Technical Memorandum

To: **Edith Moreno, San Diego Gas & Electric Company (SDG&E)**

From: Joshua Taylor and Anand Helekar, P.E.

Subject: Mitigation Measure Hazards-5
Date: November 8, 2016
CC: Don Houston, SDG&E
Jennifer Kaminsky, SDG&E
Neal Bartek, SDG&E
Project: Sycamore to Penasquitos 230kV Transmission Line

This memorandum was prepared to demonstrate that SDG&E has satisfied the pre-construction requirements for Mitigation Measure (MM) Hazards-5 of the Final Environmental Impact Report (FEIR) and the Project's Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) for the Sycamore to Penasquitos 230kV Transmission Line Project (Project). The full text of MM Hazards-5 is provided below for your reference.

> **MM Hazards-5: Soil and Groundwater Testing.**
> *Soil samples shall be taken from representative sampling locations prior to construction excavation near any open hazardous materials site and shall be tested to determine the presence and extent of hazardous materials. The sampling and testing plan shall be prepared and conducted by an appropriate California licensed professional and sent to a California Certified laboratory. Soil and groundwater samples shall be tested at a California Certified Laboratory. A report documenting the areas proposed for sampling, and the process to be used for sampling and testing shall be submitted to the CPUC for review and approval at least 60 days before construction. Results of the laboratory testing and recommended resolutions for handling of excavation material found to exceed regulatory requirements shall be submitted to the CPUC 30 days prior to construction. In the event that soils to be excavated are found to be contaminated, the excavated soil shall be treated as hazardous materials and disposed of in compliance with state and federal regulations and SDG&E operational procedures. Effective dust suppression procedures will be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. Regulatory agencies for the State of California (DTSC or RWQCB) and San Diego County shall be contacted by SDG&E or its contractor to plan handling, treatment, and/or disposal options.*

In compliance with MM Hazards-5, TRC reviewed the open hazardous materials release sites (Sites) listed in the FEIR to evaluate the potential need for pre-construction soil and/or groundwater testing along the Project alignment where Project excavation activities occur in close proximity to a Site. TRC also reviewed the online government databases (Envirostor and GeoTracker[1]) to verify that no new open hazardous waste site cases were discovered near the Project since the FEIR was completed.

[1] See http://www.envirostor.dtsc.ca.gov/public/ and http://geotracker.waterboards.ca.gov/

Table 4.11-11 (FEIR at 4.11-70) identified two Sites along the Project route (see Exhibit 1, Alternative 5 Hazardous Materials Release Sites Map):

- Site No. 1 – Shell Service Station located at 9840 Miramar Road, San Diego, CA 92126
- Site No. 2 – Sunflower Properties, Inc. location at 9755 Distribution Avenue, San Diego, CA 92121

Each of these Sites is discussed in more detail below.

Site No. 1: Shell Service Station

Site History and Current Status

Site No. 1 is a Shell Service Station (gas station), located at 9840 Miramar Road, San Diego, CA 92126. The Project alignment is located near Site No. 1, within Miramar Road, approximately 100 feet south from the Site. Site No.1 was a leaking underground storage tank (or LUST) site with primary case management provided by the San Diego County Department of Environmental Health (DEH) and soil and groundwater contamination from gasoline (petroleum hydrocarbons). The case was opened in 2004, and has subsequently been closed as of March 25, 2016 (DEH, 2016), with no further action required. TRC notes that the FEIR was published on March 8, 2016, and therefore FEIR Table 4.11-11 still listed Site No. 1 as an open case.

Site No. 2: Sunflower Properties, Inc.

Site History and Current Status

Site No. 2 is a former chemical storage and distribution facility located at 9755 Distribution Avenue, San Diego, CA 92121. The Project alignment is located approximately 1,350 feet north and 1,300 feet west/northwest of Site No. 2, within Trade Street and Camino Santa Fe, respectively. Site No. 2 conducted operations (receiving, selling, and distribution) of dry cleaning supplies, including tetrachloroethylene or perchloroethylene (PCE), between approximately 1975 and 1990 (Gannett Fleming, 2016). Several accidental surface releases of PCE were reported during the facility's operation and chemicals of potential concern at the site include volatile organic compounds (VOCs), such as PCE, trichloroethylene (TCE), cis-1, 2-dichloroethylene (DCE), vinyl chloride, methylene chloride, chloroform, carbon tetrachloride and benzene, toluene, ethylbenzene, and total xylenes (BTEX). The site has been subject to remediation and site assessment beginning in approximately 1997 under the oversight of both the California Department of Toxic Substances Control (DTSC – Case No. 37590003), and the San Diego Regional Water Quality Control Board (RWQCB – Case No. 2090018 – impacts more than 40 feet below ground surface, including *groundwater*) (DTSC and State Water Resources Control Board [SWRCB], 2016). The DTSC continues to act as the Lead oversight agency and the site currently has operation of soil vapor extraction (SVE) and sub-slab depressurization (SSD) remediation systems used to remediate soil vapor contamination at Site No.2 property.

Site Conditions

Contamination has been detected, centering at the Site from two likely discharge (accidental surface release) points: 1) near a railway offloading area along the southern border of the Site; and 2) at a former truck loading dock area on the northern end of the Site (refer to Attachment A, Figure 2).

Soil and groundwater contamination has been detected at the Site with the highest concentrations of PCE in soil vapor found adjacent to the train loading dock on the south side of the site structure[2]. At Site No. 2, the depth to groundwater is approximately 167 feet below ground surface (bgs) and the groundwater flow direction is to the south/southwest (Gannett Fleming, 2016). Figures from the Second Semi-Annual 2015 Groundwater Sampling Report (Gannett Fleming, 2016) have been included as Attachment A of this Memorandum, and Figure 4 depicts current ground water flow gradient and elevation contours at Site No. 2.

Contamination Profile

PCE has been detected, centering at the Site from two likely discharge points: 1) near a railway offloading area along the southern border of the Site; and 2) at a former truck loading dock area on the northern end of the Site (refer to Attachment A, Figure 2).

Soil contamination at the Site is generally highest from 2 to 15 feet bgs, with results generally being less than 5 micrograms per kilogram (µg/kg) at depths of 25 to 40 feet bgs. Soil sampling along the northwest perimeter of the site (Borings B-13, B-05, B-06, and MW-03 - see Attachment B, Figure 7[3]) indicated PCE concentrations ranging from less than 1 µg/kg to 5,800 µg/kg. The only two samples above 112 µg/kg were taken at depths of 15 and 20 feet bgs at boring B-05 (refer to Attachment B). However, samples taken from B-05 above and below these depths were below 5 µg/kg. In addition, soil samples taken at the other sampling locations along the northwest perimeter of the site ranged from less than 5 µg/kg to 112 µg/kg at the 15 to 25 feet bgs depth range.

Figures 5A through 5C within Attachment A depict the 2015 groundwater concentrations of PCE, TCE, and DCE at the Site No. 2 monitoring wells. As shown on Figure 5, the groundwater contamination is centered on the Site, and the two downgradient monitoring wells (MW7 and MW9) show significantly lower concentrations of PCE than the wells located at or immediately adjacent to Site No. 2[4]. Groundwater contamination plumes are centered at the train loading rack and extend south and west, consistent with the groundwater flow direction. The extent of the groundwater plume from the train loading rack (defined as the 10 micrograms per liter [µg/l] contour line) is less than 50 feet north, and approximately 400 feet west of the Site. The Project is located approximately 900 feet from the extent of the south and west flowing groundwater contamination plume.

