CITY OF OCEANSIDE

David Gibson, Executive Officer
San Diego Regional Water Quality Control Board
2375 Northside Drive, Suite 100
San Diego, CA 92108-2700

Dear Mr. Gibson,

The City of Oceanside requests that its Mission Avenue Sanitary Landfill (MASL) be enrolled and regulated under Order No. R9-2012-0001, Waste Discharge Requirements (WDR) for Closed, Inactive, and Abandoned (CAI) Landfills within the San Diego Region. The MASL currently maintains coverage under Order No. 88-53, adopted August 29, 1988. Addendum No. 1 was adopted and added to Order 88-53 on November 13, 2002 and superseded some of the original monitoring and reporting requirements.

Addendum No. 1 required enrollment under Order 97-03-DWQ, General Industrial Permit (GIP) for Discharges Associated with Industrial Activities Excluding Construction Activities. Attached, please find a notice of termination (NOT) report for coverage under the GIP prepared in anticipation of receiving enrollment under Order No. R9-2012-0001. The NOT includes technical information and current pictures of the MASL site.

The MASL is a 14-acre site situated in a steep-walled canyon, tributary to the San Luis Rey River, approximately 2,000 ft. to the North. The site operated as a disposal site for non-hazardous solid waste and digested sewage sludge from 1971 to 1979. During its active period, the site received approximately 790,000 cubic yards of solid waste and 100,000 cubic yards of sludge material. At the request of Regional Board staff, the City submitted a technical report in 1985 and a Report of Waste Discharge in 1987, of which both are summarized in Order No. 88-53 (Please see Attachment 2). Upon closure of the site, a soil cap was placed over the entirety (including front slope face) and consisted of a minimum four-foot thick cover layer, including a one-foot low permeable (permeability of 1×10^{-6} cm/sec. or less) clay layer. The central portion of the site received a five-foot thick cover. In addition, since 1987, at least 25,000 additional cubic yards of soil was added to the site, creating a 20 foot thick cap in some areas. Once capped, the ground surface was seeded with native vegetation. The ground surface was again seeded with native vegetation in 2003 and large (1-1/4'') gravel rock added to areas near storm drain inlets and with potential for erosion to occur. Annual inspection of the site is performed consistently and has not revealed any evidence of exposed waste or waste transferred off-site through surface runoff.

The site has approximately 41 gas monitoring wells (probes and extraction wells), observed on a monthly basis (the County of San Diego Solid Waste Local Enforcement Agency (LEA) only requires quarterly readings) and three groundwater wells which are monitored and

CITY OF OCEANSIDE

results provided to the RWQCB semi-annually. The most recent Groundwater Monitoring Annual Report submitted to the Regional Water Quality Control Board for the 2014 year is included as Attachment 3.

After review of Order No. 2012-0001, the City believes it is more strict and protective of waters of the State than maintaining enrollment under Order No. 88-53 and seeking enrollment under the new General Permit for Storm Water Discharges Associated with Industrial Activities, Order No. CAS000001. Furthermore, the City's other closed landfill, Maxson Landfill, already has coverage under Order No. 2012-0001. Therefore, granting MASL enrollment under Order No. 2012-0001, would allow the City to better streamline its monitoring efforts and ensure that all mandated provisions are adhered to.

City Staff thank you for your time and consideration in advance. We look forward to working with you and your Staff in anticipation of deciding how best to regulate the site in regards to protecting human health and the environment.

Sincerely,

Bryan R. Forward
Ordinance Enforcement Supervisor
Oceanside Public Works Department
(760)435-5194 - direct

Attachment 1

Notice of Termination of Coverage Under the

General Industrial Storm Water Permit No. 97-03-DWQ

California Water Boards

State Water Resources Control Board

To: Storm Water Permit Holder

RE: NOTICE OF TERMINATION OF COVERAGE UNDER THE GENERAL **INDUSTRIAL** STORM WATER PERMIT (GENERAL PERMIT)

To terminate your coverage under the General Permit, please complete and submit the attached Notice of Termination (NOT) to your local Regional Water Quality Control Board (RWQCB). The addresses of each RWQCB, as well as staff contacts can be located on page 9 of the attached Annual Report.

You are still responsible for completing an Annual Report for the period after July 1 that your facility was required to be permitted. The completed Annual Report should be submitted along with your NOT.

Submittal of a NOT does not guarantee termination and outstanding invoices will remain payable. If your NOT is denied, you will be required to continue monitoring and reporting activities required by the General Permit and all outstanding invoice(s) are due. You will be notified of your NOT status by the RWQCB or State Water Resources Control Board. Approval of your Notice of Termination does not relieve you from paying any applicable outstanding invoices.

Should you have any questions regarding this matter, please contact your local RWQCB or the Storm Water Section at 1-866-563-3107 or stormwater@waterboards.ca.gov

Sincerely,

Storm Water Section Division of Water Quality

Enclosure

SEND TO YOUR LOCAL RWQCB FOR APPROVAL

State of California State Water Resources Control Board

NOTICE OF TERMINATION

Submission of this Notice of Termination constitutes notification that the facility operator identified below is no longer required to comply with the **Industrial Activities** Storm Water General Permit No. 97-03-DWQ.

I. WDID NO. 9 371005696

II. FACILITY OPERATOR

NAME: Bryan Forward CONTACT PERSON: Bryan Forward
ADDRESS: 300 N. Coast Hwy TITLE: Ordinance Enforcement Supervisor
EMAIL: Bforward@ci.oceanside.ca.us CITY: Oceanside STATE: CA ZIP: 92054
PHONE: (760) 435-5194

III. FACILITY SITE INFORMATION

FACILITY NAME: Mission Landfill CONTACT PERSON: Bryan Forward
LOCATION: 2070 Mission Ave TITLE: Ordinance Enforcement Supervisor
EMAIL: Bforward@ci.oceanside.ca.us
CITY: Oceanside STATE: **CA** ZIP: 92054
PHONE: (760) 435-5194

SIC CODE(S) 9999 TYPE OF BUSINESS: **Closed Municipal Landfill**

IV. BASIS OF TERMINATION

X 1. **Closed Facility.** The facility is closed and all closure, moving, and clean-up activities are complete.
Date of closure: 1979
Are you moving to a new location in CA? _____Yes **X** No

If Yes, start date at new location? / / Will you file new NOI? _____Yes **X** No

NEW FACILITY INFORMATION **N/A**

NAME CONTACT PERSON

MAILING ADDRESS TITLE

CITY STATE ZIP PHONE

N/A 2. **Light Industry Exemption.** Exposure of industrial activities, materials, and equipment to storm water has been eliminated (Applies only to certain facilities - see instructions). Complete and submit Attachment A.

Date of evaluation: / / Date exposure eliminated (if applicable): ___/___/___

Planned date of next evaluation: / /

N/A 3. **No Storm Water Discharge.** Storm water associated with industrial activity does not discharge to waters of the United States because:

____ a. the storm water is retained on site (such as in evaporation or percolation ponds).

____ b. the storm water is discharged to a municipal sanitary sewer systems or municipal combined sewer system.

____ c. the storm water is retained offsite (such as in evaporation or percolation ponds).

N/A 4. **Not Required to be Permitted.** The facility is not required by federal regulations to be regulated by an industrial activities storm water NPDES permit.

__X__ 5. **Regulated by Another Permit.** Discharge of storm water associated with industrial activity is specifically regulated by another general or individual NPDES permit.
NPDES Permit No.____ Date coverage began ___/___/___ ____

Note: Site is covered under separate NPDES Permit, Order No. 88-53, *Waste Discharge Requirements for the Mission Ave. Landfill*

N/A 6. **New Facility Operator.** There is a new facility operator of the identified facility.
Date facility was transferred to new facility operator ___/___/___.
Have you notified the new facility operator of the storm water NPDES Permit requirements? Yes No

NAME CONTACT PERSON

MAILING ADDRESS TITLE

CITY STATE ZIP PHONE

V. ADDITIONAL TERMINATION INFORMATION
Are you attaching any additional termination information? Yes No X

VI. FACILITY PHOTOGRAPHS
Have you attached facility photographs? Yes X No (See Instructions)

VII. ANNUAL REPORT
Have you attached an Annual Report? Yes X No (See Instructions)

VII
I. CERTIFICATION

I certify under penalty of law that 1) I am not required to be permitted under the Industrial Activities Storm Water General Permit No. 97-03-DWQ, and 2) this document and all attachments were prepared under my direction and supervisions in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I am aware that it is unlawful under the Clean Water Act to discharge storm water associated with industrial activity to waters of the United States if the discharge is not authorized by a NPDES permit, and there are significant penalties for submitting false information. I understand that the facility operator is still required to submit an annual report to the Regional Water Board by July 1. I also understand that the submittal of this Notice of Termination does not release a facility operator from liability for any violations of the General Permit or the Clean Water Act.

PRINTED NAME: Bryan Forward TITLE: Ordinance Enforcement Supervisor
SIGNATURE: DATE: 5/13/2015

REGIONAL WATER BOARD USE ONLY
☐ **Approved** and sent to State Board for termination ☐ **Denied** and returned to applicant

PRINTED NAME: SIGNATURE:
DATE:

NOT Effective Date:

State of California State Water Resources Control Board

INSTRUCTIONS FOR COMPLETING NOTICE OF TERMINATION OF COVERAGE UNDER INDUSTRIAL ACTIVITIES STORM WATER GENERAL PERMIT NO. 97-03-DWQ

SECTION 1 -- WDID NO.

The WDID NO. is a number assigned to each facility after the Notice of Intent is filed. The WDID number can be found on the annual invoice where it is referenced as the "Facility I.D. Number." If you do not know your facility's WDID No., please call the State Water Board or Regional Water Board (page 9 of the attached Annual Report) and request it prior to submitting the Notice of Termination.

SECTION II -- FACILITY OPERATOR

Enter the name, provided on the Notice of Intent, of the person, company, firm, public organization, or any other entity which owns the business or operations at the facility. The facility operator information may or may not be the same as the facility information requested in Section III.

SECTION III -- FACILITY SITE INFORMATION

Enter the facility's official or legal name, provided on the Notice of Intent, and provide the address, county, and contact person information for the facility. Where the location of the facility is different than the mailing address, a narrative description of the facility location must be provided. The contact person should be the plant or site manager who is completely familiar with the facility and responsible for General Permit compliance. Provide the Standard Industrial Classification (SIC) code(s) that are applicable to the facility and describe the type of business that is conducted at the facility. For closed facilities, however, provide the SIC code(s) and describe the type of business that had been conducted at the facility.

SECTION IV -- BASIS OF TERMINATION

Check the category which best defines the basis of your termination request. Provide dates and other information requested. If the categories provided do not fully or accurately identify the basis of your termination, attach an additional explanation and check the "Yes" box in Section V.

1 Closed Facility. This category applies when the facility is closed and all closure, moving, and clean-up activities are complete. This means that all industrial activities that are subject to federal storm water regulations have been discontinued and that the exposure of industrial equipment, materials, and waste to storm water has been eliminated. The facility operator should refer to the definition of "storm water associated with industrial activity" in Attachment 4 of the General Permit. Facilities that discontinue operations shall not be considered for termination if industrial equipment, materials, or waste remain exposed to storm water. The date when closure is complete shall be provided. If you are moving to a new facility requiring General Permit coverage, provide the name, address, and contact of the new facility.

2 Light Industry Exemption. This category applies only to certain facilities identified as category 10 on Attachment 1 of the General Permit (commonly referred to as "light industries") where exposure of industrial activities, materials, and equipment to storm water has been eliminated. Accidental spills, minor leaks, loss during loading and unloading, movement of unhoused equipment, emissions of dust or particles from stacks or air exhaust systems, and other type of intermittent sources should be considered when determining exposure. Complete and submit Attachment A entitled "Checklist to Evaluate Potential Storm Water Pollutant Sources". Provide the date the facility was evaluated and the date the next evaluation is planned. If you have taken steps to eliminate exposure of industrial activities, materials, and equipment to storm water, provide the date that exposure was eliminated.

3 No Storm Water Discharge. This category applies to facilities where storm water associated with industrial activity does not discharge to waters of the United States. These include facilities where all the storm water is retained on site, discharged to a municipal sanitary sewer system or municipal combined sewer system, or discharged to evaporation or percolation ponds offsite that do not discharge to waters of the United States.

Not Required to be Permitted. This category applies to facilities that are not required by federal regulations to be covered by a NPDES storm water permit. Attachment 1 of the General Permit identifies ten categories of industrial facilities required to obtain NPDES permits for discharge of storm water associated with industrial activity. A facility operator who has filed a Notice of Intent for coverage under the General Permit and later determines that the facility is not included in the identified categories may request termination of coverage.
Make sure that the SIC code(s) and type of business in Section III of the NOT form are accurate.

1 Regulated by Another Permit. This category applies to facilities where discharges of storm water associated with industrial activity are currently regulated under another general or individual NPDES permit. The general or individual NPDES permit number and date coverage began shall be provided.

2 New Facility Operator. This category applies when there is a new facility operator of the identified facility. The previous facility operator must submit a Notice of Termination and the new facility operator must submit a Notice of Intent and fee for coverage under the General Permit. Provide the date the new facility operator took responsibility for the facility and the new facility operator information. Note that the previous facility operator may be liable for discharges from the facility until the new facility operator files a Notice of Intent for coverage under the General Permit.

SECTION V – ADDITIONAL BASIS OF TERMINATION INFORMATION
If none of the basis of termination in Section IV accurately reflect your basis for termination, answer "Yes" and attach a detailed explanation why you believe your facility is not required to be permitted.

SECTION VI – FACILITY PHOTOGRAPHS
If category 1, 2, or 3 is checked in Section IV, attach photographs of all areas of the facility associated with industrial activity including any on-site or off-site storm water containment areas. If category 4, 5, or 6 is checked in Section IV, contact your Regional Water Board (page 9 of the attached Annual Report) to determine whether photographs must be submitted.

SECTION VII – ANNUAL REPORT
You are responsible for submitting an Annual Report (Attachment B) for all compliance activities conducted between July 1 and the date the facility was no longer required to be permitted. In order to assist the Regional Board in processing your NOT, a completed Annual Report should be attached to your NOT. If you cannot submit an Annual Report, please contact your Regional Board office prior to submitting your NOT.

SECTION VIII – CERTIFICATION
This section should be read by the facility operator. Please note that the facility operator is still required to prepare and submit a final annual report to the appropriate Regional Water Board office by July 1. The annual report must report all compliance activities that occurred during the current reporting period and prior to the date this Notice of Termination was submitted. The Notice of Termination must by signed by:

For a corporation: a responsible corporate officer. For a Partnership or Sole Proprietorship: a general partner or the proprietor, respectively. For a Municipality, State, or other Non-Federal Public Agency: either a principle executive officer or ranking elected official. For a Federal Agency: either the chief or senior executive officer of the agency.

Where To File

Submit the Notice of Termination to the Regional Water Board responsible for the area in which the facility is located. See attached State and Regional Boards Directory. If the Regional Water Board agrees with the basis of termination, the Notice of Termination will be transmitted to the State Water Board for processing. Approval of your Notice of Termination does not relieve you from paying any applicable outstanding invoices. If the Regional Water Board does not agree with the basis of termination, the Notice of Termination will be returned. The Regional Water Board may contact you or inspect your facility prior to (or following) approving this Notice of Termination.


2015/05/12


2015/05/12

CALIFORNIA
Water Boards

State Water Resources Control Board

To Interested Parties:

2014-2015 ANNUAL REPORT ANNUAL REPORT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

Attached is the 2014-21015 annual report that must be mailed to your Regional Board office by July 1, 2015. Dischargers within the Los Angeles Regional Board are required to electronically submit their annual reports via the Storm Water Multi-Application Reporting and Tracking System (SMARTS), email with a PDF attachment(s) to losangeles@waterboards.ca.gov, or mail a disk. Although electronic submittals are not mandatory for dischargers in other regions, we encourage all dischargers to register and use SMARTS. We anticipate that a new Industrial General Permit (IGP) will be adopted sometime next year that will mandate electronic reporting for future reporting years.

To register to use SMARTS please fill out the LRP Registration Form and mail it back to: SMARTS Registration, P.O. Box 1977, Sacramento, CA 95812. Once a complete registration form is received, instructions and a Secret Code Number will be emailed. The Secret Code Number is used to link your SMARTS ID to the WDID Number.

For SMARTS registration questions or information please contact the SMARTS help center at 1-866-563-3107 or by email at stormwater@waterboards.ca.gov.

To receive email updates on Storm Water Industrial permitting issues including updates on the IGP reissuance process (hearings, workshops, schedules, etc.), please sign up at http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml The Storm Water program currently maintains five email lists:

- Storm Water Database Issues
- Storm Water Construction Permitting Issues
- Storm Water Industrial Permitting Issues
- Storm Water Municipal Permitting Issues
- Sustainable Development

Sincerely,

Storm Water Section

State of California
STATE WATER RESOURCES CONTROL BOARD

2014-2015
ANNUAL REPORT
FOR
STORM WATER DISCHARGES ASSOCIATED
WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2014 through June 30, 2015

An annual report is required to be submitted to your local Regional Water Quality Control Board (Regional Board) by July 1 of each year. This document must be certified and signed, under penalty of perjury, by the appropriate official of your company. Many of the Annual Report questions require an explanation. Please provide explanations on a separate sheet as an attachment. **Retain a copy of the completed Annual Report for your records.**

Please circle or highlight any information contained in Items A, B, and C below that is new or revised so we can update our records. Please remember that a Notice of Termination and new Notice of Intent are required whenever a facility operation is relocated or changes ownership.

If you have any questions, please contact your Regional Board Industrial Storm Water Permit Contact. The names, telephone numbers and e-mail addresses of the Regional Board contacts, as well as the Regional Board office addresses can be found at http://www.waterboards.ca.gov/stormwtr/contact.html. To find your Regional Board information, match the first digit of your WDID number with the corresponding number that appears in parenthesis on the first line of each Regional Board office.

GENERAL INFORMATION:

A. Facility Information:

Facility WDID No: 9 371005696

Facility Business Name: City of Oceanside
Physical Address: 2070 Mission Ave
City: Oceanside
Standard Industrial Classification (SIC) Code(s): _____

Contact Person: Bryan Forward
e-mail: bforward@ci.oceanside.ca.us
CA Zip: 92054 Phone: 760-435-5194

B. Facility Operator Information:

Operator Name: Oceanside Public Works
Mailing Address: 4927 Oceanside Blvd.
City: Oceanside

Contact Person: Bryan Forward
e-mail: bforward@ci.oceanside.ca.us
State: CA Zip: 92056 Phone: 760-435-5194

C. Facility Billing Information:

Operator Name: Oceanside Public Works
Mailing Address: 4927 Oceanside Blvd
City: Oceanside

Contact Person: Bryan Forward
e-mail: bforward@ci.oceanside.ca.us
State: CA Zip: 92056 Phone: 760-435-5194

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SPECIFIC INFORMATION

MONITORING AND REPORTING PROGRAM

D. SAMPLING AND ANALYSIS EXEMPTIONS AND REDUCTIONS

1. For the reporting period, was your facility exempt from collecting and analyzing samples from **two** storm events in accordance with sections B.12 or 15 of the General Permit?

☐ **YES** Go to Item D.2 ☒ **NO** Go to Section E

2. Indicate the reason your facility is exempt from collecting and analyzing samples from **two** storm events. Attach a copy of the first page of the appropriate certification if you check boxes ii, iii, iv, or v.

i. ☐ Participating in an Approved Group Monitoring Plan **Group Name:** _____

ii. ☐ Submitted **No Exposure Certification (NEC)** Date Submitted: ___/___/___

Re-evaluation Date: ___/___/___

Does facility continue to satisfy NEC conditions? ☐ YES ☐ NO

iii. ☐ Submitted **Sampling Reduction Certification (SRC)** Date Submitted: ___/___/___

Re-evaluation Date: ___/___/___

Does facility continue to satisfy SRC conditions? ☐ YES ☐ NO

iv. ☐ Received Regional Board Certification Certification Date: ___/___/___

v. ☐ Received Local Agency Certification Certification Date: ___/___/___

3. If you checked boxes i or iii above, were you scheduled to sample **one** storm event during the reporting year?

☐ **YES** Go to Section E ☐ **NO** Go to Section F

4. If you checked boxes ii, iv, or v, go to Section F.

E. SAMPLING AND ANALYSIS RESULTS

1. How many storm events did you sample? __0__

If less than 2, **attach explanation** (if you checked item D.2.i or iii. above, only attach explanation if you answer "0").

2. Did you collect storm water samples from the first storm of the wet season that produced a discharge during scheduled facility operating hours? (Section B.5 of the General Permit)

☐ **YES** ☒ **NO** **attach explanation** **(Please note that if you do not sample the first storm event, you are still required to sample 2 storm events)**

3. How many storm water discharge locations are at your facility? __1__

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4. For each storm event sampled, did you collect and analyze a sample from each of the facility's' storm water discharge locations? **NA** ☐ YES, go to Item E.6 ☒ NO

5. Was sample collection or analysis reduced in accordance with Section B.7.d of the General Permit? **NA** ☐ YES ☐ NO, **attach explanation**

   If "YES", **attach documentation** supporting your determination that two or more drainage areas are substantially identical.

   Date facility's drainage areas were last evaluated ____/____/____

6. Were all samples collected during the first hour of discharge? **NA** ☐ YES ☒ NO, **attach explanation**

7. Was all storm water sampling preceded by three (3) working days without a storm water discharge? **NA** ☐ YES ☒ NO, **attach explanation**

8. Were there any discharges of storm water that had been temporarily stored or contained? (such as from a pond) **NA** ☐ YES ☒ NO, go to Item E.10

9. Did you collect and analyze samples of temporarily stored or contained storm water discharges from two storm events? (or one storm event if you checked item D.2.i or iii. above) ☐ YES ☐ NO, **attach explanation**

10. Section B.5. of the General Permit requires you to analyze storm water samples for pH, Total Suspended Solids (TSS), Specific Conductance (SC), Total Organic Carbon (TOC) or Oil and Grease (O&G), other pollutants likely to be present in storm water discharges in significant quantities, and analytical parameters listed in Table D of the General Permit.

    a. Does Table D contain any additional parameters related to your facility's SIC code(s)? ☐ YES ☒ NO, Go to Item E.11

    b. Did you analyze all storm water samples for the applicable parameters listed in Table D? ☐ YES ☐ NO

    c. If you did not analyze all storm water samples for the applicable Table D parameters, check one of the following reasons:

    _____ In prior sampling years, the parameter(s) have not been detected in significant quantities from two consecutive sampling events. **Attach explanation**

    _____ The parameter(s) is not likely to be present in storm water discharges and authorized non-storm water discharges in significant quantities based upon the facility operator's evaluation. **Attach explanation**

    _____ Other. **Attach explanation**

11. For each storm event sampled, attach a copy of the laboratory analytical reports and report the sampling and analysis results using **Form 1** or its equivalent. The following must be provided for each sample collected:

- Date and time of sample collection
- Name and title of sampler
- Parameters tested
- Name of analytical testing laboratory
- Discharge location identification
- Testing results
- Test methods used
- Test detection limits
- Date of testing
- Copies of the laboratory analytical results

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F. QUARTERLY VISUAL OBSERVATIONS

1. Authorized Non-Storm Water Discharges

Section B.3.b of the General Permit requires quarterly visual observations of all authorized non-storm water discharges and their sources.

a. Do authorized non-storm water discharges occur at your facility?

☒ YES ☐ NO Go to Item F.2

b. Indicate whether you visually observed all authorized non-storm water discharges and their sources during the quarters when they were discharged. **Attach an explanation for any "NO" answers.** Indicate "N/A" for quarters without any authorized non-storm water discharges.

July-September	☐ YES	☐ NO	☒ N/A	October-December	☐ YES	☐ NO	☒ N/A
January-March	☐ YES	☐ NO	☒ N/A	April-June	☐ YES	☐ NO	☒ N/A

c. Use **Form 2** to report quarterly visual observations of authorized non-storm water discharges or provide the following information:

i. name of each authorized non-storm water discharge
ii. date and time of observation
iii. source and location of each authorized non-storm water discharge
iv. characteristics of the discharge at its source and impacted drainage area/discharge location
v. name, title, and signature of observer
vi. any new or revised BMPs necessary to reduce or prevent pollutants in authorized non-storm water discharges. Provide new or revised BMP implementation date.

2. Unauthorized Non-Storm Water Discharges

Section B.3.a of the General Permit requires quarterly visual observations of all drainage areas to detect the presence of unauthorized non-storm water discharges and their sources.

a. Indicate whether you visually observed all drainage areas to detect the presence of unauthorized non- storm water discharges and their sources. **Attach an explanation for any "NO" answers.**

July-September	☐ YES	☒ NO	October-December	☐ YES	☒ NO
January-March	☐ YES	☒ NO	April-June	☐ YES	☒ NO

b. Based upon the quarterly visual observations, were any unauthorized non-storm water discharges detected?

☐ YES ☒ NO Go to Item F.2.d

c. Have each of the unauthorized non-storm water discharges been eliminated or permitted?

☐ YES ☐ NO **Attach explanation**

d. Use **Form 3** to report quarterly unauthorized non-storm water discharge visual observations or provide the following information:

i. name of each unauthorized non-storm water discharge
ii. date and time of observation
iii. source and location of each unauthorized non-storm water discharge
iv. characteristics of the discharge at its source and impacted drainage area/discharge location
v. name, title, and signature of observer
vi. any corrective actions necessary to eliminate the source of each unauthorized non-storm water discharge and to clean impacted drainage areas. Provide date unauthorized non-storm water discharge(s) was eliminated or scheduled to be eliminated.

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G. MONTHLY WET SEASON VISUAL OBSERVATIONS

Section B.4.a of the General Permit requires you to conduct monthly visual observations of storm water discharges at all storm water discharge locations during the wet season. These observations shall occur during the first hour of discharge or, in the case of temporarily stored or contained storm water, at the time of discharge.

1. Indicate below whether monthly visual observations of storm water discharges occurred at all discharge locations. **Attach an explanation for any "NO" answers.** Include in this explanation whether any eligible storm events occurred during scheduled facility operating hours that did not result in a storm water discharge, and provide the date, time, name and title of the person who observed that there was no storm water discharge.

	YES	NO		YES	NO
October	☐	☒	February	☐	☒
November	☐	☒	March	☐	☒
December	☐	☒	April	☐	☒
January	☐	☒	May	☐	☒

2. Report monthly wet season visual observations using **Form 4** or provide the following information:

   a. date, time, and location of observation
   b. name and title of observer
   c. characteristics of the discharge (i.e., odor, color, etc.) and source of any pollutants observed
   d. any new or revised BMPs necessary to reduce or prevent pollutants in storm water discharges. Provide new or revised BMP implementation date.

ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION (ACSCE)

H. ACSCE CHECKLIST

Section A.9 of the General Permit requires the facility operator to conduct one ACSCE in each reporting period (July 1-June 30). Evaluations must be conducted within 8-16 months of each other. The SWPPP and monitoring program shall be revised and implemented, as necessary, within 90 days of the evaluation. The checklist below includes the minimum steps necessary to complete a ACSCE. Indicate whether you have performed each step below. **Attach an explanation for any "NO" answers.**

1. Have you inspected all potential pollutant sources and industrial activities areas? ☒ YES ☐ NO
   The following areas should be inspected:

   - areas where spills and leaks have occurred during the last year
   - outdoor wash and rinse areas
   - process/manufacturing areas
   - loading, unloading, and transfer areas
   - waste storage/disposal areas
   - dust/particulate generating areas
   - erosion areas
   - building repair, remodeling, and construction
   - material storage areas
   - vehicle/equipment storage areas
   - truck parking and access areas
   - rooftop equipment areas
   - vehicle fueling/maintenance areas
   - non-storm water discharge generating areas

2. Have you reviewed your SWPPP to assure that its BMPs address existing potential pollutant sources and industrial activities areas? ☒ YES ☐ NO

3. Have you inspected the entire facility to verify that the SWPPP's site map is up-to-date? The following site map items should be verified: ☒ YES ☐ NO

   - facility boundaries
   - outline of all storm water drainage areas
   - areas impacted by run-on
   - storm water discharges locations
   - storm water collection and conveyance system
   - structural control measures such as catch basins, berms, containment areas, oil/water separators, etc.

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4. Have you reviewed all General Permit compliance records generated since the last annual evaluation? ☒ YES ☐ NO

The following records should be reviewed:

- quarterly authorized non-storm water discharge visual observations
- monthly storm water discharge visual observation
- records of spills/leaks and associated clean-up/response activities
- quarterly unauthorized non-storm water discharge visual observations
- Sampling and Analysis records
- preventative maintenance inspection and maintenance records

5. Have you reviewed the major elements of the SWPPP to assure compliance with the General Permit? ☒ YES ☐ NO

The following SWPPP items should be reviewed:

- pollution prevention team
- list of significant materials
- description of potential pollutant sources
- assessment of potential pollutant sources
- identification and description of the BMPs to be implemented for each potential pollutant source

6. Have you reviewed your SWPPP to assure that a) the BMPs are adequate in reducing or preventing pollutants in storm water discharges and authorized non-storm water discharges, and b) the BMPs are being implemented? ☒ YES ☐ NO

The following BMP categories should be reviewed:

- good housekeeping practices
- spill response
- employee training
- erosion control
- quality assurance
- preventative maintenance
- material handling and storage practices
- waste handling/storage
- structural BMPs

7. Has all material handling equipment and equipment needed to implement the SWPPP been inspected? ☒ YES ☐ NO

I. ACSCE EVALUATION REPORT

The facility operator is required to provide an evaluation report that includes:

- identification of personnel performing the evaluation
- the date(s) of the evaluation
- necessary SWPPP revisions
- schedule for implementing SWPPP revisions
- any incidents of non-compliance and the corrective actions taken

Use **Form 5** to report the results of your evaluation or develop an equivalent form.

J. ACSCE CERTIFICATION

The facility operator is required to certify compliance with the Industrial Activities Storm Water General Permit. To certify compliance, both the SWPPP and Monitoring Program must be up to date and be fully implemented.

Based upon your ACSCE, do you certify compliance with the Industrial Activities Storm Water General Permit? ☒ YES ☐ NO

If you answered "NO" **attach an explanation** to the ACSCE Evaluation Report why you are not in compliance with the Industrial Activities Storm Water General Permit.

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ATTACHMENT SUMMARY

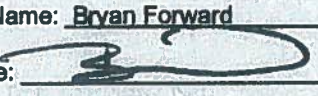
Answer the questions below to help you determine what should be attached to this annual report. Answer NA (Not Applicable) to questions 2-4 if you are not required to provide those attachments.

1.	Have you attached Forms 1,2,3,4, and 5 or their equivalent?	☒ YES (Mandatory)		
2.	If you conducted sampling and analysis, have you attached the laboratory analytical reports?	☐ YES	☒ NO	☒ NA
3.	If you checked box II, III, IV, or V in item D.2 of this Annual Report, have you attached the first page of the appropriate certifications?	☐ YES	☐ NO	☒ NA
4.	Have you attached an explanation for each "NO" answer in items E.1, E.2, E.5-E.7, E.9, E.10.c, F.1.b, F.2.a, F.2.c, G.1, H.1-H.7, or J?	☒ YES	☐ NO	☐ NA

ANNUAL REPORT CERTIFICATION

I am duly authorized to sign reports required by the INDUSTRIAL ACTIVITIES STORM WATER GENERAL PERMIT (see Standard Provision C.9) and I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those person 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 fine and imprisonment for knowing violations.

Printed Name: Bryan Forward

Signature:  Date: 5·13·2015

Title: Ordinance Enforcement Supervisor

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DESCRIPTION OF BASIC ANALYTICAL PARAMETERS

The Industrial Activities Storm Water General Permit (General Permit) requires you to analyze storm water samples for at least four parameters. These are pH, Total Suspended Solids (TSS), Specific Conductance (SC),and Total Organic Carbon (TOC). Oil and Grease (O&G) may be substituted for TOC. In addition, you must monitor for any other pollutants which you believe to be present in your storm water discharge as a result of industrial activity and analytical parameters listed in Table D of the General Permit. There are no numeric limitations for the parameters you test for.

The four parameters which the General Permit requires to be tested are considered *indicator* parameters. In other words, regardless of what type of facility you operate, these parameters are nonspecific and general enough to usually provide some indication whether pollutants are present in your storm water discharge. The following briefly explains what each of these parameters mean:

pH is a numeric measure of the hydrogen-ion concentration. The neutral, or acceptable, range is within 6.5 to 8.5. At values less than 6.5, the water is considered acidic; above 8.5 it is considered alkaline or basic. An example of an acidic substance is vinegar, and a alkaline or basic substance is liquid antacid. Pure rainfall tends to have a pH of a little less than 7. There may be sources of materials or industrial activities which could increase or decrease the pH of your storm water discharge. If the pH levels of your storm water discharge are high or low, you should conduct a thorough evaluation of all potential pollutant sources at your site.

Total Suspended Solids (TSS) is a measure of the undissolved solids that are present in your storm water discharge. Sources of TSS include sediment from erosion of exposed land, and dirt from impervious (i.e. paved) areas. Sediment by itself can be very toxic to aquatic life because it covers feeding and breeding grounds, and can smother organisms living on the bottom of a water body. Toxic chemicals and other pollutants also adhere to sediment particles. This provides a medium by which toxic or other pollutants end up in our water ways and ultimately in human and aquatic life. TSS levels vary in runoff from undisturbed land. It has been shown that TSS levels increase significantly due to land development.

Specific Conductance (SC) is a numerical expression of the ability of the water to carry an electric current. SC can be used to assess the degree of mineralization, salinity, or estimate the total dissolved solids concentration of a water sample. Because of air pollution, most rain water has a SC a little above zero. A high SC could affect the usability of waters for drinking, irrigation, and other commercial or industrial use.

Total Organic Carbon (TOC) is a measure of the total organic matter present in water. (All organic matter contains carbon) This test is sensitive and able to detect small concentrations of organic matter. Organic matter is naturally occurring in animals, plants, and man. Organic matter may also be man made (so called synthetic organics). Synthetic organics include pesticides, fuels, solvents, and paints. Natural organic matter utilizes the oxygen in a receiving water to biodegrade. Too much organic matter could place a significant oxygen demand on the water, and possibly impact its quality. Synthetic organics either do not biodegrade or biodegrade very slowly. Synthetic organics are a source of toxic chemicals that can have adverse affects at very low concentrations. Some of these chemicals bioaccumulate in aquatic life. If your levels of TOC are high, you should evaluate all sources of natural or synthetic organics you may use at your site.

Oil and Grease (O&G) is a measure of the amount of oil and grease present in your storm water discharge. At very low concentrations, O&G can cause a sheen (that floating "rainbow") on the surface of water (1 qt. of oil can pollute 250,000 gallons of water). O&G can adversely affect aquatic life and create unsightly floating material and film on water, thus making it undrinkable. Sources of O&G include maintenance shops, vehicles, machines and roadways.

If you have any questions regarding whether or not your constituent concentrations are too high, please contact your local Regional Board office. The United States Environmental Protection Agency (USEPA) has published stormwater discharge benchmarks for a number of parameters. These benchmarks may be helpful when evaluating whether additional BMPs are appropriate. These benchmarks can be accessed at our website at http://www.waterboards.ca.gov. It is contained in the Sampling and Analysis Reduction Certification.

See Storm Water Contacts at

http://www.waterboards.ca.gov/water_issues/programs/stormwater/contact.shtml

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SIDE A

FORM 1-SAMPLING & ANALYSIS RESULTS

FIRST STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): C Brust TITLE: Maintenance Specialist SIGNATURE: _____

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For First Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS				
			PH	TSS	SC	O&G	TOC					
N end of Canyon Dr at Hwy 76	__/__/__ ☐AM __:__ ☐PM	☐AM __:__ ☐PM										
	__/__/__ ☐AM __:__ ☐PM	☐AM __:__ ☐PM										
	__/__/__ ☐AM __:__ ☐PM	☐AM __:__ ☐PM										
	__/__/__ ☐AM __:__ ☐PM	☐AM __:__ ☐PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l					
TEST METHOD DETECTION LIMIT:												
TEST METHOD USED:												
ANALYZED BY (SELF/LAB):												

TSS - Total Suspended Solids SC - Specific Conductance O&G - Oil & Grease TOC - Total Organic Carbon

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SIDE B

FORM 1-SAMPLING & ANALYSIS RESULTS

SECOND STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.

NAME OF PERSON COLLECTING SAMPLE(S): C Brust **TITLE:** Maintenance Specialist **SIGNATURE:** _____

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For Second Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS				
			PH	TSS	SC	O&G	TOC					
N end of Canyon Dr at Hwy 76	__/__/__ ☐AM __:__ ☐PM	☐AM __:__ ☐PM										
	__/__/__ ☐AM __:__ ☐PM	☐AM __:__ ☐PM										
	__/__/__ ☐AM __:__ ☐PM	☐AM __:__ ☐PM										
	__/__/__ ☐AM __:__ ☐PM	☐AM __:__ ☐PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l					
TEST METHOD DETECTION LIMIT:												
TEST METHOD USED:												
ANALYZED BY (SELF/LAB):												

TSS - Total Suspended Solids SC - Specific Conductance O&G - Oil & Grease TOC - Total Organic Carbon

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SIDE A

FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

- Quarterly dry weather visual observations are required of each authorized NSWD.
- Observe each authorized NSWD source, impacted drainage area, and discharge location.
- Authorized NSWDs must meet the conditions provided in Section D (pages 5-6), of the General Permit.
- Make additional copies of this form as necessary.

QUARTER: **JULY-SEPT.** DATE: **N/A**	Observers Name: _____ Title: _____ Signature: _____	**WERE ANY AUTHORIZED NSWDs DISCHARGED DURING THIS QUARTER?**	☐ YES ☐ NO — If YES, complete reverse side of this form.
QUARTER: **OCT.-DEC.** DATE: **N/A**	Observers Name: _____ Title: _____ Signature: _____	**WERE ANY AUTHORIZED NSWDs DISCHARGED DURING THIS QUARTER?**	☐ YES ☐ NO — If YES, complete reverse side of this form.
QUARTER: **JAN.-MARCH** DATE: **N/A**	Observers Name: _____ Title: _____ Signature: _____	**WERE ANY AUTHORIZED NSWDs DISCHARGED DURING THIS QUARTER?**	☐ YES ☐ NO — If YES, complete reverse side of this form.
QUARTER: **APRIL-JUNE** DATE: **N/A**	Observers Name: _____ Title: _____ Signature: _____	**WERE ANY AUTHORIZED NSWDs DISCHARGED DURING THIS QUARTER?**	☐ YES ☐ NO — If YES, complete reverse side of this form.

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SIDE B

FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

DATE /TIME OF OBSERVATION	SOURCE AND LOCATION OF AUTHORIZED NSWD EXAMPLE: Air conditioner Units on Building C	NAME OF AUTHORIZED NSWD EXAMPLE: Air conditioner condensate	DESCRIBE AUTHORIZED NSWD CHARACTERISTICS Indicate whether authorized NSWD is clear, cloudy, or discolored, causing staining, contains floating objects or an oil sheen, has odors, etc.		DESCRIBE ANY REVISED OR NEW BMPs AND PROVIDE THEIR IMPLEMENTATION DATE
			At the NSWD Source	At the NSWD Drainage Area and Discharge Location	
N/A : ☐AM ☐PM					
/ / : ☐AM ☐PM					
/ / : ☐AM ☐PM					
/ / : ☐AM ☐PM					
/ / : ☐AM ☐PM					

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SIDE A

ANNUAL REPORT
FORM 3-QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

- Unauthorized NSWDs are discharges (such as wash or rinse waters) that do not meet the conditions provided in Section D (pages 5-6) of the General Permit.
- Quarterly visual observations are required to observe current and detect prior unauthorized NSWDs.
- Quarterly visual observations are required during dry weather and at all facility drainage areas.
- Each unauthorized NSWD source, impacted drainage area, and discharge location must be identified and observed.
- Unauthorized NSWDs that can not be eliminated within 90 days of observation must be reported to the Regional Board in accordance with Section A.10.e of the General Permit.
- Make additional copies of this form as necessary.

QUARTER: JULY-SEPT. DATE/TIME OF OBSERVATIONS __/__/__ __:__ ☐ AM ☐ PM	Observers Name: _____ Title: _____ Signature: _____	WERE UNAUTHORIZED NSWDs OBSERVED? ☐ YES ☐ NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs? ☐ YES ☐ NO	If YES to either question, complete reverse side.
QUARTER: OCT.-DEC. DATE/TIME OF OBSERVATIONS __/__/__ __:__ ☐ AM ☐ PM	Observers Name: _____ Title: _____ Signature: _____	WERE UNAUTHORIZED NSWDs OBSERVED? ☐ YES ☐ NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs? ☐ YES ☐ NO	If YES to either question, complete reverse side.
QUARTER: JAN.-MARCH DATE/TIME OF OBSERVATIONS __/__/__ __:__ ☐ AM ☐ PM	Observers Name: _____ Title: _____ Signature: _____	WERE UNAUTHORIZED NSWDs OBSERVED? ☐ YES ☐ NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs? ☐ YES ☐ NO	If YES to either question, complete reverse side.
QUARTER: APRIL-JUNE DATE/TIME OF OBSERVATIONS __/__/__ __:__ ☐ AM ☐ PM	Observers Name: _____ Title: _____ Signature: _____	WERE UNAUTHORIZED NSWDs OBSERVED? ☐ YES ☐ NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs? ☐ YES ☐ NO	If YES to either question, complete reverse side.

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SIDE B

FORM 3 QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

OBSERVATION DATE (FROM REVERSE SIDE)	NAME OF UNAUTHORIZED NSWD EXAMPLE: Vehicle Wash Water	SOURCE AND LOCATION OF UNAUTHORIZED NSWD EXAMPLE: NW Corner of Parking Lot	DESCRIBE UNAUTHORIZED NSWD CHARACTERISTICS Indicate whether unauthorized NSWD is clear, cloudy, discolored, causing stains; contains floating objects or an oil sheen, has odors, etc.		DESCRIBE CORRECTIVE ACTIONS TO ELIMINATE UNAUTHORIZED NSWD AND TO CLEAN IMPACTED DRAINAGE AREAS. PROVIDE UNAUTHORIZED NSWD ELIMINATION DATE.
			AT THE UNAUTHORIZED NSWD SOURCE	AT THE UNAUTHORIZED NSWD AREA AND DISCHARGE LOCATION	
__/__/__ __:__ ☐AM ☐PM					
__/__/__ __:__ ☐AM ☐PM					
__/__/__ __:__ ☐AM ☐PM					
__/__/__ __:__ ☐AM ☐PM					

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FORM 4-MONTHLY VISUAL OBSERVATIONS OF SIDE A

STORM WATER DISCHARGES

- Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.
- Visual observations must be conducted during the first hour of discharge at all discharge locations.
- Discharges of temporarily stored or contained storm water must be observed at the time of discharge.
- Indicate "None" in the first column of this form if you did not conduct a monthly visual observation.
- Make additional copies of this form as necessary.
- Until a monthly visual observation is made, record any eligible storm events that do not result in a storm water discharge and note the date, time, name, and title of who observed there was no storm water discharge.

Observation Date: October ____ 2014 Observers Name: _____ Title: _____ Signature: _____	Drainage Location Description	#1	#2	#3	#4
	Observation Time	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Time Discharge Began	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: November____ 2014 Observers Name: _____ Title: _____ Signature: _____	Drainage Location Description	#1	#2	#3	#4
	Observation Time	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Time Discharge Began	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: December____ 2014 Observers Name: _____ Title: _____ Signature: _____	Drainage Location Description	#1	#2	#3	#4
	Observation Time	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Time Discharge Began	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: January____ 2015 Observers Name: _____ Title: _____ Signature: _____	Drainage Location Description	#1	#2	#3	#4
	Observation Time	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Time Discharge Began	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐

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SIDE B

FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

DATE/TIME OF OBSERVATION (From Reverse Side)	DRAINAGE AREA DESCRIPTION EXAMPLE: Discharge from material storage Area #2	DESCRIBE STORM WATER DISCHARGE CHARACTERISTICS Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.	IDENTIFY AND DESCRIBE SOURCE(S) OF POLLUTANTS EXAMPLE: Oil sheen caused by oil dripped by trucks in vehicle maintenance area.	DESCRIBE ANY REVISED OR NEW BMPs AND THEIR DATE OF IMPLEMENTATION
___/___/___ ___:___ ☐ AM ☐ PM				
___/___/___ ___:___ ☐ AM ☐ PM				
___/___/___ ___:___ ☐ AM ☐ PM				
___/___/___ ___:___ ☐ AM ☐ PM				
___/___/___ ___:___ ☐ AM ☐ PM				

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FORM 4 (Continued)-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

SIDE A

- Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.
- Visual observations must be conducted during the first hour of discharge at all discharge locations.
- Discharges of temporarily stored or contained storm water must be observed at the time of discharge.
- Indicate "None" in the first column of this form if you did not conduct a monthly visual observation.
- Make additional copies of this form as necessary.
- Until a monthly visual observation is made, record any eligible storm events that do not result in a storm water discharge and note the date, time, name, and title of who observed there was no storm water discharge.

Observation Date: February ____ 2015 Observers Name: _____ Title: _____ Signature: _____	Drainage Location Description	#1	#2	#3	#4
	Observation Time	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Time Discharge Began	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: March ____ 2015 Observers Name: _____ Title: _____ Signature: _____	Drainage Location Description	#1	#2	#3	#4
	Observation Time	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Time Discharge Began	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: April ____ 2015 Observers Name: _____ Title: _____ Signature: _____	Drainage Location Description	#1	#2	#3	#4
	Observation Time	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Time Discharge Began	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: May ____ 2015 Observers Name: _____ Title: _____ Signature: _____	Drainage Location Description	#1	#2	#3	#4
	Observation Time	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Time Discharge Began	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.	: ☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐

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SIDE B

FORM 4 (Continued)-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

DATE/TIME OF OBSERVATION (From Reverse Side)	DRAINAGE AREA DESCRIPTION EXAMPLE: Discharge from material storage Area #2	DESCRIBE STORM WATER DISCHARGE CHARACTERISTICS Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.	IDENTIFY AND DESCRIBE SOURCE(S) OF POLLUTANTS EXAMPLE: Oil sheen caused by oil dripped by trucks in vehicle maintenance area.	DESCRIBE ANY REVISED OR NEW BMPs AND THEIR DATE OF IMPLEMENTATION
/ / : ☐ AM ☐ PM				
/ / : ☐ AM ☐ PM				
/ / : ☐ AM ☐ PM				
/ / : ☐ AM ☐ PM				
/ / : ☐ AM ☐ PM				

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SIDE A

FORM 5-ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS

EVALUATION DATE: ____/____/____ **INSPECTOR NAME:** ____________ **TITLE:** ____________ **SIGNATURE:** ____________

POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)	**HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?** ☐ YES ☐ NO	If yes, to either question, complete the next two columns of this form	**Describe deficiencies in BMPs or BMP implementation**	**Describe additional/revised BMPs or corrective actions and their date(s) of implementation**
	ARE ADDITIONAL/REVISED BMPs NECESSARY? ☐ YES ☐ NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)	**HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?** ☐ YES ☐ NO	If yes, to either question, complete the next two columns of this form	**Describe deficiencies in BMPs or BMP implementation**	**Describe additional/revised BMPs or corrective actions and their date(s) of implementation**
	ARE ADDITIONAL/REVISED BMPs NECESSARY? ☐ YES ☐ NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)	**HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?** ☐ YES ☐ NO	If yes, to either question, complete the next two columns of this form	**Describe deficiencies in BMPs or BMP implementation**	**Describe additional/revised BMPs or corrective actions and their date(s) of implementation**
	ARE ADDITIONAL/REVISED BMPs NECESSARY? ☐ YES ☐ NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)	**HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?** ☐ YES ☐ NO	If yes, to either question, complete the next two columns of this form	**Describe deficiencies in BMPs or BMP implementation**	**Describe additional/revised BMPs or corrective actions and their date(s) of implementation**
	ARE ADDITIONAL/REVISED BMPs NECESSARY? ☐ YES ☐ NO			

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SIDE B

FORM 5 (Continued)-ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS

EVALUATION DATE: ___/___/___ INSPECTOR NAME: ____________ TITLE: ____________ SIGNATURE: ____________

POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)	Question	Response		Describe deficiencies in BMPs or BMP implementation	Describe additional/revised BMPs or corrective actions and their date(s) of implementation
Soil erosion and contaminates from landfill.	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?	☐ YES ☒ NO	If yes, to either question, complete the next two columns of this form	N/A	N/A
	ARE ADDITIONAL/REVISED BMPs NECESSARY?	☐ YES ☒ NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?	☐ YES ☐ NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation	Describe additional/revised BMPs or corrective actions and their date(s) of implementation
	ARE ADDITIONAL/REVISED BMPs NECESSARY?	☐ YES ☐ NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?	☐ YES ☐ NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation	Describe additional/revised BMPs or corrective actions and their date(s) of implementation
	ARE ADDITIONAL/REVISED BMPs NECESSARY?	☐ YES ☐ NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?	☐ YES ☐ NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation	Describe additional/revised BMPs or corrective actions and their date(s) of implementation
	ARE ADDITIONAL/REVISED BMPs NECESSARY?	☐ YES ☐ NO			

City of Oceanside Mission Landfill 2014-15 Annual Report Notes as of 5-12-15

Sampling-one sample during the first hour of discharge from the first storm event of the season and at least one other storm event in the wet season

E1. No discharge from storm events occurred during working hours.

E2. First storm water event started (i.e. first hour of discharge) outside of working hours.

E6. No samples were collected.

E7. No samples were collected.

F1b. No authorized non-storm water discharges were observed during the reporting year. Due to current drought and newer and stricter environmental regulations (associated with City MS4 Permit, Order R9-2013-0001), site has little potential for authorized non-storm water discharges to occur.

F2a. Site operator has been out on extended leave. Due to current drought and newer and more strict environmental regulations (associated with City MS4 Permit, Order R9-2013-0001), site has little potential for authorized non-storm water discharges to occur.

F2c. NA

G1. Visual observations not conducted because first hour of discharge from all storm evenst started outside working hours.

Attachment 2

Copy of Order No. 88-53

and associated

Addendums and Technical Change Orders

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. 88-53
WASTE DISCHARGE REQUIREMENTS
FOR THE
MISSION AVENUE SANITARY LANDFILL
IN THE CITY OF OCEANSIDE
SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. On July 19, 1971, this Regional Board adopted Order No. 71-42, Waste Discharge Requirements For the City of Oceanside Sanitary Landfill. Order No. 71-42 established requirements for the operation of a landfill for the disposal of nonhazardous solid waste and digested sewage sludge. The landfill regulated by Order No. 71-42 has come to be, and is hereinafter known as, the Mission Avenue Landfill.

2. On January 30, 1978, this Regional Board issued Cleanup and Abatement Order No. 78-9. Order 78-9 was issued due to the discharge of sludge and leachate from the landfill to the canyon bottom and directly to the San Luis Rey River.

3. On October 18, 1984, the State Water Resources Control Board (State Board) adopted a new version of California Administrative Code (now known as California Code of Regulations) Title 23, Chapter 3, Subchapter 15, superseding the version of Subchapter 15 adopted in 1972. Subchapter 15 establishes waste and site classification criteria and waste management requirements for waste treatment, storage and disposal in landfills, surface impoundments, waste piles and land treatment facilities, closure and post closure maintenance requirements for such facilities as well as standards for discharges of mining wastes and discharges of animal wastes at confined animal facilities.

   Subchapter 15 is to be implemented by issuance of waste discharge requirements. In order for waste discharge requirements to be issued which fully implement Subchapter 15 with respect to a specific landfill site, it is necessary for the landfill owner/operator to submit certain information called for in Subchapter 15, and for Regional Board staff to review and analyze that information.

4. The Mission Avenue Landfill site is owned by the Oceanside Unified School District. In accordance with City of Oceanside City Council Resolution No. 71-133, the City of Oceanside Public Services Department, which operated the landfill during its active life, continues to be responsible for maintenance of the site.

5. The 14-acre Mission Avenue Landfill is located north of Mission Avenue and south of the San Luis Rey River in the City of Oceanside. The site is bordered on the east and south by Jefferson High School, Clair Bergener School, and Mission Elementary School, and on the west by the Sterling

Homes property. The site is located in the Mission Hydrographic Subarea (3.11) of the Bonsall Hydrographic Subunit of the San Luis Rey Hydrographic Unit, in the northwest 1/4 of Section 23, and southeast 1/4 of Section 24, T11S, R5W, SBB&M. The site location is shown on Attachment A to this Order.

