



EDMUND G. BROWN JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Los Angeles Regional Water Quality Control Board

July 8, 2016

Mr. Anthony Espinoza  
Office of Environmental Health and Safety  
Los Angeles Unified School District  
333 South Beaudry Avenue, 21<sup>st</sup> Floor  
Los Angeles, CA 90017

**REVISED MONITORING AND REPORTING PROGRAM – GRATTS LEARNING ACADEMY FOR YOUNG SCHOLARS, 309 SOUTH LUCAS AVENUE, LOS ANGELES, CALIFORNIA (FILE NO. 13-061, ORDER NO. R4-2013-0170, CI-10006, GLOBAL ID WDR100011877)**

Dear Mr. Espinoza:

The Gratts Learning Academy for Young Scholars is located at 309 Lucas Avenue in Los Angeles, California (Site). The Los Angeles Unified School District (LAUSD, hereinafter Discharger) began environmental investigations at the Site in 1994. In 2009, the Discharger proposed to remediate groundwater by injecting enhanced reductive dechlorination with bioaugmentation (ERDB). The proposal was approved by the Department of Toxic Substances Control (DTSC) on March 11, 2013.

On November 7, 2013, the Los Angeles Regional Water Quality Control Board (Regional Board) adopted Order No. R4-2013-0170 for the injection of HRC Primer<sup>®</sup>, 3-D Microemulsion (3DMe<sup>™</sup>), and Dehalococoides. Upon adoption of the Waste Discharge Requirements (WDRs), the Discharger was required to implement Monitoring and Reporting Program (MRP) No. CI-10006.

Groundwater monitoring results from January 2014 to November 2015 indicated that cis-1,2-dichloroethene (cis-1,2-DCE) concentrations were reduced from 1,100 micrograms per liter (µg/L) to 170 µg/L and trichloroethene (TCE) concentrations were reduced from 840 µg/L to 340 µg/L within the plume area. In addition, TCE was not detected in any downgradient wells in November 2015. The results indicated a decreasing trend in volatile organic compounds (VOCs) in groundwater. As a result, on December 11, 2015, the Discharger submitted a request to the Department of Toxic Substances Control (DTSC, the lead agency) for the reduction of monitoring frequency from quarterly to semi-annual. DTSC approved the request on December 22, 2015.

On February 4, 2016, the Discharger submitted a letter to the Regional Board requesting a reduction in sampling frequency from quarterly to semi-annually for all upgradient (Group C), within the plume (Group A), and downgradient (Group B) groundwater monitoring wells.

Based on the review of the groundwater data, the injected ERDB has been controlled within the treatment area and has proven its effectiveness. Therefore, Monitoring and Reporting Program (MRP) No. CI-10006 is modified as follows:

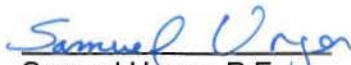
1. Monitoring frequency for Group A, Group B, and Group C wells is reduced from quarterly to semi-annually.
2. Groundwater monitoring report submittal is reduced from quarterly to semi-annually.
3. An annual report shall be submitted by January 30<sup>th</sup> of each year.

The Discharger shall comply with the Electronic Submittal of information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data, discharge location data, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100011877.

Please see Electronic Submittal for GeoTracker Users, dated December 12, 2011 at:  
<http://www.waterboards.ca.gov/losangeles/resources/Paperless/Paperless%20Office%20for%20OGT%20Users.pdf>

If you have any additional questions, please contact the Project Manager, Mr. David Koo, at (213) 620-6155 ([David.Koo@waterboards.ca.gov](mailto:David.Koo@waterboards.ca.gov)) or the Groundwater Permitting Unit Chief, Dr. Eric Wu, at (213) 576-6683 ([Eric.Wu@waterboards.ca.gov](mailto:Eric.Wu@waterboards.ca.gov)).