Recommendations

Site No. 1 (Miramar Shell): Due to the updated status of Site No. 1 subsequent to the FEIR (Case closed as of March 25, 2016), Site No.1 is no longer considered an open hazardous materials site subject to the testing requirements of MM Hazards-5.

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2 http://www.envirostor.dtsc.ca.gov/public/deliverable_documents/4134916007/Sunflower%20Properties%20-%20Imminent%20and%20Substantial%20Endangerment%20Determination%20and%20Remedial%20Action%20Order.pdf

3 Final Remedial Action Plan, 9755 Distribution Avenue (September 2002).

4 November 2015 sample at MW6 (southwest corner of Site No. 2) had a PCE concentration of 58,000 micrograms per liter (µg/l) whereas MW7 (500 feet downgradient from Site No. 2) had a PCE concentration of less than 1 µg/l.

Site No. 2 (Sunflower Properties): Due to the following factors, TRC finds no reasonable potential effect on the Project from Site No. 2 and concludes that soil or groundwater sampling is not required:

- PCE groundwater contamination at Site No.2 is centered on the Site No. 2 property itself, with downgradient wells located approximately 400 to 500 feet south and southwest of the site having consistent PCE concentrations below the MCL during the past 5 years.
- Soil contamination at the site is generally less than 5 µg/kg at depths 40 feet bgs and deeper, and is also centered at the site property with samples taken along the perimeter of the site having significantly lower concentrations of PCE that those samples taken near the release points.
- Excavation depths for the Project are located approximately 1,300 feet north of the Site No. 2 property and would generally be about 8 feet bgs, on average.
- Groundwater depth at Site No.2 is approximately 167 feet bgs.
- Project excavation depths (~ 8 feet bgs) are well above the local depth to groundwater (167 feet bgs).
- The Project alignment is at least approximately 900 feet from the documented limits of the groundwater contamination plume and approximately 1,300 feet north of the furthest point where soil contamination was recorded (see Figure 5 in Attachment A and Figure 7 in Attachment B).
- There is no indication within the record that local geology would support the shallow level transport (2 – 40 feet bgs) beyond the known soil and groundwater contamination plumes.

References

California Department of Toxic Substances Control (DTSC), 2016. Envirostor Online Database, Sunflower Properties, Inc. – Envirostor ID 37590003. Online: http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=37590003 Site accessed October 2016.

California Public Utilities Commission, 2016. SDG&E Sycamore-Peñasquitos 230-kV Transmission Line Project Final Environmental Impact Report. March 2016. Online: http://www.cpuc.ca.gov/Environment/info/panoramaenv/Sycamore_Penasquitos/FEIR.html

County of San Diego, Department of Environmental Health, 2016. Case H13016-002 Case Closure Notice and Summary. March 25, 2016.

Gannet Fleming, 2016. 2015 Second Semi-Annual Groundwater Monitoring Report. January 2016.

State Water Resources Control Board (SWRCB), 2016. Geotracker Online Database, Sunflower Properties, Inc. – Geotracker ID T06019732802. Online: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL0607363006 Site accessed October 2016.

SWRCB, 2016. Geotracker Online Database, Miramar Shell. – Geotracker ID SL0607363006. Online: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T06019732802 Site accessed October 2016.

URS, 2002. Final Remedial Action Plan, 9755 Distribution Avenue, San Diego, California. September 2002.

Preparation and Certification

This Technical Memorandum was prepared in compliance with Mitigation Measure Hazazrds-5, as found within the Final Environmental Impact Report prepared by the California Public Utilities Commission for the SDG&E Sycamore to Penasquitos 230kV Transmission Line Project by Joshua Taylor and Anand Helekar, P.E. with TRC, Inc. We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 40 CFR 312.10 and that we have the specific qualifications based on education, training and experience to assess the nature, history and setting of the subject Sites and their potential relation to the Project.

Joshua Taylor
TRC

Anand Helekar, PE
TRC

EXHIBITS

Sycamore to Peñasquitos 230kV Transmission Line Project

Exhibit 1

Alternative 5 - Hazardous Materials Release Site Map

Mitigation Measure Hazards-5

Site 1 - Shell Service Station

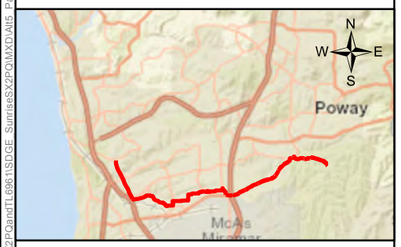
Site 2 - Sunflower Properties, Inc

- Open Hazardous Materials Release Site
- Closed Hazardous Materials Release Site
- Segment A - New Overhead & Underground
- Segment B - New Underground
- Segment C - Reconductor Overhead
- Vault Location