6. By letter dated April 18, 1985, Regional Board staff requested the City of Oceanside to submit a technical report by May 28, 1985, describing measures necessary to bring the site into compliance with monitoring requirements of Article 5, and closure and post-closure maintenance requirements in accordance with the revised Subchapter 15 regulations.

7. In response to Regional Board staff's request, Mr. Glen Prentice, Director, Public Services Department, City of Oceanside submitted a technical report entitled "Ground Water Monitoring Plan for the Mission Avenue Landfill", dated December 4, 1985, and additional information was submitted March 13, 1986, and March 10, 1987. Mr. Prentice, submitted an incomplete Report of Waste Discharge, for closure and post-closure maintenance requirements for the Mission Avenue Landfill, dated August 4, 1987. After the receipt of additional information received on January 12, January 21, February 12, and February 19, 1988, Regional Board staff determined the Report of Waste Discharge was complete on March 11, 1988 and that all necessary information had been submitted to issue waste discharge requirements in order to fully implement Subchapter 15 for the closure of the Mission Avenue Landfill. The Report of Waste Discharge consists of the following:

   a. Form 200, Application for Facility Permit/Waste Discharge for closure of the Mission Avenue Landfill, dated July 30, 1987;

   b. Technical report entitled "Revised Closure and Post Closure Plan, Mission Avenue Landfill Site, Oceanside, California", dated December 1987;

   c. Technical report entitled "Revised Ground Water Monitoring Plan Mission Avenue Landfill Site, Oceanside, California", dated January 1988; and

   d. Accompanying maps entitled "Conceptual Closure Plan, Mission Avenue Landfill Site, Oceanside, California", dated November 14, 1987.

   The technical reports were prepared by SCS Engineers, Long Beach, California.

8. The Report of Waste Discharge indicated that the landfill site is within a steep walled canyon which is a tributary to the San Luis Rey River, which lies approximately 2,000 feet to the north.

9. The Report of Waste Discharge indicated total relief of the site is approximately 130 feet. Elevation ranges from approximately 190 feet mean sea level (MSL) at the landfill surface to 60 feet MSL at the toe of the landfill in the canyon bottom.

10. The Report of Waste Discharge indicated that under a demonstration grant from the National Institute of Health, a feasibility study of co-disposal of secondary digested sewage sludge with solid waste was conducted at the landfill. The study concluded that there were no negative environmental impacts as a result of co-disposal of sludge-solid wastes. Consequently, disposal of sewage sludge continued at the site.

11. The Report of Waste Discharge indicated that, during the active period of operation, the Mission Avenue Landfill, received approximately 790,000 cubic yards of nonhazardous solid waste and 100,000 cubic yards of digested sewage sludge. The solids content of the sewage sludge increased from the initial 3-6 percent solids to as much as 18-22 percent, as a result of improvements in dewatering equipment. Disposal of refuse at the landfill ceased in 1979.

12. The Report of Waste Discharge indicated that in 1974, landfilling extended into an approximately 1.5 acre portion of the adjacent Sterling Homes property. This area is now known as the landfill extension (LFE). It is estimated that approximately 40,000 cubic yards of refuse was disposed of into the LFE. The City of Oceanside has since taken title to the LFE.

13. The Report of Waste Discharge indicated that refuse is estimated to be 80 feet thick near the site perimeters as much as 100 feet thick in the center of the site.

14. This Order, which supersedes Order No. 71-42, establishes waste discharge requirements for closure and post-closure maintenance of the Mission Avenue Landfill.

15. The Report of Waste Discharge indicated that the geology of the area consists of consolidated and semi-consolidated sedimentary rocks of Tertiary and Quaternary age. They include the following:

    a. The San Onofre Breccia consists of a brecciated schist with interbeds of sandstones, siltstones, and shales, deposited in an alluvial fan environment. Locally the breccia strikes N20W and dips 20 degrees to the northwest. Historically there has been very little ground water production from the San Onofre Breccia. However, zones of higher permeability which are capable of transmitting small quantities of water may exist.

    b. The terrace deposits consist of unconsolidated and consolidated marine sands, silts, clays, and gravels that overly the San Onofre Breccia. They are estimated to be 16 to 29 feet thick.

    c. The stream alluvial deposits consists of sands, silts, and clays. These deposits are found in the canyon bottom, and underlie a portion of the landfill material. The alluvium is contiguous with alluvium of the San Luis Rey River. At the base of the landfill these deposits are estimated to be 20 to 25 feet thick.

16. The Report of Waste Discharge indicated that little information exists on active faulting in the area. However, several faults occur within one mile of the site. These faults include; three northwest trending faults that are approximately, 1/2 to 1 mile southwest, 1 mile northwest, and 1 mile southeast of the site; and a west-northwest trending fault approximately 1/4 mile north-northwest of the site.

17. Jim Parsons, State Board staff, made the following observations of conditions of the landfill by memo, dated March 21, 1978:

"a. The disposal of waste was causing a pollution of waters flowing to the San Luis Rey River. Bad smelling, dark leachate was flowing from several points in the landfill and mixing with the storm runoff flowing down the gully to the river;

b. Waste materials were noted outside of the designated disposal area. Paper, tires, tin cans, and other debris were visible at least 2,000 feet beyond the base of the landfill;

c. The disposal site was not adequately protected from washout or erosion of wastes. Erosion of waste by water flowing over the known faces of the fill was observed;

d. Surface drainage from tributary areas and internal site drainage was contacting and percolating through waste discharged at the site. In addition to the water flowing over the uncovered face of the fill, there were substantial "birdbaths" (ponds in undrained low spots on top of the landfill). The cover material below these birdbaths was not adequate to prevent percolation of the water through the cover material and through the waste;

e. There is no downgradient liquid control barrier to prevent leachate and liquid waste from entering surface waters;

f. There are no runoff diversion channels around the lower portion of the site; and

g. The exterior surfaces of the disposal site have not been graded to promote lateral runoff of precipitation and preventing ponding."

18. The Report of Waste Discharge indicated that due to the migration of landfill gas at hazardous concentrations, the City of Oceanside installed a landfill gas control system, in 1982. The existing system consists of 41 gas extraction wells.

19. The Report of Waste Discharge indicated that approximately 10 gallons per day of liquid condensate, generated in the landfill gas control and recovery system, is discharged back into the landfill at each of the 14 moisture traps.

20. The Report of Waste Discharge indicated that a significant amount of settlement of the landfill material has occurred since cessation of refuse disposal, particularly in the central portion of the site where refuse depth is greatest.

21. The Report of Waste Discharge indicated that rainfall in the area averages 10 to 12 inches per year and primarily occurs from October through April.

22. The Report of Waste Discharge indicated that due to the landfill elevation no flood control zones were established for the tributary stream.

23. The Report of Waste Discharge indicated that there are no water wells within a one mile radius of the site.

24. The Report of Waste Discharge indicated that surface runoff from the south, and west of the landfill is directed across the landfill, through reinforced concrete pipe buried below the landfill surface, and discharges into the canyon at the base of the landfill. These drain pipes periodically break due to differential settlement of the landfill material. Surface runoff from the east side of the landfill is diverted by a drainage ditch. This drainage ditch overflows onto the landfill during periods of high rainfall.

25. The Report of Waste Discharge indicated that ground water flow was assumed to generally parallel the surface flow pattern, i.e. northerly towards the San Luis Rey River.

26. The Report of Waste Discharge indicated that seeps and moist areas have been identified in several locations at the base of the landfill.

27. The Report of Waste Discharge indicated that after closure, the land is planned to remain as open space. The landfill surface will be allowed to vegetate naturally, while the slopeface will be hydromulched with a native vegetation seed mix. No irrigation is planned for the site after closure.

28. The Report of Waste Discharge indicated that the existing landfill cover does not meet Subchapter 15 prescriptive standards for minimum cover thickness and permeability. Present cover thickness varies from approximately 0.5 to 1.5 feet along the western portion of the landfill and from 3 to 5 feet on the remainder of the site.

29. The closure and post-closure plan contained in the Report of Waste Discharge proposed to achieve closure of the site by implementing the following:

    a. Improve surface drainage of the landfill by replacing all existing subsurface storm drains in the landfill with surface drainage ditches constructed of half-round corrugated metal pipe (CMP); install a new 24-inch diameter reinforced concrete subsurface drainage pipe; and

enlarge the existing surface drainage ditch located along the east side of the landfill. Landfill surface drainage will empty onto a rip-rap velocity dissipator and then into a detention basin before being discharged into the canyon at the base of the landfill. The proposed surface drains on the landfill site are designed to drain the site based on 3 percent surface slope and 100-year rainfall intensity.

b. Apply additional cover material to obtain a minimum 4-foot cover thickness over the entire landfill surface, including the front slopeface. Cover will include a 1-foot layer of soil with permeability of 1×10^{-6} cm/sec. or less in the westerly and southwesterly portion of the site and up to 5-feet of soil cover over the central portion of the landfill to support vegetation.

c. Raise the existing grade of the westerly and central portions of the site to obtain a minimum 3 percent surface slope. An estimated 75,000 cubic yards of additional cover material will be required to bring the site to final grade.

d. Expand the existing landfill gas control system into the landfill extension area on the western perimeter of the landfill adjacent to the Sterling Homes property.

30. The Report of Waste Discharge indicated that if sufficient quantity of soil to provide a 1-foot low permeable clay layer is not available, local soil material will be mixed with bentonite clay to achieve the 1-foot layer. Laboratory testing will be used to determine the soil-bentonite mixture. To ensure that a bentonite-soil mixture complies with Subchapter 15 cover requirements, field measurements to determine permeability and relative compaction will be conducted.

31. The Report of Waste Discharge indicated that the estimated cost of closure of the landfill is approximately $560,000. These costs are primarily for earthwork, drainage structures, landfill gas control and monitoring system, and engineering and contract administration. The annual cost of post-closure maintenance is estimated to be approximately $170,000. These costs are primarily for maintenance of the landfill gas control and extraction system and for regrading portions of the landfill cover.

32. The Report of Waste Discharge indicated that as part of an initial ground water monitoring program, three monitoring wells were installed at the site. They include:

a. MW-1 is a shallow well and is completed in the recent stream alluvial deposits in the canyon at the base of the landfill. Ground water has not been encountered.

b. MW-2 is adjacent to MW-1 and is screened in the San Onofre Breccia at the base of the landfill. Ground water was measured at approximately 27.6 feet below the canyon surface, in February 1987.

c. MW-3 is a shallow monitoring well that is located on upgradient of the landfill and completed in the terrace deposits. Ground water has not been encountered.

33. The Report of Waste Discharge indicated water quality analysis of ground water from MW-2, taken February 1987, indicate elevated levels of coliform bacteria and TDS, however, that available evidence is inconclusive as to the presence of leachate in the ground water and its migration to the San Luis Rey River.

34. By letter dated February 9, 1988, Regional Board staff indicated that enough of the technical issues concerning closure of the site had been addressed to issue waste discharge requirements for closure and post-closure maintenance of the site. The letter also indicated that additional testing and reporting would be necessary to ensure that closure proceeded in accordance with Subchapter 15 requirements. These testing and reporting requirements include:

a. Sampling and analysis of cover material to determine soil textures and compaction in accordance with Subchapter 15, Section 2541(c) requirements;

b. Testing of cover materials to determine thickness and physical characteristics of final cover in accordance with Subchapter 15, Section 2581(a) and 2597(a)(9) requirements;

c. Field testing of cover materials to determine permeability in accordance with Subchapter 15, Section 2541(c) requirements;

d. Additional ground water monitoring wells to provide background water quality monitoring and provide site specific geologic data;

e. Unsaturated zone monitoring in accordance with Subchapter 15, Section 2550(a) 2559 criteria;

f. Installation of at least two permanent monuments in accordance with Subchapter 15, Section 2581(d) requirements; and

g. Establishment of an irrevocable closure fund or other means to ensure closure and post-closure maintenance of the landfill in accordance with Subchapter 15, Section 2581(f) requirements;

35. The Mission Avenue Landfill is also subject to the requirements of Water Code Section 13273, which was added by the Calderon Bill (AB 3525), adopted in 1984. Section 13273 required the State Board to develop a ranked list of all known solid waste disposal sites throughout the state on the basis of the threat which they may pose to water quality. Water Code Section 13273 requires the operator of each solid waste disposal site on the ranked list to conduct and submit to the appropriate regional board the results of a

solid waste water quality assessment test (SWAT) to determine if the site is leaking hazardous waste. The State Board approved a ranked list in December 1985 and revised lists in September 1986 and December 1987. The Mission Avenue Landfill was placed in rank 1. A final report summarizing the results of the SWAT were required to be submitted by July 1, 1987. The City of Oceanside submitted a SWAT proposal, dated June 14, 1987. The SWAT proposal has been reviewed by Regional Board staff, and the SWAT investigation is in progress.

36. The Comprehensive Water Quality Control Plan Report, San Diego Basin (9) (Basin Plan), adopted by this Regional Board on March 17, 1975; approved by the State Board on March 20, 1975; and updated by this Regional Board on February 27, 1978; March 23, 1981; January 24 and October 3, 1983; August 27, 1984; December 16, 1985; and March 25, 1986. The updates were subsequently approved by the State Board.

37. The Basin Plan established the following beneficial uses for the waters of the Mission Hydrographic Subarea:

a. Surface waters

1. Agricultural supply
2. Industrial service supply
3. Water contact recreation
4. Non contact water recreation
5. Warm fresh-water habitat
6. Wildlife habitat
7. Preservation of rare and endangered species

b. Ground water

1. Municipal and domestic supply
2. Agricultural supply
3. Industrial service supply
4. Groundwater recharge

38. The Basin Plan established the following ground water objectives which apply to all groundwaters of the basin:

a. Tastes and Odors

Groundwaters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

b. Bacteria

In groundwaters used for domestic or municipal supply the median concentration of coliform organisms over any seven-day period shall be less than 2.2/100 milliliters.

c. Chemical Constituents

Groundwaters designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 17, Chapter 5, Subchapter 1, Group 1, Article 4, Section 7019, Tables 2, 3, and 4. To the extent of any conflict between these limits and those specified in Table 4-7, the more stringent shall apply at all times.

Groundwaters designated for use as agricultural supply shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.

d. Radioactivity

Groundwaters designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents or radionuclides in excess of the limits specified in California Code of Regulations, Title 17, Chapter 5, Subchapter 1, Group 1, Article 4, Section 7019, Table 5.

39. The Basin Plan established the following water quality objectives for water of the Mission Hydrographic Subarea:

Constituent	Surface Water Concentration not to be exceeded more than 10 percent of the time		Ground Water[1]	
Total Dissolved Solids	500	mg/L	1500[2,3]	mg/L
Chloride	250	mg/L	500[2,3]	mg/L
Percent Sodium	60	%	60	%
Sulfate	250	mg/L	500[2,3]	mg/L
Nitrate (as NO_3)	- - -		45[2,3]	mg/L
Nitrogen & Phosphorus	*		- - -	
Iron	0.3	mg/L	0.85[2,3]	mg/L
Manganese	0.05	mg/L	0.15[2,3]	mg/L
Methylene Blue Active Substances	0.5	mg/L	0.5[3]	mg/L
Boron	0.5	mg/L	0.5[2,3]	mg/L
Odor	None		None	
Turbidity	20	NTU	5	NTU
Color	20	Units	15[3]	Units
Fluoride	1.0	mg/L	1.0[3]	mg/L

1 The water quality objectives do not apply westerly of the easterly boundary of Interstate Highway 5. The objectives for the remainder of the hydrographic subarea are as shown.

2 The recommended plan would allow for measurable degradation of groundwater in this basin to permit continued agricultural land use. Point sources, however, would be controlled to achieve effluent quality corresponding to the tabulated numerical values. In future years demineralization may be used to treat groundwater to the desired quality prior to use.

3 A portion of the Upper Mission Basin is being considered as an underground potable water storage reservoir for treated imported water. The area is located north of Highway 76 on the boundary of hydrographic subareas 3.11 and 3.12. If this program is adopted, local objectives approaching the quality of the imported water would be set and rigorously pursued.

* Concentrations of nitrogen and phosphorus, by themselves or in combinations with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total Phosphorus (P) concentrations shall not exceed 0.05 mg/L in any stream at the point where it enters any standing body of water, nor 0.025 mg/L in any standing body of water. A desired goal in order to prevent plant nuisances in streams and other flowing waters appears to be 0.1 mg/L total P. These values are not to be exceeded more than 10 percent of the time unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1 shall be used.

Note: mg/L = milligrams per liter
NTU = Nephelometric Turbidity Units

40. The Basin Plan contains the following prohibitions which are applicable to the site:

    a. "The dumping or deposition of oil, garbage, trash or other solid municipal, industrial or agricultural waste directly into inland waters or watercourses or adjacent to watercourses in any manner which may permit its being washed into the watercourse is prohibited."

    b. "Dumping or deposition of oil, garbage, trash or other solid municipal, industrial or agricultural waste into natural or excavated sites below historic water levels or deposition of soluble industrial wastes at any site is prohibited, unless such site has been specifically approved by the Regional Board for that purpose."

    c. "Land grading and similar operations causing soil disturbance which do not contain provisions to minimize soil erosion and limit suspended matter in are runoff are prohibited."

41. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to the following:

    a. Past, present, and probable future beneficial uses of water.

    b. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

    c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

    d. Economic considerations.

    e. The need for developing housing within the region.

    f. Beneficial uses to be protected and water quality objectives reasonably required for that purpose.

    g. Other waste discharges.

    h. The need to prevent nuisance.

42. This facility is an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with Title 14, California Code of Regulations, Chapter 3, Article 19, Section 15301.

43. The Regional Board has considered all water resource related environmental factors associated with the Mission Avenue Landfill.

44. The Regional Board has notified the discharger and all known interested parties of the intent to issue waste discharge requirements for closure and post-closure maintenance of the Mission Avenue Landfill.

45. The Regional Board in a public meeting heard and considered all comments pertaining to the Mission Avenue Landfill.

IT IS HEREBY ORDERED, That the City of Oceanside and the Oceanside Unified School District (hereinafter together referred to as the discharger), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following at the Mission Avenue Landfill:

A. PROHIBITIONS

1. Discharges of wastes to lands which have not been specifically described to the Regional Board and for which valid waste discharge requirements are not in force are prohibited.

2. The discharge of waste shall not:

   a. Cause the occurrence of coliform or pathogenic organisms in waters pumped from the basin;

   b. Cause the occurrence of objectionable tastes and odors in water pumped from the basin;

   c. Cause waters pumped from the basin to foam;

   d. Cause the presence of toxic materials in waters pumped from the basin;

   e. Cause the pH of waters pumped from the basin to fall below 6.0 or rise above 9.0;

   f. Cause this Regional Board's objectives for the ground or surface waters of the Mission Hydrographic Subarea, as established in the Basin Plan, to be exceeded.

3. Odors, vectors, and other nuisances of waste origin beyond the limits of the landfill site are prohibited.

4. The discharge of waste in a manner other than as described in the findings of this Order or in the Report of Waste Discharge is prohibited unless the discharger obtains revised waste discharge requirements that provide for the proposed change.

5. The discharge of waste from the Mission Avenue Landfill to surface drainage courses or to usable ground water is prohibited.

6. Basin Plan prohibitions shall not be violated.

B. CLOSURE SPECIFICATIONS

1. The discharger shall implement the approved closure plan described in the findings of this Order. Any proposed amendments to the closure plan must be approved in writing by the Executive Officer.

2. The migration of methane gas from the disposal site shall be controlled as necessary to prevent creation of a nuisance.

3. The disposal site shall be adequately protected from any washout, erosion of wastes or covering material. Adequate protection is defined as protection from at least a 100-year flood.

4. The disposal site shall receive a final cover consisting, at the minimum of a two-foot thick foundation layer, overlain by a one-foot thick clay liner, and finally by a one-foot thick vegetative soil layer, to obtain a final cover in accordance with requirements of Subchapter 15, Section 2581.

5. The disposal site shall be graded and maintained to prevent ponding and to provide slopes necessary to carry off surface drainage. Areas subject to erosion by water and/or wind shall be provided with a lining, planted with vegetation, or otherwise designed and constructed to prevent such erosion.

6. All necessary facilities shall be provided to ensure that landfill gases from wastes and ponded water containing leachate or in contact with refuse is not discharged to surface waters or to usable ground waters.

7. Closure of the landfill site shall be under the direct supervision of a California registered civil engineer or a certified engineering geologist.

8. The landfill site shall be provided with at least two permanent monuments installed by a licensed land surveyor or a registered civil engineer, from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period.

9. Vegetation used at the disposal site shall be selected to require minimum irrigation and maintenance, and shall not impair the integrity of containment structures including the final cover.

10. The discharger shall establish an irrevocable closure fund or provide other means to ensure post-closure maintenance of this waste management facility in accordance with the closure and post-closure maintenance plan contained in the Report of Waste Discharge.

11. The disposal site shall be graded to at least three-percent grade and be maintained to prevent ponding.

12. Areas of the disposal site with slopes greater than ten percent, surface drainage courses, and areas subject to erosion by water and wind shall be protected or designed and constructed to prevent such erosion.

13. Throughout the post-closure maintenance period, and for as long as the wastes contained in the disposal site pose a threat to water quality the discharger shall:

    a. Maintain the structural integrity and effectiveness of all containment structures, and maintain the final cover as necessary to correct the effects of settlement or other adverse factors;

    b. Maintain monitoring systems and monitor the ground water, surface water, and the unsaturated zone in accordance with applicable requirements of Article 5 of Subchapter 15;

    c. Prevent erosion and related damage of the final cover due to drainage; and

    d. Protect and maintain surveyed monuments.

C. PROVISIONS

1. Neither the treatment nor the discharge of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.

2. The discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order.

3. In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order.

4. The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

5. The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate laboratory and process controls including appropriate quality assurance procedures.

6. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

   a. Violation of any terms or conditions of this Order;

   b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or

   c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the discharger for the modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

7. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from liability under federal, state, or local laws, nor create a vested right for the discharger to continue the regulated activity.

8. The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law to:

   a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

   c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

   d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

9. A copy of this Order shall be maintained at this waste management facility and shall be available to operating personnel at all times.

10. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

11. Alternatives and exceptions to and exemptions and waivers from requirements of Subchapter 15 shall be subject to the approval of the Executive Officer and shall be authorized only as provided for by Subchapter 15. Implemented alternatives to Subchapter 15 requirements shall meet the conditions for approval of such alternatives established in Subchapter 15 throughout the post-closure period.

12. This Order becomes effective on the date of adoption by the Regional Board. This Order supersedes Order No. 71-42. Order No. 71-42 is hereby rescinded.

13. Closure of this waste management facility may be subject to regulations of the California Waste Management Board.

D. REPORTING REQUIREMENTS

1. The discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:

   a. Change in the closure plan from that described in the findings of this Order.

   b. Any planned change in the regulated facility or activity which may result in noncompliance with this Order.

2. The discharger shall furnish to the Executive Officer of this Regional Board, within a reasonable time, any information which the Executive Officer may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Executive Officer upon request, copies of records required to be kept by this Order.

3. The discharger must notify the Executive Officer, in writing, at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on.

4. Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information.

5. The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, or prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. The discharger shall submit to the Executive Officer a technical report in accordance with the following schedule:

	TASK	COMPLIANCE DATE	REPORT DATE
a.	A discussion of sampling and analysis methodology to determine soil textures and compaction of final cover in accordance with Subchapter 15, Section 2541(c) requirements;	10/31/88	11/14/88
b.	A discussion of testing methodology to determine thickness and physical characteristics of final cover material in accordance with Subchapter 15, Section 2581(a) and 2597(a)(9) requirements;	10/31/88	11/14/88
c.	A discussion of testing methodology to determine field permeability of final cover in accordance with Subchapter 15, Section 2541(c) requirements;	10/31/88	11/14/88

7. The discharger shall submit to the Executive Officer, within two months of adoption of this Order, a revised ground water and vadose zone water quality monitoring program, in accordance with Subchapter 15, Article 5 requirements, for the Mission Avenue Sanitary Landfill. Article 5 establishes requirements for implementation of a detection monitoring program and, if necessary, verification and corrective action programs. The monitoring program must include the following:

   a. A demonstration that the monitoring program provides representative samples of groundwater, surface water, and unsaturated zone water in all significant potential pollutant escape routes;

   b. Rationale, including supporting data for the location, depth, and design of each sample point of the monitoring program;

   c. Preparation of geologic cross sections. Cross sections should indicate geologic structures and stratigraphic relationships, correlate well logs and hydrologic conditions on and beneath the site, and associate these features with the disposal site construction features and monitoring well locations;

   d. Preparation of ground water surface and hydraulic gradient maps. Relevant well data used to construct these maps should be included;

   e. Specifications of well design, placement, rationale for their spatial distribution, screening, procedures for well development, as well as a detailed sampling and analysis plan;

   f. As-built monitoring well construction details and boring logs; and

   g. Specific field activity well logs filled out by field personnel during each sampling event. The information shall include (but not be limited to), the name(s) and qualifications of the sampling personnel, time sampling at the well is initiated, weather conditions, presence of an immiscible layer, depth to water, purging procedure, purge pump calibration data, volume of purged water, method of handling purged water, method of measuring the field measured parameters, the results of all field measured parameters, description of sampling procedure (if different from that specified in the ground water and vadose monitoring plan), list of sample bottles and their corresponding parameters, preservatives in sample bottles, sequence of sample collection, time finished, and any observations or problems encountered.

8. The discharger shall implement the monitoring program, identified in reporting requirements No. D. 7 of this Order, upon approval by the Executive Officer.

9. The discharger shall submit a report, within three months of adoption of this Order, that includes the following information:

   a. Certification, by a California registered civil engineer or certified engineering geologist, certifying the adequacy of each component of the closure and post-closure plan in accordance with closure specification B. 8 of this Order.

   b. Installation of at least two permanent monuments in accordance with closure specification B. 9 of this Order.

   c. Demonstration of establishment of an irrevocable closure fund or other means to ensure closure and post-closure maintenance of the landfill in accordance closure specification B. 11 of this Order.

   d. Completion of testing and analysis of final cover in accordance with reporting requirement D. 6. of this Order.

   e. Implementation of ground water and unsaturated zone monitoring in accordance with reporting requirement D. 8. of this Order.

10. The discharger shall comply with the attached Monitoring and Reporting Program No. 88-53. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 88-53.

11. The discharger shall conduct such monitoring as may be necessary in order to provide information requested by the Executive Officer.

12. All applications, reports, or information submitted to the Executive Officer of this Regional Board shall be signed and certified as follows:

   a. The Report of Waste Discharge shall be signed as follows:

      1. For a corporation - by a principal executive officer of at least the level of vice-president.

      2. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.

