CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

July 24, 2017

Mr. Steve Sacco
Robertshaw Controls Company
70 Mechanic Street, C41-32
Foxboro, Massachusetts 02035

Certified Mail
Return Receipt Required
Claim No. 7016 0750 0000 3359 6790

REVISED MONITORING AND REPORTING PROGRAM NO. CI-10157 – FORMER ROBERTSHAW CONTROLS FACILITY, 100 WEST VICTORIA STREET, LONG BEACH, CALIFORNIA (FILE NO. 15-051, ORDER NO. R4-2014-0187, SERIES NO. 031, CI-10157, GLOBAL ID. WDR 100023693)

Dear Mr. Sacco,

On July 22, 2015, the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) enrolled you under General Waste Discharge Requirements (WDR Order No. R4-2014-0187) with a Monitoring and Reporting Program (MRP) No. CI-10157 for injection of zero-valent iron, guar, emulsified lecithin substrate, pH buffer, and bioaugmentation culture for groundwater remediation of volatile organic compounds (VOCs) at the subject site. The injection was completed by August 2015. However, The December 2016 groundwater monitoring results indicated that trichloroethylene and cis-1,2-dichloroethylene were still detected at concentrations up to 700 micrograms per liter (µg/L) and 350 µg/L, respectively in monitoring well MW-29.

On behalf of Robertshaw Controls Company, AECOM presented the additional remedial approach in a report titled "*Pilot Study Work Plan for Enhanced Anaerobic In-Situ Bioremediation in Area 3* (Work Plan)" dated June 16, 2017. The Work Plan proposed to conduct a pilot study of the active groundwater recirculation system to promote distribution of injected amendments including 11,519 pounds of sodium lactate, 14 gallons (51 liters) of bioaugmentation culture (*Dehalococcoides sp.*), 833 pounds of pH buffer (sodium bicarbonate), two pounds of fluorescein, and 10 pounds of rhodamine for enhanced reductive dechlorination (ERD) treatment of residual VOCs in the vicinity of monitoring well MW-29. On July 17, 2017, Regional Board Site Cleanup Unit staff approved the Work Plan.

The groundwater recirculation system will extract groundwater, mix the extracted groundwater with amendments, and re-inject the amended groundwater back into the aquifer. Groundwater will be recirculated at an approximate flow rate of 5 gallons per minute. The amended groundwater will be injected into two injection points (I-01 and I-02) at depths from approximately 46 to 56 feet below ground surface. It is anticipated that the recirculation system will operate continuously for a period up to 30 days.

The proposed discharge shall not cause the mineral constituents of the receiving groundwater at the compliance point, downgradient outside the application area, in excess of applicable limits (Central Basin of the Los Angeles Coastal Plain Groundwater Basin) given in Attachment B of General WDRs Order No. R4-2014-0187. The groundwater quality objectives are 700 milligrams per liter (mg/L) for total dissolved solids, 250 mg/L for sulfate, 150 mg/L for chloride, and 1.0 mg/L for boron.

The revised MRP, which incorporates additional injection materials, is enclosed. 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 WDR100023693. Please do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

For all parties who upload electronic documents to State Database GeoTracker, it is no longer necessary to email a copy of these documents to losangeles@waterboards.ca.gov or submit hard copies to our office. The Regional Board will no longer accept documents (submitted by either hard copy or email) already uploaded to GeoTracker. Please see Electronic Submittal to the Los Angeles Regional Board for GeoTracker Users dated December 12, 2011 at: http://www.waterboards.ca.gov/losangeles/resources/Paperless/Paperless%20Office%20for%20GT%20Users.pdf

To avoid paying future annual fees, please submit a written request for termination of your enrollment under the general WDR in a separate letter when the project is completed and the WDR is no longer needed. Be aware that the annual fee covers the fiscal year billing period beginning July 1 and ending June 30, the following year. You will pay the full annual fee if your request for termination is made after the beginning of the new fiscal year beginning July 1.

If you have any questions, please contact the Project Manager, Dr. Ann Chang at (213) 620-6122 (ann.chang@waterboards.ca.gov), or the Chief of Groundwater Permitting Unit, Dr. Eric Wu at (213) 576-6683 (eric.wu@waterboards.ca.gov).