TRC

SDGE A Sempra Energy utility

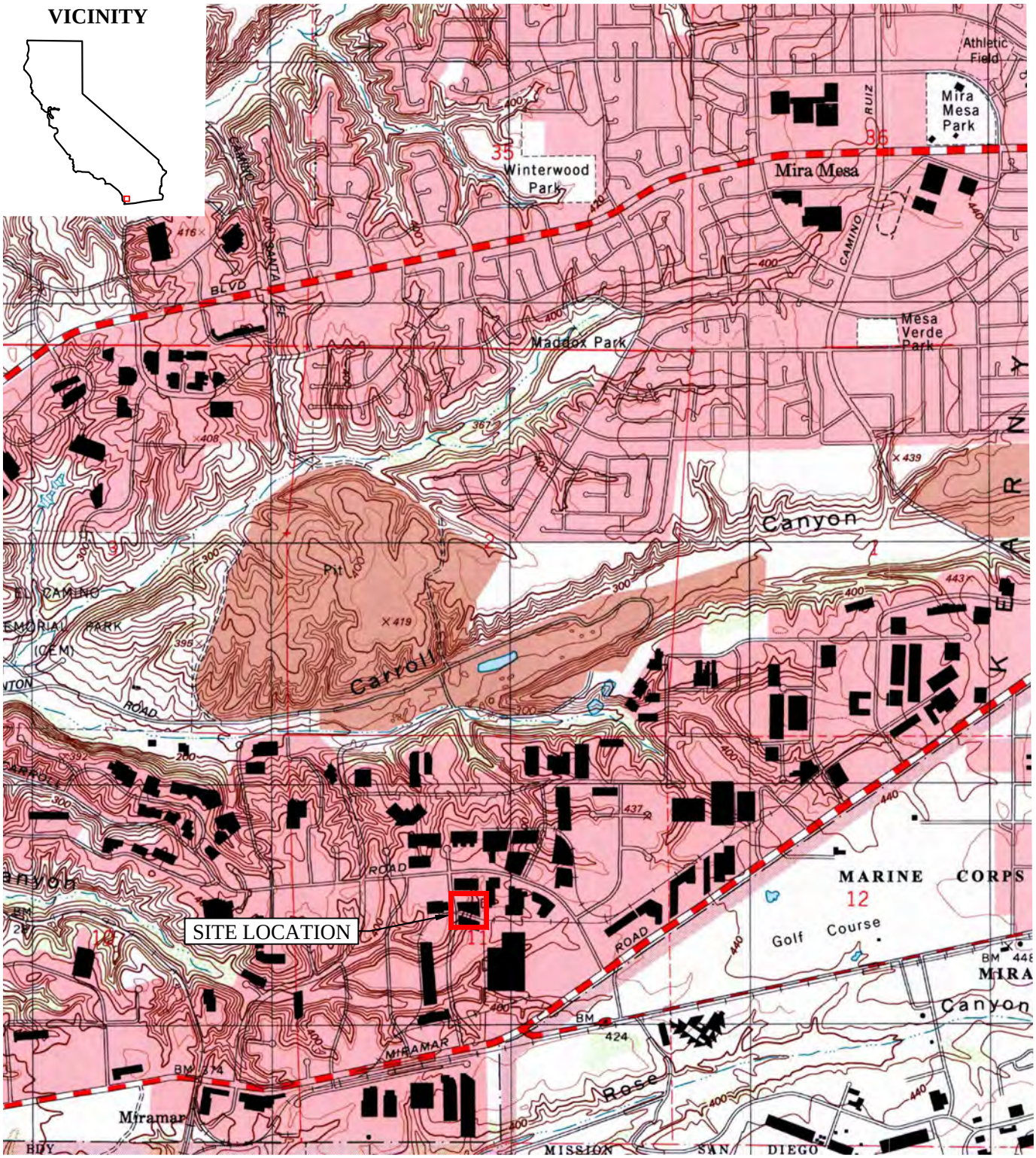
0 2,500 5,000 Feet



G:\SDGE_SX2PQ\and1\gis1\SDGE_SunriseS2PQ\MXD\MS_ParcelNotification\Map.mxd

ATTACHMENT A

Figures from the 2015 Second Semi-Annual Groundwater Monitoring Report
For 9755 Distribution Avenue, San Diego, California



SOURCE: HTTP://STORE.USGS.GOV, DEL MAR QUADRANGLE, 1994

REXFORD INDUSTRIAL - SDLAOC, LLC

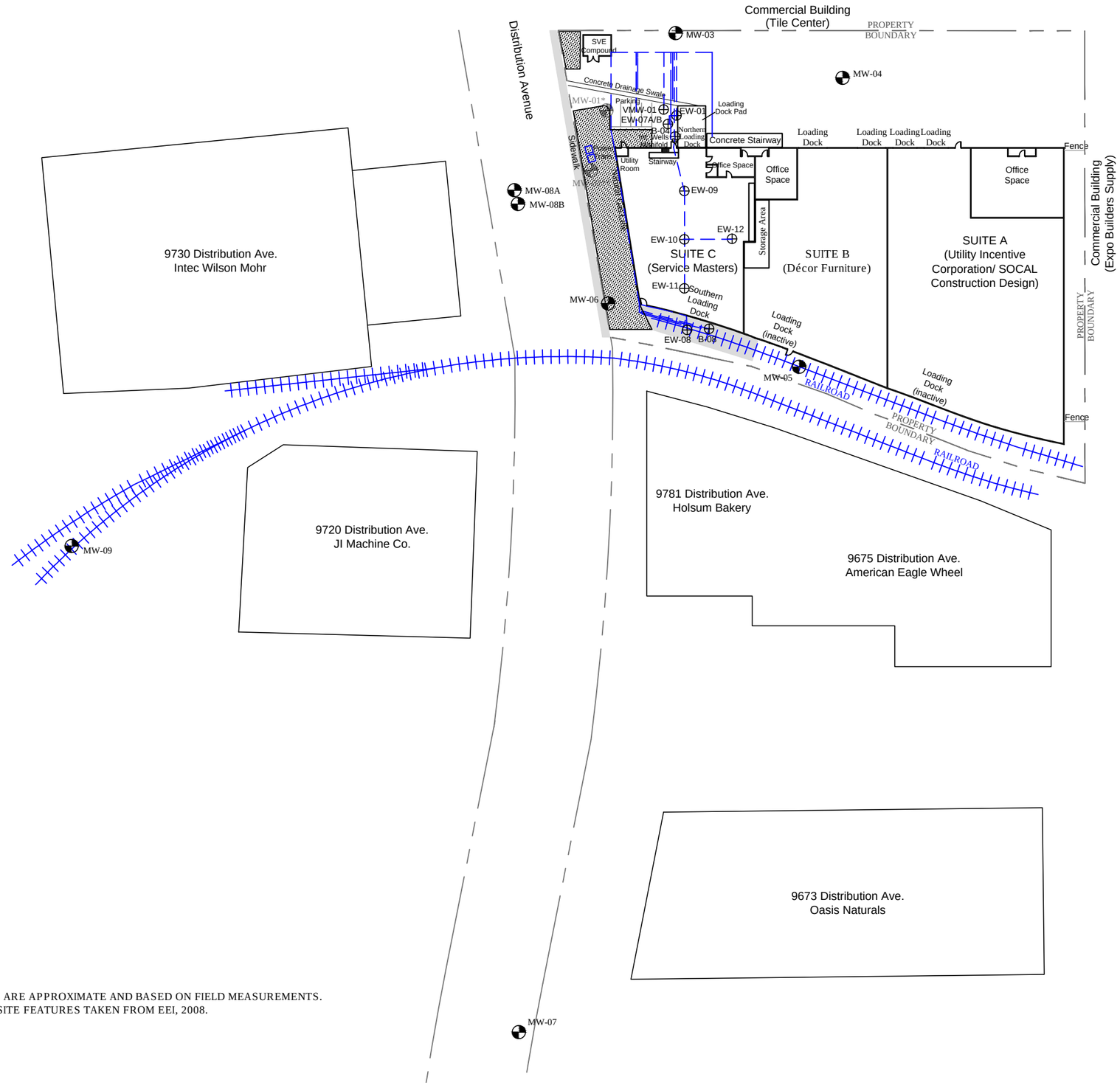
SITE LOCATION MAP

9755 DISTRIBUTION AVE. SAN DIEGO, CA.

PREPARED BY:
Gannett Fleming
15300 Barranca Parkway, Suite 150 Irvine, CA 92618-2355
Phone (949) 753-1970 Fax (949) 753-1965 Web www.gfnet.com

PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
053433	MN	DK	DEC 2015	1

S:\Projects\053433 - GFPDC Sunflower II\Working\CAD\GroundWater Reports\2nd 2015\FIGURE 1 - SITE LOCATION.dwg Dec 08, 2015 - 12:11pm dkeady



Legend

- Asphalt Cover
- Landscaping (mixed)
- MW-08A — Groundwater Monitoring Well
- Soil Vapor Extraction Lateral Piping
- Horizontal Soil Vapor Extraction Well
- B-08 — Vertical Soil Vapor Extraction Well
- * MW-01 destroyed April 2001
- ** MW-02 never installed

N

APPROXIMATE SCALE IN FEET

0 80 160

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE AND BASED ON FIELD MEASUREMENTS.
2. BASEMAP AND SITE FEATURES TAKEN FROM EEI, 2008.

