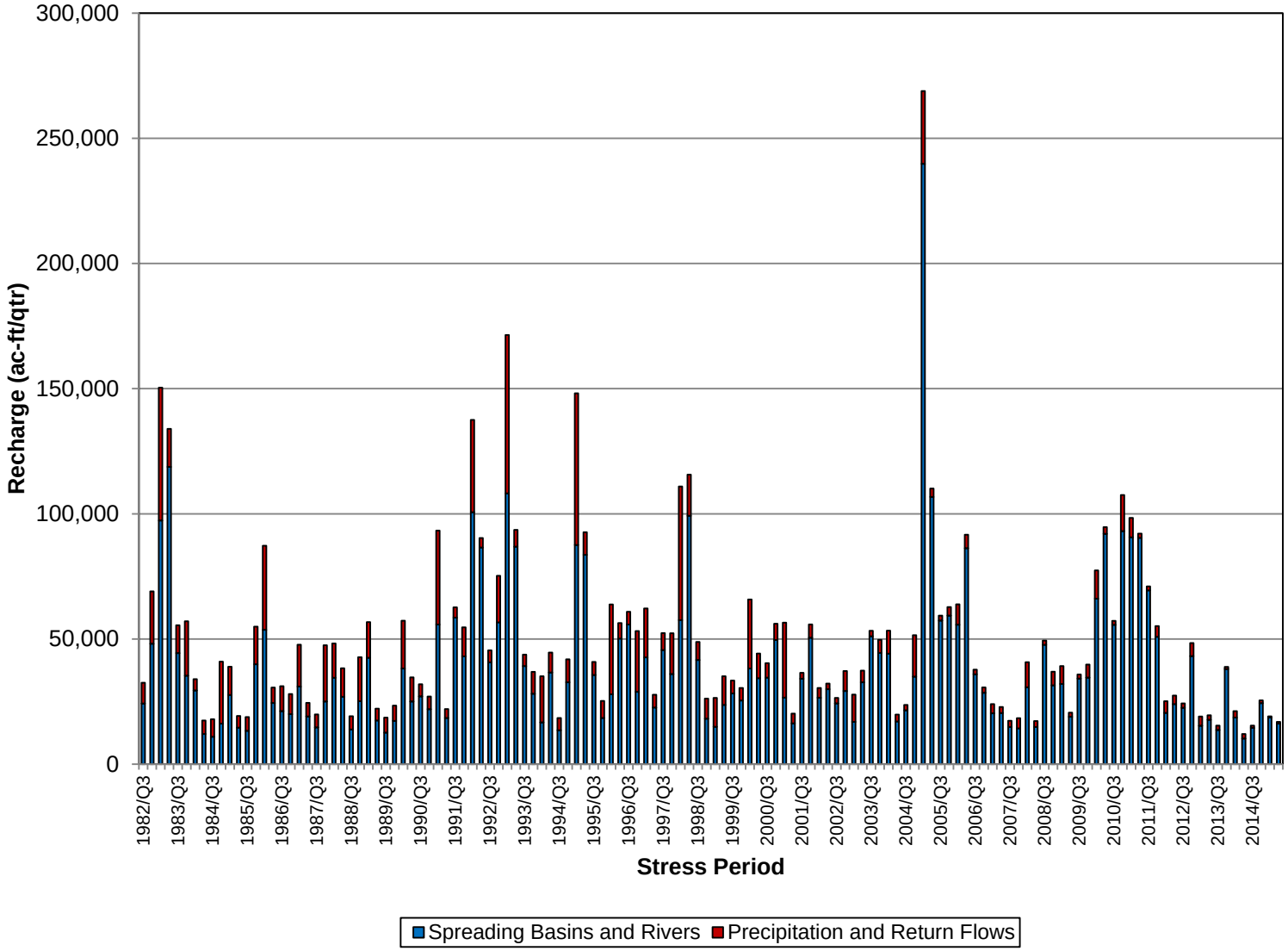


Geosyntec consultants

SIMULATED QUARTERLY PUMPING RATES
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **3-5**

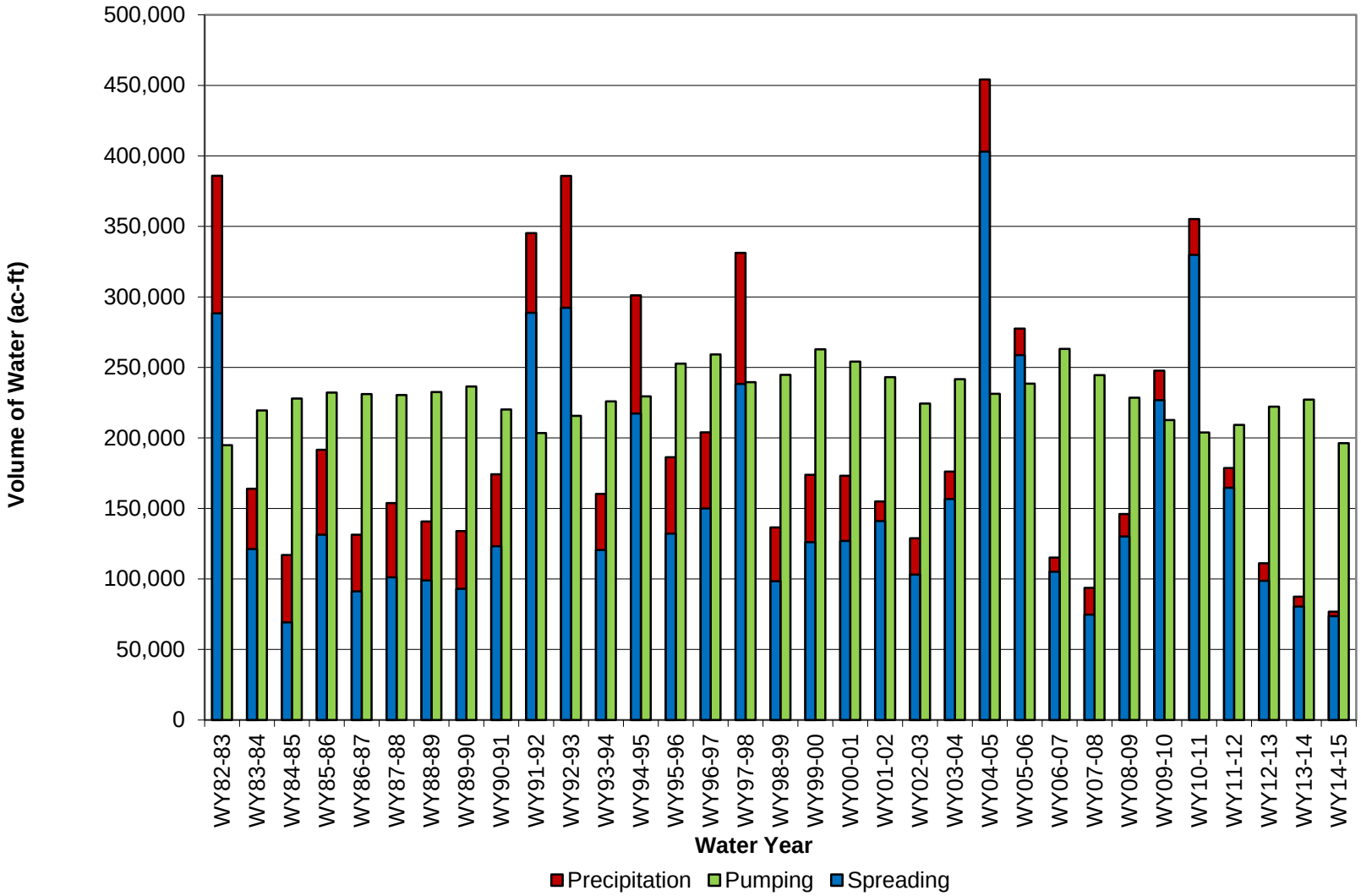


Geosyntec consultants

SIMULATED QUARTERLY RECHARGE RATES
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **3-6**

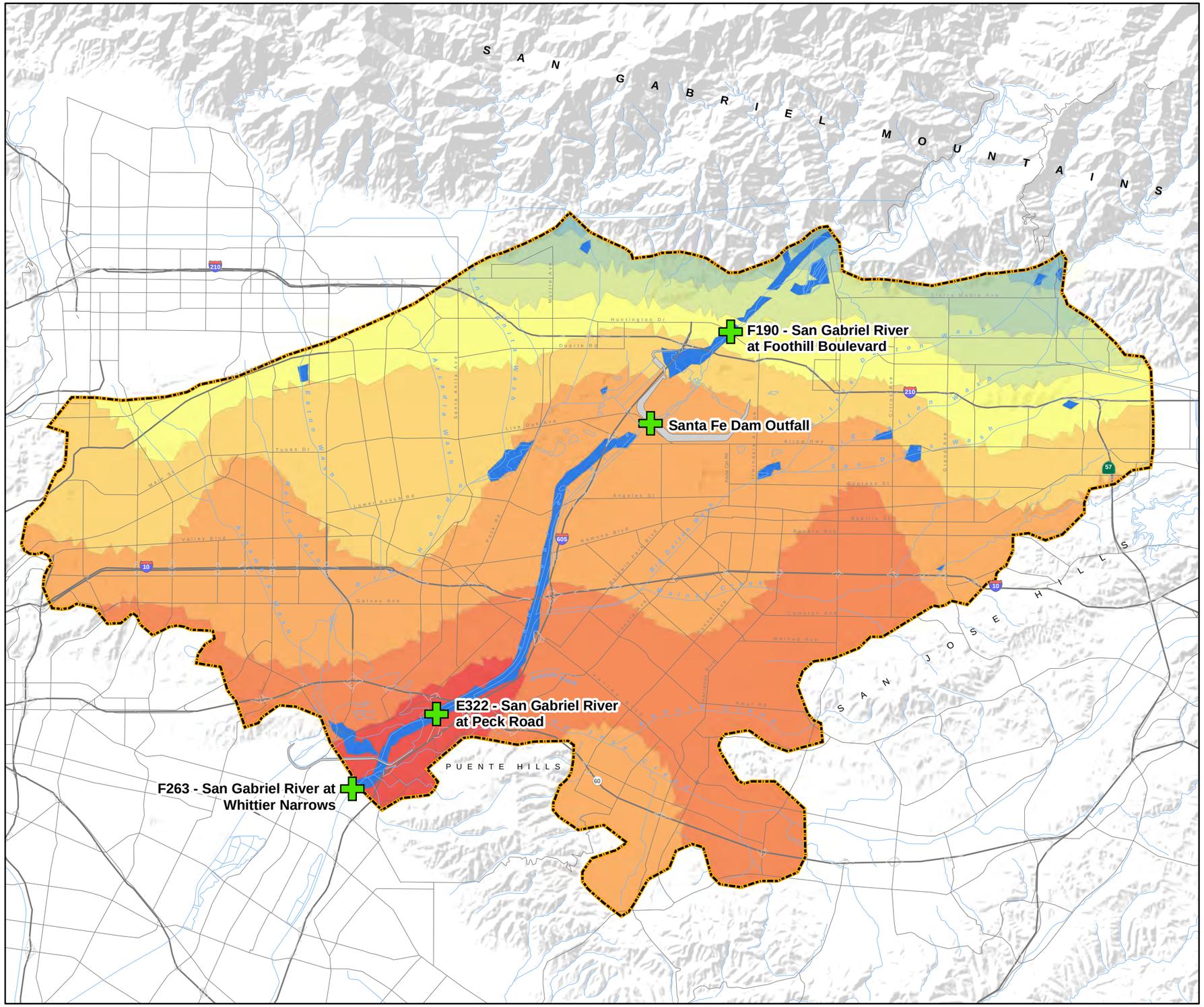


Geosyntec consultants

SIMULATED ANNUAL RECHARGE AND PUMPING RATES
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **3-7**



EXPLANATION

Approximate BPOU FEFLOW model domain

San Gabriel River Gauging Station

Model Recharge Zones

- 16 in/yr average precipitation
- 16.5 in/yr average precipitation
- 17.5 in/yr average precipitation
- 18.5 in/yr average precipitation
- 19.5 in/yr average precipitation
- 20.5 in/yr average precipitation
- 21.5 in/yr average precipitation
- 22.5 in/yr average precipitation
- 23.5 in/yr average precipitation
- Spreading basins and river reaches

Note: Recharge zones represent precipitation areas presented in California Department of Water Resources (DWR) Bulletin No. 104-2, Appendix A: Geohydrology, 1966. Precipitation zones were characterized by DWR as the average seasonal precipitation measured from 1933-34 through 1959-60.

10,000 0 10,000

SCALE IN FEET

N

MODEL RECHARGE ZONATION

Baldwin Park Operable Unit

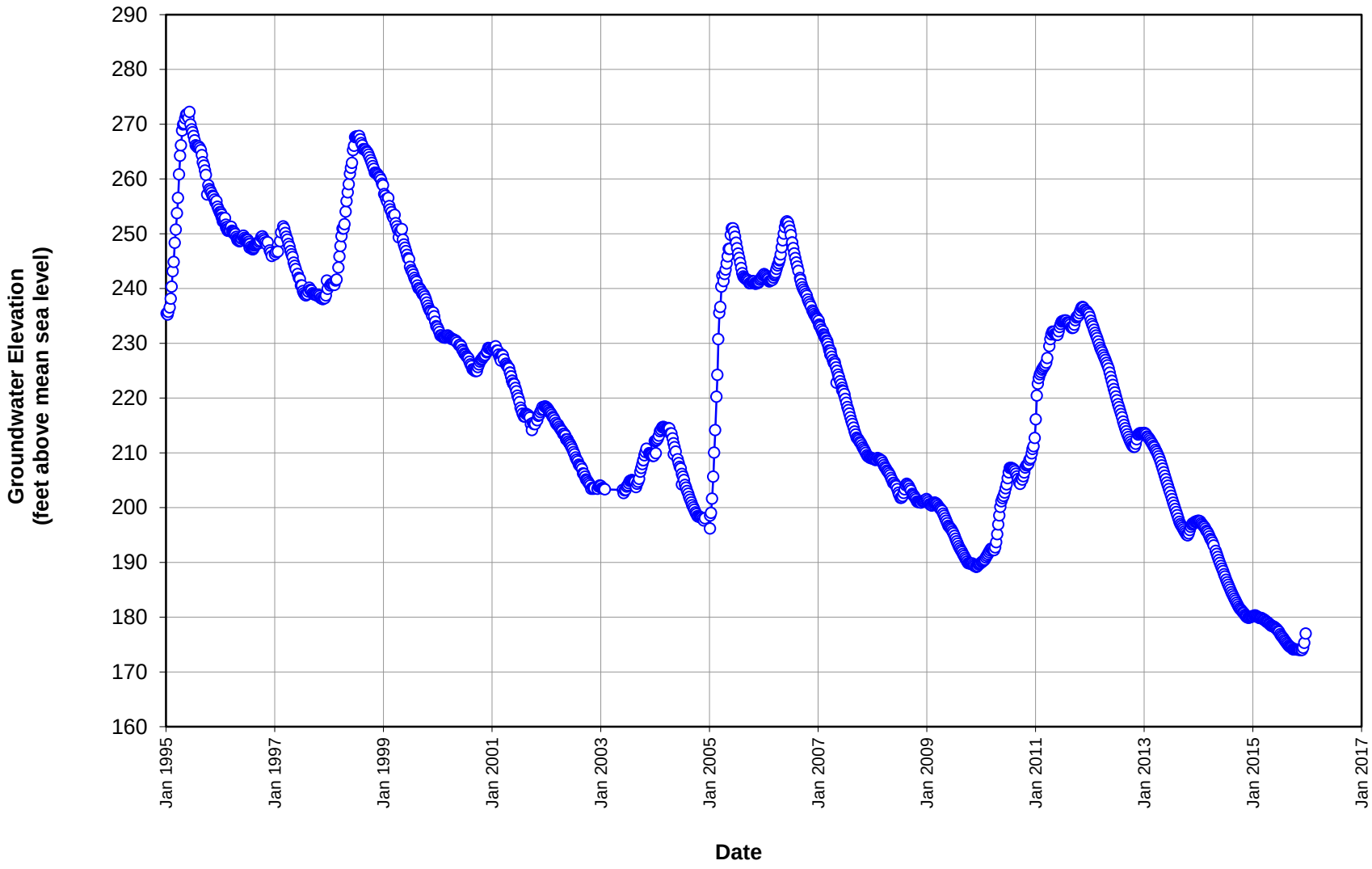
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 3-8

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\3-08_Recharge2zonation.mxd

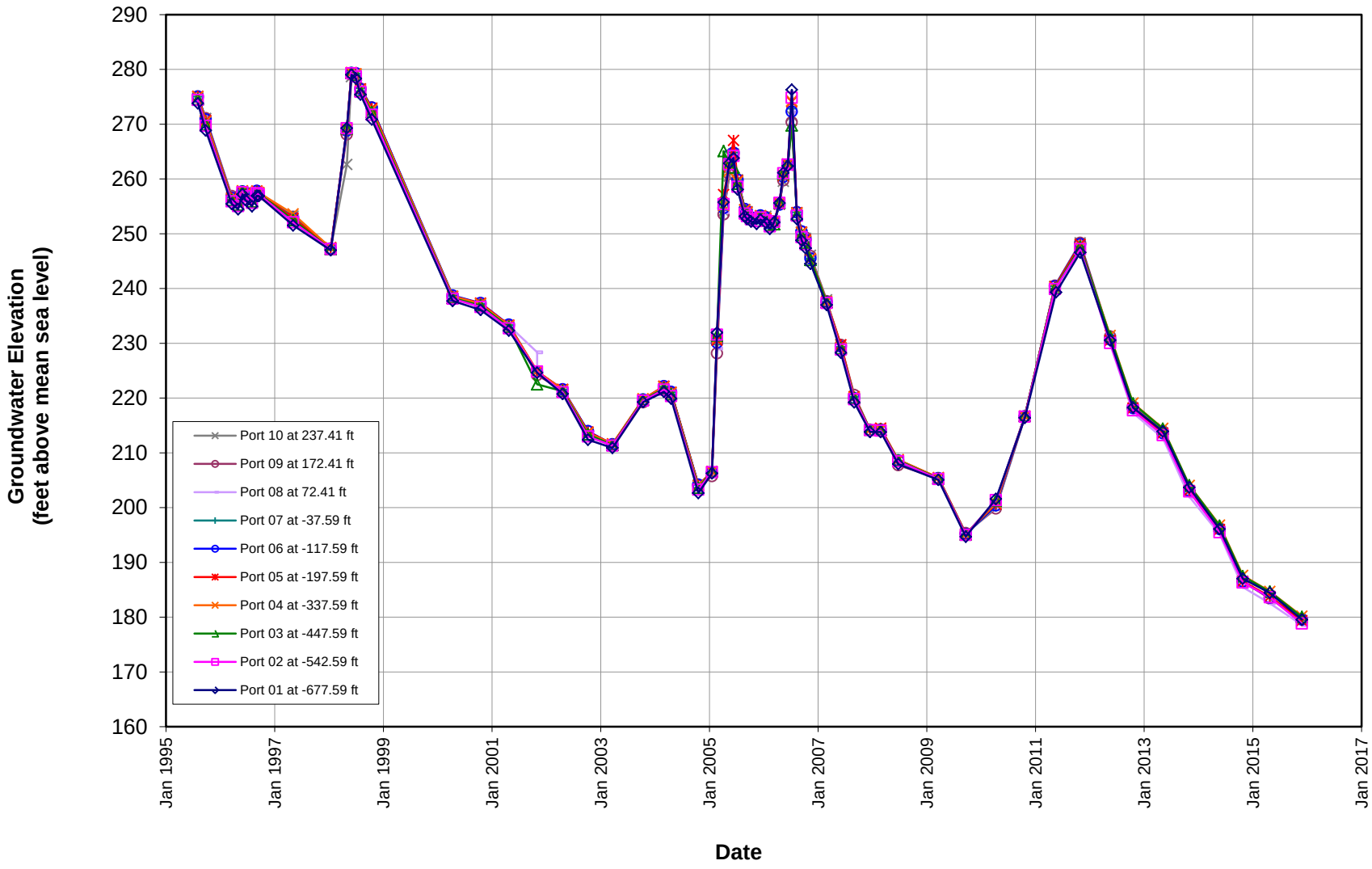


Geosyntec consultants

LACO KEY WELL HYDROGRAPH
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **5-1**

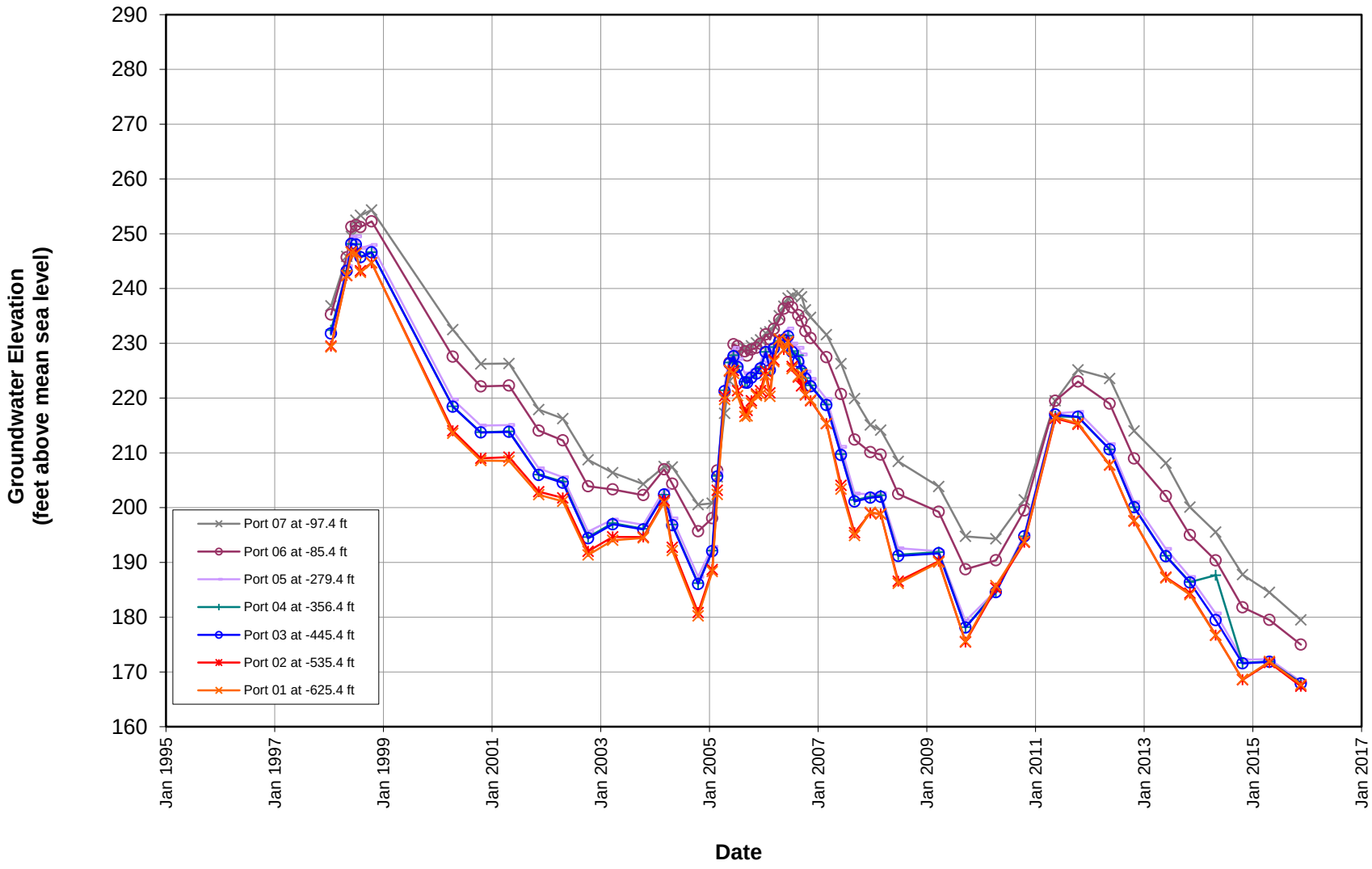


Geosyntec consultants

MW 5-03 WELL HYDROGRAPH
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **5-2**

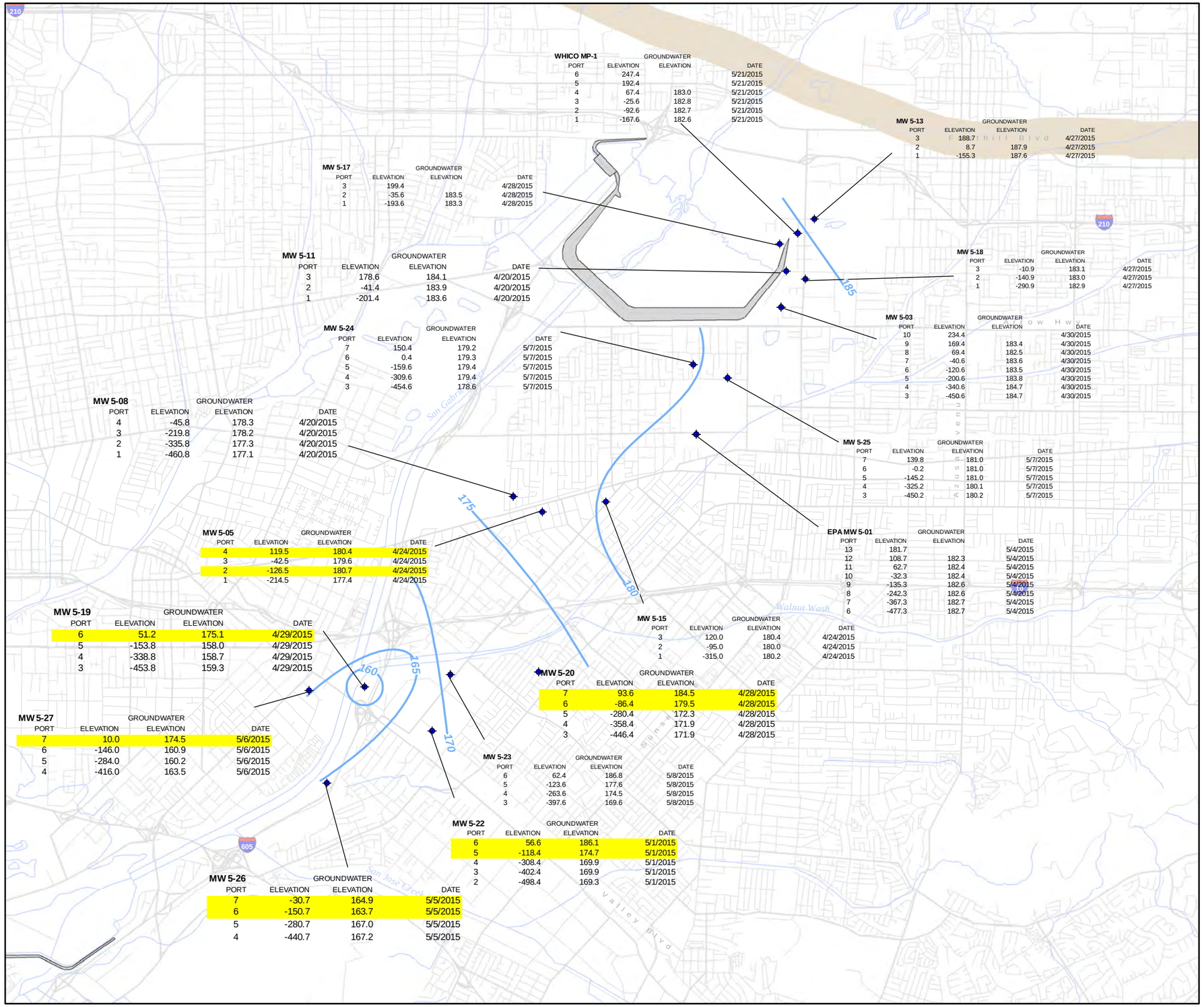


Geosyntec consultants

MW 5-20 WELL HYDROGRAPH
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **5-3**



WHICO MP-1

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
6	247.4		5/21/2015
5	192.4		5/21/2015
4	67.4	183.0	5/21/2015
3	-25.6	182.8	5/21/2015
2	-92.6	182.7	5/21/2015
1	-167.6	182.6	5/21/2015

MW 5-13

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	188.7		4/27/2015
2	8.7	187.9	4/27/2015
1	-155.3	187.6	4/27/2015

MW 5-17

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	199.4		4/28/2015
2	-35.6	183.5	4/28/2015
1	-193.6	183.3	4/28/2015

MW 5-11

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	178.6	184.1	4/20/2015
2	-41.4	183.9	4/20/2015
1	-201.4	183.6	4/20/2015

MW 5-18

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	-10.9	183.1	4/27/2015
2	-140.9	183.0	4/27/2015
1	-290.9	182.9	4/27/2015

MW 5-24

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	150.4	179.2	5/7/2015
6	0.4	179.3	5/7/2015
5	-159.6	179.4	5/7/2015
4	-309.6	179.4	5/7/2015
3	-454.6	178.6	5/7/2015

MW 5-03

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
10	234.4		4/30/2015
9	169.4	183.4	4/30/2015
8	69.4	182.5	4/30/2015
7	-40.6	183.6	4/30/2015
6	-120.6	183.5	4/30/2015
5	-200.6	183.8	4/30/2015
4	-340.6	184.7	4/30/2015
3	-450.6	184.7	4/30/2015

MW 5-08

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
4	-45.8	178.3	4/20/2015
3	-219.8	178.2	4/20/2015
2	-335.8	177.3	4/20/2015
1	-460.8	177.1	4/20/2015

MW 5-25

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	139.8	181.0	5/7/2015
6	-0.2	181.0	5/7/2015
5	-145.2	181.0	5/7/2015
4	-325.2	180.1	5/7/2015
3	-450.2	180.2	5/7/2015

MW 5-05

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
4	119.5	180.4	4/24/2015
3	-42.5	179.6	4/24/2015
2	-126.5	180.7	4/24/2015
1	-214.5	177.4	4/24/2015

EPA MW 5-01

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
13	181.7		5/4/2015
12	108.7	182.3	5/4/2015
11	62.7	182.4	5/4/2015
10	-32.3	182.4	5/4/2015
9	-135.3	182.6	5/4/2015
8	-242.3	182.6	5/4/2015
7	-367.3	182.7	5/4/2015
6	-477.3	182.7	5/4/2015

MW 5-19

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
6	51.2	175.1	4/29/2015
5	-153.8	158.0	4/29/2015
4	-338.8	158.7	4/29/2015
3	-453.8	159.3	4/29/2015

MW 5-15

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	120.0	180.4	4/24/2015
2	-95.0	180.0	4/24/2015
1	-315.0	180.2	4/24/2015

MW 5-20

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	93.6	184.5	4/28/2015
6	-86.4	179.5	4/28/2015
5	-280.4	172.3	4/28/2015
4	-358.4	171.9	4/28/2015
3	-446.4	171.9	4/28/2015

MW 5-27

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	10.0	174.5	5/6/2015
6	-146.0	160.9	5/6/2015
5	-284.0	160.2	5/6/2015
4	-416.0	163.5	5/6/2015

MW 5-23

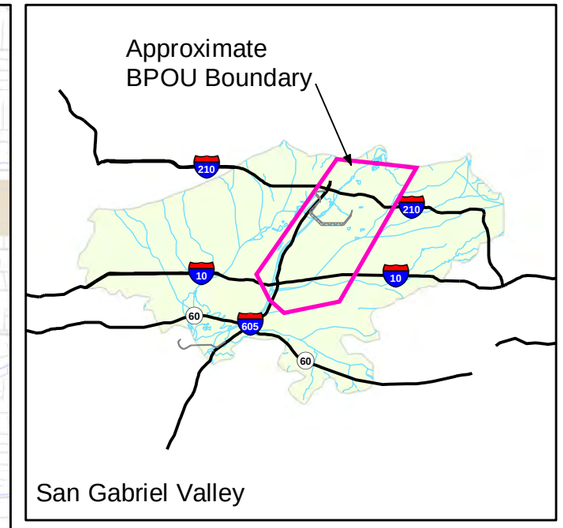
PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
6	62.4	186.8	5/8/2015
5	-123.6	177.6	5/8/2015
4	-263.6	174.5	5/8/2015
3	-397.6	169.6	5/8/2015

MW 5-22

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
6	56.6	186.1	5/1/2015
5	-118.4	174.7	5/1/2015
4	-308.4	169.9	5/1/2015
3	-402.4	169.9	5/1/2015
2	-498.4	169.3	5/1/2015

MW 5-26

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	-30.7	164.9	5/5/2015
6	-150.7	163.7	5/5/2015
5	-280.7	167.0	5/5/2015
4	-440.7	167.2	5/5/2015



EXPLANATION

Multiport well used in contouring

–200– Potentiometric surface contour (elevation in feet above mean sea level) Contour interval 5 feet

Duarte Fault Zone

NOTES:

1. The potentiometric contours shown represent interpreted groundwater elevations based on water levels measured in the wells during April and May 2015 as part of the Performance Standards Evaluation Plan. The interpreted contours should not be assumed to represent the precise groundwater elevation at any point along the contour line.

2. Highlighted groundwater elevations were not considered in contouring due to significant vertical differences in groundwater elevations measured in adjacent ports. In these situations, groundwater elevations measured in intermediate depth ports were more heavily weighted in contouring.

5,000 0 5,000

SCALE IN FEET

N

GENERALIZED SPRING 2015 POTENTIOMETRIC SURFACE ABOVE -500 FEET MSL

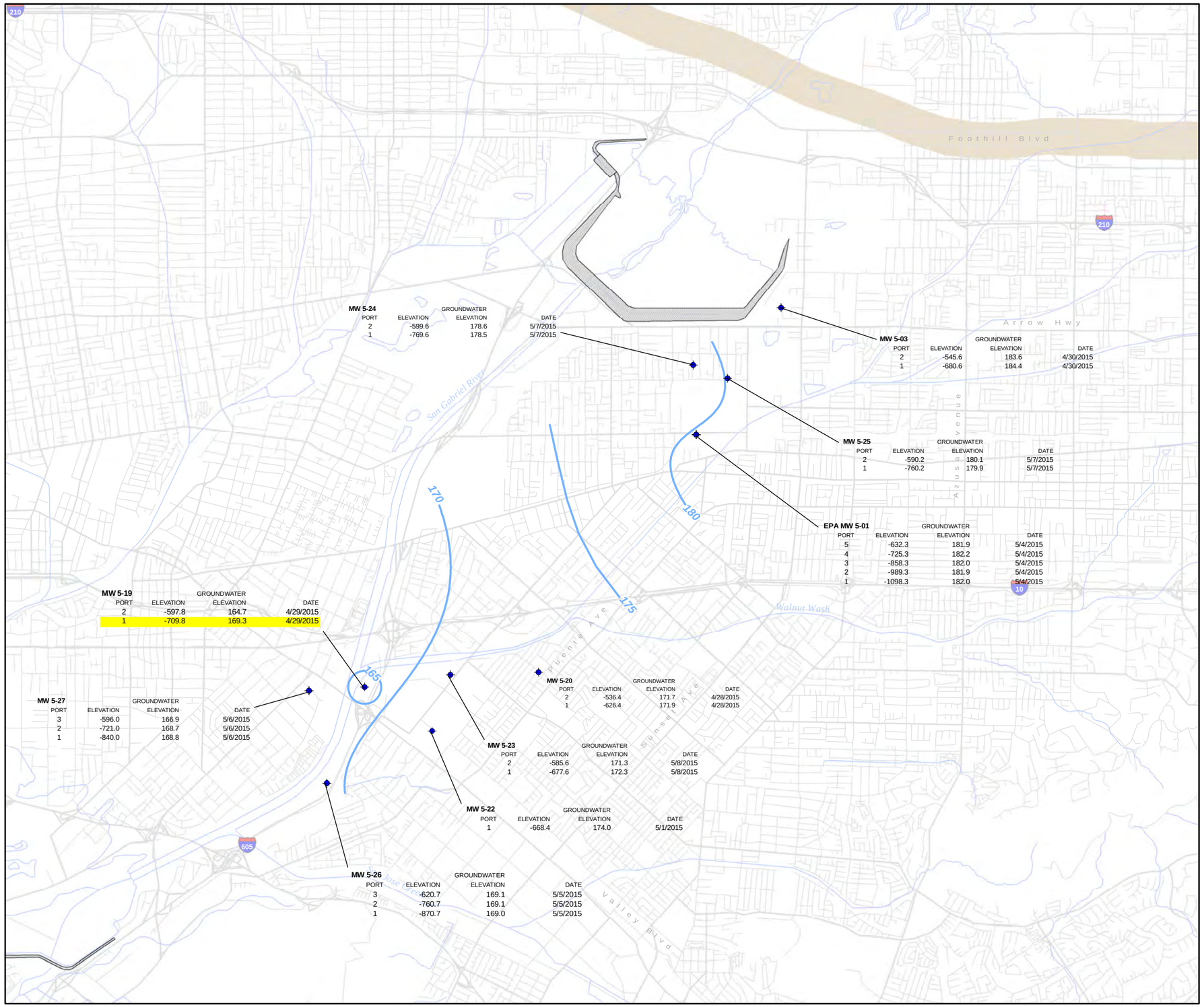
Baldwin Park Operable Unit
San Gabriel Valley, California

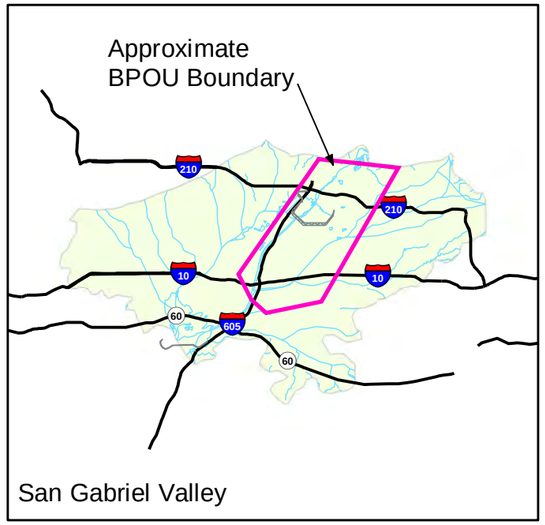
Geosyntec consultants

Project No.: SAC150

Figure **5-4**

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\20160/4_2015PERI\Volume 1\5-04_SPRING_GW_Elevations_above_-500MSL.mxd





EXPLANATION

Multiport well used in contouring

–200– Potentiometric surface contour (elevation in feet above mean sea level) Contour interval 5 feet

Duarte Fault Zone

NOTES:

1. The potentiometric contours shown represent interpreted groundwater elevations based on water levels measured in the wells during April and May 2015 as part of the Performance Standards Evaluation Plan. The interpreted contours should not be assumed to represent the precise groundwater elevation at any point along the contour line.

5,000 0 5,000

SCALE IN FEET

N

GENERALIZED SPRING 2015 POTENTIOMETRIC SURFACE BELOW -500 FEET MSL

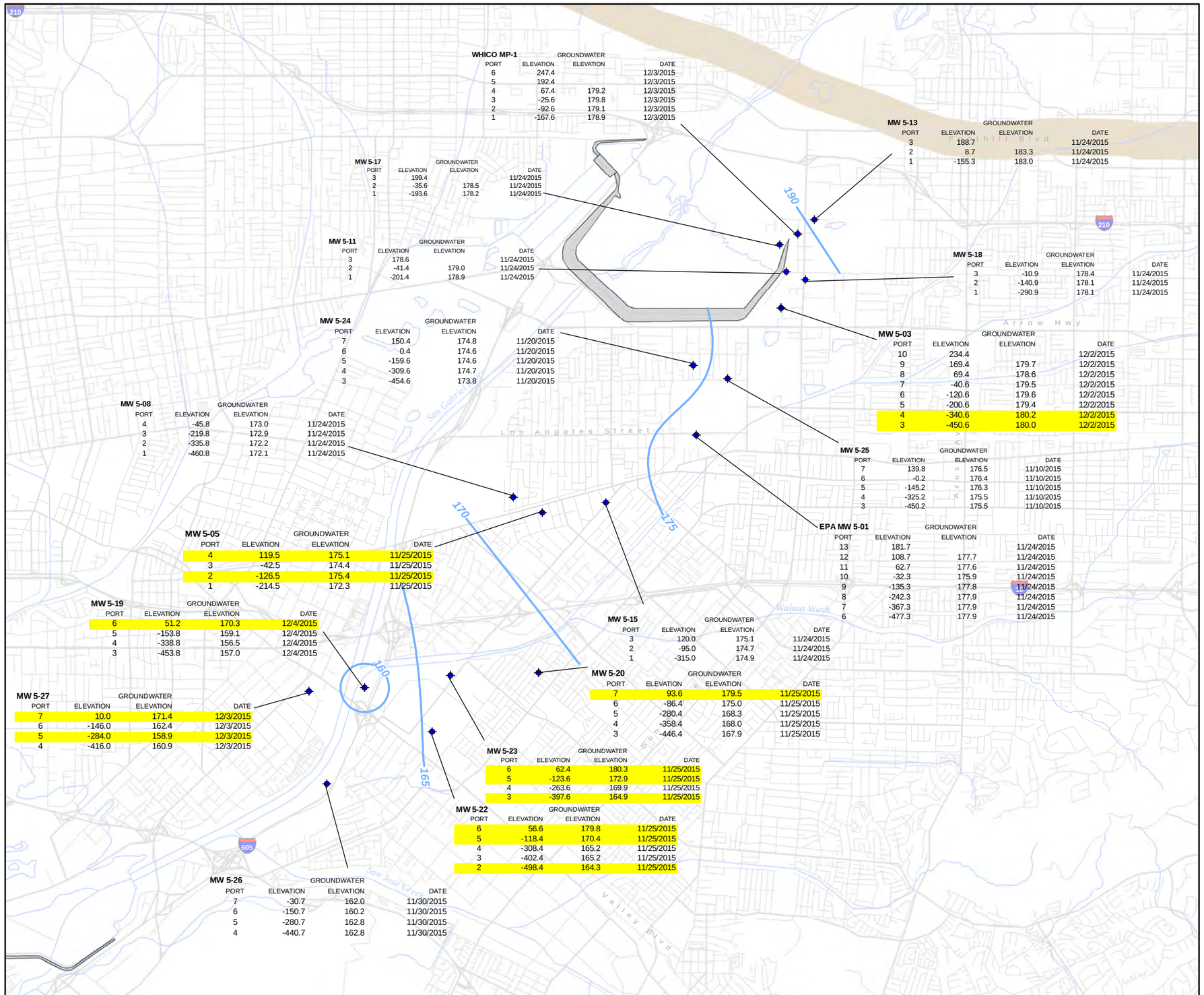
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure **5-5**

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\20160_2015PERIVolume 1\5-05_SPRING_GW_Elevations_below_-500MSL.mxd



WHICO MP-1

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
6	247.4		12/3/2015
5	192.4		12/3/2015
4	67.4	179.2	12/3/2015
3	-25.6	179.8	12/3/2015
2	-92.6	179.1	12/3/2015
1	-167.6	178.9	12/3/2015

MW 5-13

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	188.7		11/24/2015
2	8.7	183.3	11/24/2015
1	-155.3	183.0	11/24/2015

MW 5-17

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	199.4		11/24/2015
2	-35.6	178.5	11/24/2015
1	-193.6	178.2	11/24/2015

MW 5-11

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	178.6		11/24/2015
2	-41.4	179.0	11/24/2015
1	-201.4	178.9	11/24/2015

MW 5-18

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	-10.9	178.4	11/24/2015
2	-140.9	178.1	11/24/2015
1	-290.9	178.1	11/24/2015

MW 5-24

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	150.4	174.8	11/20/2015
6	0.4	174.6	11/20/2015
5	-159.6	174.6	11/20/2015
4	-309.6	174.7	11/20/2015
3	-454.6	173.8	11/20/2015

MW 5-03

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
10	234.4		12/2/2015
9	169.4	179.7	12/2/2015
8	69.4	178.6	12/2/2015
7	-40.6	179.5	12/2/2015
6	-120.6	179.6	12/2/2015
5	-200.6	179.4	12/2/2015
4	-340.6	180.2	12/2/2015
3	-450.6	180.0	12/2/2015

MW 5-08

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
4	-45.8	173.0	11/24/2015
3	-219.8	172.9	11/24/2015
2	-335.8	172.2	11/24/2015
1	-460.8	172.1	11/24/2015

MW 5-25

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	139.8	176.5	11/10/2015
6	-0.2	176.4	11/10/2015
5	-145.2	176.3	11/10/2015
4	-325.2	175.5	11/10/2015
3	-450.2	175.5	11/10/2015

EPA MW 5-01

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
13	181.7		11/24/2015
12	108.7	177.7	11/24/2015
11	62.7	177.6	11/24/2015
10	-32.3	175.9	11/24/2015
9	-135.3	177.8	11/24/2015
8	-242.3	177.9	11/24/2015
7	-367.3	177.9	11/24/2015
6	-477.3	177.9	11/24/2015

MW 5-05

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
4	119.5	175.1	11/25/2015
3	-42.5	174.4	11/25/2015
2	-126.5	175.4	11/25/2015
1	-214.5	172.3	11/25/2015

MW 5-19

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
6	51.2	170.3	12/4/2015
5	-153.8	159.1	12/4/2015
4	-338.8	156.5	12/4/2015
3	-453.8	157.0	12/4/2015

MW 5-15

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
3	120.0	175.1	11/24/2015
2	-95.0	174.7	11/24/2015
1	-315.0	174.9	11/24/2015

MW 5-20

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	93.6	179.5	11/25/2015
6	-86.4	175.0	11/25/2015
5	-280.4	168.3	11/25/2015
4	-358.4	168.0	11/25/2015
3	-446.4	167.9	11/25/2015

MW 5-27

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	10.0	171.4	12/3/2015
6	-146.0	162.4	12/3/2015
5	-284.0	158.9	12/3/2015
4	-416.0	160.9	12/3/2015

MW 5-23

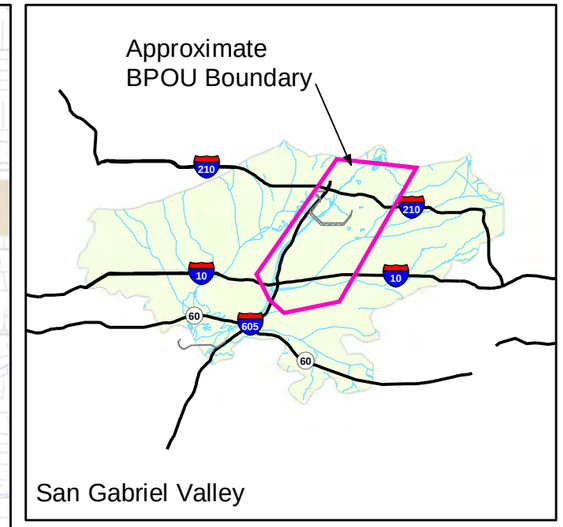
PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
6	62.4	180.3	11/25/2015
5	-123.6	172.9	11/25/2015
4	-263.6	169.9	11/25/2015
3	-397.6	164.9	11/25/2015

MW 5-22

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
6	56.6	179.8	11/25/2015
5	-118.4	170.4	11/25/2015
4	-308.4	165.2	11/25/2015
3	-402.4	165.2	11/25/2015
2	-498.4	164.3	11/25/2015

MW 5-26

PORT	ELEVATION	GROUNDWATER ELEVATION	DATE
7	-30.7	162.0	11/30/2015
6	-150.7	160.2	11/30/2015
5	-280.7	162.8	11/30/2015
4	-440.7	162.8	11/30/2015



EXPLANATION

Multiport well used in contouring

–200– Potentiometric surface contour (elevation in feet above mean sea level) Contour interval 5 feet

Duarte Fault Zone

NOTES:

1. The potentiometric contours shown represent interpreted groundwater elevations based on water levels measured in the wells during November and December 2015 as part of the Performance Standards Evaluation Plan. The interpreted contours should not be assumed to represent the precise groundwater elevation at any point along the contour line.

2. Highlighted groundwater elevations were not considered in contouring due to significant vertical differences in groundwater elevations measured in adjacent ports. In these situations, groundwater elevations measured in intermediate depth ports were more heavily weighted in contouring.

5,000 0 5,000

SCALE IN FEET

N

GENERALIZED FALL 2015 POTENTIOMETRIC SURFACE ABOVE -500 FEET MSL

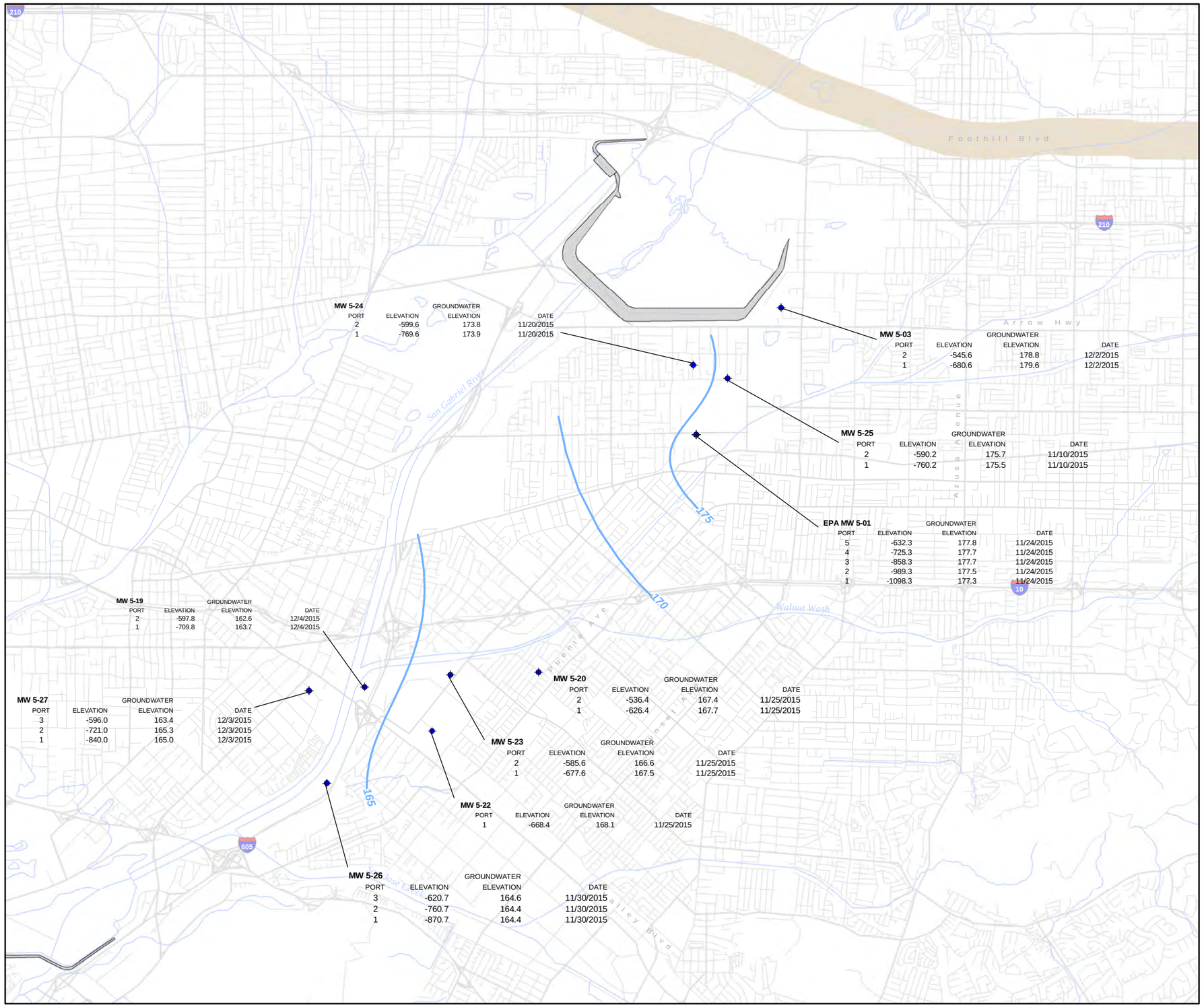
Baldwin Park Operable Unit
San Gabriel Valley, California

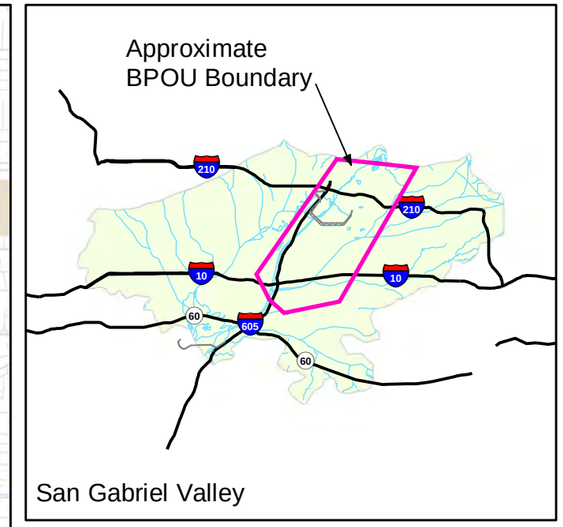
Geosyntec consultants

Project No.: SAC150

Figure **5-6**

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\20160_2015PERI\Volume 115-06_FALL_GW_Elevations_above_-500MSL.mxd





EXPLANATION

Multiport well used in contouring

–200– Potentiometric surface contour (elevation in feet above mean sea level) Contour interval 5 feet

Duarte Fault Zone

NOTES:

1. The potentiometric contours shown represent interpreted groundwater elevations based on water levels measured in the wells during November and December 2015 as part of the Performance Standards Evaluation Plan. The interpreted contours should not be assumed to represent the precise groundwater elevation at any point along the contour line.

5,000 0 5,000

SCALE IN FEET

N

GENERALIZED FALL 2015
POTENTIOMETRIC SURFACE
BELOW -500 FEET MSL

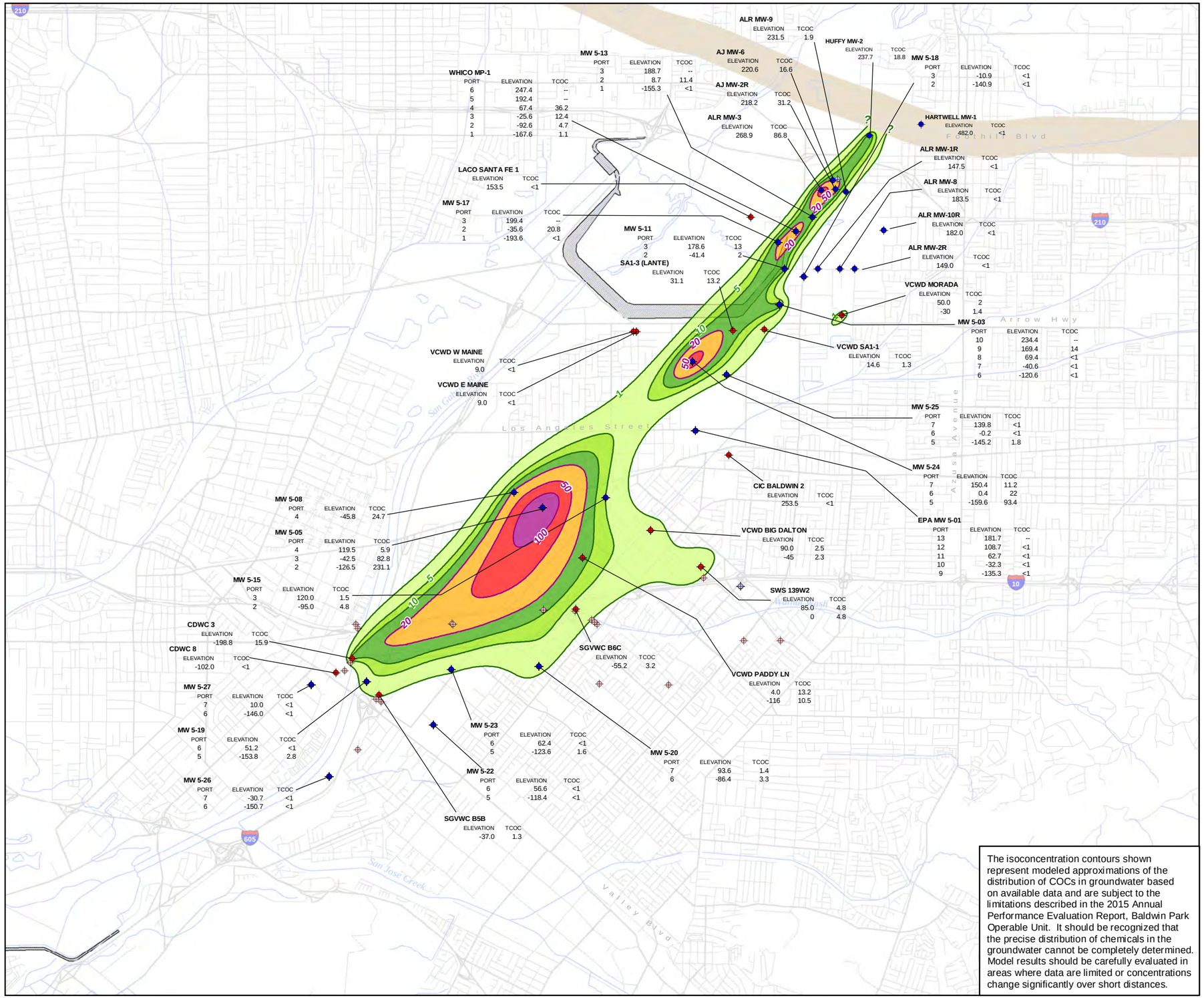
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 5-7

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\5-07_FALL_GW_Elevations_below_-500MSL.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (no data within elevation range, refer to Note 3)
- Monitoring and multiport well
- Monitoring and multiport well (no data within elevation range, refer to Note 3)
- -- Not sampled - port was dry
- Total normalized COC concentration > 1x MCL
- Total normalized COC concentration > 5x MCL
- Total normalized COC concentration > 10x MCL
- Total normalized COC concentration > 20x MCL
- Total normalized COC concentration > 50x MCL
- Total normalized COC concentration > 100x MCL
- Duarte Fault Zone

NOTES:

1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
3. Posted data represent chemical results for the specified elevation range.
4. Data posted as <1 indicate no analytes were detected above the COC-specific MCL or NL.