Sincerely,

Samuel Unger, P.E.
Executive Officer

Enclosure: Revised Monitoring and Reporting Program No. CI-10157 dated July 24, 2017

cc: Mr. Michael Haux, AECOM

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

REVISED MONITORING AND REPORTING PROGRAM NO. CI-10157
FOR
FORMER ROBERTSHAW CONTROLS FACILITY
100 WEST VICTORIA STREET, LONG BEACH, CALIFORNIA

ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2014-0187 (SERIES NO. 031)
FILE NO. 15-051

I. MONITORING AND REPORTING REQUIREMENTS

A. Robertshaw Controls Company (hereinafter Dischargers) shall implement this Monitoring and Reporting Program (MRP) on the effective date (July 24, 2017) under Regional Board Order No. R4-2014-0187. The next monitoring report under this program shall be received at the Regional Board by **October 30, 2017**. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

Monitoring Period	Report Due
January – March	April 30
April – June	July 30
July – September	October 30
October – December	January 30

B. If there is no discharge or injection, during any reporting period, the report shall so state. By March 1 of each year, the Dischargers 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. In addition, the Dischargers shall discuss 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.

C. The Dischargers shall comply with requirements contained in Section G of Order No. R4-2014-0187 "*Monitoring and Reporting Requirements*".

II. DISCHARGE MONITORING PROGRAM

The monitoring reports shall contain the following information regarding the injection activities:

1. Location map showing injection points used for sodium lactate, bioaugmentation culture, pH buffer, and tracer compounds.

2. Written and tabular summary defining depth of injection points, quantity and concentration of sodium lactate, bioaugmentation culture, pH buffer, and tracer compounds at each injection point, and total amount of sodium lactate, bioaugmentation culture, pH buffer, and tracer compounds injected at the Site.

3. Visual inspection at each injection point shall be conducted and recorded during the injection.

III. GROUNDWATER MONITORING PROGRAM

A groundwater monitoring program shall be implemented to evaluate impacts associated with the injection activity. Groundwater samples shall be collected from monitoring wells MW-28, MW-29, MW-30, MW-33, and VES-29, (Figure 1). The Dischargers shall conduct a baseline sampling prior to the proposed injection, followed by specified schedules from all five monitoring wells for the following groundwater parameters:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Dissolved Oxygen	mg/L	grab	Baseline and quarterly after injection
Oxidation-Reduction Potential	millivolts	grab	Baseline and quarterly after injection
pH	pH units	grab	Baseline and quarterly after injection
Specific Conductivity	mS/cm	grab	Baseline and quarterly after injection
Temperature	°C	grab	Baseline and quarterly after injection
Turbidity	NTU	grab	Baseline and quarterly after injection

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Total Organic Carbon	mg/L	grab	Baseline and quarterly after injection
Total Dissolved Solids	mg/L	grab	Baseline and quarterly after injection
Sulfate	mg/L	grab	Baseline and quarterly after injection
Chloride	mg/L	grab	Baseline and quarterly after injection
Boron	mg/L	grab	Baseline and quarterly after injection
Nitrate and Nitrite	mg/L	grab	Baseline and quarterly after injection
Volatile Organic Compounds	µg/L	grab	Baseline and quarterly after injection
Dissolved Gases (methane, ethane, and ethene)	mg/L	grab	Baseline and quarterly after injection
Dehalococcoides species	cells/mL	grab	Baseline and quarterly after injection
Fluorescein	µg/L	grab	Baseline and quarterly after injection
Rhodamine	µg/L	grab	Baseline and quarterly after injection

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

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

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 dropped by the Executive Officer if the Dischargers makes a request and the request is backed 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 for gathering the information, the information submitted is, to the best of my 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. PUBLIC DOCUMENTS