Sincerely,

  
Samuel Unger, P.E.  
Executive Officer

Enclosure: Monitoring and Reporting Program No. CI-10006 revised on June 30, 2016

cc: Ms. Maria Butler, Gratts Learning Academy for Young Scholars  
Mr. Eric Longenecker, Los Angeles Unified School District  
Mr. Shahir Haddad, Department of Toxic Substances Control



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

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**REVISED MONITORING AND REPORTING PROGRAM NO. CI-10006  
FOR  
LOS ANGELES UNIFIED SCHOOL DISTRICT  
GRATTS LEARNING ACADEMY FOR YOUNG SCHOLARS  
(File No. 13-061)**

**I. REPORTING REQUIREMENTS**

- A. The Los Angeles Unified School District (LAUSD, hereinafter "Discharger") shall implement this Monitoring and Reporting Program (MRP) at 309 Lucas Avenue, Los Angeles, California, the location of which is shown on Figure 1, under Regional Board Order No. R4-2013-0170. The first monitoring report under this revised monitoring program is due by July 30, 2016. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

<u>Monitoring Period</u>	<u>Report Due</u>
January – June	July 30
July – December	January 30

- B. If there is no discharge or injection during any reporting period, the report shall so state.
- C. By January 30<sup>th</sup> of each year, beginning January 30, 2017, the Discharger shall submit an annual summary report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year.
- D. The Discharger shall submit reports detailing the results of the remediation. The reports shall include an evaluation of the effectiveness of using the hydrogen releasing amendments and Dehalococcoides consortium to remediate chlorinated volatile organic compound (VOC)-contaminated groundwater at the Site, the impact of any by-products on the receiving groundwater quality, and any other effects the *in-situ* treatment may have.
- E. Whenever wastes associated with the discharge under this Order are transported to a different disposal site, the following shall be reported in the monitoring report: type and quantity of wastes; name and address of the hauler (or method of transport if other than by hauling); and location of the final point(s) of disposal.

- F. Laboratory analyses – all chemical, bacteriological, and/or toxicity analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW) Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certifications shall be provided each time a new analysis is used and/or renewal is obtained from ELAP.
- G. Each monitoring report shall contain both tabular and graphical summaries of the monitoring data obtained during the monitoring period. In addition, the Discharger shall explain the compliance record and the corrective actions taken, or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements (WDRs).
- H. The method limits (MLs) employed for analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Executive Officer. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures.
- I. All QA/QC samples must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff.
- J. Each monitoring report must affirm in writing that “All analyses were conducted at a laboratory certified for such analyses by the SWRCB-DDW ELAP, and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program.” Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report.
- K. Each monitoring report shall contain a separate section titled “Summary of Non-Compliance” which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with Waste Discharge Requirements (WDRs). This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.
- L. For every item where the requirements are not met, the Discharger shall submit a statement of the cause(s), and actions undertaken or proposed which will bring the discharge into full compliance with waste discharge requirements at the earliest possible time, including a timetable for implementation of those actions.
- M. The Discharger shall maintain all sampling and analytical results, including strip charts, date, exact place, and time of sampling, dates analyses were performed,

analyst's name, analytical techniques used, and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

- N. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.
- O. Any mitigation/remedial activity including any pre- or post-treatment conducted at the Site must be reported in the semi-annual monitoring report.

## II. GROUNDWATER MONITORING PROGRAM

The following groundwater wells shall be included in the sampling program:

Group A: GW8, GW11, GW19 and GW20

Group B: GW2, GW3, GW16, GW17, GW21, and GW22

Group C: GW1, GW7, GW14, GW15, and PW2

Figure 1 shows the location of the Site. Groundwater wells locations at the Site are shown in Figure 2. Group A sampling points are monitoring wells within each treatment area. Group A wells consist of monitoring wells that are within solution distribution zones, and shall be used to evaluate carbohydrate consumption and distribution. All Group A wells shall be used for performance monitoring purposes within the center of the plume. The Group B sampling points are cross- or down-gradient sample locations, and Group C are up-gradient sample points.