5,000 0 5,000

SCALE IN FEET

N

DISTRIBUTION OF TOTAL COC CONCENTRATION EXCEEDING MCLS ABOVE -200 FEET MSL, 2015

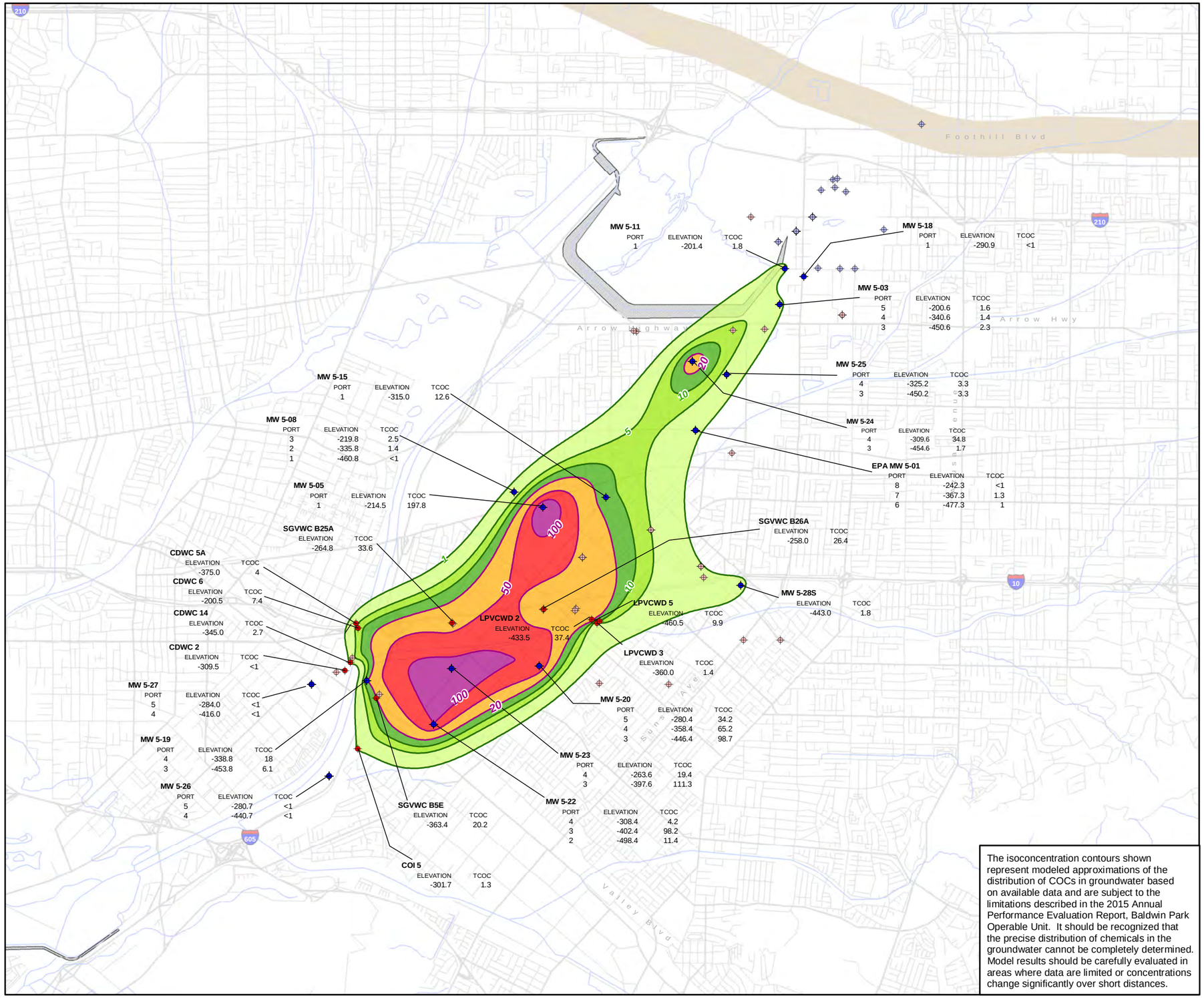
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure **5-8**

Path: P:\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\5-08_PlumeMap_TCOC_sh.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (no data within elevation range, refer to Note 3)
- Monitoring and multiport well
- Monitoring and multiport well (no data within elevation range, refer to Note 3)
- Total normalized COC concentration > 1x MCL
- Total normalized COC concentration > 5x MCL
- Total normalized COC concentration > 10x MCL
- Total normalized COC concentration > 20x MCL
- Total normalized COC concentration > 50x MCL
- Total normalized COC concentration > 100x MCL
- Duarte Fault Zone

NOTES:

1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
3. Posted data represent chemical results for the specified elevation range.
4. Data posted as non-detect at the sample quantitation limit were modeled using half of the laboratory analytical method reporting limit.

5,000 0 5,000

SCALE IN FEET

N

DISTRIBUTION OF TOTAL COC CONCENTRATION EXCEEDING MCLS BETWEEN -200 AND -500 FEET MSL, 2015

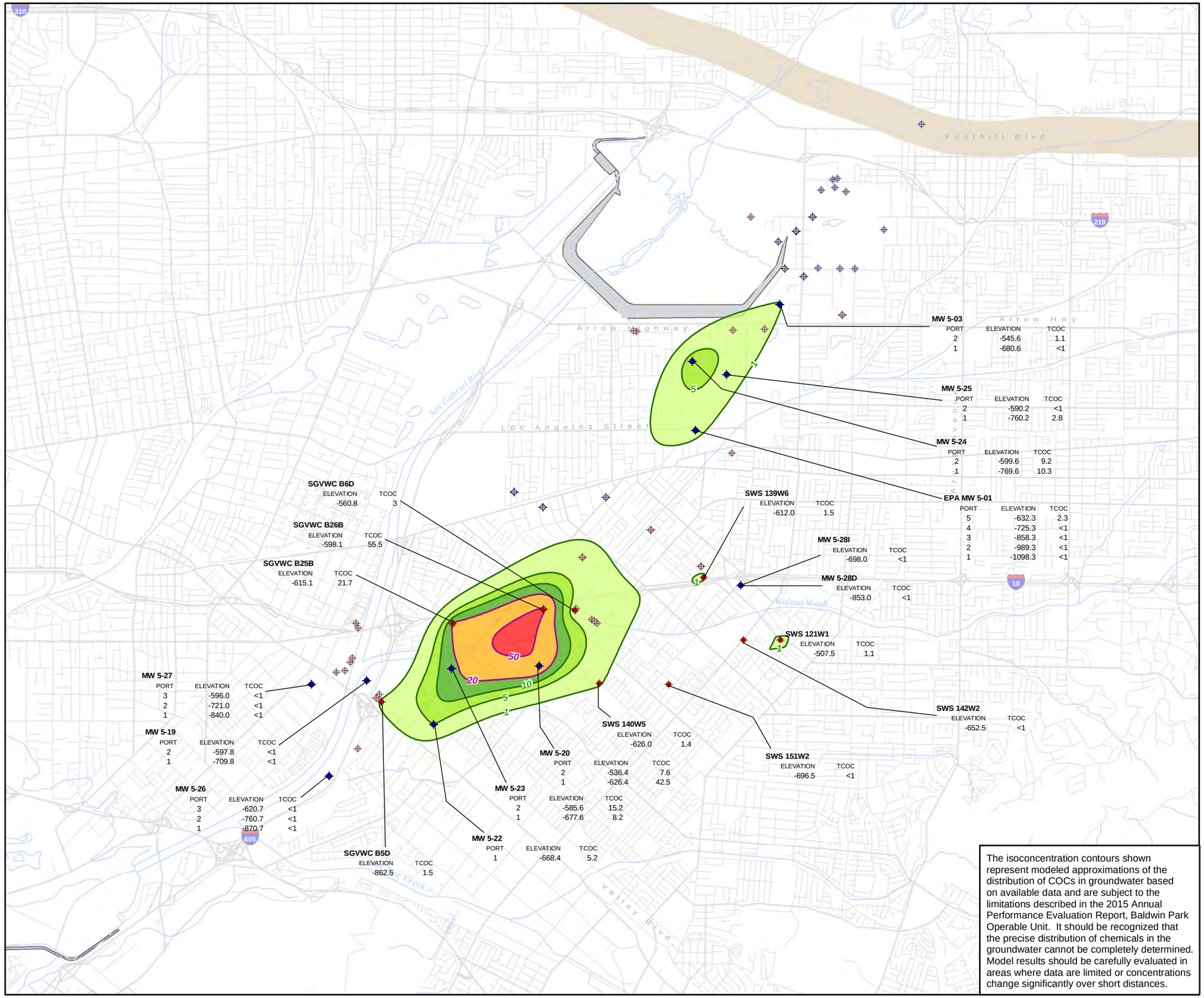
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure **5-9**

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\5-09_PlumeMap_TCOC_int.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (no data within elevation range, refer to Note 3)
- Monitoring and multiport well
- Monitoring and multiport well (no data within elevation range, refer to Note 3)
- Total normalized COC concentration > 1x MCL
- Total normalized COC concentration > 5x MCL
- Total normalized COC concentration > 10x MCL
- Total normalized COC concentration > 20x MCL
- Total normalized COC concentration > 50x MCL
- Duarte Fault Zone

NOTES:

1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
3. Posted data represent chemical results for the specified elevation range.
4. Data posted as <1 indicate no analytes were detected above the COC-specific MCL or NL.

5,000 0 5,000

SCALE IN FEET

N

DISTRIBUTION OF TOTAL COC CONCENTRATION EXCEEDING MCLS BELOW -500 FEET MSL, 2015

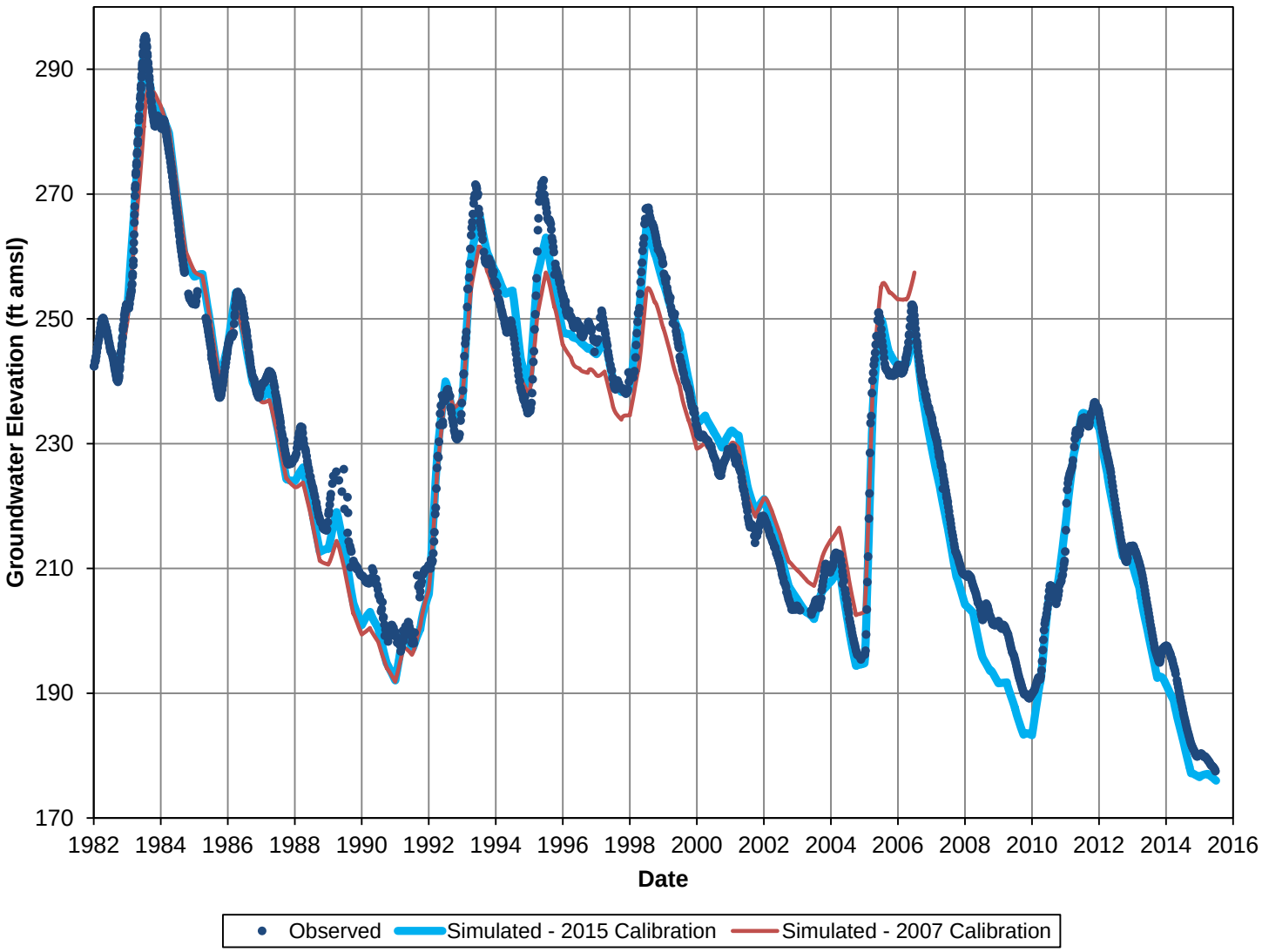
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure **5-10**

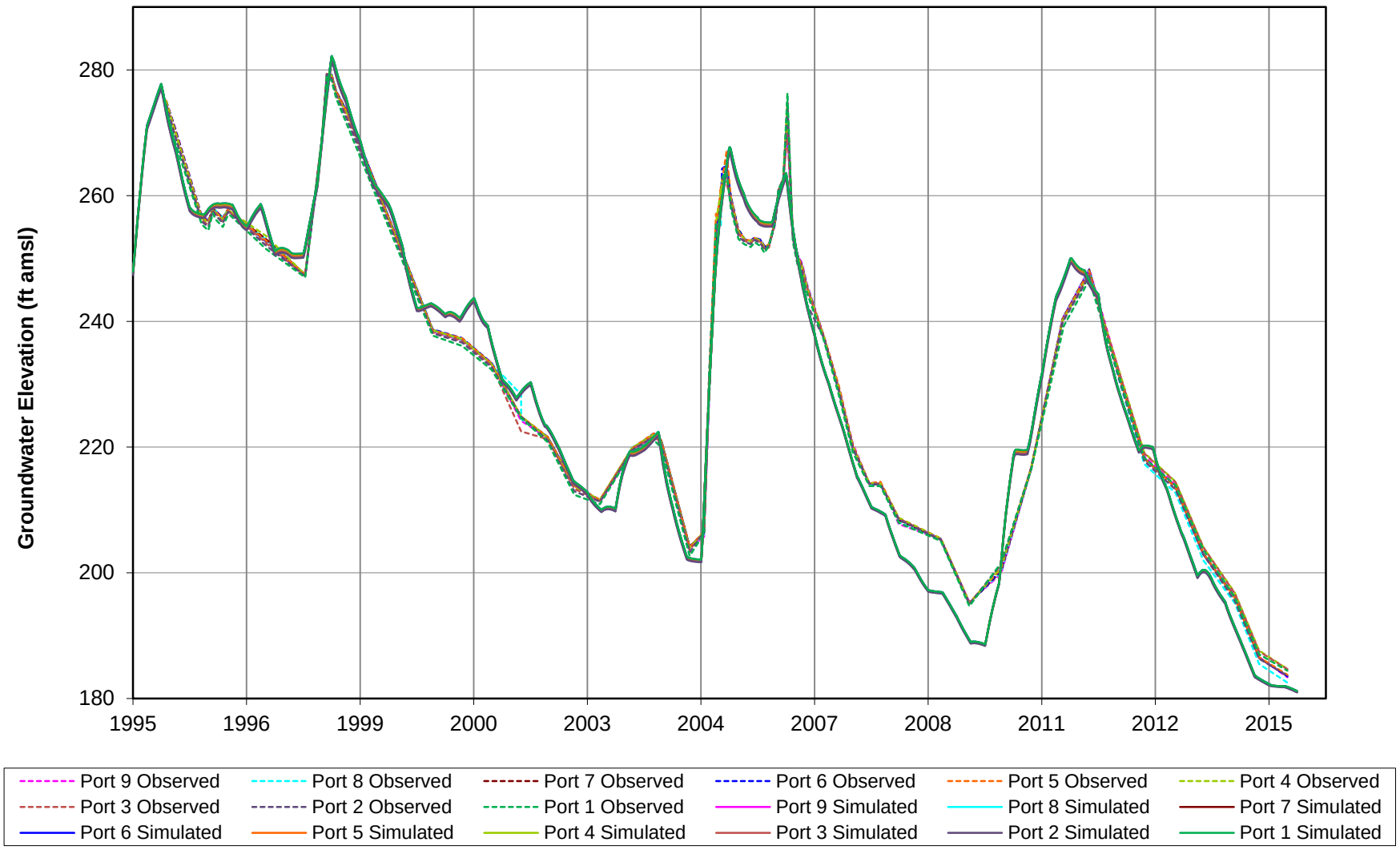
Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\5-10_PlumeMap_TCOC_dp.mxd



LACO KEY WELL CALIBRATION HYDROGRAPH
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **5-11**

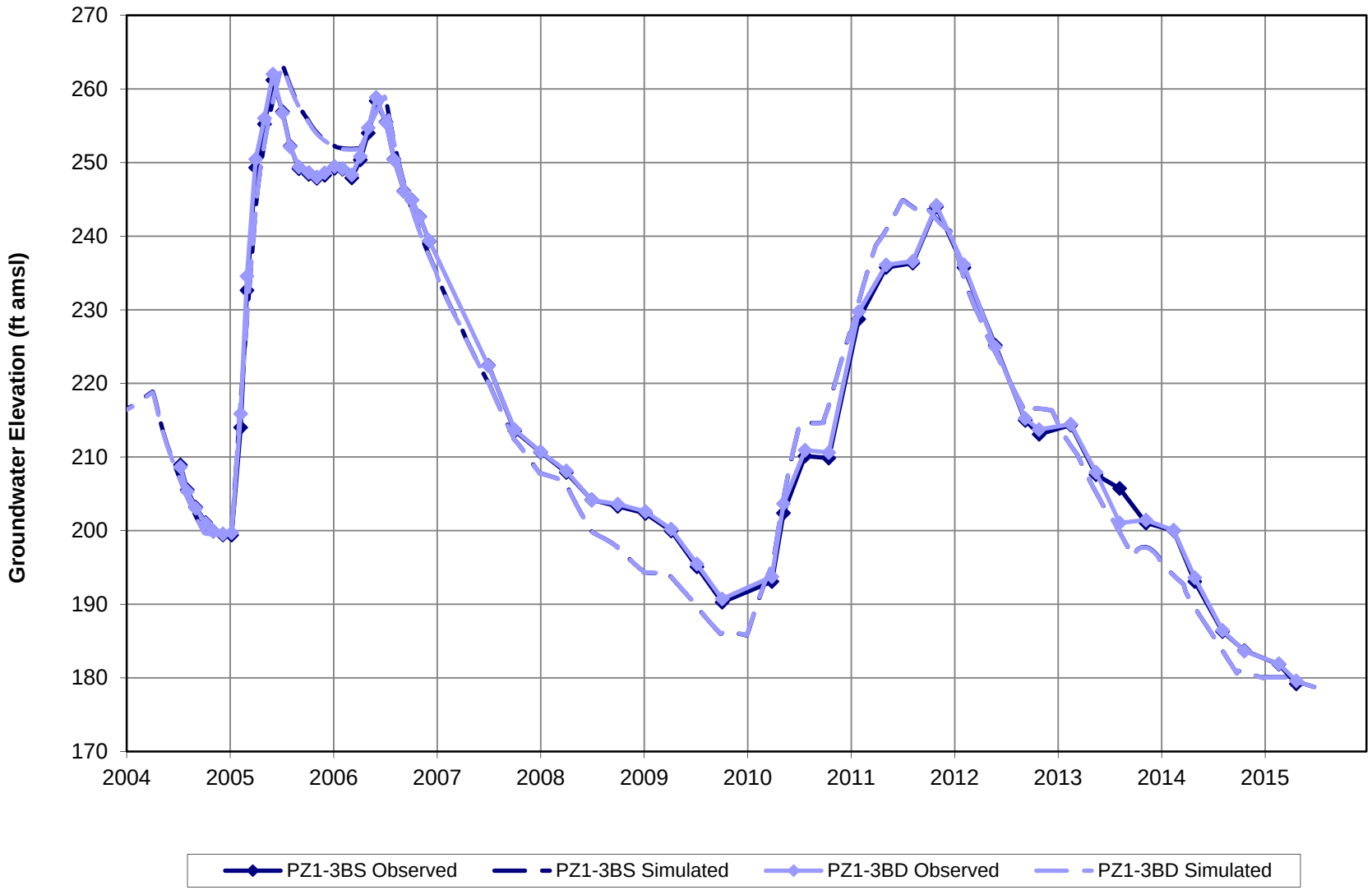


Geosyntec consultants

SUBAREA 1 MULTIPORT WELL CALIBRATION HYDROGRAPH FOR MW 5-03
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **5-12**

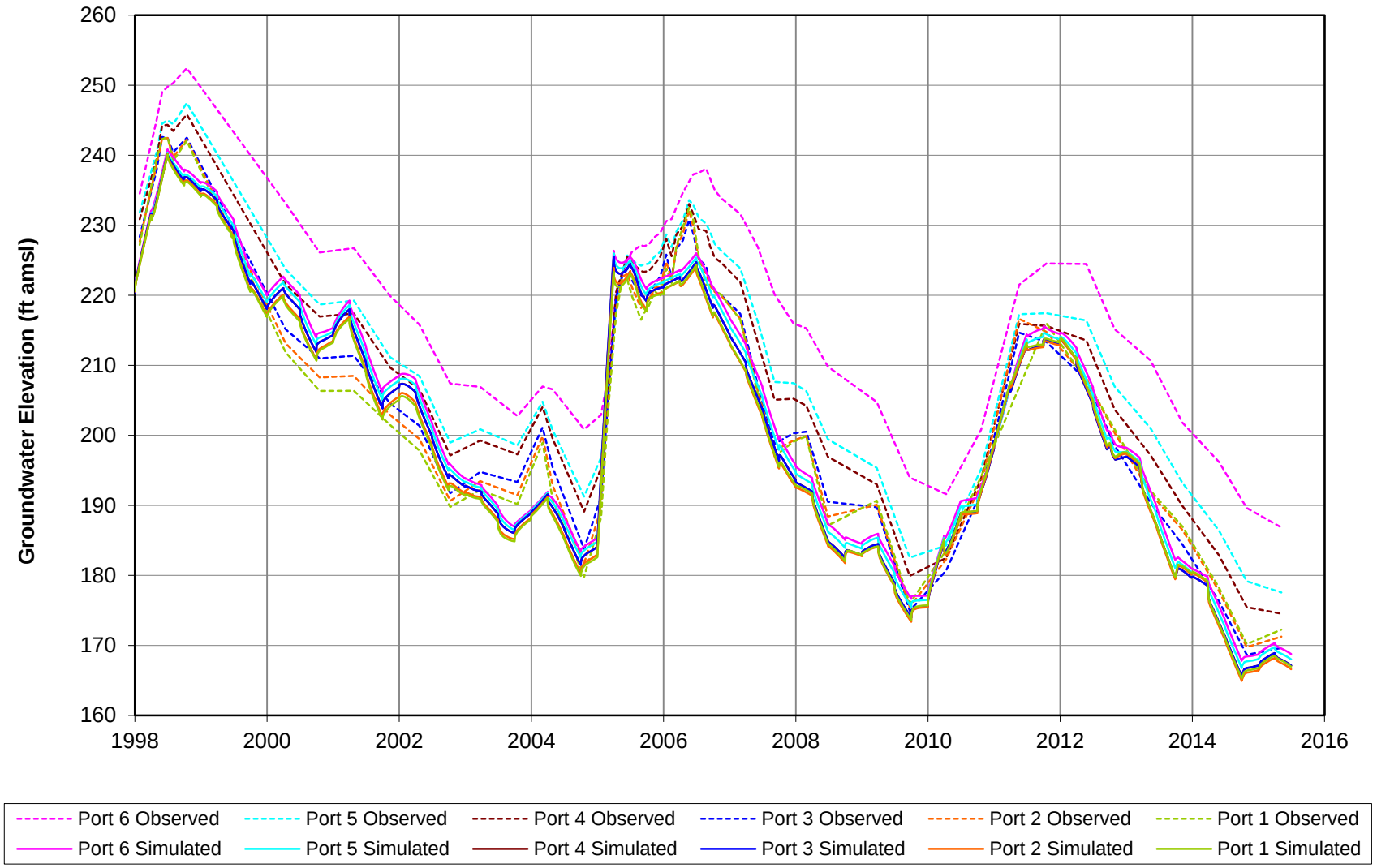


Geosyntec consultants

SUBAREA 1 PIEZOMETER CALIBRATION HYDROGRAPH FOR PZ1-3B D/S
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

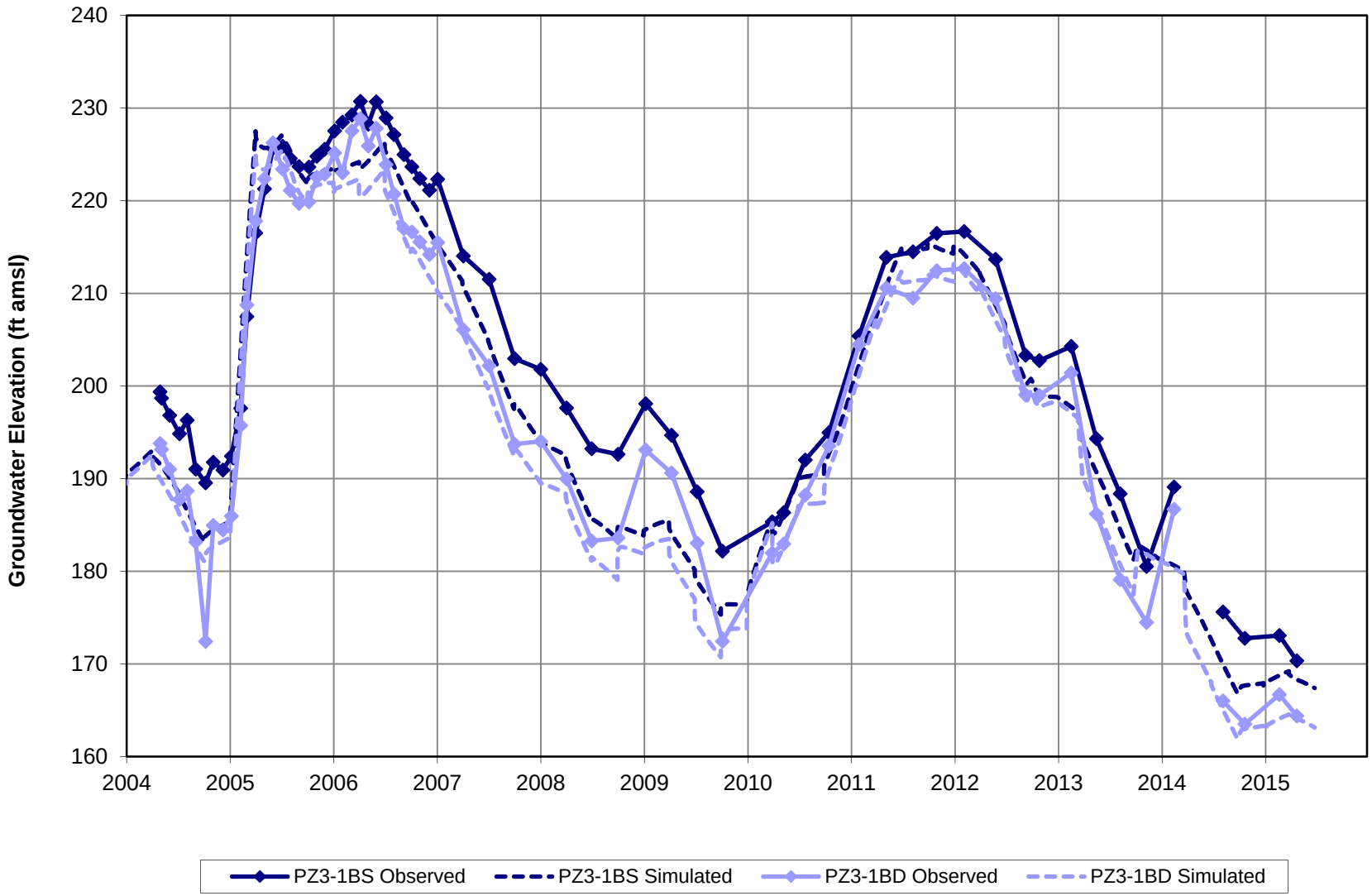
Figure **5-13**



SUBAREA 3 MULTIPORT WELL CALIBRATION HYDROGRAPH FOR MW 5-23
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **5-14**



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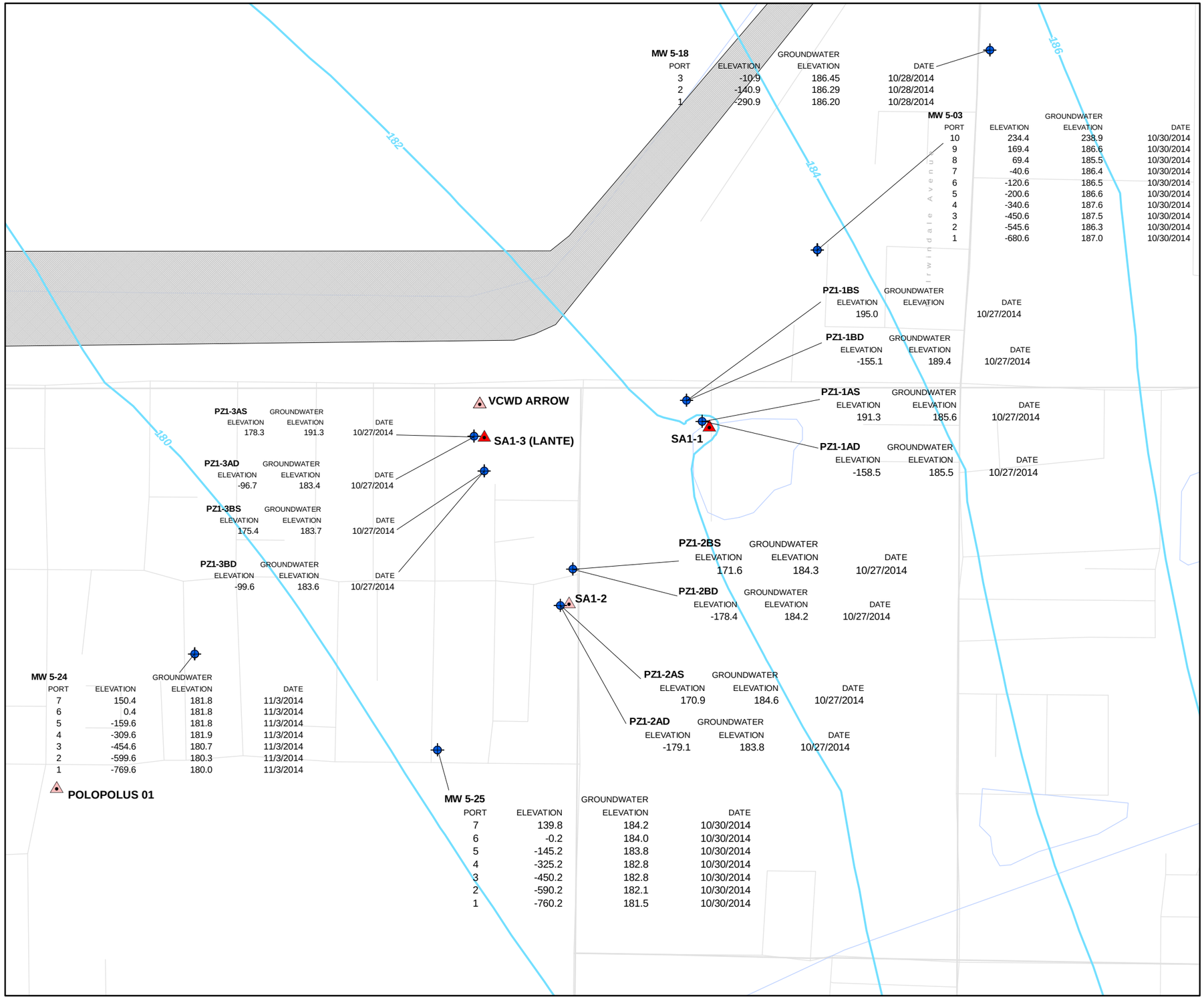
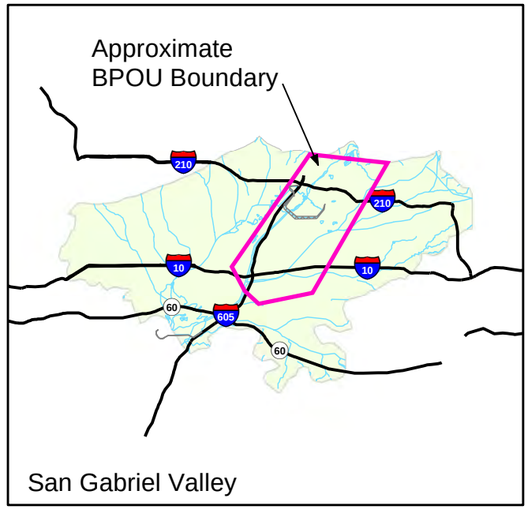
SUBAREA 3 PIEZOMETER CALIBRATION HYDROGRAPH FOR PZ3-1B D/S
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure **5-15**





EXPLANATION

- Monitoring or Multiport Well
- Extraction or Pumping Well
- Location of production well that was generally inactive from WY2011-12 through WY2014-15
- Potentiometric Surface Elevation Contour Interval - 2 ft (elevation in feet above mean sea level)

Note: Simulated head contours from model slice 3 - September 30, 2014.

700 0 700

SCALE IN FEET

N

SUBAREA 1 SIMULATED FALL 2014 POTENTIOMETRIC SURFACE

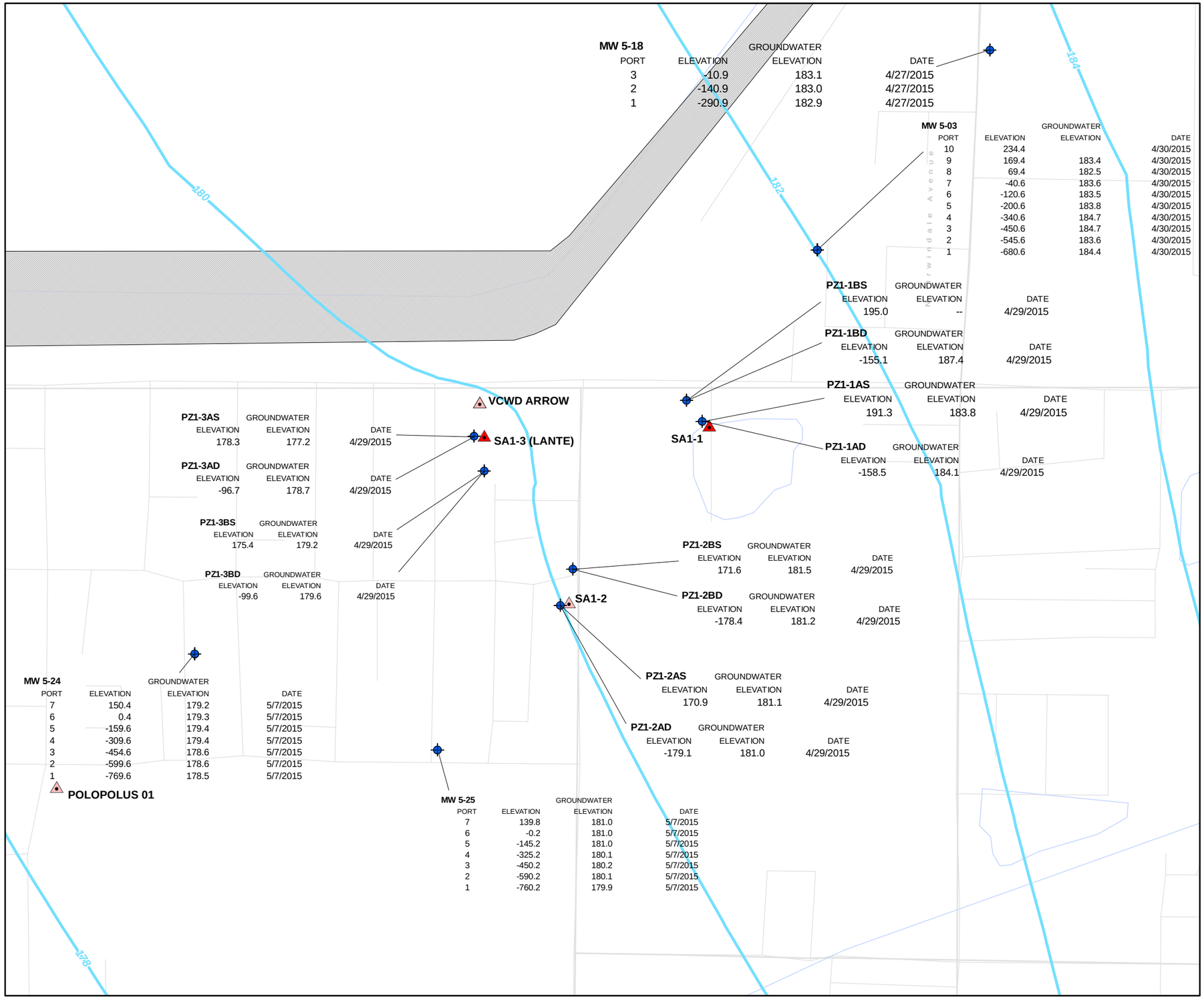
Baldwin Park Operable Unit
San Gabriel Valley, California

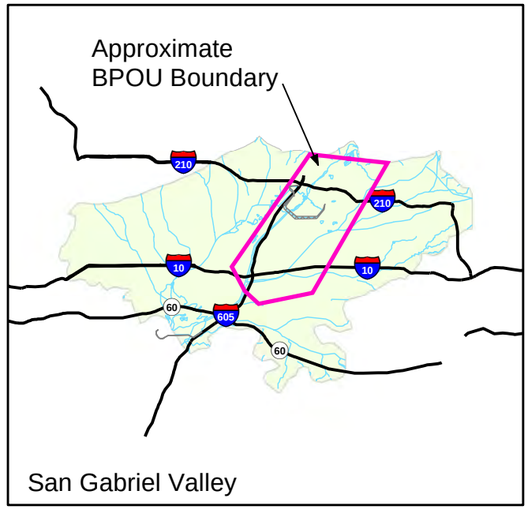
Geosyntec consultants

Project No.: SAC150

Figure **5-16**

Document Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\5-16_Fall2014_Sim_GW_Elevations_SubArea.mxd





EXPLANATION

- Monitoring or Multiport Well
- Extraction or Pumping Well
- Location of production well that was generally inactive from WY2011-12 through WY2014-15
- Potentiometric Surface Elevation Contour Interval - 2 ft (elevation in feet above mean sea level)

Note: Simulated head contours from model slice 3 - March 31, 2015.

700 0 700
SCALE IN FEET

N

SUBAREA 1 SIMULATED SPRING 2015 POTENTIOMETRIC SURFACE

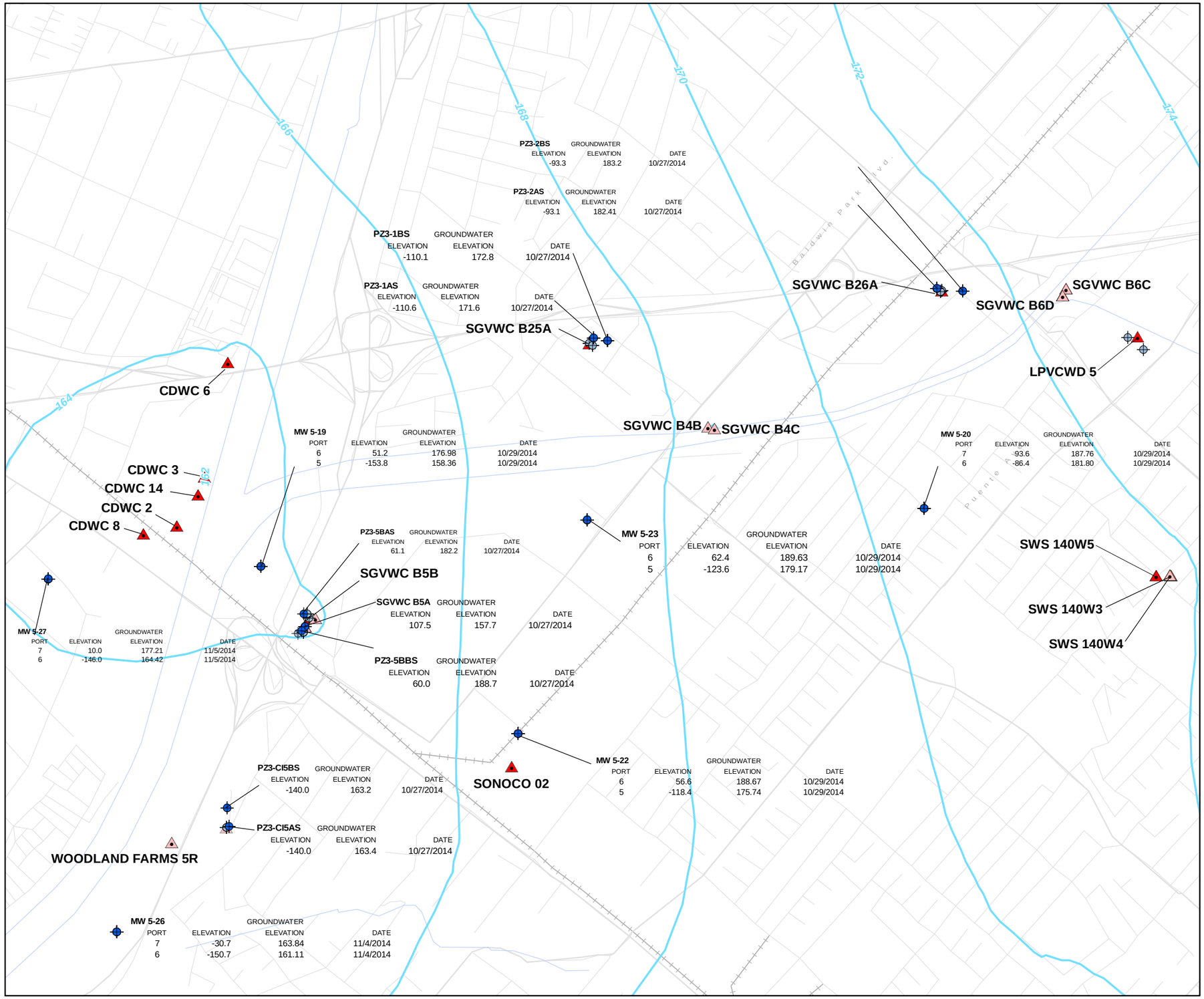
Baldwin Park Operable Unit
San Gabriel Valley, California

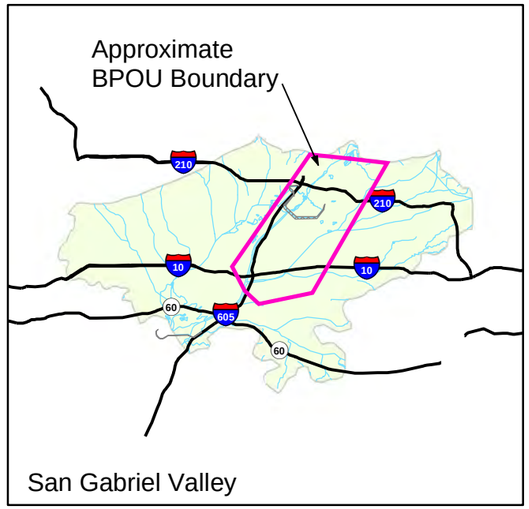
Geosyntec consultants

Project No.: SAC150

Figure **5-17**

Document Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\20160d_2015PER\Volume 1\5-17_Spring2015_Sim_GW_Elevations_SubArea.mxd





EXPLANATION

- Monitoring or multiport well
- Monitoring or multiport well (well midscreen not above -200 feet above mean sea level or groundwater elevation data not available)
- Extraction or pumping well
- Location of production well that was generally inactive from WY2011-12 through WY2014-15
- Potentiometric Surface Elevation Contour interval - 2 ft (elevation in feet above mean sea level)

Note: Simulated head contours from model slice 3 - September 30, 2014.
-- Not measured. Well inaccessible.

1,300 0 1,300
SCALE IN FEET

N

SUBAREA 3 SIMULATED FALL 2014 POTENTIOMETRIC SURFACE ABOVE -200 FEET MSL

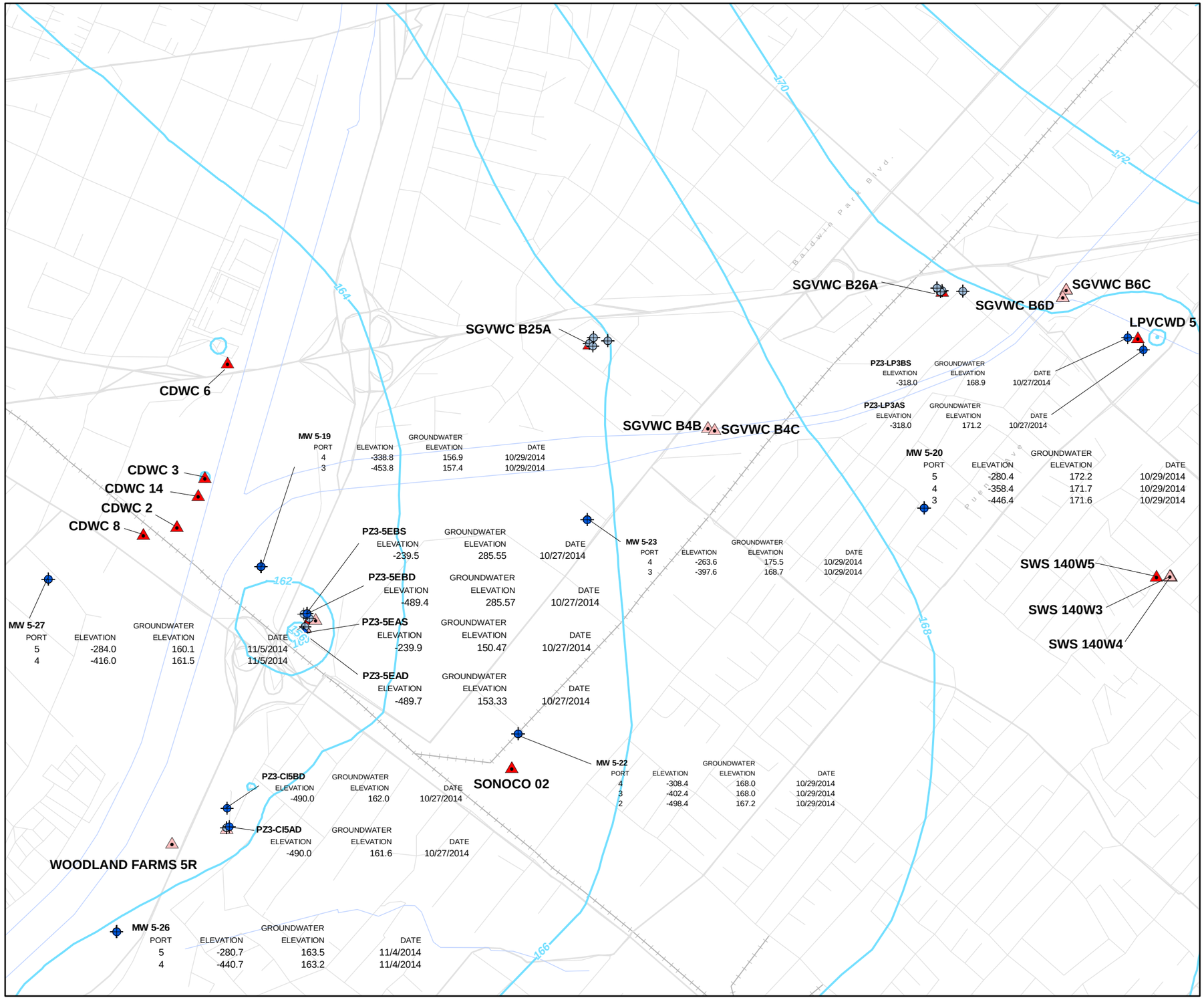
Baldwin Park Operable Unit
San Gabriel Valley, California

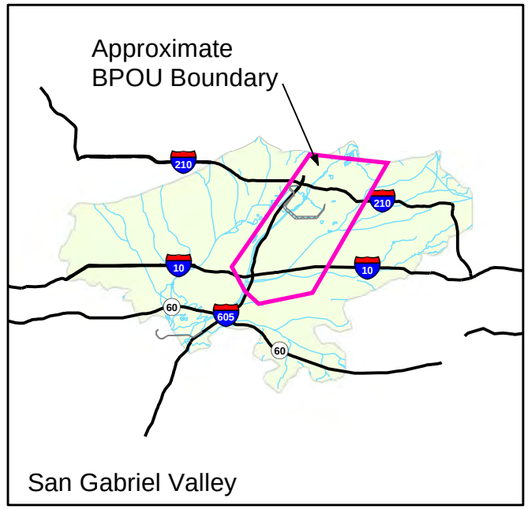
Geosyntec consultants

Project No.: SAC150

Figure **5-18**

Document Path: \\sacramento-01\data\GIS\SAC150_BPOU\project\201610_2015PER_Revisions\5-18_Fall2014_Sim_GW_Elevations_above_-200MSL1_SubArea.mxd





EXPLANATION

- Monitoring or multiport well
- Monitoring or multiport well (well midscreen not between -200 and -500 feet above mean sea level or groundwater elevation data not available)
- Extraction or pumping well
- Location of production well that was generally inactive from WY2011-12 through WY2014-15
- Potentiometric Surface Elevation Contour interval - 2 ft (elevation in feet above mean sea level)

Note: Simulated head contours from model slice 6 - September 30, 2014.

1,300 0 1,300

SCALE IN FEET

N

SUBAREA 3 SIMULATED FALL 2014 POTENTIOMETRIC SURFACE BETWEEN -200 FEET MSL AND -500 FEET MSL

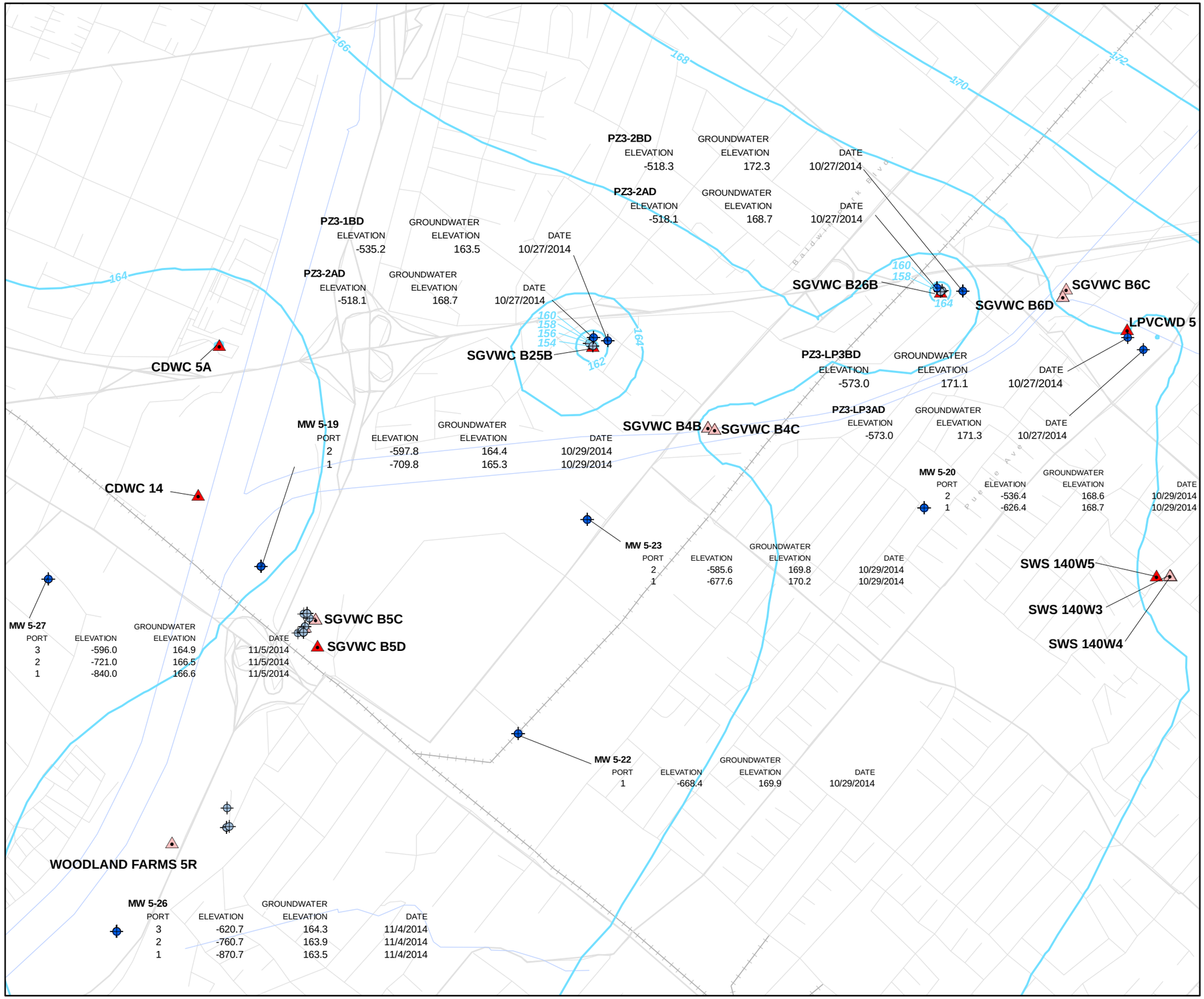
Baldwin Park Operable Unit
San Gabriel Valley, California

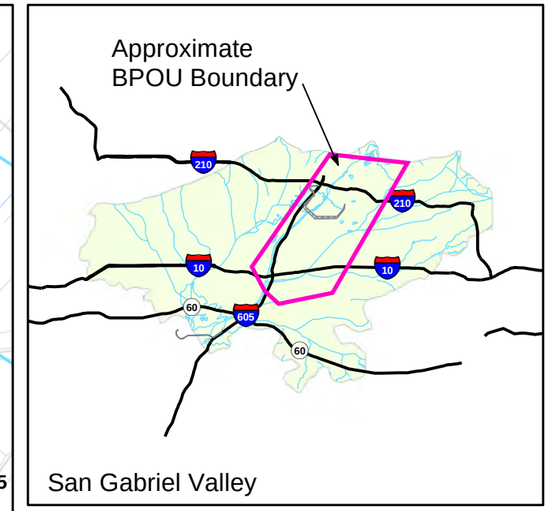
Geosyntec consultants

Project No.: SAC150

Figure **5-19**

Document Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\20160\4_2015PERI\Volume 15-19_Fall2014_Sim_GW_Elevations_between_-200_and_-500MSL1_Subarea3.mxd





EXPLANATION

- Monitoring or multiport well
- Monitoring or multiport well (well midscreen not below -500 feet above mean sea level or groundwater elevation data not available)
- Extraction or pumping well
- Location of production well that was generally inactive from WY2011-12 through WY2014-15
- Potentiometric Surface Elevation Contour interval - 2 ft (elevation in feet above mean sea level)

Note: Simulated head contours from model slice 9 - September 30, 2014.