      3. For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.

      4. For a military installation - by the base commander or the person with overall responsibility for environmental matters in that branch of the military.

b. All other reports required by this Order and other information required by the Executive Officer shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:

1. The authorization is made in writing by a person described in paragraph (a) of this provision;

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and

3. The written authorization is submitted to the Executive Officer.

c. Any person signing a document under this Section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

13. The discharger shall submit reports required under this Order and other information requested by the Executive Officer, to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Blvd., Suite B
San Diego, California 92124-1331

E. NOTIFICATIONS

1. These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to Section 402 of the Clean Water Act.

2. The California Water Code provides that any person who intentionally or negligently violates any waste discharge requirements issued, reissued, or amended by this Regional Board is subject to administrative civil liability of up to 10 dollars per gallon of waste discharged, or, if no discharge occurs, up to 1000 dollars per day of violation. The Superior Court may impose civil liability of up to 10,000 dollars per day of violation or, if a cleanup and abatement order has been issued, up to 15,000 dollars per day of violation.

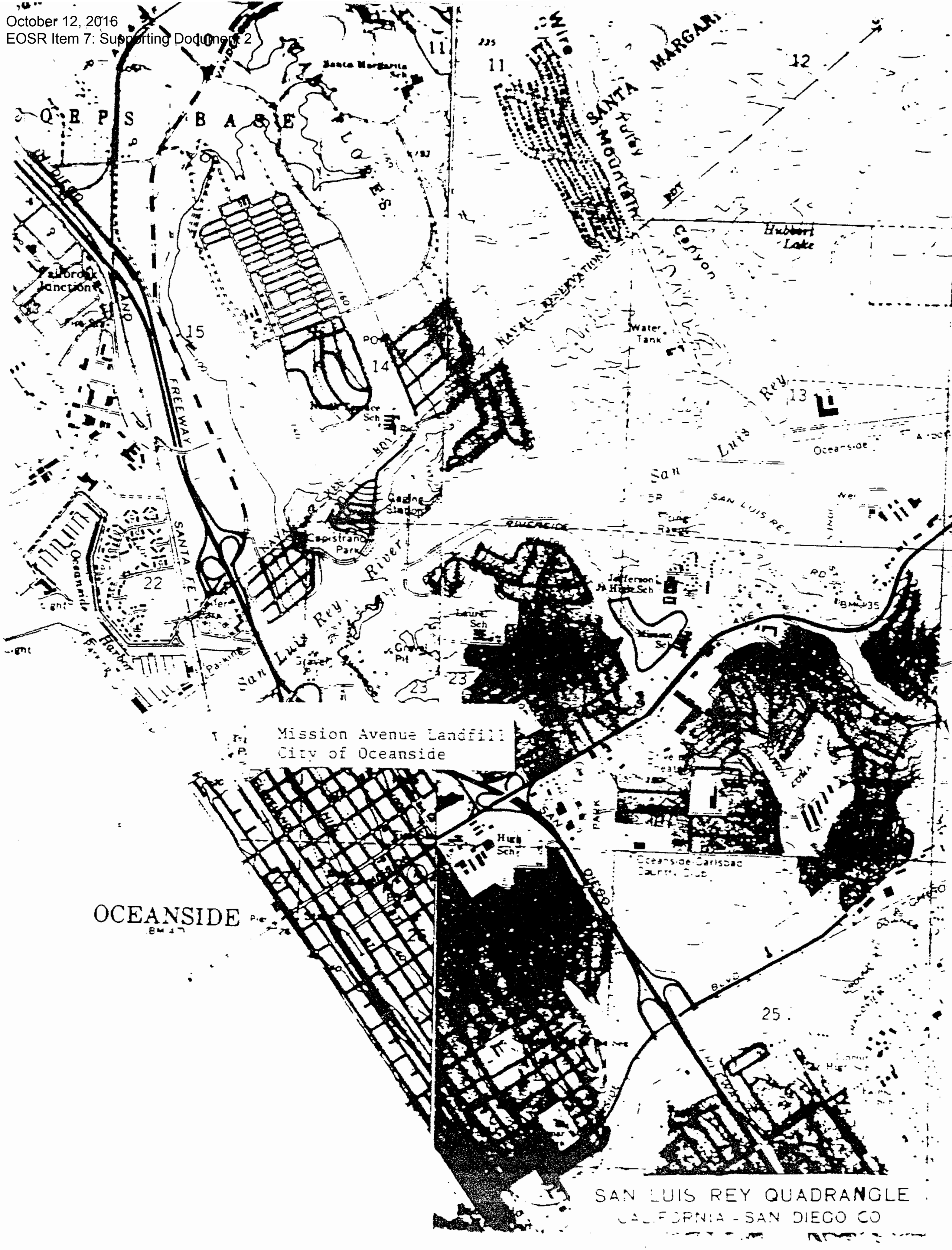
3. The California Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and may be subject to administrative civil liability of up to 1000 dollars per day of violation.

4. Definitions of terms used in this Order shall be as set forth in Subchapter 15.

I, Ladin H. Delaney, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, August 29, 1988.

Ladin H. Delaney

LADIN H. DELANEY
Executive Officer


CORPS BASE
SANTA MARGARITA MOUNTAIN
Hubbert Lake
Canyon
NAVAL RESERVATION
Water Tank
San Luis Rey
Jefferson High Sch
Mission Sch
Laurel Sch
FREEWAY
SANTA FE
San Luis Rey River
Capistrano Park
Gaging Station
Gravel Pit
Oceanside Harbor
High Sch
Oceanside-Carlsbad Country Club
Mission Avenue Landfill
City of Oceanside
OCEANSIDE
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SAN LUIS REY QUADRANGLE
CALIFORNIA - SAN DIEGO CO

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ADDDENDUM NO. 1 TO ORDER NO. 88-53
AN ADDENDUM AMENDING WASTE DISCHARGE REQUIREMENTS
FOR THE
MISSION AVENUE LANDFILL
IN THE CITY OF OCEANSIDE
SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. On August 29, 1988, this Regional Board adopted Order No. 88-53. Order No. 88-53 established requirements for the post-closure maintenance and monitoring of the Mission Avenue Landfill.

2. On February 26, 1990, the Regional Board Executive Officer issued Technical Change Order (TCO) No. 1 to Monitoring and Reporting Program (M&RP) No. 88-53. The requirements of TCO No. 1 superceded and replaced the original requirements of M&RP No. 88-53.

3. The Mission Avenue Landfill operated from 1971 to 1979. Pursuant to Title 27 ("*27 CCR*"), Section 20080(g), landfills which were closed, abandoned, or inactive on or before November 27, 1984 are not specifically required to be closed in accordance with 27 CCR, Subchapter 5, Articles 1 and 2. However, these landfills are subject to post-closure maintenance requirements in accordance with 27 CCR, Section 21090 (b) and (c); and other requirements for the protection of water resources (Section 20380 *et seq*.).

3. The City of Oceanside is responsible for the protection of usable waters from discharge of wastes, gases, and leachate, during the landfill maintenance period. This responsibility continues with any subsequent change in land use of the landfill for purposes other than open space.

4. Landfill cover at inactive landfills ceasing operations prior to 1984 may not be adequate to minimize percolation of liquids through wastes as described in 27 CCR, Section 20705.

5. As part of the FY 2002/2003 **Waste Discharge Order Update Program**, Order No. 88-53 has been reviewed by Regional Board staff as required by Section 13263 of the California Water Code. This Order updates the findings and requirements of Order No. 88-53 in order to address current State and Regional Board policies, regulations and the current status of the landfill.

6. The Regional Board finds that a variety of approaches may be effective as Best Management Practices (BMPs) for control of surface water runoff and erosion of cover materials. BMPs for control of surface water runoff should be used in areas where cover materials have been placed and in areas undergoing landfill containment system construction or maintenance. Effective BMPs are best implemented on a site-specific basis and may include, but are not limited to, the use of: bonded fiber matrix materials, anchored fiber rolls, fiber blankets, and other measures as appropriate.

7. The Mission Avenue Landfill is an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with Title 14, California Code of Regulations, Chapter 3, Article 19, Section 15301.

8. The Regional Board has considered all water resource related environmental factors associated with the Mission Avenue Landfill.

9. The Regional Board has notified interested parties of its intent to update waste discharge requirements for the Mission Avenue Landfill.

10. The Regional Board, in a public meeting heard and considered all comments pertaining to the Mission Avenue Landfill.

IT IS HEREBY ORDERED, that Order No. 88-53 be amended as follows:

1. Replace **B. CLOSURE SPECIFICATIONS** with the following:

"**B. MAINTENANCE SPECIFICATIONS**

General Maintenance Requirements

1. The discharger shall prepare a maintenance plan by **August 30, 2003**, which contains, but is not limited to, the following:

    a. The persons, companies, or agencies responsible for each aspect of landfill maintenance, along with their addresses and phone numbers.

    b. Location maps indicating property boundaries and the existing limits of waste, internal roads, and structures inside the property boundary.

    c. A location map of the current monitoring and control systems including drainage and erosion control systems and landfill gas monitoring and control systems.

d. A description of the methods, procedures, schedules and processes that will be used to maintain, monitor and inspect the landfill.

2. Annually by **April 30**, the discharger shall submit any and all modifications to the landfill maintenance plan as part of the Annual Summary Report. If no modifications have been made since the previous year, the discharger shall provide a statement to that effect in the Annual Summary Report.

3. The landfill maintenance period shall continue until the Regional Board determines that remaining wastes in all waste management units (WMUs) will not threaten water quality.

4. The discharger shall comply with all applicable requirements of 27 CCR, Subchapter 5, Article 2.

5. Waste containment structures/units shall be adequately protected from any washout, erosion of wastes or cover material. The surface drainage system shall be designed to adequately handle the rainfall from a 100-year 24-hour storm event.

6. The structural integrity and effectiveness of all containment structures and the existing cover shall be maintained as necessary to correct the effects of settlement or other adverse factors.

7. Vegetation used at the site shall be selected to require minimum irrigation and maintenance, and shall not impair the integrity of containment structures including the existing cover.

8. The migration of landfill gas from the site shall be controlled as necessary to ensure that landfill gases and gas condensate are not discharged to surface waters or ground waters. Condensate shall be collected and removed from the site except as defined in 27CCR Section 20090(e).

Erosion Control

9. Annually, prior to the anticipated rainy season but not later than **October 31**, any necessary erosion control measures shall be implemented, and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion, ponding, flooding, or to prevent surface drainage from contacting or percolating through wastes at the facility. In addition, maintenance, and repairs necessitated by changing site conditions can be made at any time.

10. Structural and non-structural Best Management Practices (BMPs) shall be used to prevent erosion of cover materials and in areas undergoing landfill containment system construction and/or maintenance.

11. All areas, including surface water drainage courses, shall be maintained to minimize erosion. The landfill cover shall be maintained to minimize percolation of liquids through wastes.

Surface Water Drainage

12. Surface water runoff within the boundary of the landfill (i.e., precipitation that falls on the landfill cover) shall be collected by a system of berms, ditches, downchutes, swales and drainage channels, and shall be diverted off the landfill to either the detention basins or to the natural watercourses offsite.

13. Surface water runoff from tributary areas and internal site drainage from surface and subsurface sources shall not contact or percolate through waste and shall either be contained onsite or be discharged in accordance with applicable storm water regulations.

14. Surface water runoff from the landfill is subject to State Board Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001, "Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities" and any revisions thereto.

15. Where surface water runoff results in erosive flow velocities, surface protection such as asphalt, concrete, riprap, silt fences or other erosion control material shall be used for protection of drainage conveyance features. Interim bench ditches shall be provided with erosion control material and riprap to control erosion where necessary.

16. Where surface water runoff results in erosive flow velocities at terminal ends of downchutes or where downchutes cross the landfill cover access roads, erosion control material shall be applied to exposed soil surfaces.

17. Energy dissipaters shall be installed to control erosion at locations where relatively high erosive flow velocities of surface water runoff are anticipated.

Other Specifications

18. The discharger shall maintain the existing cover system comprised of a minimum two-foot foundation layer, overlain by a one-foot thick clay liner, and finally a one-foot thick vegetative soil layer, for a final cover system that complies with the minimum requirements of Title 23, Chapter 15, Section 2581.

19. The waste management unit shall be provided with at least two permanent monuments installed by a licensed land surveyor or a registered civil engineer, from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period.

20. The discharger shall maintain an irrevocable closure fund or provide meanse to ensure post-closure maintenance of this waste management facility in accordance with the closure and post-closure maintenance requirements of this Order.

21. The disposal site shall be graded to maintain at least a three-percent grade and be maintained to prevent ponding.

22. Areas of the disposal site containing slopes greater than ten-percent, surface drainage courses, and areas subject to erosion by water and wind shall be protected or designed and constructed to prevent such erosion.

23. Throughout the post-closure maintenance period, and for as long as the wastes contained in the disposal site pose a threat to water quality, the discharger shall:

    a. Maintain the monitoring systems and monitor the ground water, surface water, and the unsaturated zone in accordance with applicable requirements of this Order;

    b. Prevent erosion and related damage to the final cover due to drainage and effects of erosion;

    c. Protect and maintain surveyed monuments."

2. Replace **Provision C.2** with the following:

"The discharger shall comply with the applicable provisions of California Code of Regulations 27 CCR and all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for: (a) enforcement action; (b) termination, revocation and reissuance, or

modification of this Order; or (c) denial of a Report of Waste Discharge in application for new or revised Waste Discharge Requirements."

3. Replace **Reporting Requirement D.10** with the following:

"The discharger shall comply with the requirements of Technical Change Order No. 1 to Monitoring and Reporting Program No. 88-53. Monitoring results shall be reported to the Regional Board at intervals specified in Technical Change Order No. 1 to Monitoring and Reporting Program No. 88-53."

4. Replace **Reporting Requirement D.13** with the following:

"The discharger shall submit reports required under this Order and other information requested by the Executive Officer , to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123
Attn: Land Discharge Unit Supervisor"

5. Add the following as **Reporting Requirement D.14**:

"The discharger shall submit a copy of the Storm Water Pollution Prevention Plan (SWPPP) by June 1, 2003. Subsequently, the discharger shall submit any and all modifications to the SWPPP as part of the Annual Summary Report due April 30. If no modifications have been made since the previous year, the discharger shall provide a statement to that effect in the Annual Summary Report."

5. Replace **G. Reporting Schedule of Technical Change Order No. 1 to Monitoring and Reporting Program No. 88-53** with the following:

"The monitoring requirements for this site, ground water, and gas condensate shall be submitted in one report to the Regional Board in accordance with the following schedule:

Report Frequency	**Report Period**	**Report Due**
Semiannually	July – December	January 30
	January – June	July 30
Annually	January – December	January 30

Monitoring reports shall be submitted to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123
Attn: Land Discharge Unit Supervisor"

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on November 13, 2002.

JOHN H. ROBERTUS
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

MONITORING AND REPORTING PROGRAM NO. 88-53
FOR THE
MISSION AVENUE SANITARY LANDFILL
IN THE CITY OF OCEANSIDE
SAN DIEGO COUNTY

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Order and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Executive Officer.

2. The discharger shall develop and follow a ground water and unsaturated zone monitoring program which includes consistent and appropriate sampling and analytical procedures that accurately measure indicator parameters and waste constituents to provide a reliable indication of ground and surface water quality. At a minimum, the program shall include procedures and techniques for:

   a. Sample collection;
   b. Sample preservation and shipment;
   c. Analytical procedures; and
   d. Chain of custody control.

3. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this Order.

4. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

5. Monitoring results must be reported on discharge monitoring report forms approved by the Executive Officer.

6. If the discharger monitors any pollutants more frequently than required by this Order, using test procedures approved under 40 CFR, Part 136, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger"s monitoring report. The increased frequency of monitoring shall also be reported.

7. The discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

8. Records of monitoring information shall include:

   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or method used; and
   f. The results of such analyses.

9. The discharger shall report all instances of noncompliance not reported under Reporting Requirement D. 5 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Reporting Requirements D. 8.

10. The monitoring reports shall be signed by an authorized person as required by Reporting Requirement D. 13.

11. A letter of transmittal shall accompany each submitted monitoring report. The letter should discuss the essential points in each monitoring report. Such a letter shall include a discussion of any significant findings and violation(s) of requirements found during the monitoring period and actions taken or planned for correcting the violation(s). If the discharger has previously submitted a detailed time schedule for correcting violation(s) a reference to the correspondence transmitting such schedule will suffice. If no violations have occurred in the last monitoring period, it shall be stated in the letter of transmittal. Monitoring reports and the letter of transmittal shall be signed by a principal executive officer at the level of vice president or his/her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

12. Calculations for all limitations which require s
shall utilize an arithmetic mean unless otherwi..
Executive Officer or in this Order.

13. All monitoring instruments and devices used by
the prescribed monitoring program shall be prop
calibrated as necessary to ensure their contin..

14. The discharger shall have, and implement, an ac
assurance/quality control (QA/QC) plan for labo
report shall be submitted by January 30 of each
QA/QC activities for the previous year. Duplica
conducted on a minimum of ten percent of the sa
per month, whichever is greater. A similar freq
for analyzing spiked samples. The discharger sh
equal to or greater than 80 percent.

15. All laboratory reports shall include QA/QC proc
recovery rates, results from blanks, spikes, and
explanation for any recovery rate
which is less than the standard recovery rate f
constituent shall be included.

16. A composite sample is defined as a combination
aliquots of at least 100 milliliters, collected
during the operating hours of a facility over a
volatile pollutants, aliquots must be combined
immediately before analysis. The composite must
either the time interval between each aliquot c
must be proportional to either the stream flow
the total stream flow since the collection of t
Aliquots may be collected manually or automatic

17. A grab sample is an individual sample of at le
at a randomly selected time over a period not e

B. SITE MAINTENANCE

1. The discharger shall perform quarterly inspecti
site and report the results quarterly. The repo
of site conditions and a discussion of any sign
to:

a. General site condition;
b. Surface cover and slope;
c. Drainage facilities;
d. Ground water and unsaturated zone monitori
e. Methane gas control system;

f. Observation of seepage from landfill
g. Liquid condensate disposal facilities; and
h. Maintenance activities at the site.

2. By January 30 of each year, the discharger shall submit an annual report to the Executive Officer. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous 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 Order No. 88-53.

C. GROUND WATER AND UNSATURATED ZONE MONITORING PROGRAM

1. The discharger shall establish and maintain ground water and unsaturated zone monitoring wells at the landfill site to be used as part of a background water quality monitoring program.

2. New monitoring wells shall be designed and certified as adequate by a California registered geologist or a registered civil engineer, pursuant to Subchapter 15, Sections 2555 and 2559.

3. All monitoring wells shall be constructed in a manner that maintains the integrity of the drill hole and prevents cross-contamination of saturated zones. The casing shall be a minimum of two inches in diameter. The annular space shall be packed with appropriate filter material that is sized to match the formation. The annular space above the screened depth shall be appropriately sealed to prevent contamination of samples and ground water from surface pollution. The well shall be adequately developed to prevent the movement of sediment into the casing and to produce the highest yield possible from the formation. Each well shall be marked permanently so as to readily identify it and shall have a reference point tied into mean sea level elevation by a licensed surveyor. All monitoring wells shall be logged during drilling under the direct supervision of a California registered geologist. All monitoring well logs submitted to the Board shall be signed by the registered geologist. All monitoring well logs shall be filed with the Department of Water Resources (DWR) on forms provided by DWR, pursuant to Water Code Section 13751. Soil shall be described according to the Unified Soil Classification System. Copies of the logs and as-built specifications of the wells shall be submitted to the Regional Board.

4. Prior to pumping monitoring wells for sampling, the static water level shall be measured in each well.

5. Prior to sampling monitoring wells, the presence of a floating immiscible layer in all wells shall be determined at the beginning of each sampling

event. This shall be done prior to any other activity which may disturb the surface of the water in a well, e.g. water level measurements. If an immiscible layer is found, the Regional Board shall be notified within 24 hours.

6. Prior to sampling monitoring wells, the water standing in the casing shall be pumped using a step-down purging method until the water chemistry has stabilized with respect to pH and specific conductance. Water chemistry can be considered stable when in-line specific conductance and pH readings are within ±10% and ±0.1 pH units respectively over 2 successive well volumes. Samples shall be obtained that are representative of the fresh aquifer formation water.

7. Field logs used for monitoring well sampling shall be included in the monitoring reports. The information contained in these logs shall include: the name of the person actually taking the sample, well number, date, time of sampling, method of sampling (if a pump is used, include, the type of pump used and pump placement), sampling procedure, number of field blanks, presence of travel blanks, well number where duplicate samples are taken, type of sample containers and preservatives, any observations of the quality of the sample water (color, odors, immiscible phases, etc.), chain of custody record, and any problems encountered during sampling.

8. Field logs used during well purging shall be included in the monitoring reports. The information contained in these logs shall include: the method of monitoring the field parameters, calibration of the field equipment, method of purging (if a pump is used, include pump placement and pumping rate), date each well was purged, well recovery time, method of disposal of the purged water, an estimate of volume of water purged from each well, the results of all field analyses, well number, date, depth to ground water, method of measuring the water level, and field personnel signatures.

9. After purging, if 80% recovery of the initial water level exceeds three hours, a sample should be collected as soon as the water level is sufficient to recover a representative sample.

10. The discharger shall submit a compliance evaluation summary of the ground water and unsaturated zone chemical data obtained for the quarter. The summary shall contain a table which includes the following information:

    a. Monitoring parameters;
    b. Detection limit of monitoring equipment;
    c. Average concentration for each parameter over the previous four quarterly monitoring events;
    d. Measured concentrations found in the current sampling event; and
    e. Whether a significant difference was found for each parameter.

The measured concentrations shall be reported with a "<" symbol only if the value listed after the symbol is the detection limit achieved by the laboratory.

11. The discharger shall provide a graphical description of the direction of ground-water flow in and around the disposal site, based upon water level elevations and pertinent visual observations. The time of day at which each well's water level is determined shall be included with the graphical description of the direction of ground water flow.

12. The discharger shall provide a summary of the results of the background water quality monitoring program at the end of one year of monitoring. The analysis shall account for measurement errors in sampling and analysis, and account for seasonal fluctuations in background water quality.

13. For each parameter specified the discharger shall calculate the arithmetic mean and variance of the samples obtained during each year of the background monitoring program.

14. The discharger shall submit a proposal for a detection monitoring program within 15 months of the effective date of this Order. The detection monitoring program shall be based on the results of the background water quality monitoring program and in accordance with monitoring requirements of Subchapter 15, Article 5.

15. The discharger shall continue the background water quality monitoring program until the detection monitoring program is approved by the Executive Officer and implemented at the landfill site.

16. Samples from each ground water and unsaturated zone monitoring well identified above shall be collected and analyzed for the following parameters at the frequency shown and reported at the interval shown:

Constituent	Units	Sampling Frequency	Reporting Frequency
Chemical Oxygen Demand	mg/L	Quarterly	Quarterly
Biochemical Oxygen Demand (BOD_5 @ 20° C)	mg/L	Quarterly	Quarterly
pH	pH Units	Quarterly	Quarterly
Specific Conductance	umhos/cm	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Quarterly	Quarterly
Chloride	mg/L	Quarterly	Quarterly
Sulfates	mg/L	Quarterly	Quarterly
Nitrate	mg/L	Quarterly	Quarterly
Phosphate	mg/L	Quarterly	Quarterly
Alkalinity (as $CaCO_3$)	mg/L	Quarterly	Quarterly
Hardness (as $CaCO_3$)	mg/L	Quarterly	Quarterly
Purgeable Organic Compounds (EPA Method 624)	ug/L	Quarterly	Quarterly
Base/Neutrals and Acids (EPA Method 625)	ug/L	Quarterly	Quarterly
Lead	ug/L	Quarterly	Quarterly
Chromium	ug/L	Quarterly	Quarterly
Cadmium	ug/L	Quarterly	Quarterly
Nickel	ug/L	Quarterly	Quarterly
Copper	ug/L	Quarterly	Quarterly
Mercury	ug/L	Quarterly	Quarterly
Arsenic	ug/L	Quarterly	Quarterly
Silver	ug/L	Quarterly	Quarterly
Zinc	ug/L	Quarterly	Quarterly
Barium	ug/L	Quarterly	Quarterly
Beryllium	ug/L	Quarterly	Quarterly
Calcium	ug/L	Quarterly	Quarterly
Cobalt	ug/L	Quarterly	Quarterly
Iron	ug/L	Quarterly	Quarterly
Potassium	ug/L	Quarterly	Quarterly
Manganese	ug/L	Quarterly	Quarterly
Molybdenum	ug/L	Quarterly	Quarterly
Sodium	ug/L	Quarterly	Quarterly
Selenium	ug/L	Quarterly	Quarterly
Thallium	ug/L	Quarterly	Quarterly
Vanadium	ug/L	Quarterly	Quarterly

Note: mg/L = milligrams per liter
ug/L = micrograms per liter

D. LIQUID CONDENSATE

A composite sample of liquid condensate, at each condensate disposal point, shall be collected and analyzed for the following parameters at the frequency shown and reported at the interval shown:

Constituent	Units	Sampling Frequency	Reporting Frequency
Flow rate	gpd	Semiannually	Semiannually
pH	pH Units	Semiannually	Semiannually
Sulfates	mg/L	Semiannually	Semiannually
Nitrate	mg/L	Semiannually	Semiannually
Phosphate	mg/L	Semiannually	Semiannually
Alkalinity (as $CaCO_3$)	mg/L	Semiannually	Semiannually
Hardness (as $CaCO_3$)	mg/L	Semiannually	Semiannually
Purgeable Organic Compounds (EPA Method 624)	ug/L	Semiannually	Semiannually
Base/Neutrals and Acids (EPA Method 625)	ug/L	Semiannually	Semiannually
Lead	ug/L	Semiannually	Semiannually
Chromium	ug/L	Semiannually	Semiannually
Cadmium	ug/L	Semiannually	Semiannually
Nickel	ug/L	Semiannually	Semiannually
Copper	ug/L	Semiannually	Semiannually
Mercury	ug/L	Semiannually	Semiannually
Arsenic	ug/L	Semiannually	Semiannually
Silver	ug/L	Semiannually	Semiannually
Zinc	ug/L	Semiannually	Semiannually
Barium	ug/L	Semiannually	Semiannually
Beryllium	ug/L	Semiannually	Semiannually
Calcium	ug/L	Semiannually	Semiannually
Cobalt	ug/L	Semiannually	Semiannually
Iron	ug/L	Semiannually	Semiannually
Potassium	ug/L	Semiannually	Semiannually
Manganese	ug/L	Semiannually	Semiannually
Molybdenum	ug/L	Semiannually	Semiannually
Sodium	ug/L	Semiannually	Semiannually
Selenium	ug/L	Semiannually	Semiannually
Thallium	ug/L	Semiannually	Semiannually
Vanadium	ug/L	Semiannually	Semiannually

Note: mg/L = milligrams per liter
ug/L = micrograms per liter

E. REPORT SCHEDULE

The monitoring reports shall be submitted to the Executive Officer in accordance with the following schedule:

Reporting Frequency	Monitoring Period	Report Due Date
Quarterly	October - December	January 30
	January - March	April 30
	April - June	July 30
	July - September	October 30
Semiannually	July - December	January 30
	January - June	July 30
Annual	January - December	January 30

Ordered by Ladin H. Delaney

LADIN H. DELANEY
Executive Officer
August 29, 1988

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TECHNICAL CHANGE ORDER No. 1
TO
MONITORING AND REPORTING PROGRAM No. 88-53

MISSION AVENUE LANDFILL
SAN DIEGO COUNTY

This Technical Change Order (TCO) supersedes and replaces the requirements specified by the Monitoring and Reporting Program for Order No. 88-53 adopted on August 29, 1988 for the subject landfill. The objective of this TCO is to update the monitoring and reporting requirements.

