CONESTOGA-ROVERS & ASSOCIATES

5900 Hollis St., Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

# TRANSMITTAL

**DATE:** February 11, 2010

**REFERENCE NO.:** 3119150

**PROJECT NAME:** Former Chevron Station 9-0260

**TO:** Mr. Mark Dettman
Alameda County Environmental Health Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

ACEHS RO #383

**RECEIVED**
8:47 am, Feb 16, 2010
Alameda County
Environmental Health

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| QUANTITY | DESCRIPTION |
|---|---|
| 1 | Remediation Summary Report |
| | |
| | |

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- ☒ For Review and Comment
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**COMMENTS:**
Please contact Charlotte Evans at (510) 420-3351 with any questions or comments regarding the contents of this report.

Copy to: Mr. Aaron Costa, Chevron

Completed by: Charlotte Evans [Please Print]

Signed: C Evans

**Filing:** **Correspondence File**

**Aaron Costa**
Project Manager
Marketing Business Unit

**Chevron Environmental Management Company**
6111 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 543-2961
Fax (925) 543-2324
acosta@chevron.com

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Chevron Service Station No. 9-0260
21995 Foothill Boulevard
Hayward, CA

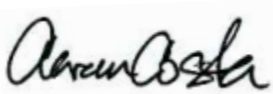
I have reviewed the attached report dated February 11, 2010.

I agree with the conclusions and recommendations presented in the referenced report. This information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga Rovers Associates, upon who assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,



Aaron Costa
Project Manager

Attachment: Report

# REMEDIATION SUMMARY REPORT

## FORMER CHEVRON SERVICE STATION 9-0260
## 21995 FOOTHILL BOULEVARD
## HAYWARD, CALIFORNIA
## FULE LEAK CASE NO. RO0383

**Prepared For:**

**Mr. Mark Detterman**
**Alameda County Environmental Health Services**
**1131 Harbor Bay Parkway, Suite 250**
**Alameda, California 94502-6577**


**Prepared by:**
**Conestoga-Rovers & Associates**

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**FEBRUARY 11, 2010**
**REF. NO. 311931 (23**
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# REMEDIATION SUMMARY REPORT

**FORMER CHEVRON SERVICE STATION 9-0260**
**21995 FOOTHILL BOULEVARD**
**HAYWARD, CALIFORNIA**
**FULE LEAK CASE NO. RO0383**

**Charlotte Evans**


**Brandon Wilken PG #7564**

**Prepared by:**
**Conestoga-Rovers & Associates**

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**FEBRUARY 11, 2010**
**REF. NO. 311931 (23**
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# 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) is submitting this *Remediation Summary Report* for former Chevron Service Station 9-0260 on behalf of Chevron Environmental Management Company (Chevron). In a letter dated October 9, 2009, Alameda County Environmental Health Services (ACEH) requested the submittal of a Draft Corrective Action Plan (CAP) to evaluate remedial alternatives for mitigating residual hydrocarbons in the soil and groundwater (Appendix A). In a telephone conversation between Charlotte Evans of CRA and Mark Detterman of ACEH on January 7, 2010, CRA informed ACEH that a dual phase extraction (DPE) system had been operating at the site since June 2007. Mr. Detterman agreed that a Remediation Summary Report would be submitted instead of a Draft CAP to document this phase of remedial activity. The site background and details of the DPE system installation and operation are presented below.

## 1.1 SITE BACKGROUND

The site is a former Chevron gasoline service station located on the western corner of the intersection of Foothill Boulevard and Rex Road in Hayward, California (Figure 1). The Alameda County Assessor's Office identified Chevron Products Company as the current record fee title owner of the site. The site was originally purchased by Chevron in 1985 from USA Petroleum Corporation. In October 1996, all station facilities, including three 10,000-gallon fuel underground storage tanks (USTs) and product lines were removed (Figure 2). The site is currently a vacant landscaped lot and surrounding land use is residential and commercial.

Environmental investigation and remediation of the site have been ongoing since 1985. Wells and borings completed include 20 groundwater monitoring wells of various depths and screening intervals, 20 soil vapor extraction wells, 3 soil vapor wells, 2 temporary wells, 8 soil borings, and 10 cone penetrometer test (CPT) borings (Figure 2). Groundwater monitoring and sampling began in 1988. A summary of environmental investigation and remedial activity conducted to date is presented in Appendix B.