1,300 0 1,300

SCALE IN FEET

N

SUBAREA 3 SIMULATED FALL 2014 POTENTIOMETRIC SURFACE BELOW -500 FEET MSL

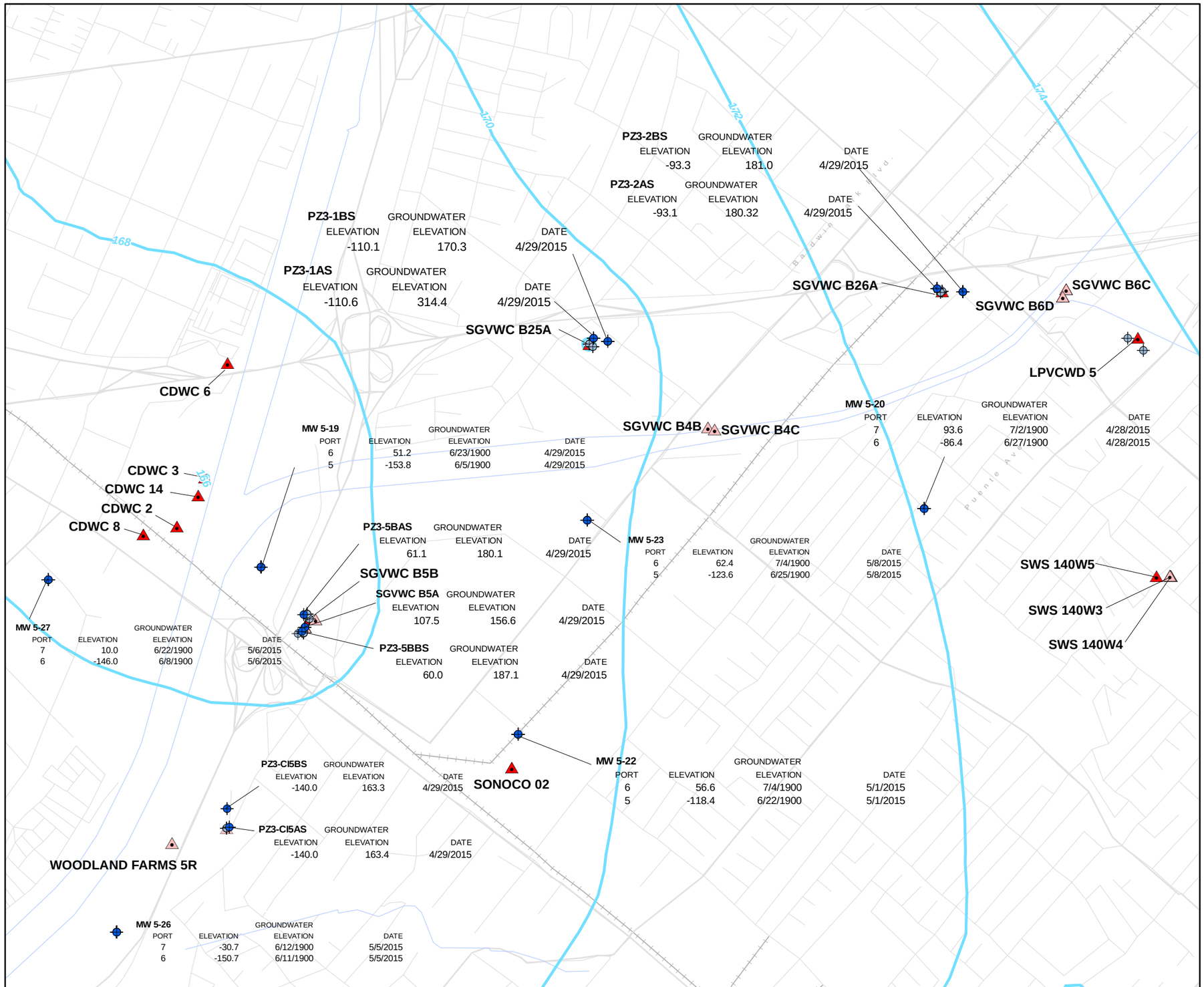
Baldwin Park Operable Unit
San Gabriel Valley, California

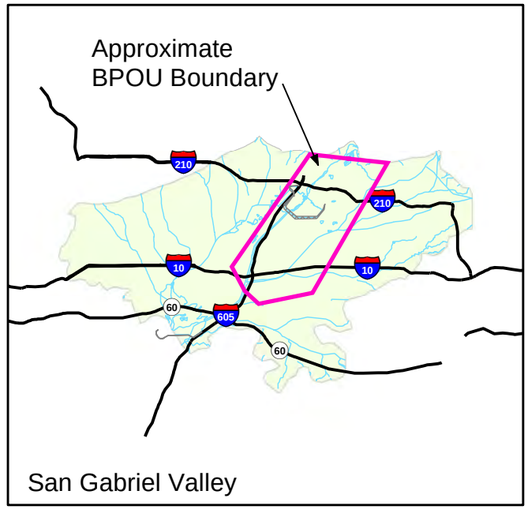
Geosyntec consultants

Project No.: SAC150

Figure **5-20**

Document Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PERV\Volume 1\5-20_Fall2014_Sim_GW_Elevations_below_-500MSL1_SubArea3.mxd





EXPLANATION

- Monitoring or multiport well
- Monitoring or multiport well (well midscreen not above -200 feet above mean sea level or groundwater elevation data not available)
- Extraction or pumping well
- Location of production well that was generally inactive from WY2011-12 through WY2014-15
- Potentiometric Surface Elevation Contour interval - 2 ft (elevation in feet above mean sea level)

Note: Simulated head contours from model slice 3 - March 31, 2015.

1,300 0 1,300
SCALE IN FEET

N

SUBAREA 3 SIMULATED SPRING 2015 POTENTIOMETRIC SURFACE ABOVE -200 FEET MSL

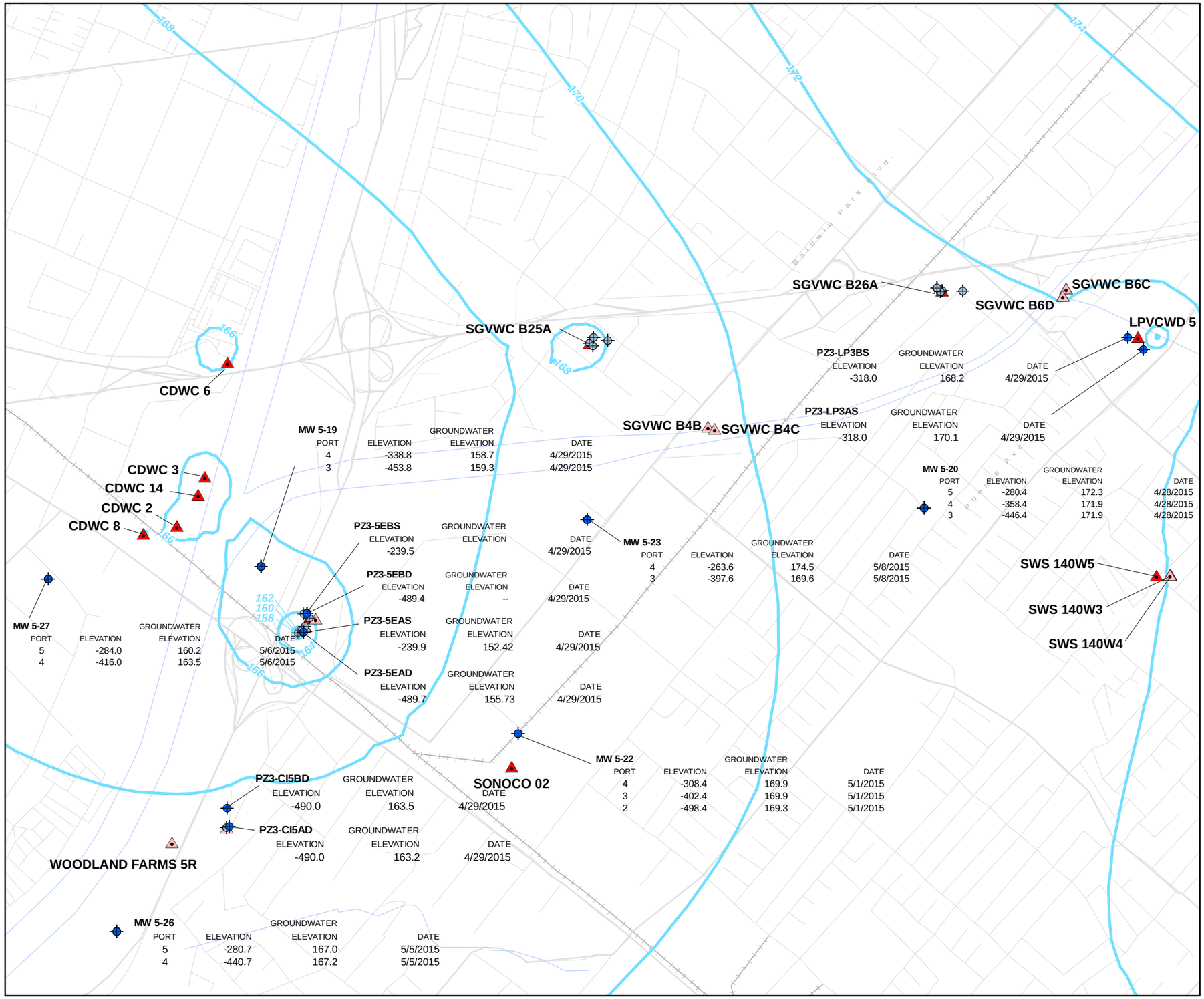
Baldwin Park Operable Unit
San Gabriel Valley, California

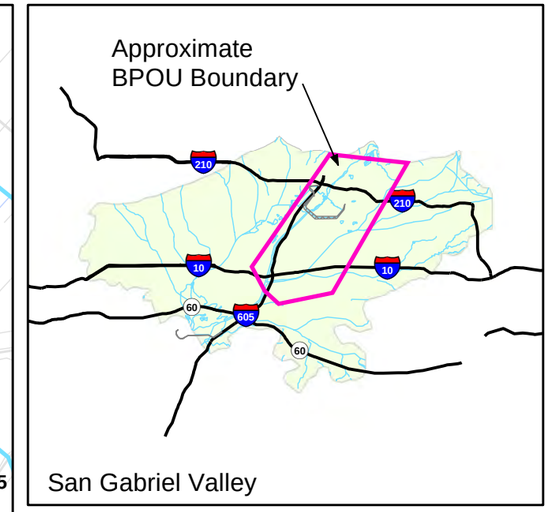
Geosyntec consultants

Project No.: SAC150

Figure **5-21**

Document Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\5-21_Spring2015_Sim_GW_Elevations_above_-200MSL1_SubArea3.mxd





EXPLANATION

- Monitoring or multiport well
- Monitoring or multiport well (well midscreen not between -200 and -500 feet above mean sea level or groundwater elevation data not available)
- Extraction or pumping well
- Location of production well that was generally inactive from WY2011-12 through WY2014-15
- Potentiometric Surface Elevation Contour interval - 2 ft (elevation in feet above mean sea level)

Note: Simulated head contours from model slice 6 - March 31, 2015.

1,300 0 1,300
SCALE IN FEET

N

SUBAREA 3 SIMULATED SPRING 2015 POTENTIOMETRIC SURFACE BETWEEN -200 FEET MSL AND -500 FEET MSL

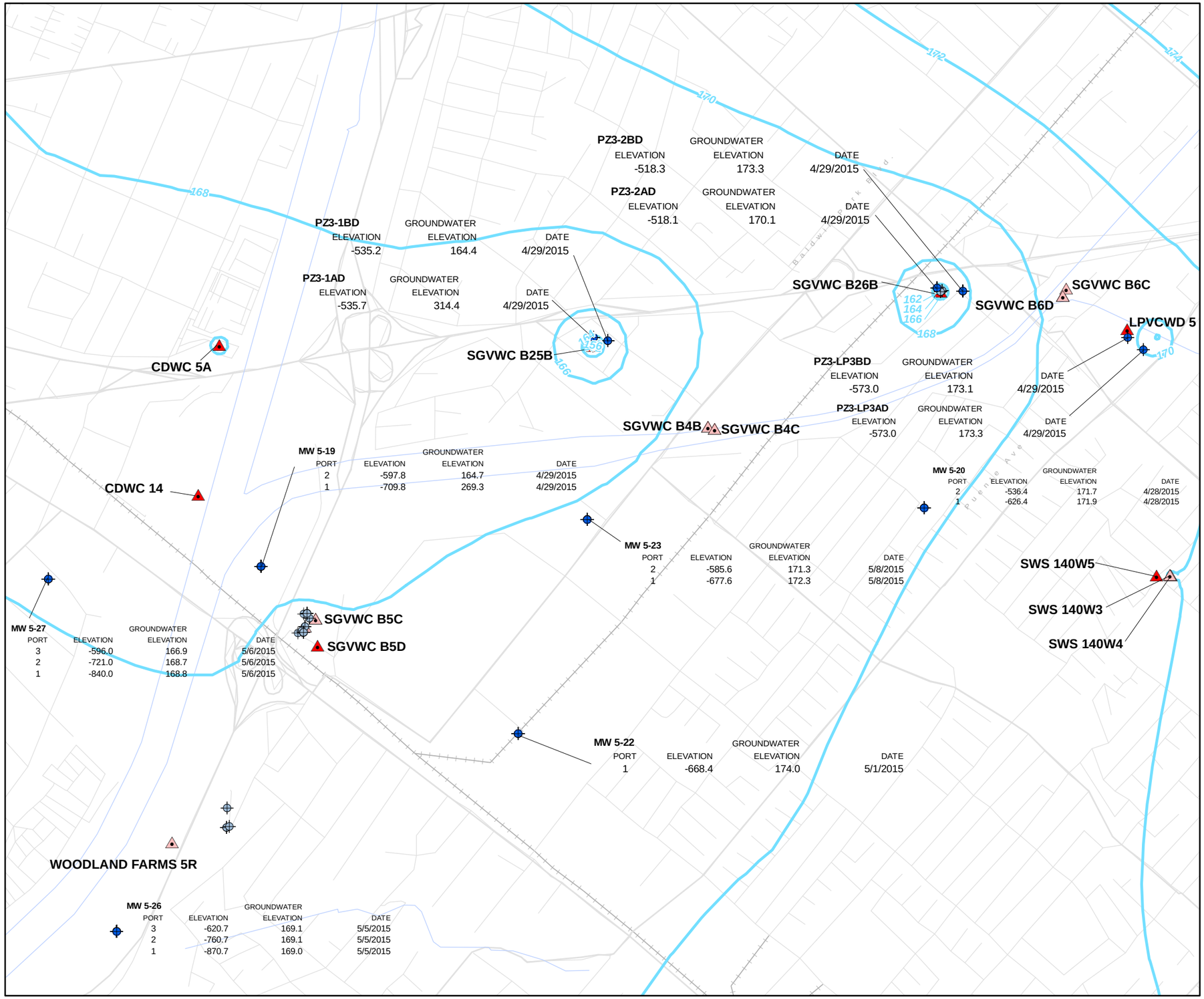
Baldwin Park Operable Unit
San Gabriel Valley, California

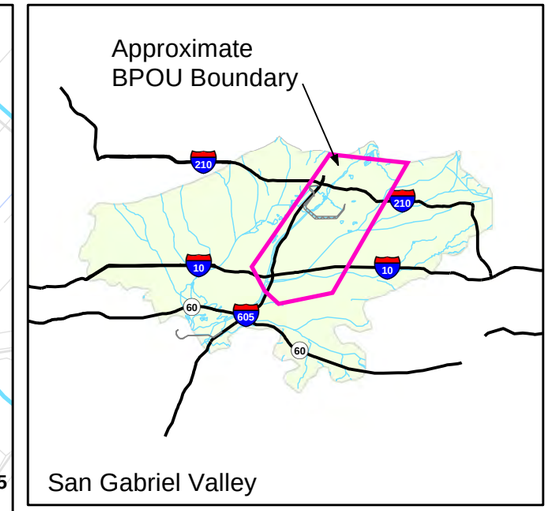
Geosyntec consultants

Project No.: SAC150

Figure **5-22**

Document Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\20160\4_2015PER\Volume 1\5-22_Spring2015_Sm_GW_Elevations_between_-200_and_-500MSL1_SubArea3.mxd





EXPLANATION

- Monitoring or multiport well
- Monitoring or multiport well (well midscreen not below -500 feet above mean sea level or groundwater elevation data not available)
- Extraction or pumping well
- Location of production well that was generally inactive from WY2011-12 through WY2014-15
- Potentiometric Surface Elevation Contour interval - 2 ft (elevation in feet above mean sea level)

Note: Simulated head contours from model slice 9 - March 31, 2015.

1,300 0 1,300
SCALE IN FEET

N

SUBAREA 3 SIMULATED SPRING 2015 POTENTIOMETRIC SURFACE BELOW -500 FEET MSL

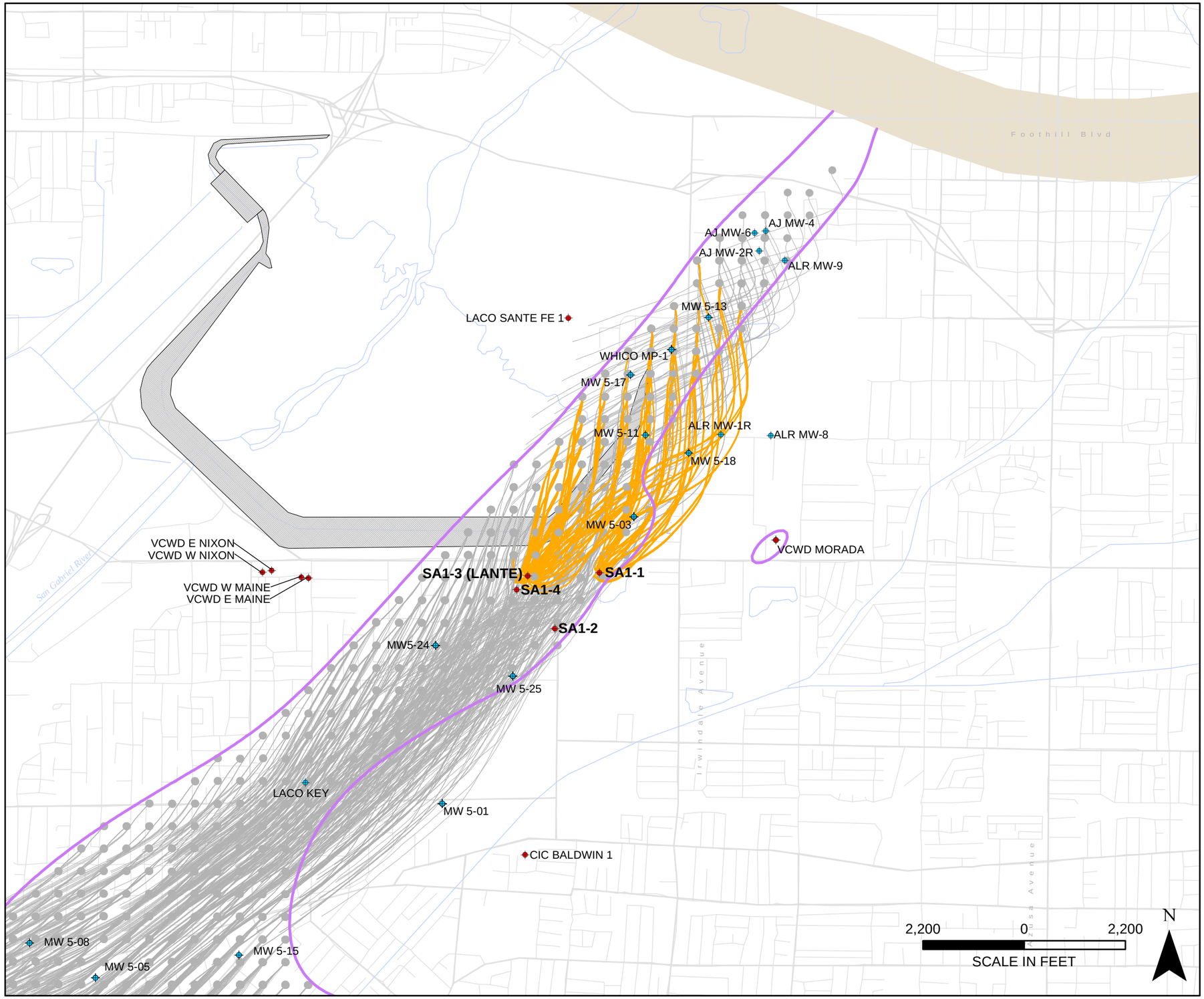
Baldwin Park Operable Unit
San Gabriel Valley, California

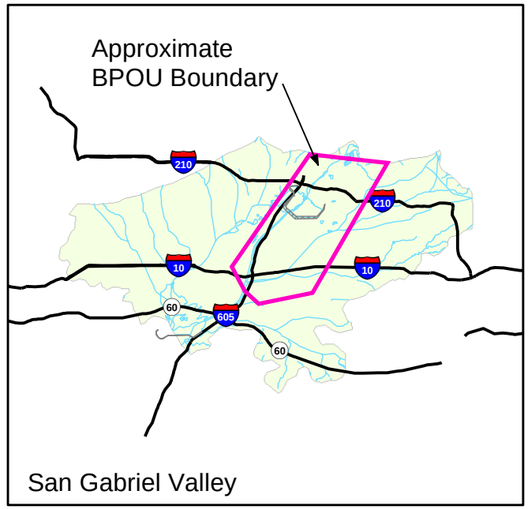
Geosyntec consultants

Project No.: SAC150

Figure **5-23**

Document Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PERI\Volume 1\5-23_Spring2015_Sim_GW_Elevations_below_-500MSL1_SubArea3mxd.mxd





EXPLANATION

- Production well
- Monitoring or multiport well
- Interpreted extent of normalized total COC plume in 2015 (see note 3 below)
- Duarte fault zone

FIVE-YEAR FORWARD PARTICLE TRACKS

- Track of particle
- Track of particle removed by Subarea 1 extraction well
- Initial particle location

The forward particle tracking is not intended to display actual contaminant sources nor the actual locations where "initial particles" of contamination were originally released into groundwater. The particles do not represent contaminant mass; rather, they solely represent advective groundwater movement and do not take into account dispersion, sorption, or degradation to depict the likely zones of capture as the particles move downgradient through the groundwater. The modeling results in this figure cannot be utilized to infer, suggest, or demonstrate the source of any contamination with any degree of precision.

NOTES:

1. Five-year particle tracks are based on simulated transient flow field for WY2010-11 through WY2014-15.
2. The extent of the normalized total COC plume was developed using the three-dimensional geospatial modeling software, Earth Volumetric Studio®. See Figures 5-8 through 5-10 and Appendix A for additional details.
3. Particle tracks originating from particles released within the composite plume in the shallow elevation interval only. For clarity, particles originating in the intermediate and deep elevation intervals that are captured by multilayer wells are superimposed onto the pathlines of particles released in the shallow elevation interval.
4. Particle tracks originate from particles released within the interpreted extent of the normalized total COC plume, with the exception of the area surrounding MW5-24 where particles are introduced to a maximum depth of -500 feet msl.

FORWARD PARTICLE TRACKS, SUBAREA 1, ABOVE -200 FT MSL, ENDING JUNE 30, 2015

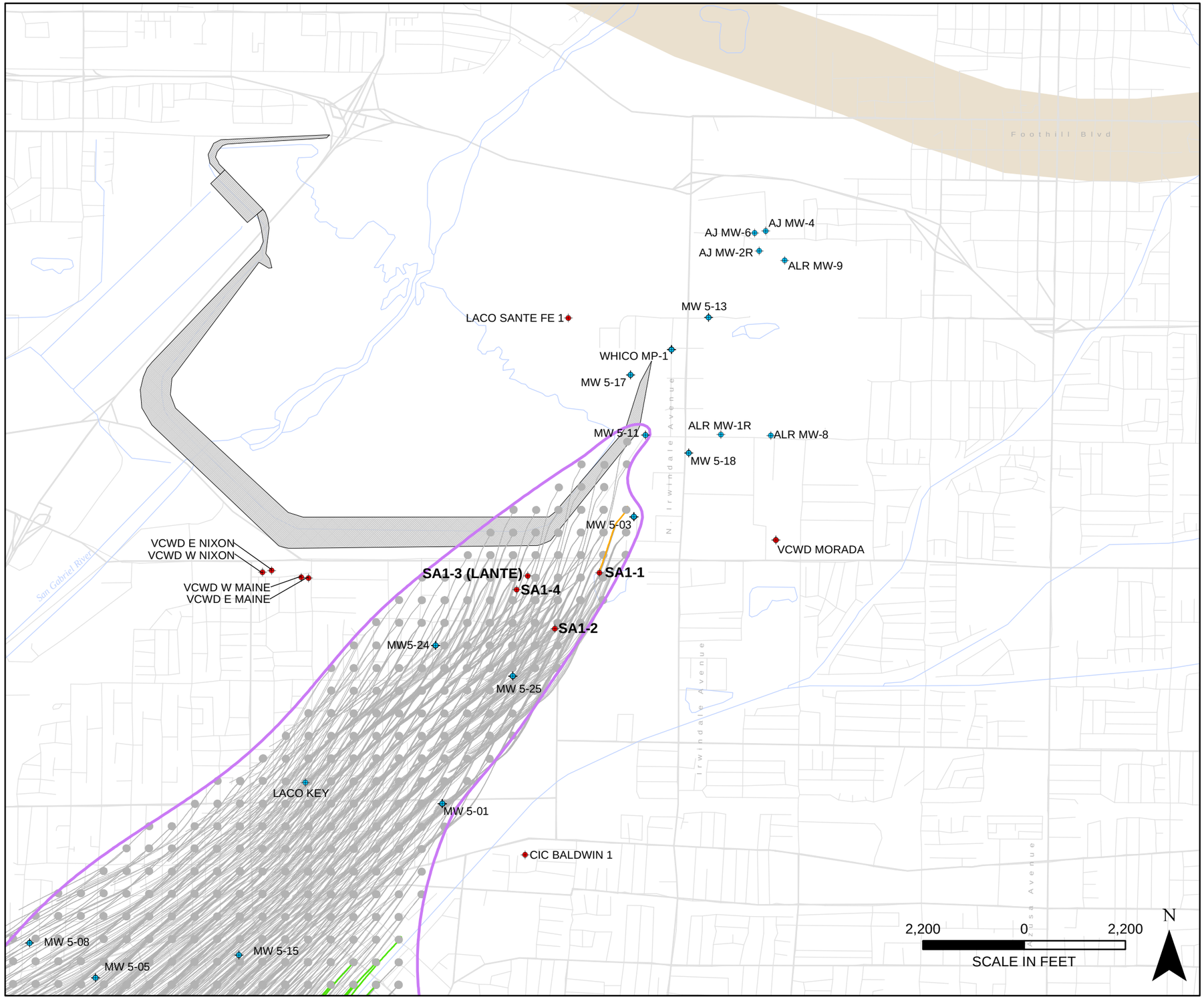
Baldwin Park Operable Unit
San Gabriel Valley, California

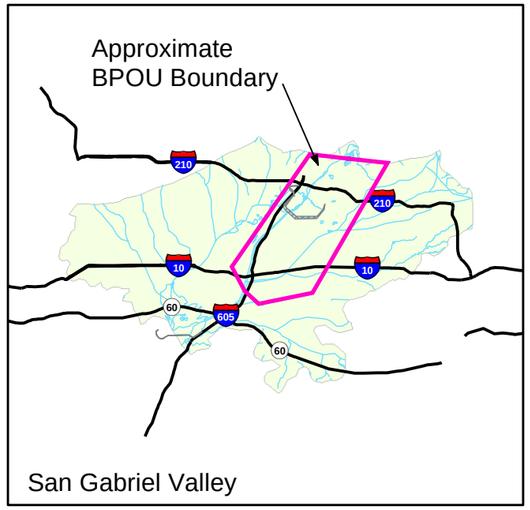
Geosyntec consultants

Project No.: SAC150

Figure **5-24R**

Document Path: P:\GIS\SAC150_BPOU\project\20\610_2015PER_Revisions\5-24R_WY14-15_FwdParticleTracks_SubArea1_Shallow.mxd





EXPLANATION

- Production well
- Monitoring or multiport well
- Interpreted extent of normalized total COC plume in 2015 (see note 3 below)
- Duarte fault zone

FIVE-YEAR FORWARD PARTICLE TRACKS

- Track of particle
- Track of particle removed by Subarea 1 extraction well
- Track of particle removed by Subarea 3 extraction well
- Initial particle location

The forward particle tracking is not intended to display actual contaminant sources nor the actual locations where "initial particles" of contamination were originally released into groundwater. The particles do not represent contaminant mass; rather, they solely represent advective groundwater movement and do not take into account dispersion, sorption, or degradation to depict the likely zones of capture as the particles move downgradient through the groundwater. The modeling results in this figure cannot be utilized to infer, suggest, or demonstrate the source of any contamination with any degree of precision.

NOTES:

1. Five-year particle tracks are based on simulated transient flow field for WY2010-11 through WY2014-15.
2. The extent of the normalized total COC plume was developed using the three-dimensional geospatial modeling software, Earth Volumetric Studio®. See Figures 5-8 through 5-10 and Appendix A for additional details.
3. Particle tracks originating from particles released within the composite plume in the shallow elevation interval only. For clarity, particles originating in the intermediate and deep elevation intervals that are captured by multilayer wells are superimposed onto the pathlines of particles released in the shallow elevation interval.
4. Particle tracks originate from particles released within the interpreted extent of the normalized total COC plume, with the exception of the area surrounding MW5-24 where particles are introduced to a maximum depth of -500 feet msl.

FORWARD PARTICLE TRACKS, SUBAREA 1, BELOW -200 FT MSL, ENDING JUNE 30, 2015

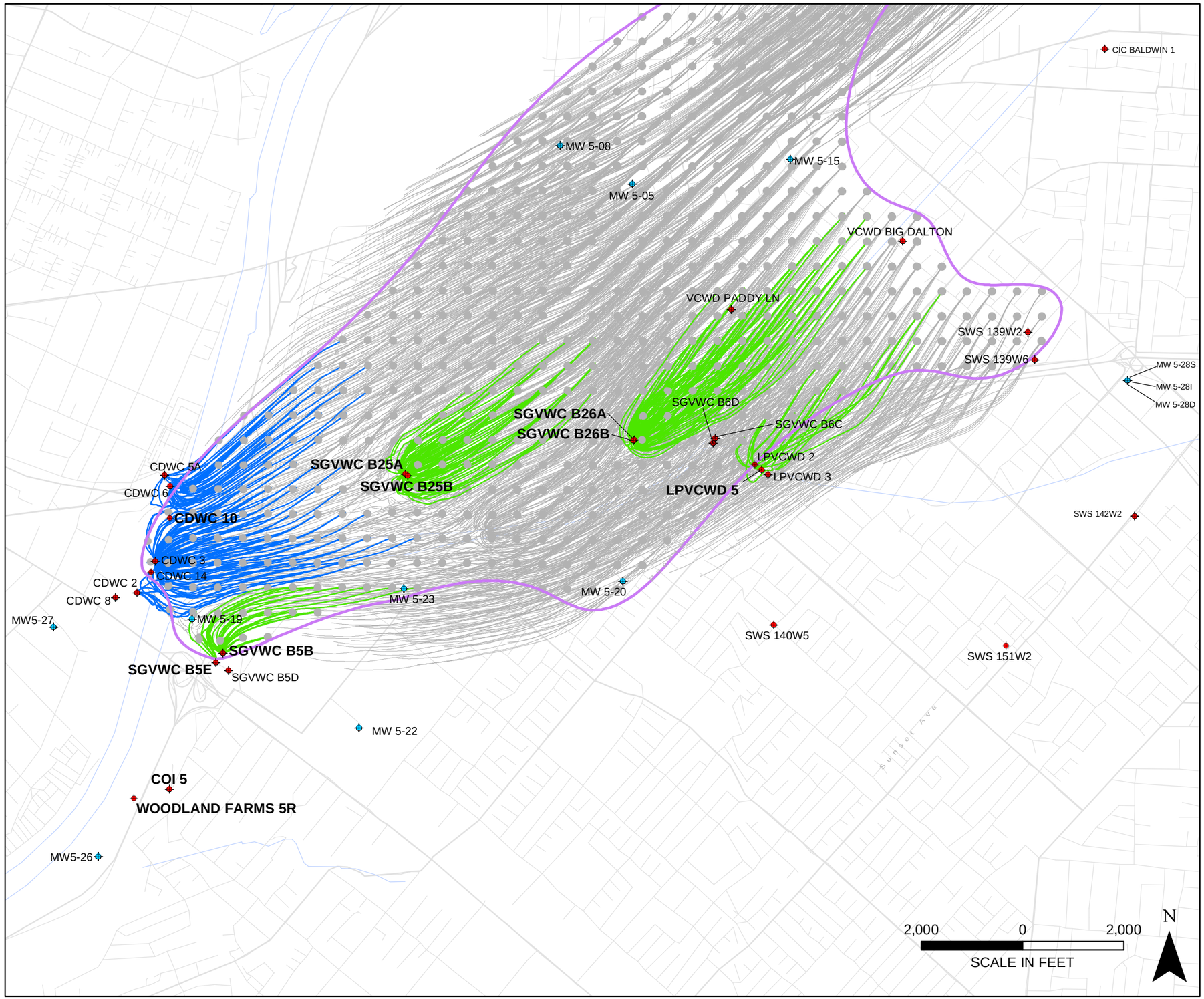
Baldwin Park Operable Unit
San Gabriel Valley, California

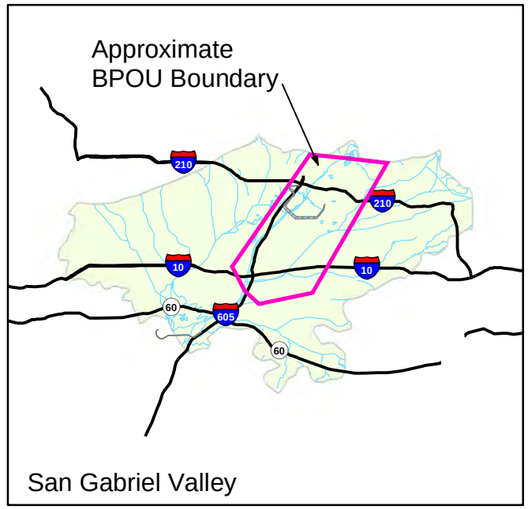
Geosyntec consultants

Project No.: SAC150

Figure **5-25R**

Document Path: P:\GIS\SAC150_BPOU\project\201610_2015PER_Revisions\5-25R_WY14-15_FwdParticleTracks_SubArea1_Intermed.mxd





EXPLANATION

- Production well
- Monitoring or multiport well
- Interpreted extent of normalized total COC plume in 2015 (see note 3 below)

FIVE-YEAR FORWARD PARTICLE TRACKS

- Track of particle
- Track of particle removed by project extraction well
- Track of particle removed by CDWC production well
- Initial particle location

The forward particle tracking is not intended to display actual contaminant sources nor the actual locations where "initial particles" of contamination were originally released into groundwater. The particles do not represent contaminant mass; rather, they solely represent advective groundwater movement and do not take into account dispersion, sorption, or degradation to depict the likely zones of capture as the particles move downgradient through the groundwater. The modeling results in this figure cannot be utilized to infer, suggest, or demonstrate the source of any contamination with any degree of precision.

NOTES:

1. Five-year particle tracks are based on simulated transient flow field for WY2010-11 through WY2014-15.
2. The extent of the normalized total COC plume was developed using the three-dimensional geospatial modeling software, Earth Volumetric Studio®. See Figures 5-8 through 5-10 and Appendix A for additional details.
3. Particle tracks originating from particles released within the composite plume in the shallow elevation interval only. For clarity, particles originating in the intermediate and deep elevation intervals that are captured by multilayer wells are superimposed onto the pathlines of particles released in the shallow elevation interval.
4. Particle tracks originate from particles released within the interpreted extent of the normalized total COC plume, with the exception of the area surrounding MW5-24 where particles are introduced to a maximum depth of -500 feet msl.

FORWARD PARTICLE TRACKS, SUBAREA 3 ABOVE -200 FT MSL, ENDING JUNE 30, 2015

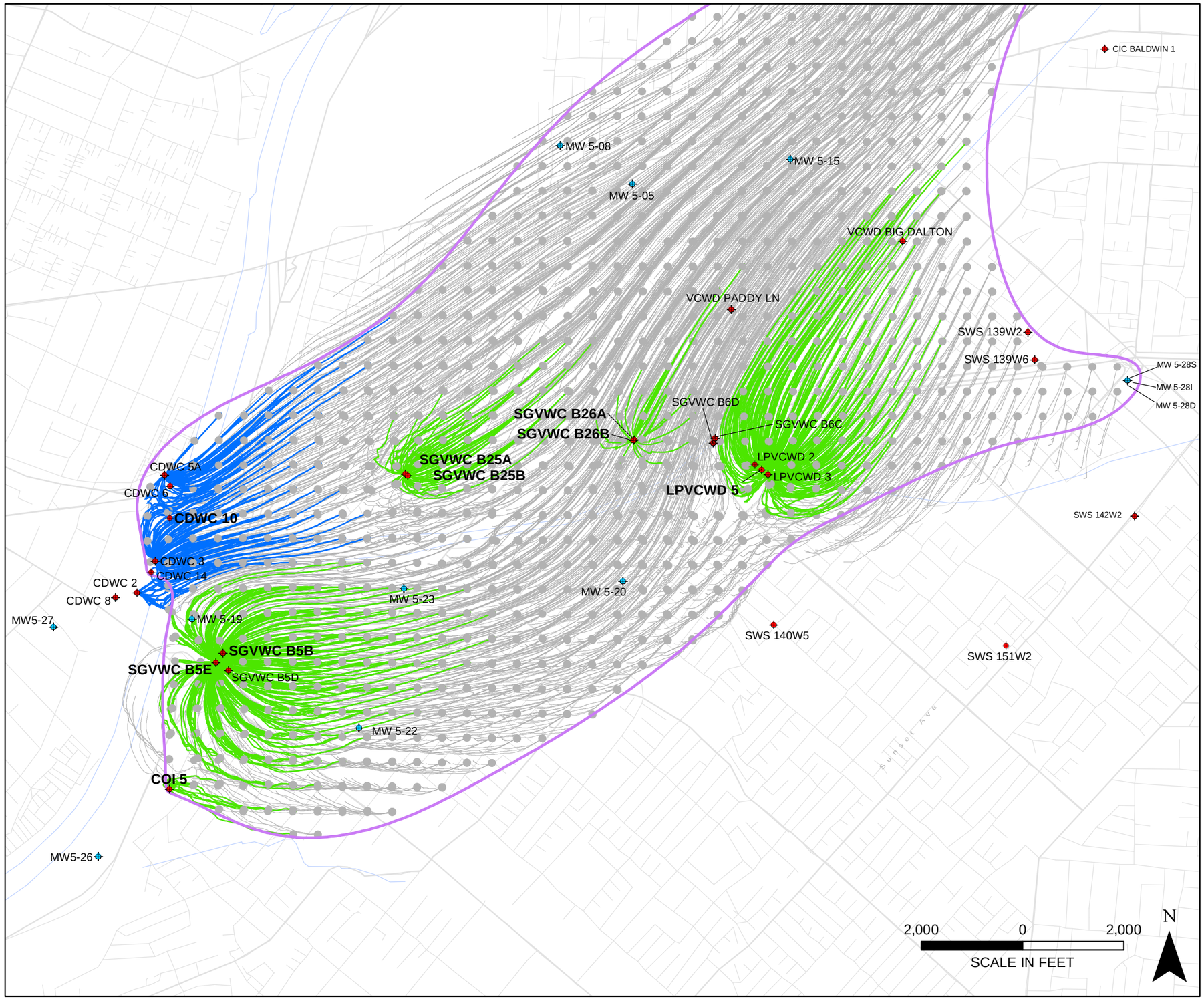
Baldwin Park Operable Unit
San Gabriel Valley, California

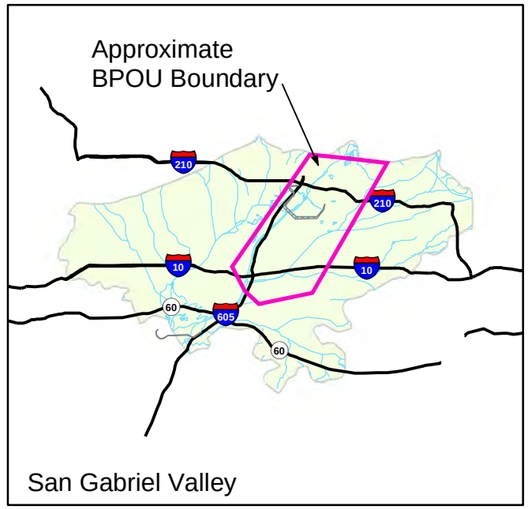
Geosyntec consultants

Project No.: SAC150

Figure **5-26R**

Document Path: \\sacramento-01\data\GIS\SAC150_BPOU\project\201610_2015PER_Revisions\5-26R_WY14-15_FwdParticleTracks_SubArea3_Shallow.mxd





EXPLANATION

- Production well
- Monitoring or multiport well
- Interpreted extent of normalized total COC plume in 2015 (see note 3 below)

FIVE-YEAR FORWARD PARTICLE TRACKS

- Track of particle
- Track of particle removed by project extraction well
- Track of particle removed by CDWC production well
- Initial particle location

The forward particle tracking is not intended to display actual contaminant sources nor the actual locations where "initial particles" of contamination were originally released into groundwater. The particles do not represent contaminant mass; rather, they solely represent advective groundwater movement and do not take into account dispersion, sorption, or degradation to depict the likely zones of capture as the particles move downgradient through the groundwater. The modeling results in this figure cannot be utilized to infer, suggest, or demonstrate the source of any contamination with any degree of precision.

NOTES:

1. Five-year particle tracks are based on simulated transient flow field for WY2010-11 through WY2014-15.
2. The extent of the normalized total COC plume was developed using the three-dimensional geospatial modeling software, Earth Volumetric Studio®. See Figures 5-8 through 5-10 and Appendix A for additional details.
3. Particle tracks originating from particles released within the composite plume in the shallow elevation interval only. For clarity, particles originating in the intermediate and deep elevation intervals that are captured by multilayer wells are superimposed onto the pathlines of particles released in the shallow elevation interval.
4. Particle tracks originate from particles released within the interpreted extent of the normalized total COC plume, with the exception of the area surrounding MW5-24 where particles are introduced to a maximum depth of -500 feet msl.

FORWARD PARTICLE TRACKS, SUBAREA 3 BETWEEN -200 AND -500 FT MSL, ENDING JUNE 30, 2015

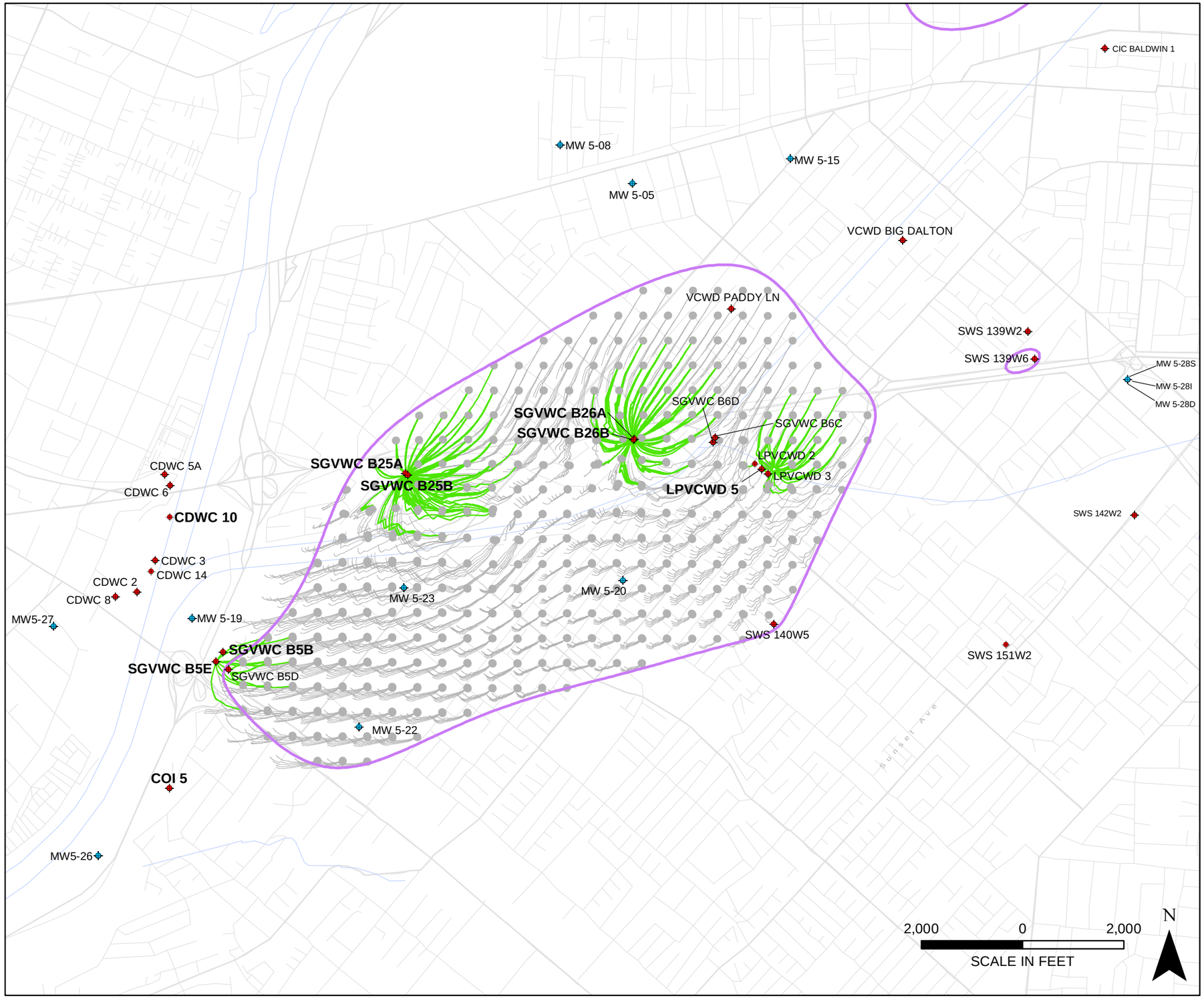
Baldwin Park Operable Unit
San Gabriel Valley, California

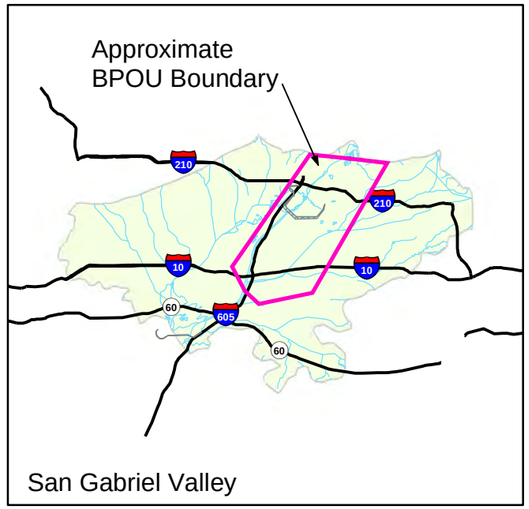
Geosyntec consultants

Project No.: SAC150

Figure **5-27R**

Document Path: \\sacramento-01\data\GIS\SAC150_BPOU\project\201610_2015PER_Revisions\5-27R_WY14-15_FwdParticleTracks_SubArea3_Intermed.mxd





EXPLANATION

- Production well
- Monitoring or multiport well
- Interpreted extent of normalized total COC plume in 2015 (see note 3 below)

FIVE-YEAR FORWARD PARTICLE TRACKS

- Track of particle
- Track of particle removed by project extraction well
- Initial particle location

The forward particle tracking is not intended to display actual contaminant sources nor the actual locations where "initial particles" of contamination were originally released into groundwater. The particles do not represent contaminant mass; rather, they solely represent advective groundwater movement and do not take into account dispersion, sorption, or degradation to depict the likely zones of capture as the particles move downgradient through the groundwater. The modeling results in this figure cannot be utilized to infer, suggest, or demonstrate the source of any contamination with any degree of precision.

NOTES:

1. Five-year particle tracks are based on simulated transient flow field for WY2010-11 through WY2014-15.
2. The extent of the normalized total COC plume was developed using the three-dimensional geospatial modeling software, Earth Volumetric Studio®. See Figures 5-8 through 5-10 and Appendix A for additional details.
3. Particle tracks originating from particles released within the composite plume in the shallow elevation interval only. For clarity, particles originating in the intermediate and deep elevation intervals that are captured by multilayer wells are superimposed onto the pathlines of particles released in the shallow elevation interval.
4. Particle tracks originate from particles released within the interpreted extent of the normalized total COC plume, with the exception of the area surrounding MW5-24 where particles are introduced to a maximum depth of -500 feet msl.

FORWARD PARTICLE TRACKS, SUBAREA 3 BELOW -500 FT MSL, ENDING JUNE 30, 2015

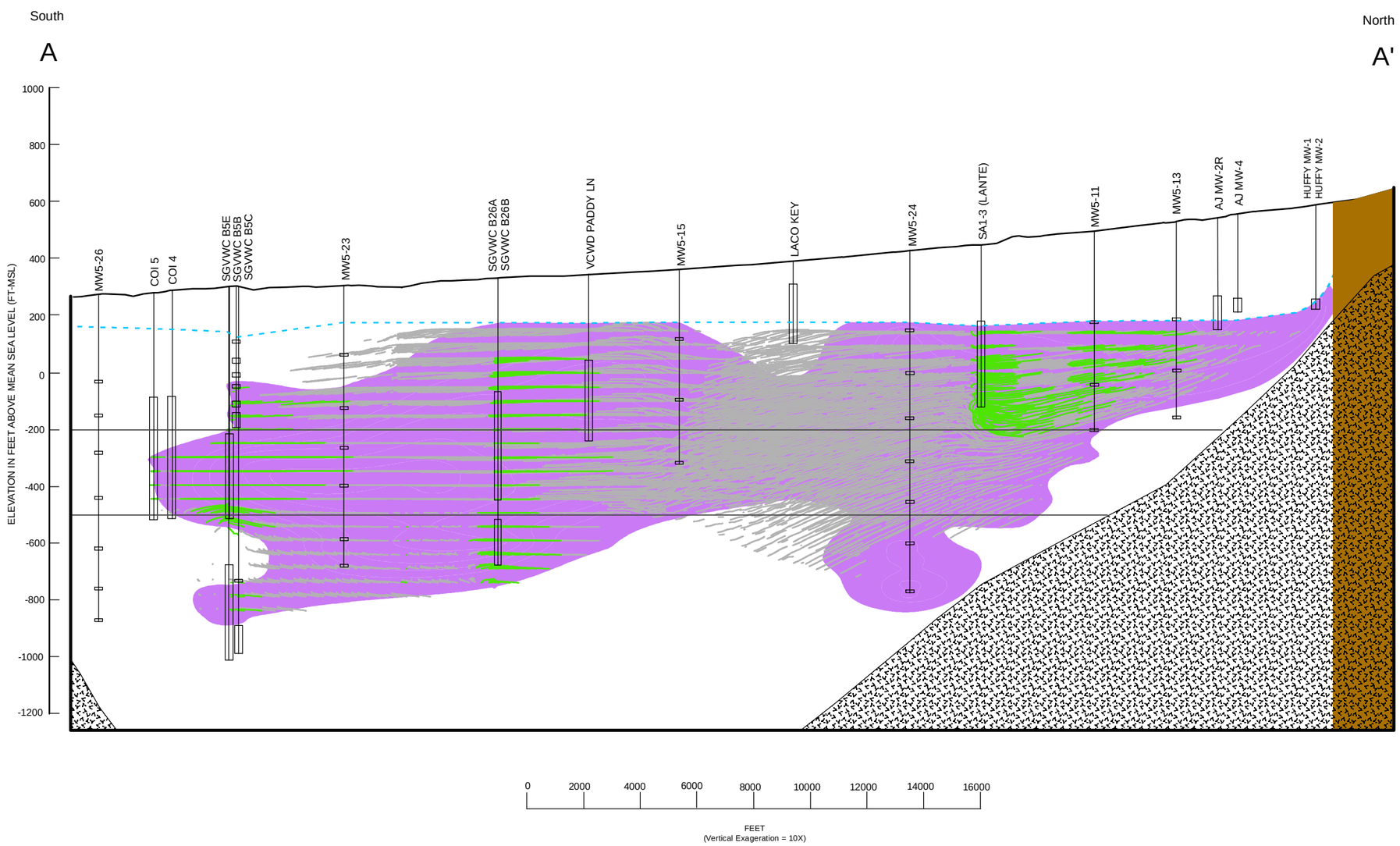
Baldwin Park Operable Unit
San Gabriel Valley, California

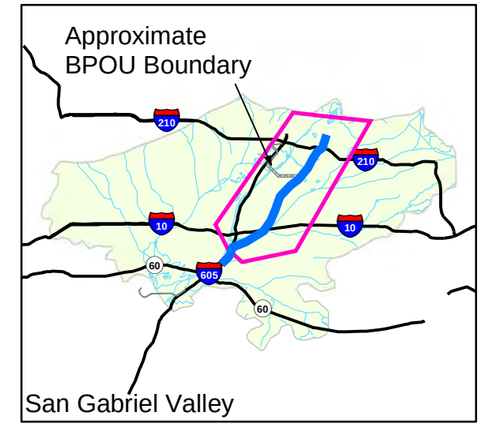
Geosyntec consultants

Project No.: SAC150

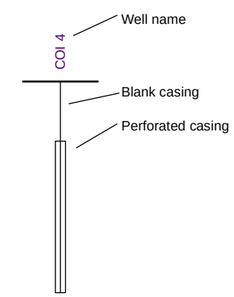
Figure **5-28R**

Document Path: \\sacramento-01\data\GIS\SAC150_BPOU\project\201610_2015PER_Revisions\5-28R_WY14-15_FwdParticleTracks_SubArea3_Deep.mxd





EXPLANATION



2015 generalized potentiometric surface

Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various sources

Duarte fault zone

Interpreted extent of normalized total COC plume in 2015

Five-year forward particle tracks

Track of particle

Track of particle removed by project extraction well

The forward particle tracking is not intended to display actual contaminant sources nor the actual locations where "initial particles" of contamination were originally released into groundwater. The particles do not represent contaminant mass; rather, they solely represent advective groundwater movement and do not take into account dispersion, sorption, or degradation to depict the likely zones of capture as the particles move downgradient through the groundwater. The modeling results in this figure cannot be utilized to infer, suggest, or demonstrate the source of any contamination with any degree of precision.