A. SAMPLING AND ANALYTICAL METHODS, GENERAL PROVISIONS:

1. Samples and measurements taken shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this TCO and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification and the approval of the Executive Officer.

2. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this TCO.

3. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

4. If the discharger monitors any pollutants more frequently than required by this Order, using test procedures approved under 40 CFR, Part 136, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.

5. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

6. A composite sample is defined as a combination of at least 8 sample aliquot of at least 100 milliliters, collected at periodic intervals during the operating hours of the landfill. For volatile pollutants, aliquot must be combined in the laboratory immediately before analysis.

7. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

B. **RECORDS, REPORTING AND DATA ANALYSIS:**

1. The discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this TCO, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

2. The following records of monitoring information shall be retained:

   a. Date, exact place, and time of sampling or measurements;

   b. Individual(s) who performed the sampling and field measurements;

   c. Date(s) analyses were performed;

   d. Analytical techniques or method used;

   e. Results of such analyses;

   f. Detection limit for each parameter measured; and

   g. Laboratory quality assurance results (e.g. percent recovery, response factor, etc.).

3. In the annual report, the discharger shall provide a statistical analysis of the results in accordance with

Appendix II of 23 CCR 15 or equivalent statistical method. The statistical analysis shall incorporate the previous and the most recent results (cumulative analysis). The discharger shall identify whether a significant difference was found above the cumulative background values for each parameter.

4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Executive Officer or in this Order.

5. The discharger shall include in the annual report the following information:

   a. Field monitoring parameters, samples identifications, and the chain-of-custody sheets;

   b. The method detection limit (MDL);

   c. The measured concentrations found in the current sampling event as report by the laboratory;

   d. Whether a significant difference was found above the background value of each parameter; and

   e. The laboratory quality assurance and quality control data sheet.

   The measured concentrations shall be reported with a "<" symbol only if the value listed after the symbol is the MDL.

6. The discharger shall provide a graphical description of the direction of groundwater flow in and around the subject landfill.

7. Prior to pumping monitoring wells for sampling, the static water level shall be measured in each well.

8. Prior to sampling monitoring wells, the presence of a floating immiscible layer in all wells shall be determined at the beginning of each sampling event. This shall be done prior to any other activity which may disturb the surface of the water in a well, e.g. water level measurements. If an immiscible layer is found, it must be sampled, analyzed and reported.

9. Prior to sampling monitoring wells, the water standing in the casing shall be purged until the water chemistry has stabilized with respect to pH and specific conductance. Integrity of the samples should be considered in selecting sampling equipment.

10. Field logs used during well purging shall be included in the monitoring reports. The information contained in these logs shall include: the method of monitoring the field parameters, calibration of the field equipment, method of purging (if a pump is used, include pump placement and pumping rate), date each well was purged, well recovery time, method of disposal of the purged water, an estimate of volume of water purged from each well, the results of all field analyses, well number, date, depth to groundwater, method of measuring the water level, and field personnel signatures.

C. SITE MONITORING:

The discharger shall submit an annual report describing the maintenance work performed on the final cover including grading, compaction, and measures taken to control erosion of the final cover (vegetation, geonet, etc.).

D. GROUND WATER MONITORING:

1. As shown in Attachment # A, the points of compliance (monitoring well locations) to this TCO consists of a background monitoring well number MW-5 and two downgradient wells number MW-4 and MW-6.

2. Samples from the monitoring wells MW-4, MW-5 and MW-6 shall be collected and analyzed for the following parameters at the frequency and reported at the interval shown in Table #1

E. GAS CONDENSATE MONITORING

The total volume of gas condensate discharged to the landfill from the gas extraction operation shall be reported annually.

Mission Avenue Landfill **Order No. 88-53, TCO No. 1**

Table #1

Constituent	Units	Sampling Frequency	Reporting Frequency
Chloride	mg/L	Semiannually	Semiannually
Fluoride	mg/L	Semiannually	Semiannually
Manganese	mg/L	Semiannually	Semiannually
Nitrate (as NO_3)	mg/L	Semiannually	Semiannually
Sulfate	mg/L	Semiannually	Semiannually
Total Dissolved Solids	mg/L	Semiannually	Semiannually
Total Phosphate	mg/L	Semiannually	Semiannually
Turbidity	NTU	Semiannually	Semiannually
Semi-volatile Organics	ug/L	Annually	Annually
Volatile Organics	ug/L	Annually	Annually
Arsenic	mg/L	Semiannually	Semiannually
Boron	mg/L	Semiannually	Semiannually
Cadmium	mg/L	Semiannually	Semiannually
Chromium	mg/L	Semiannually	Semiannually
Copper	mg/L	Semiannually	Semiannually
Iron	mg/L	Semiannually	Semiannually
Lead	mg/L	Semiannually	Semiannually
Mercury	mg/L	Semiannually	Semiannually
Silver	mg/L	Semiannually	Semiannually

Note: mg/L = milligrams/liter and ug/L = micrograms/liter

F. WATER QUALITY PROTECTION STANDARDS

The following water quality protection standards (WQPS) are intended to reflect water quality unaffected by the subject landfill and will be used to determine whether water quality degradation has occurred at the site. The follwong WQPS are established for ground water beneath the site:

Parameter	Protection Standards	Units
Chloride	500	mg/L
Fluoride	1.0	mg/L
Manganese	0.15	mg/L
Nitrate (as NO_3)	45	mg/L
Sulfate	500	mg/L
Total Dissolved Solids	1500	mg/L
Turbidity	5	NTU
Semi-volatile organics	None	N/A
Volatile organics	None	N/A
Arsenic	0.05	mg/L
Barium	1.00	mg/L
Cadmium	0.01	mg/L
Chromium	0.05	mg/L
Copper	1.00	mg/L
Iron	0.85	mg/L
Lead	0.05	mg/L
Mercury	0.002	mg/L
Silver	0.05	mg/L

Note: mg/L = milligram per liter

G. REPORTING SCHEDULE:

The monitoring requirements for site, ground water, and gas condensate shall be submitted in one report to the Executive Officer in accordance with the following schedule:

Mission Avenue Landfill Order No. 88-53, TCO No. 1

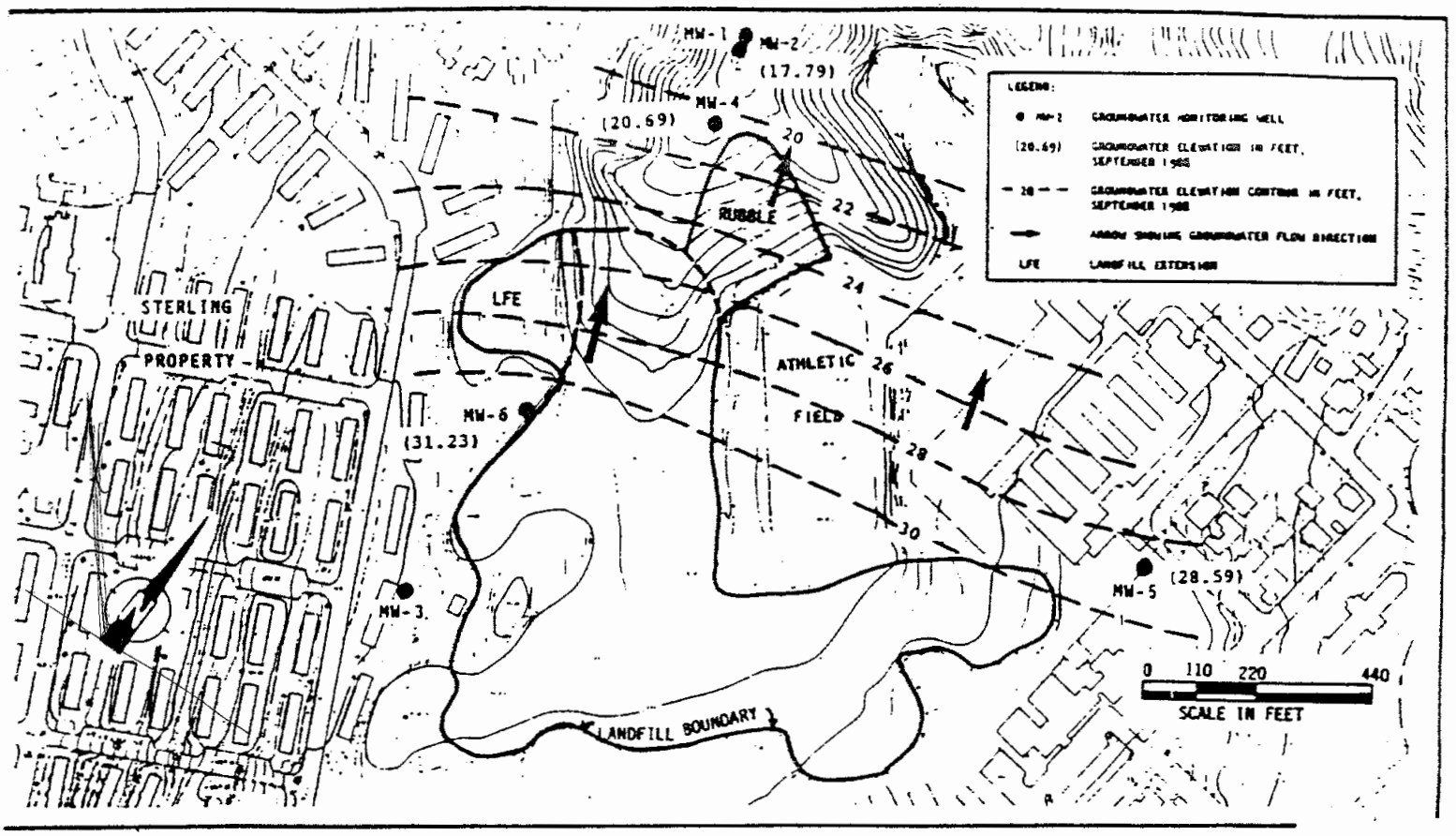
Reporting	Monitoring Period	Report Due Date
Semiannual	January - June	July 30
	July - December	January 30
Annual	January - December	January 30

Ladin H. Delaney
Executive Officer

FEB 26 1990
SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

Date:

Attachment A: Compliance Points Location Map



Attachment A

Mission Avenue Landfill

California Regional Water Quality Control Board
San Diego Region
Over 50 Years Serving San Diego, Orange, and Riverside Counties
Recipient of the 2004 Environmental Award for Outstanding Achievement from USEPA

Alan C. Lloyd, Ph.D.
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

9174 Sky Park Court, Suite 100, San Diego, California 92123-4340
(858) 467-2952 • Fax (858) 571-6972
http:// www.waterboards.ca.gov/sandiego

June 10, 2005

In reply refer to:
LDU:06-0342.02:agrove

Mr. Brian Forward
City of Oceanside
Department of PublicWorks
4925 Oceanside Boulevard
Oceanside, CA 92056

Dear Mr. Forward:

TECHNICAL CHANGE ORDER NO. 2 TO MONITORING AND REPORTING PROGRAM NO. 88-53: MISSION AVENUE LANDFILL

In September 2004, the State Water Resources Control Board (SWRCB) adopted regulations requiring that Dischargers begin electronic submittal of information (ESI) for all groundwater cleanup programs regulated by the Regional Water Quality Control Boards. For several years, parties responsible for cleanup of leaks from underground storage tanks (LUST) have been required to submit groundwater analytical data, the surveyed locations of monitoring wells, and certain other data to the SWRCB's Geotracker database via the internet. Beginning January 1, 2005, The SWRCB extended electronic reporting requirements to include all technical reports and monitoring data/reports filed by Dischargers regulated by our Land Disposal Program (units regulated pursuant to California Code of Regulations – CCR Title 27 and CCR Title 23, Chapter 15). Enclosed with this letter is TCO No. 2 to Monitoring and Reporting Program No. 88-53 requiring the City of Oceanside to comply with the electronic reporting regulations (in section 3890 *et seq.*, Title 23, California Code of Regulations) and continue providing the Regional Board with complete paper copies of all technical reports, monitoring reports and plans after **July 1, 2005**.

You should be aware that the San Diego Regional Board staff is not responsible for the maintenance and administration of the Geotracker database. For information on how to access and use the Geotracker database, please contact the SWRCB staff **Mr. Hamid Foolad at (916) 341-5791**, or the **"Geotracker Help Desk" at (866) 480-1028** and via their website: Geotracker@waterboards.ca.gov.

For your convenience, a link to the Geotracker and Electronic Reporting web page can be found on our Regional Board web page under "WATER NEWS" or on the State Water Board's website at http://www.waterboards.ca.gov/ust/cleanup/electronic_reporting/

The heading portion of this letter includes a Regional Board code number noted after "In reply refer to:" In order to assist us in the processing of your correspondence please include this code number in the heading or subject line portion of all correspondence and reports to the Regional Board pertaining to this matter.

If you have any questions, please contact Mrs. Amy Grove at (858) 637-7136, or via e-mail at agrove@waterboards.ca.gov.

Sincerely,

JOHN H. ROBERTUS
Executive Officer

Enclosure: Technical Change Order T-2 to Monitoring and Reporting Program No. 88-53.

Cc: Ms. Kerry McNeill, San Diego County Department of Environmental Health – Local Enforcement Agency, 9325 Hazard Way, San Diego, CA 92123 / with Enclosure

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TECHNICAL CHANGE ORDER NO. T-2
FOR MONITORING AND REPORTING PROGRAM NO. 88-53
FOR THE
CITY OF OCEANSIDE
MISSION AVENUE LANDFILL

It is hereby ordered that the following changes be made to Monitoring and Reporting Program No. 88-5, Addendum No. 1 to the MRP, and Technical Change Order (TCO) No. 1 to the MRP:

1. **Add Monitoring Provision A.8 to Monitoring and Reporting Program (MRP) No. 88-53, as amended by Technical Change Order (TCO) No. 1, as follows:**

   After July 1, 2005, the discharger shall submit any reports and data required by this Order electronically, in accordance with section 3890 *et. seq.* of the California Code of Regulations, Title 23, Division 3. In addition, the Discharger shall continue to provide the Regional Board with complete paper copies all technical reports, monitoring reports, and plans in compliance with Order 88-53 and addenda thereto.

2. **Revise Addendum No. 1 to MRP No. 88-53, Section G. Reporting Schedule to read as follows:**

   The monitoring requirements for this site, ground water, and gas condensate shall be submitted electronically pursuant to section 3890 *et seq.*, Title 23, CCR and as a complete paper copy to the Regional Board in accordance with the following schedule:

Report Frequency	**Report Period**	**Report Due**
Semiannually	July – December	January 30
	January – June	July 30
Annually	January – December	January 30

Ordered by _____
JOHN H. ROBERTUS
Executive Officer
June 10, 2005

Attachment 3

2014 Report of Annual Groundwater Monitoring Well Sampling

for the Mission Avenue Sanitary Landfill

CITY OF OCEANSIDE

PUBLIC WORKS DEPARTMENT

TRANSMITTAL LETTER

TO: San Diego Regional Water Quality Control Board
2375 Northside Drive, Suite 100
San Diego, California 92108

DATE: 1/31/15
JOB No. 175-06

ATTENTION: Amy Grove

SUBJECT: REPORT OF ANNUAL GROUNDWATER MONITORING WELL SAMPLING, MISSION AVENUE LANDFILL, OCEANSIDE

ENCLOSED PLEASE FIND:

One copy – ***ANNUAL REPORT, GROUNDWATER MONITORING WELL SAMPLING, (JANUARY 2014 – DECEMBER 2014) MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA***, January 31, 2015

REPORT SUMMARY:

The attached annual report includes groundwater sampling data for the current sampling period of July 2014 to December 2014, previous groundwater sampling data, and an estimated quantity of landfill gas (LFG) condensate generated at the landfill.

Groundwater elevations were measured and recorded on December 20, 2014 and are provided in Table 1 of the subject report. Groundwater samples from each of the three monitoring wells (MW-4, MW-5, MW-6) were analyzed for pH, turbidity, specific conductance, anions (chloride, fluoride, nitrate, and sulfate), trace metals (As, Ba, Cd, Cr, Cu, Pb, Hg, Ag, and Fe), and volatile and semi-volatile organic compounds. Results of laboratory analysis for this current sampling event as well as previous groundwater sampling events are provided in Tables 2, 3, and 4 of the subject report.

Water quality protection standards (WQPS) have been established (in TCO No. 1) for groundwater beneath the Mission Avenue Landfill. Several groundwater parameters analyzed during the current sampling event exceeded the WQPS for the Mission Avenue Landfill. The following table indicates those groundwater parameters that exceeded established WQPS.

WELL NO.	PARAMETER	WATER QUALITY PROTECTION STANDARD	LABORATORY MEASUREMENT (sampled on 12/20/14)
MW-4	Chloride	500 mg/L	740 mg/L
	Total Dissolved Solids	1500 mg/L	1920 mg/L
MW-6	Chloride	500 mg/L	560 mg/L
	Total Dissolved Solids	1500 mg/L	1500 mg/L

None of the semi-volatile organic compounds analyzed were detected in groundwater samples collected from MW-4, MW-5, or MW-6 during the current sampling event. Analysis of the groundwater samples collected from MW-4 indicated the presence of tetrachloroethene at a concentration of 2.2 micrograms per liter (ug/L). Analysis of the groundwater sample collected from MW-6 indicated the presence of tetrachloroethene and trichloroethene at detected concentrations of 5.8 ug/L and 2.0 ug/L, respectively. Analysis of groundwater samples collected from MW-5 did not show volatile organic compounds present during the current sampling event.

Results of the current groundwater monitoring well sampling event are similar to those of previous sampling events. The direction of groundwater flow remains to the northwest, and the gradient is essentially unchanged.

Tetrachloroethene and trichloroethene have consistently been detected in groundwater samples collected from MW-6 during past sampling events. It is likely that the landfill is the source of the volatile organic compounds that have been detected during this and past sampling events given the close proximity of groundwater monitoring well MW-6 to refuse.

I certify that, under penalty of perjury, that to the best of my knowledge the subject report is true, complete, and correct.

Sincerely,

Kiel Koger
Director of Public Works

Enclosures

ANNUAL REPORT
GROUNDWATER MONITORING WELL SAMPLING
(JANUARY 2014 –DECEMBER 2014)
MISSION AVENUE LANDFILL
OCEANSIDE, CALIFORNIA

Prepared for:

Public Works Department
City of Oceanside
4925 Oceanside Boulevard
Oceanside, California 92056

Prepared by:

FREY Environmental, Inc.
2817-A Lafayette Avenue
Newport Beach, California 92663

January 31, 2015
File No. 175-06

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Table 1 - Summary of Groundwater Levels
Table 2 - Summary of Inorganic and Anion Analyses
Table 3 - Summary of Metals Analyses
Table 4 - Summary of Detected Volatile/Semi-Volatile Organic Compounds

Figure 1 - Water Level Contour Map – Mission Avenue Landfill, December 2014

Appendix A - Field Data Sheets
Appendix B - Results of Laboratory Analyses

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Kiel Koger
Director of Public Works
City of Oceanside

INTRODUCTION

This document constitutes an annual report of groundwater sampling conducted at the former Mission Avenue Landfill for the period of January 2014 through December 2014. This report, prepared by FREY Environmental, Inc. (FREY) on behalf of the City of Oceanside, includes semi-annual groundwater sampling data collected for the current sampling period of July 2014 through December 2014 and previous groundwater sampling data.

Groundwater monitoring well sampling at the former Mission Avenue Landfill was performed in accordance with the requirements specified in *San Diego Regional Water Quality Control Board Order 88-53, Technical Change Order No. 1 (TCO No. 1).*

GROUNDWATER MONITORING WELL SAMPLING

Groundwater Monitoring Well Network

The layout of the groundwater monitoring well network at the former Mission Avenue Landfill is shown in Figure 1. Groundwater monitoring well MW-5, located northeast of refuse fill, was installed to monitor background water quality in the vicinity of the landfill. Monitoring well MW-6, located at the west side of the landfill, was installed to monitor water quality within bedrock at an intermediate point of the landfill. Groundwater monitoring well MW-4, located near the toe of the landfill, was installed to monitor bedrock water quality down-canyon from the landfill.

Field Sampling Procedures

Groundwater elevations were measured in each of the monitoring wells on December 20, 2014 using a Solinist electrical well sounder. Groundwater elevations are summarized in Table 1 for this current sampling event as well as for past sampling events. Based on groundwater elevations, groundwater is estimated to flow to the northwest (Figure 1).

After measuring groundwater elevations, each monitoring well was tested for the presence of a floating immiscible layer using a 1.5-inch plastic bailer. No immiscible layer was found in any of the wells.

Monitoring wells were purged, using a 2-inch diameter submersible pump, until the water chemistry stabilized with respect to pH, temperature and specific conductance. Measurements of pH, temperature and specific conductance were recorded on field data sheets, included in Appendix A.

Following purging, groundwater samples were collected from each of the monitoring wells using a 1.5-inch diameter stainless steel bailer. The bailer was cleaned with TSP and rinsed three times with deionized water prior to sampling each of the monitoring wells. Groundwater samples were decanted into pre-cleaned, laboratory-supplied containers, labeled with appropriate identification, and placed in a chilled ice-chest. The samples were transported to Eurofins CalScience Environmental Laboratories, Inc. on December 20, 2014 for analysis. Appropriate chain of custody procedures were followed during handling and transportation of samples.

Generated Landfill Gas Condensate

As saturated landfill gas (LFG) is extracted from the landfill and transported through the LFG collection system piping, it gradually cools and some of the gas vapor condenses to a liquid known as LFG condensate. The LFG control system at the Mission Avenue Landfill utilizes a series of condensate traps, designed "low spots" along the gas transmission piping, which remove (via gravity) LFG condensate from the piping network and return it to the landfill. The design and operation of this type of LFG collection system does not allow for the physical volumetric measurement of generated LFG condensate. For purposes of reporting, the total amount of LFG condensate generated by the LFG control system is estimated at 11 gallons per day using the following assumptions.

- LFG is 100 percent saturated at 100^0 Fahrenheit in the landfill environment
- LFG is cooled to 50^0 Fahrenheit as it is transported in gas transmission piping
- LFG control system is operated 8 hours per day, on odd days of each month (approximately 182 per year).

Results of Laboratory Analysis

CalScience Environmental Laboratories analyzed groundwater samples from MW-4, MW-5, and MW-6 for the following:

- Turbidity, specific conductance, total dissolved solids, and pH in accordance with Environmental Protection Agency (EPA) Methods 180.1, 120.1, 160.1, and 150.1, respectively.
- Trace metals (As, Ba, Cd, Cr, Cu, Pb, Hg, Ag, and Fe) in accordance with EPA Method 6010B/7470A.
- Semi-volatile and volatile organic compounds in accordance with EPA Methods 8270C and 8260B, respectively.

Results of inorganic analyses (i.e., turbidity, specific conductance, total dissolved solids, and pH) for this current sampling event, as well as for past sampling events, are summarized in Table 2. Results of trace metals analyses for this current sampling event, as well as past sampling events, are summarized in Table 3. Table 4 indicates semi-volatile and volatile organic compounds that have been detected during this and past sampling events at the Mission Avenue Landfill. Complete laboratory reports, including quality assurance summaries, are included in Appendix B.

Water quality protection standards (WQPS) have been established (in TCO No. 1) for groundwater beneath the Mission Avenue Landfill. The WQPS for total dissolved solids (TDS) and chloride was equaled or exceeded for samples collected and analyzed from monitoring wells MW-4 and MW-6 during the current sampling event. The following table indicates the WQPS and the actual laboratory measurements for groundwater samples collected from monitoring wells MW-4, MW-5 and MW-6

WELL NO.	PARAMETER	WATER QUALITY PROTECTION STANDARD	LABORATORY MEASUREMENT (sampled on 12/20/14)
MW-4	Total Dissolved Solids	1,500 mg/L	1,920 mg/L
	Chloride	500 mg/L	740 mg/L
MW-6	Total Dissolved Solids	1,500 mg/L	1,500 mg/L
	Chloride	500 mg/L	560 mg/L

mg/L = Milligrams per liter

None of the other groundwater parameters analyzed during this current sampling event exceeded respective WQPS.

None of the semi-volatile organic compounds analyzed were detected in groundwater samples collected from MW-4, MW-5, or MW-6 during the current sampling event. During the current sampling event, tetrachloroethene was detected in the groundwater sample collected from MW-4 at a concentration of 2.2 micrograms per liter (ug/L). Tetrachloroethene and trichloroethene were detected in the groundwater samples collected from MW-6 at concentrations of 5.8 ug/L and 2.0 ug/L, respectively. None of the other volatile organic compounds analyzed were detected during this current sampling event.

Conclusions

Results of the current groundwater monitoring well sampling event are similar to those of previous sampling events. The direction of groundwater flow remains to the northwest, and the gradient is essentially unchanged.

Tetrachloroethene and trichloroethene have consistently been detected in groundwater samples collected from MW-6 during past sampling events. It is likely that the landfill is the source of the volatile organic compounds that have been detected during this and past sampling events given the close proximity of groundwater monitoring well MW-6 to refuse.

The next groundwater monitoring well sampling event at the Mission Avenue Landfill is scheduled for June 2015.