REXFORD INDUSTRIAL - SDLAOC, LLC

GENERAL SITE PLAN

9755 DISTRIBUTION AVENUE SAN DEIGO, CA

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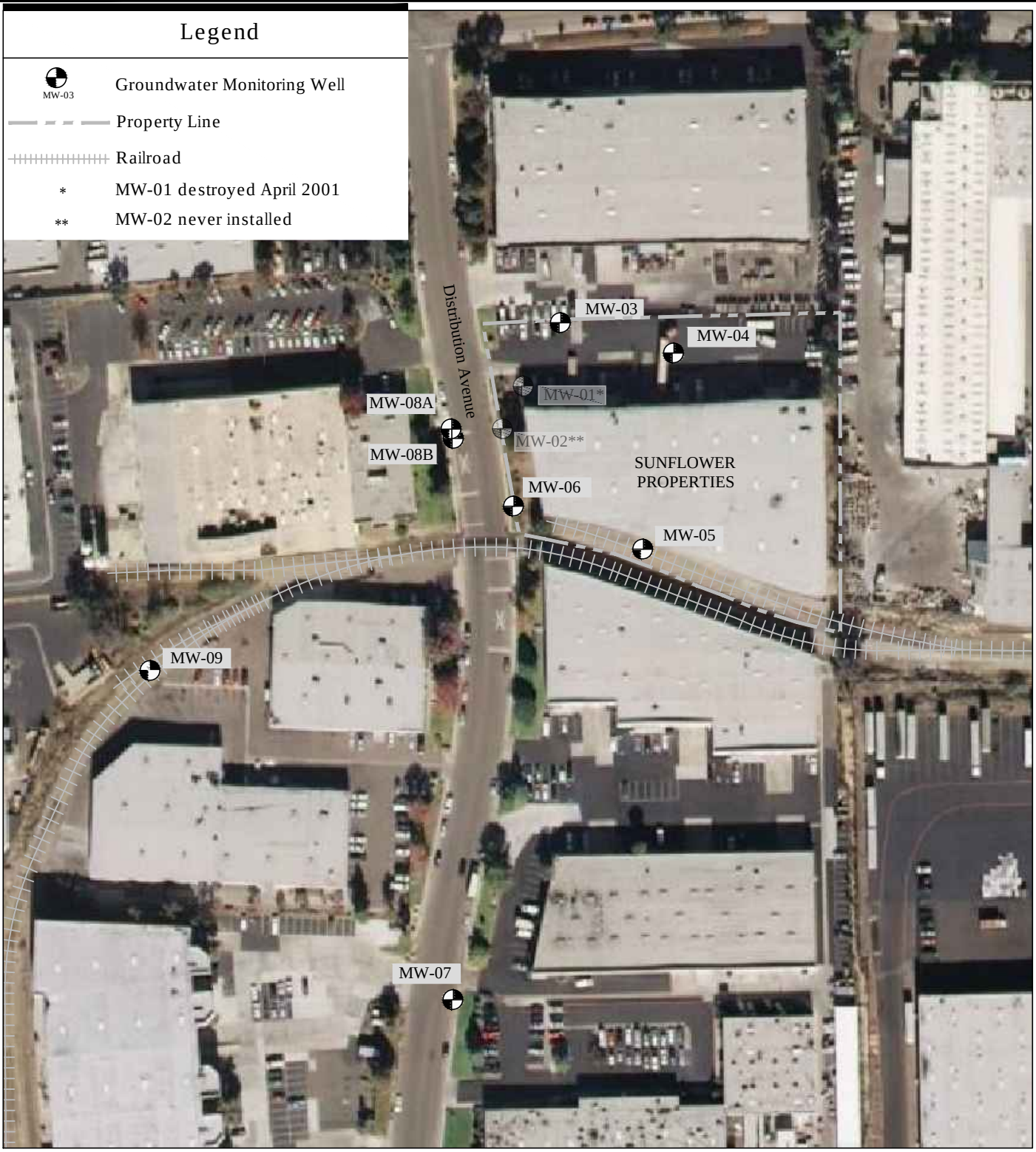
PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
053433	MN	DK	DEC 2015	2

S:\Projects\053433 - GFPDC Sunflower II\Working\CAD\GroundWater Reports\2nd 2015\FIGURE 2 - GENERAL SITE PLAN.dwg Dec 29, 2015 - 12:34pm dkeady



N

APPROXIMATE SCALE IN FEET

0 150 300

NOTES

1. WELLS SURVEYED IN FEBRUARY 2006.
2. MAP SOURCE: © GOOGLE EARTH 2007.

GROUNDWATER MONITORING WELL NETWORK

9755 DISTRIBUTION AVE. SAN DIEGO, CA.

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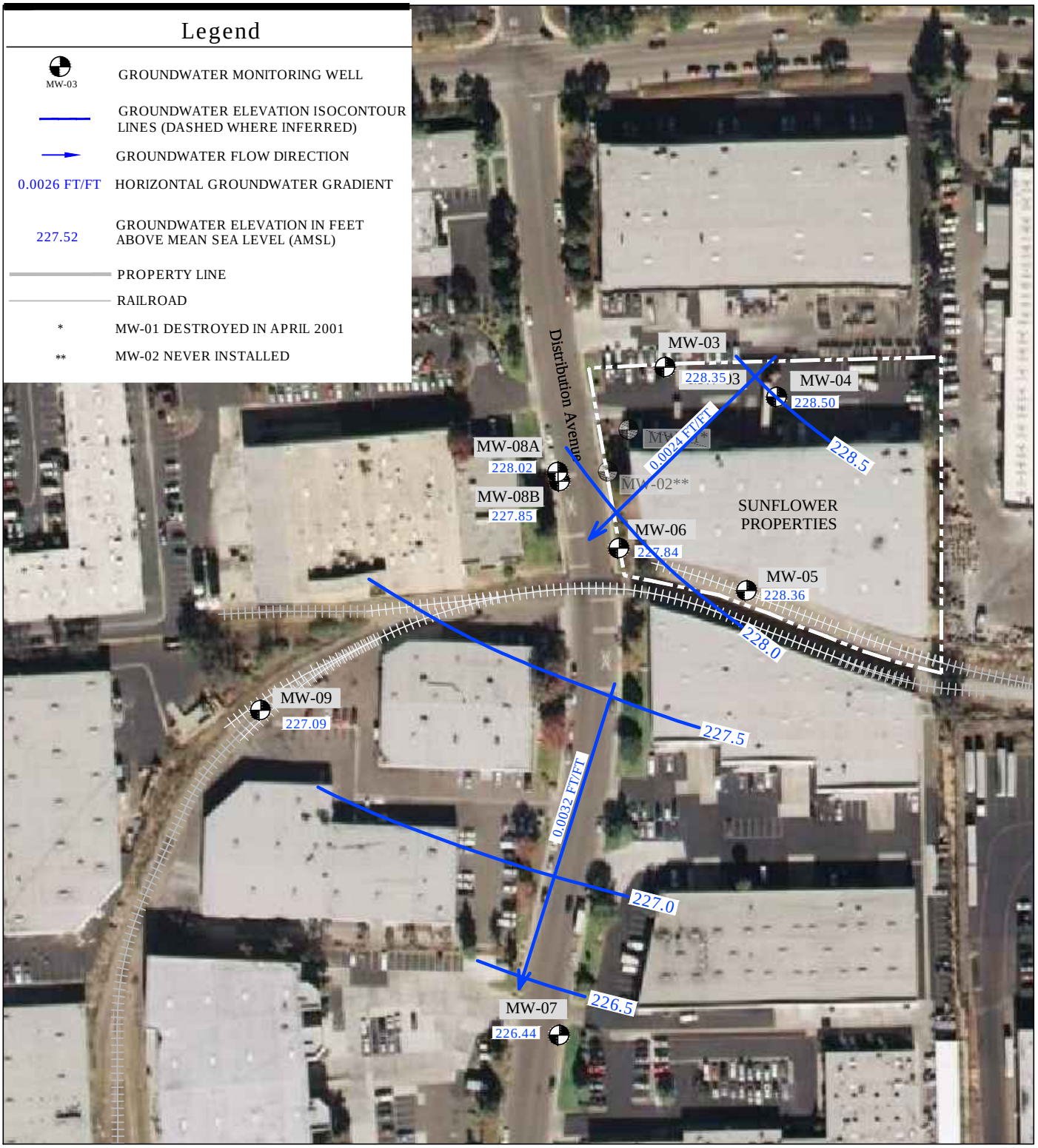
PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
053433	MN	DK	DEC 2015	3

S:\Projects\053433 - GFPDC Sunflower II\Working\CAD\GroundWater Reports\2nd 2015\FIGURE 3 - GWTR MONITORING WELLS.dwg Dec 28, 2015 - 1:41pm dkeady