Note:

1. Five-year particle tracks based on transient flow field.

FORWARD PARTICLE TRACKS ON CROSS-SECTION A-A', ENDING JUNE 30, 2015

Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure **5-29R**

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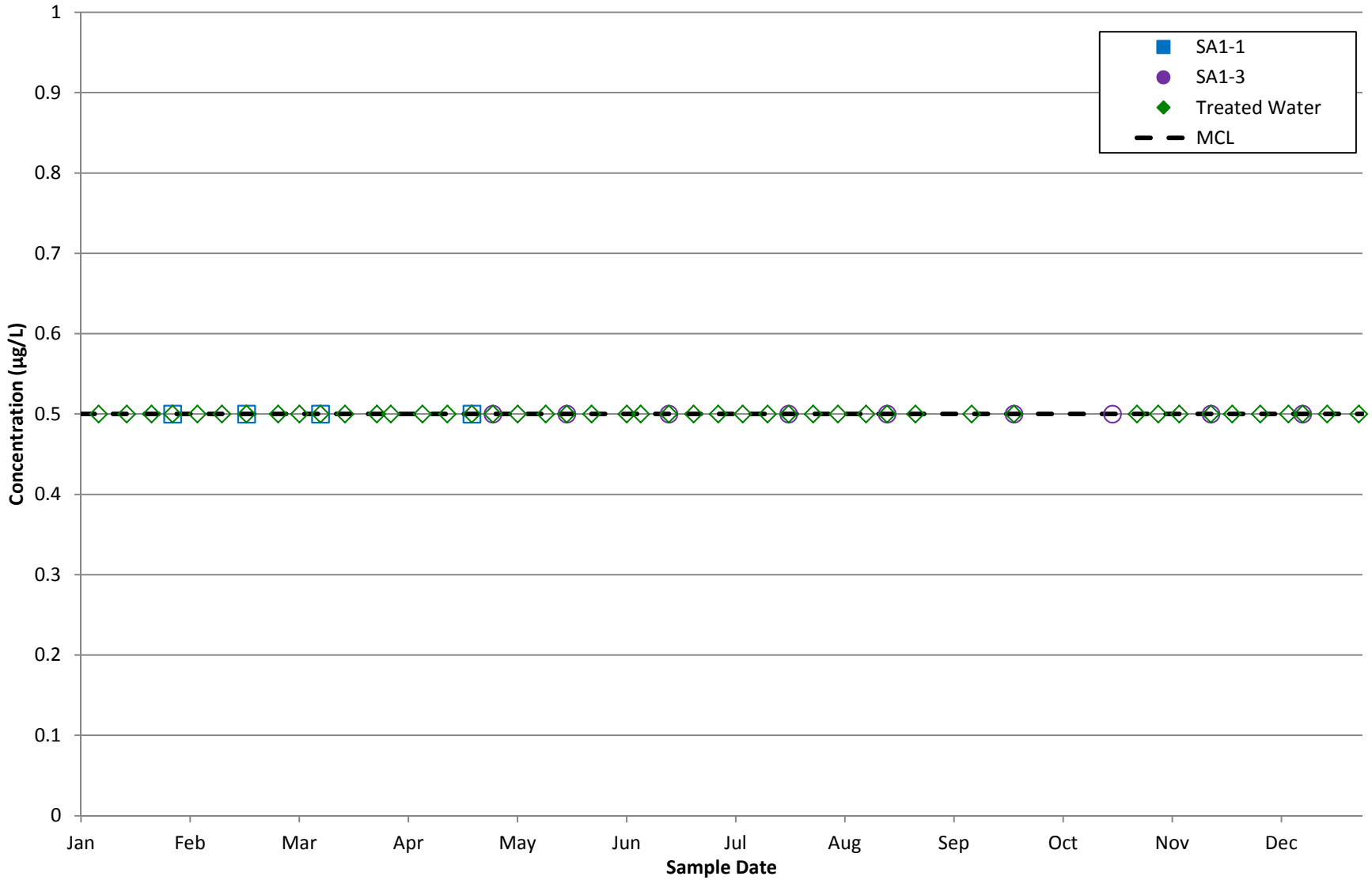
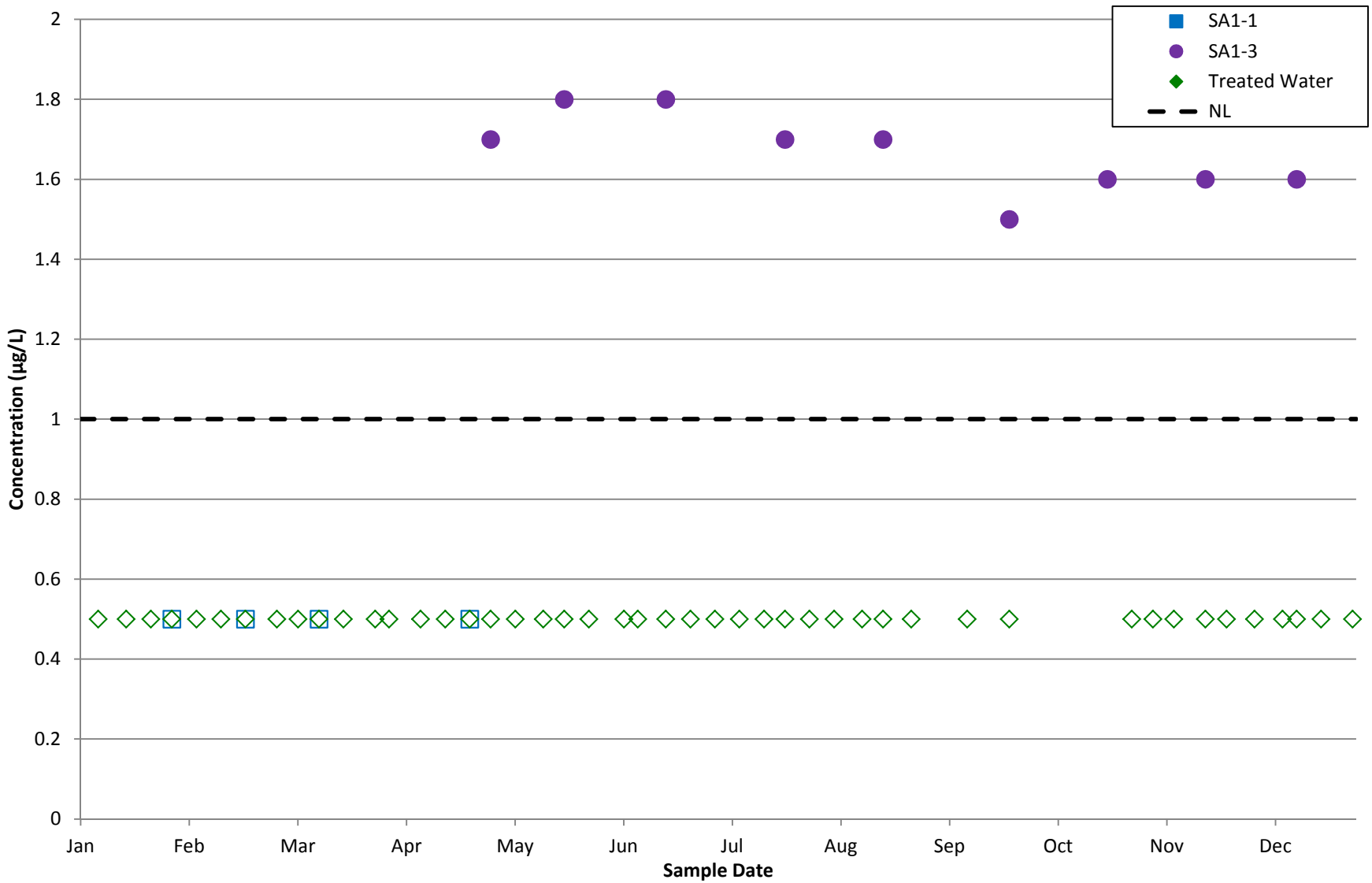


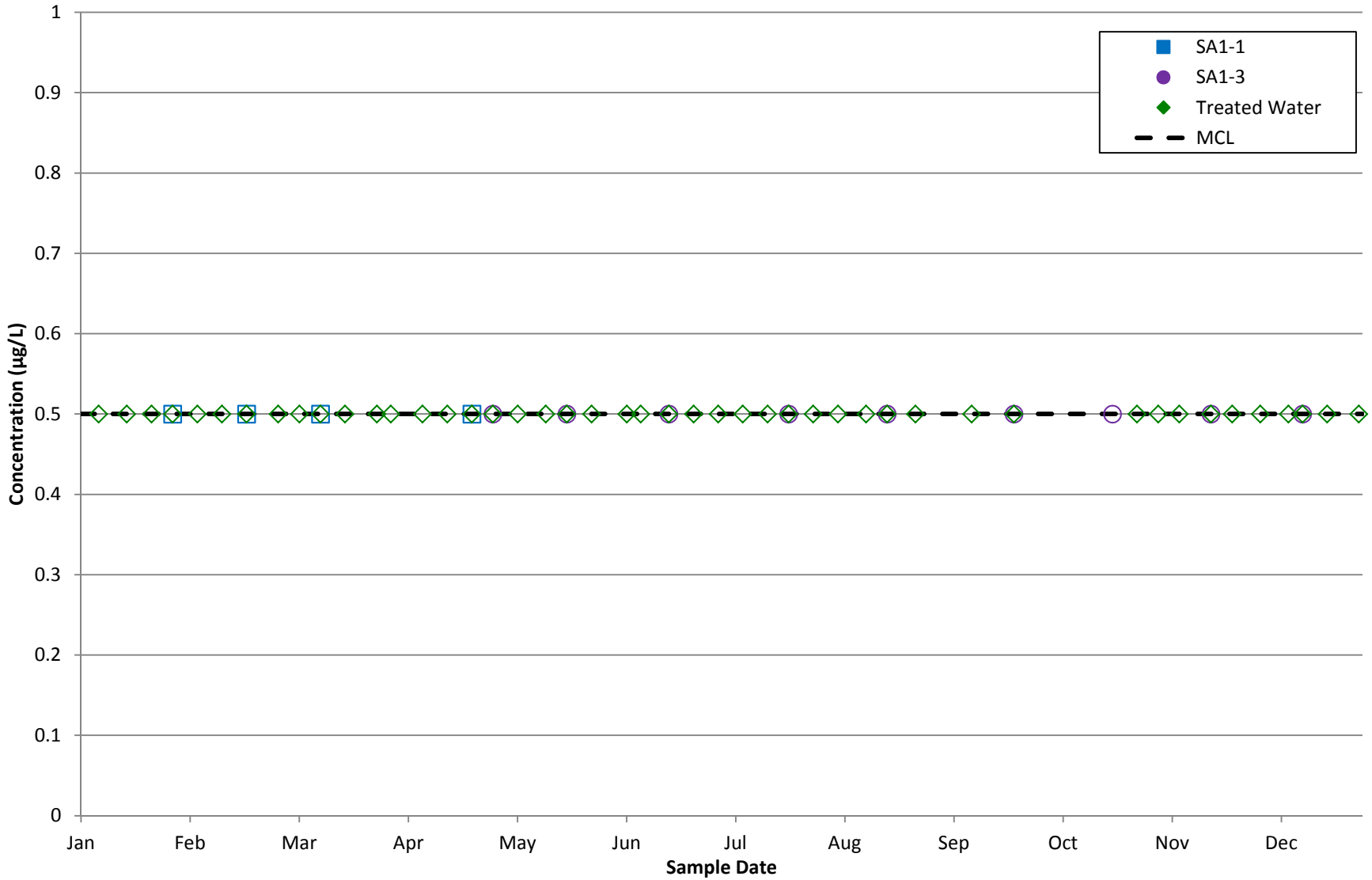
Note: Open symbols signify non-detects.

ERM	1,2-DICHLOROETHANE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-1**



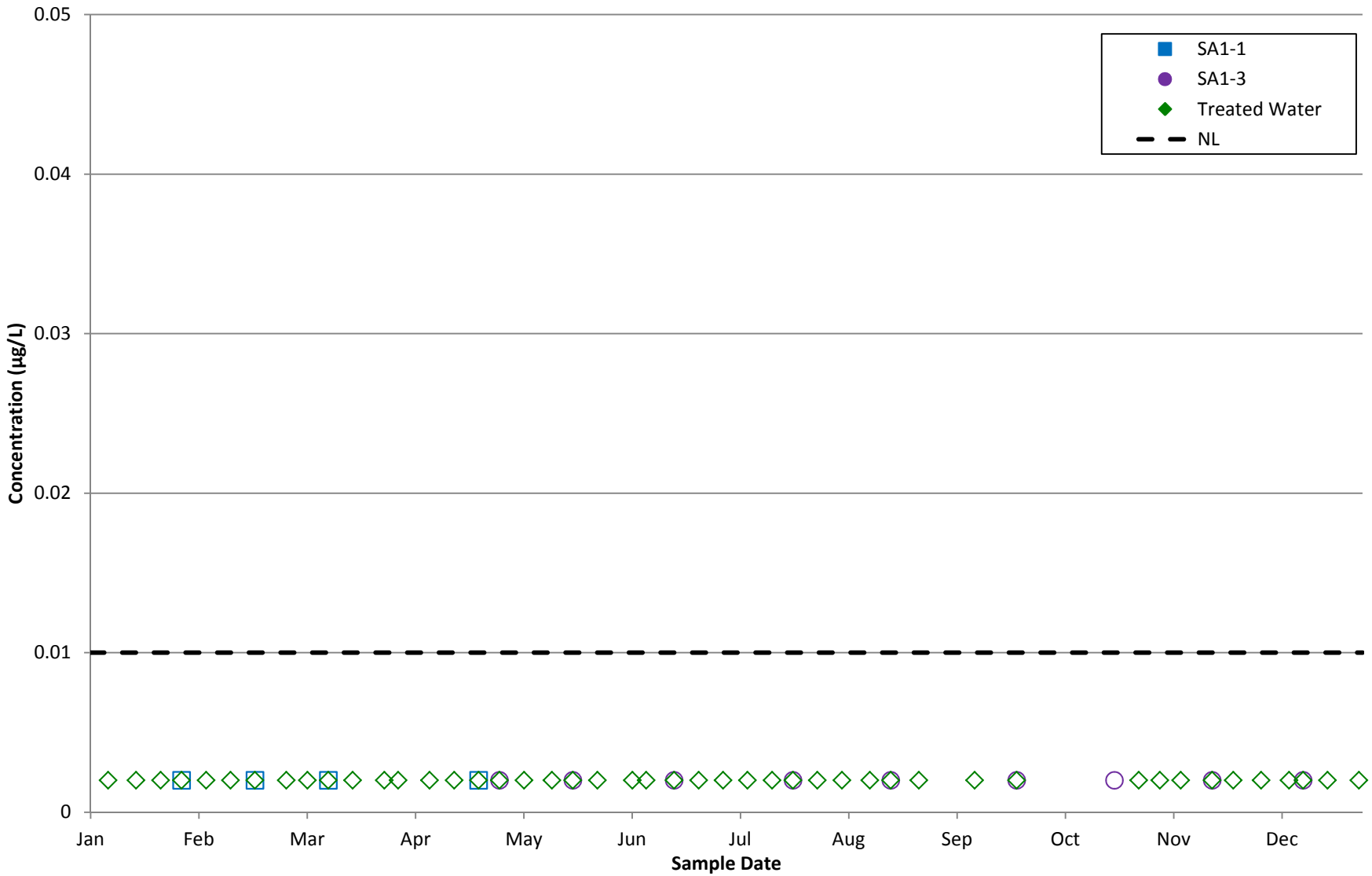
Note: Open symbols signify non-detects.

ERM	1,4-DIOXANE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-2**



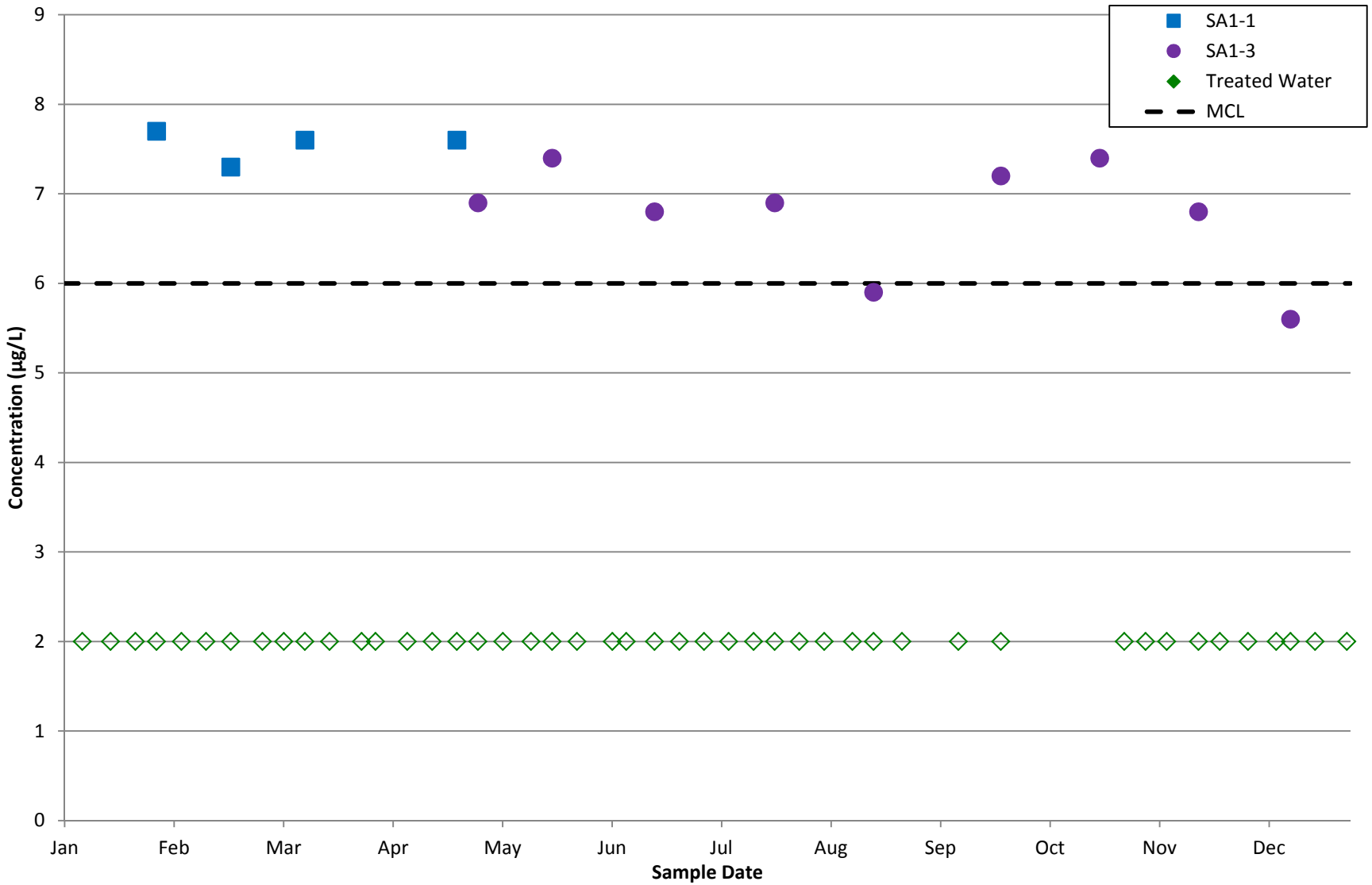
Note: Open symbols signify non-detects.

ERM	CARBON TETRACHLORIDE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-3**



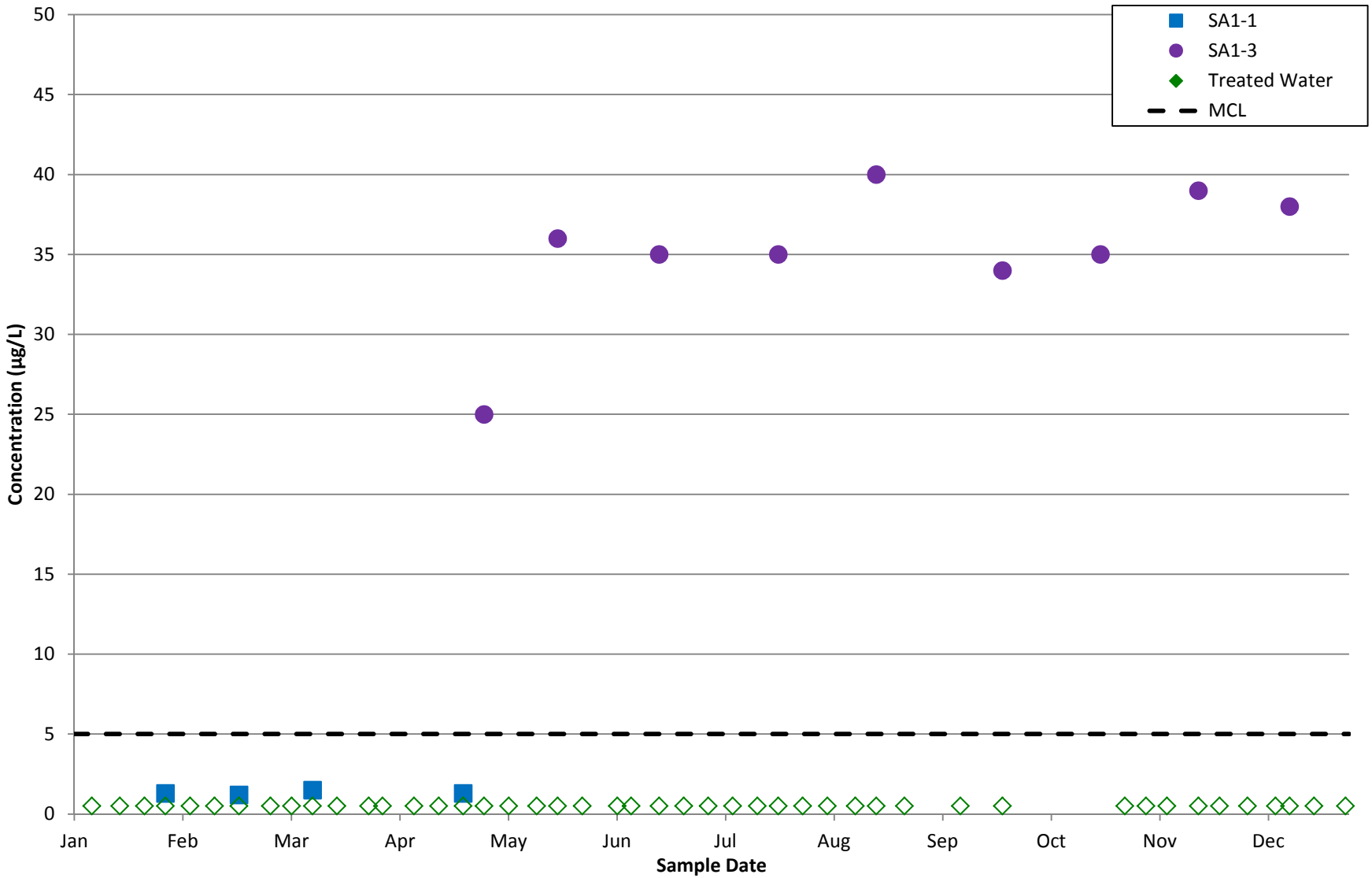
Note: Open symbols signify non-detects.

ERM	N-NITROSODIMETHYLAMINE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-4**



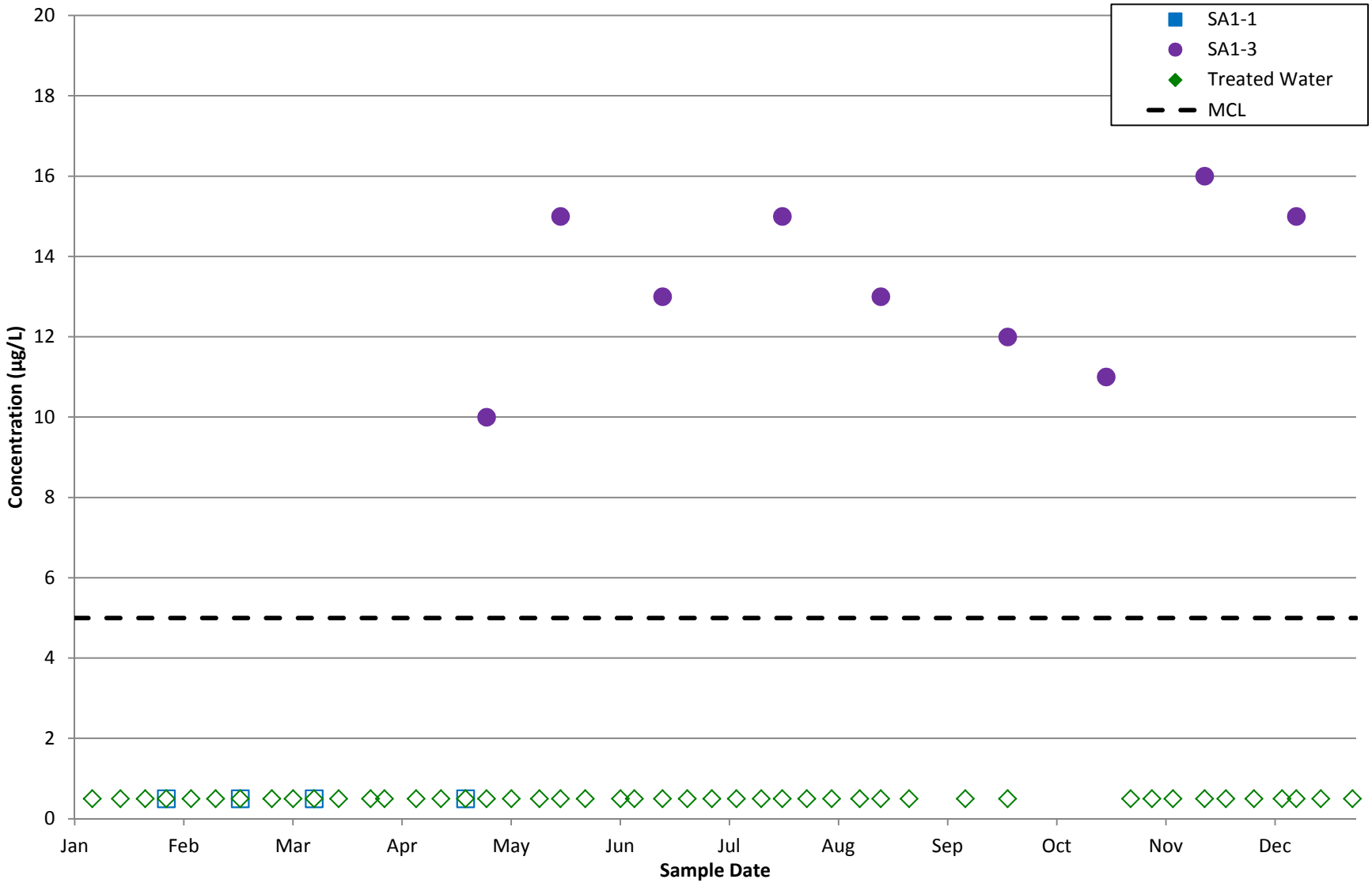
Note: Open symbols signify non-detects.

ERM	PERCHLORATE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-5**



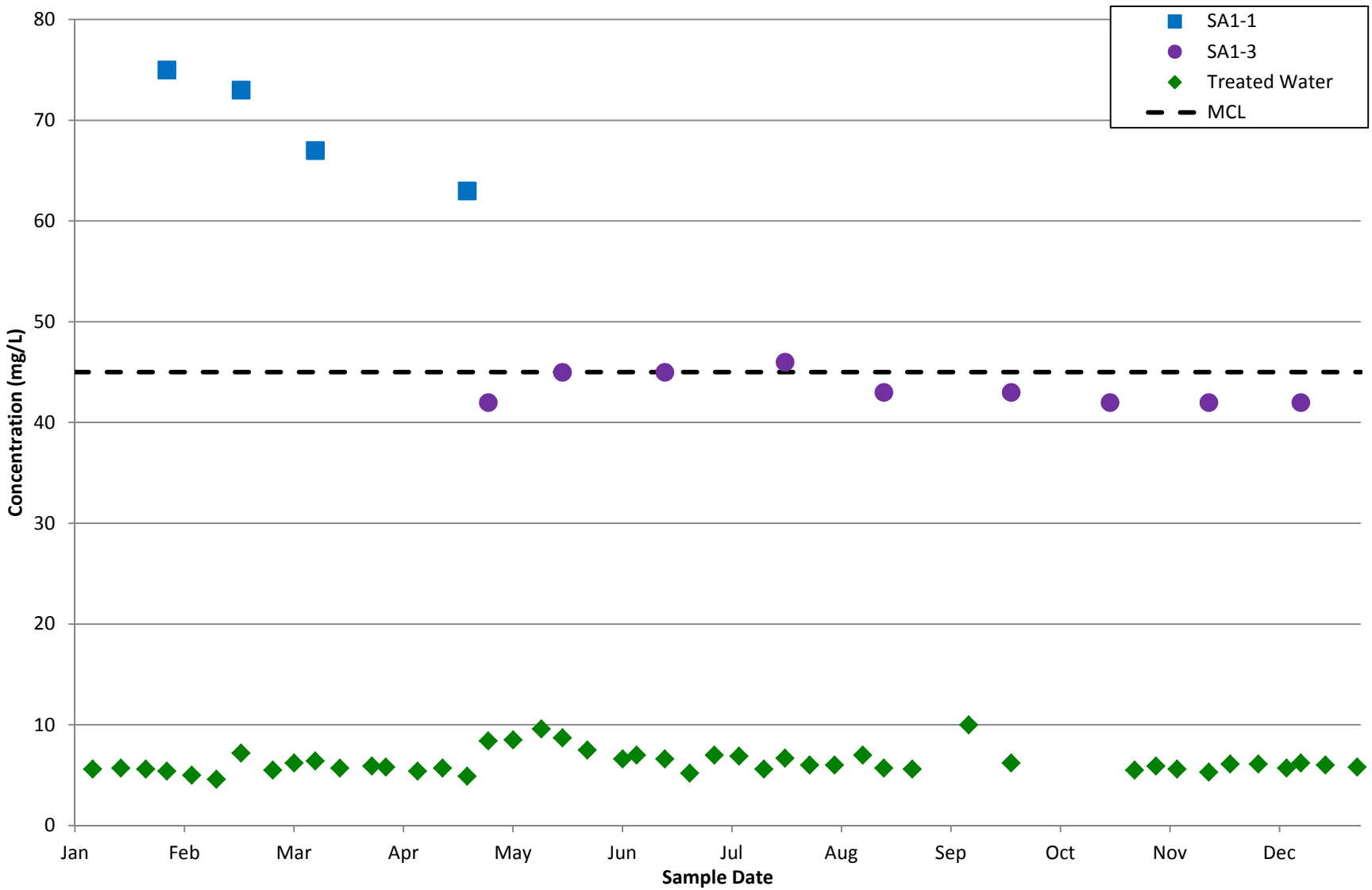
Note: Open symbols signify non-detects.

ERM	TETRACHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-6**



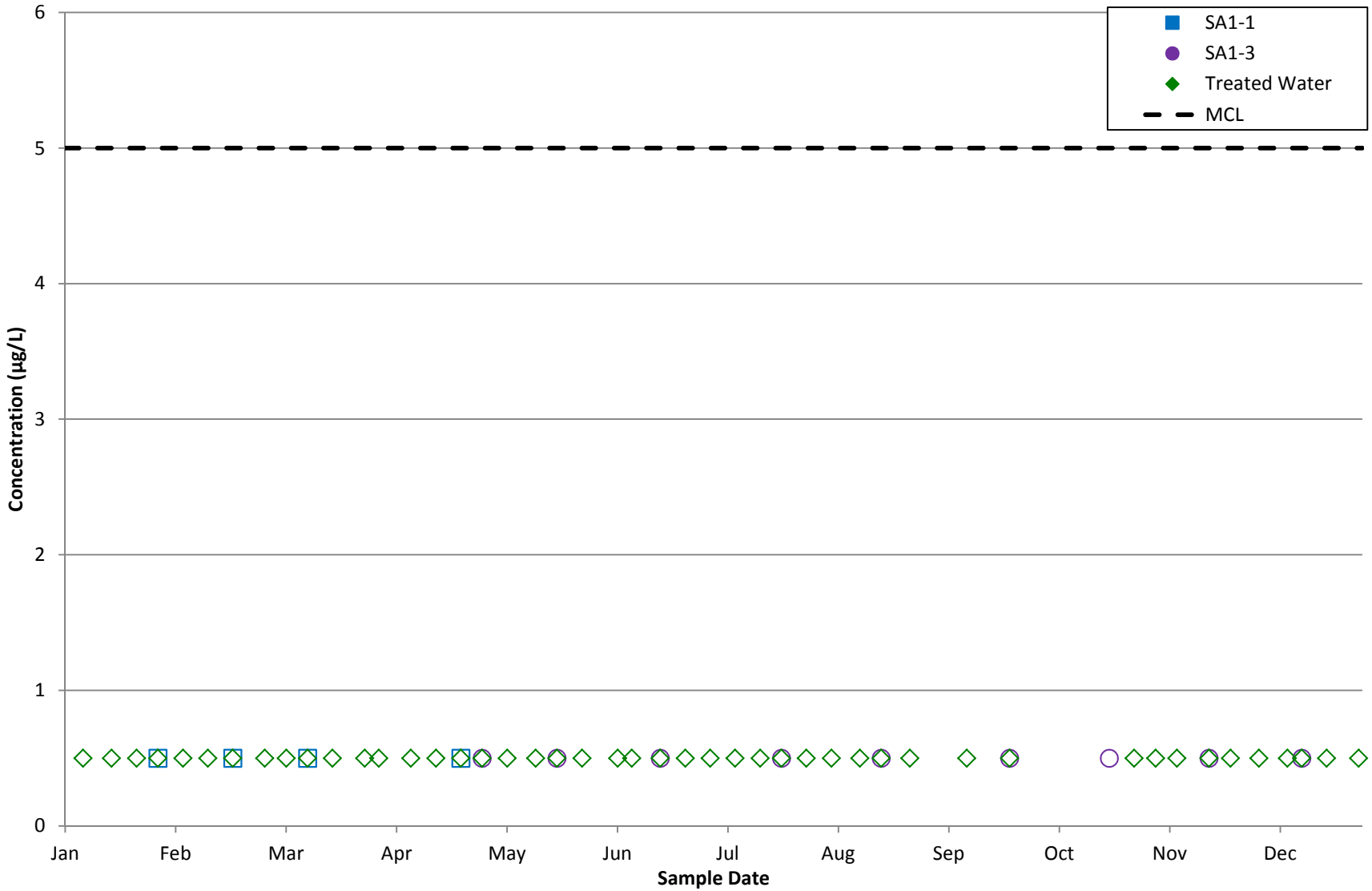
Note: Open symbols signify non-detects.

ERM	TRICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-7**



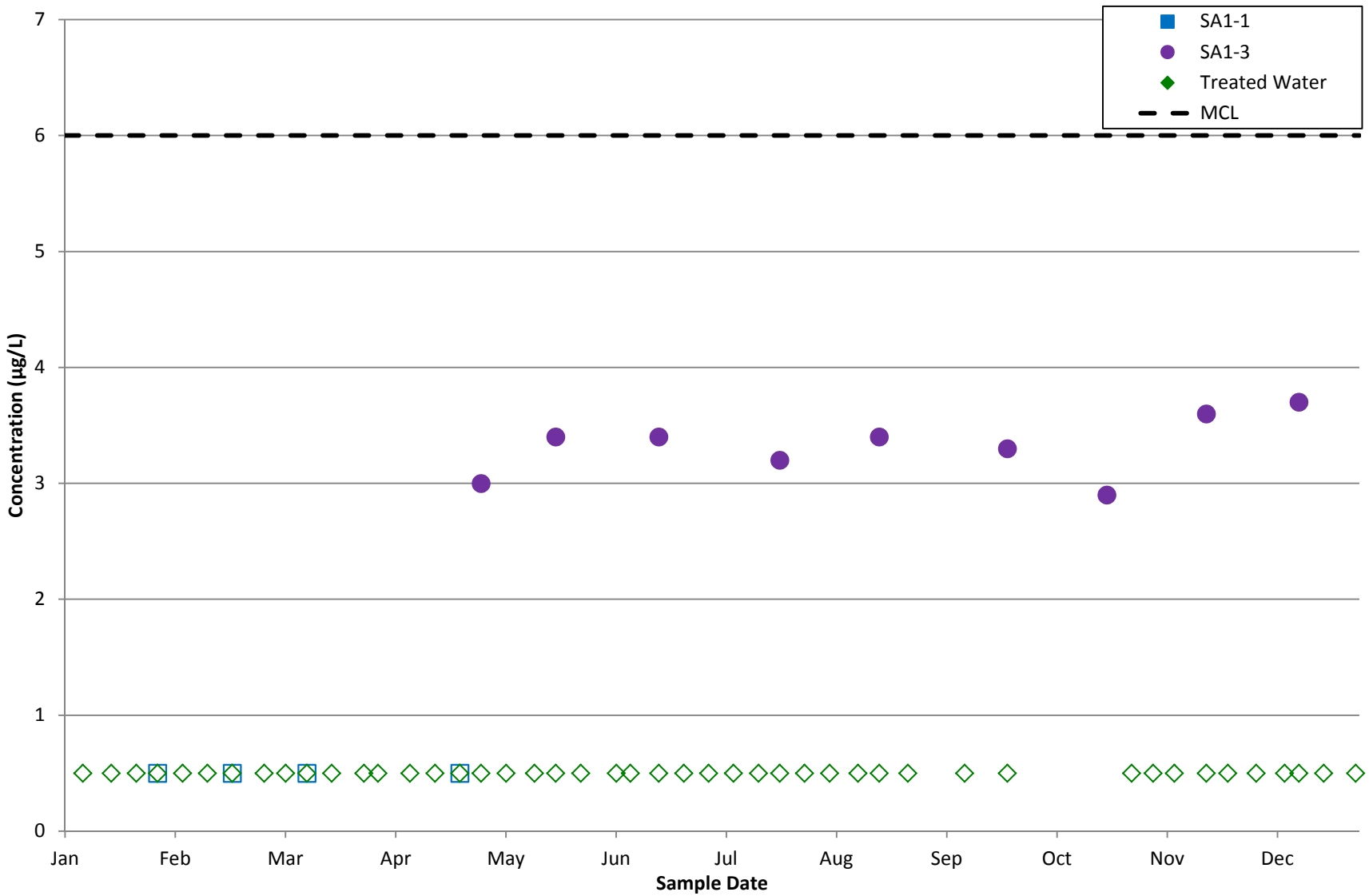
Note: Open symbols signify non-detects.

ERM	NITRATE AS NO3 CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-8**



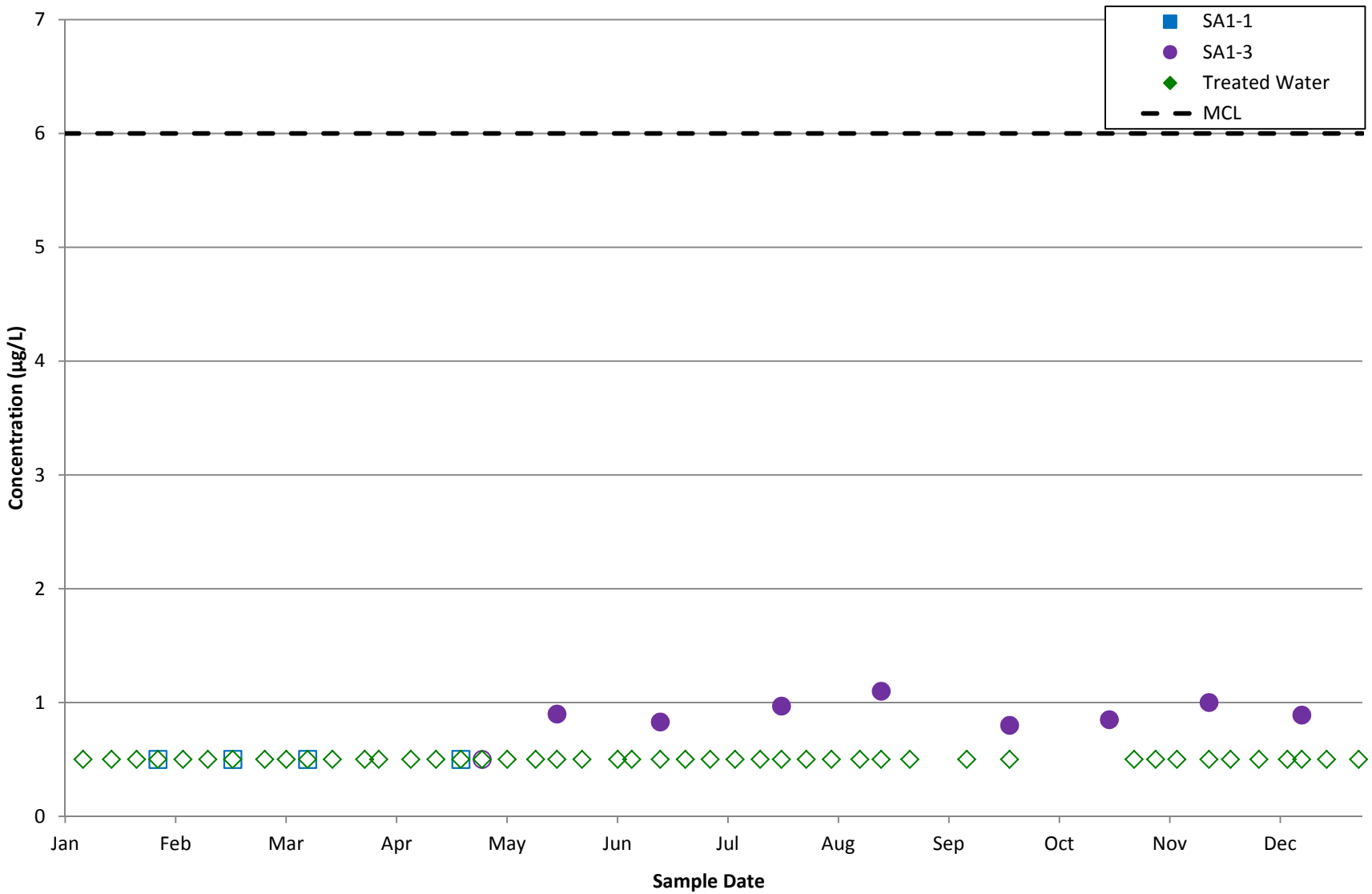
Note: Open symbols signify non-detects.

ERM	1,1-DICHLOROETHANE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-9**



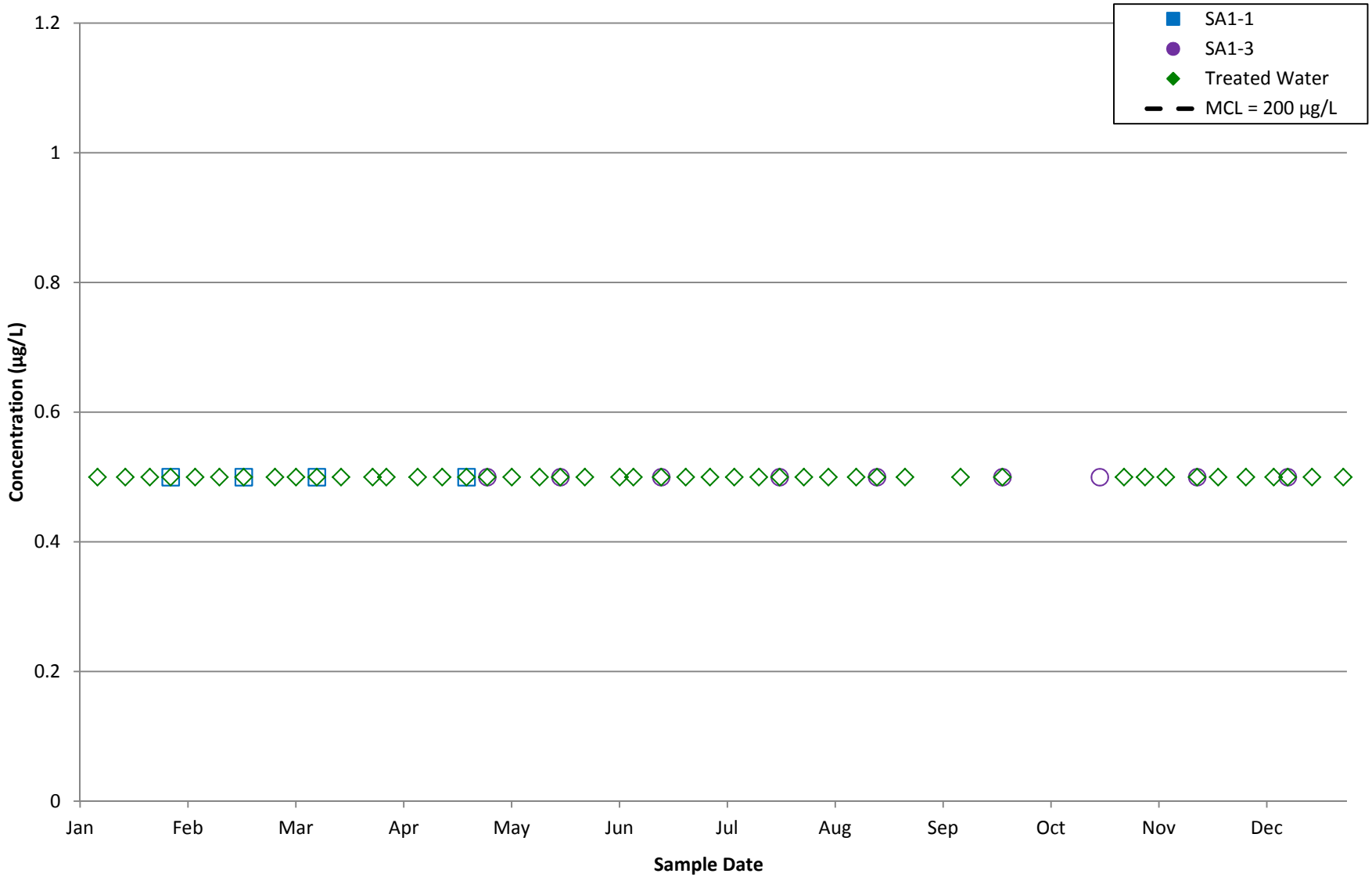
Note: Open symbols signify non-detects.

ERM	1,1-DICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-10**



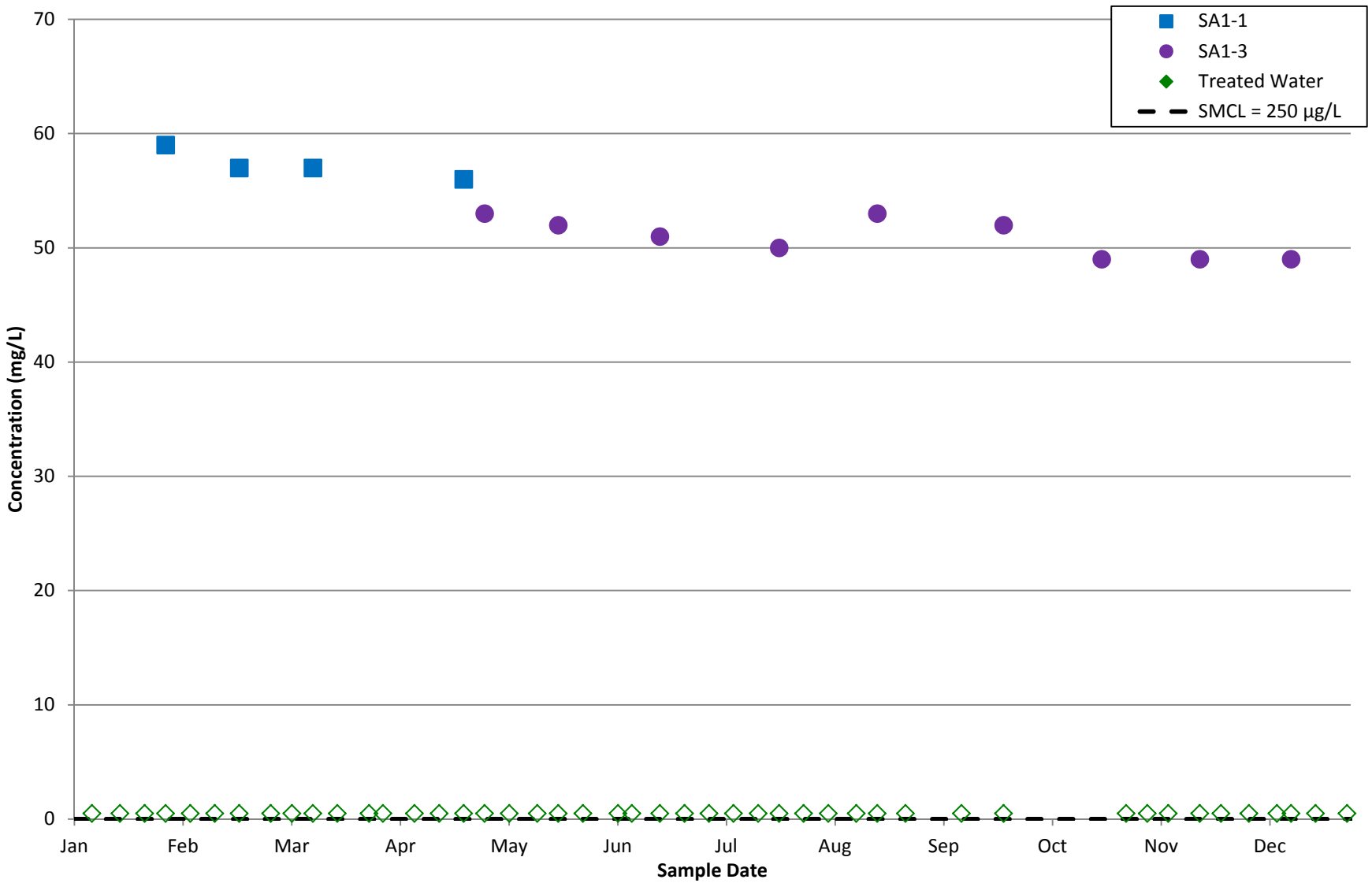
Note: Open symbols signify non-detects.

ERM	CIS-1,2-DICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-11**



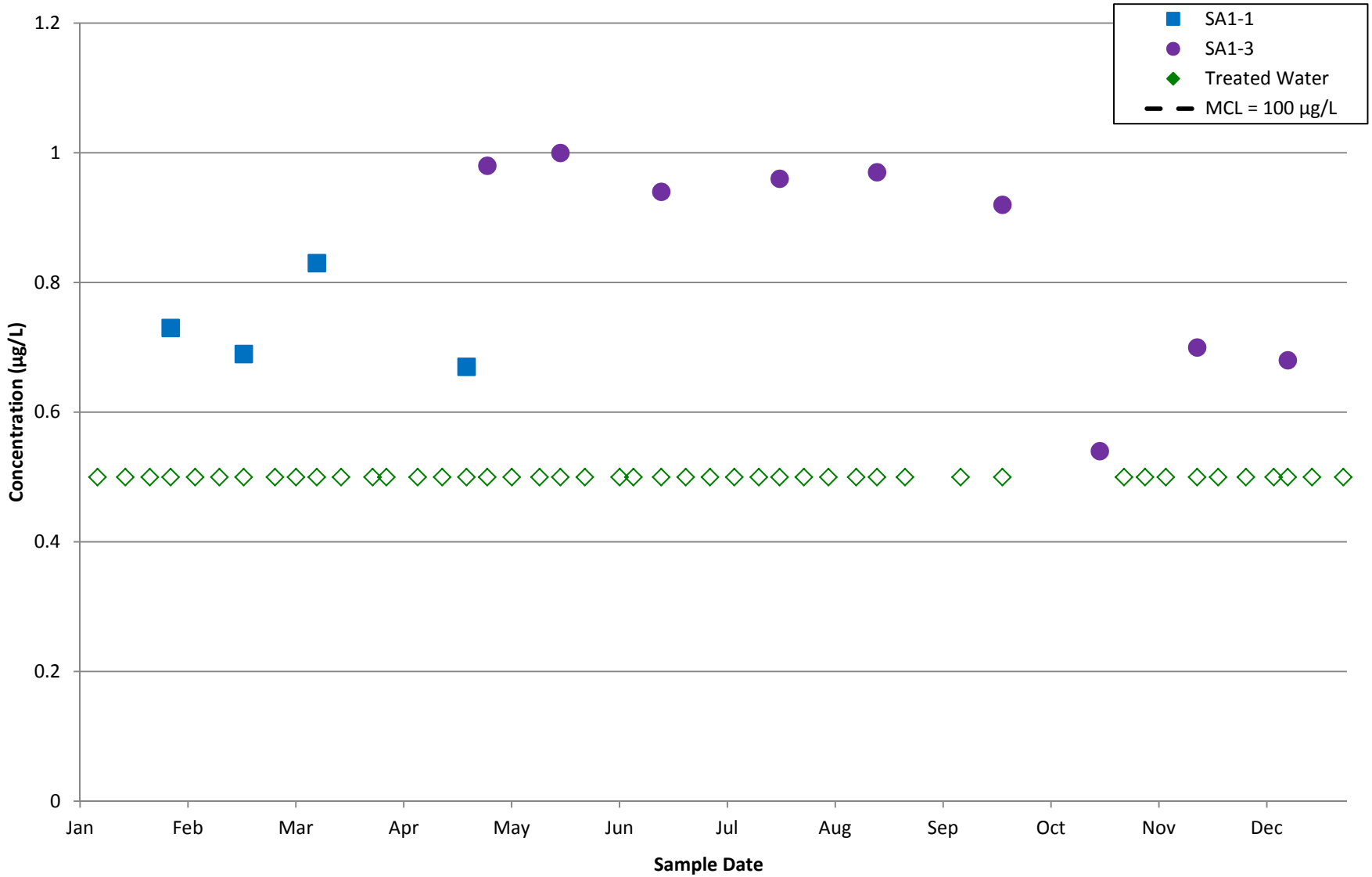
Note: Open symbols signify non-detects.

ERM	1,1,1-TRICHLOROETHANE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-12**



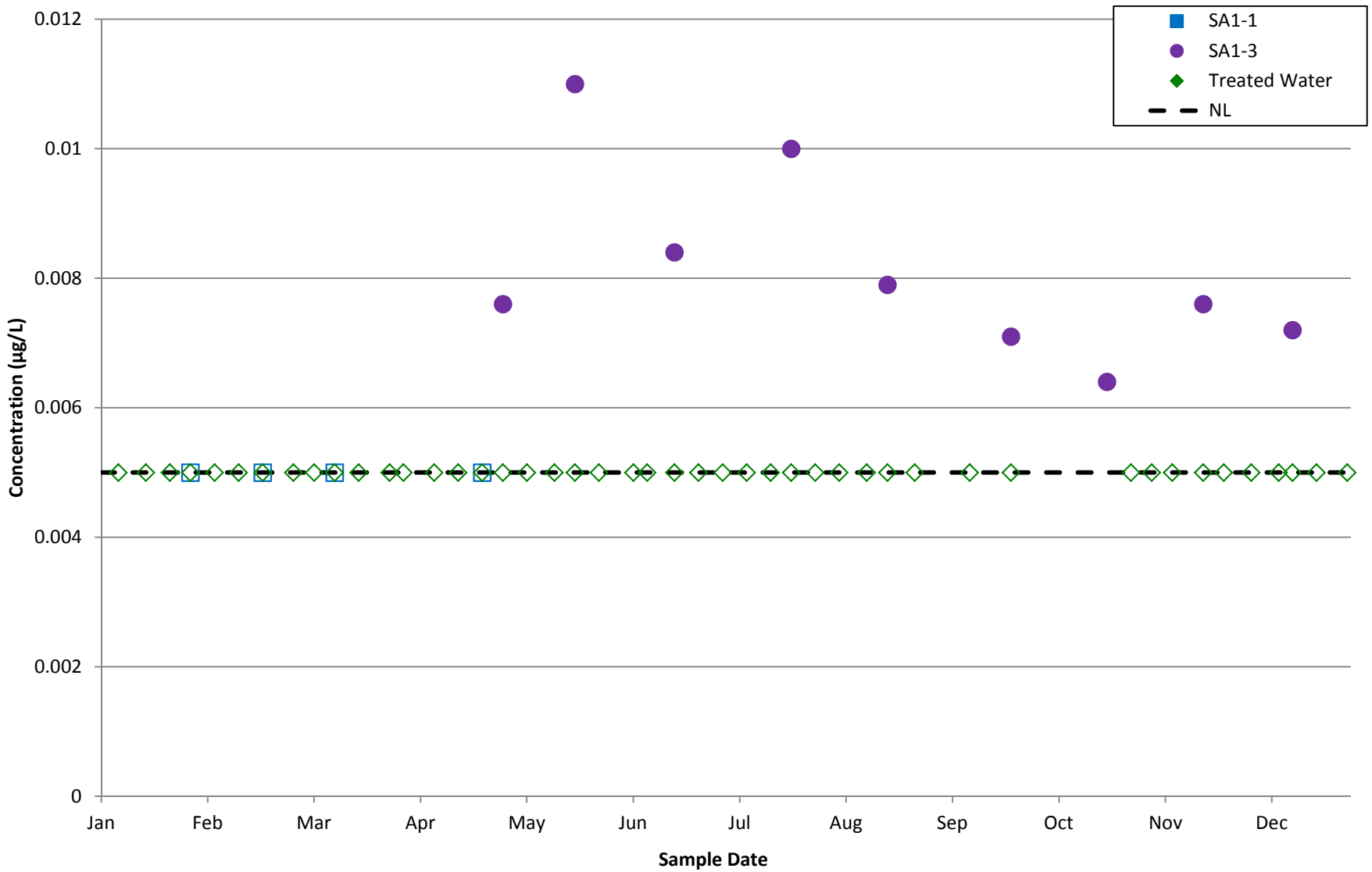
Note: Open symbols signify non-detects.

ERM	SULFATE AS SO4 CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-13**



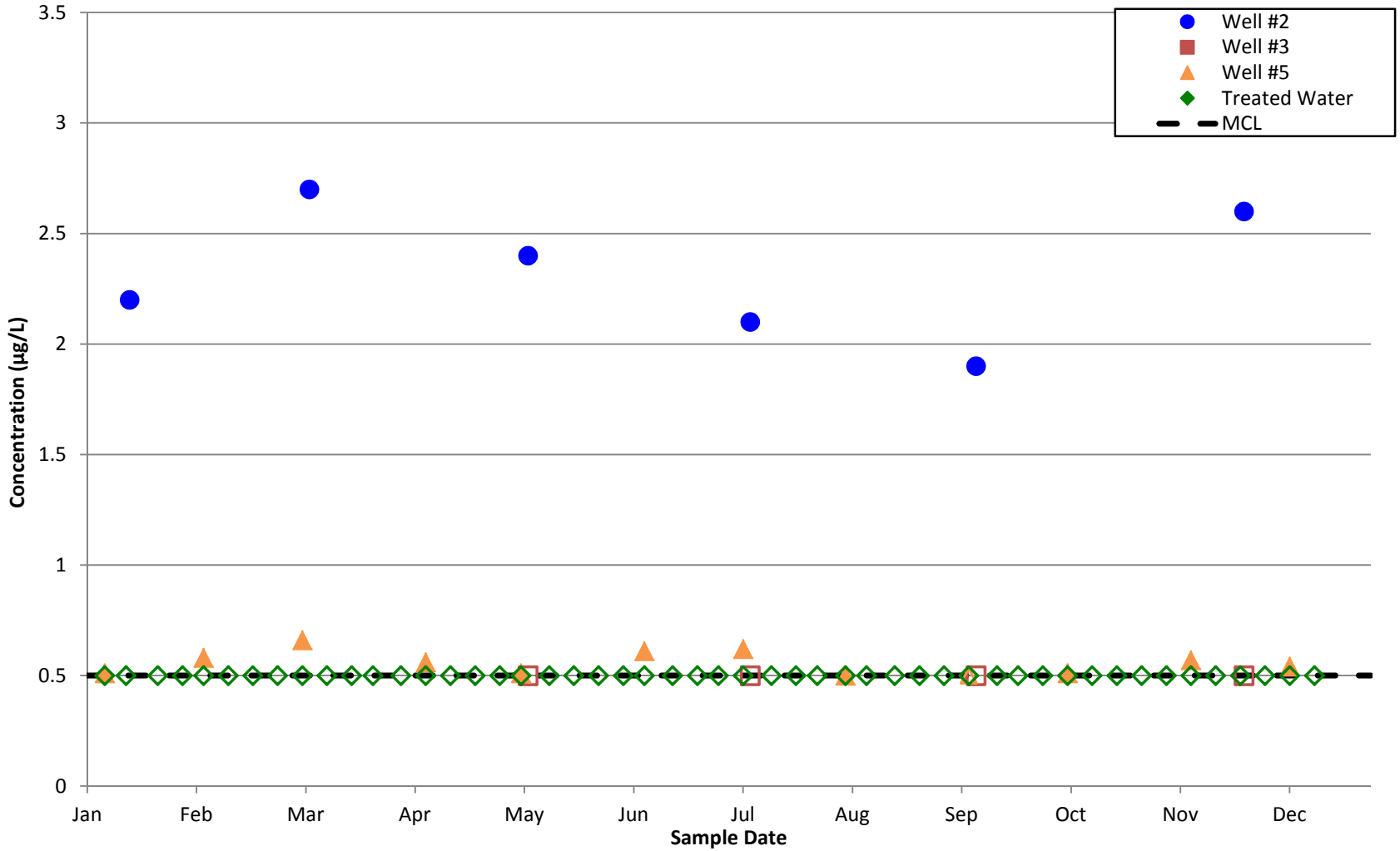
Note: Open symbols signify non-detects.