TABLES

TABLE 1

SUMMARY OF GROUNDWATER LEVELS
MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA

MW No.	MW Elevation (ft-msl)[1]	Screen Interval (ft-bgs)[2]	Sample Date	Depth to Groundwater (ft-bgs)	Groundwater Elevation (ft-msl)
MW4	87.96	89-104	12/30/96	70.60	17.36
			06/30/97	70.70	17.26
			12/23/97	70.60	17.36
			06/17/98	70.56	17.40
			12/08/98	70.21	17.75
			07/05/99	70.26	17.70
			12/08/99	71.80	16.16
			06/26/00	70.65	17.31
			12/29/00	70.55	17.41
			06/30/01	70.63	17.33
			12/28/01	70.64	17.32
			06/06/02	71.23	16.73
			12/18/02	71.54	16.42
			06/21/03	70.35	17.61
			12/31/03	70.72	17.24
			06/29/04	71.32	16.64
			12/30/04	71.30	16.66
			06/30/05	70.22	17.74
			12/19/05	70.95	17.01
			06/29/06	70.39	17.57
			12/28/06	70.37	17.59
			06/29/07	72.16	15.80
			12/28/07	70.90	17.06
			06/30/08	70.70	17.26
			12/31/08	70.65	17.31
			06/30/09	71.35	16.61
			12/31/09	71.25	16.71
			06/23/10	71.21	16.75
			12/30/10	68.74	19.22
			06/29/11	69.72	18.24
			12/31/11	70.23	17.73
			06/30/12	69.78	18.18
			12/28/12	72.08	15.88
			07/19/13	70.76	17.20
			12/30/13	66.52	21.44
			06/30/14	71.88	16.08
			12/20/14	70.03	17.93

[1] feet above mean sea level
[2] feet below ground surface

TABLE 1

SUMMARY OF GROUNDWATER LEVELS
MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA

MW No.	MW Elevation (ft-msl)[1]	Screen Interval (ft-bgs)[2]	Sample Date	Depth to Groundwater (ft-bgs)	Groundwater Elevation (ft-msl)
MW5	189.75	160 - 180	12/30/96	163.22	26.53
			06/30/97	163.20	26.55
			12/23/97	163.22	26.53
			06/17/98	163.50	26.25
			12/08/98	163.24	26.51
			07/05/99	163.27	26.48
			12/08/99	164.10	25.65
			06/26/00	162.80	26.95
			12/29/00	162.71	27.04
			06/30/01	162.81	26.94
			12/28/01	162.76	26.99
			06/06/02	162.70	27.05
			12/18/02	162.73	27.02
			06/21/03	162.45	27.30
			12/31/03	162.61	27.14
			06/29/04	163.02	26.73
			12/30/04	162.96	26.79
			06/30/05	162.38	27.37
			12/19/05	162.92	26.83
			06/29/06	162.42	27.33
			12/28/06	162.58	27.17
			06/29/07	163.66	26.09
			12/28/07	162.81	26.94
			06/30/08	162.15	27.60
			12/31/08	162.85	26.90
			06/30/09	162.42	27.33
			12/31/09	162.95	26.80
			06/23/10	162.93	26.82
			12/30/10	162.84	26.91
			06/29/11	162.73	27.02
			12/31/11	162.86	26.89
			06/30/12	162.98	26.77
			12/28/12	163.26	26.49
			07/19/13	163.01	26.74
			12/30/13	161.85	27.90
			06/30/14	163.22	26.53
			12/20/14	163.06	26.69

[1] feet above mean sea level
[2] feet below ground surface

TABLE 1

SUMMARY OF GROUNDWATER LEVELS
MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA

MW No.	MW Elevation (ft-msl)[1]	Screen Interval (ft-bgs)[2]	Sample Date	Depth to Groundwater (ft-bgs)	Groundwater Elevation (ft-msl)
MW6	176.90	142 - 162	12/30/96	145.96	30.94
			06/30/97	145.56	31.34
			12/23/97	145.96	30.94
			06/17/98	145.62	31.28
			12/08/98	145.49	31.41
			07/05/99	145.53	31.37
			12/08/99	146.20	30.70
			06/26/00	145.18	31.72
			12/29/00	145.07	31.83
			06/30/01	145.15	31.75
			12/28/01	145.56	31.34
			06/06/02	145.88	31.02
			12/18/02	145.86	31.04
			06/21/03	145.75	31.15
			12/31/03	145.81	31.09
			06/29/04	146.09	30.81
			12/30/04	146.06	30.84
			06/30/05	144.42	32.48
			12/19/05	144.71	32.19
			06/29/06	144.55	32.35
			12/28/06	144.52	32.38
			06/29/07	145.65	31.25
			12/28/07	145.16	31.74
			06/30/08	144.46	32.44
			12/31/08	145.08	31.82
			06/30/09	144.94	31.96
			12/31/09	145.57	31.33
			06/23/10	145.37	31.53
			12/30/10	145.68	31.22
			06/29/11	145.23	31.67
			12/31/11	145.79	31.11
			06/30/12	145.48	31.42
			12/28/12	146.08	30.82
			07/19/13	145.81	31.09
			12/30/13	143.76	33.14
			06/30/14	146.11	30.79
			12/20/14	145.79	31.11

[1] feet above mean sea level
[2] feet below ground surface

TABLE 2

SUMMARY OF INORGANIC AND ANION ANALYSES
MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA

MW No.	Sample Date	pH	Specific Conductance (umhos/cm)[1]	Total Dissolved Solids (mg/L)[2]	Turbidity (NTU)[3]	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-N (mg/L)	Phosphate (mg/L)	Sulfate (mg/L)
MW4	12/30/96	7.34	3600	1940	16	756	ND [4]	5.5	NA	235
	06/30/97	7.29	2700	1550	0.27	656	2.2	4.6	0.3	206
	12/23/97	7.23	NA [5]	780	7.4	309	0.9	7.9	ND	36
	06/17/98	7.76	1310	780	3.2	278	0.4	6.3	ND	44
	12/08/98	7.60	3010	1840	2.0	726	0.3	5.2	ND	227
	07/05/99	7.43	3060	1630	3.8	702	0.4	5.1	0.1	218
	12/08/99	7.93	3080	1590	1.4	700	0.3	5.1	NA	220
	06/26/00	7.80	3040	1660	0.24	750	0.3	4.7	NA	250
	12/29/00	7.95	3040	1540	0.67	730	ND	5.6	0.16	240
	06/30/01	7.56	330	200	11	19	0.29	1.3	0.32	36
	12/28/01	7.66	1300	730	3.3	270	0.44	6.2	NA	65
	06/06/02	7.65	3000	1800	2.1	670	0.26	4.6	ND	230
	12/18/02	7.06	2700	1700	3.5	550	0.27	4.7	ND	180
	06/21/03	7.57	2800	2100	0.21	630	0.22	4.9	0.26	190
	12/31/03	7.63	980	500	2.70	170	0.79	3.6	ND	31
	06/29/04	7.84	3000	1700	2.6	670	0.26	4.8	ND	230
	12/30/04	6.92	1300	880	3.2	210	0.12	1.9	ND	84
	06/30/05	7.56	2100	1500	0.54	140	0.55	3.5	ND	19
	12/19/05	7.34	3100	1800	0.39	720	0.30	4.5	ND	240
	06/29/06	7.72	1300	737	1.4	260	0.49	5.5	ND	34
	12/28/06	6.93	2900	1740	0.52	660	2.9	4.1	ND	270
	06/29/07	6.70	3000	1940	0.38	780	0.29	4.6	0.19	340
	12/28/07	7.17	2500	1890	0.39	780	ND	4.6	ND	350
	06/30/08	7.17	3200	1860	0.42	720	0.32	4.3	ND	340
	12/31/08	7.02	2600	1920	0.44	780	0.26	4.1	0.15	360
	06/30/09	7.37	3100	2180	0.37	760	0.28	4.3	0.13	290
	12/31/09	7.14	3100	2020	1.2	700	0.22	4.5	ND	320
	06/23/10	6.83	2800	1940	0.16	NA	NA	NA	NA	NA
	12/30/10	7.12	3100	1950	0.34	690	0.17	4.9	ND	210
	06/29/11	7.14	2900	1830	0.090	740	0.17	4.4	ND	290
	12/31/11	7.13	3000	2020	0.16	NA	NA	NA	NA	NA
	06/30/12	7.05	3200	NA	0.36	750	0.24	4.4	ND	320
	12/28/12	7.13	3000	2040	0.060	770	0.30	4.4	NA	310
	07/19/13	7.20	1700	1410	0.62	360	0.17	2.5	ND	150
	12/30/13	6.98	13000	9200	0.26	5100	NA	1.7	ND	520
	06/30/14	7.02	2900	2130	0.20	700	NA	4.2	0.13	290
	12/20/14	7.20	2800	1920	0.13	740	NA	4.3	ND	300

[1] micro mhos per centimeter
[2] milligrams per liter (parts per million by volume)
[3] nephelometric turbidity unit
[4] not detected (concentration below laboratory reporting limit)
[5] not analyzed

TABLE 2

SUMMARY OF INORGANIC AND ANION ANALYSES
MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA

MW No.	Sample Date	pH	Specific Conductance (umhos/cm)[1]	Total Dissolved Solids (mg/L)[2]	Turbidity (NTU)[3]	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-N (mg/L)	Phosphate (mg/L)	Sulfate (mg/L)
MW5	12/30/96	7.67	1340	758	6.0	294	0.7	6.7	NA	36
	06/30/97	7.36	1190	704	0.17	230	0.3	2.0	0.8	78
	12/23/97	7.42	NA	716	2.9	279	0.8	6.3	ND	36
	06/17/98	7.81	1340	770	2.4	284	0.4	6.0	ND	33
	12/08/98	7.62	1340	730	6.0	271	0.4	6.4	ND	35
	07/05/99	7.41	2390	1150	6.1	624	0.4	5.5	ND	64
	12/08/99	8.14	1520	780	19	320	0.5	6.0	NA	36
	06/26/00	7.90	1340	703	0.93	280	0.5	5.9	NA	34
	12/29/00	7.37	144	43	0.12	14	ND	0.2	ND	19
	06/30/01	6.87	110	40	13	7.7	ND	0.76	0.16	8.9
	12/28/01	7.74	1300	700	1.4	270	0.45	6.10	NA	33
	06/06/02	7.58	1300	790	0.88	270	0.40	6.20	ND	37
	12/18/02	7.43	1300	830	37	180	0.45	4.40	ND	26
	06/21/03	7.67	1300	720	0.38	230	0.41	5.2	ND	27
	12/31/03	7.86	1300	550	0.99	260	0.54	5.4	ND	35
	06/29/04	7.94	1300	710	6.5	270	0.43	5.4	ND	32
	12/30/04	7.24	560	110	0.94	100	0.11	2.3	ND	14
	06/30/05	7.65	1300	690	0.95	260	0.62	5.2	ND	34
	12/19/05	7.73	1300	680	16	270	0.43	5.1	ND	34
	06/29/06	7.76	1300	710	0.42	260	0.48	5.5	ND	34
	12/28/06	7.38	1300	690	0.41	270	5.1	5.1	ND	35
	06/29/07	7.33	1300	740	0.35	280	0.53	5.8	ND	40
	12/28/07	7.83	1100	666	0.38	280	0.10	6.0	ND	37
	06/30/08	7.63	1400	570	0.53	280	0.53	4.9	ND	42
	12/31/08	7.63	1200	610	0.73	240	0.40	5.1	0.11	40
	06/30/09	7.81	1300	773	0.64	270	0.46	5.9	ND	35
	12/31/09	7.53	1500	940	120	390	0.40	5.9	ND	46
	06/23/10	7.56	970	624	0.56	NA	NA	NA	NA	NA
	12/30/10	7.45	880	540	1.4	160	0.28	4.0	ND	18
	06/29/11	7.99	1100	502	0.14	200	0.36	4.7	ND	21
	12/31/11	7.81	1200	625	1.4	NA	NA	NA	NA	NA
	06/30/12	7.50	1400	NA	1.2	280	0.40	6.2	ND	31
	12/28/12	7.70	1300	705	0.48	310	0.51	6.1	NA	35
	07/19/13	7.34	1400	1120	1.3	310	0.18	2.8	ND	100
	12/30/13	7.85	1400	800	13	300	NA	5.9	ND	35
	06/30/14	7.32	780	890	0.070	63	NA	2.9	ND	120
	12/20/14	7.83	1300	700	2.1	290	NA	6.1	ND	32

[1] micro mhos per centimeter
[2] milligrams per liter (parts per million by volume)
[3] nephelometric turbidity unit
[4] not detected (concentration below laboratory reporting limit)
[5] not analyzed

TABLE 2

SUMMARY OF INORGANIC AND ANION ANALYSES
MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA

MW No.	Sample Date	pH	Specific Conductance (umhos/cm)[1]	Total Dissolved Solids (mg/L)[2]	Turbidity (NTU)[3]	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-N (mg/L)	Phosphate (mg/L)	Sulfate (mg/L)
MW6	12/30/96	6.92	2930	1490	110	478	ND	4.7	NA	190
	06/30/97	7.18	2140	1550	0.41	326	1.9	3.8	ND	113
	12/23/97	7.10	NA	1440	2.1	462	ND	4.5	ND	174
	06/17/98	6.86	2320	1410	2.3	394	ND	5.0	0.1	154
	12/08/98	6.83	2420	1340	7.0	427	0.2	5.7	ND	170
	07/05/99	6.81	2440	1350	6.7	456	0.2	5.1	ND	178
	12/08/99	7.42	2530	1500	1.9	450	0.3	3.7	NA	150
	06/26/00	7.14	2380	1360	0.17	440	0.3	4.8	NA	190
	12/29/00	7.04	2470	1250	0.52	420	ND	4.9	0.13	180
	06/30/01	6.95	110	57	0.10	7.7	ND	0.77	ND	9.0
	12/28/01	6.95	2300	1300	3.4	430	0.29	4.60	NA	190
	06/06/02	6.85	2400	1500	0.50	410	0.12	4.5	ND	180
	12/18/02	6.58	2100	1500	0.85	320	0.25	4.0	ND	140
	06/21/03	6.79	2200	1500	0.37	400	0.13	4.4	ND	160
	12/31/03	7.73	1300	1300	2.80	270	0.55	5.4	ND	33
	06/29/04	7.19	2400	1400	5.2	350	0.19	4.7	0.11	160
	12/30/04	6.91	2500	990	1.1	350	0.17	3.2	ND	130
	06/30/05	6.89	3000	2000	0.89	660	0.40	5.4	ND	160
	12/19/05	6.99	3100	1700	1.70	630	0.29	4.7	ND	180
	06/29/06	7.00	2700	1630	0.47	610	0.26	3.9	ND	170
	12/28/06	7.00	2800	1620	0.65	580	2.6	2.9	ND	170
	06/29/07	6.86	2800	1680	1.60	550	0.27	3.0	ND	200
	12/28/07	7.15	2300	1580	1.50	580	ND	3.4	ND	200
	06/30/08	7.00	2700	1590	0.29	560	0.30	2.7	ND	210
	12/31/08	7.04	1700	1630	0.18	620	0.23	2.7	ND	230
	06/30/09	7.13	3000	2180	0.86	640	0.27	3.6	ND	170
	12/31/09	6.95	3000	1820	22	730	0.21	3.5	ND	200
	06/23/10	6.70	2600	1800	0.40	NA	NA	NA	NA	NA
	12/30/10	7.06	2900	1930	0.83	650	0.15	5.2	170	170
	06/29/11	7.10	2800	1810	0.27	720	0.20	9.0	ND	220
	12/31/11	6.99	2900	1960	0.26	NA	NA	NA	NA	NA
	06/30/12	6.91	2700	NA	7.2	590	0.22	5.5	ND	200
	12/28/12	7.03	2600	1620	0.12	580	0.30	4.5	NA	180
	07/19/13	7.05	2600	1120	1.3	540	0.26	4.3	ND	150
	12/30/13	7.16	2500	1730	0.36	540	NA	4.0	ND	150
	06/30/14	6.98	2600	1690	0.25	510	NA	3.9	0.14	150
	12/20/14	7.20	2300	1500	0.87	560	NA	4.4	ND	160

[1] micro mhos per centimeter
[2] milligrams per liter (parts per million by volume)
[3] nephelometric turbidity unit
[4] not detected (concentration below laboratory reporting limit)
[5] not analyzed

TABLE 3

SUMMARY OF METALS ANALYSES
MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA

MW No.	Sample Date	Arsenic (mg/L)[1]	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Silver (mg/L)	Iron (mg/L)	Manganese (mg/L)
MW4	12/30/96	ND [2]	ND	ND	ND	ND	ND	ND	ND	1.6	ND
	06/30/97	0.00198	0.170	ND	0.0104	0.00483	0.00156	ND	ND	0.174	0.00845
	12/23/97	ND	0.150	ND	0.04	ND	ND	ND	ND	0.51	ND
	06/17/98	0.003	0.064	ND	0.033	0.024	0.003	ND	ND	1.1	0.030
	12/08/98	ND	0.195	ND	0.015	NA [3]	ND	ND	ND	0.797	0.012
	07/05/99	ND	0.146	ND	0.0172	0.0123	ND	ND	ND	0.266	0.00556
	12/08/99	0.00157	0.176	ND	0.0136	0.00940	ND	ND	0.0033	ND	0.00544
	06/26/00	ND	0.163	0.00147	0.0104	0.00578	0.00122	ND	ND	0.109	0.00216
	12/29/00	0.00191	0.155	0.00207	0.0177	0.00669	ND	ND	ND	ND	ND
	06/30/01	0.00256	0.0366	ND	0.0140	0.0130	0.00451	ND	ND	1.80	0.0702
	12/28/01	0.00519	0.0552	ND	0.0272	0.0031	ND	NA [3]	ND	ND	0.00115
	06/06/02	ND	0.173	0.0530	0.00982	0.00595	ND	NA	0.00217	ND	ND
	12/18/02	ND	0.193	ND	0.0120	ND	ND	ND	ND	0.114	ND
	06/21/03	ND	0.187	0.00503	0.0175	0.00525	ND	ND	ND	ND	ND
	12/31/03	ND	0.0601	ND	0.0275	ND	ND	ND	ND	ND	ND
	06/29/04	ND	0.178	ND	0.0125	ND	ND	ND	ND	0.113	ND
	12/30/04	ND	0.0873	ND	ND	0.00620	ND	ND	ND	ND	NA
	06/30/05	ND	0.0416	ND	0.0191	ND	ND	ND	ND	ND	ND
	12/19/05	ND	0.192	ND	0.00826	ND	ND	ND	ND	ND	NA
	06/29/06	ND	0.0596	ND	0.0303	ND	ND	ND	ND	ND	ND
	12/28/06	ND	0.202	ND	0.00924	ND	0.0112	ND	ND	ND	ND
	06/29/07	ND	0.191	ND	0.00534	0.00864	ND	ND	ND	ND	ND
	12/28/07	ND	0.193	ND	ND	ND	ND	NA	ND	ND	NA
	06/30/08	ND	0.197	ND	0.00998	0.00532	ND	ND	ND	ND	ND
	12/31/08	ND	0.195	ND	ND	ND	ND	ND	ND	ND	NA
	06/30/09	ND	0.206	ND	0.00881	ND	ND	ND	ND	ND	NA
	12/31/09	ND	0.194	ND	0.0193	ND	ND	ND	ND	0.107	NA
	06/23/10	ND	0.201	ND	ND	ND	ND	ND	ND	ND	NA
	12/30/10	0.0145	0.202	ND	ND	ND	ND	ND	ND	ND	NA
	06/29/11	ND	0.198	ND	0.0104	ND	ND	ND	ND	ND	ND
	12/31/11	ND	0.195	ND	ND	ND	ND	ND	ND	ND	NA
	06/30/12	ND	0.189	ND	0.0105	ND	ND	ND	ND	ND	ND
	12/28/12	ND	0.194	ND	ND	ND	ND	ND	ND	ND	NA
	07/19/13	NA	0.191	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/13	0.0287	0.150	ND	0.0101	ND	ND	ND	ND	ND	NA
	06/30/14	ND	0.200	ND	0.0106	ND	ND	ND	ND	ND	ND
	12/20/14	0.0139	0.206	ND	ND	0.0116	ND	ND	ND	ND	NA

[1] milligrams per liter (parts per milliion by volume)
[2] not detected (concentration below laboratory reporting limit)
[3] not analyzed

TABLE 3

SUMMARY OF METALS ANALYSES
MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA

MW No.	Sample Date	Arsenic (mg/L)[1]	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Silver (mg/L)	Iron (mg/L)	Manganese (mg/L)
MW5	12/30/96	ND	ND	ND	ND	ND	ND	ND	ND	0.4	ND
	06/30/97	0.00100	0.0520	ND	0.00509	0.00502	ND	ND	ND	0.168	0.00315
	12/23/97	0.13	ND	ND	0.03	ND	ND	ND	ND	0.14	ND
	06/17/98	0.003	0.067	ND	0.033	0.016	0.002	ND	0.001	1.1	0.023
	12/08/98	ND	0.120	ND	0.036	NA	ND	ND	ND	0.363	0.018
	07/05/99	ND	0.122	0.0417	0.0329	0.0282	ND	ND	ND	0.129	0.0107
	12/08/99	0.00440	0.0742	ND	0.0403	0.0185	0.00354	ND	ND	1.2	0.0360
	06/26/00	0.00225	0.0483	ND	0.0235	ND	ND	ND	ND	ND	ND
	12/29/00	ND	0.0101	ND	0.00145	0.00456	ND	ND	ND	ND	0.00142
	06/30/01	ND	0.0356	ND	0.00547	0.0138	0.00669	ND	ND	0.678	0.0781
	12/28/01	0.00479	0.0537	ND	0.0263	0.00253	ND	NA	ND	ND	0.0011
	06/06/02	0.00308	0.0597	0.00893	0.0283	0.00389	ND	NA	0.00110	ND	ND
	12/18/02	ND	0.0888	ND	0.0385	0.0227	ND	ND	ND	1.4	0.0334
	06/21/03	ND	0.0661	ND	0.0345	0.00805	ND	ND	ND	ND	ND
	12/31/03	ND	0.0615	ND	0.0294	ND	ND	ND	ND	ND	ND
	06/29/04	ND	0.0582	ND	0.0290	ND	ND	ND	ND	0.253	0.00909
	12/30/04	ND	0.0721	ND	0.0232	ND	ND	ND	ND	ND	NA
	06/30/05	ND	0.0640	ND	0.0294	ND	ND	ND	ND	ND	ND
	12/19/05	ND	0.0659	ND	0.0290	0.0116	ND	ND	ND	0.600	NA
	06/29/06	ND	0.0598	ND	0.0307	ND	ND	ND	ND	ND	ND
	12/28/06	ND	0.0618	ND	0.0279	ND	ND	ND	ND	ND	ND
	06/29/07	ND	0.0550	ND	0.0239	ND	ND	ND	ND	ND	ND
	12/28/07	ND	0.0557	ND	0.0245	ND	ND	NA	ND	ND	NA
	06/30/08	ND	0.0402	ND	0.0192	ND	ND	ND	ND	ND	ND
	12/31/08	ND	0.0487	ND	0.0213	ND	ND	ND	ND	ND	NA
	06/30/09	ND	0.0558	ND	0.0256	ND	ND	ND	ND	ND	NA
	12/31/09	ND	0.196	ND	0.133	0.271	0.0310	ND	ND	23.5	NA
	06/23/10	ND	0.0431	ND	0.0135	ND	ND	ND	ND	0.224	NA
	12/30/10	0.0128	0.0293	ND	0.0140	ND	ND	ND	ND	ND	NA
	06/29/11	ND	0.0377	ND	0.0199	ND	ND	ND	ND	ND	ND
	12/31/11	ND	0.0485	ND	0.0241	ND	ND	ND	ND	ND	NA
	06/30/12	0.0103	0.0571	ND	0.0269	ND	ND	ND	ND	0.118	ND
	12/28/12	ND	0.0600	ND	0.0268	ND	ND	ND	ND	ND	NA
	07/19/13	NA	0.0589	ND	0.0257	ND	ND	ND	ND	ND	ND
	12/30/13	ND	0.0678	ND	0.0288	ND	ND	ND	ND	0.217	NA
	06/30/14	ND	0.0898	ND	ND	0.0301	ND	ND	ND	ND	ND
	12/20/14	0.0114	0.0622	ND	0.0272	ND	ND	ND	ND	0.177	NA

[1] milligrams per liter (parts per milliion by volume)
[2] not detected (concentration below laboratory reporting limit)
[3] not analyzed