S:\Projects\053433 - GFPDC Sunflower II\Working\CAD\GroundWater Reports\2nd 2015\FIGURE 4 - GWTR 1ST SEMI ANNUAL 2015.dwg Dec 29, 2015 - 10:35am dkeady

Legend

MW-03	GROUNDWATER MONITORING WELL
	GROUNDWATER ELEVATION ISOCONTOUR LINES (DASHED WHERE INFERRED)
	GROUNDWATER FLOW DIRECTION
0.0026 FT/FT	HORIZONTAL GROUNDWATER GRADIENT
227.52	GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL)
	PROPERTY LINE
	RAILROAD
*	MW-01 DESTROYED IN APRIL 2001
**	MW-02 NEVER INSTALLED



N

APPROXIMATE SCALE IN FEET

0 150 300

NOTES

1. MW-08A NOT INCLUDED IN CONTOURING.
2. WELLS SURVEYED IN FEBRUARY 2006.
3. MAP SOURCE: © GOOGLE EARTH 2007.

GROUNDWATER ELEVATION CONTOUR MAP (NOVEMBER 2015)

9755 DISTRIBUTION AVE. SAN DIEGO, CA.

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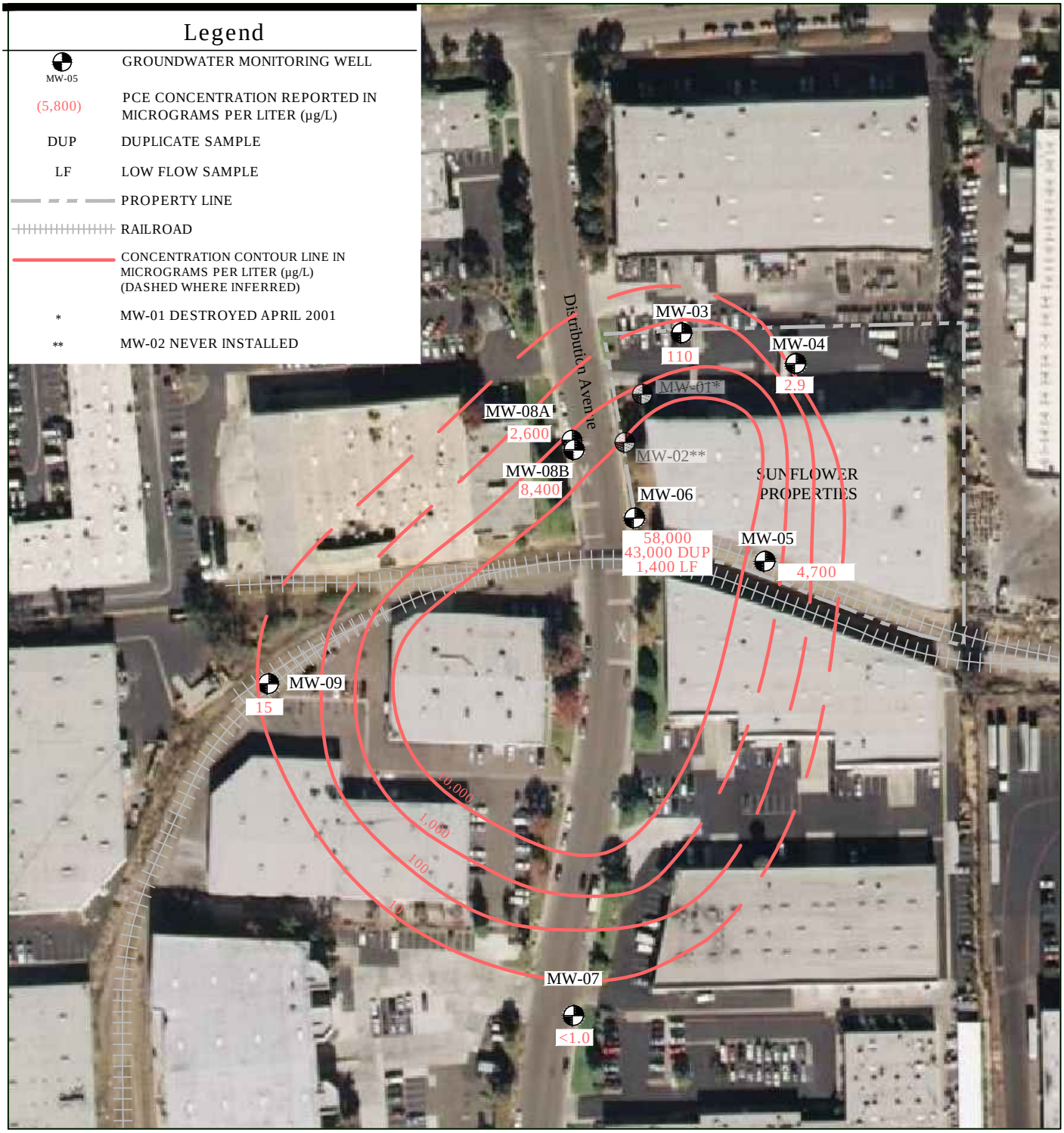
PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
053433	MN	DK	DEC 2015	4



N

APPROXIMATE SCALE IN FEET

0 150 300

NOTES

1. WELLS SAMPLED BY PASSIVE DIFFUSION BAGS (PDB).
2. WELLS SURVEYED IN FEBRUARY 2006.
3. MAP SOURCE: © GOOGLE EARTH 2007.
4. MW-06 DUP, MW-06 LF, AND MW-08A WERE NOT USED FOR CONTOURING

GROUNDWATER PCE CONCENTRATIONS (NOVEMBER 2015)

9755 DISTRIBUTION AVE. SAN DIEGO, CA.

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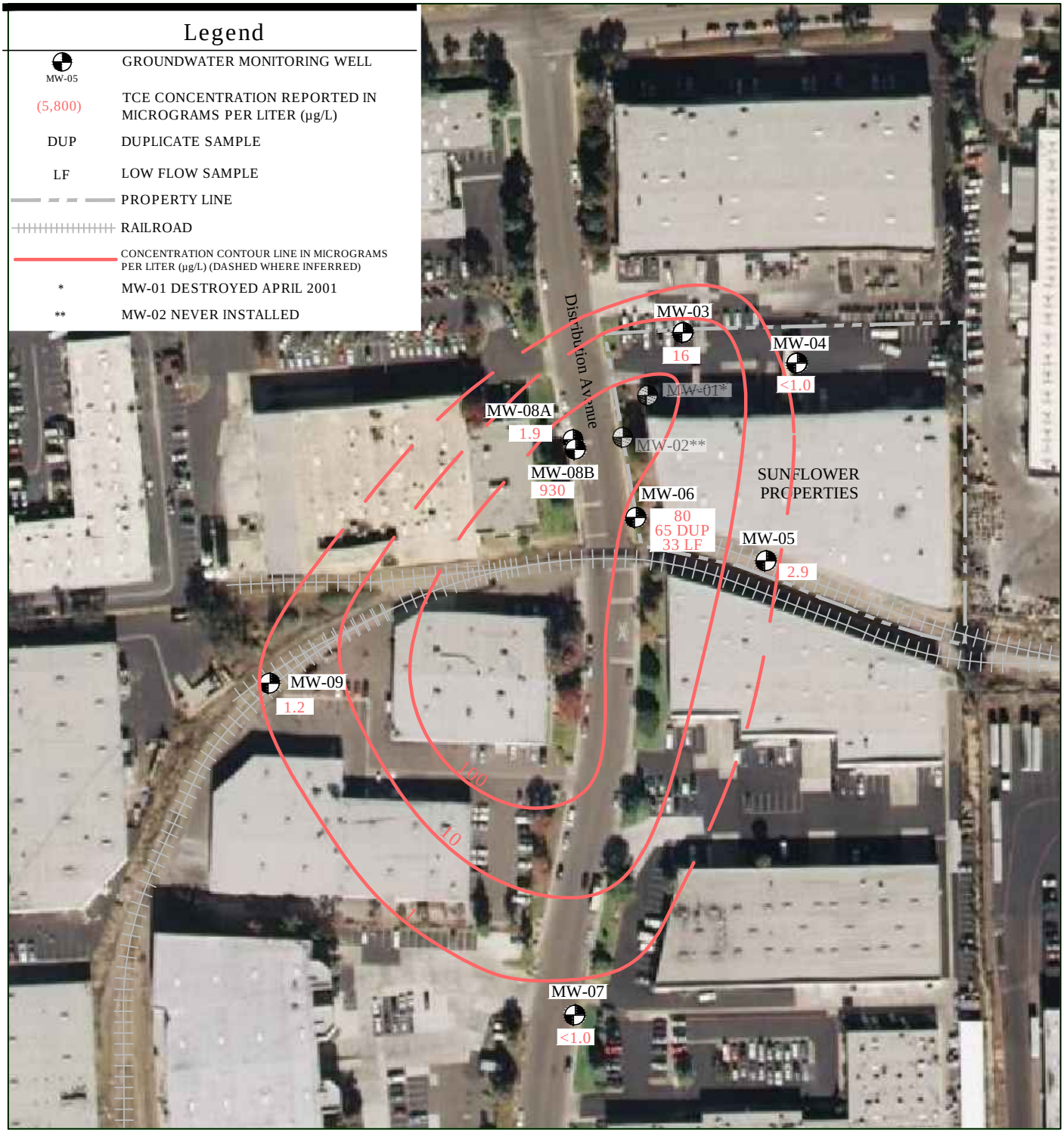
PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
053433	MN	DK	DEC 2015	5A