ERM	CHLOROFORM CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-14**



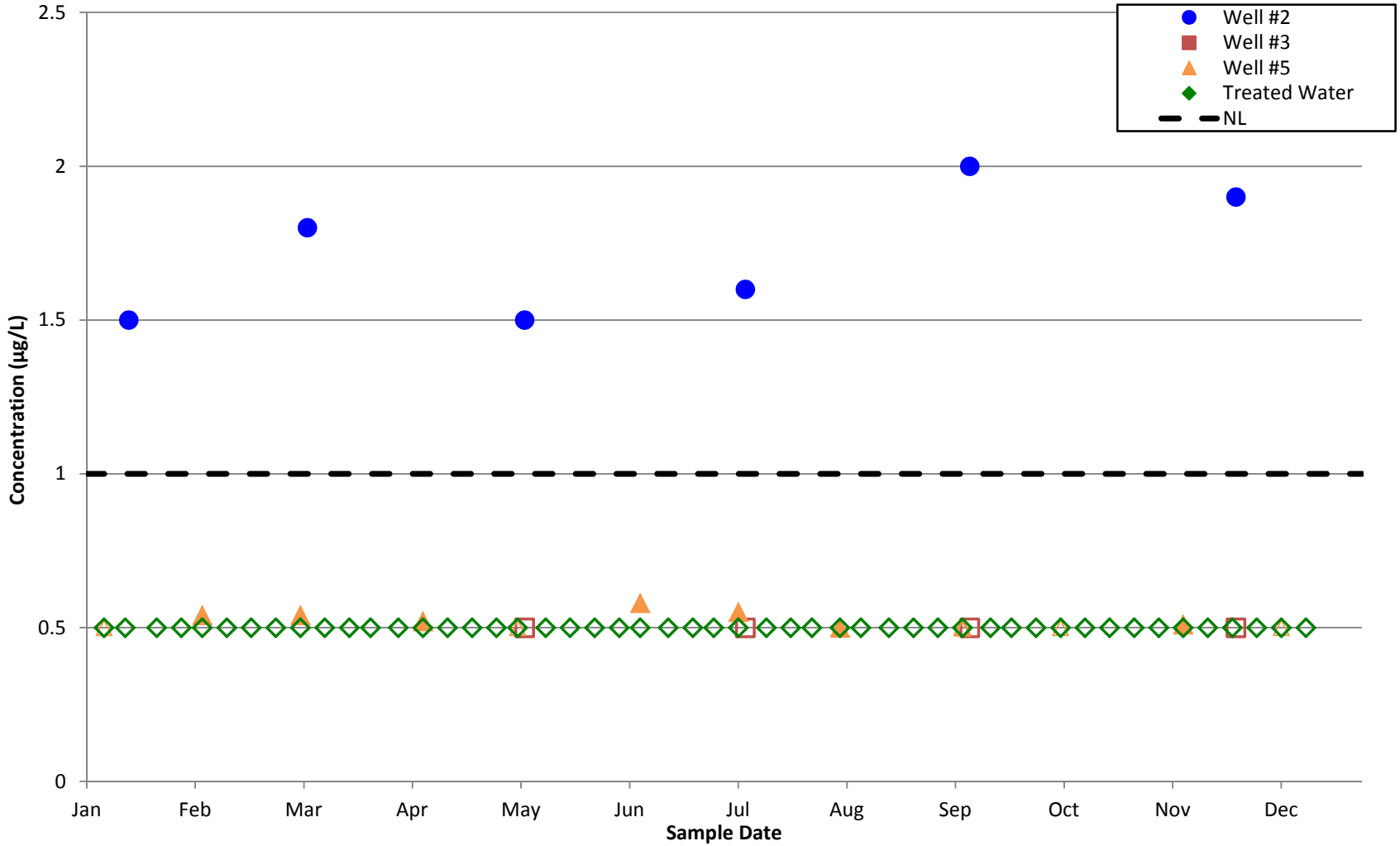
Note: Open symbols signify non-detects.

ERM	1,2,3-TRICHLOROPROPANE CONCENTRATIONS, RAW AND TREATED WATER FOR VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-15**



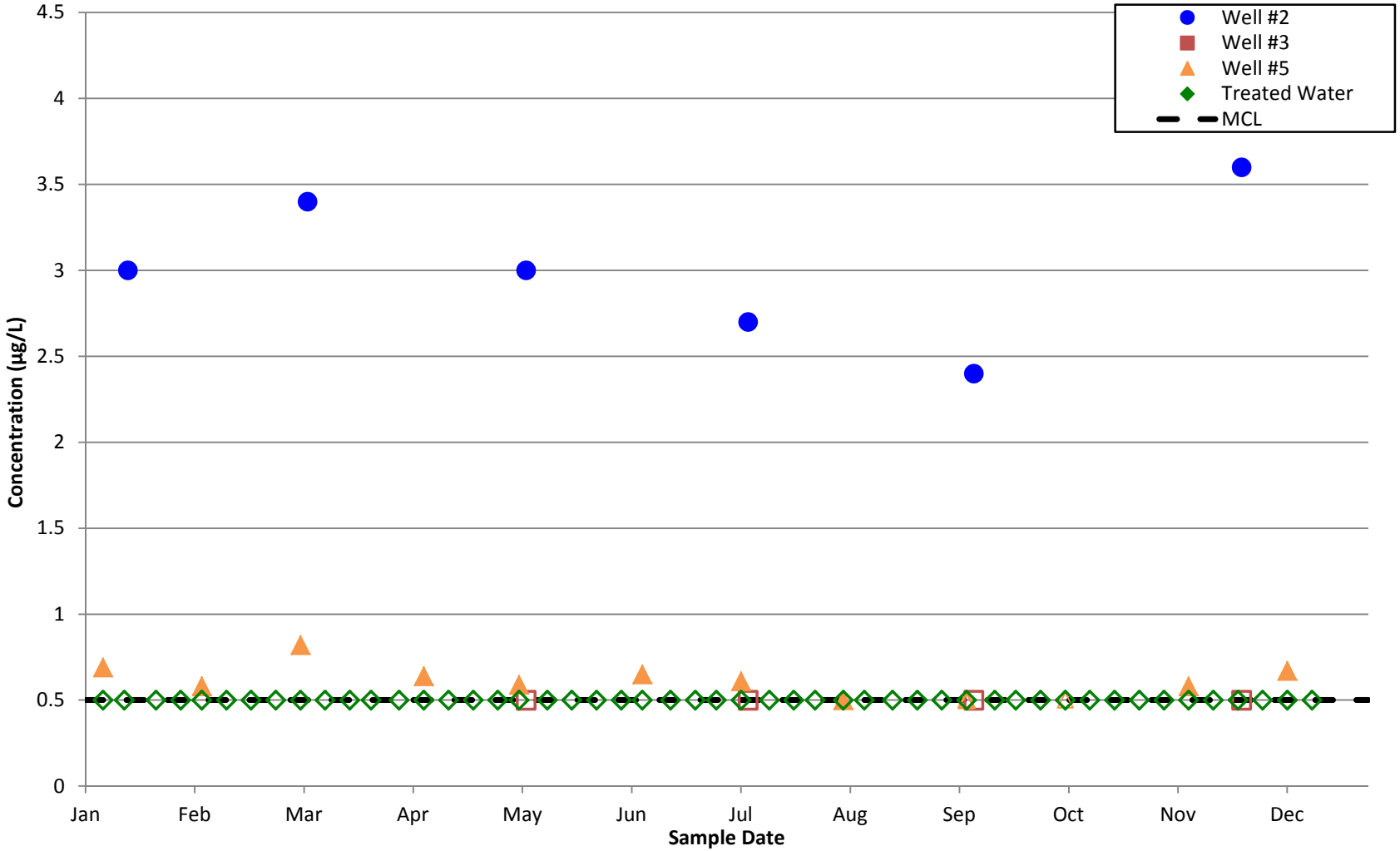
Note: Open symbols signify non-detects.

ERM	1,2-DICHLOROETHANE CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-16**



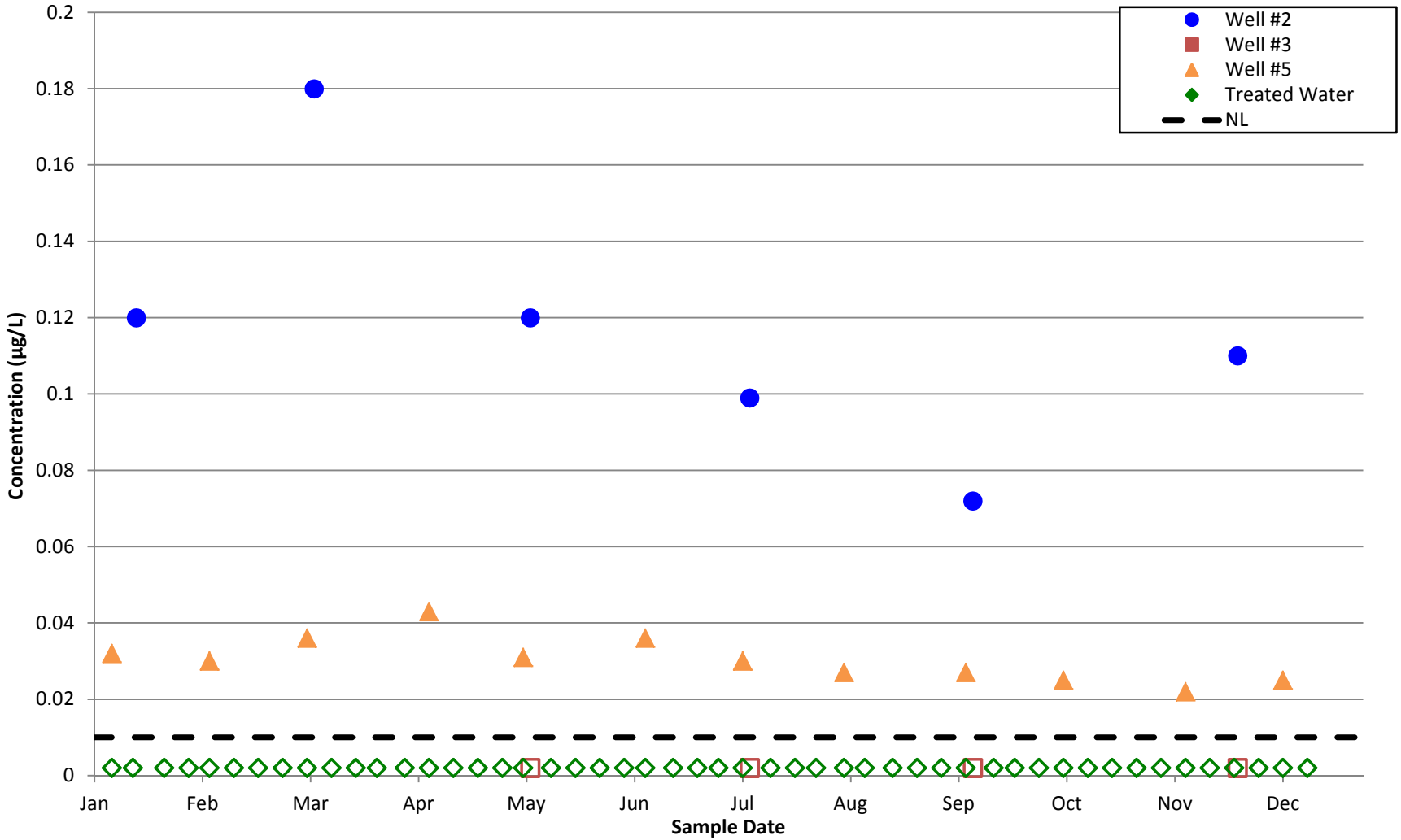
Note: Open symbols signify non-detects.

ERM	1,4-DIOXANE CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-17**



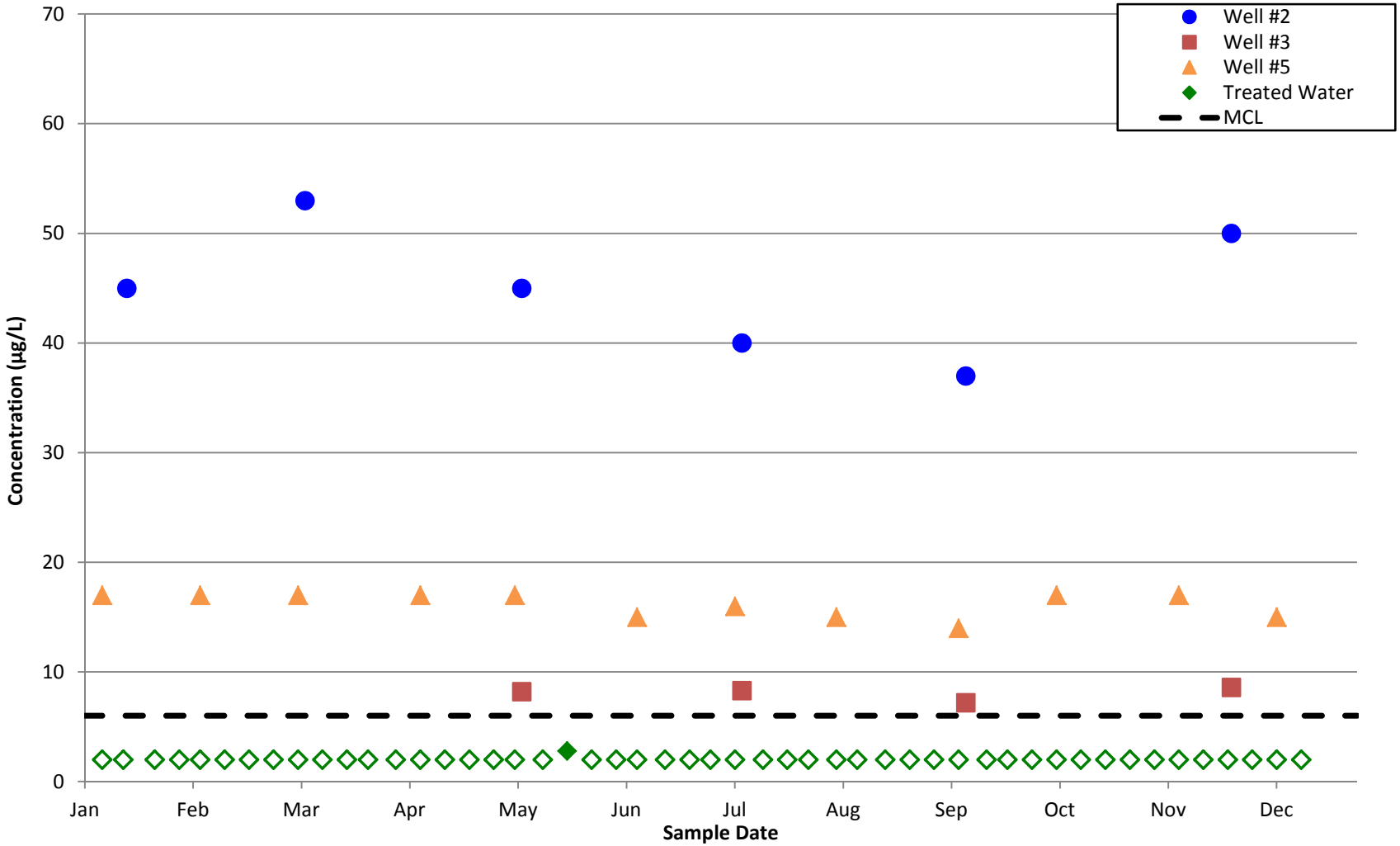
Note: Open symbols signify non-detects.

ERM	CARBON TETRACHLORIDE CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-18**



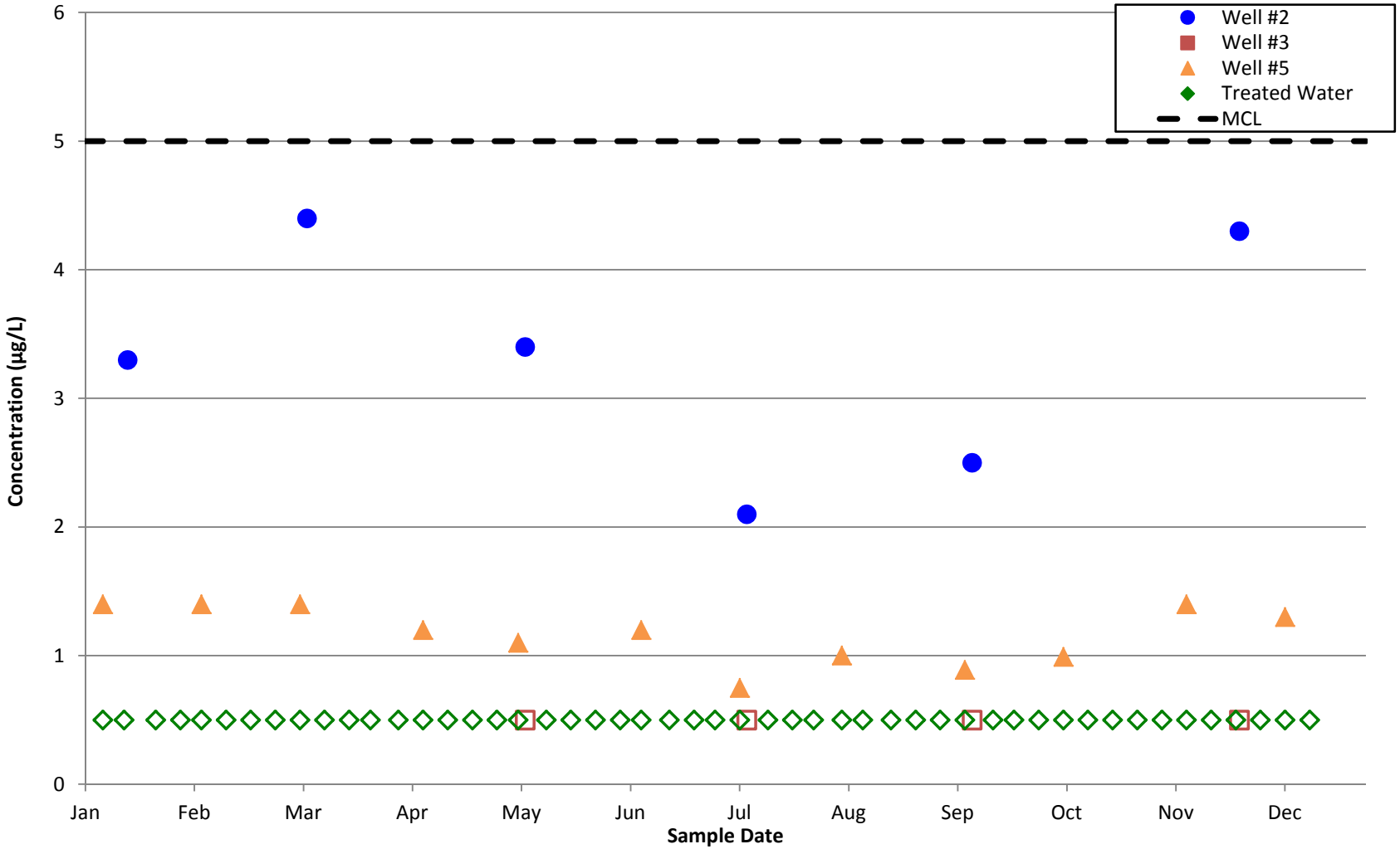
Note: Open symbols signify non-detects.

ERM	N-NITROSODIMETHYLAMINE CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-19**



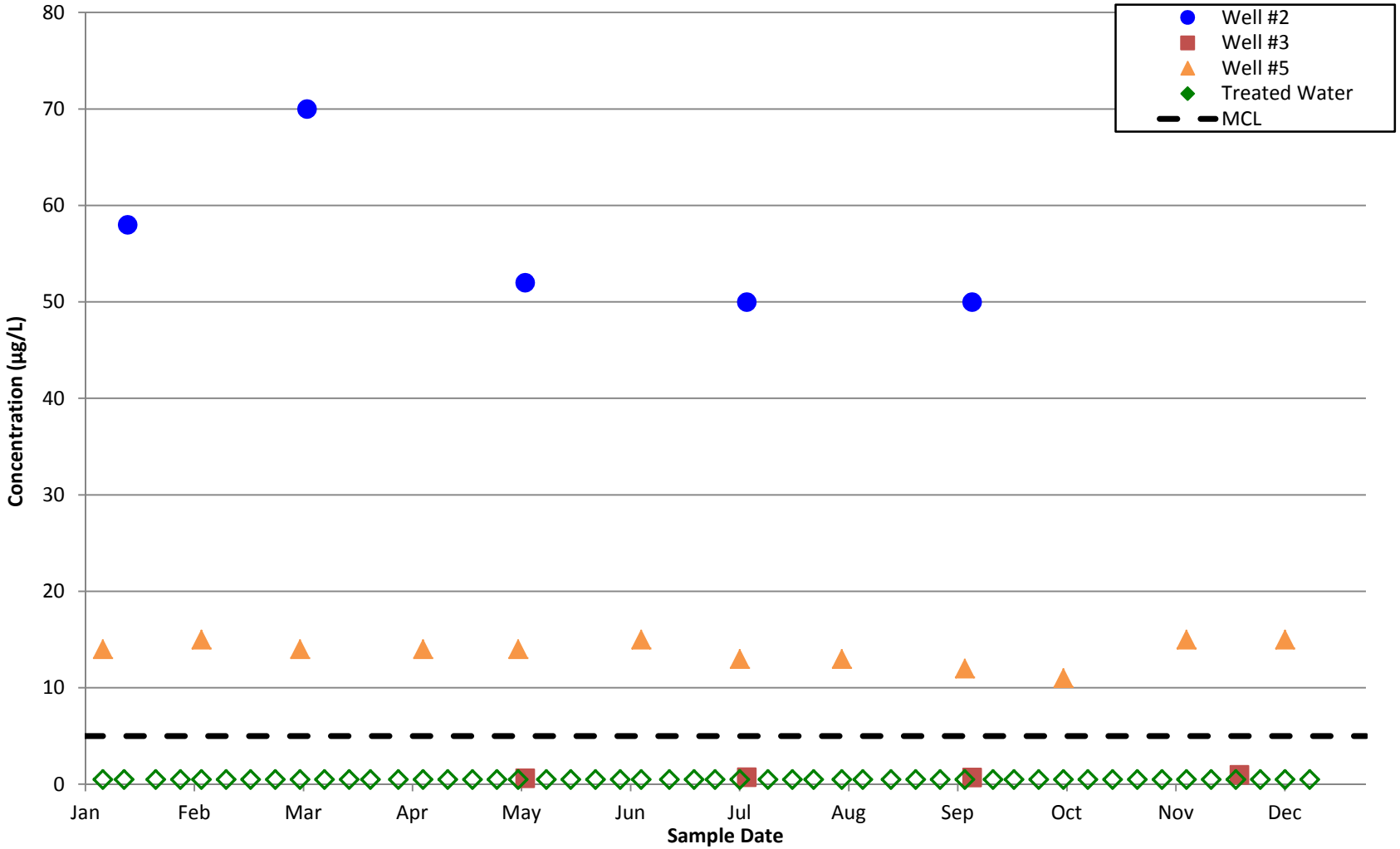
Note: Open symbols signify non-detects.

ERM	PERCHLORATE CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-20**



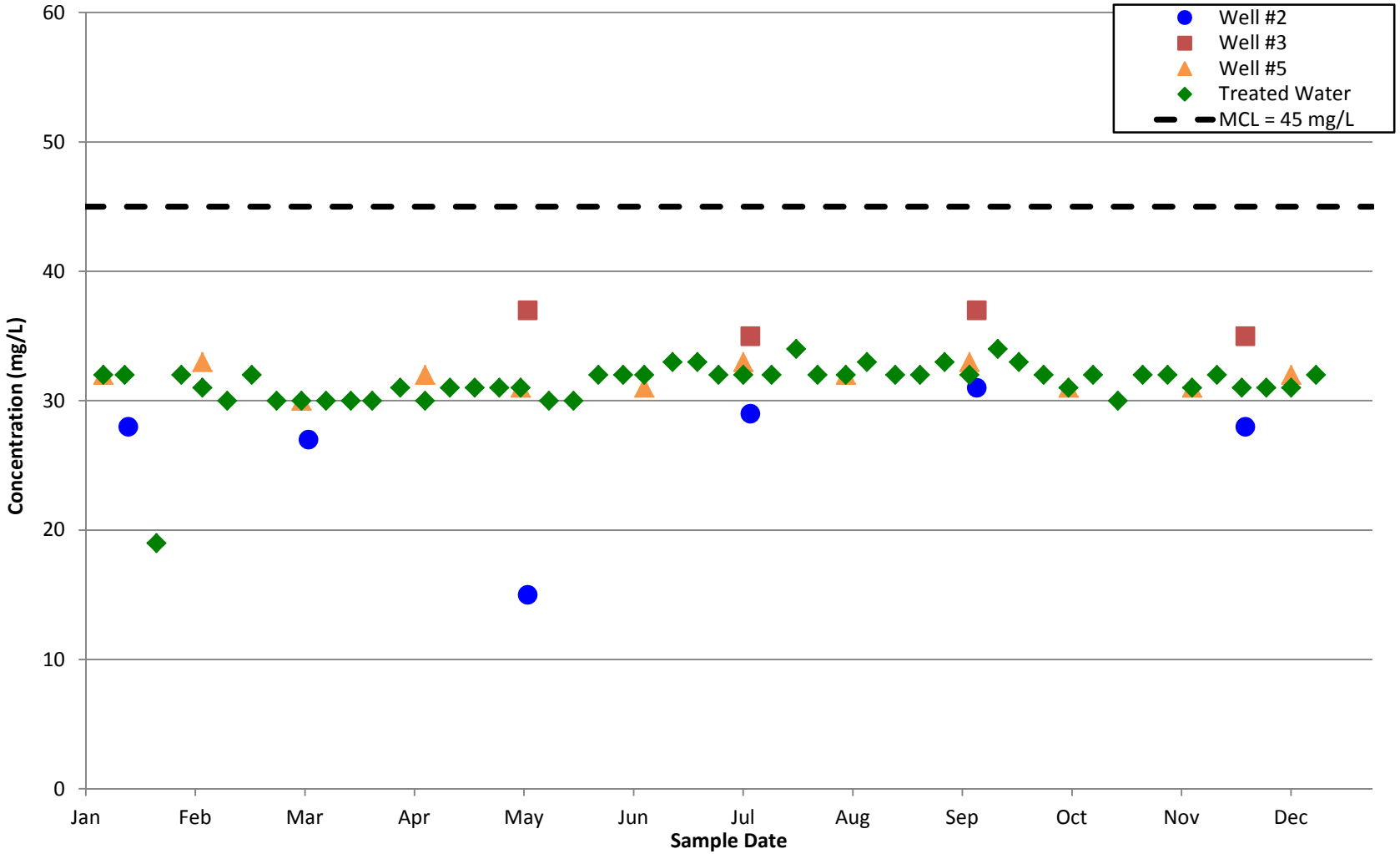
Note: Open symbols signify non-detects.

ERM	TETRACHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-21**



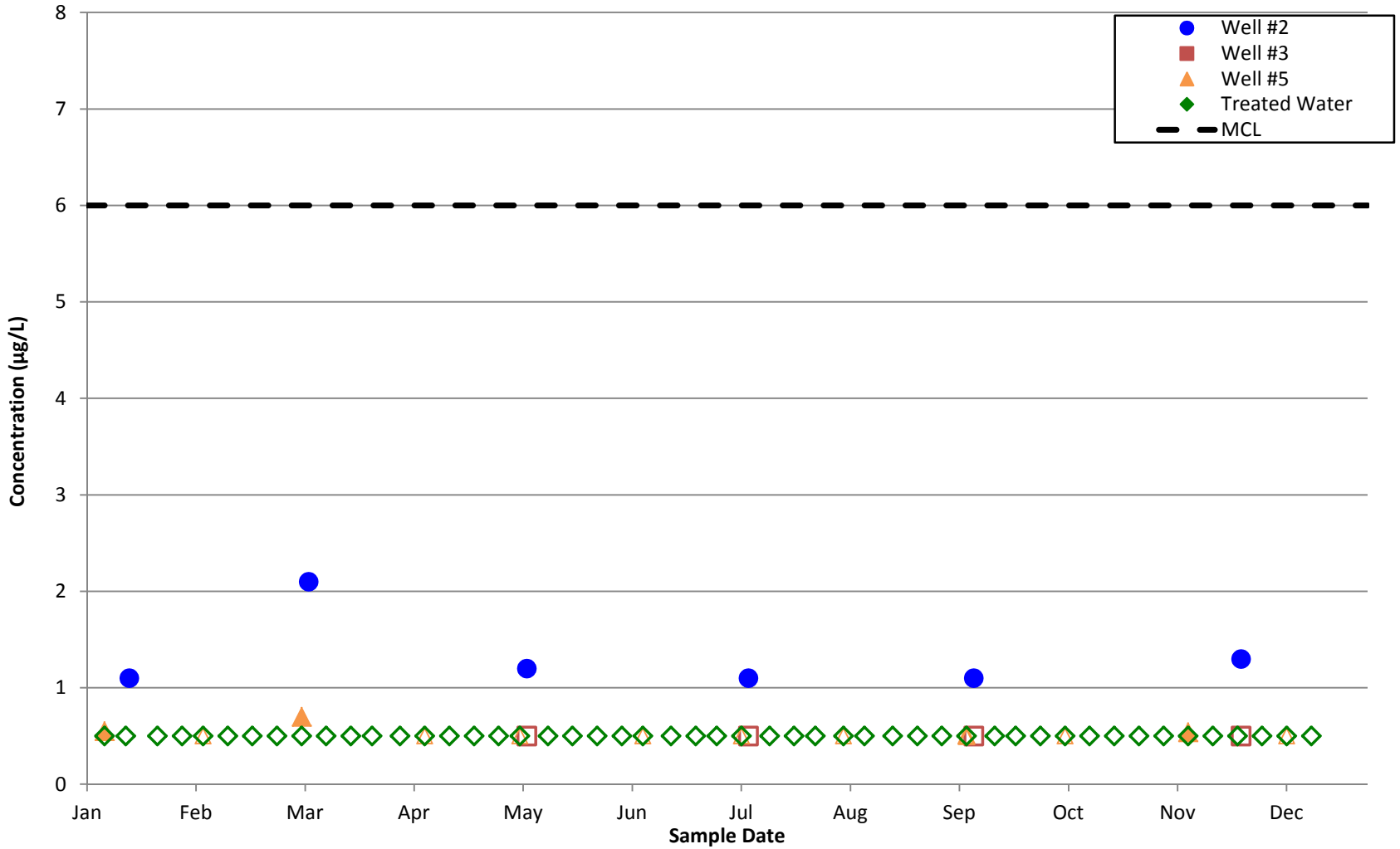
Note: Open symbols signify non-detects.

ERM	TRICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-22**



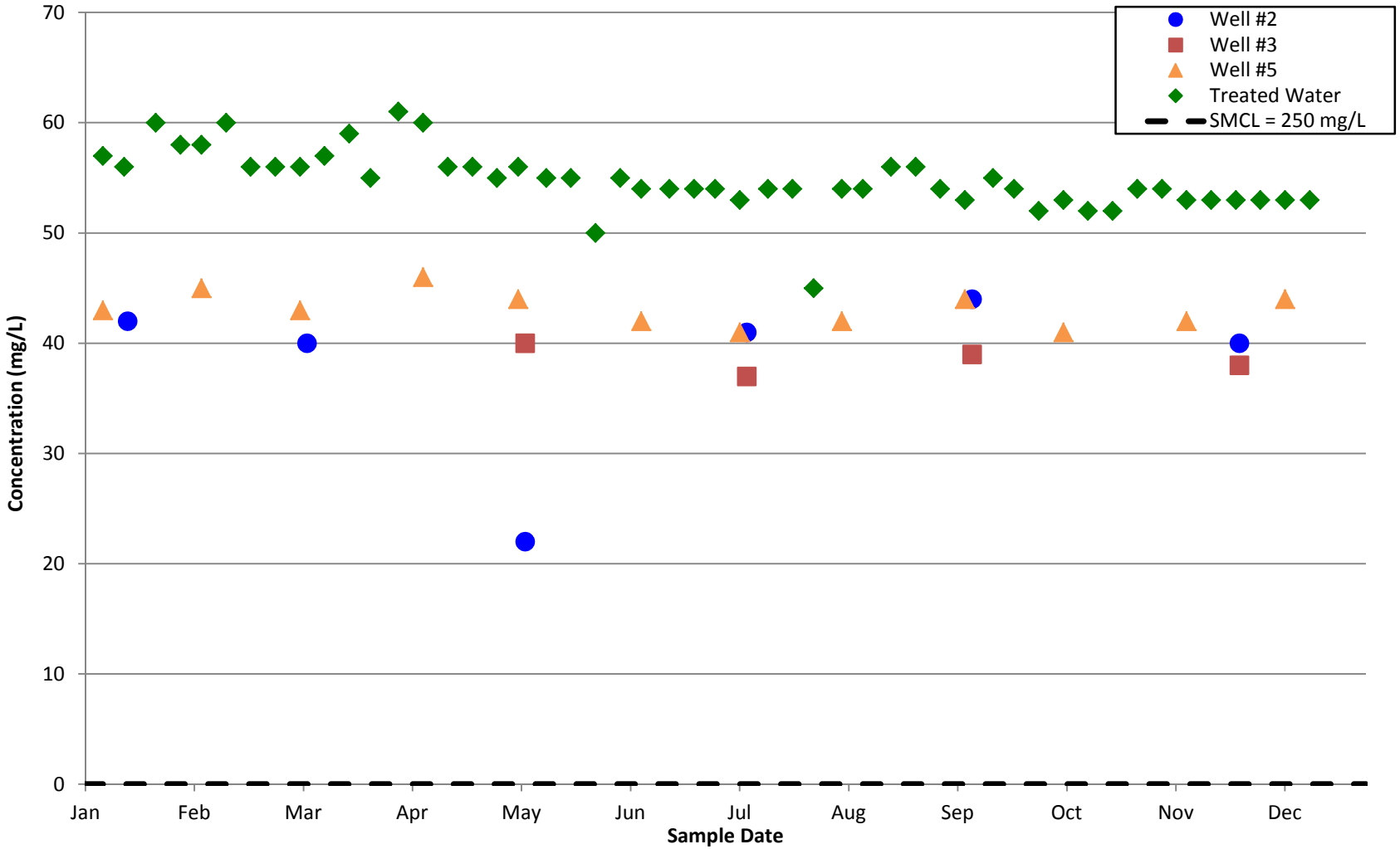
Note: Open symbols signify non-detects.

ERM	NITRATE AS NO3 CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-23**



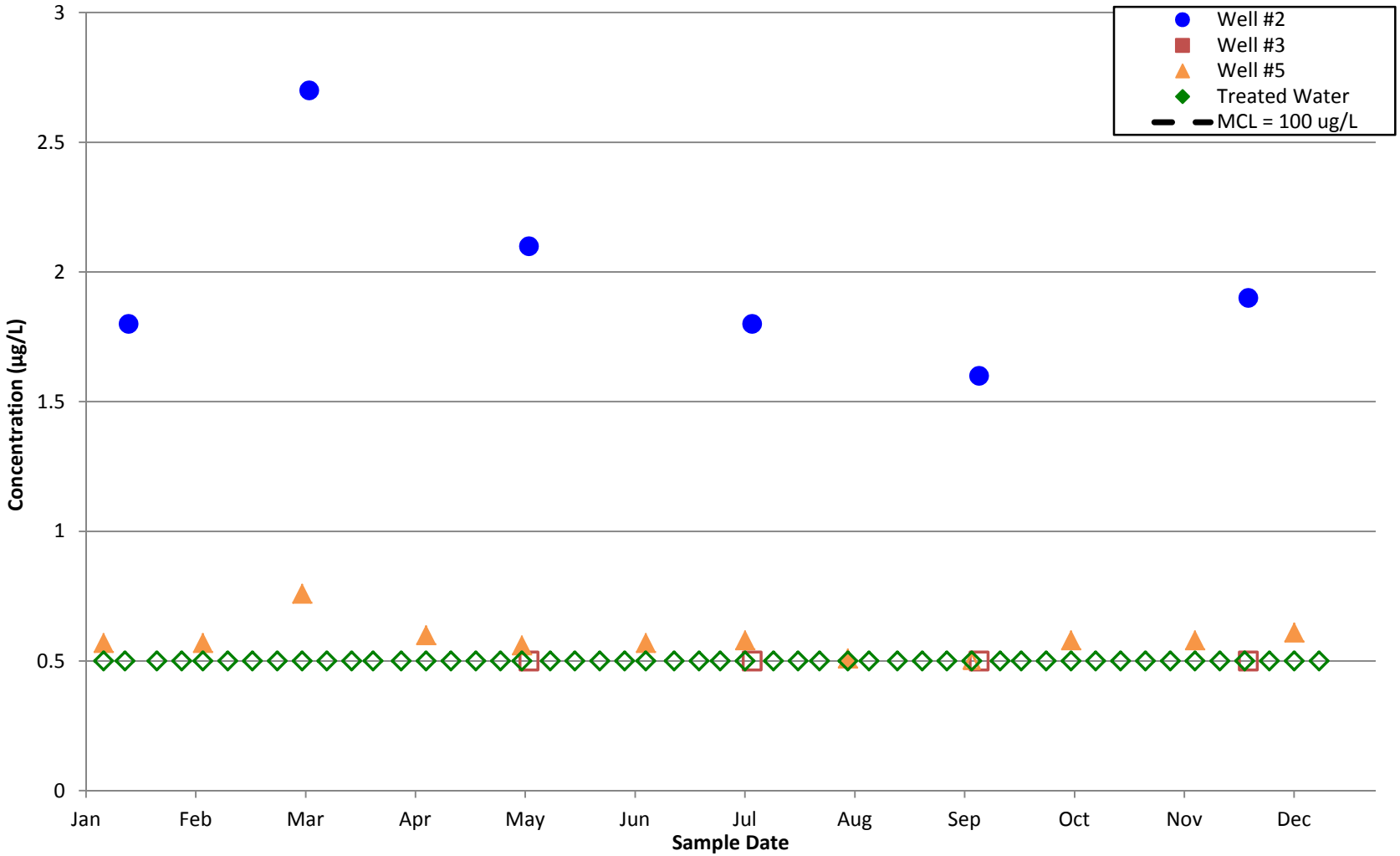
Note: Open symbols signify non-detects.

ERM	CIS-1,2-DICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-24**



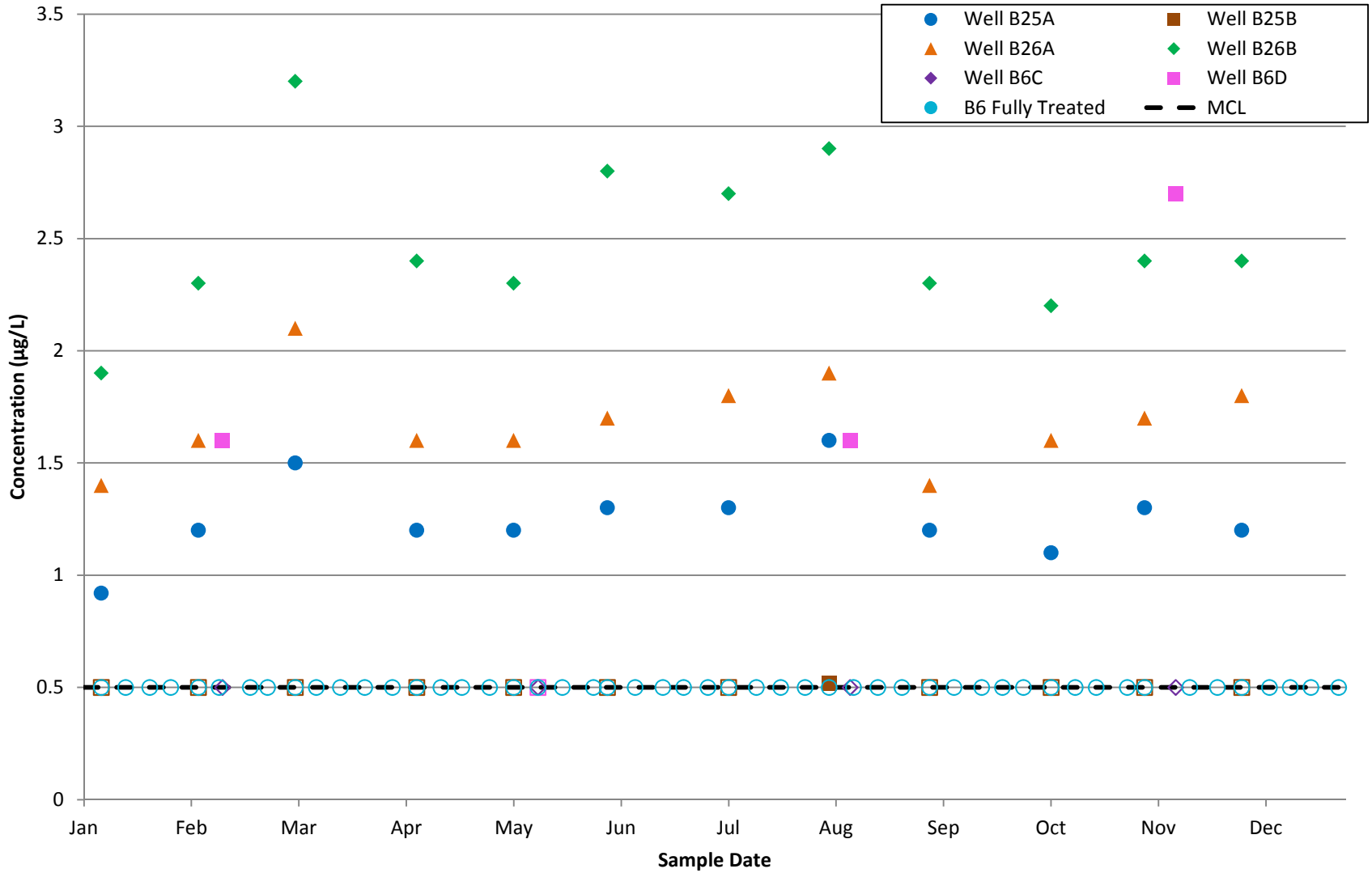
Note: Open symbols signify non-detects.

ERM	SULFATE AS SO4 CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-25**



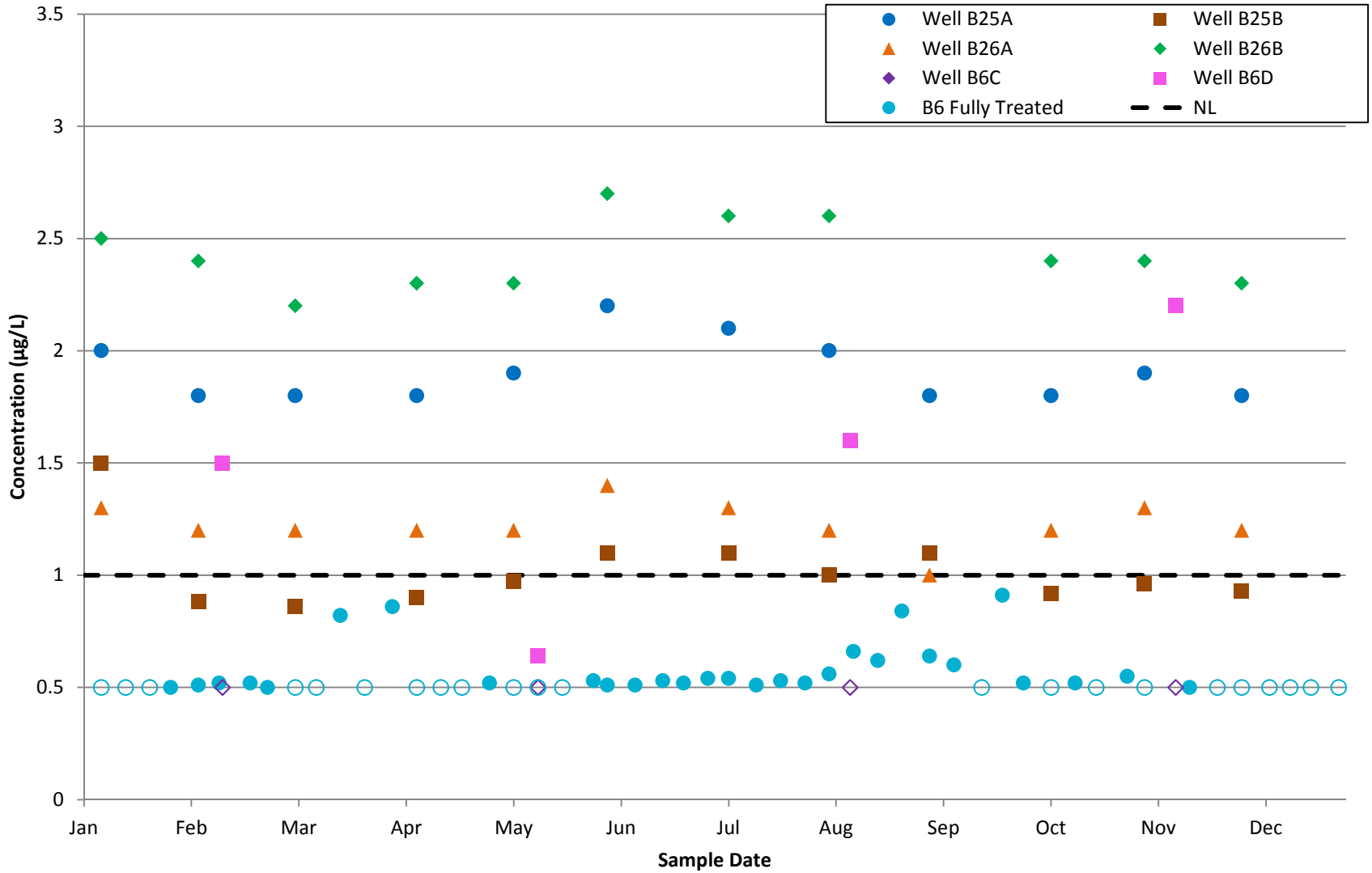
Note: Open symbols signify non-detects.

ERM	CHLOROFORM CONCENTRATIONS, RAW AND TREATED WATER FOR LA PUENTE VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-26**



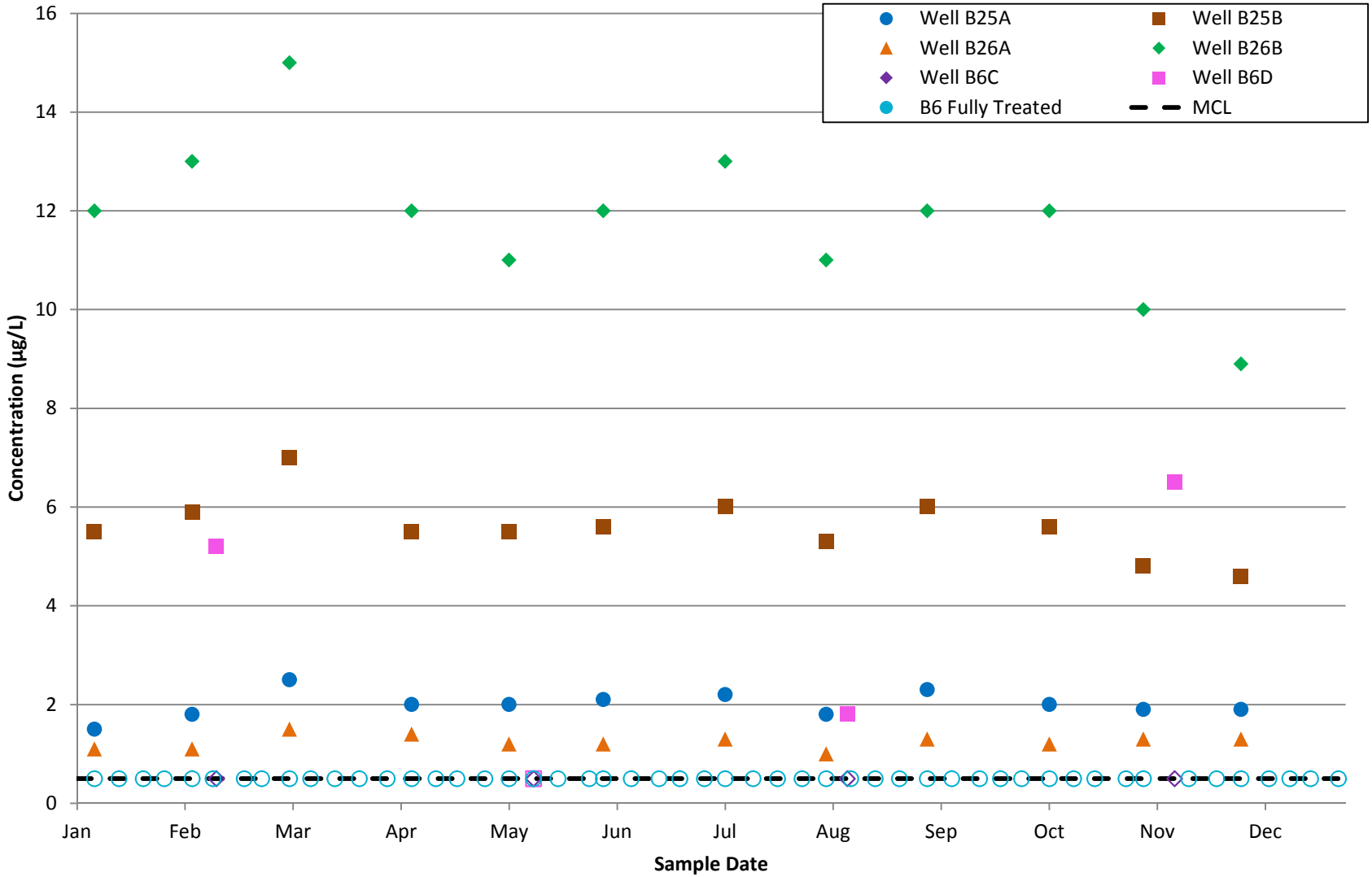
Note: Open symbols signify non-detects.

ERM	1,2-DICHLOROETHANE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-27**



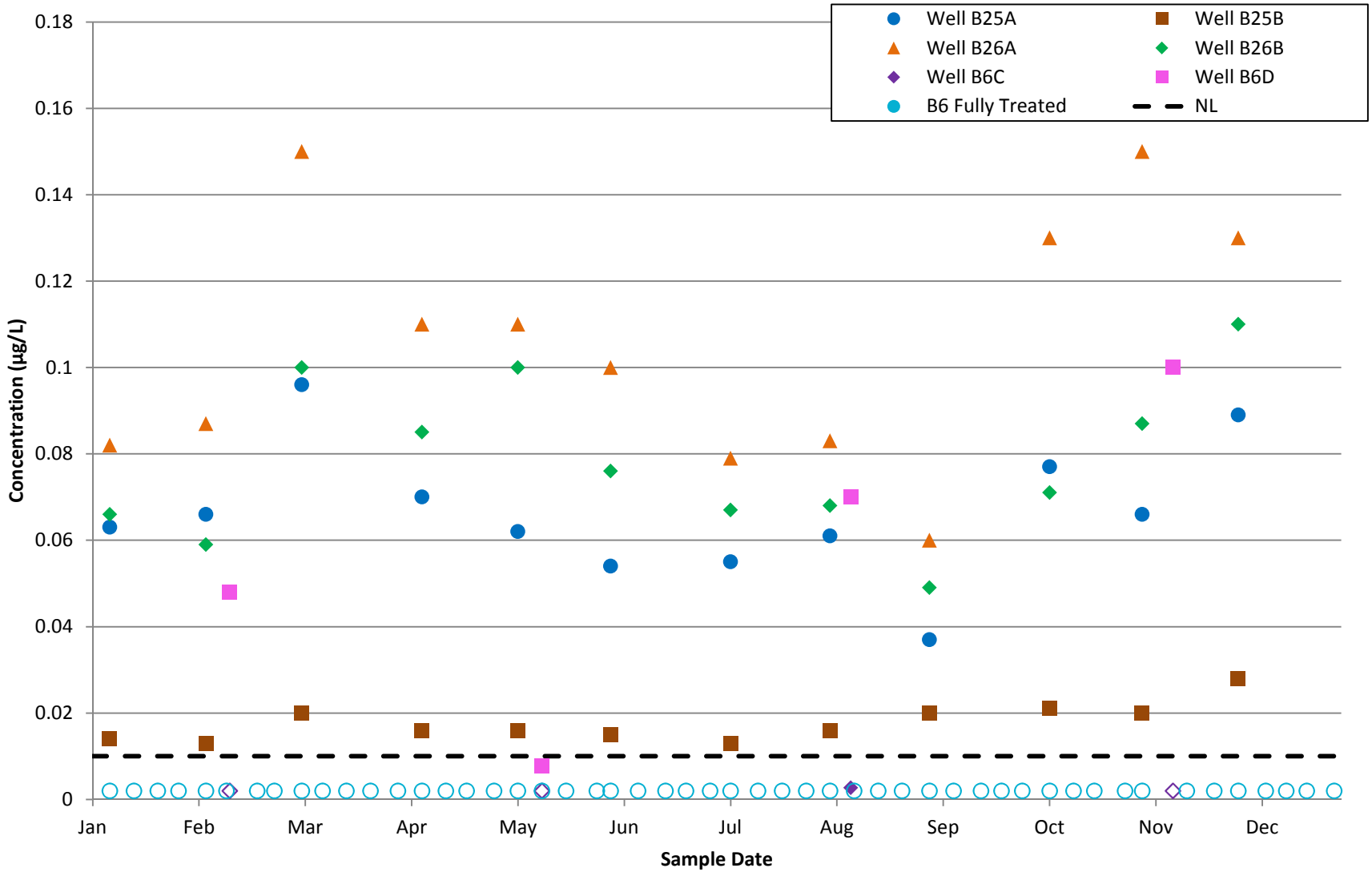
Note: Open symbols signify non-detects.

ERM	1,4-DIOXANE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-28**



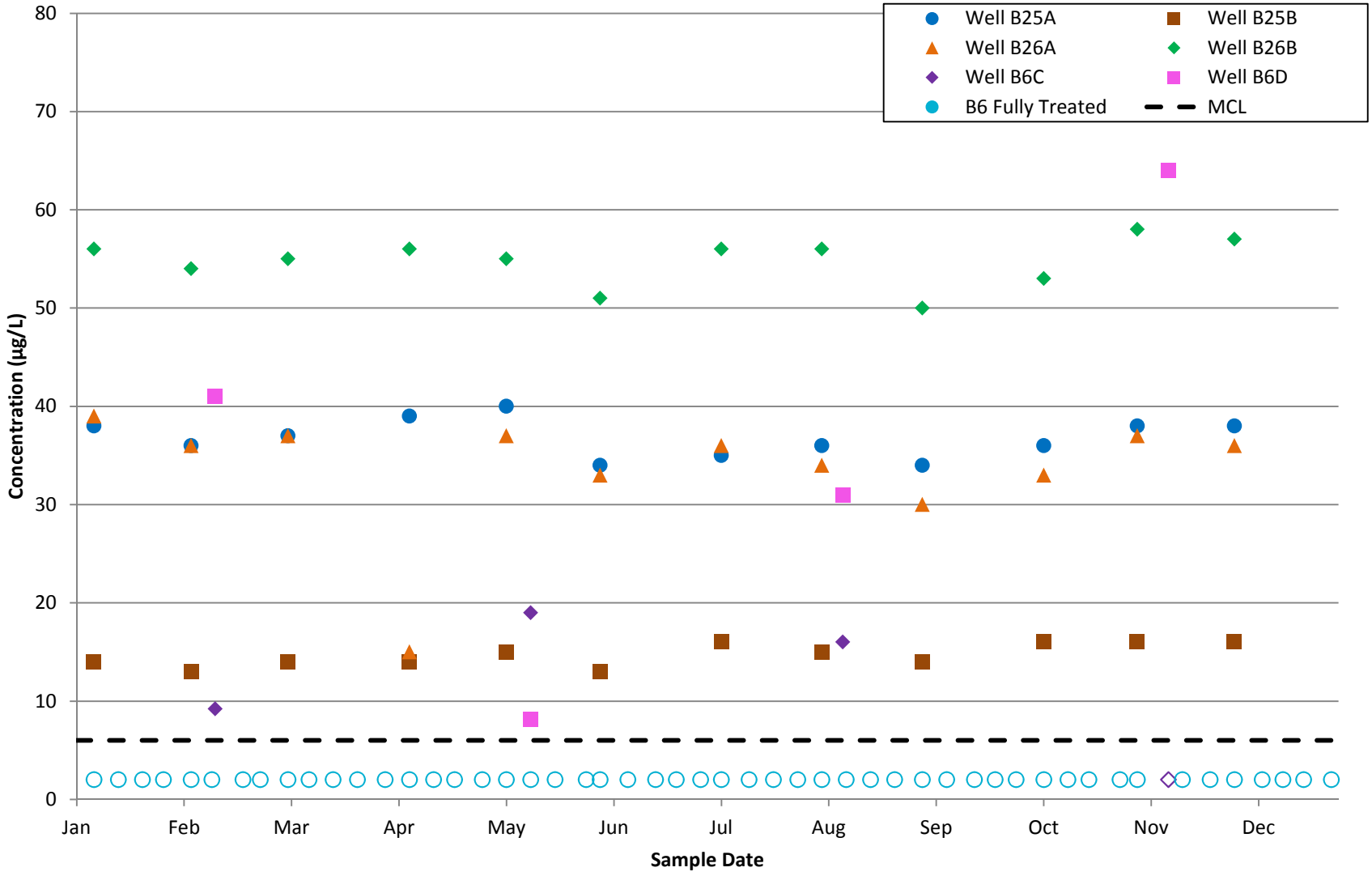
Note: Open symbols signify non-detects.