The required constituents to be analyzed and the monitoring schedule for each sample group are shown below:



CONSTITUENT	UNITS <sup>1</sup>	MINIMUM FREQUENCY OF ANALYSIS
<b>Field Meter Groundwater Testing</b>		
Total Daily Injections	Gallons	Per injection at each injection point
Groundwater Elevation	Feet below ground surface (bgs)	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Dissolved Oxygen	mg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Oxidation-Reduction Potential	mV	Group A: semi-annually Group B: semi-annually Group C: semi-annually
pH	pH units	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Temperature	°C	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Specific Conductance	µS/cm	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Turbidity	NTU	Group A: semi-annually Group B: semi-annually Group C: semi-annually
<b>Laboratory Groundwater Analysis</b>		
Chlorinated Volatile Organic Compounds (EPA Method 8260B)	µg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Total Organic Carbon (EPA Method 415.1)	mg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Total Dissolved Solids (EPA Method 160.1)	mg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Volatile Fatty Acids (VFA) (HPLC/UV)	mg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Dissolved Metals (Arsenic, Boron, Ferrous Iron, and Manganese) (EPA Method 6010B)	mg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually

Sulfate (EPA Method 375.1)	mg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Chloride (EPA Method 325.2)	mg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Nitrate and Nitrite (EPA Method 352.1)	mg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually
Dissolved Hydrocarbon Gases (ethane, ethane, and methane) (EPA Method 8015B)	mg/L	Group A: semi-annually Group B: semi-annually Group C: semi-annually
<b>Bio-Trap Analysis (Analyzed by Microbial Insights)</b>		
Dehalococcoides PCR	Cells/mL	Group A: semi-annually Group B: semi-annually Group C: semi-annually

<sup>1</sup> mg/L: milligrams per liter; µg/L: micrograms per liter; µS/cm: microsiemens per centimeter; mV: milivolts; °C: degree Celsius; NTU: nephelometric turbidity units; mL: milliliter

All groundwater monitoring reports must include, at minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification; and
- c. Semi-annual observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.

### III. AMENDMENT AND BACTERIA CULTURE INJECTION MONITORING REQUIREMENTS

The reports shall contain the following information regarding injection activities:

1. Depth of injection points;
2. Quantities of injected amendment, selected bacteria culture, and total fluids each field day and per injection point; and
3. Total amounts of amendment, selected bacteria culture, and total fluids injected in the reporting period.

### IV. MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted to

a less frequent basis or parameters and locations removed by the Executive Officer if the Discharger makes a request and the request is supported by statistical trends of monitoring data submitted.

**V. CERTIFICATION STATEMENT**

Each report shall contain the following completed declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the \_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_

\_\_\_\_\_ (Signature)

\_\_\_\_\_ (Title)"

**VI. ELECTRONIC SUBMITTAL OF INFORMATION (ESI) TO GEOTRACKER**

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data and discharge location data (latitude and longitude), correspondence, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100011877.

All records and reports submitted in compliance with this Order are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Discharger, will be treated as confidential.