## 1.2 SITE GEOLOGY AND HYDROGEOLOGY

The site is part of the San Lorenzo sub-area of the East Bay Plain. Sediments beneath the site are likely Holocene and late Pleistocene alluvial fans interbedded with the

Yerba Buena Mud Member[1]. Unconsolidated sediments beneath the site and site vicinity consist primarily of clayey silts and silty clays to an approximate depth of 15 feet below grade (fbg). A water-bearing sand unit is encountered at approximately 15 to 20 fbg and is underlain by sands, silts and clays. From approximately 35 to 43 fbg, there is another sandy unit which varies in thickness from 3 to 5 feet. This second sandy unit is underlain by silts and clays to the maximum depth explored of 60 fbg. Subsurface soils are consistent across the site as far away as well MW 18. Starting at well MW-18, the upper sand unit becomes thicker and extends as deep as 44.5 fbg. This sand layer is likely the preferential conduit for groundwater flow responsible for hydrocarbon migration downgradient of the site.

The site is approximately 102 feet above mean sea level. Groundwater is approximately 15 fbg, with several feet of fluctuation annually from approximately 10 to 20 fbg. Groundwater historically flows toward the southwest at an average gradient of 0.03. The nearest surface water is San Lorenzo Creek, approximately 600 feet downgradient. This creek is concrete lined in the site vicinity and appears to act as a hydraulic barrier to downgradient groundwater flow based on the creek thalweg and groundwater depth.

Groundwater in the East Bay Plain basin is designated as a potential drinking water source; however, groundwater in the basin is not currently used as a municipal drinking water supply due to readily available imported surface water[1].

## 2.0 SYSTEM INSTALLATION

Installation of the DPE system began in October 2006 and was completed in June of 2007. The system extracted soil vapor and groundwater from DPE wells DVE-9, DVE-12, DVE-20, MW-5, MW-11, and MW-12. The DPE system construction drawings are presented in Appendix C. The following sections provide installation details.

***Contractor:*** Sustainable Technologies of Alameda, California (Contractor's License #772329) performed all system construction and installation activities.

***Excavation:*** All trenches were backfilled with clean well-graded sand from the bottom of the each trench to approximately 3 inches above the piping. Excavated soil from the trenches was used to complete backfilling the trenches to grade and compacted to a minimum of 9 percent. The excavated soil that was not used as backfill was sampled

[1] East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, CA prepared by the California Regional Water Quality Control Board San Francisco Bay Region Groundwater Committee, June 1999

and stockpiled on plastic sheets. The soil was transported and disposed of at a Chevron-approved landfill facility.

***Conveyance Piping Installation:*** Dedicated secondary containment conduits consisting of 4-inch diameter schedule 40 PVC were installed from the remediation compound to the DPE wells. In each of the 4-inch diameter pipes is a section ¾-inch diameter HDPE tubing for groundwater conveyance and a section of ½-inch diameter tubing for compressed air conveyance. Dedicated 2-inch diameter schedule 40 PVC pipes were installed from the remediation compound to the DPE wells for soil vapor extraction (SVE). Dedicated 1-inch diameter schedule 40 PVC electrical conduits were installed from the remediation compound to the DPE wells.

***Utility Connections:*** The remediation system uses a 240-volt, three-phase, 400-ampere, electrical service provided by Pacific Gas & Electric (PG&E) via an underground conduit. The remediation system also uses natural gas supplied by PG&E via an underground natural gas pipe. Trenching for and installation of the gas pipe was performed by PG&E. A 4-inch diameter SDR 35 sewer lateral pipe was installed from the remediation compound to the offsite sewer main for discharge of treated groundwater. The sewer lateral connects to the main sanitary sewer pipe with a 4-inch wye connection.

***Equipment Installation:*** All equipment, except the submersible groundwater pumps installed in the DPE wells, is located within the remediation compound. Groundwater is extracted from the DPE wells using QED Environmental Systems submersible pneumatic pumps. The tops of each pump were set at depths of approximately 24 fbg. Soil vapor and groundwater are extracted from the DPE wells and treated using separate subsystems. The two subsystems are described in Section 3.0 below.