ERM	CARBON TETRACHLORIDE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-29**



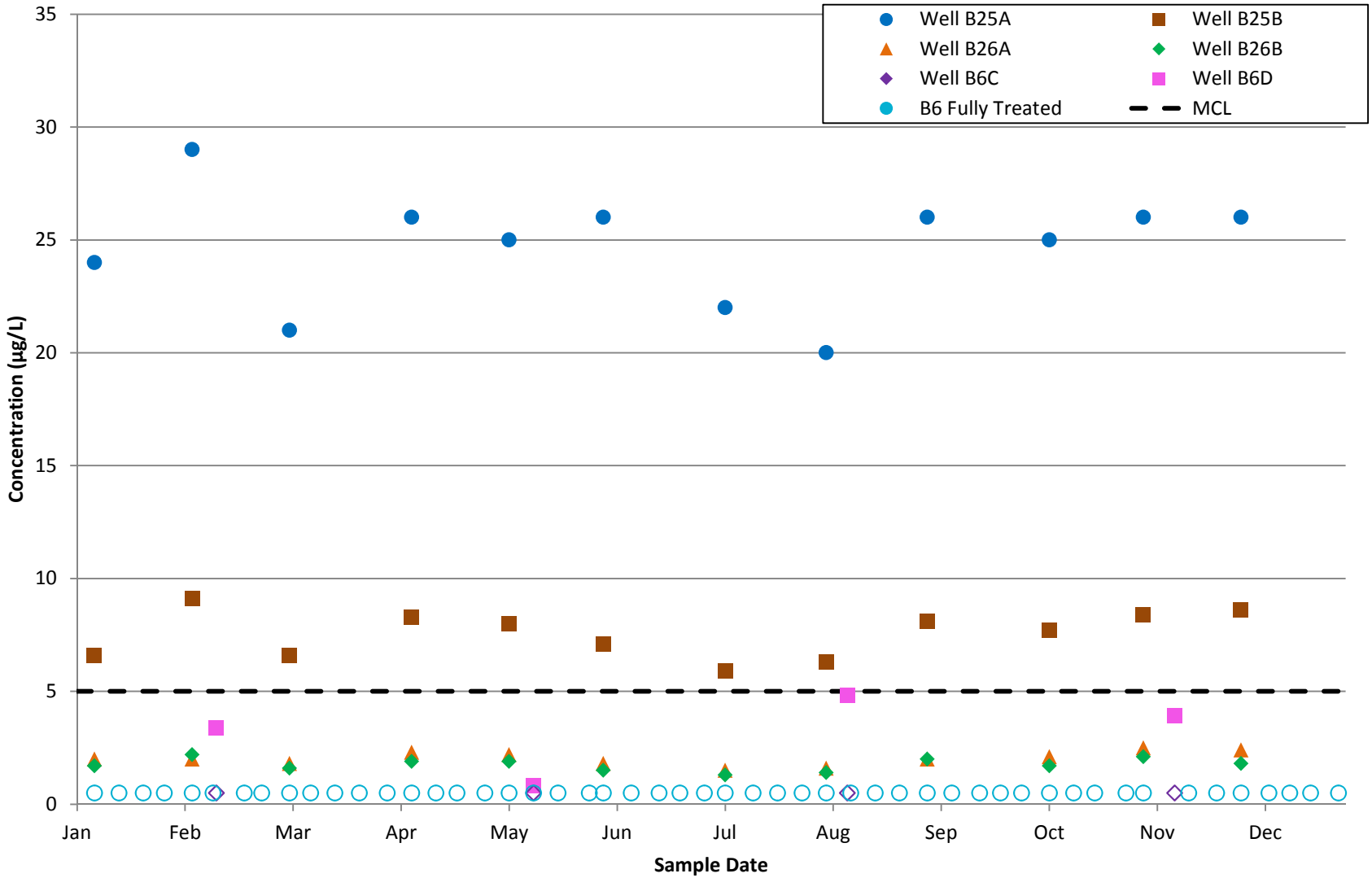
Note: Open symbols signify non-detects.

ERM	N-NITROSODIMETHYLAMINE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-30**



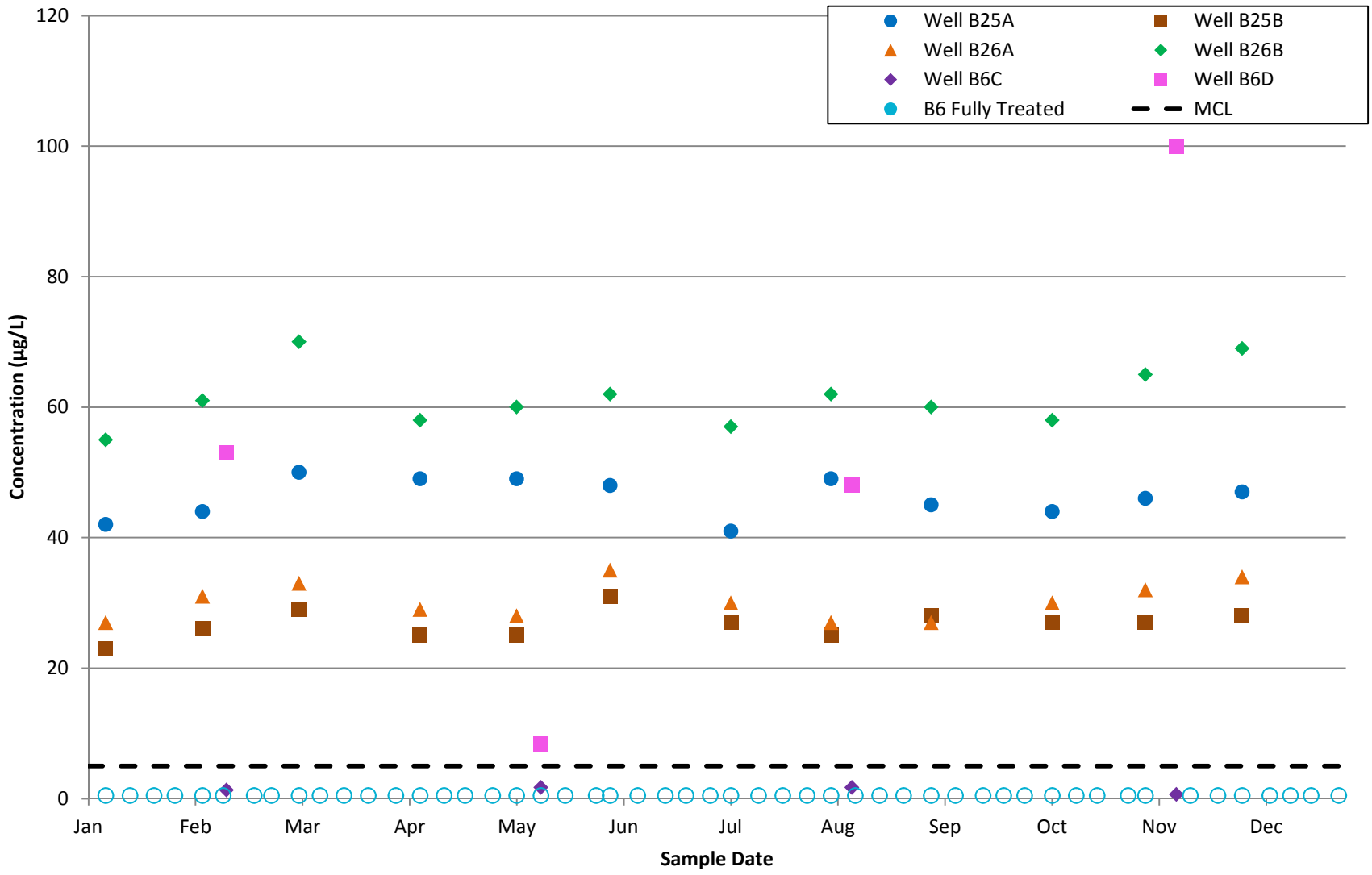
Note: Open symbols signify non-detects.

ERM	PERCHLORATE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-31**



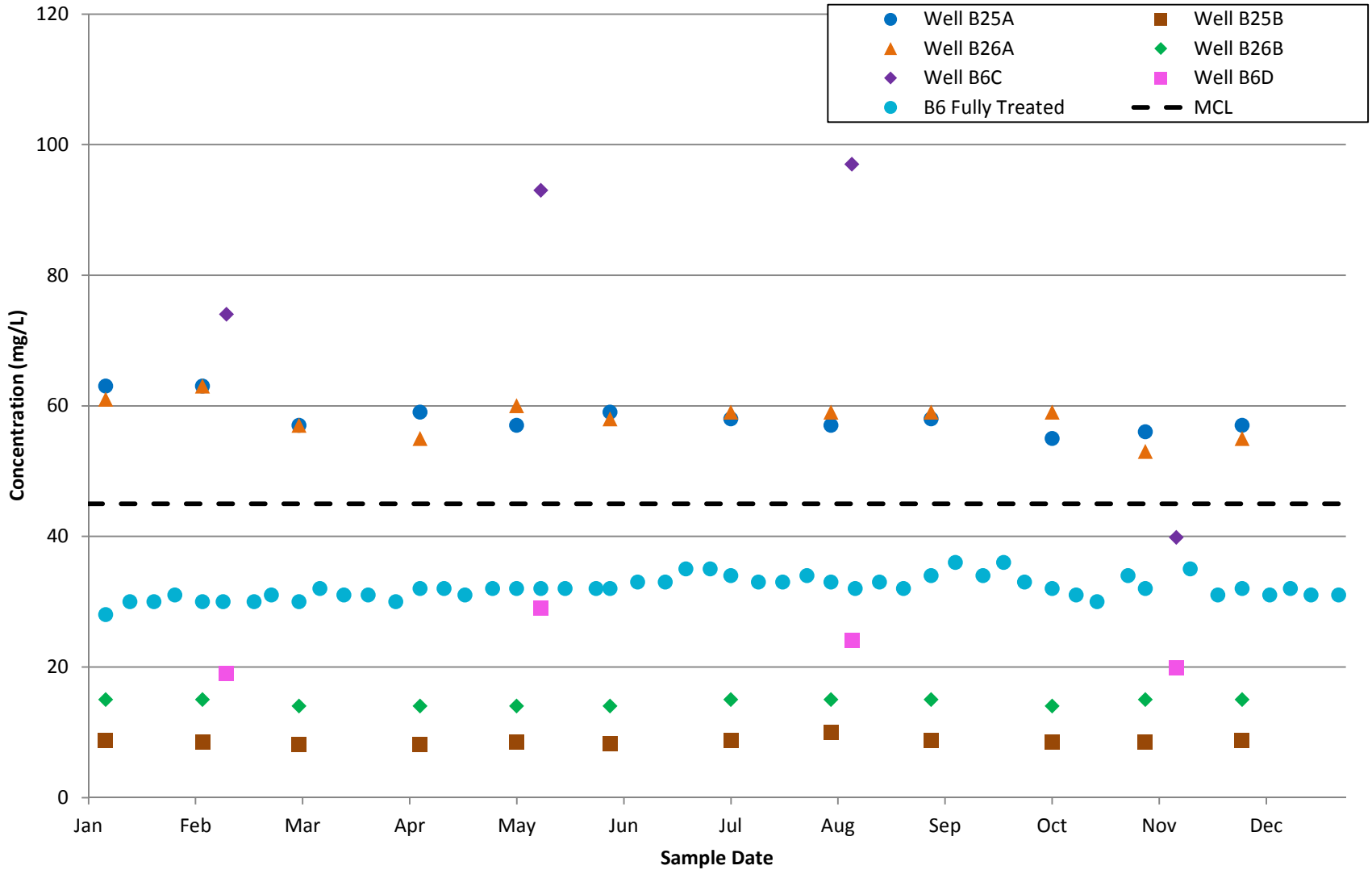
Note: Open symbols signify non-detects.

ERM	TETRACHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-32**



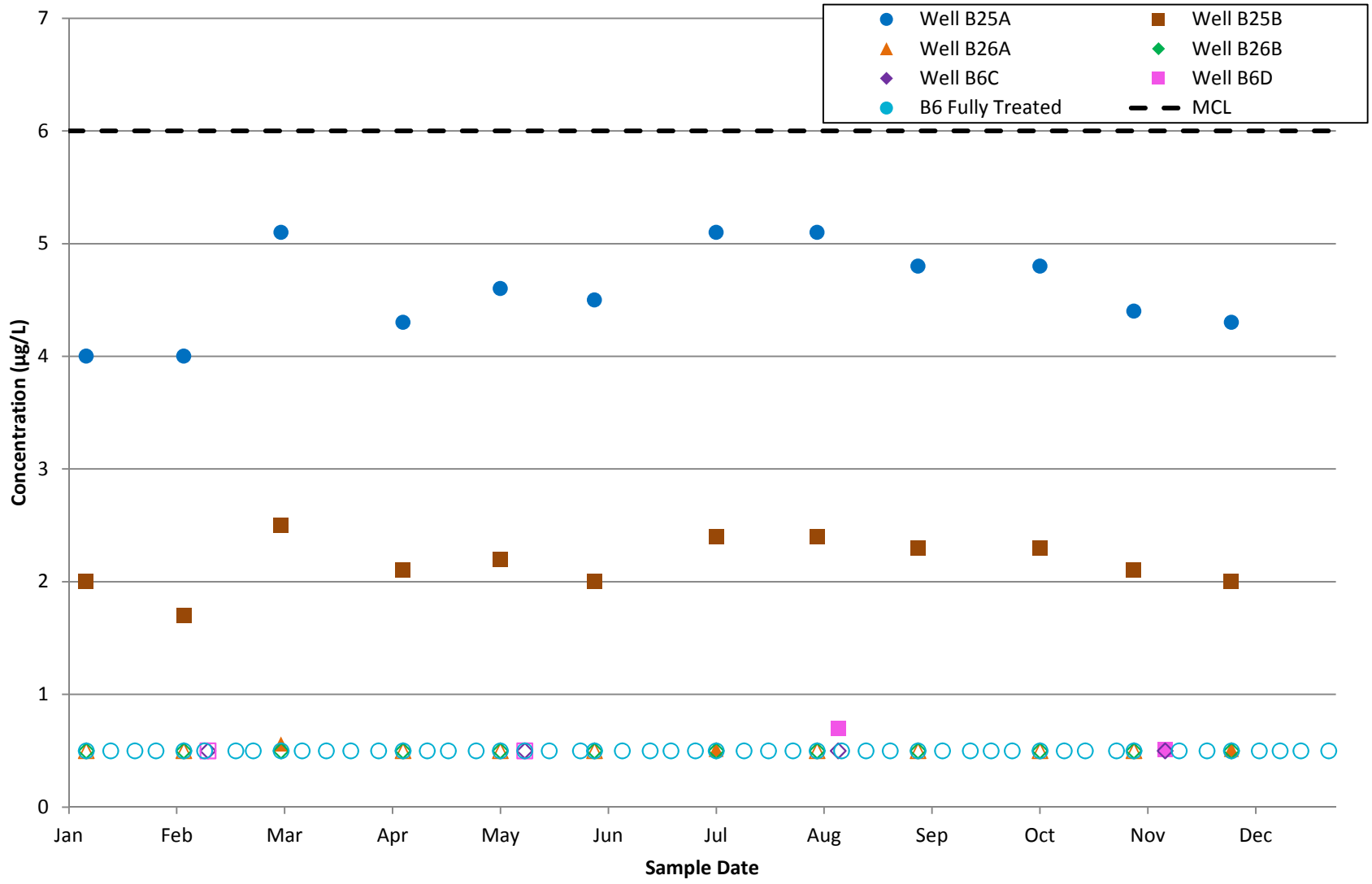
Note: Open symbols signify non-detects.

ERM	TRICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-33**



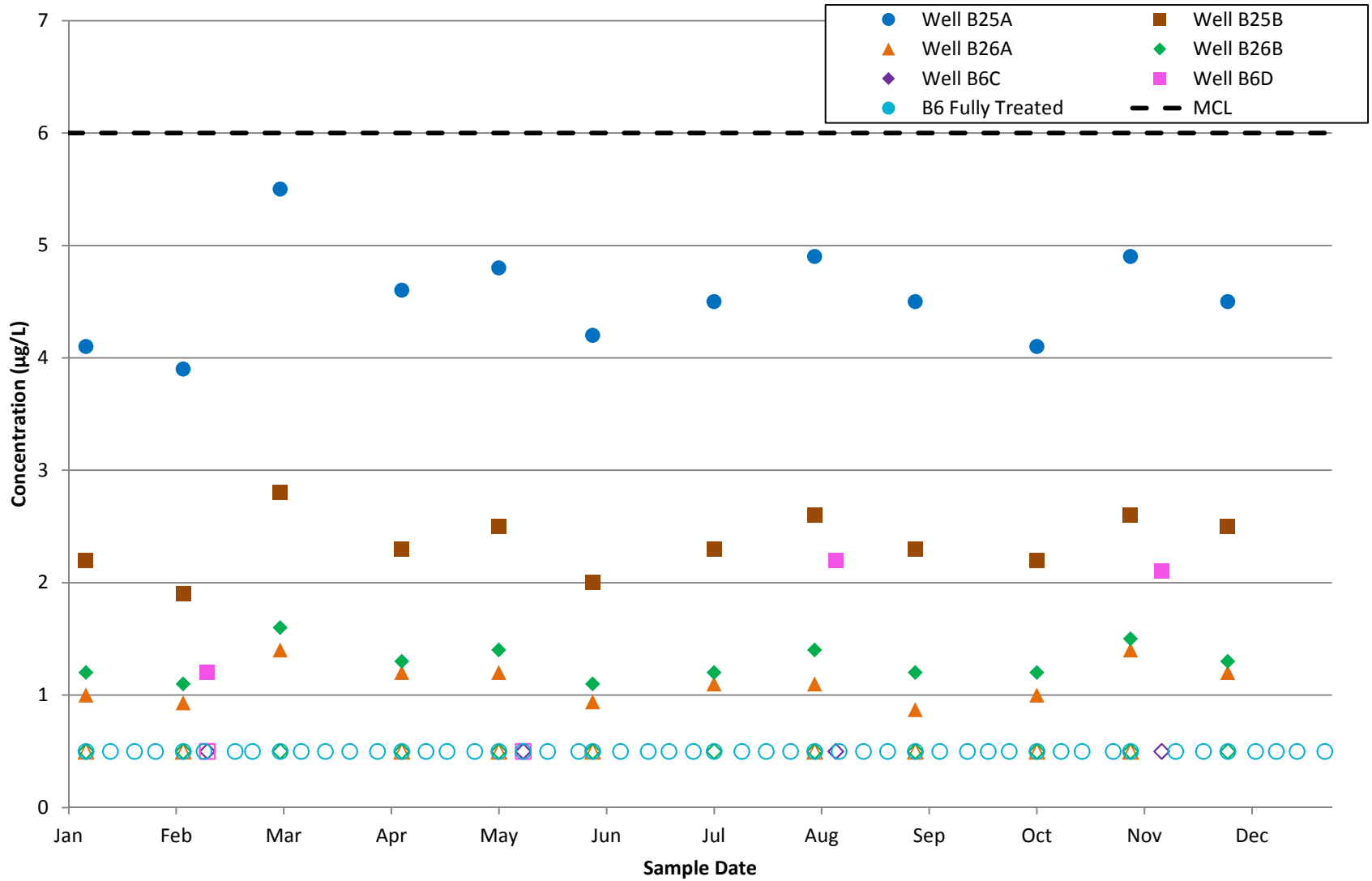
Note: Open symbols signify non-detects.

ERM	NITRATE AS NO3 CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-34**



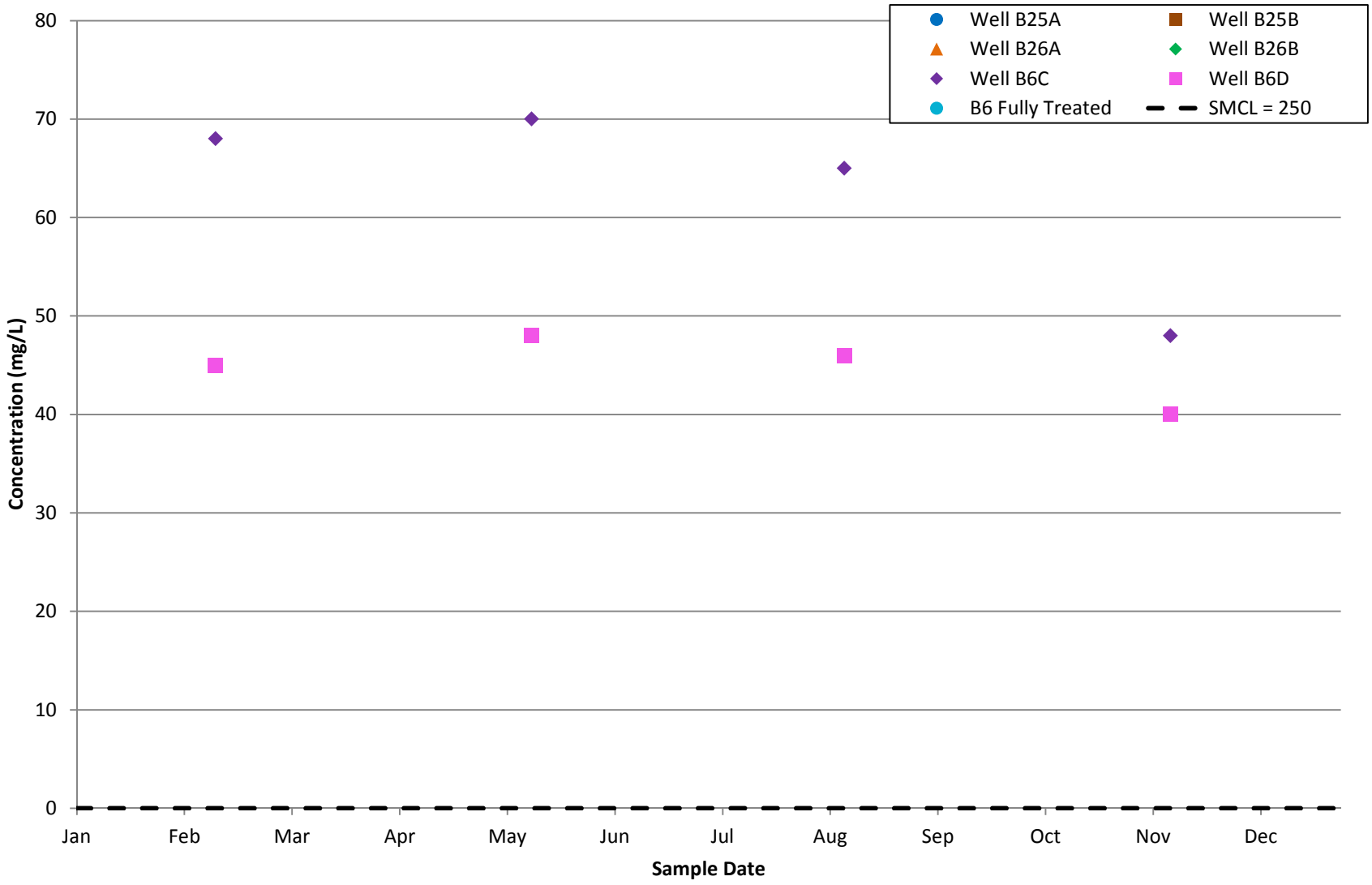
Note: Open symbols signify non-detects.

ERM	1,1-DICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-35**



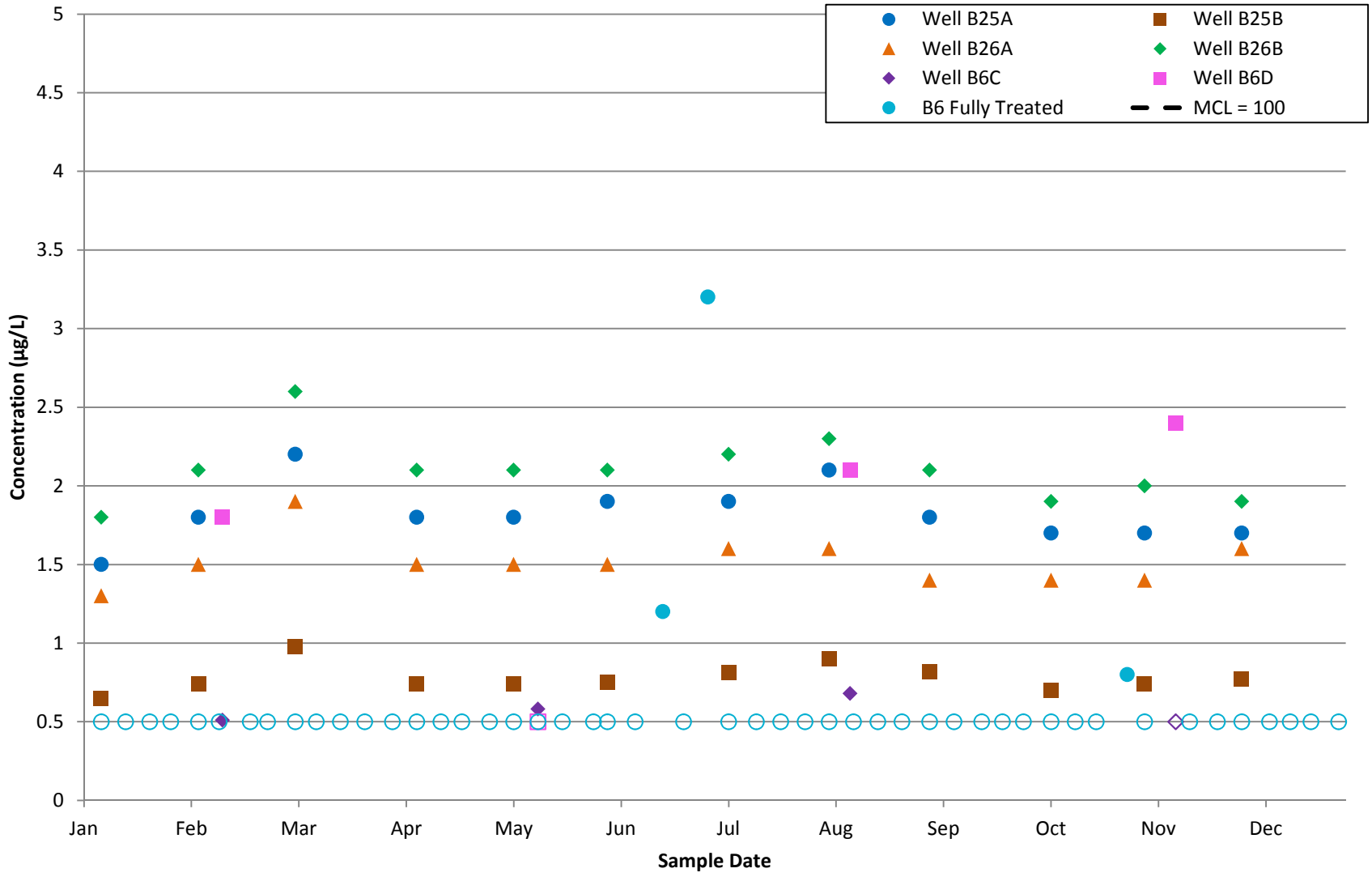
Note: Open symbols signify non-detects.

ERM	CIS-1,2-DICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-36**



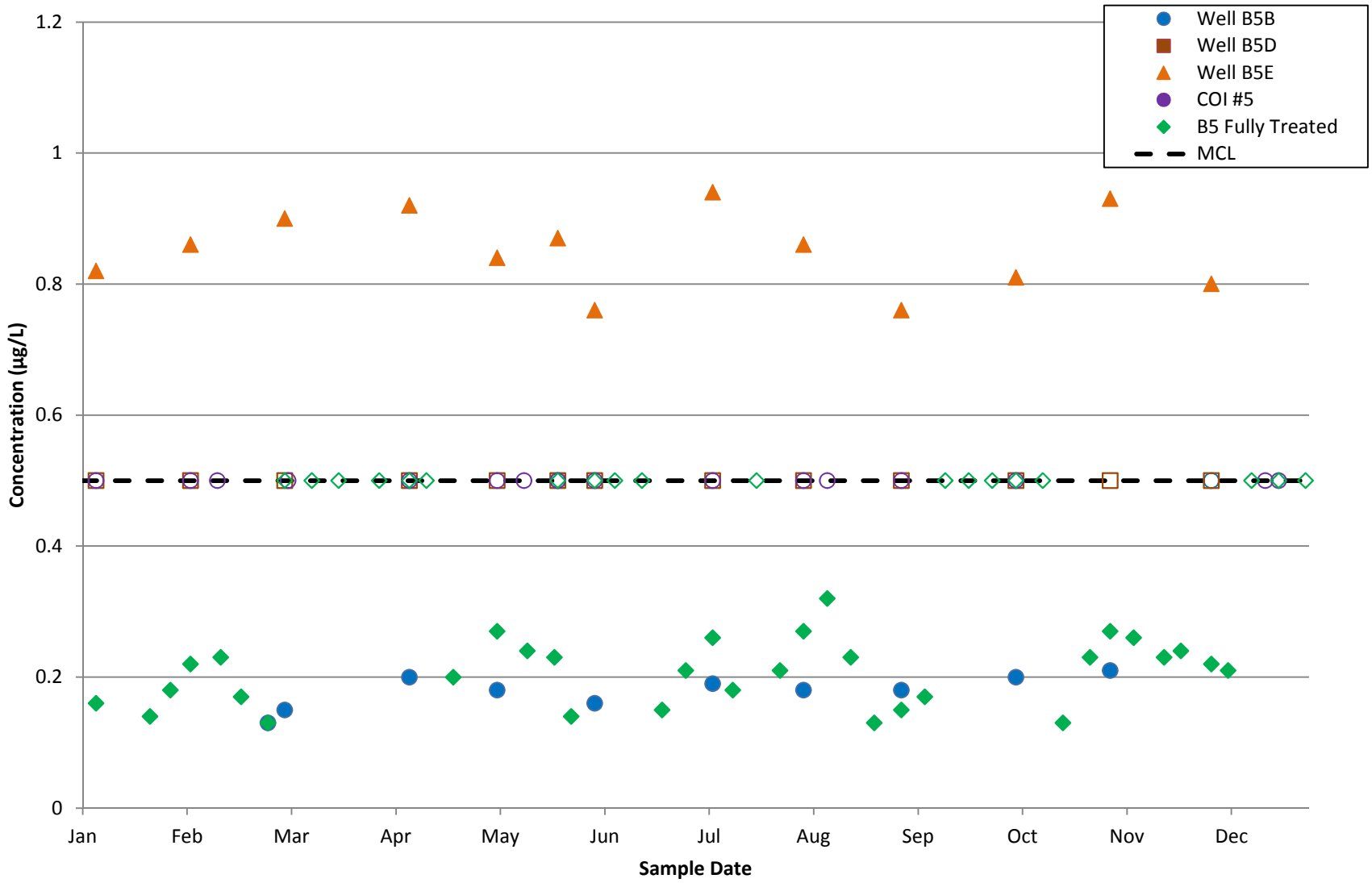
Note: Open symbols signify non-detects.

ERM	SULFATE AS SO4 CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-37**



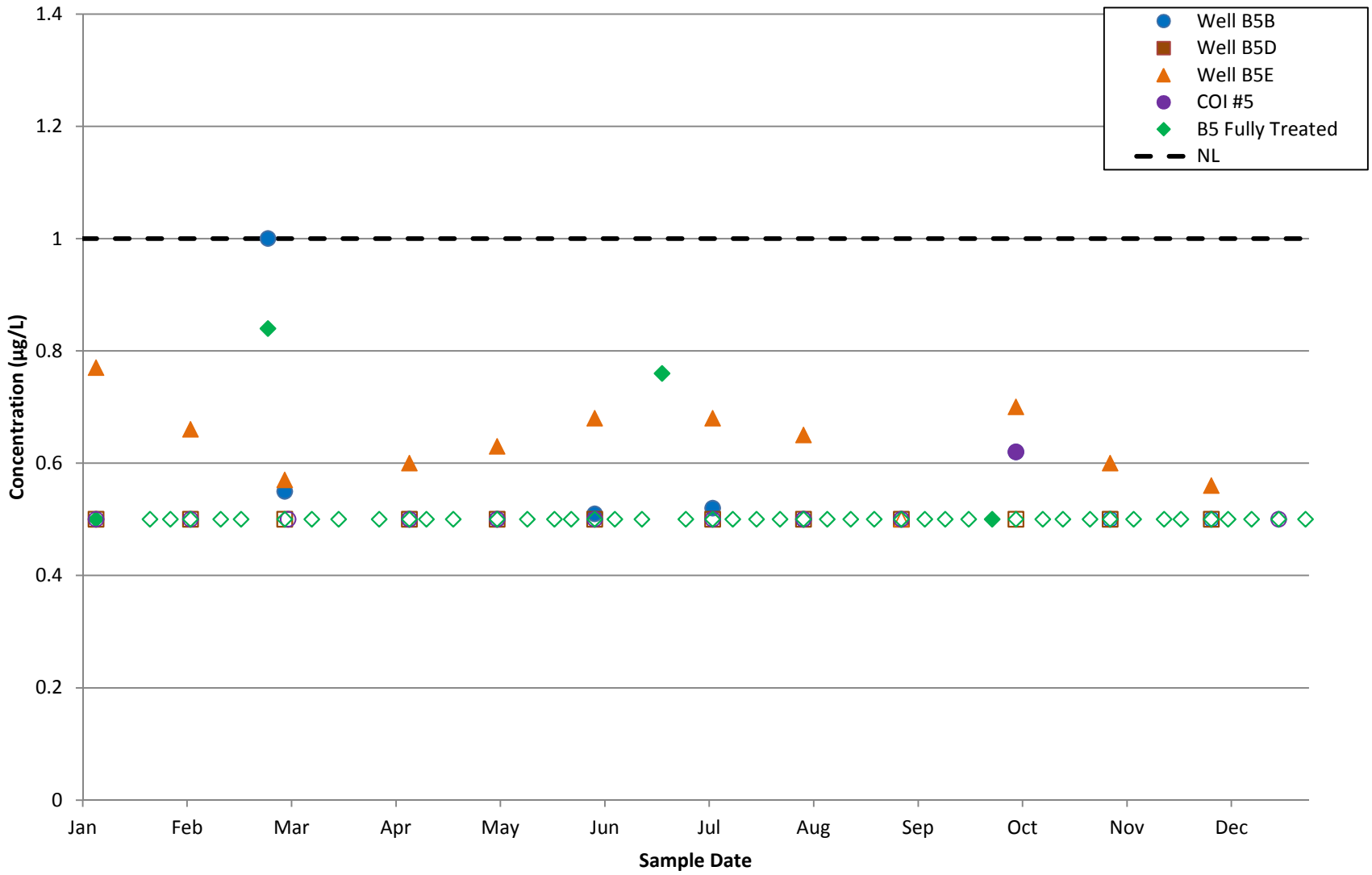
Note: Open symbols signify non-detects.

ERM	CHLOROFORM CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B6 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-38**



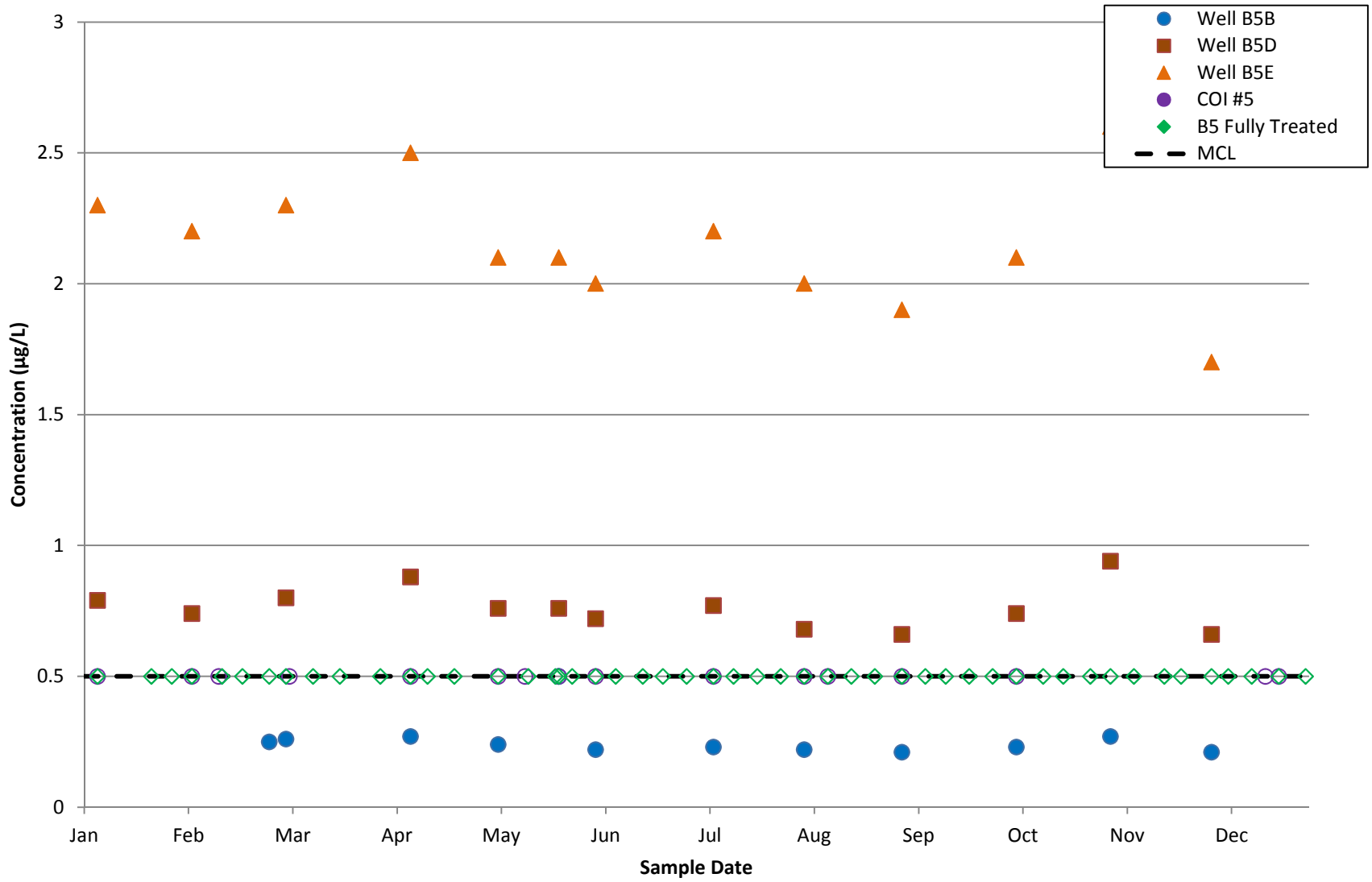
Note: Open symbols signify non-detects.

ERM	1,2-DICHLOROETHANE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-39**



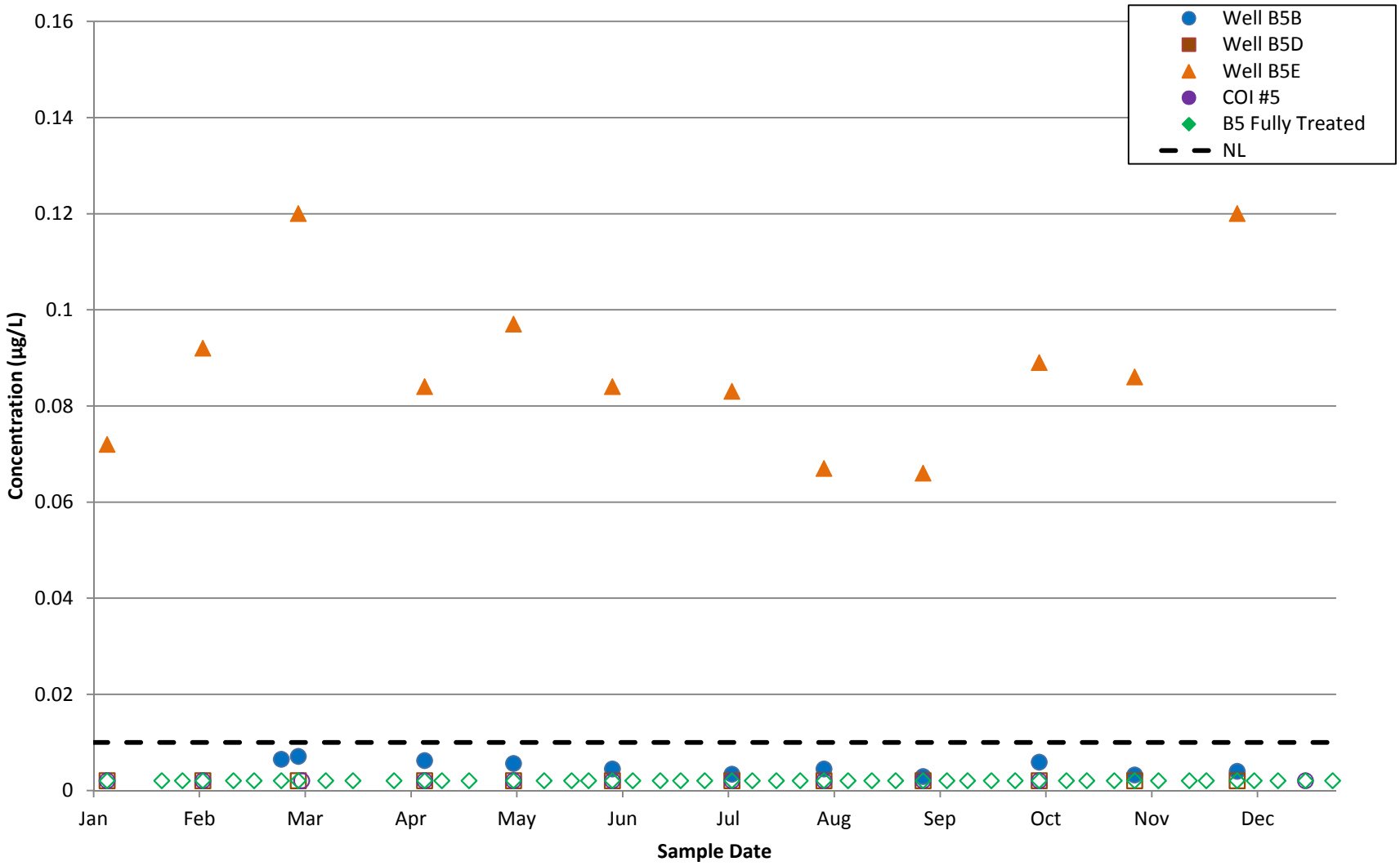
Note: Open symbols signify non-detects.

ERM	1,4-DIOXANE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-40**



Note: Open symbols signify non-detects.

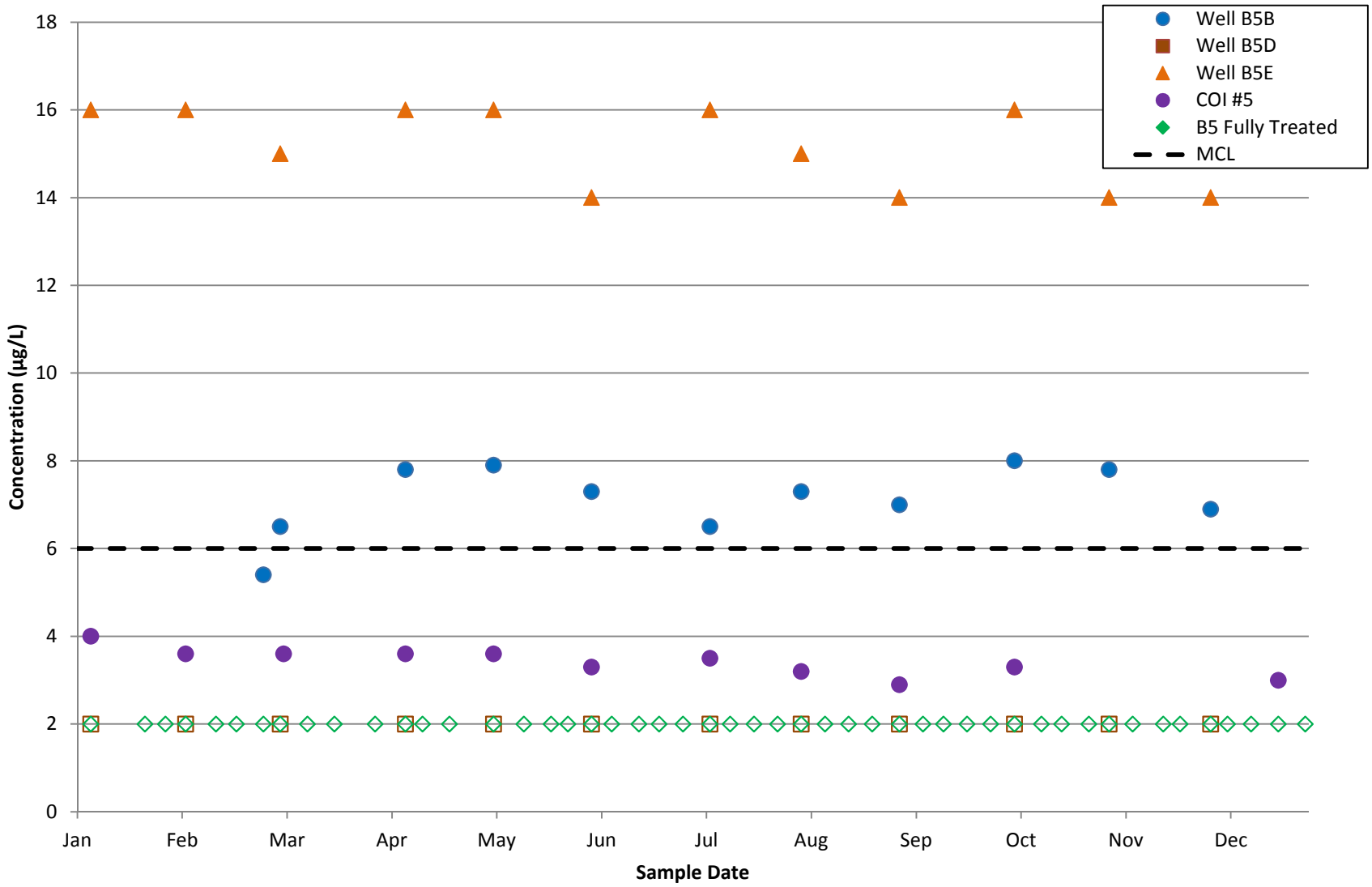
ERM	CARBON TETRACHLORIDE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-41**



Note: Open symbols signify non-detects.

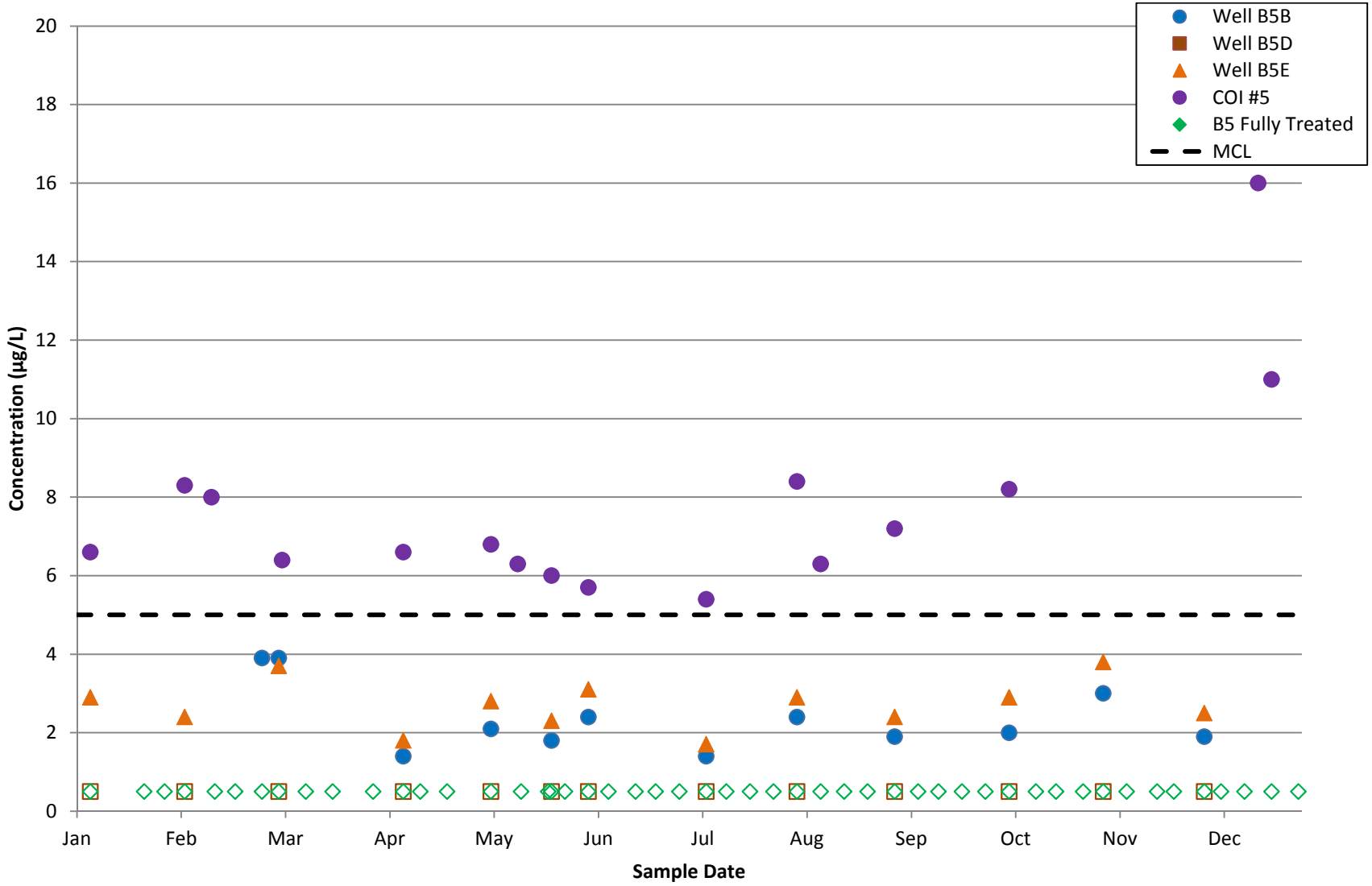
Eight samples analyzed by EPA Method 8270C (Reporting Limit = 1 ug/L) are not shown. All 8 were non-detect (See table 6-16).

ERM	N-NITROSODIMETHYLAMINE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-42**



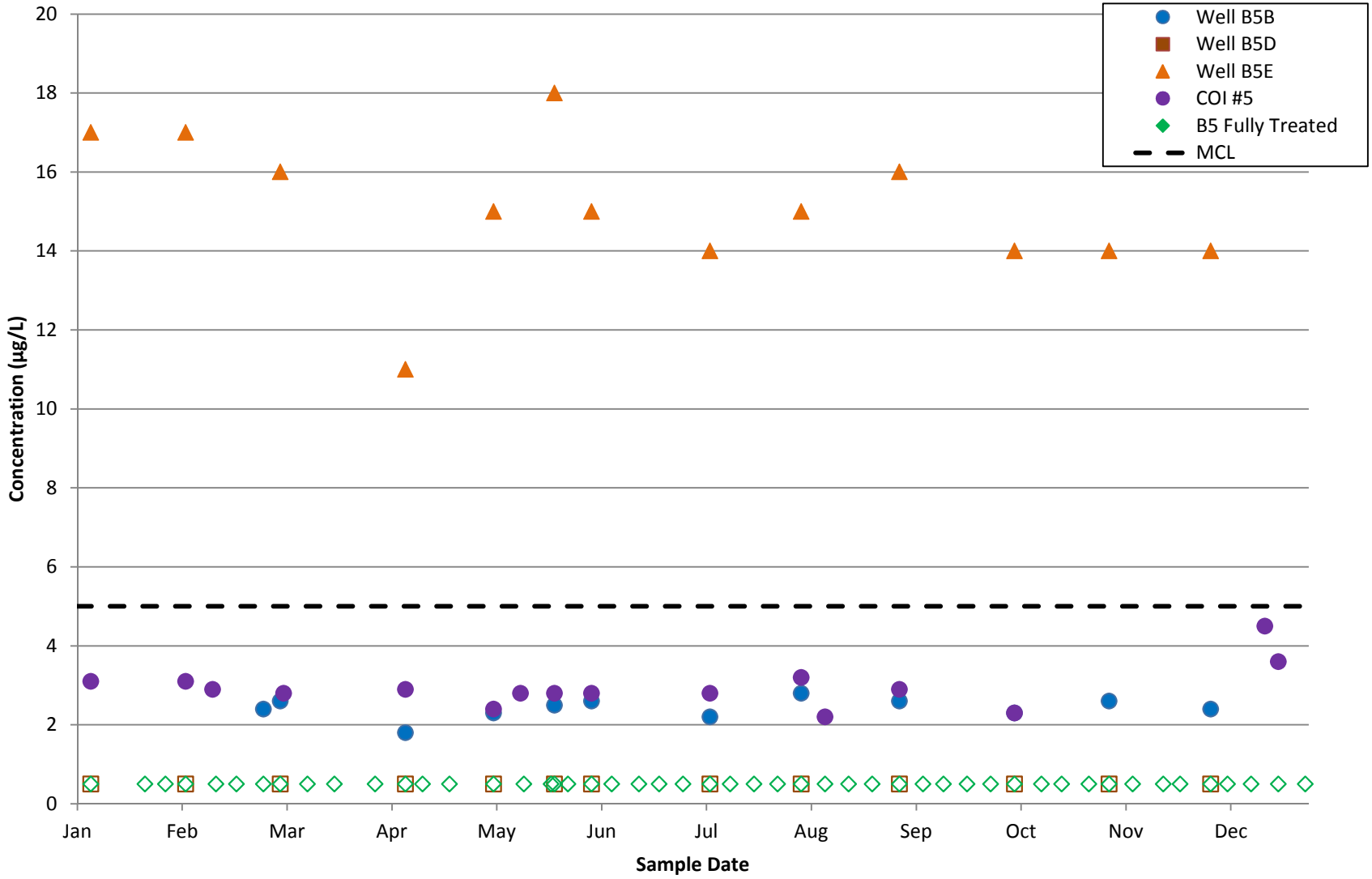
Note: Open symbols signify non-detects.

ERM	PERCHLORATE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-43**



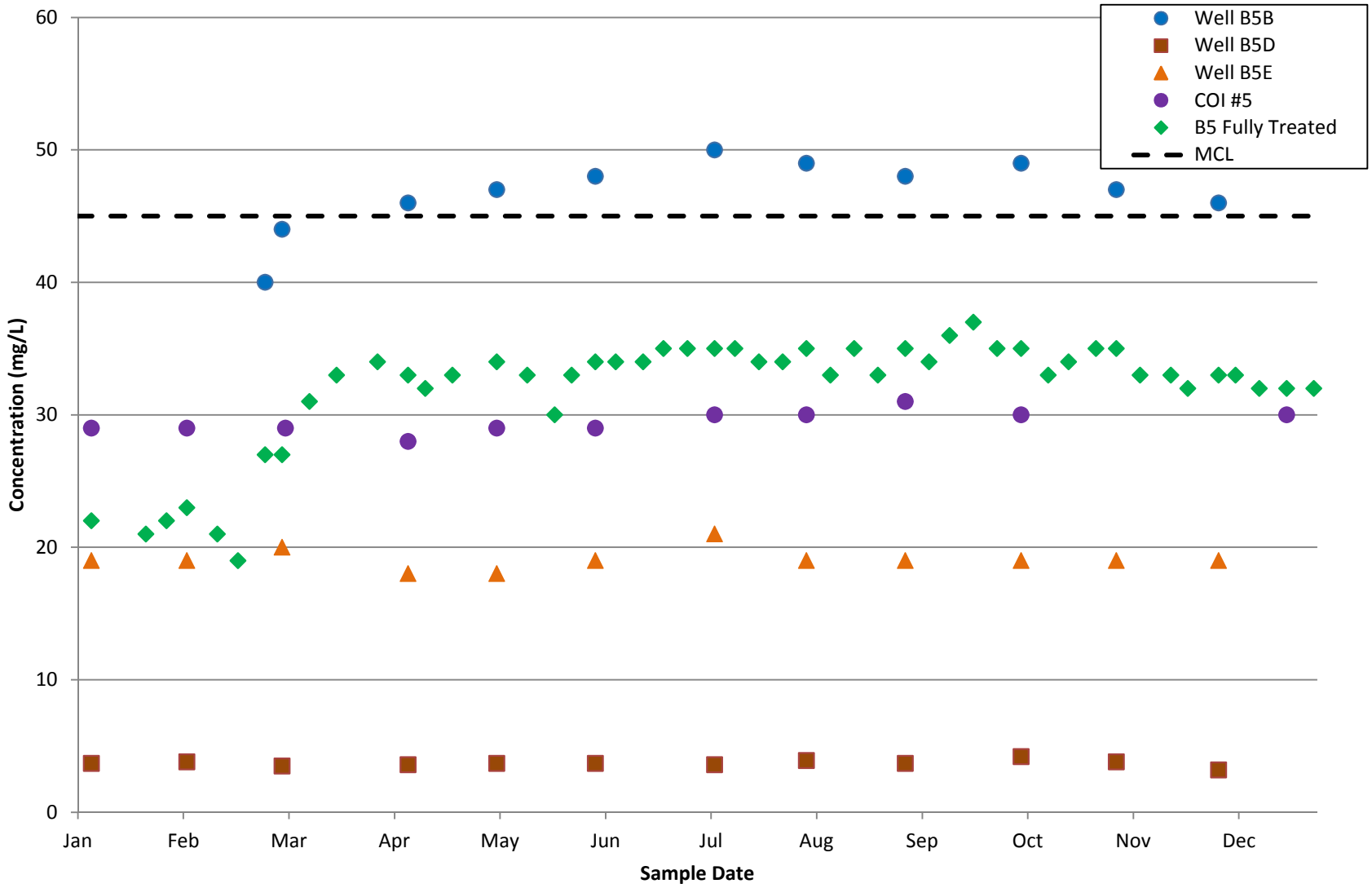
Note: Open symbols signify non-detects.

