



GAVIN NEWSOM
GOVERNOR



JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

July 9, 2019

Mr. Christopher Cannon
City of Los Angeles Harbor Department
Environmental Management Division
425 South Palos Verdes Street
San Pedro, California 90731

Certified Mail
Return Receipt Required
Claim No. 7018 2290 0001 8905 2701

GENERAL WASTE DISCHARGE REQUIREMENTS FOR INJECTION OF CARBON SUBSTRATES AND BIOAUGMENTATION CULTURE – LONG BEACH LEADS EXTENSION PARCELS LBX/MY-851 AND LBX/SE-853, 914 FARRAGUT AVENUE, WILMINGTON, CALIFORNIA (FILE NO. 19-011, ORDER NO. R4-2014-0187, SERIES NO. 140, CI-10479, GLOBAL ID. WDR 100040482)

Dear Mr. Cannon:

The Los Angeles Regional Water Quality Control Board (Regional Water Board) is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within major portions of Los Angeles and Ventura Counties, including the referenced property above.

The City of Los Angeles Harbor Department (hereinafter Discharger) is the responsible party for the subject properties located at 914 Farragut Avenue, Wilmington, California. The October 2018 groundwater monitoring results indicated that *cis*-1,2-dichloroethylene and vinyl chloride were detected at concentrations up to 1,710 micrograms per liter ($\mu\text{g/L}$) and 2,250 $\mu\text{g/L}$, respectively.

On February 6, 2019, Regional Water Board Site Cleanup Program staff approved the *Revised Groundwater Remedial Action Plan* dated October 23, 2018. It is estimated that 22,400 gallons of amendment solution containing 9,650 pounds of ABC-Ole, 2.5 gallons (8 liters) of bioaugmentation culture (*Dehalococcoides sp.*), and 2,400 gallons of anaerobic chase water will be injected into four injection points (PS-Inj-1 through PS-Inj-4) at depths approximately from 15 to 50 feet below ground surface. The injection activities are expected to take approximately one month.

IRMA MUÑOZ, CHAIR | RENEE PURDY, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

Regional Water Board staff has completed the review of your application for coverage under General Waste Discharge Requirements (WDR) for injection of carbon substrates and bioaugmentation culture for groundwater remediation of volatile organic compounds. Regional Water Board staff has determined that the proposed discharge meets the conditions specified in General WDRs Order No. R4-2014-0187, *General Waste Discharge Requirements for In-Situ Groundwater Remediation and Groundwater Re-Injection*, adopted by this Regional Water Board on September 11, 2014.

Enclosed are your General Waste Discharge Requirements, consisting of General WDRs Order No. R4-2014-0187 (Series No. 140), Standard Provisions Applicable to Waste Discharge Requirements, and Monitoring and Reporting Program (MRP) No. CI-10479. The proposed discharge shall not cause the mineral constituents of the receiving groundwater at the compliance point, downgradient outside the application area, to be in excess of applicable limits (West Coast Subbasin of the Coastal Plain of Los Angeles Groundwater Basin) given in Attachment B of General WDRs Order No. R4-2014-0187. The groundwater quality objectives are 800 milligrams per liter (mg/L) for total dissolved solids, 250 mg/L for sulfate, 250 mg/L for chloride, and 1.5 mg/L for boron.

MRP No. CI-10479 requires you to implement the monitoring program on the effective date of this enrollment under Regional Water Board Order No. R4-2014-0187. When submitting monitoring or technical reports to the Regional Water Board per these requirements, please do not combine other reports with your monitoring reports. Submit each type of report as a separate document. 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 WDR100040482.