***Operational Permits:*** The DPE system operates under the terms of sewer discharge and air discharge permits. Treated groundwater is discharged to comply with a Special Wastewater Discharge Permit from the Oro Loma Sanitary District (OLSD). Treated soil vapors are discharged to comply with a Permit to Operate (PTO) from the Bay Area Air Quality Management District (BAAQMD). The OLSD permit was first approved on July 3, 2007, renewed in July 2008, and will expire on July 16, 2010. The BAAQMD PTO was first issued on June 14, 2007. The PTO is valid for one-year periods and has been renewed annually since startup of the system. The current OLSD and BAAQMD permits are included in Appendix D.

## 3.0 EQUIPMENT DESCRIPTION

Soil vapor is extracted from the DPE wells using a system provided by Bisco Industries, Inc. (Bisco). The Bisco system consists of a 300-cubic feet per minute (cfm) thermal/catalytic oxidizer (TCAT) and a rotary claw blower with a 20-horsepower (hp) motor. The Bisco system is contained within a 25-foot wide by 25-foot long container located in the remediation compound. The pump and motor package is capable of an air intake of 250 standard cubic feet per minute (scfm) at a vacuum of approximately 20 inches of mercury. Extracted soil vapors are conveyed from the DPE wells through the underground SVE piping to a common header inside the compound and then to the Bisco system. The system also contains the following components: an air/liquid separator with a transfer pump, an electrical control panel, and a heat exchanger. Extracted soil vapor passes through the air/liquid separator, which removes entrained water from the soil vapor stream. Dilution air is added, if necessary, and the soil vapor stream passes through the heat exchanger where it is heated by the oxidizer exhaust. The pre-heated vapor stream then enters the oxidizer chamber. Natural gas is combusted to generate sufficient heat (minimum 1400 degrees Fahrenheit) to oxidize the hydrocarbons in the soil vapor stream. The byproducts of thermal oxidation of hydrocarbons are carbon dioxide and water vapors. The destruction efficiency of hydrocarbons for the standard TCAT is 99 percent or greater.

Extracted groundwater is pumped, using the pneumatic pumps, from the DPE wells to a 300-gallon transfer tank located in the remediation compound. A 15-hp air compressor located in the treatment compound provides the compressed air that drives the pneumatic pumps. Any entrained water separated from the soil vapor stream is also pumped from the air/liquid separator to the transfer tank. A set of electric liquid-level switches in the transfer tank controls transfer pump operation and shuts off the DPE system if the tank becomes full. Groundwater is pumped from the transfer tank through two sediment filters and then through three liquid-phase granular-activated carbon (GAC) vessels that are plumbed in series. The first two vessels each contain 1,000 pounds of GAC and the third vessel contains 500 pounds of GAC. The GAC removes hydrocarbons dissolved in the extracted groundwater prior to discharge of the water to the sanitary sewer. Two GAC vessels were installed as part of the original design; however, a third vessel was later added to ensure sufficient groundwater treatment to comply with the sanitary sewer discharge permit. The events related to the addition of the third GAC vessel and the terms of the sanitary sewer permit are described below. Flow meters, pressure gauges, and sample ports are installed to control and monitor system operations.

Electrical control panels with programmable logic controllers provide control of the groundwater and soil vapor subsystems. A telemetry unit provided by Skymetry is connected to the control panels and remotely notifies CRA in the event either or both of the subsystems shut down for any reason. Two separate hour meters track uptime for the two subsystems.