ERM	TETRACHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-44**



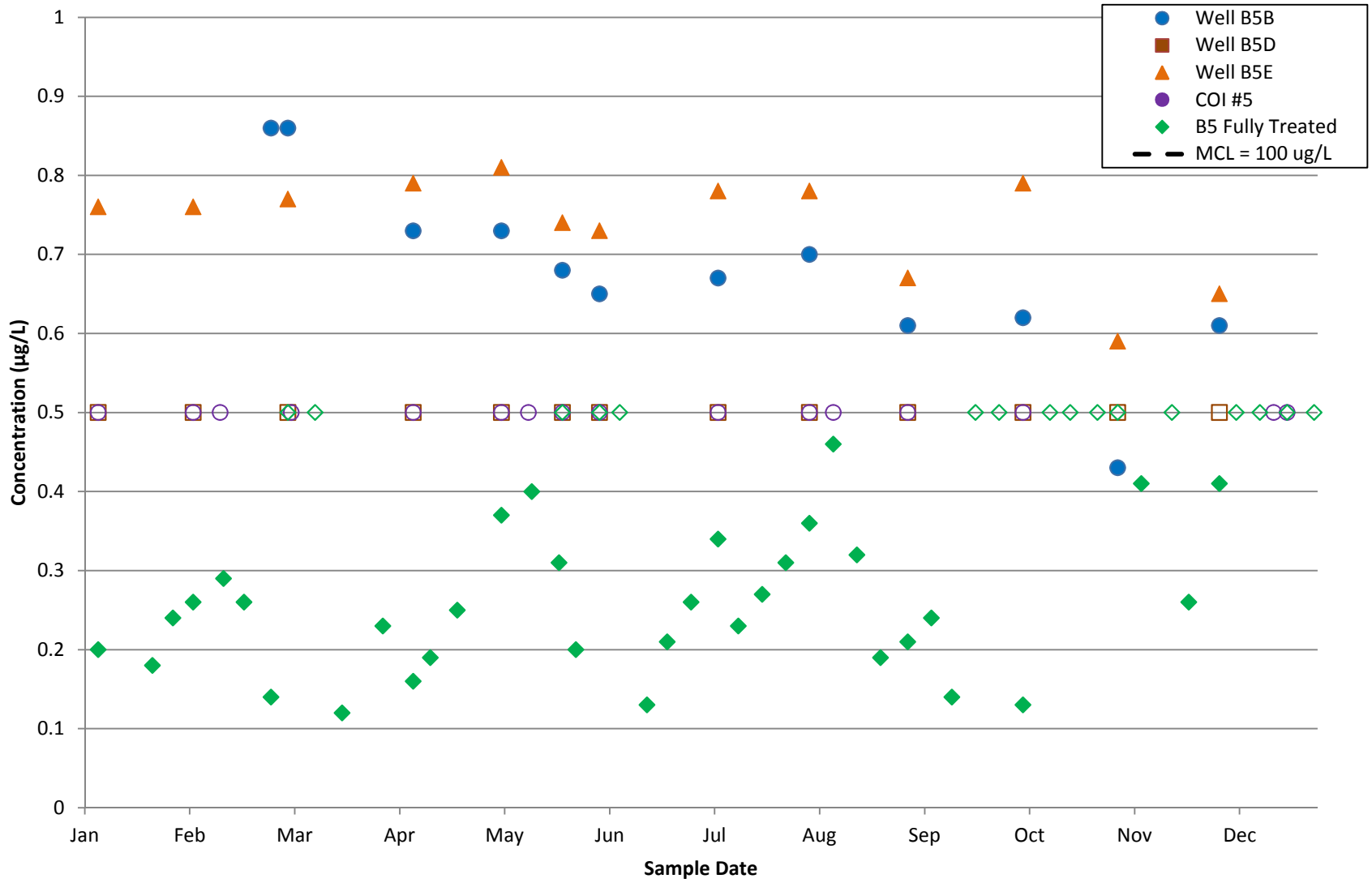
Note: Open symbols signify non-detects.

ERM	TRICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-45**



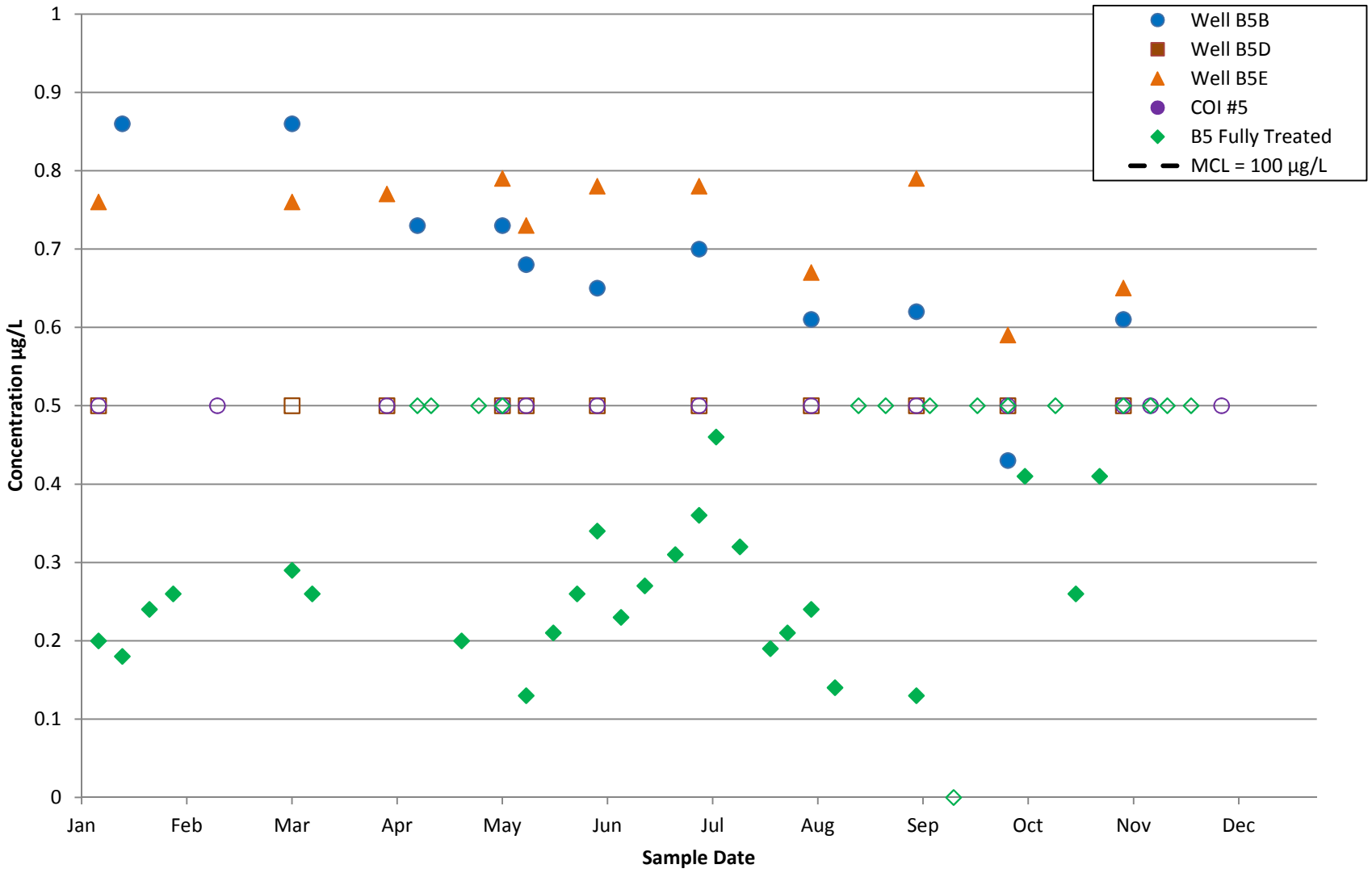
Note: Open symbols signify non-detects.

ERM	NITRATE AS NO3 CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-46**



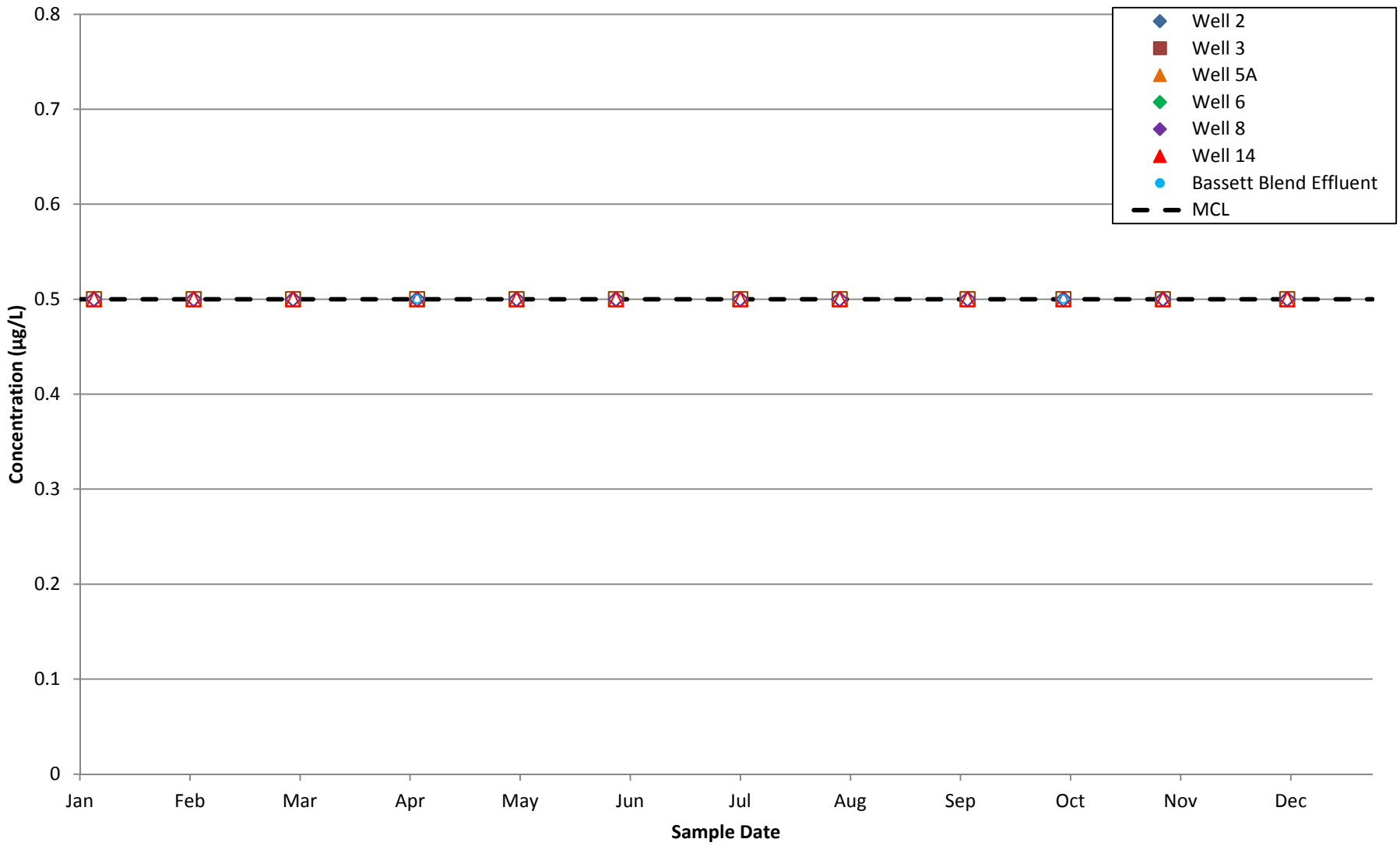
Note: Open symbols signify non-detects.

ERM	CHLOROFORM CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-47**



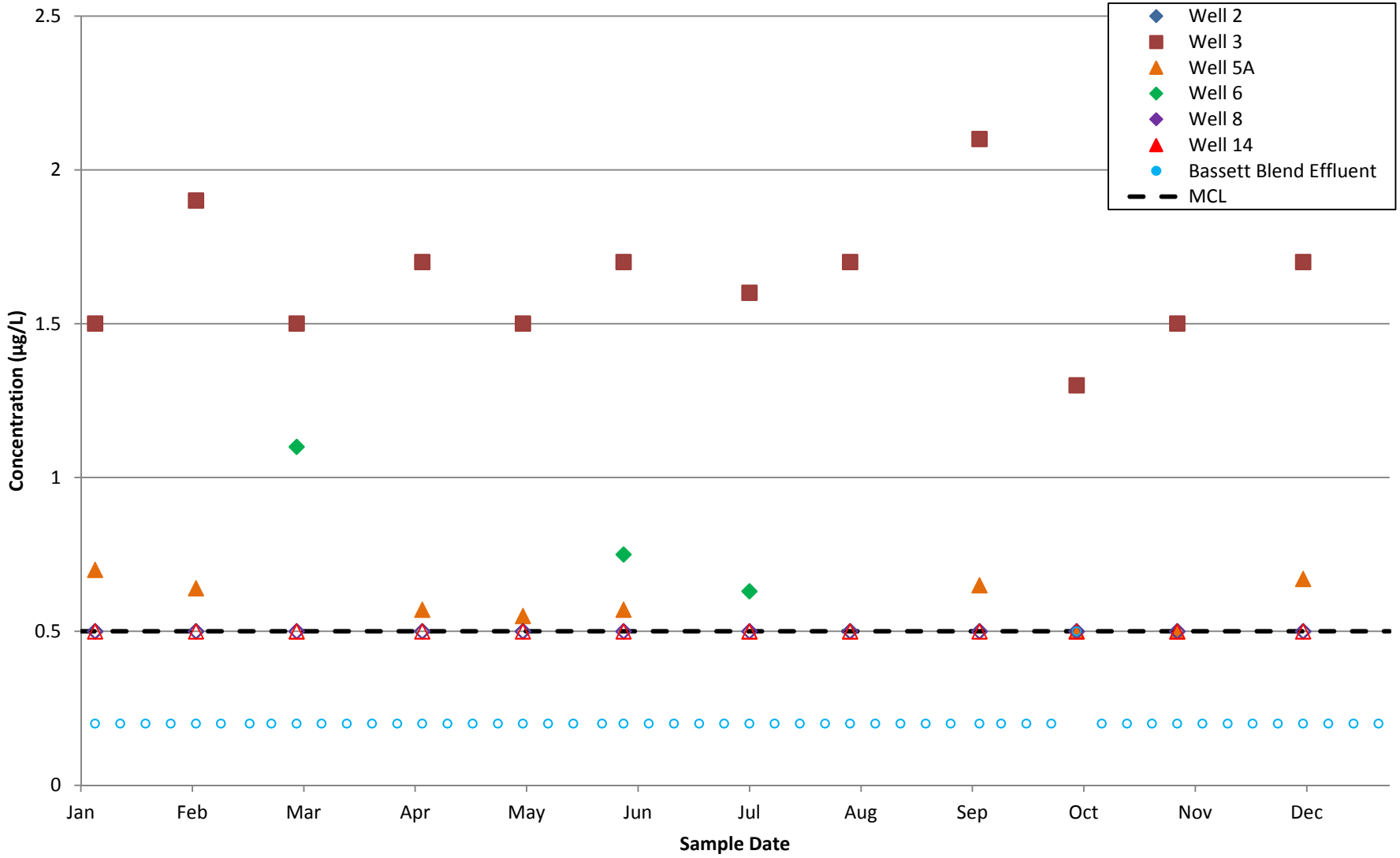
Note: Open symbols signify non-detects.

ERM	CHLOROFORM CONCENTRATIONS, RAW AND TREATED WATER FOR SAN GABRIEL VALLEY WATER COMPANY B5 TREATMENT PLANT (2014) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-47**



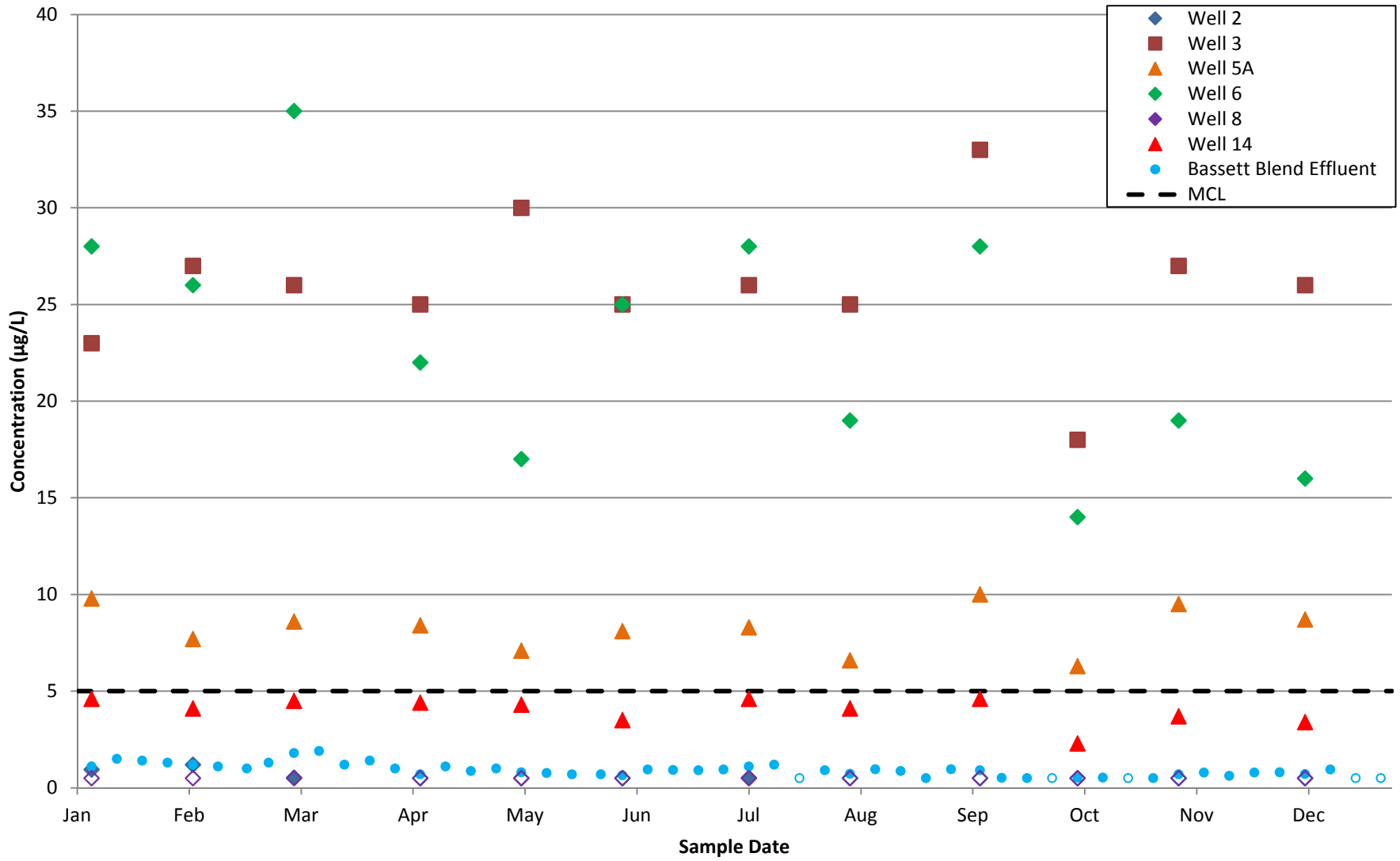
Note: Open symbols signify non-detects. All non-detects reported as zero.

ERM	1,2-DICHLOROETHANE CONCENTRATIONS, RAW AND TREATED WATER FOR CALIFORNIA DOMESTIC WATER COMPANY TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-48**



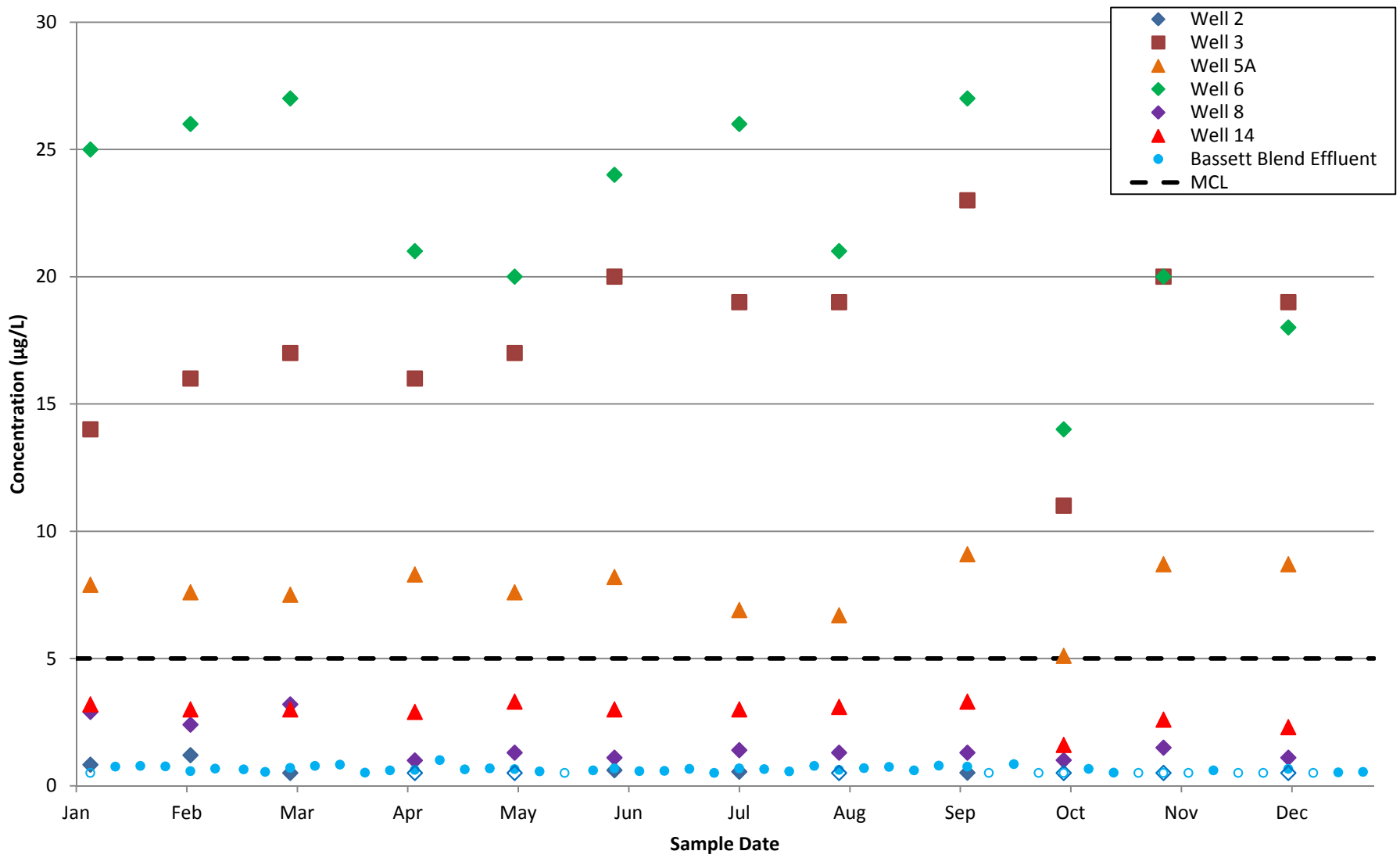
Note: Open symbols signify non-detects. All non-detects reported as zero.

ERM	CARBON TETRACHLORIDE CONCENTRATIONS, RAW AND TREATED WATER FOR CALIFORNIA DOMESTIC WATER COMPANY TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-49**



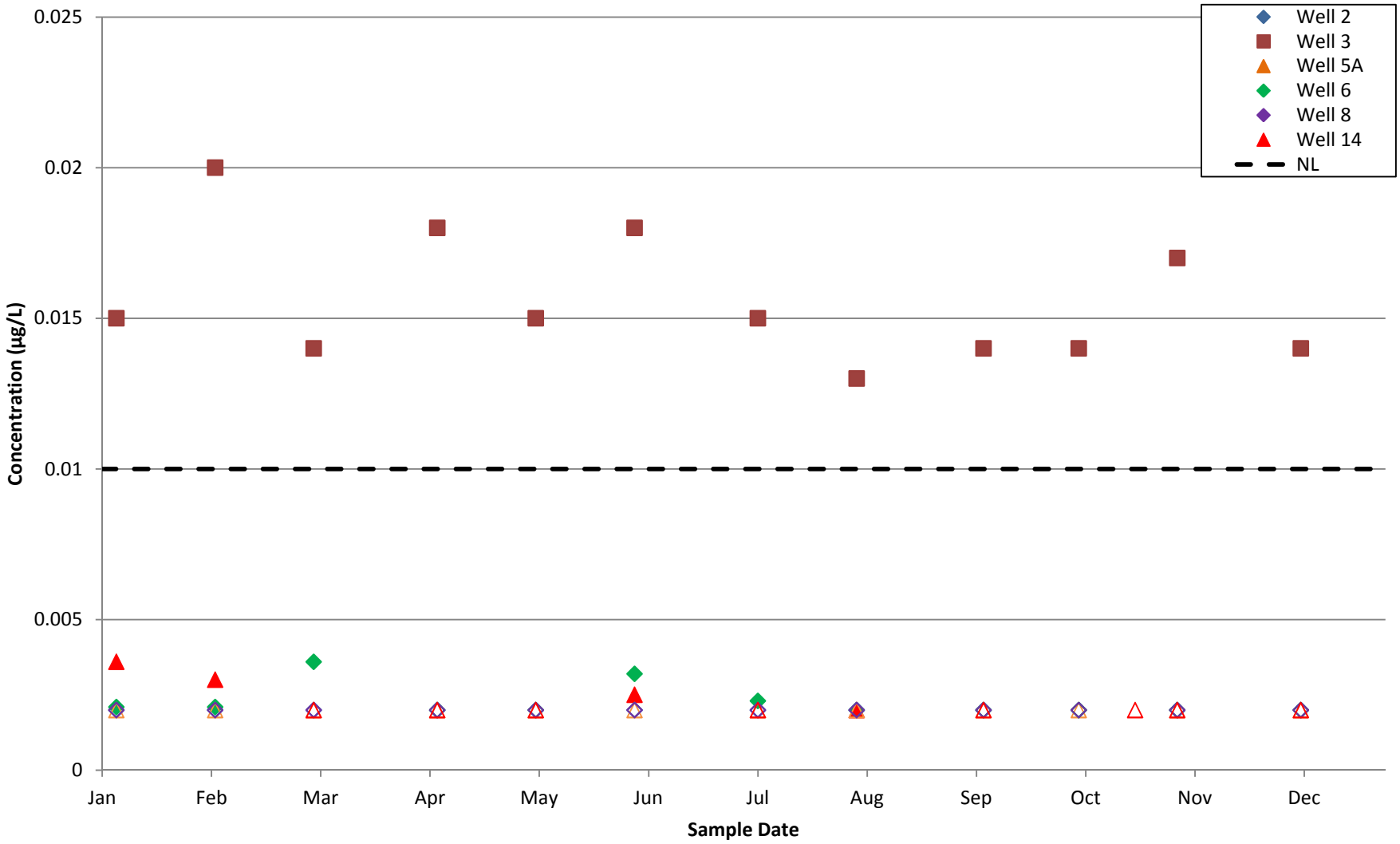
Note: Open symbols signify non-detects. All non-detects reported as zero.

ERM	TRICHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR CALIFORNIA DOMESTIC WATER COMPANY TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-50**



Note: Open symbols signify non-detects. All non-detects reported as zero.

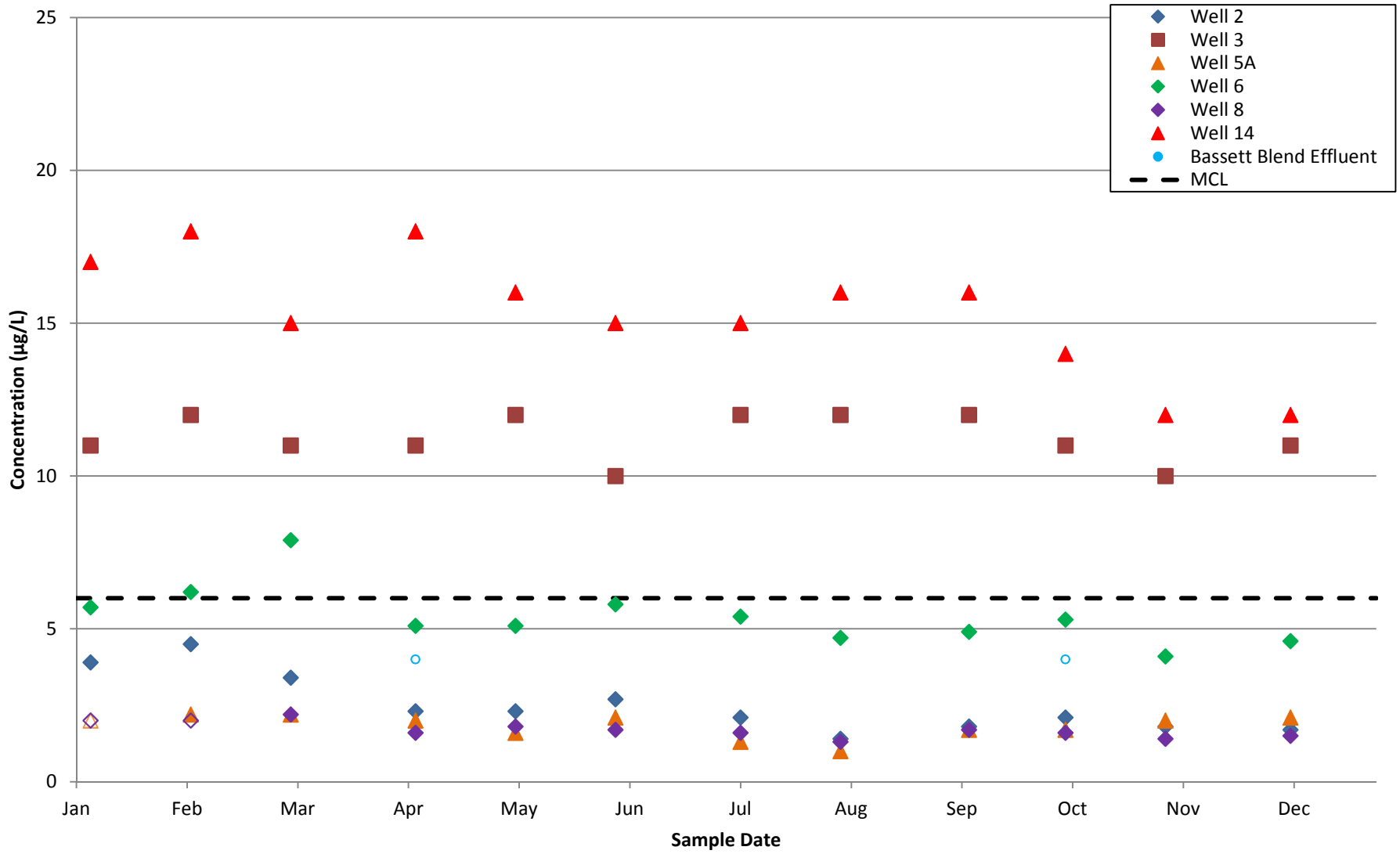
ERM	TETRACHLOROETHENE CONCENTRATIONS, RAW AND TREATED WATER FOR CALIFORNIA DOMESTIC WATER COMPANY TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-51**



Note: Open symbols signify non-detects. All non-detects reported as zero.

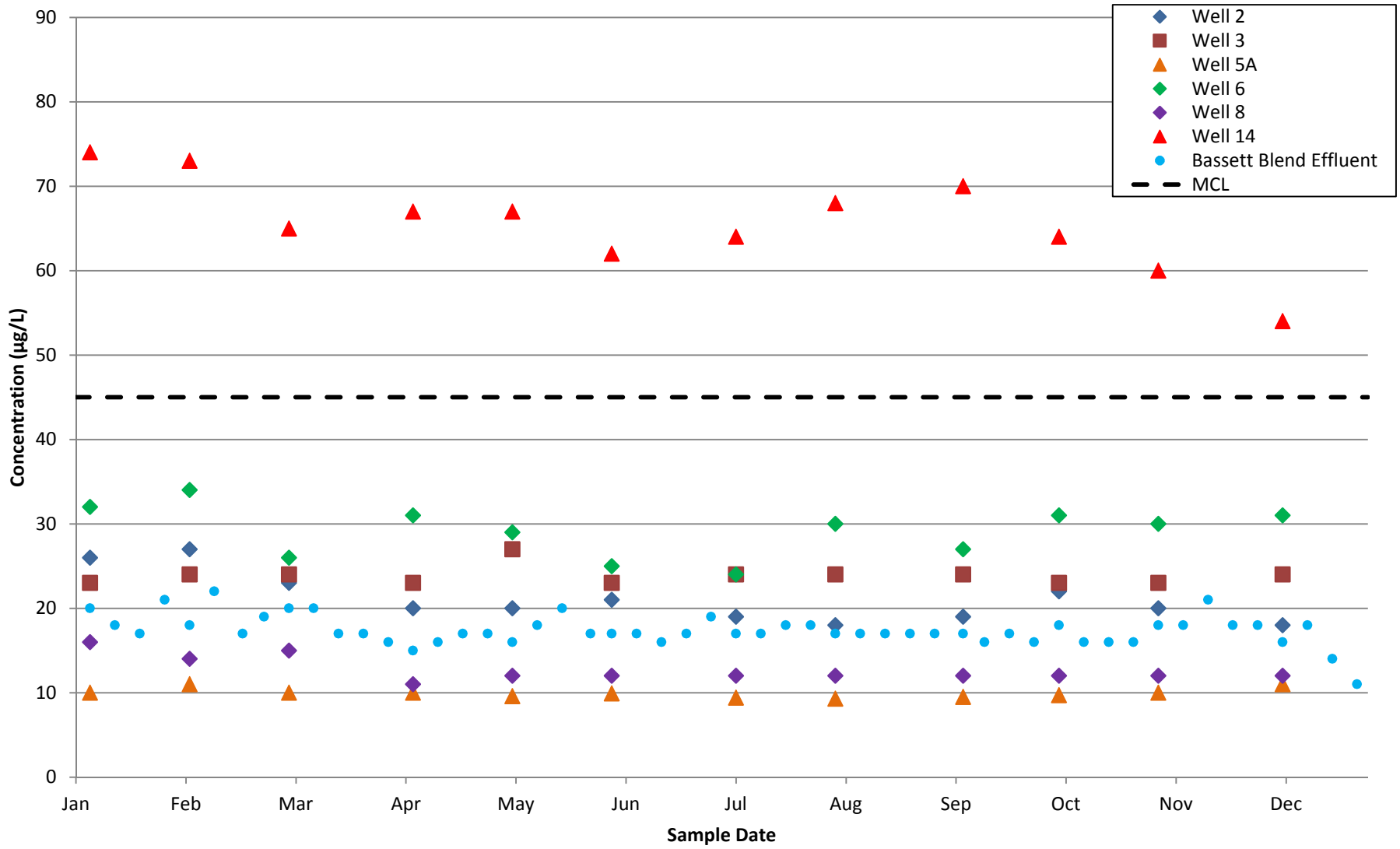
Bassett Blend Effluent not sampled for NDMA.

ERM	N-NITROSODIMETHYLAMINE CONCENTRATIONS, RAW AND TREATED WATER FOR CALIFORNIA DOMESTIC WATER COMPANY TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-52**



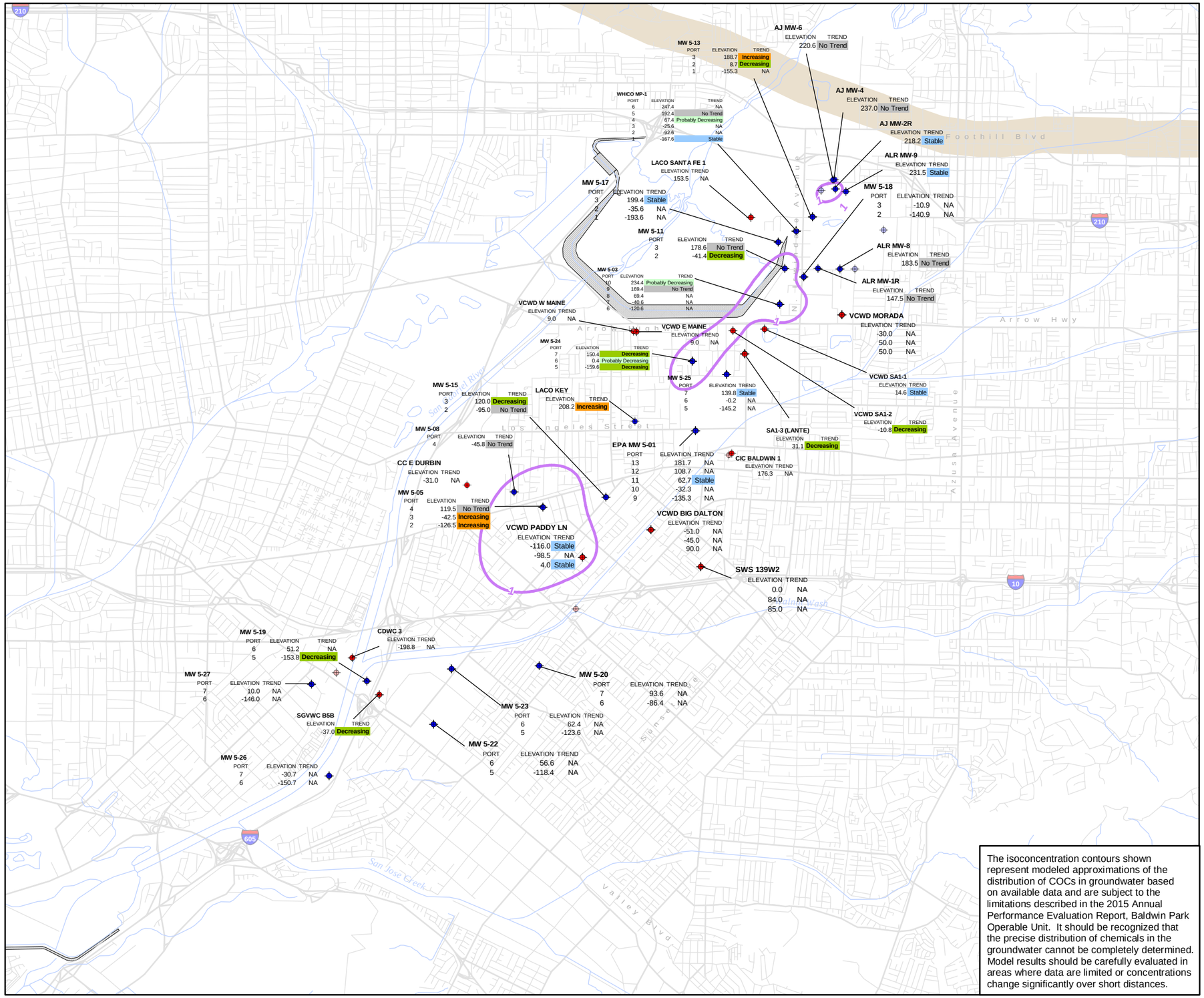
Note: Open symbols signify non-detects. All non-detects reported as zero.

ERM	PERCHLORATE CONCENTRATIONS, RAW AND TREATED WATER FOR CALIFORNIA DOMESTIC WATER COMPANY TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-53**



Note: Open symbols signify non-detects. All non-detects reported as zero.

ERM	NITRATE AS NO3 CONCENTRATIONS, RAW AND TREATED WATER FOR CALIFORNIA DOMESTIC WATER COMPANY TREATMENT PLANT (2015) Baldwin Park Operable Unit San Gabriel Valley, California	Project No. 32710118 Figure **6-54**



EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- 1,4-Dioxane composite isoconcentration contour for the elevation interval above -200 feet (1 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000
SCALE IN FEET

N

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

MANN-KENDALL TREND ANALYSIS FOR 1,4-DIOXANE RESULTS, 2004-2015 ABOVE -200 FEET MSL

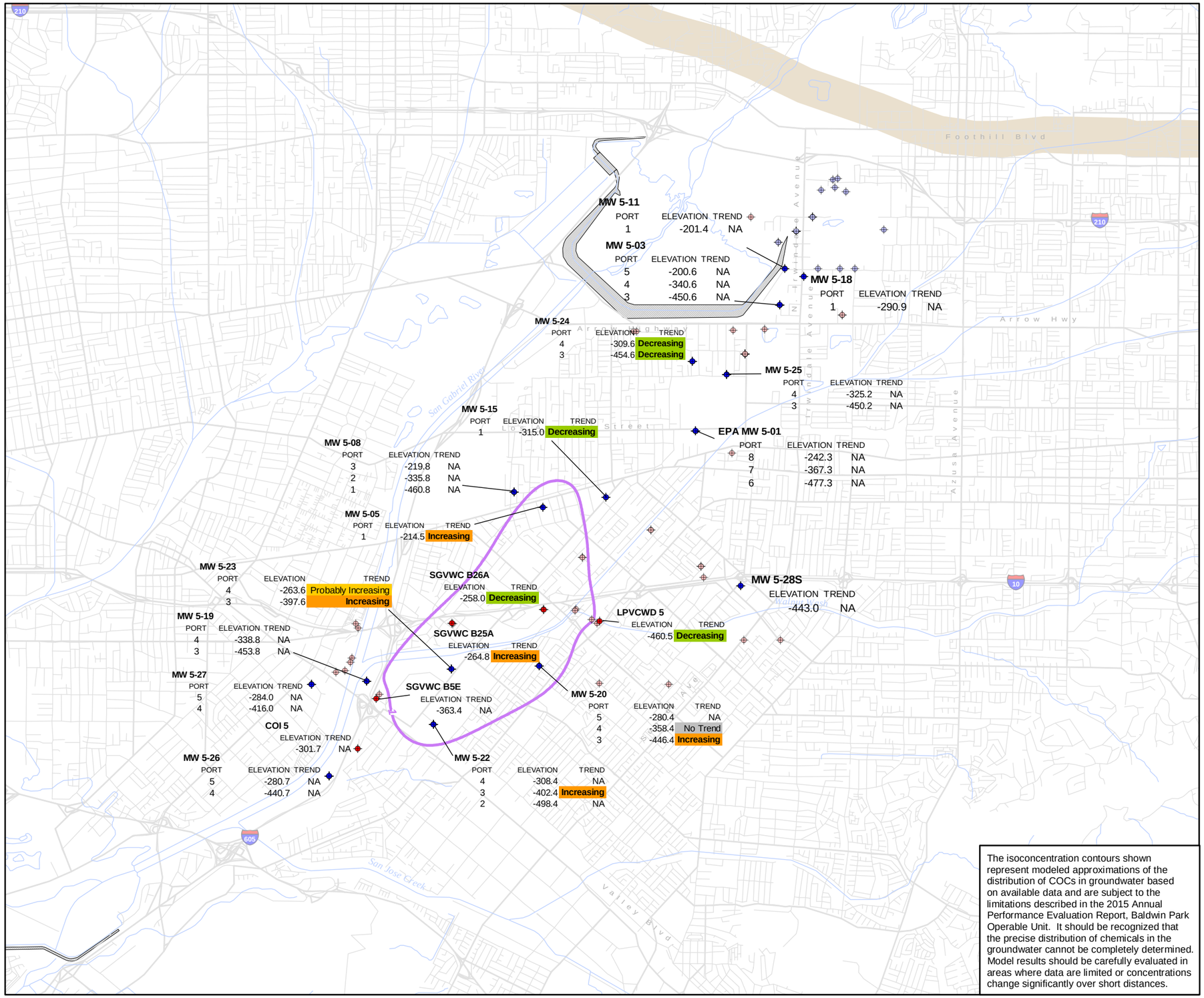
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-1

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\20160\4_2015PERI\Volume 1\7-01_MannKendall_trends_14DIOX_sh.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- 1,4-Dioxane composite isoconcentration contour for the elevation interval between -200 and -500 feet (1 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR 1,4-DIOXANE RESULTS, 2004-2015 BETWEEN -200 AND -500 FEET MSL

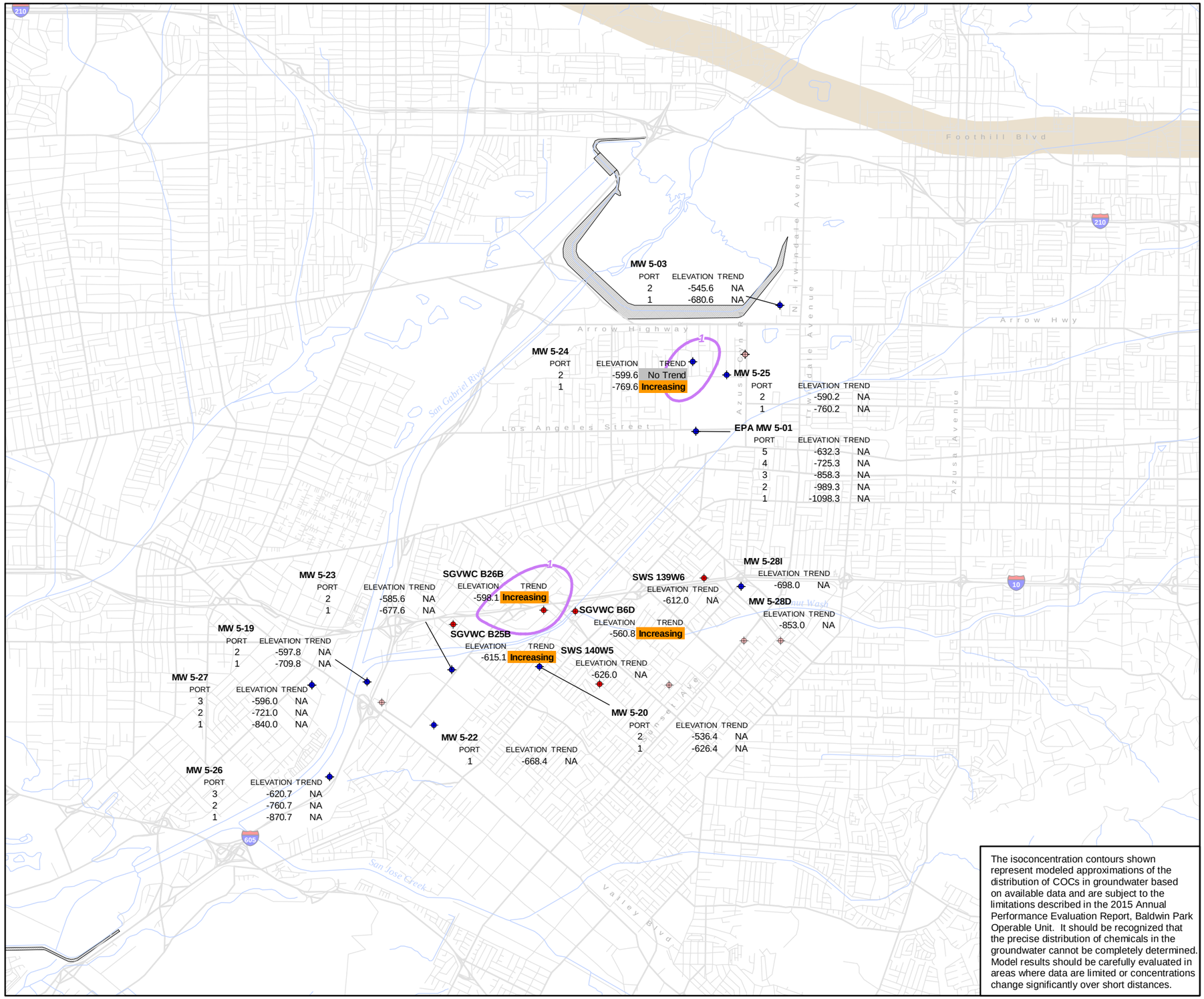
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-2

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-02_MannKendall_trends_14DIOX_int.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- 1,4-Dioxane composite isoconcentration contour for the elevation interval below -500 feet (6 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000
SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR 1,4-DIOXANE RESULTS, 2004-2015 BELOW -500 FEET MSL

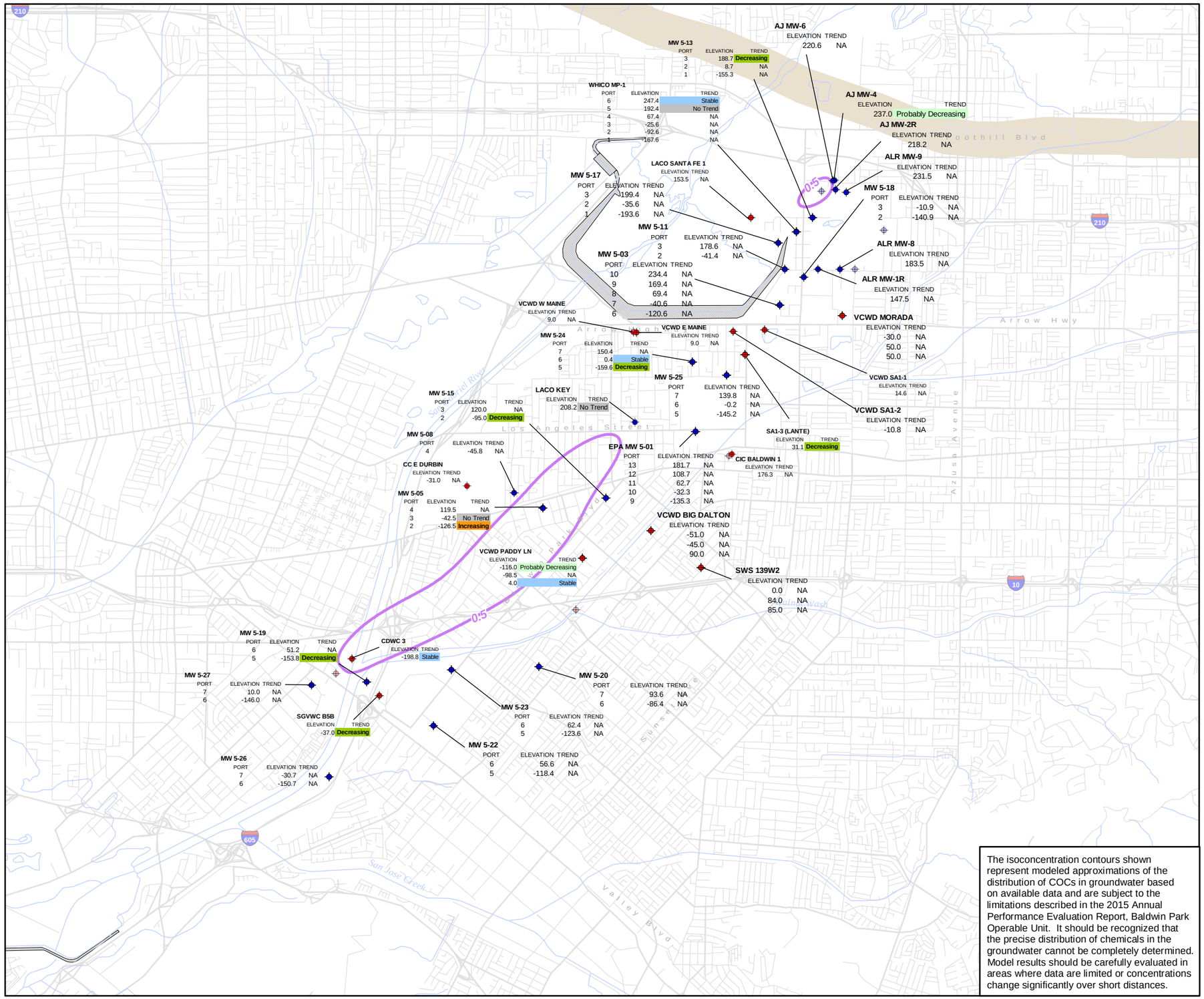
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-3

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-03_MannKendall_trends_14DIOX_dp.mxd



EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Carbon Tetrachloride composite isoconcentration contour for the elevation interval above -200 feet (0.5 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

MANN-KENDALL TREND ANALYSIS FOR CARBON TETRACHLORIDE RESULTS, 2004-2015, ABOVE -200 FEET MSL

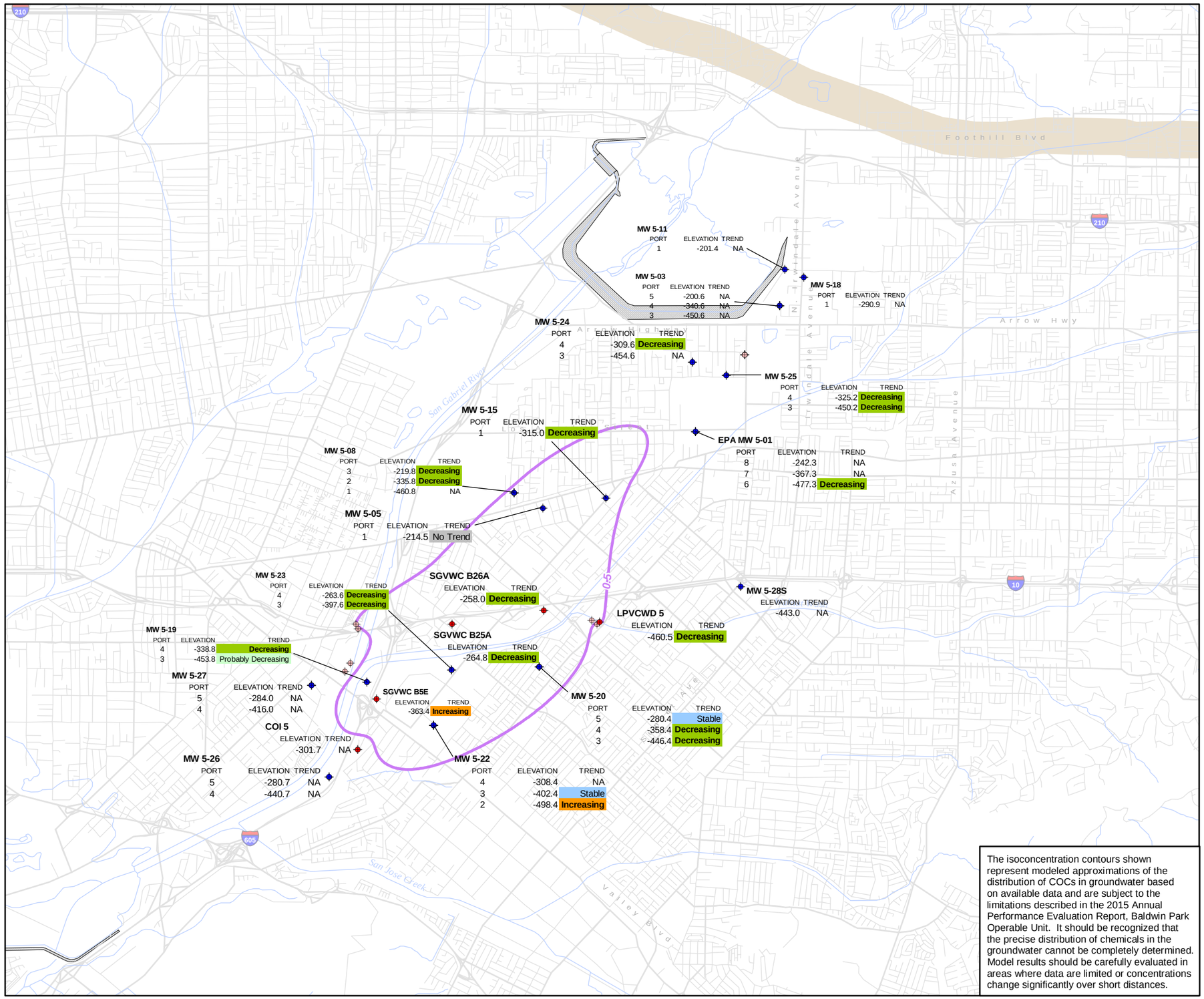
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-4

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-04_MannKendall_trends_CTC_sh.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Carbon tetrachloride composite isoconcentration contour for the elevation interval between -200 and -500 feet (0.5 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000
SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR CARBON TETRACHLORIDE RESULTS, 2004-2015 BETWEEN -200 AND -500 FEET MSL