S:\Projects\053433 - GFPDC Sunflower II\Working\CAD\GroundWater Reports\2nd 2015\FIGURE 5A - PCE-2ND SEMI ANNUAL 2015.dwg Jan 05, 2016 - 2:18pm dkeady



N

APPROXIMATE SCALE IN FEET

0 150 300

NOTES

1. WELLS SAMPLED BY PASSIVE DIFFUSION BAGS (PDB).
2. WELLS SURVEYED IN FEBRUARY 2006.
3. MAP SOURCE: © GOOGLE EARTH 2007.
4. MW-06 DUP, MW-06 LF, AND MW-08A WERE NOT USED FOR CONTOURING

GROUNDWATER TCE CONCENTRATIONS (NOVEMBER 2015)

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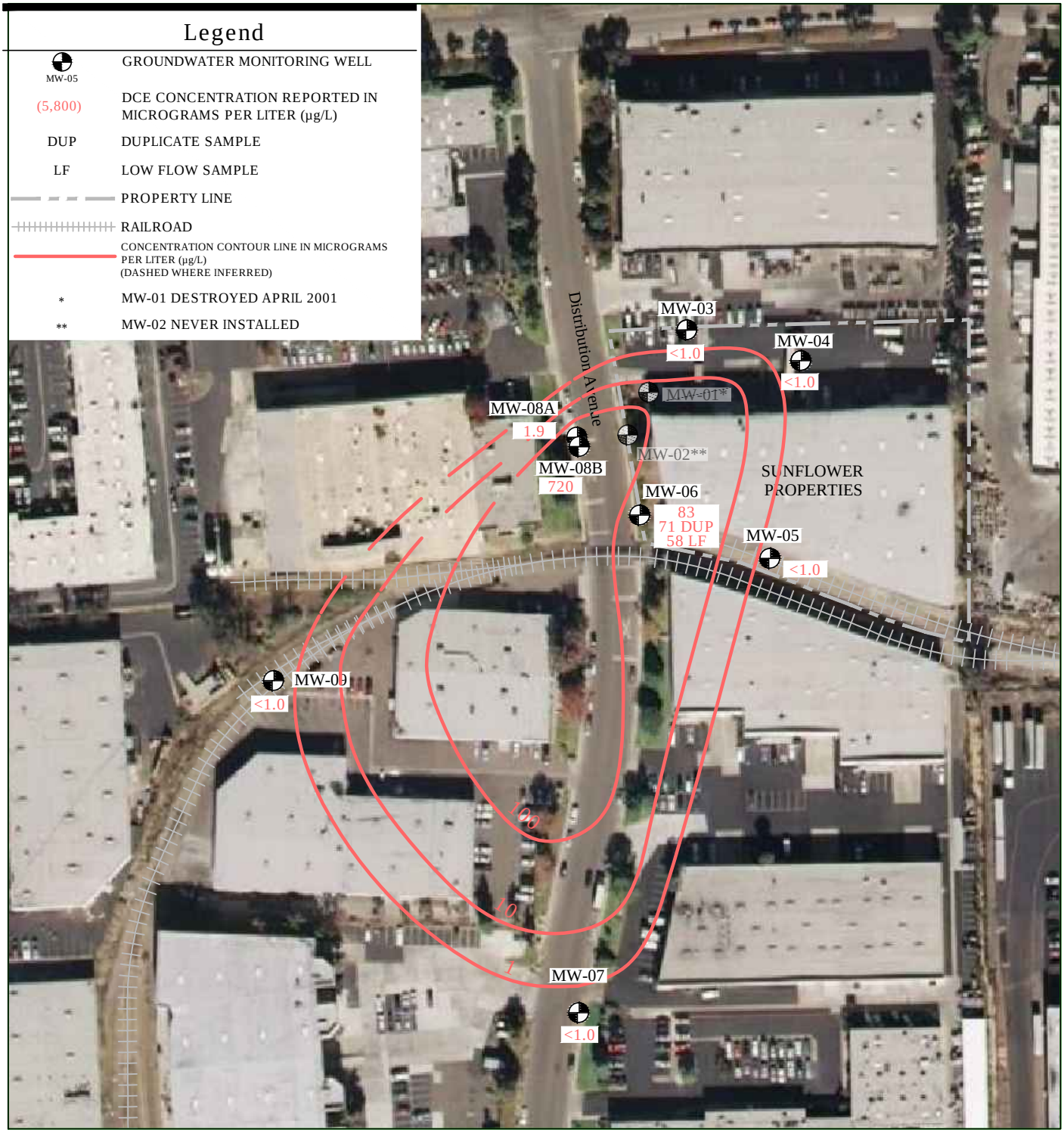
PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
053433	MN	DK	DEC 2015	5B

S:\Projects\053433 - GFPDC Sunflower II\Working\CAD\GroundWater Reports\2nd 2015\FIGURE 5B - TCE-2ND SEMI ANNUAL 2015.dwg Jan 05, 2016 - 2:19pm dkeady



NOTES

1. WELLS SAMPLED BY PASSIVE DIFFUSION BAGS (PDB).
2. WELLS SURVEYED IN FEBRUARY 2006.
3. MAP SOURCE: © GOOGLE EARTH 2007.
4. MW-06 DUP, MW-06 LF, AND MW-08A WERE NOT USED FOR CONTOURING

GROUNDWATER CIS-1,2-DCE CONCENTRATIONS (NOVEMBER 2015)

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PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
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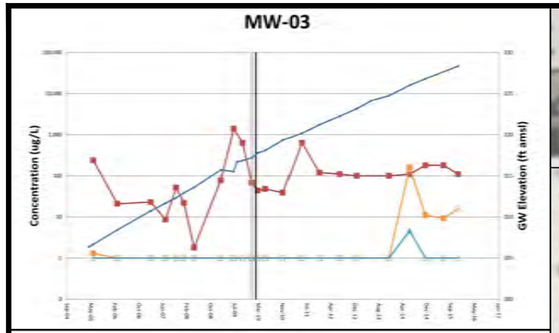