Ordered by: Samuel Unger  
Samuel Unger, P.E.  
Executive Officer

Date: July 8, 2016



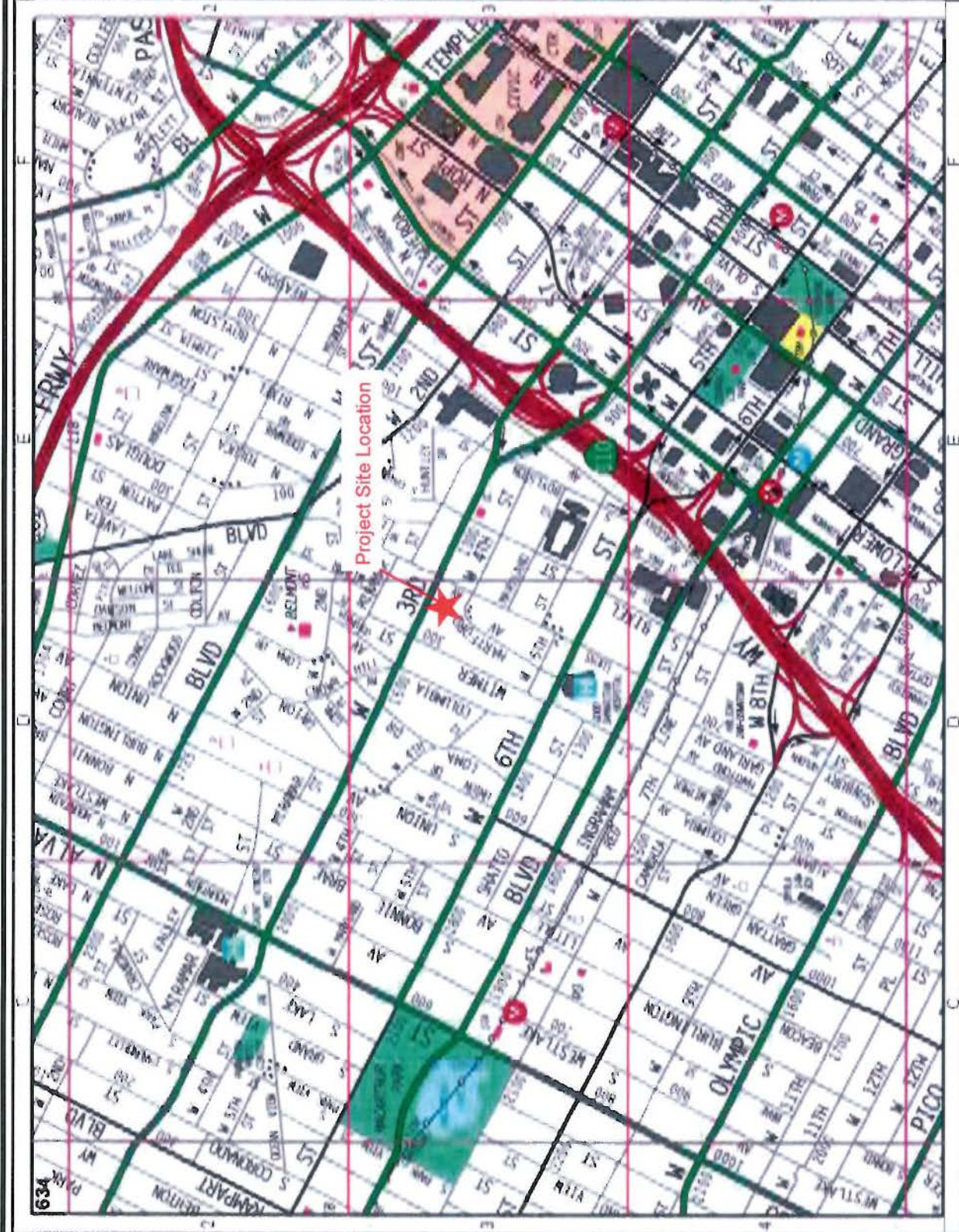
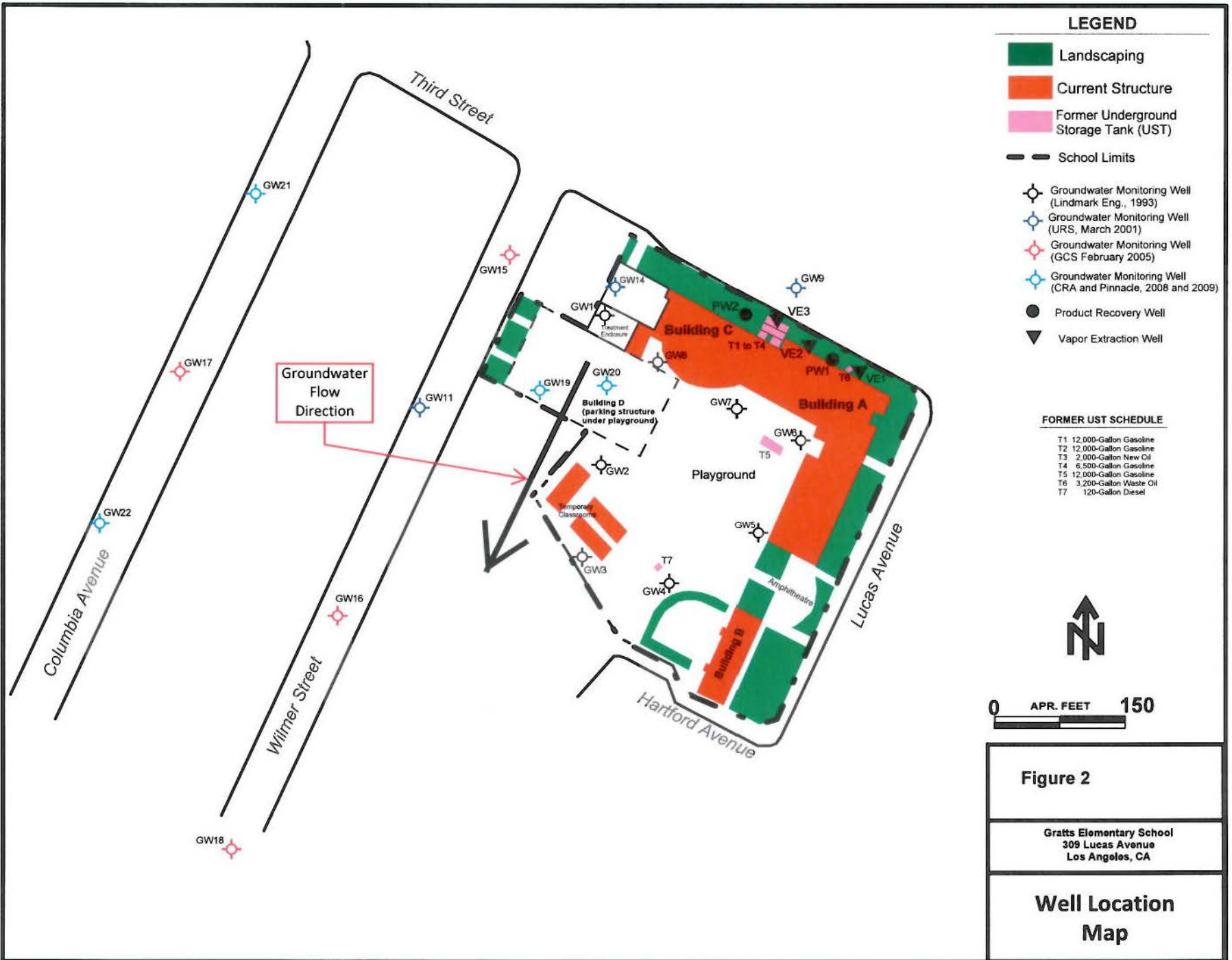


Figure 1 - General Site Area





**LEGEND**

- Landscaping
- Current Structure
- Former Underground Storage Tank (UST)
- School Limits
- Groundwater Monitoring Well (Lindmark Eng., 1993)
- Groundwater Monitoring Well (URS, March 2001)
- Groundwater Monitoring Well (GCS February 2005)
- Groundwater Monitoring Well (CRA and Pinnacle, 2008 and 2009)
- Product Recovery Well
- Vapor Extraction Well

**FORMER UST SCHEDULE**

- T1 12,000-Gallon Gasoline
- T2 12,000-Gallon Gasoline
- T3 2,000-Gallon New Oil
- T4 6,500-Gallon Gasoline
- T5 12,000-Gallon Gasoline
- T6 3,200-Gallon Waste Oil
- T7 120-Gallon Diesel



0 APR. FEET 150

**Figure 2**

Gratts Elementary School  
309 Lucas Avenue  
Los Angeles, CA

**Well Location Map**