TABLE 3

SUMMARY OF METALS ANALYSES
MISSION AVENUE LANDFILL, OCEANSIDE, CALIFORNIA

MW No.	Sample Date	Arsenic (mg/L)[1]	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Silver (mg/L)	Iron (mg/L)	Manganese (mg/L)
MW6	12/30/96	ND	ND	ND	ND	0.5	ND	ND	ND	3.5	0.10
	06/30/97	0.00170	0.170	ND	0.0104	0.00483	0.00156	ND	ND	0.174	0.00845
	12/23/97	ND	ND	ND	ND	ND	ND	ND	ND	0.30	ND
	06/17/98	ND	0.092	ND	0.010	0.012	0.002	ND	0.001	0.7	0.031
	12/08/98	ND	0.239	ND	0.013	NA	ND	ND	ND	0.566	0.025
	07/05/99	ND	0.0937	0.0156	0.00864	0.0259	ND	ND	ND	0.453	0.0254
	12/08/99	0.00150	0.0900	ND	0.0131	0.00779	ND	ND	ND	ND	0.00763
	06/26/00	ND	0.0765	0.00110	0.00695	0.00207	ND	ND	ND	ND	0.00107
	12/29/00	0.00127	0.0796	0.0109	0.0183	0.0131	ND	ND	ND	ND	ND
	06/30/01	ND	0.0188	ND	0.00376	0.0112	0.00198	ND	ND	0.755	0.0311
	12/28/01	0.00225	0.0894	ND	0.00928	0.00302	ND	NA	ND	ND	0.00347
	06/06/02	ND	0.0872	0.00156	0.00748	0.00922	ND	NA	0.00240	ND	ND
	12/18/02	ND	0.1080	0.00634	0.0126	0.00513	ND	ND	ND	0.121	0.00775
	06/21/03	ND	0.0931	0.0108	0.0114	0.0103	ND	ND	ND	ND	ND
	12/31/03	ND	0.0897	ND	0.00552	ND	ND	ND	ND	ND	0.00512
	06/29/04	ND	0.0884	ND	0.00990	ND	ND	ND	ND	ND	0.0169
	12/30/04	ND	0.0993	ND	0.00651	ND	ND	ND	ND	ND	NA
	06/30/05	ND	0.1250	ND	0.00855	ND	ND	ND	ND	ND	ND
	12/19/05	ND	0.124	ND	ND	ND	ND	ND	ND	ND	NA
	06/29/06	ND	0.117	ND	0.0143	ND	ND	ND	ND	ND	ND
	12/28/06	ND	0.124	ND	0.00690	ND	ND	ND	ND	0.135	0.00982
	06/29/07	ND	0.108	ND	ND	ND	ND	ND	ND	0.102	0.00545
	12/28/07	ND	0.115	ND	ND	ND	ND	NA	ND	ND	NA
	06/30/08	ND	0.112	ND	0.01330	ND	ND	ND	ND	ND	ND
	12/31/08	ND	0.114	ND	ND	ND	ND	ND	ND	ND	NA
	06/30/09	ND	0.118	ND	0.00881	ND	ND	ND	ND	ND	NA
	12/31/09	ND	0.127	ND	0.0107	ND	ND	ND	ND	0.538	NA
	06/23/10	ND	0.115	ND	ND	ND	ND	ND	ND	ND	NA
	12/30/10	ND	0.117	ND	0.0113	ND	ND	ND	ND	ND	NA
	06/29/11	ND	0.110	ND	ND	ND	ND	ND	ND	ND	ND
	12/31/11	ND	0.112	ND	ND	ND	ND	ND	ND	ND	NA
	06/30/12	ND	0.105	ND	0.0123	ND	ND	ND	ND	ND	ND
	12/28/12	ND	0.099	ND	0.0135	ND	ND	ND	ND	ND	NA
	07/19/13	NA	0.095	ND	0.0146	ND	ND	ND	ND	ND	ND
	12/30/13	ND	0.102	ND	0.0157	ND	ND	ND	ND	ND	NA
	06/30/14	ND	0.100	ND	ND	ND	ND	ND	ND	ND	ND
	12/20/14	ND	0.0960	ND	0.0123	0.0124	ND	ND	ND	0.281	NA

[1] milligrams per liter (parts per milliion by volume)
[2] not detected (concentration below laboratory reporting limit)
[3] not analyzed

TABLE 4

SUMMARY OF DETECTED VOLATILE/SEMI-VOLATILE ORGANIC COMPOUNDS
MISSION AVENUE LANDFILL. OCEANSIDE, CALIFORNIA

MW No.	Sample Date	Analysis Date	Acetone (ug/L) [1]	Benzene (ug/L)	MEK (ug/L)	Freon 12 (ug/L)	Ethyl benzene (ug/L)	Perk (ug/L)	Toluene (ug/L)	Trichloro-ethene (ug/L)	cis-1,2-Dichloro ethene (ug/L)	M,P-Xylenes (ug/L)	O-Xylenes (ug/L)	MTBE (ug/L)	Bis (2-ethylhexyl) Phthalate (ug/L)
MW4	12/30/96	1/6/96	ND	4	ND [2]	ND	1	1	4	ND	ND	3	1	ND	ND
	12/23/97	12/31/97	ND	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/8/98	12/11/98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/8/99	12/12/99	ND	ND	31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/29/00	01/04/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	2.1
	12/28/01	01/02/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/18/02	12/20/02	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND
	12/31/03	01/03/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/04	01/06/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/19/05	12/22/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/28/06	01/03/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/28/07	01/02/08	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND	ND
	12/31/08	12/31/08	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND
	12/31/09	01/05/10	ND	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	ND
	12/30/10	01/03/11	ND	ND	ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	ND
	12/31/11	01/03/12	ND	ND	ND	ND	ND	2.0	ND	ND	ND	ND	ND	ND	ND
	12/28/12	12/29/12	ND	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	ND
	12/30/13	12/31/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/20/14	12/23/14	ND	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	ND

[1] micrograms per liter
[2] not detected

MEK = 2-butanone
Freon 12 = dichlorodifluoromethane
Perk = tetrachloroethene
MTBE = methyl-ter-butyl-ether

TABLE 4

SUMMARY OF DETECTED VOLATILE/SEMI-VOLATILE ORGANIC COMPOUNDS
MISSION AVENUE LANDFILL. OCEANSIDE, CALIFORNIA

MW No.	Sample Date	Analysis Date	Acetone (ug/L) [1]	Benzene (ug/L)	MEK (ug/L)	Freon 12 (ug/L)	Ethyl benzene (ug/L)	Perk (ug/L)	Toluene (ug/L)	Trichloro-ethene (ug/L)	cis-1,2-Dichloro ethene (ug/L)	M,P-Xylenes (ug/L)	O-Xylenes (ug/L)	MTBE (ug/L)	Bis (2-ethylhexyl) Phthalate (ug/L)
MW5	12/30/96	1/6/96	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/23/97	12/31/97	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/8/98	12/11/98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/8/99	12/12/99	ND	ND	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/29/00	01/04/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/28/01	01/02/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/18/02	12/20/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	34
	12/31/03	01/03/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/04	01/06/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/19/05	12/22/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/28/06	01/03/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/28/07	01/02/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/31/08	01/01/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/31/09	01/05/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/10	01/03/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/31/11	01/03/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/28/12	12/29/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/30/13	12/31/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/20/14	12/23/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

[1] micrograms per liter
[2] not detected

MEK = 2-butanone
Freon 12 = dichlorodifluoromethane
Perk = tetrachloroethene
MTBE = methyl-ter-butyl-ether

TABLE 4

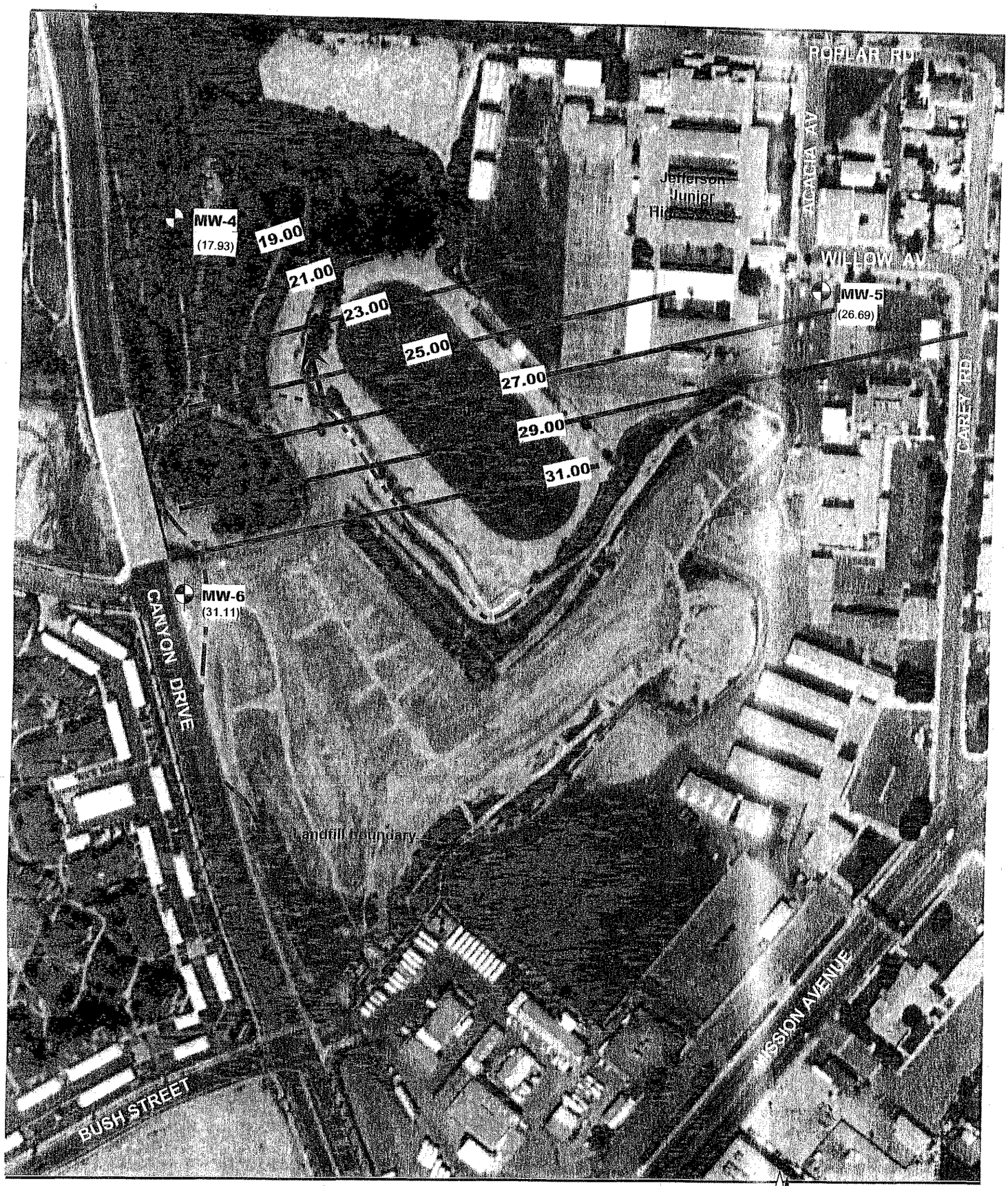
SUMMARY OF DETECTED VOLATILE/SEMI-VOLATILE ORGANIC COMPOUNDS
MISSION AVENUE LANDFILL. OCEANSIDE, CALIFORNIA

MW No.	Sample Date	Analysis Date	Acetone (ug/L) [1]	Benzene (ug/L)	MEK (ug/L)	Freon 12 (ug/L)	Ethyl benzene (ug/L)	Perk (ug/L)	Toluene (ug/L)	Trichloro-ethene (ug/L)	cis-1,2-Dichloro ethene (ug/L)	M,P-Xylenes (ug/L)	O-Xylenes (ug/L)	MTBE (ug/L)	Bis (2-ethylhexyl) Phthalate (ug/L)
MW6	12/30/96	1/6/96	ND	ND	ND	ND	ND	6	1	ND	ND	ND	ND	ND	ND
	12/23/97	12/31/97	ND	ND	ND	2	ND	7	ND	2	ND	ND	ND	ND	ND
	12/8/98	12/11/98	ND	ND	ND	1.1	ND	6.4	ND	1.6	1.2	ND	ND	ND	ND
	12/8/99	12/12/99	31	ND	15	1.7	ND	5.2	ND	2.4	1.8	2.0	ND	ND	ND
	12/29/00	01/04/01	ND	ND	ND	ND	ND	5.8	ND	1.6	ND	ND	ND	ND	ND
	12/28/01	01/02/02	ND	ND	ND	ND	ND	6.9	ND	1.7	ND	ND	ND	ND	ND
	12/18/02	12/20/02	ND	ND	ND	ND	ND	5.0	ND	1.2	ND	ND	ND	ND	ND
	12/31/03	01/03/04	ND	ND	ND	ND	ND	4.7	ND	1.3	ND	ND	ND	ND	ND
	12/30/04	01/06/05	ND	ND	ND	ND	ND	5.9	ND	2.0	1.1	ND	ND	ND	ND
	12/19/05	12/22/05	ND	ND	ND	ND	ND	6.3	ND	2.0	ND	ND	ND	ND	ND
	12/28/06	01/03/07	ND	ND	ND	1.7	ND	11	ND	2.9	1.1	ND	ND	ND	ND
	12/28/07	01/02/08	ND	ND	ND	1.2	ND	11	ND	3.6	1.6	ND	ND	ND	ND
	12/31/08	01/01/09	ND	ND	ND	1.2	ND	9.1	ND	3.5	1.7	ND	ND	ND	ND
	12/31/09	01/05/10	ND	ND	ND	1.4	ND	9.3	ND	3.0	1.1	ND	ND	ND	ND
	12/30/10	01/03/11	ND	ND	ND	ND	ND	6.3	ND	2.0	ND	ND	ND	ND	ND
	12/31/11	01/03/12	ND	ND	ND	ND	ND	7.3	ND	2.2	ND	ND	ND	ND	ND
	12/28/12	12/29/12	ND	ND	ND	ND	ND	5.5	ND	1.8	1.2	ND	ND	ND	ND
	12/30/13	12/31/13	ND	ND	ND	ND	ND	4.8	ND	1.7	ND	ND	ND	ND	ND
	12/20/14	12/23/14	ND	ND	ND	ND	ND	5.8	ND	2.0	ND	ND	ND	ND	ND

[1] micrograms per liter
[2] not detected

MEK = 2-butanone
Freon 12 = dichlorodifluoromethane
Perk = tetrachloroethene
MTBE = methyl-ter-butyl-ether

FIGURES



EXPLANATION

MW-6 GROUNDWATER MONITORING WELL

(31.11) With groundwater elevation in feet MSL, December 20, 2014

30.00 CONTOUR OF EQUAL GROUNDWATER ELEVATION

DIRECTION OF GROUNDWATER FLOW

NORTH

0 160 320

APPROXIMATE SCALE IN FEET

MISSION AVENUE LANDFILL
OCEANSIDE, CALIFORNIA

Client: CITY OF OCEANSIDE Project No.: 175-06

FREY ENVIRONMENTAL, INC.

WATER LEVEL CONTOUR MAP
MISSION AVENUE LANDFILL
DECEMBER 20, 2014

Date: January 21, 2015 Figure 1

NOTE:

1) All locations and dimensions are approximate.
2) Aerial photo from Aerial Fotobank, Inc., negative # CVSD98-1086X, dated 03/07/98.

175-06/17506-gw.dsf

APPENDIX A

FIELD DATA SHEETS

FREY ENVIRONMENTAL, INC. WATER LEVEL AND PRODUCT RECOVERY DATA

Page 1 of 1

Measuring Device SOLINIST (200') Project No. 175-06 Field Investigator S. ZIEG

Measuring Point TOC Project Name MISSION AVE LF

Well Number	Date	Time	Product Depth (feet)	Water Depth (feet)	Well Depth (feet)	Product Thick-ness(ft)	Total Gallons Removed	Gallons Product Removed	Well Elev. (MSL)	H_2O Elev. (MSL)	Comments
MW-4	12/20/14	8:45	—	70.03	104	—	—	—	87.96	17.93	
MW-5	12/20/14	10:20	—	163.06	180	—	—	—	189.75	26.69	
MW-6	12/20/14	11:45	—	145.79	162	—	—	—	176.90	31.11	

GROUNDWATER SAMPLING DATA

Page ____ of ____

SITE NAME MISSION LF TASK NUMBER 16 DATE 12/20/19

JOB NO. 175-06 QUARTER 4 SAMPLING PERSONNEL SZ

WELL NUMBER	Well Diameter (ID)	Reference Point	Product Depth
MW-6	4"	TOC	—
WATER DEPTH (ft)	**WELL DEPTH**	**Feet of H20 in Well**	**Product Thickness**
145.79	162		—

TIME	ELAPSED TIME	GALLONS PURGED	ph	Temp (deg. F)	Cond. (µS/cm)	Turbidity (NTU's)	Dissolved Oxygen (mg/l)	COMMENTS
12:05	5 min		6.95	72.2	2700	—	—	
12:10	10 "		6.98	72.2	2700	—	—	
12:15	15 "		6.98	72.2	2800	—	—	
12:20	20 "		7.00	72.2	2800	—	—	
12:25	25 "		6.98	72.4	2800	—	—	
TOTAL GALLONS PURGED								

SAMPLE DEPTH (FT)	PURGE METHOD	PURGE PUMPING RATE (GPM)

FIELD EQUIPMENT	MODEL NAME/ DESCRIPTION
pH Meter/EC Meter	
Turbidity Meter	
Pump (Dia./Type)	2" Ø PNEUMATIC
Water Level Meter	SOLINST 200'
Bailer (Dia.x length)	1½ x 36" SS.

SAMPLE NUMBER	# BOTTLES
MW-6	7

WELL VOLUME CALCULATIONS:

(Water Column Thickness) (Multiplier) = One Well Volume in Gallons

4-INCH WELL: (_____Ft) x (0.65) = _____ Gallons

x3 (3 Well Volumes) = _____ Gallons

2-INCH WELL: (_____Ft) x (0.16) = _____ Gallons

x3 (3 Well Volumes) = _____ Gallons

GROUNDWATER SAMPLING DATA

Page ____ of ____

SITE NAME MISSION LF | TASK NUMBER 16 | DATE 12/20/14

JOB NO. 175-06 | QUARTER ____ | SAMPLING PERSONNEL S.Z

WELL NUMBER	Well Diameter (ID)	Reference Point	Product Depth
MW-4	4"	TOC	—
WATER DEPTH (ft)	**WELL DEPTH**	**Feet of H20 in Well**	**Product Thickness**
70.03	104 BGS		—

TIME	ELAPSED TIME	GALLONS PURGED	ph	Temp (deg. F)	Cond. (µS/cm)	Turbidity (NTU's)	Dissolved Oxygen (mg/l)	COMMENTS
9:15	5 min		7.10	71.2	3100	—	—	
9:20	10'		7.10	71.4	3100	—	—	
9:25	15"		7.12	71.4	3100	—	—	
9:30	20"		7.12	71.2	3100	—	—	
9:35	25"		7.12	71.2	3100	—	—	
								SAMPLES COLLECTED AT ≈ 1005AM
TOTAL GALLONS PURGED								

SAMPLE DEPTH (FT)	PURGE METHOD	PURGE PUMPING RATE (GPM)
≈ 85'	SUBMERSIBLE pump	≈ 0.75

FIELD EQUIPMENT	MODEL NAME/ DESCRIPTION
pH Meter/EC Meter	
Turbidity Meter	—
Pump (Dia./Type)	2" ϕ SS. PNEUMATIC
Water Level Meter	SOLINIST 200'
Bailer (Dia.x length)	1½" ϕ x 36" SS

SAMPLE NUMBER	# BOTTLES
MW-4	7

WELL VOLUME CALCULATIONS:

(Water Column Thickness) (Multiplier) = One Well Volume in Gallons

4-INCH WELL: (_____ Ft) x (0.65) = _____ Gallons

x3 (3 Well Volumes) = _____ Gallons

2-INCH WELL: (_____ Ft) x (0.16) = _____ Gallons

x3 (3 Well Volumes) = _____ Gallons

GROUNDWATER SAMPLING DATA

Page ____ of ____

SITE NAME MISSION LF | TASK NUMBER 16 | DATE 12/20/14

JOB NO. 175-06 | QUARTER 4 | SAMPLING PERSONNEL SZ

WELL NUMBER	Well Diameter (ID)	Reference Point	Product Depth
MW-5	4"	TOC	—
WATER DEPTH (ft)	**WELL DEPTH**	**Feet of H20 in Well**	**Product Thickness**
163.06	180		—

TIME	ELAPSED TIME	GALLONS PURGED	ph	Temp (deg. F)	Cond. (uS/cm)	Turbidity (NTU's)	Dissolved Oxygen (mg/l)	COMMENTS
10:35	5min		7.54	71.8	1500	—	—	
10:40	10 "		7.55	71.8	1500	—	—	
10:45	15 "		7.54	72.0	1500	—	—	
10:50	20 "		7.54	72.0	1500	—	—	
10:55	25"		7.55	72.0	1500	—	—	
								SAMPLES COLLECTED @ 11:30 AM
TOTAL GALLONS PURGED								

SAMPLE DEPTH (FT)	PURGE METHOD	PURGE PUMPING RATE (GPM)
~175'	~~SUBMERSIBLE~~ PNEUMATIC PUMP	~0.75

FIELD EQUIPMENT	MODEL NAME/ DESCRIPTION
pH Meter/EC Meter	
Turbidity Meter	
Pump (Dia./Type)	2" Ø PNEUMATIC
Water Level Meter	SOLINST 200'
Bailer (Dia.x length)	1½" Ø x 36" SS

SAMPLE NUMBER	# BOTTLES
MW-5	7

WELL VOLUME CALCULATIONS:

(Water Column Thickness) (Multiplier) = One Well Volume in Gallons

4-INCH WELL: (_____ Ft) x (0.65) = _____ Gallons

x3 (3 Well Volumes) = _____ Gallons

2-INCH WELL: (_____ Ft) x (0.16) = _____ Gallons

x3 (3 Well Volumes) = _____ Gallons

APPENDIX B

LABORATORY ANALYSES

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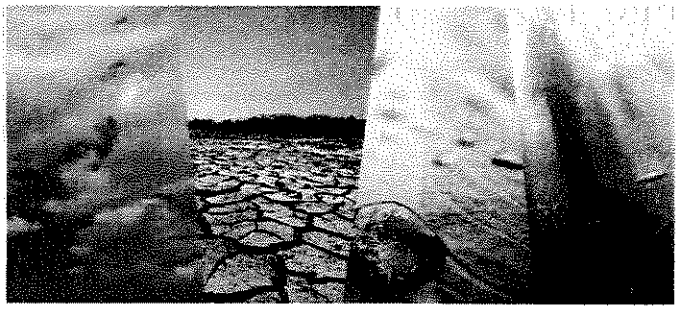
WORK ORDER NUMBER: 14-12-1981

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Frey Environmental, Inc.

Client Project Name: Mission Ave LF / 175-06

Attention: Steve Zieg
2817-A Lafayette Avenue
Newport Beach, CA 92663-3715

Approved for release on 01/06/2015 by:
Stephen Nowak
Project Manager

ResultLink ›

Email your PM ›

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Number: 14-12-1981

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Work Order Narrative

Work Order: 14-12-1981 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/20/14. They were assigned to Work Order 14-12-1981.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Frey Environmental, Inc.	Work Order:	14-12-1981
	2817-A Lafayette Avenue	Project Name:	Mission Ave LF / 175-06
	Newport Beach, CA 92663-3715	PO Number:	
		Date/Time Received:	12/20/14 15:01
		Number of Containers:	21
Attn:	Steve Zieg		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-4	14-12-1981-1	12/20/14 10:05	7	Aqueous
MW-5	14-12-1981-2	12/20/14 11:30	7	Aqueous
MW-6	14-12-1981-3	12/20/14 01:00	7	Aqueous

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Detections Summary

Client: Frey Environmental, Inc.
2817-A Lafayette Avenue
Newport Beach, CA 92663-3715

Work Order: 14-12-1981
Project Name: Mission Ave LF / 175-06
Received: 12/20/14

Attn: Steve Zieg

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-4 (14-12-1981-1)						
Chloride	740		10	mg/L	EPA 300.0	N/A
Nitrate (as N)	4.3		0.10	mg/L	EPA 300.0	N/A
Sulfate	300		10	mg/L	EPA 300.0	N/A
Arsenic	0.0139		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.206		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.0116		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Tetrachloroethene	2.2		1.0	ug/L	EPA 8260B	EPA 5030C
Turbidity	0.13		0.050	NTU	SM 2130 B	N/A
Specific Conductance	2800		10	umhos/cm	SM 2510 B	N/A
Solids, Total Dissolved	1920		10.0	mg/L	SM 2540 C	N/A
pH	7.20	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
MW-5 (14-12-1981-2)						
Chloride	290		10	mg/L	EPA 300.0	N/A
Nitrate (as N)	6.1		0.10	mg/L	EPA 300.0	N/A
Sulfate	32		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0114		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0622		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.0272		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Iron	0.177		0.100	mg/L	EPA 6010B	EPA 3010A Total
Turbidity	2.1		0.10	NTU	SM 2130 B	N/A
Specific Conductance	1300		10	umhos/cm	SM 2510 B	N/A
Solids, Total Dissolved	700		1.00	mg/L	SM 2540 C	N/A
pH	7.83	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
MW-6 (14-12-1981-3)						
Chloride	560		10	mg/L	EPA 300.0	N/A
Nitrate (as N)	4.4		0.10	mg/L	EPA 300.0	N/A
Sulfate	160		10	mg/L	EPA 300.0	N/A
Barium	0.0960		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.0123		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.0124		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Iron	0.281		0.100	mg/L	EPA 6010B	EPA 3010A Total
Tetrachloroethene	5.8		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	2.0		1.0	ug/L	EPA 8260B	EPA 5030C
Turbidity	0.87		0.050	NTU	SM 2130 B	N/A
Specific Conductance	2300		10	umhos/cm	SM 2510 B	N/A
Solids, Total Dissolved	1500		10.0	mg/L	SM 2540 C	N/A
pH	7.20	BV,BU	0.01	pH units	SM 4500 H+ B	N/A

* MDL is shown

Return to Contents

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Detections Summary

Client:	Frey Environmental, Inc.	Work Order:	14-12-1981
	2817-A Lafayette Avenue	Project Name:	Mission Ave LF / 175-06
	Newport Beach, CA 92663-3715	Received:	12/20/14
Attn:	Steve Zieg		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

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Analytical Report

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
		Units:	mg/L
Project: Mission Ave LF / 175-06			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**14-12-1981-1-D**	**12/20/14 10:05**	**Aqueous**	**ICP 7300**	**12/22/14**	**12/23/14 16:12**	**141222LA3**

Parameter	Result	RL	DF	Qualifiers
Arsenic	0.0139	0.0100	1.00	
Barium	0.206	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Copper	0.0116	0.0100	1.00	
Lead	ND	0.0100	1.00	
Silver	ND	0.00500	1.00	
Iron	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**14-12-1981-2-D**	**12/20/14 11:30**	**Aqueous**	**ICP 7300**	**12/22/14**	**12/23/14 16:17**	**141222LA3**