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 Water 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 Water 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,



Renee Purdy
Executive Officer

Enclosures: General Waste Discharge Requirements Order No. R4-2014-0187
Standard Provisions, Applicable to Waste Discharge Requirements
Monitoring and Reporting Program No. CI-10479

cc: Ms. Heather Benfield, Tetra Tech

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

MONITORING AND REPORTING PROGRAM NO. CI-10479
FOR
LONG BEACH LEADS EXTENSION PARCELS LBX/MY-851 AND LBX/SE-853
914 FARRAGUT AVENUE, WILMINGTON, CALIFORNIA

ENROLLMENT UNDER REGIONAL WATER BOARD
ORDER NO. R4-2014-0187 (SERIES NO. 140)
FILE NO. 19-011

I. MONITORING AND REPORTING REQUIREMENTS

- A. City of Los Angeles Harbor Department (hereinafter Discharger) shall implement this Monitoring and Reporting Program (MRP) on the effective date (July 9, 2019) under Regional Water Board Order No. R4-2014-0187. The first monitoring report shall be received at the Regional Water Board by **October 30, 2019**. Subsequent monitoring reports shall be received at the Regional Water Board according to the following schedule:

<u>Monitoring Period</u>	<u>Report Due</u>
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 Discharger shall submit an annual summary report to the Regional Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger 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 Discharger shall comply with requirements contained in Section G of Regional Water Board 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 ABC-Ole and bioaugmentation culture.
2. Written and tabular summary defining depth of injection points, quantity and concentration of ABC-Ole and bioaugmentation culture injected at each injection point, and total amount of ABC-Ole and bioaugmentation culture 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 five shallow zone screened wells MW851-1, MW853-1, MW853-5C, MW853-6C, and MW853-9CR, and five intermediate zone screened well MW851-1B, MW853-1B, MW853-2B, MW853-5B, and MW853-6B (Figures 1, 2, and 3). The Discharger shall conduct a baseline sampling prior to the proposed injection, followed by a monitoring frequency specified in the schedule below from all 10 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)	µg/L	grab	Baseline and quarterly after injection
<i>Dehalococcoides</i> species	cells/mL	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 Discharger 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)"

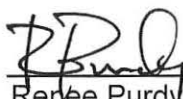
VI. PUBLIC DOCUMENTS

All records and reports submitted in compliance with Regional Water Board Order No. R4-2014-0187 and Monitoring and Reporting Program No. CI-10479 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.