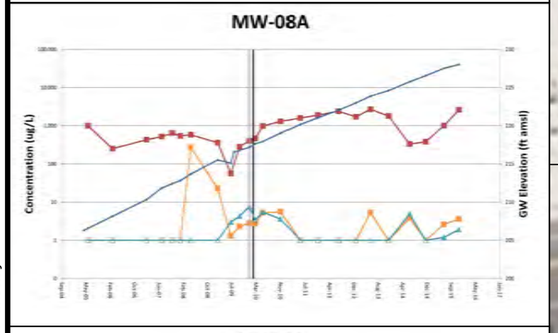

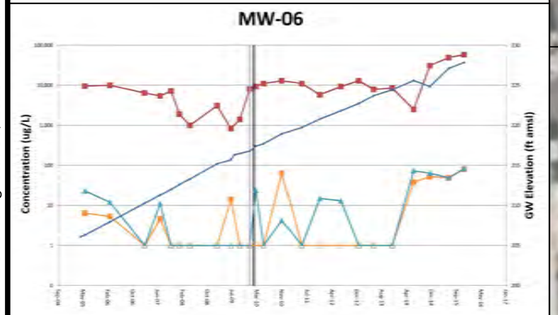

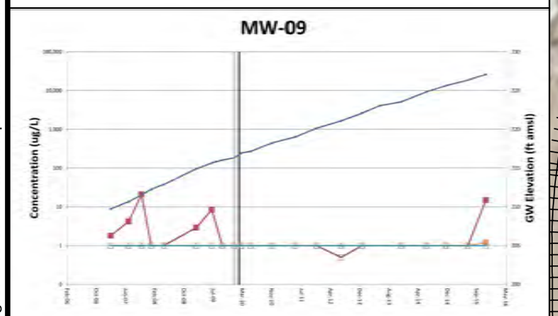

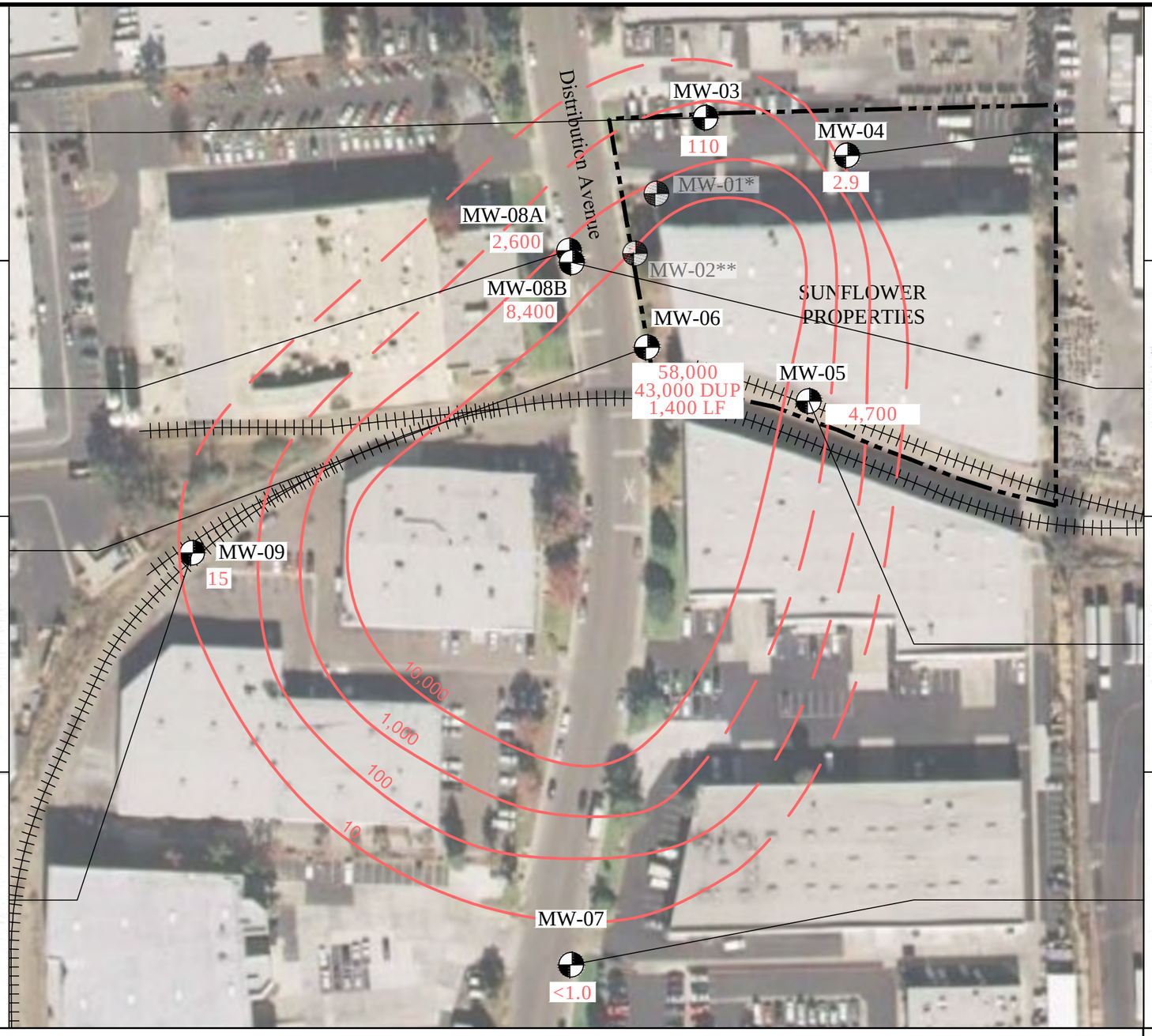

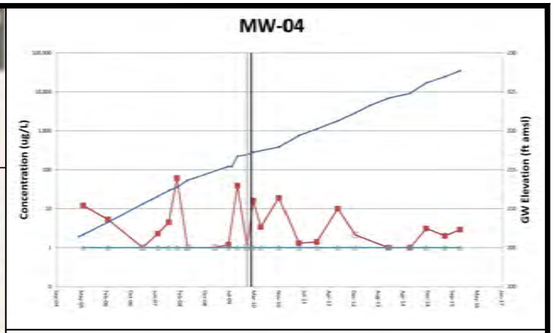

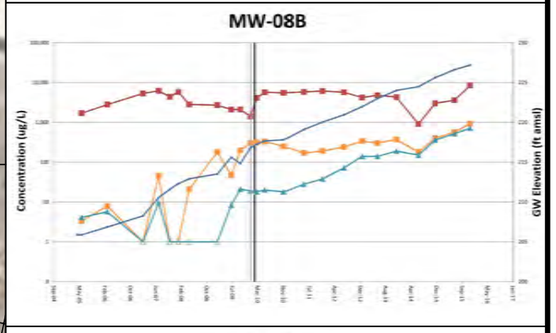

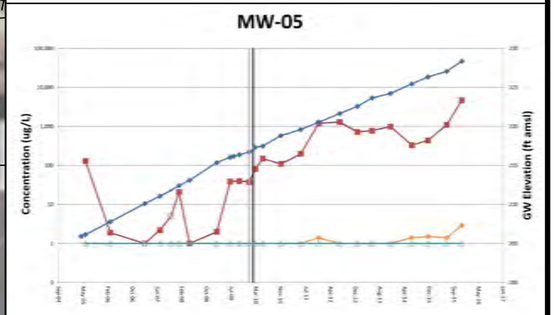

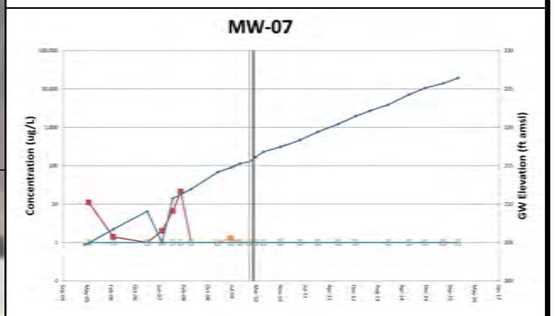

Graph Legend

- TETRACHLOROETHYLENE (PCE) CONCENTRATION
- TRICHLOROETHYLENE (TCE) CONCENTRATION
- CIS-1,2-DICHLOROETHYLENE (DCE) CONCENTRATION
- GROUNDWATER (GW) ELEVATION
- ft amsl — FEET ABOVE MEAN SEA LEVEL
- WATER MAIN BREAK (FEBRUARY 2010)
- PASSIVE DIFFUSION BAG (PDB) SAMPLING (DECEMBER 2009)
- NON-DETECT
- DETECTED CONCENTRATION

Map Legend

- MW-05 — GROUNDWATER MONITORING WELL
- 5,800 — NOVEMBER 2015 PCE CONCENTRATION REPORTED IN MICROGRAMS PER LITER (ug/L)
- DUP — DUPLICATE SAMPLE
- LF — LOW FLOW SAMPLE
- PROPERTY LINE
- RAILROAD
- NOVEMBER 2015 CONCENTRATION CONTOUR LINE IN ug/L (DASHED WHERE INFERRED)
- * — MW-01 DESTROYED APRIL 2001
- ** — MW-02 NEVER INSTALLED

N

APPROXIMATE SCALE IN FEET

0 100 200

GROUNDWATER ELEVATIONS AND VOC CONCENTRATIONS OVER TIME

9755 DISTRIBUTION AVENUE SAN DEIGO, CA