Parameter	Result	RL	DF	Qualifiers
Arsenic	0.0114	0.0100	1.00	
Barium	0.0622	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.0272	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Silver	ND	0.00500	1.00	
Iron	0.177	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**14-12-1981-3-D**	**12/20/14 01:00**	**Aqueous**	**ICP 7300**	**12/22/14**	**12/23/14 16:18**	**141222LA3**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.0100	1.00	
Barium	0.0960	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.0123	0.0100	1.00	
Copper	0.0124	0.0100	1.00	
Lead	ND	0.0100	1.00	
Silver	ND	0.00500	1.00	
Iron	0.281	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
	Units:	mg/L
Project: Mission Ave LF / 175-06		Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-14754**	**N/A**	**Aqueous**	**ICP 7300**	**12/22/14**	**12/23/14 15:10**	**141222LA3**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.0100	1.00	
Barium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Silver	ND	0.00500	1.00	
Iron	ND	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
		Units:	mg/L
Project: Mission Ave LF / 175-06			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**14-12-1981-1-D**	**12/20/14 10:05**	**Aqueous**	**Mercury 04**	**12/24/14**	**12/24/14 17:44**	**141224L04**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**14-12-1981-2-D**	**12/20/14 11:30**	**Aqueous**	**Mercury 04**	**12/24/14**	**12/24/14 17:46**	**141224L04**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**14-12-1981-3-D**	**12/20/14 01:00**	**Aqueous**	**Mercury 04**	**12/24/14**	**12/24/14 17:49**	**141224L04**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7259**	**N/A**	**Aqueous**	**Mercury 04**	**12/24/14**	**12/24/14 16:50**	**141224L04**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: Mission Ave LF / 175-06			Page 1 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**14-12-1981-1-E**	**12/20/14 10:05**	**Aqueous**	**GC/MS TT**	**12/22/14**	**12/23/14 20:51**	**141222L14**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.6	1.00	
Acenaphthylene	ND	9.6	1.00	
Aniline	ND	9.6	1.00	
Anthracene	ND	9.6	1.00	
Azobenzene	ND	9.6	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.6	1.00	
Benzo (a) Pyrene	ND	9.6	1.00	
Benzo (b) Fluoranthene	ND	9.6	1.00	
Benzo (g,h,i) Perylene	ND	9.6	1.00	
Benzo (k) Fluoranthene	ND	9.6	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.6	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.6	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.6	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.6	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.6	1.00	
Butyl Benzyl Phthalate	ND	9.6	1.00	
4-Chloro-3-Methylphenol	ND	9.6	1.00	
4-Chloroaniline	ND	9.6	1.00	
2-Chloronaphthalene	ND	9.6	1.00	
2-Chlorophenol	ND	9.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.6	1.00	
Chrysene	ND	9.6	1.00	
Di-n-Butyl Phthalate	ND	9.6	1.00	
Di-n-Octyl Phthalate	ND	9.6	1.00	
Dibenz (a,h) Anthracene	ND	9.6	1.00	
Dibenzofuran	ND	9.6	1.00	
1,2-Dichlorobenzene	ND	9.6	1.00	
1,3-Dichlorobenzene	ND	9.6	1.00	
1,4-Dichlorobenzene	ND	9.6	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.6	1.00	
Diethyl Phthalate	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 2 of 12

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	70	33-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 3 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	49	24-120	
Nitrobenzene-d5	70	38-120	
p-Terphenyl-d14	84	41-137	
Phenol-d6	34	16-120	
2,4,6-Tribromophenol	94	27-159	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 4 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**14-12-1981-2-E**	**12/20/14 11:30**	**Aqueous**	**GC/MS TT**	**12/22/14**	**12/23/14 21:10**	**141222L14**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.5	1.00	
Acenaphthylene	ND	9.5	1.00	
Aniline	ND	9.5	1.00	
Anthracene	ND	9.5	1.00	
Azobenzene	ND	9.5	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.5	1.00	
Benzo (a) Pyrene	ND	9.5	1.00	
Benzo (b) Fluoranthene	ND	9.5	1.00	
Benzo (g,h,i) Perylene	ND	9.5	1.00	
Benzo (k) Fluoranthene	ND	9.5	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.5	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.5	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.5	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.5	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.5	1.00	
Butyl Benzyl Phthalate	ND	9.5	1.00	
4-Chloro-3-Methylphenol	ND	9.5	1.00	
4-Chloroaniline	ND	9.5	1.00	
2-Chloronaphthalene	ND	9.5	1.00	
2-Chlorophenol	ND	9.5	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.5	1.00	
Chrysene	ND	9.5	1.00	
Di-n-Butyl Phthalate	ND	9.5	1.00	
Di-n-Octyl Phthalate	ND	9.5	1.00	
Dibenz (a,h) Anthracene	ND	9.5	1.00	
Dibenzofuran	ND	9.5	1.00	
1,2-Dichlorobenzene	ND	9.5	1.00	
1,3-Dichlorobenzene	ND	9.5	1.00	
1,4-Dichlorobenzene	ND	9.5	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.5	1.00	
Diethyl Phthalate	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 5 of 12

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	33-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 6 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	50	24-120	
Nitrobenzene-d5	71	38-120	
p-Terphenyl-d14	79	41-137	
Phenol-d6	33	16-120	
2,4,6-Tribromophenol	85	27-159	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L

Project: Mission Ave LF / 175-06

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**14-12-1981-3-E**	**12/20/14 01:00**	**Aqueous**	**GC/MS TT**	**12/22/14**	**12/23/14 21:28**	**141222L14**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.5	1.00	
Acenaphthylene	ND	9.5	1.00	
Aniline	ND	9.5	1.00	
Anthracene	ND	9.5	1.00	
Azobenzene	ND	9.5	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.5	1.00	
Benzo (a) Pyrene	ND	9.5	1.00	
Benzo (b) Fluoranthene	ND	9.5	1.00	
Benzo (g,h,i) Perylene	ND	9.5	1.00	
Benzo (k) Fluoranthene	ND	9.5	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.5	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.5	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.5	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.5	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.5	1.00	
Butyl Benzyl Phthalate	ND	9.5	1.00	
4-Chloro-3-Methylphenol	ND	9.5	1.00	
4-Chloroaniline	ND	9.5	1.00	
2-Chloronaphthalene	ND	9.5	1.00	
2-Chlorophenol	ND	9.5	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.5	1.00	
Chrysene	ND	9.5	1.00	
Di-n-Butyl Phthalate	ND	9.5	1.00	
Di-n-Octyl Phthalate	ND	9.5	1.00	
Dibenz (a,h) Anthracene	ND	9.5	1.00	
Dibenzofuran	ND	9.5	1.00	
1,2-Dichlorobenzene	ND	9.5	1.00	
1,3-Dichlorobenzene	ND	9.5	1.00	
1,4-Dichlorobenzene	ND	9.5	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.5	1.00	
Diethyl Phthalate	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 8 of 12

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	69	33-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 9 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	47	24-120	
Nitrobenzene-d5	70	38-120	
p-Terphenyl-d14	76	41-137	
Phenol-d6	33	16-120	
2,4,6-Tribromophenol	82	27-159	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L

Project: Mission Ave LF / 175-06

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-003-3972**	**N/A**	**Aqueous**	**GC/MS TT**	**12/22/14**	**12/23/14 17:26**	**141222L14**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Aniline	ND	10	1.00	
Anthracene	ND	10	1.00	
Azobenzene	ND	10	1.00	
Benzidine	ND	50	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzoic Acid	ND	50	1.00	
Benzyl Alcohol	ND	10	1.00	
Bis(2-Chloroethoxy) Methane	ND	10	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
4-Bromophenyl-Phenyl Ether	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Chloroaniline	ND	10	1.00	
2-Chloronaphthalene	ND	10	1.00	
2-Chlorophenol	ND	10	1.00	
4-Chlorophenyl-Phenyl Ether	ND	10	1.00	
Chrysene	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Dibenzofuran	ND	10	1.00	
1,2-Dichlorobenzene	ND	10	1.00	
1,3-Dichlorobenzene	ND	10	1.00	
1,4-Dichlorobenzene	ND	10	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	10	1.00	
Diethyl Phthalate	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 11 of 12

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	70	33-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 12 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	54	24-120	
Nitrobenzene-d5	79	38-120	
p-Terphenyl-d14	83	41-137	
Phenol-d6	34	16-120	
2,4,6-Tribromophenol	84	27-159	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: Mission Ave LF / 175-06			Page 1 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**14-12-1981-1-A**	**12/20/14 10:05**	**Aqueous**	**GC/MS LL**	**12/23/14**	**12/23/14 17:38**	**141223L009**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 2 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	2.2	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	80-120	
Dibromofluoromethane	106	78-126	
1,2-Dichloroethane-d4	106	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: Mission Ave LF / 175-06

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**14-12-1981-2-A**	**12/20/14 11:30**	**Aqueous**	**GC/MS LL**	**12/23/14**	**12/23/14 18:06**	**141223L009**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 4 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	80-120	
Dibromofluoromethane	105	78-126	
1,2-Dichloroethane-d4	104	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: Mission Ave LF / 175-06

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**14-12-1981-3-A**	**12/20/14 01:00**	**Aqueous**	**GC/MS LL**	**12/23/14**	**12/23/14 18:34**	**141223L009**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 6 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	5.8	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	2.0	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	80-120	
Dibromofluoromethane	105	78-126	
1,2-Dichloroethane-d4	106	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: Mission Ave LF / 175-06 Page 7 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-001-15997**	**N/A**	**Aqueous**	**GC/MS LL**	**12/23/14**	**12/23/14 12:28**	**141223L009**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Mission Ave LF / 175-06		Page 8 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	80-120	
Dibromofluoromethane	103	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.
2817-A Lafayette Avenue
Newport Beach, CA 92663-3715
Project: Mission Ave LF / 175-06

Date Received: 12/20/14
Work Order: 14-12-1981

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-4	**14-12-1981-1**	**12/20/14 10:05**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	4.3	0.10	1.00		mg/L	N/A	12/20/14	EPA 300.0
o-Phosphate (as P)	ND	0.10	1.00		mg/L	N/A	12/20/14	EPA 300.0
Chloride	740	10	10.0		mg/L	N/A	12/22/14	EPA 300.0
Sulfate	300	10	10.0		mg/L	N/A	12/22/14	EPA 300.0
Turbidity	0.13	0.050	1.00		NTU	N/A	12/20/14	SM 2130 B
Specific Conductance	2800	10	1.00		umhos/cm	N/A	12/26/14	SM 2510 B
Solids, Total Dissolved	1920	10.0	1.00		mg/L	12/23/14	12/23/14	SM 2540 C
pH	7.20	0.01	1.00	BV,BU	pH units	N/A	12/20/14	SM 4500 H+ B

MW-5	**14-12-1981-2**	**12/20/14 11:30**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	6.1	0.10	1.00		mg/L	N/A	12/20/14	EPA 300.0
o-Phosphate (as P)	ND	0.10	1.00		mg/L	N/A	12/20/14	EPA 300.0
Sulfate	32	1.0	1.00		mg/L	N/A	12/20/14	EPA 300.0
Chloride	290	10	10.0		mg/L	N/A	12/22/14	EPA 300.0
Turbidity	2.1	0.10	1.00		NTU	N/A	12/20/14	SM 2130 B
Specific Conductance	1300	10	1.00		umhos/cm	N/A	12/26/14	SM 2510 B
Solids, Total Dissolved	700	1.00	1.00		mg/L	12/23/14	12/23/14	SM 2540 C
pH	7.83	0.01	1.00	BV,BU	pH units	N/A	12/20/14	SM 4500 H+ B

MW-6	**14-12-1981-3**	**12/20/14 01:00**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	4.4	0.10	1.00		mg/L	N/A	12/20/14	EPA 300.0
o-Phosphate (as P)	ND	0.10	1.00		mg/L	N/A	12/20/14	EPA 300.0
Chloride	560	10	10.0		mg/L	N/A	12/22/14	EPA 300.0
Sulfate	160	10	10.0		mg/L	N/A	12/22/14	EPA 300.0
Turbidity	0.87	0.050	1.00		NTU	N/A	12/20/14	SM 2130 B
Specific Conductance	2300	10	1.00		umhos/cm	N/A	12/26/14	SM 2510 B
Solids, Total Dissolved	1500	10.0	1.00		mg/L	12/23/14	12/23/14	SM 2540 C
pH	7.20	0.01	1.00	BV,BU	pH units	N/A	12/20/14	SM 4500 H+ B

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Frey Environmental, Inc.
2817-A Lafayette Avenue
Newport Beach, CA 92663-3715
Project: Mission Ave LF / 175-06

Date Received: 12/20/14
Work Order: 14-12-1981

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
Method Blank		**N/A**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1.00		mg/L	N/A	12/20/14	EPA 300.0
o-Phosphate (as P)	ND	0.10	1.00		mg/L	N/A	12/20/14	EPA 300.0
Sulfate	ND	1.0	1.00		mg/L	N/A	12/20/14	EPA 300.0
Chloride	ND	1.0	1.00		mg/L	N/A	12/22/14	EPA 300.0
Sulfate	ND	1.0	1.00		mg/L	N/A	12/22/14	EPA 300.0
Solids, Total Dissolved	ND	1.0	1.00		mg/L	12/23/14	12/23/14	SM 2540 C

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	N/A
	Method:	EPA 300.0
Project: Mission Ave LF / 175-06		Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-12-2015-2	**Sample**	**Aqueous**	**IC 7**	**N/A**	**12/22/14 18:32**	**141222S01**
14-12-2015-2	**Matrix Spike**	**Aqueous**	**IC 7**	**N/A**	**12/22/14 20:14**	**141222S01**
14-12-2015-2	**Matrix Spike Duplicate**	**Aqueous**	**IC 7**	**N/A**	**12/22/14 20:30**	**141222S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	22.56	5000	4968	99	4956	99	80-120	0	0-20	
Sulfate	33.59	5000	4940	98	4924	98	80-120	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	N/A
	Method:	EPA 300.0
Project: Mission Ave LF / 175-06		Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-4	**Sample**	**Aqueous**	**IC 15**	**N/A**	**12/20/14 17:24**	**141220S02**
MW-4	**Matrix Spike**	**Aqueous**	**IC 15**	**N/A**	**12/20/14 18:15**	**141220S02**
MW-4	**Matrix Spike Duplicate**	**Aqueous**	**IC 15**	**N/A**	**12/20/14 18:31**	**141220S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate (as N)	4.285	500.0	515.9	102	515.9	102	80-120	0	0-20	
o-Phosphate (as P)	ND	250.0	273.7	109	273.3	109	80-120	0	0-20	
Sulfate	410.2	5000	5322	98	5322	98	80-120	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: Mission Ave LF / 175-06		Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-4	**Sample**	**Aqueous**	**ICP 7300**	**12/22/14**	**12/23/14 16:12**	**141222SA3**
MW-4	**Matrix Spike**	**Aqueous**	**ICP 7300**	**12/22/14**	**12/23/14 16:14**	**141222SA3**
MW-4	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**12/22/14**	**12/23/14 16:15**	**141222SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	0.01390	0.5000	0.5720	112	0.5930	116	80-140	4	0-11	
Barium	0.2060	0.5000	0.7433	107	0.7764	114	87-123	4	0-6	
Cadmium	ND	0.5000	0.5131	103	0.5204	104	82-124	1	0-7	
Chromium	ND	0.5000	0.5708	114	0.5790	116	86-122	1	0-8	
Copper	0.01162	0.5000	0.5428	106	0.5514	108	78-126	2	0-7	
Lead	ND	0.5000	0.5082	102	0.5185	104	84-120	2	0-7	
Silver	ND	0.2500	0.2398	96	0.2616	105	86-128	9	0-7	4
Iron	ND	0.5000	0.5228	105	0.5329	107	65-149	2	0-21	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: Mission Ave LF / 175-06			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-12-1835-11	**Sample**	**Aqueous**	**Mercury 04**	**12/24/14**	**12/24/14 16:54**	**141224S04**
14-12-1835-11	**Matrix Spike**	**Aqueous**	**Mercury 04**	**12/24/14**	**12/24/14 16:57**	**141224S04**
14-12-1835-11	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**12/24/14**	**12/24/14 16:59**	**141224S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.00006029	0.01000	0.009359	93	0.009227	92	66-126	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: Mission Ave LF / 175-06		Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-12-1879-1	**Sample**	**Aqueous**	**GC/MS LL**	**12/23/14**	**12/23/14 13:51**	**141223S007**
14-12-1879-1	**Matrix Spike**	**Aqueous**	**GC/MS LL**	**12/23/14**	**12/23/14 14:19**	**141223S007**
14-12-1879-1	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS LL**	**12/23/14**	**12/23/14 14:47**	**141223S007**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	10.49	50.00	56.61	92	58.91	97	74-122	4	0-21	
Carbon Tetrachloride	ND	50.00	44.79	90	46.65	93	60-144	4	0-21	
Chlorobenzene	ND	50.00	46.84	94	48.89	98	73-120	4	0-22	
1,2-Dibromoethane	ND	50.00	47.51	95	48.45	97	80-122	2	0-20	
1,2-Dichlorobenzene	ND	50.00	48.68	97	50.37	101	70-120	3	0-26	
1,2-Dichloroethane	ND	50.00	46.00	92	47.81	96	64-142	4	0-20	
1,1-Dichloroethene	ND	50.00	40.95	82	43.00	86	52-136	5	0-21	
Ethylbenzene	15.46	50.00	64.73	99	67.29	104	77-125	4	0-24	
Toluene	ND	50.00	47.06	94	48.98	98	72-126	4	0-23	
Trichloroethene	ND	50.00	43.73	87	45.27	91	74-128	3	0-22	
Vinyl Chloride	ND	50.00	42.33	85	45.37	91	67-133	7	0-20	
p/m-Xylene	ND	100.0	102.4	102	106.2	106	63-129	4	0-25	
o-Xylene	ND	50.00	50.57	101	52.58	105	62-128	4	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	45.34	91	47.44	95	68-134	5	0-21	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	N/A
		Method:	SM 2130 B
Project: Mission Ave LF / 175-06			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MW-4	**Sample**	**Aqueous**	**TUR 3**	**N/A**	**12/20/14 16:07**	**E1220TUD1**
MW-4	**Sample Duplicate**	**Aqueous**	**TUR 3**	**N/A**	**12/20/14 16:07**	**E1220TUD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Turbidity	0.1300	0.1300	0	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	N/A
		Method:	SM 2510 B
Project: Mission Ave LF / 175-06			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-12-1950-1	**Sample**	**Aqueous**	**SC 5**	**N/A**	**12/26/14 17:01**	**E1226SCD2**
14-12-1950-1	**Sample Duplicate**	**Aqueous**	**SC 5**	**N/A**	**12/26/14 17:01**	**E1226SCD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Specific Conductance	22.40	23.60	5	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	N/A
		Method:	SM 2540 C
Project: Mission Ave LF / 175-06			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-12-1762-4	**Sample**	**Aqueous**	**SC 5**	**12/23/14 00:00**	**12/23/14 17:15**	**E1223TDSD3**
14-12-1762-4	**Sample Duplicate**	**Aqueous**	**SC 5**	**12/23/14 00:00**	**12/23/14 17:15**	**E1223TDSD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	1835	1820	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	N/A
		Method:	SM 4500 H+ B
Project: Mission Ave LF / 175-06			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-12-1951-1	**Sample**	**Aqueous**	**PH 1**	**N/A**	**12/20/14 15:41**	**E1220PHD1**
14-12-1951-1	**Sample Duplicate**	**Aqueous**	**PH 1**	**N/A**	**12/20/14 15:41**	**E1220PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	7.770	7.730	1	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	N/A
	Method:	EPA 300.0
Project: Mission Ave LF / 175-06		Page 1 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-5288	**LCS**	**Aqueous**	**IC 7**	**N/A**	**12/22/14 15:15**	**141222L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	49.22	98	90-110	
Sulfate	50.00	49.11	98	90-110	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	N/A
		Method:	EPA 300.0
Project: Mission Ave LF / 175-06			Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-5291	**LCS**	**Aqueous**	**IC 15**	**N/A**	**12/20/14 17:07**	**141220L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Nitrate (as N)	5.000	5.007	100	90-110	
o-Phosphate (as P)	2.500	2.458	98	90-110	
Sulfate	50.00	49.11	98	90-110	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	N/A
		Method:	SM 2540 C
Project: Mission Ave LF / 175-06			Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-4365	**LCS**	**Aqueous**	**SC 5**	**12/23/14**	**12/23/14 17:15**	**E1223TDSL3**
099-12-180-4365	**LCSD**	**Aqueous**	**SC 5**	**12/23/14**	**12/23/14 17:15**	**E1223TDSL3**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	90.00	90	85.00	85	80-120	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: Mission Ave LF / 175-06		Page 4 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-14754	**LCS**	**Aqueous**	**ICP 7300**	**12/22/14**	**12/24/14 13:54**	**141222LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	0.5000	0.4909	98	80-120	
Barium	0.5000	0.5007	100	80-120	
Cadmium	0.5000	0.4977	100	80-120	
Chromium	0.5000	0.5133	103	80-120	
Copper	0.5000	0.4990	100	80-120	
Lead	0.5000	0.5192	104	80-120	
Silver	0.2500	0.2391	96	80-120	
Iron	0.5000	0.5104	102	80-120	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 7470A Total
	Method:	EPA 7470A
Project: Mission Ave LF / 175-06		Page 5 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7259	**LCS**	**Aqueous**	**Mercury 04**	**12/24/14**	**12/24/14 16:52**	**141224L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01036	104	85-121	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Frey Environmental, Inc.	Date Received:	12/20/14
2817-A Lafayette Avenue	Work Order:	14-12-1981
Newport Beach, CA 92663-3715	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: Mission Ave LF / 175-06		Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-003-3972	**LCS**	**Aqueous**	**GC/MS TT**	**12/22/14**	**12/23/14 16:43**	**141222L14**
095-01-003-3972	**LCSD**	**Aqueous**	**GC/MS TT**	**12/22/14**	**12/23/14 17:02**	**141222L14**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	200.0	156.6	78	173.8	87	61-120	51-130	10	0-20	
Acenaphthylene	200.0	152.5	76	170.4	85	55-120	44-131	11	0-20	
Butyl Benzyl Phthalate	200.0	160.5	80	185.3	93	56-122	45-133	14	0-20	
4-Chloro-3-Methylphenol	200.0	151.7	76	164.4	82	52-120	41-131	8	0-20	
2-Chlorophenol	200.0	152.0	76	164.0	82	47-120	35-132	8	0-20	
1,4-Dichlorobenzene	200.0	137.8	69	163.2	82	36-120	22-134	17	0-20	
Dimethyl Phthalate	200.0	161.7	81	176.4	88	60-120	50-130	9	0-20	
2,4-Dinitrotoluene	200.0	152.8	76	168.7	84	61-121	51-131	10	0-20	
Fluorene	200.0	162.0	81	180.1	90	67-120	58-129	11	0-20	
N-Nitroso-di-n-propylamine	200.0	148.8	74	165.5	83	39-123	25-137	11	0-20	
Naphthalene	200.0	149.9	75	167.7	84	54-120	43-131	11	0-20	
4-Nitrophenol	200.0	79.93	40	82.21	41	14-120	0-138	3	0-20	
Pentachlorophenol	200.0	166.9	83	182.9	91	31-127	15-143	9	0-20	
Phenol	200.0	74.56	37	77.67	39	17-120	0-137	4	0-20	
Pyrene	200.0	155.4	78	177.7	89	58-124	47-135	13	0-20	
1,2,4-Trichlorobenzene	200.0	141.7	71	166.3	83	49-120	37-132	16	0-20	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Frey Environmental, Inc.		Date Received:	12/20/14
2817-A Lafayette Avenue		Work Order:	14-12-1981
Newport Beach, CA 92663-3715		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: Mission Ave LF / 175-06			Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-15997	**LCS**	**Aqueous**	**GC/MS LL**	**12/23/14**	**12/23/14 11:05**	**141223L009**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	51.48	103	80-120	73-127	
Carbon Tetrachloride	50.00	49.29	99	67-139	55-151	
Chlorobenzene	50.00	52.43	105	78-120	71-127	
1,2-Dibromoethane	50.00	51.29	103	80-120	73-127	
1,2-Dichlorobenzene	50.00	52.59	105	63-129	52-140	
1,2-Dichloroethane	50.00	49.56	99	70-130	60-140	
1,1-Dichloroethene	50.00	44.74	89	66-126	56-136	
Ethylbenzene	50.00	54.33	109	80-123	73-130	
Toluene	50.00	51.55	103	80-120	73-127	
Trichloroethene	50.00	47.93	96	80-122	73-129	
Vinyl Chloride	50.00	45.02	90	70-130	60-140	
p/m-Xylene	100.0	114.1	114	75-123	67-131	
o-Xylene	50.00	55.96	112	74-122	66-130	
Methyl-t-Butyl Ether (MTBE)	50.00	48.66	97	69-129	59-139	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-12-1981 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 300.0	N/A	811	IC 7	1
EPA 300.0	N/A	811	IC 15	1
EPA 6010B	EPA 3010A Total	771	ICP 7300	1
EPA 7470A	EPA 7470A Total	915	Mercury 04	1
EPA 8260B	EPA 5030C	959	GC/MS LL	2
EPA 8270C	EPA 3510C	923	GC/MS TT	1
SM 2130 B	N/A	848	TUR 3	1
SM 2510 B	N/A	688	SC 5	1
SM 2540 C	N/A	689	SC 5	1
SM 4500 H+ B	N/A	688	PH 1	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

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Glossary of Terms and Qualifiers

Work Order: 14-12-1981 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: 14-12-1981

DATE: 12/20/2014
PAGE: 1 OF 1

LABORATORY CLIENT: FREY ENVIRONMENTAL
ADDRESS: 2817-A LAYAFETTE AVE
CITY: NBP STATE: ZIP:
TEL: E-MAIL:

CLIENT PROJECT NAME / NO.: MISSION AVE LF
P.O. NO.: 175-06
PROJECT CONTACT: STEVE ZIEG
LAB CONTACT OR QUOTE NO.:
GLOBAL ID: LOG CODE: SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:
CREATE EDF
E-MAIL TO DEANNA
HOPPE.

REQUESTED ANALYSES
Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	pH, TURBIDITY, SPECIFIC CONDUCTANCE, TDS	As, Cd, Ba, Cr, Pb, Fe, Cu, Hg, Ag	EPA-300.0-Cl	NO3, O-PO4, SO4
1	MW-4	12/20	10:05	H2O	7									X			X						X	X	X	X
2	MW-5	12/20	11:30	H2O	7									X			X						X	X	X	X
3	MW-6	12/20	1:00	H2O	7									X			X						X	X	X	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
[signature]	[signature] ECI	12/20/14	3:01
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2014-07-01 Revision

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WORK ORDER #: 14-12-[1][9][8][1]

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: FREY DATE: 12/20/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature ____.____ °C - 0.2 °C (CF) = ____.____ °C ☑ **Blank** ☐ **Sample**

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter **Checked by:** SR

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Checked by:** SR

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Checked by:** 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☐	☑	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☑ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☑	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☑	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Aqueous: ☐VOA ☑VOAh ☐VOA**na₂** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na₂** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☐250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na₂** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** 965

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** SR

Preservative: h: HCL n: HNO_3 **na₂**:$Na_2S_2O_3$ **na**: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure **znna**: $ZnAc_2$+NaOH f: Filtered **Scanned by:** SR

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WORK ORDER #: 14-12-[1][9][8][1]

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis
2	C	3							

Comments: _____

*Transferred at Client's request.

Initial / Date: SR 12/20/14