VII. ELECTRONIC SUBMITTAL OF INFORMATION

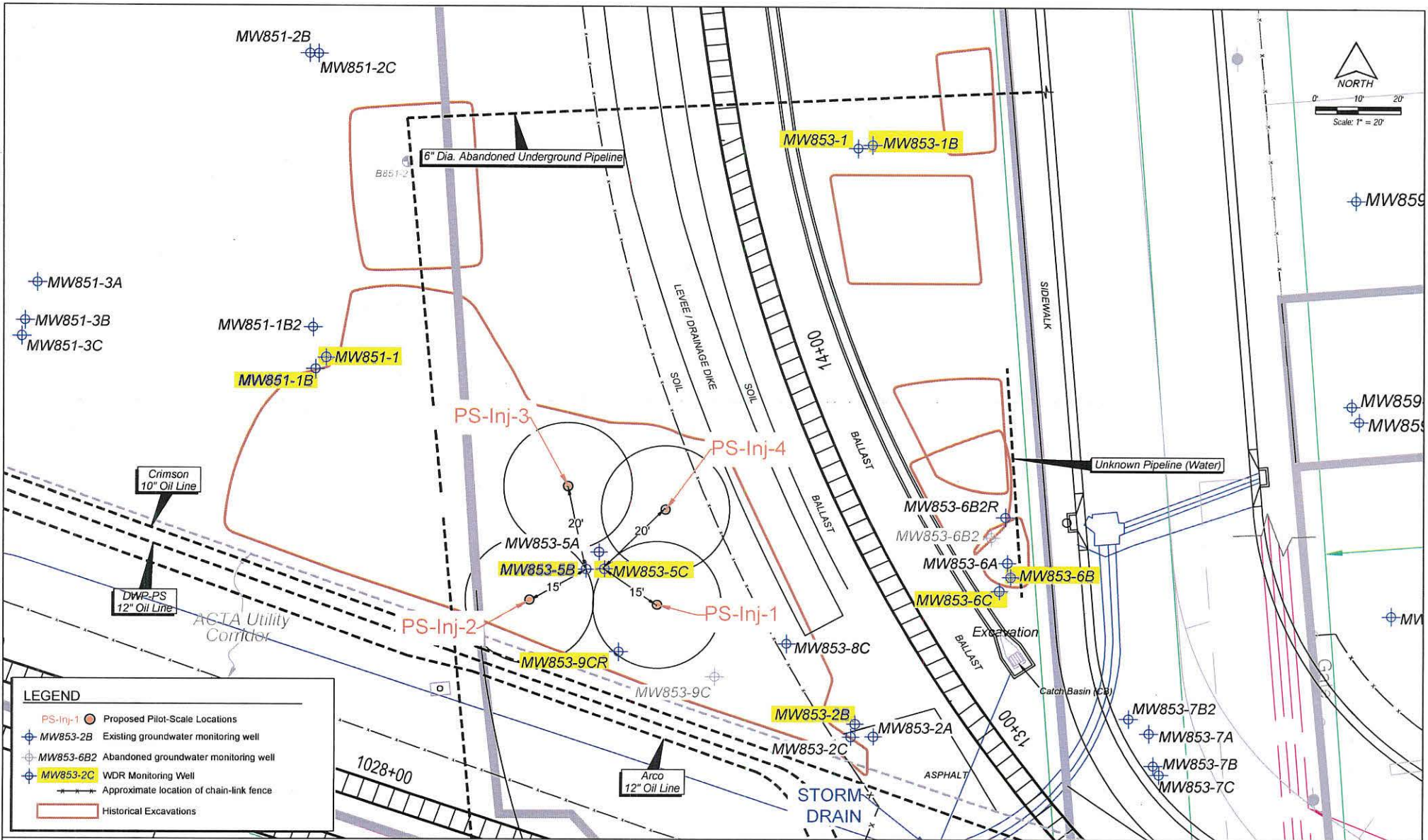
The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data in Electronic Deliverable Format, discharge location data, and searchable Portable Document Format of monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100040482.

Ordered by:



Renee Purdy
Executive Officer

Date: July 9, 2019



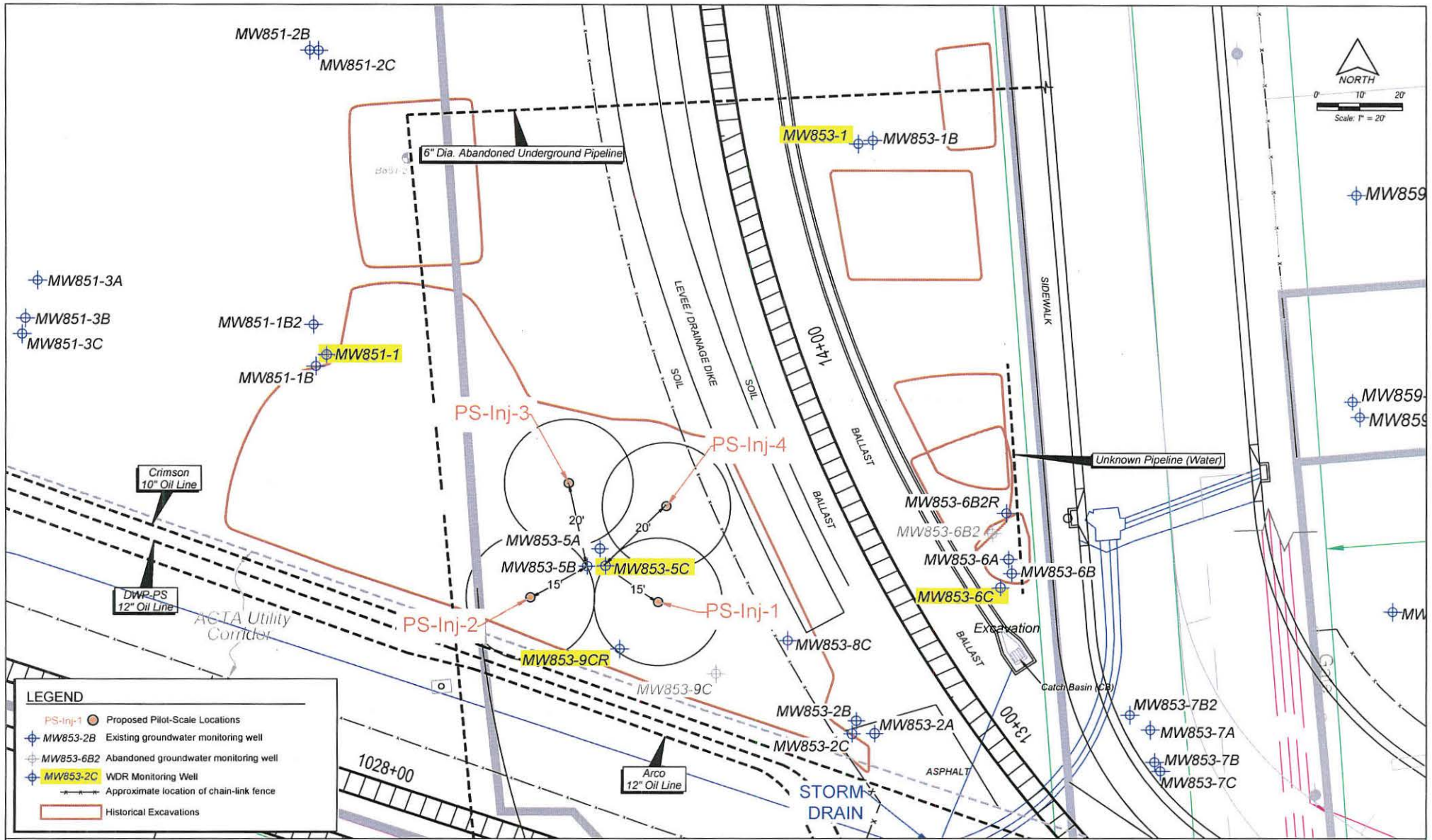
PROJECT NUMBER	H.B.	Prepared By:	Tetra Tech 3475 E. Foothill Blvd. Pasadena, California 91107
DATE	J.G./R.L.		
PROJECT NAME	E.N.		

Prepared For:	CITY OF LOS ANGELES HARBOR DEPARTMENT Environmental Management Division 425 South Palms Verdes St. San Pedro, CA 90733-0151