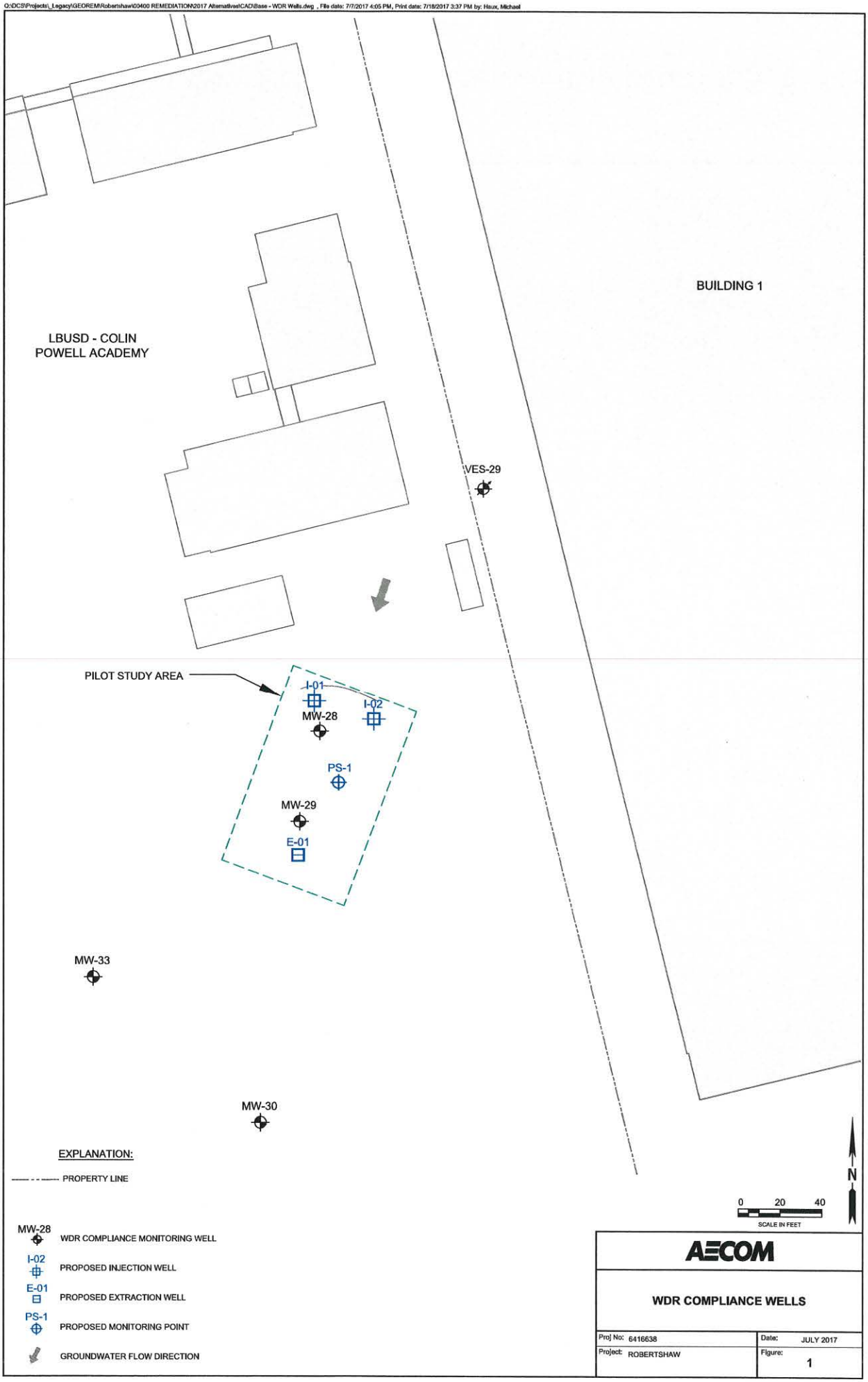
All records and reports submitted in compliance with Regional Board Order No. R4-2014-0187 and Monitoring and Reporting Program No. CI-10157 are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Dischargers will be treated as confidential.

VII. ELECTRONIC SUBMITTAL OF INFORMATION

The Dischargers shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data in Electronic Deliverable Format, discharge location data, and searchable Portable Document Format of monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100023693.

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

Date: July 24, 2017



AECOM

WDR COMPLIANCE WELLS

Proj No: 6416638	Date: JULY 2017
Project: ROBERTSHAW	Figure: 1