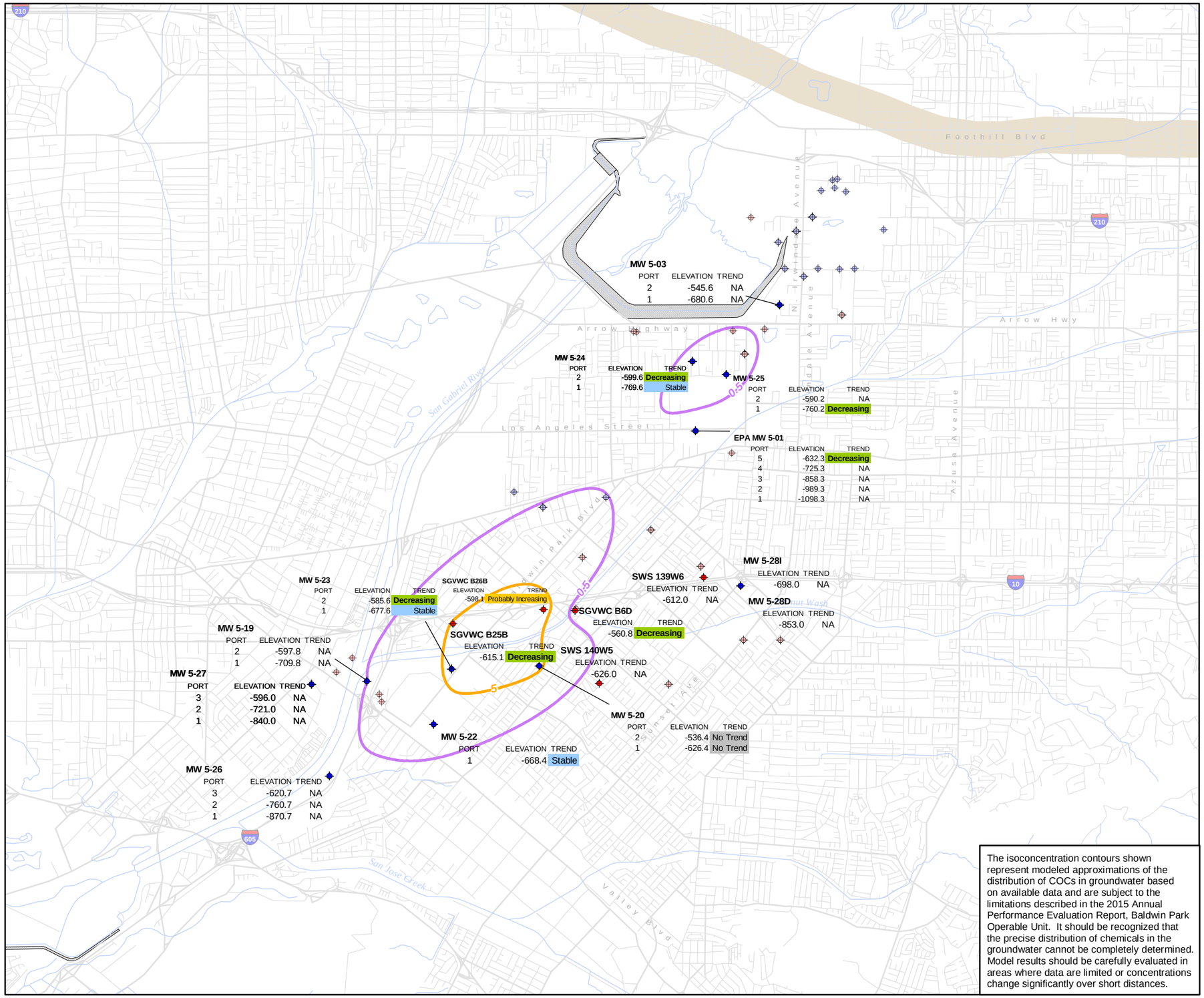
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-5

Path: \\sacramento-01\Data\G\SSAC150_BPOU\project\201604_2015PER\Volume 1\7-05_MannKendall_trends_CTC_int.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Carbon tetrachloride composite isoconcentration contour for the elevation interval below -500 feet (0.5 ug/L)
- Carbon tetrachloride composite isoconcentration contour for the elevation interval below -500 feet (5 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR CARBON TETRACHLORIDE RESULTS, 2004-2015 BELOW -500 FEET MSL

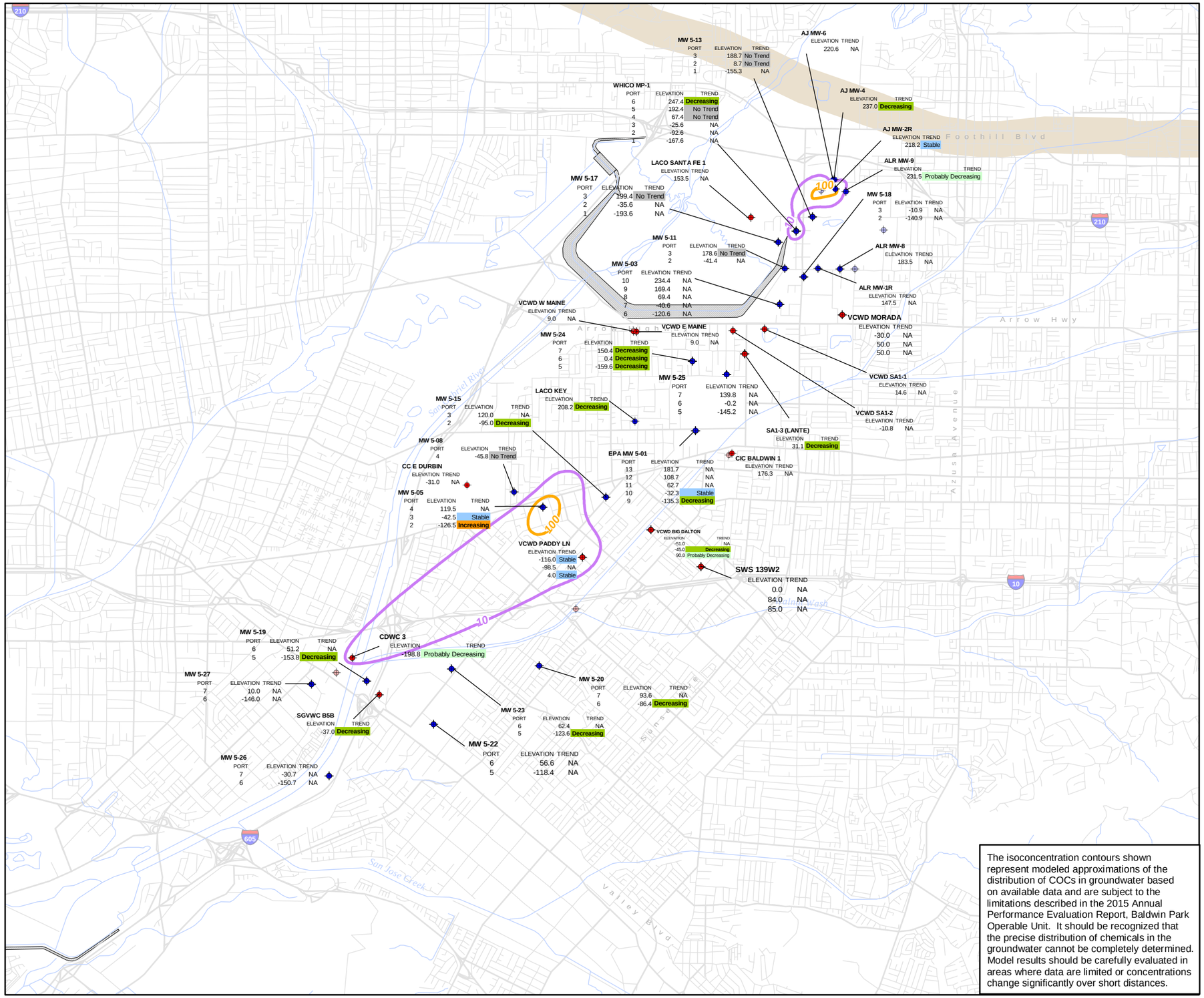
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-6

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-06_MannKendall_trends_CTC_dp.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval above -200 feet (10 ng/L)
- N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval above -200 feet (100 ng/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR N-NITROSODIMETHYLAMINE RESULTS, 2004-2015, ABOVE -200 FEET MSL

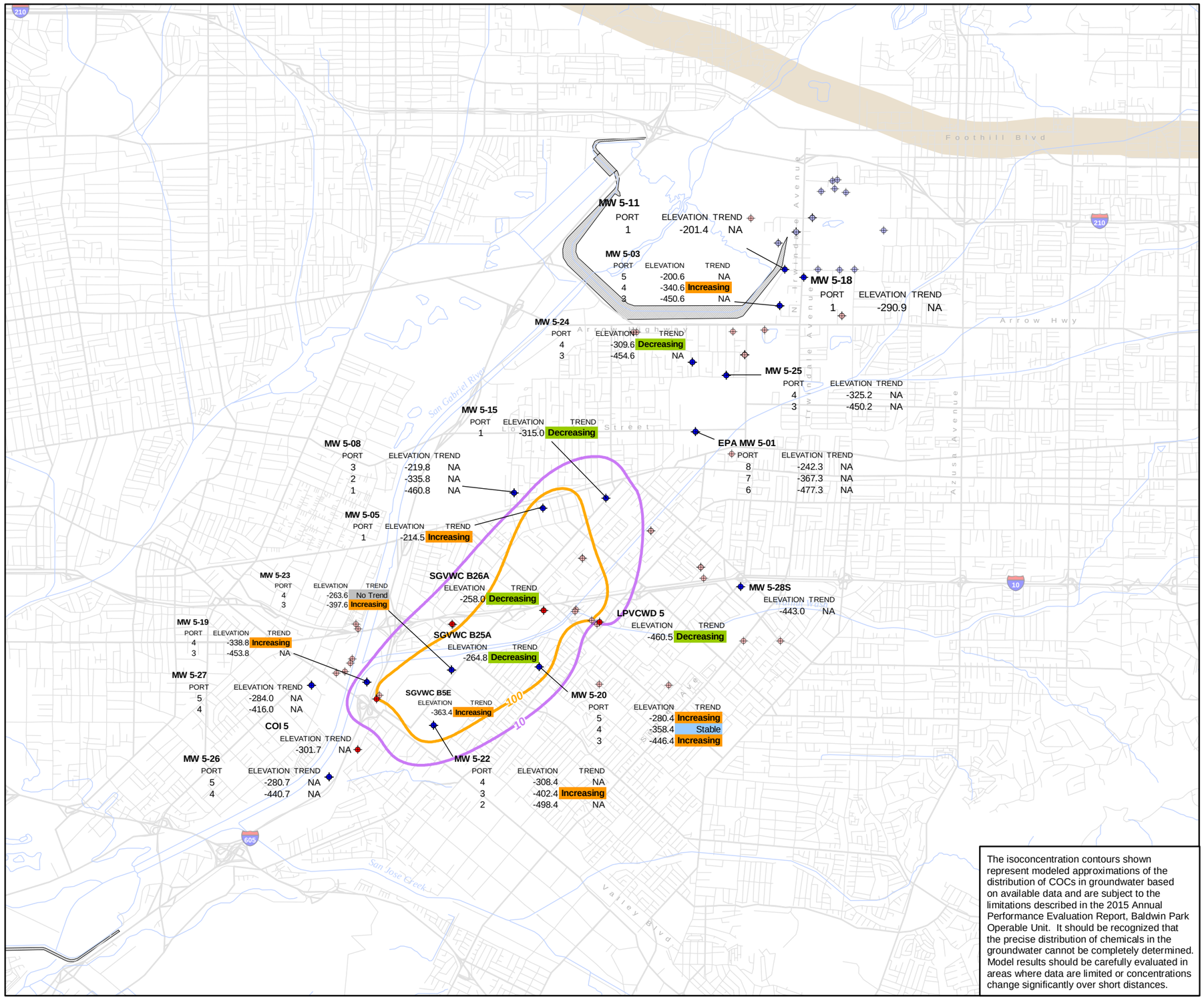
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-7

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-07_MannKendall_trends_NDMA_sh.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval between -200 and -500 feet (10 ng/L)
- N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval between -200 and -500 feet (100 ng/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR N-NITROSODIMETHYLAMINE RESULTS, 2004-2015, BETWEEN -200 AND -500 FEET MSL

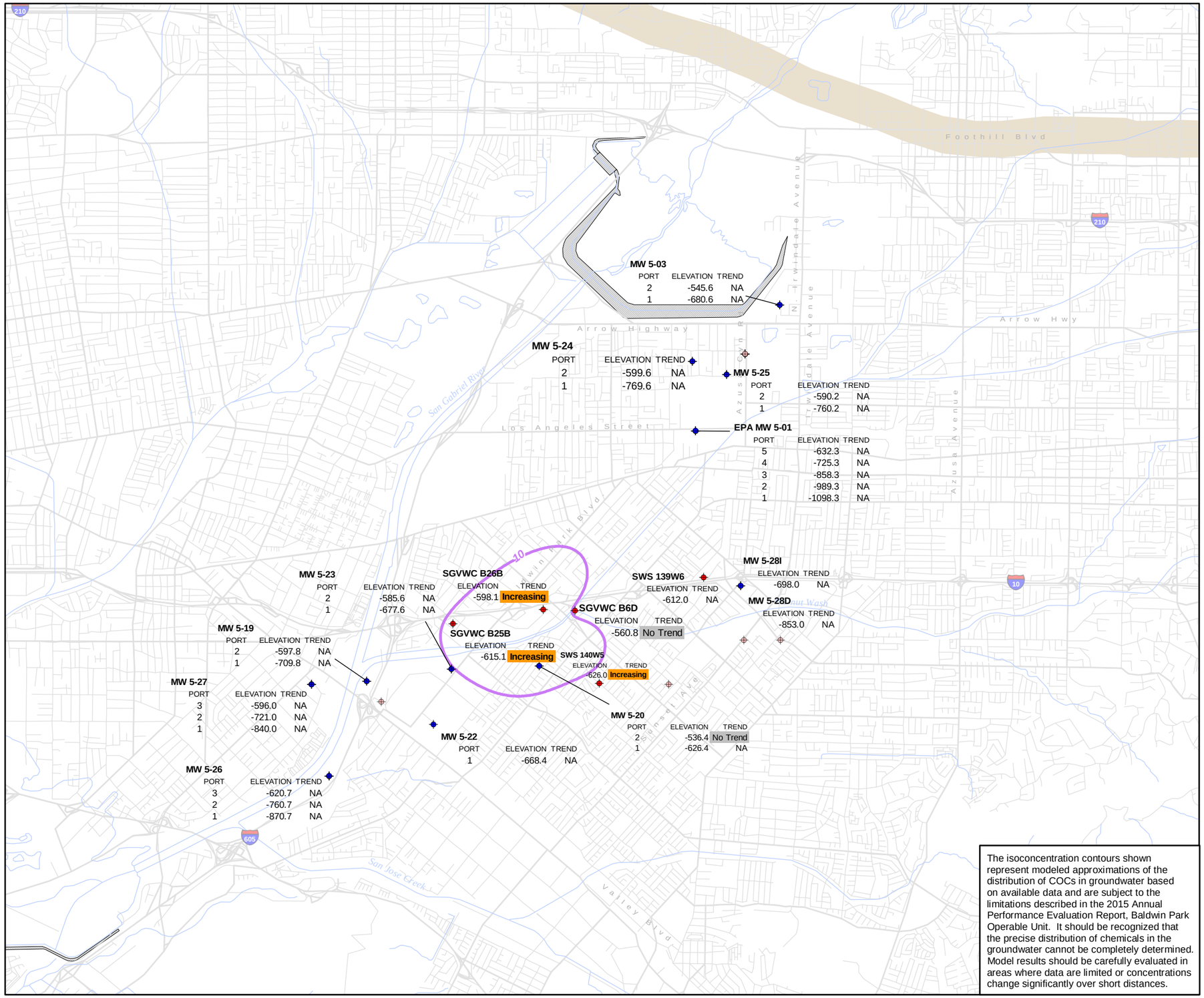
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-8

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-08_MannKendall_trends_NDMA_int.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval below -500 feet (10 ng/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR N-NITROSODIMETHYLAMINE RESULTS, 2004-2015, BELOW -500 FEET MSL

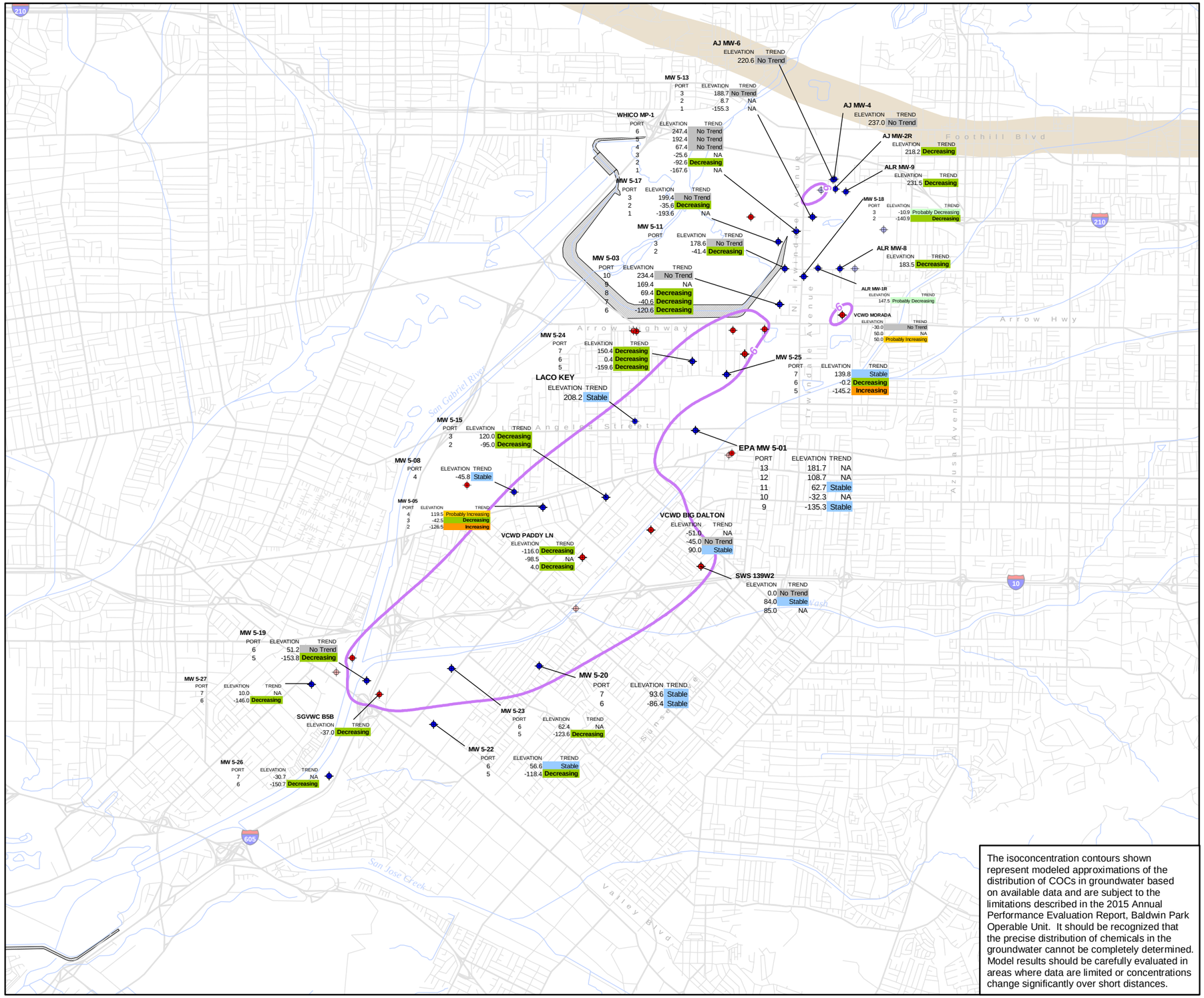
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-9

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-09_MannKendall_trends_NDMA_dp.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Perchlorate composite isoconcentration contour for the elevation interval above -200 feet (6 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR PERCHLORATE RESULTS, 2004-2015 ABOVE -200 FEET MSL

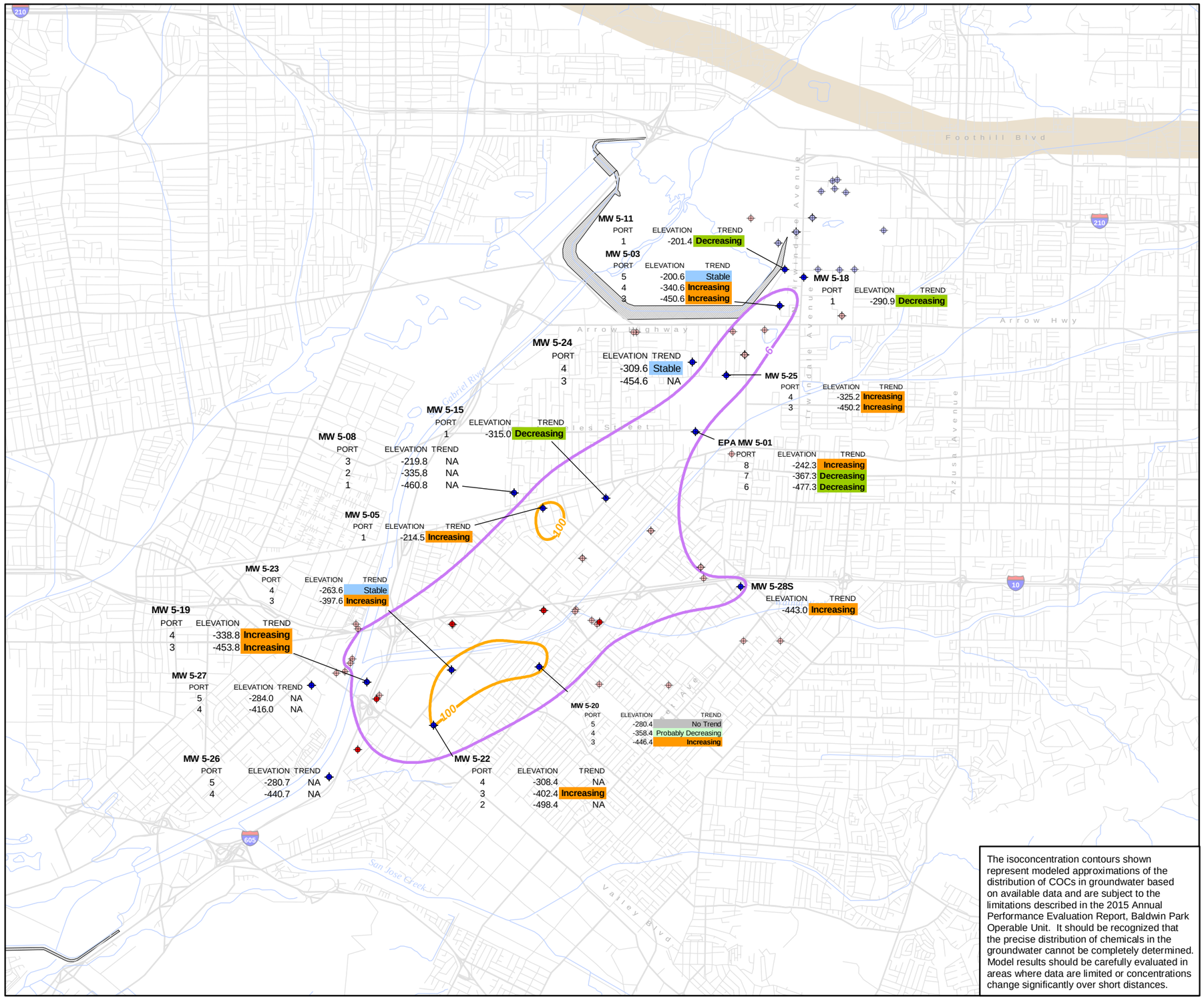
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-10

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-10_MannKendall_trends_PERCH_sh.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Perchlorate composite isoconcentration contour for the elevation interval between -200 and -500 feet (6 ug/L)
- Perchlorate composite isoconcentration contour for the elevation interval between -200 and -500 feet (100 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000
SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR PERCHLORATE RESULTS, 2004-2015 BETWEEN -200 AND -500 FEET MSL

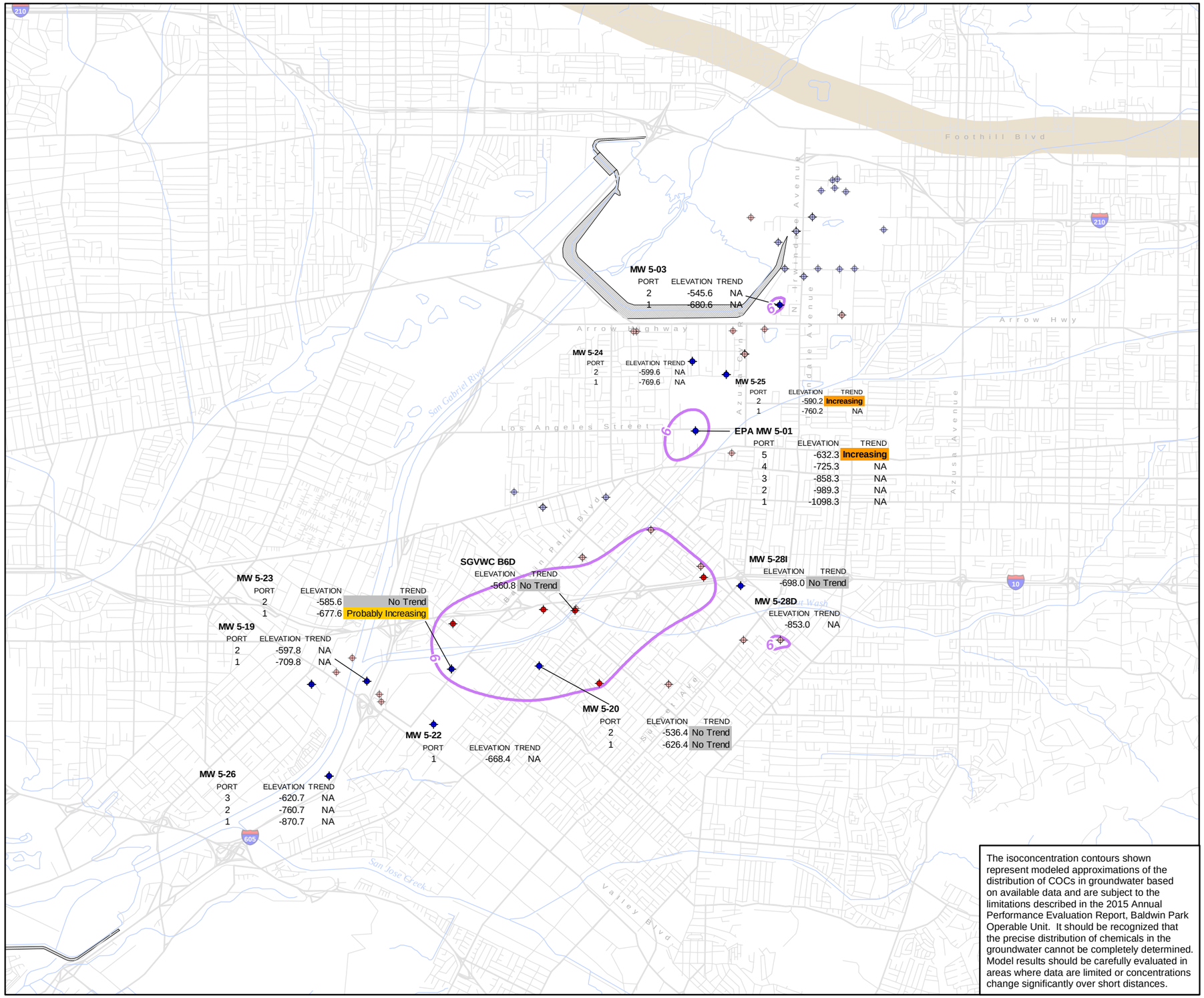
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-11

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-11_MannKendall_trends_PERCH_int.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Perchlorate composite isoconcentration contour for the elevation interval below -500 feet (6 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR PERCHLORATE RESULTS, 2004-2015 BELOW -500 FEET MSL

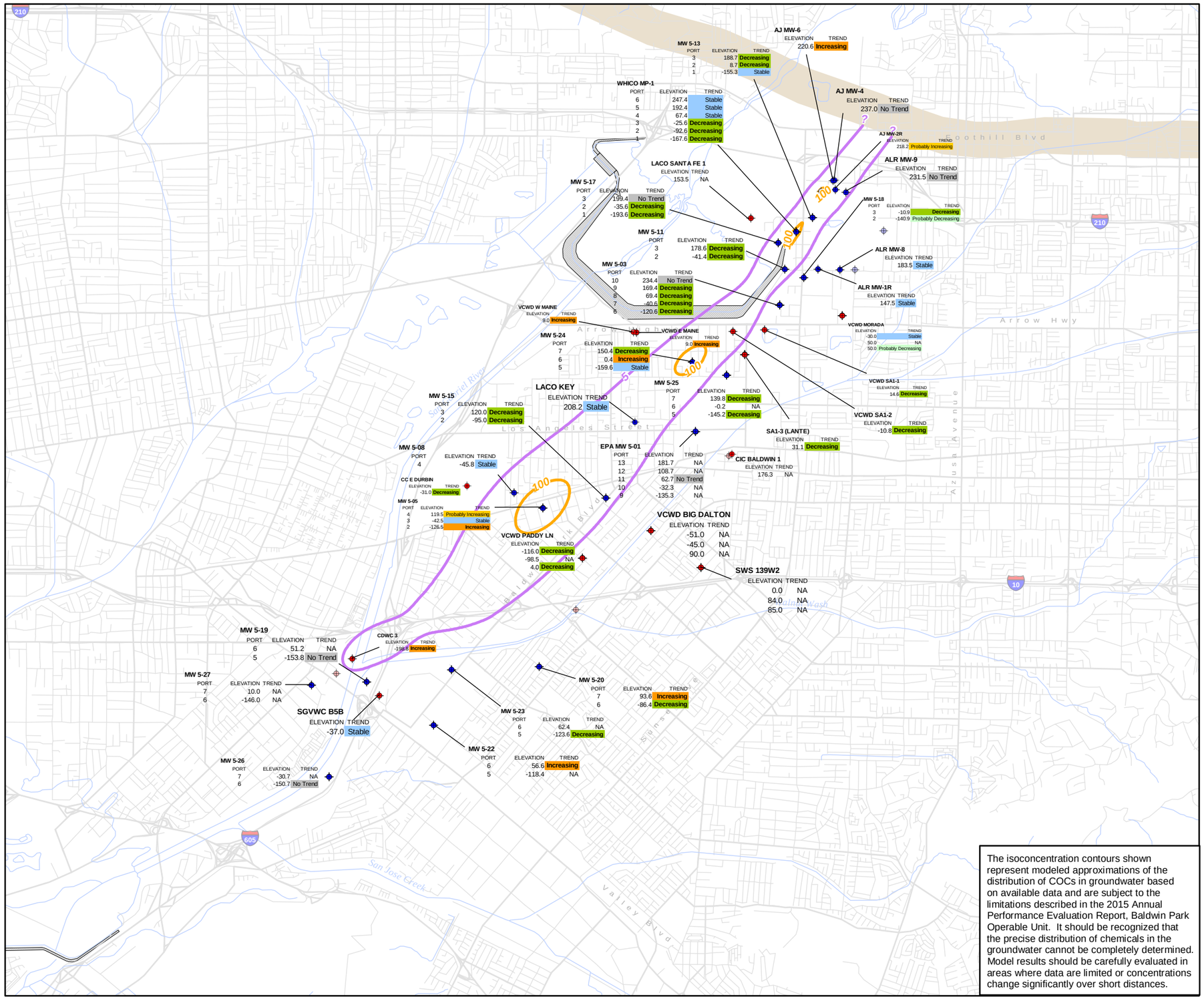
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-12

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-12_MannKendall_trends_PERCH_dp.mxd



EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Tetrachloroethene composite isoconcentration contour for the elevation interval above -200 feet (5 ug/L)
- Tetrachloroethene composite isoconcentration contour for the elevation interval above -200 feet (100 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

MANN-KENDALL TREND ANALYSIS FOR TETRACHLOROETHENE RESULTS, 2004-2015, ABOVE -200 FEET MSL

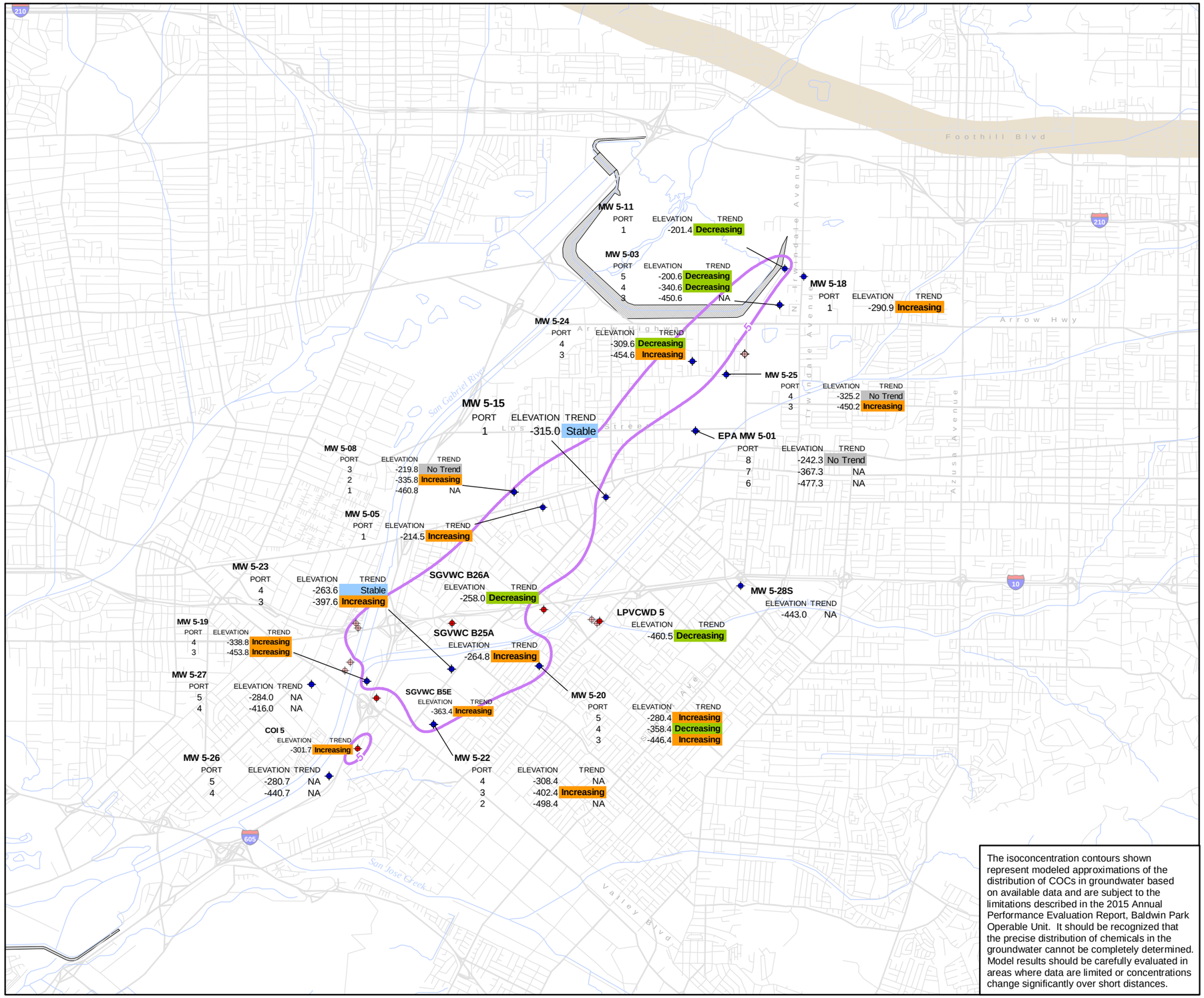
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-13

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-13_MannKendall_trends_PCE_sh.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Tetrachloroethene composite isoconcentration contour for the elevation interval between -200 and -500 feet (5 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR TETRACHLOROETHENE RESULTS, 2004-2015, BETWEEN -200 AND -500 FEET MSL

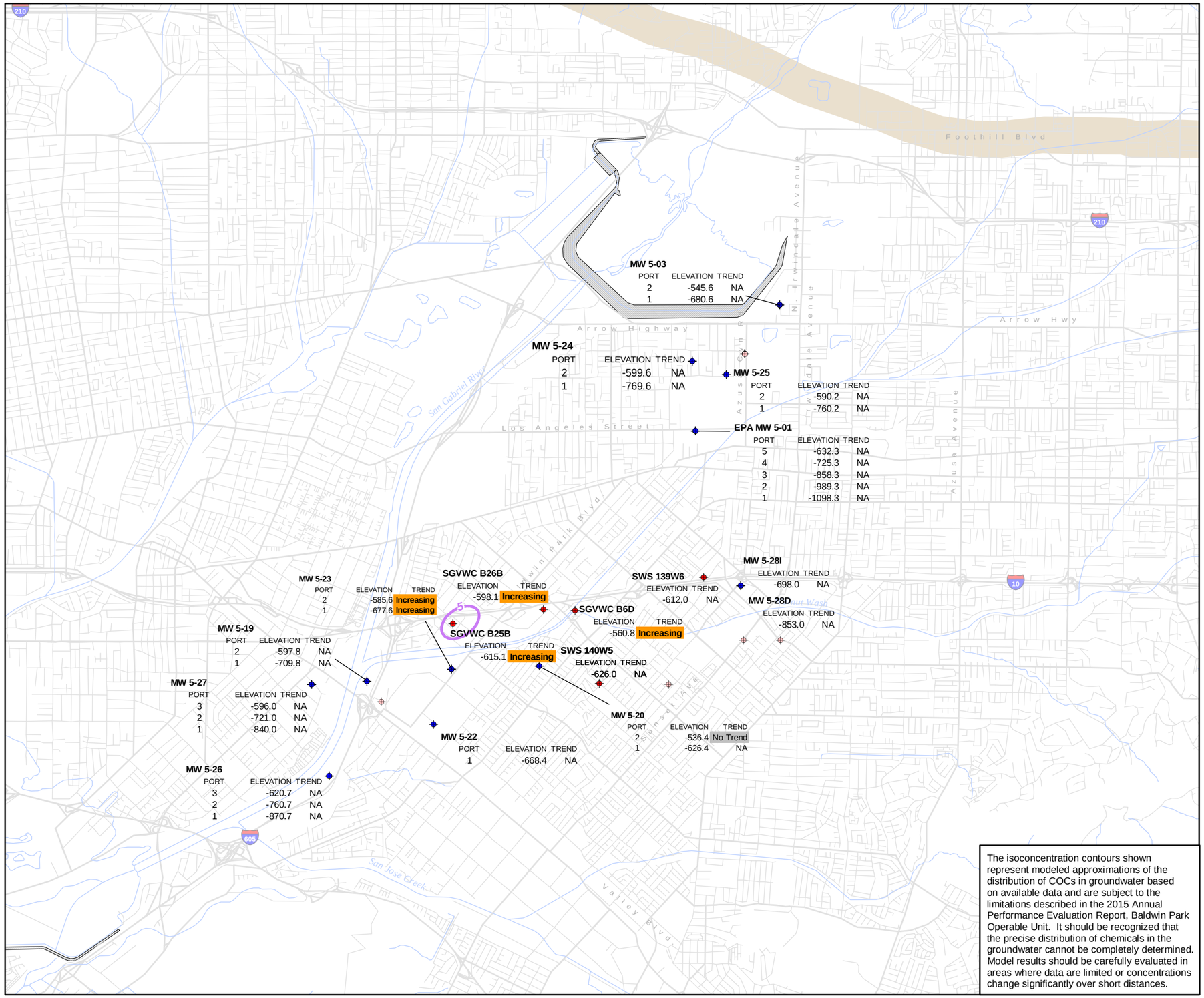
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-14

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-14_MannKendall_trends_PCE_int.mxd



EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Tetrachloroethene composite isoconcentration contour for the elevation interval below -500 feet (5 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

5,000 0 5,000
SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR TETRACHLOROETHENE RESULTS, 2004-2015, BELOW -500 FEET MSL

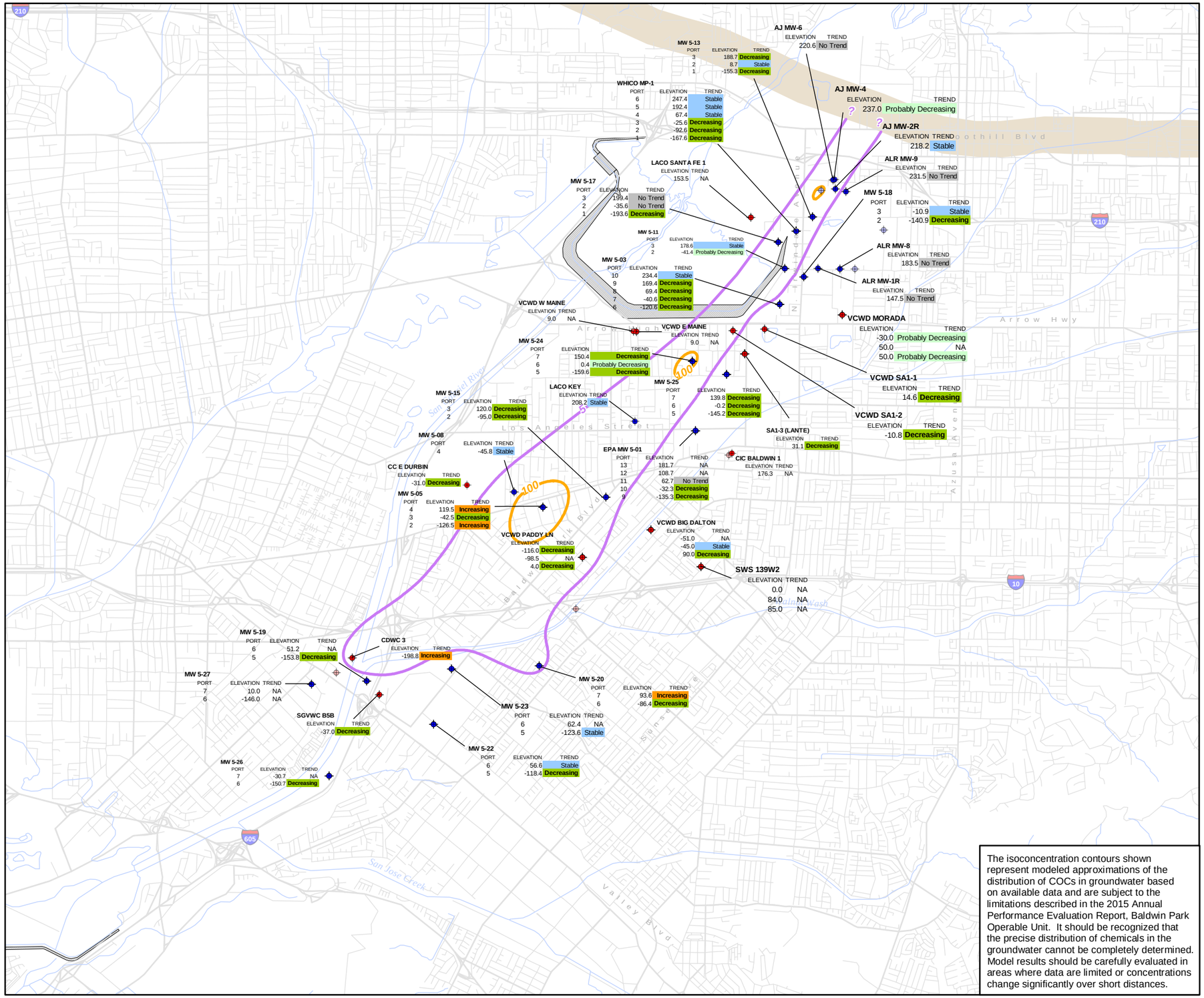
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-15

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-15_MannKendall_trends_PCE_dp.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Trichloroethene composite isoconcentration contour for the elevation interval above -200 feet (6 ug/L)
- Trichloroethene composite isoconcentration contour for the elevation interval above -200 feet (100 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR TRICHLOROETHENE RESULTS, 2004-2015 ABOVE -200 FEET MSL

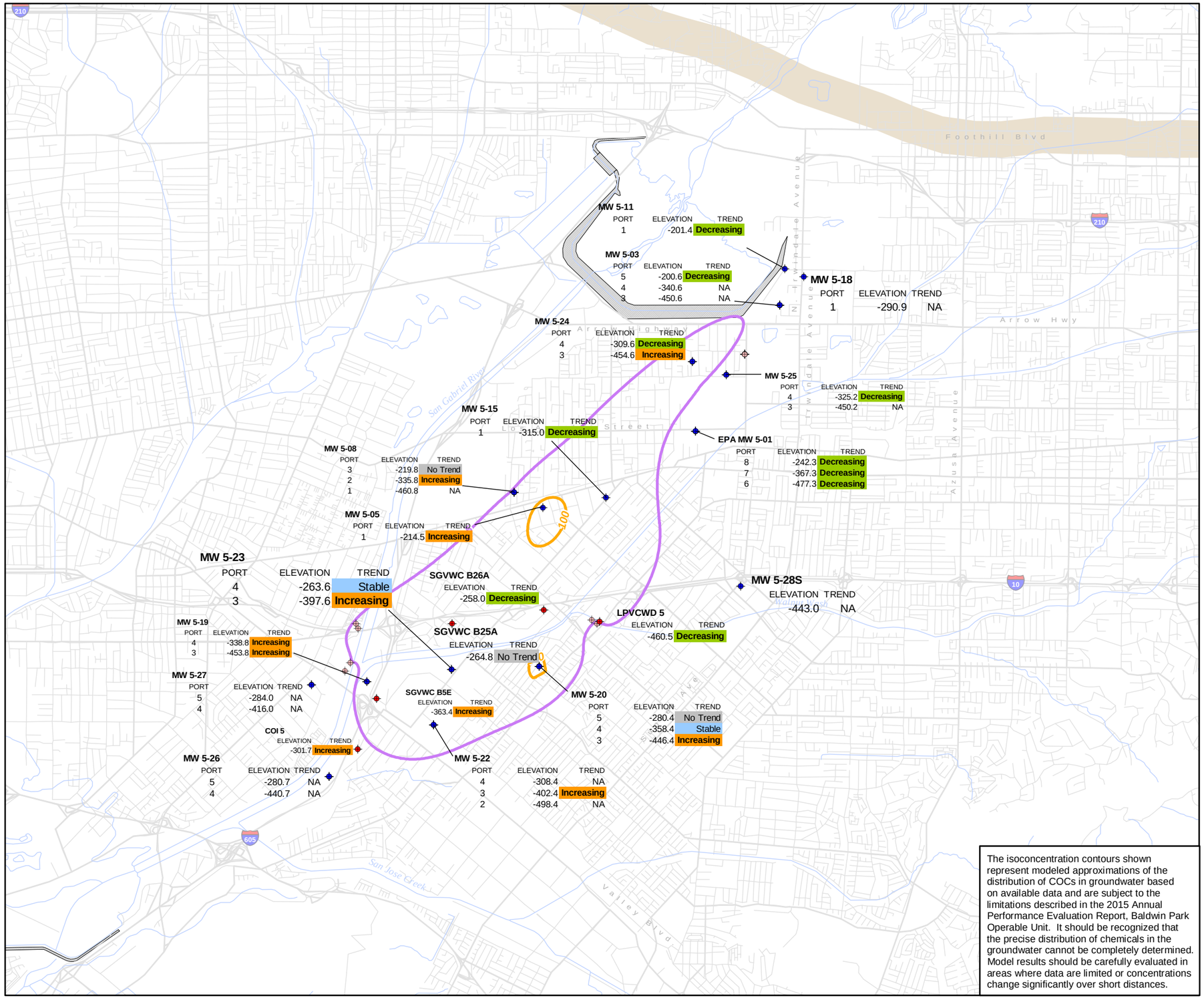
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-16

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\20160\4_2015PERIV\Volume 1\7-16_MannKendall_Trends_TCE_sh.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Trichloroethene composite isoconcentration contour for the elevation interval between -200 and -500 feet (5 ug/L)
- Trichloroethene composite isoconcentration contour for the elevation interval between -200 and -500 feet (100 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 2004-2015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR TRICHLOROETHENE RESULTS, 2004-2015 BETWEEN -200 AND -500 FEET MSL

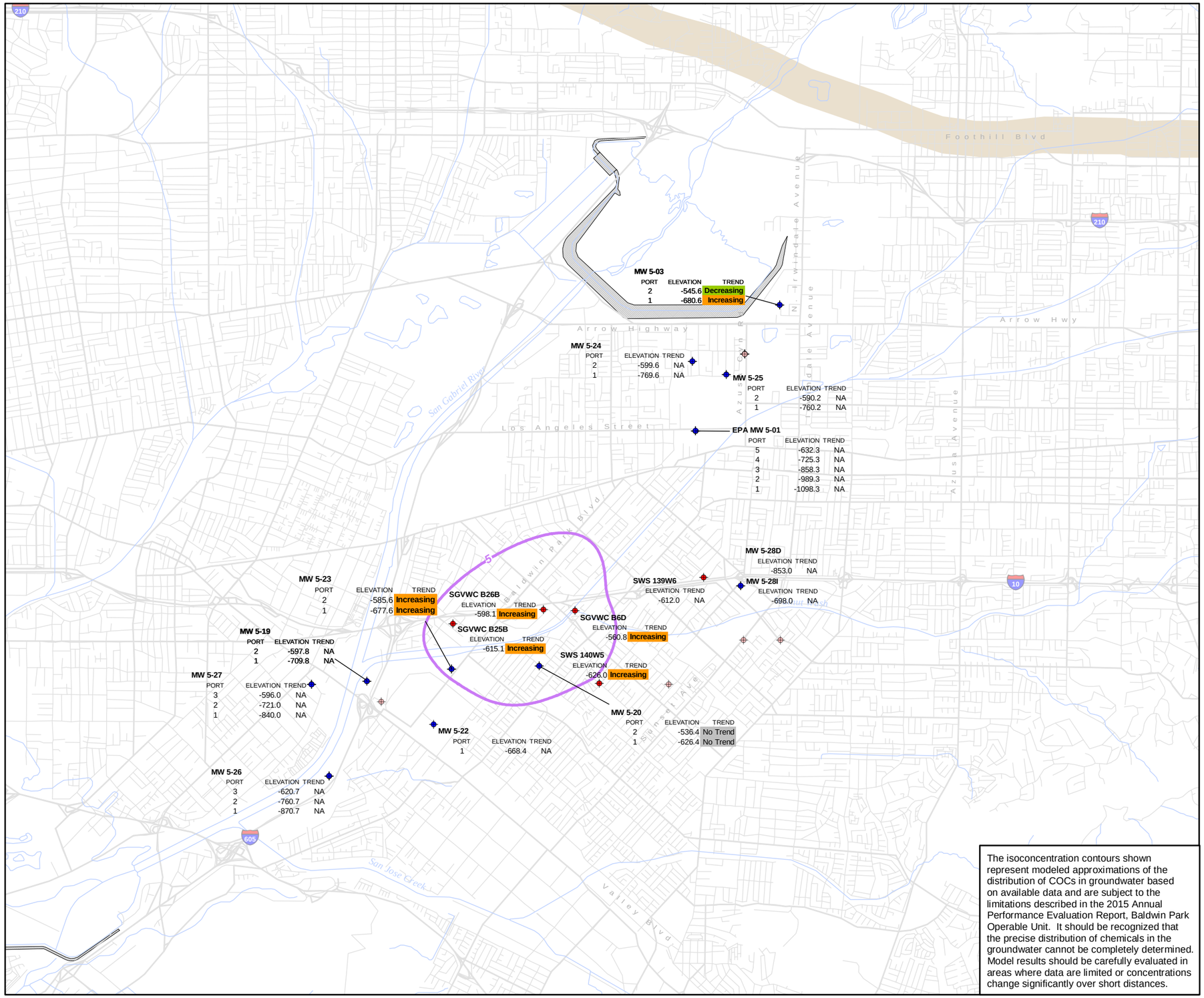
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-17

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\201604_2015PER\Volume 1\7-17_MannKendall_trends_TCE_int.mxd



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2015 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

EXPLANATION

- Production or extraction well
- Production or extraction well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Monitoring and multiport well
- Monitoring and multiport well (Mann-Kendall analysis not performed, refer to Notes 2 and 3)
- Trichloroethene composite isoconcentration contour for the elevation interval below -500 feet (5 ug/L)
- Duarte Fault Zone

NOTES:

1. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, Earth Volumetric Studio® (EVS).
2. Posted trends are based on sampling results for the specified elevation range.
3. Mann-Kendall trend evaluations were performed using data collected from 201042015.
4. A complete summary of the Mann-Kendall analysis is presented in Appendix C. The following decision matrix was used to interpret trends based on the calculated confidence of the S test statistic:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
S<0	95%	Decreasing
S<0	90-95%	Probably Decreasing
S≤0	90% and COV<1	Stable
S≤0	90% and COV≥1	No Trend
S>0	<90%	No Trend
S>0	90-95%	Probably Increasing
S>0	>95%	Increasing
Not analyzed due to <50% detection frequency		NA

5,000 0 5,000

SCALE IN FEET

N

MANN-KENDALL TREND ANALYSIS FOR TRICHLOROETHENE RESULTS, 2004-2015 BELOW -500 FEET MSL

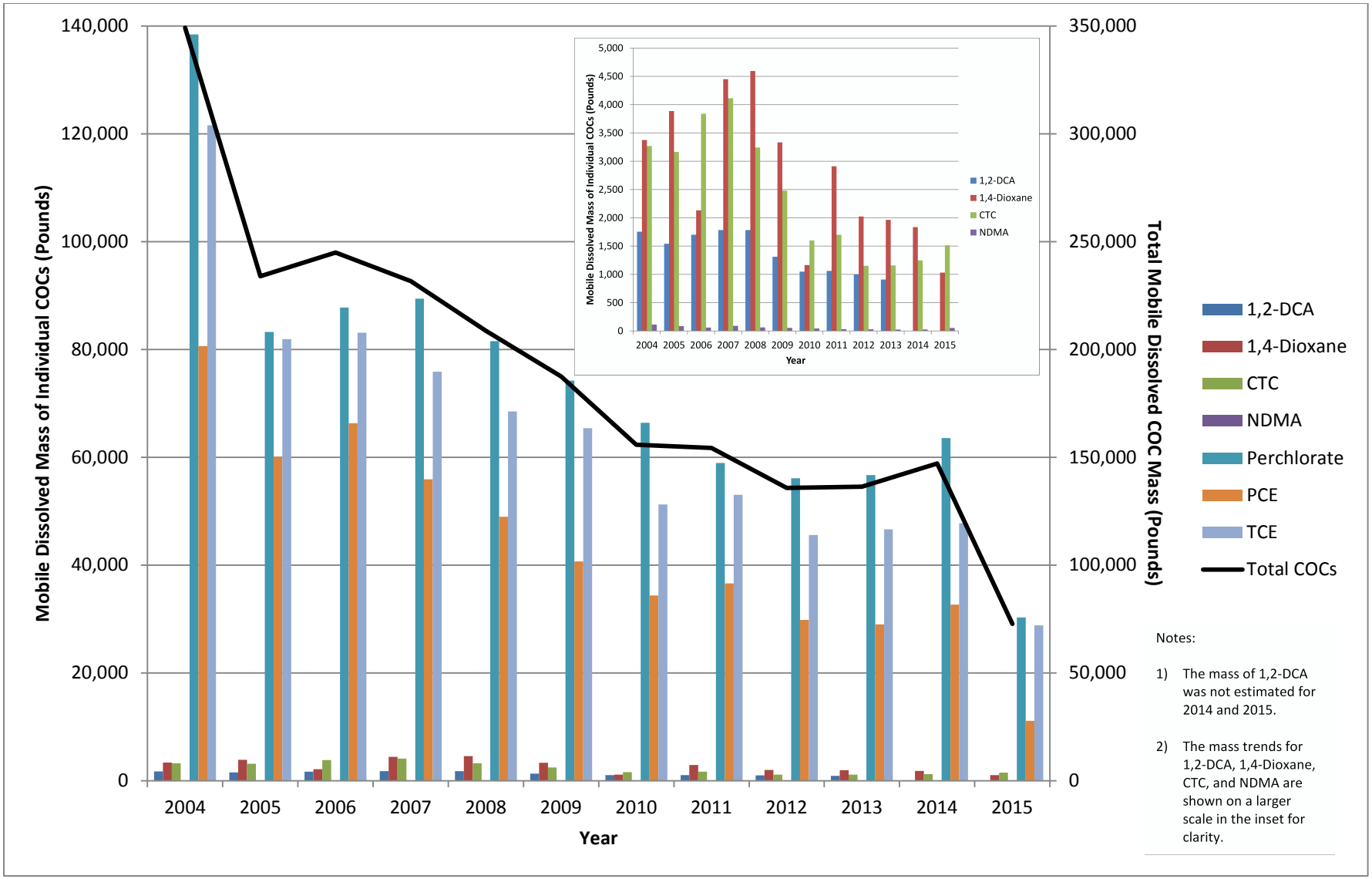
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Figure 7-18

Path: \\sacramento-01\Data\GIS\SAC150_BPOU\project\20160/4_2015PERIV\volume 1\7-18_MannKendall_trends_TCE_dp.mxd



Notes:

1) The mass of 1,2-DCA was not estimated for 2014 and 2015.

2) The mass trends for 1,2-DCA, 1,4-Dioxane, CTC, and NDMA are shown on a larger scale in the inset for clarity.

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ESTIMATED MOBILE DISSOLVED COC MASS IN GROUNDWATER
Baldwin Park Operable Unit
San Gabriel Valley, California

Project No. SAC150

Figure 7-19