Figure 1
Pilot-Scale Injection Locations

DATE	May 2019
SCALE	1" = 20'
PROJECT NUMBER	102-HMG-T73479.36

J:\PASCAD\Projects\POLA\BLK\2019 WDR Application\2019-05-21 Figure 1.dwg

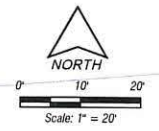
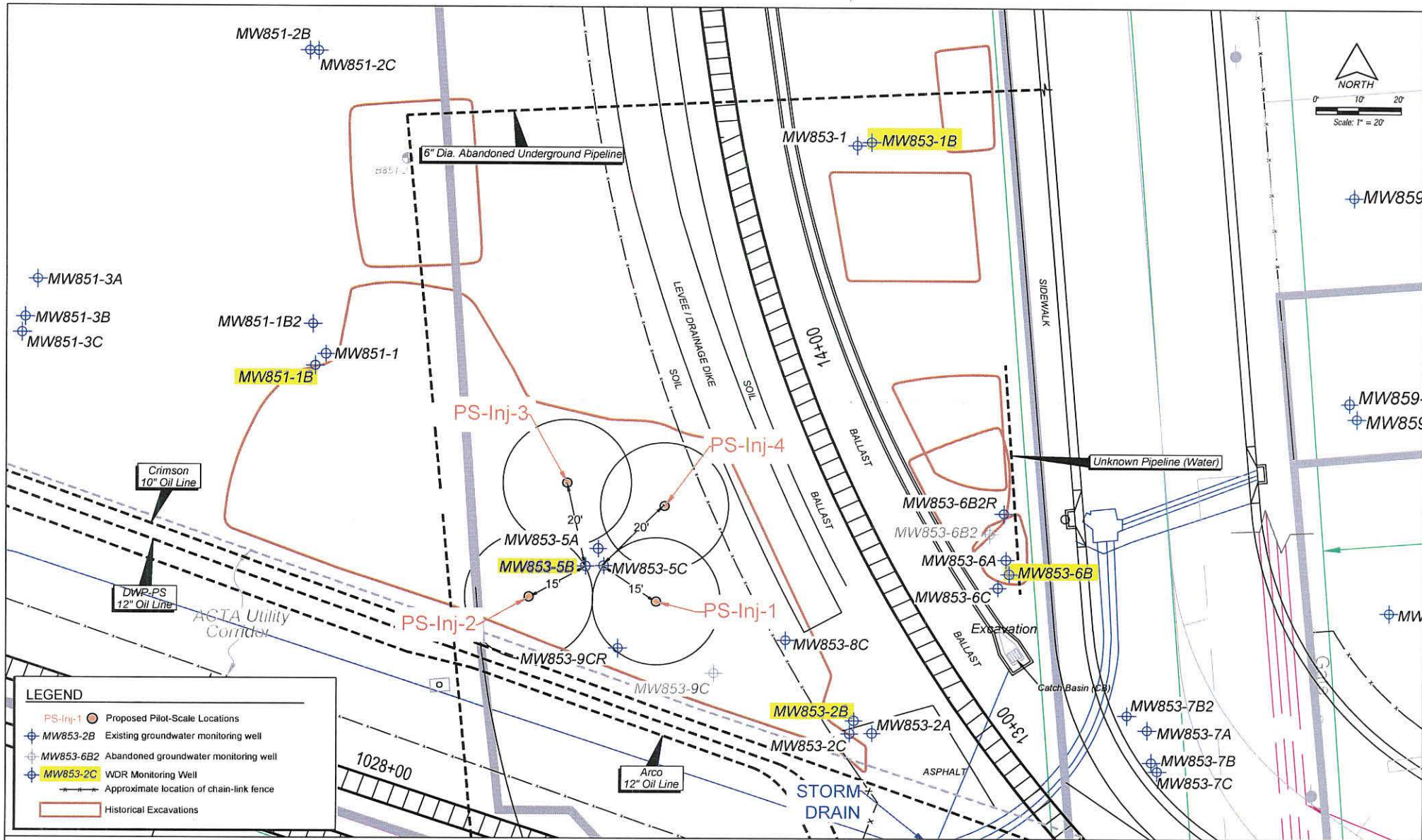


DATE: 05/06/2019	Prepared By:	Tetra Tech 3475 E. Foothill Blvd. Pasadena, California 91107
DRAWN BY:	J.G./R.L.	
CHECKED BY:	E.N.	
DATE: 05/06/2019		

Prepared For:	CITY OF LOS ANGELES HARBOR DEPARTMENT Environmental Management Division 433 South Palms Vender St. San Pedro, CA 90731-0151

Figure 2
 Shallow Zone "C" WDR Monitoring Wells

J:\PABICAD\Projects\POLAL\BLX\2019 WDR Application\2019-05-21 Figure 2.dwg
 DATE: May 2019
 SCALE: 1"=20'
 102-HMG-T73479.36



LEGEND	
PS-Inj-1	Proposed Pilot-Scale Locations
MW853-2B	Existing groundwater monitoring well
MW853-6B2	Abandoned groundwater monitoring well
MW853-2C	WDR Monitoring Well
(Dashed line)	Approximate location of chain-link fence
(Red outline)	Historical Excavations

Prepared By: Tetra Tech 3475 E. Foothill Blvd. Pasadena, California 91107	Prepared For: CITY OF LOS ANGELES HARBOR DEPARTMENT Environmental Management Division 425 South Palms Verdes St. San Pedro, CA 90733-0151	Figure 3 Intermediate Zone "B" WDR Monitoring Wells	Date: May 2019 Scale: 1"=20' Project Number: 102-HMG-T73479.36
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