PREPARED BY:

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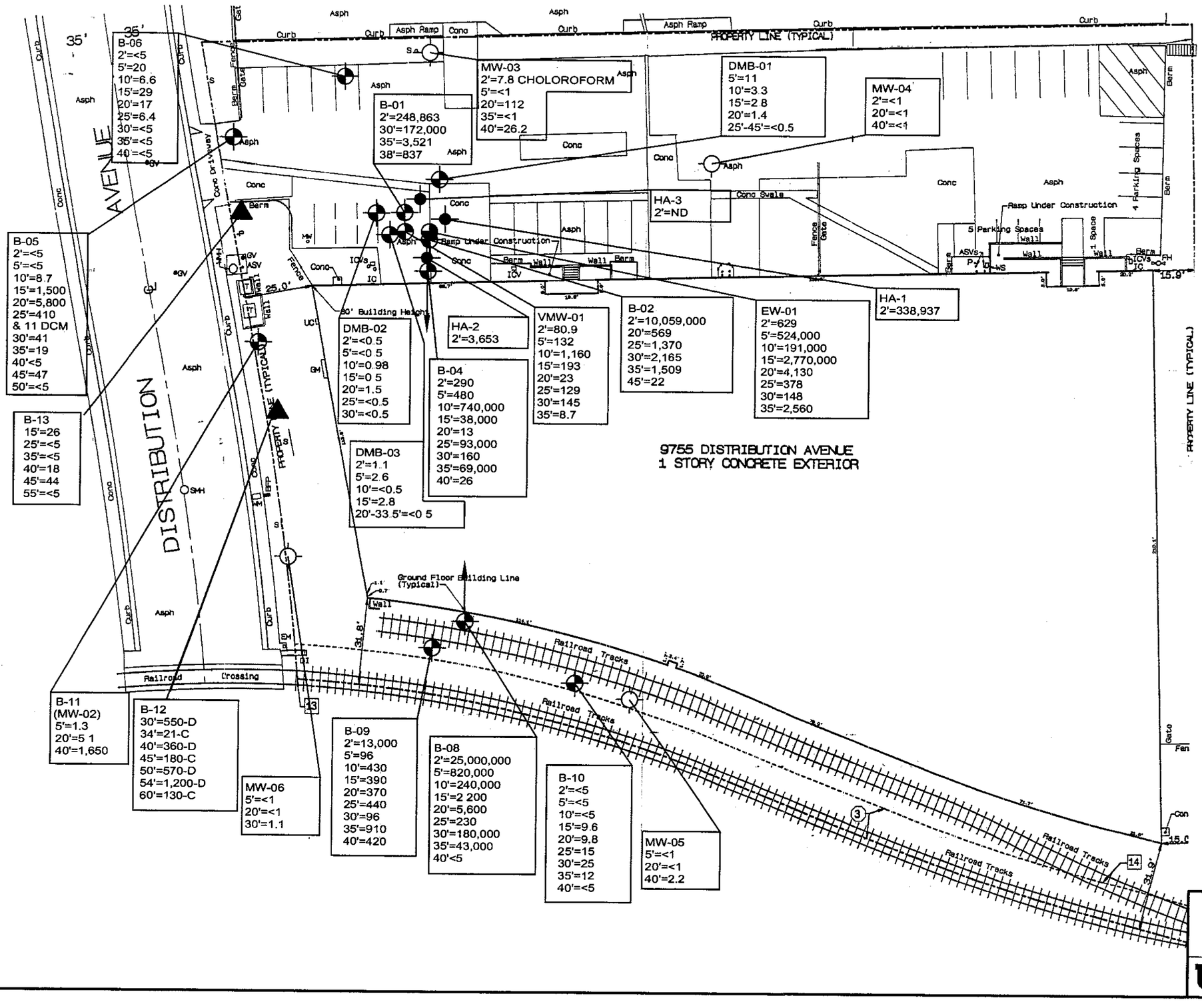
PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
053433	MN	DK	DEC 2015	6

S:\Projects\053433 - GFPDC Sunflower II\Working\CAD\GroundWater Reports\2nd 2015\FIGURE 6 rev.dwg Jan 06, 2016 - 10:27am dkeady

ATTACHMENT B

Figure 7 from the 2002 Final Remedial Action Plan, 9755 Distribution Avenue, San Diego, California



Explanation

- ▲ ADDITIONAL SOIL BORING
- VMW-01 & EW-01 ⊕ VAPOR EXTRACTION & MONITORING WELLS
- B-10 & DMB-03 ⊕ BORING (SOIL SAMPLING)
- B-4 ⊕→ ANGLE BORINGS
- HA-3 ✦ HAND AUGER
- MW-06 ⊖ MONITORING WELL
- DCM: DICHLOROMETHANE
- ND: NON DETECTABLE

MW-06
30'=3.1
GW=3,160

- SAMPLE NUMBER
- SOIL SAMPLE DEPTH
- GW=GROUNDWATER
- SOIL CONCENTRATION IN ug/kg AS TETRACHLOROETHENE (PCE) UNLESS OTHERWISE LISTED
  D=SAMPLE COLLECTED FROM DRILL
  C=SAMPLE COLLECTED FROM CUTTINGS
- GROUNDWATER CONCENTRATION IN ug/l AS PCE

VOLATILE ORGANIC COMPOUNDS IN SOIL
9755 DISTRIBUTION AVENUE
SAN DIEGO, CALIFORNIA

URS	CHECKED BY:	DATE: 9-11-02	FIG. NO:
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