## 4.0 SYSTEM STARTUP

CRA began startup testing of the DPE system on June 22, 2007. All startup testing and monitoring was conducted in accordance with the conditions of the BAAQMD and OLSD permits. The vapor extraction and treatment equipment was tested using ambient air and treated water was held in a temporary storage tank for later disposal offsite. Samples of the treated groundwater were collected to verify compliance with the OLSD permit and the groundwater subsystem was shut down pending those results. Groundwater samples were collected from sample ports located between the silt filters and the first carbon vessel (influent), between the carbon vessels (midfluent), and after the carbon vessels (effluent) at the initial startup. The samples were submitted to a California certified laboratory and analyzed for:

- Total Petroleum Hydrocarbons as gasoline (TPHg) by EPA Method 8015M
- Benzene, toluene, ethylbenzene, total xylenes (BTEX) by EPA Method 8021
- Methyl tertiary butyl ether (MTBE) by EPA Method 8260

CRA first extracted soil vapor on June 25, 2007 to collect samples to verify compliance with the BAAQMD permit. Again, the system was shut down pending receipt of results. Influent (pre-dilution and post-dilution) and effluent vapor samples were collected at the initial startup. The samples were submitted to a California certified laboratory and analyzed for:

- TPHg, BTEX and MTBE by EPA Method 8260

The results of the startup sampling verified compliance with both permits. On July 1, 2007, CRA initiated full-time operation of the system.

## 5.0 SYSTEM OPERATION

CRA operated the DPE system from July 17, 2007 through December 22, 2009. CRA field personnel visited the site weekly to maintain the system equipment, collect operational data, and optimize the system operation. Influent and effluent soil vapor samples were collected at least monthly while the system operated to verify permit compliance and to calculate hydrocarbon mass removal. Field vapor measurements were also collected from the influent, the diluted influent, and the effluent streams using a Horiba organic vapor analyzer (OVA). Field vapor concentrations were also routinely collected from individual extraction wells for the purpose of system optimization. Casing vacuum in the extraction wells, line vacuums and the system vacuum were measured using a hand-held digital manometer. Vapor flow rates were measured with a hand-held Veloci-calc thermo anemometer. The oxidizer temperature was recorded from a digital display mounted on the SVE unit.

Groundwater samples were collected monthly to verify permit compliance and to calculate hydrocarbon mass removal. Samples were collected at the following locations: between the silt filters and first carbon vessel, between each carbon vessel, and after the last carbon vessel. Silt filter pressure and carbon vessel pressures were monitored to determine when the silt filter bags or carbon needed to be replaced.

The DPE system typically ran uninterrupted with the exception of periodic shutdowns related to equipment shutdowns and failures. The only period of extended non-operation was from March 3, 2008 through August 8, 2008. The system was shut down when benzene concentrations were detected in the groundwater system effluent sample. With the approval of the OLSD, CRA replaced the two original 1,000-pound GAC vessels and installed a third 500-pound GAC vessel to ensure compliance with the wastewater discharge permit. The system was also shut down between July 22, 2009 and September 2, 2009 to monitor for rebound after the TPHg mass removal for the system dropped below 5 pounds per day (ppd).

### 5.1 DPE SYSTEM PERFORMANCE AND DATA COLLECTION

***Soil Vapor Extraction and Treatment System:*** TPHg concentrations in soil vapor samples collected from the system influent were between 2,000 parts per million by volume (ppmv) and 11,000 ppmv between the July 2007 startup and September 2008. Influent flow rates measured during this time period ranged from 9 to 90 scfm. TPHg mass removal rates ranged from 4.5 ppd to 79.5 ppd during this period. The highest mass removal rate of 79.5 ppd was calculated based on data collected in September 2008.

Mass removal rates generally declined over time until the system was shut down for rebounding testing in July 2009. After the system was restarted in September 2009, mass removal rates as high as 24.5 ppd (October 2009) were achieved. However, by November 2009, TPHg mass removal rates had again decreased to below 5 ppd. The system was again shut down on December 22, 2009 and remains off. Tabulated soil vapor operational data, laboratory analytical data, and mass removal calculations are included in Tables 1 and 2. Vapor-phase mass removal data is also represented graphically on Figure 3.

The DPE system initially extracted soil vapor and groundwater from DPE wells DVE-9, DVE-12, DVE-20, MW-5, MW-11 and MW-12. However, based on low hydrocarbon concentration measurements during the course of operation, some of these wells were shut off either periodically to optimize system operation or permanently. Individual well concentration and operational data measurements are presented in Table 3.

Starting in September 2008, CRA periodically collected influent vapor samples to analyze for methane because hydrocarbon concentrations measured with the OVA were typically much higher than laboratory measurements of TPHg. Laboratory analysis confirmed that these increased field readings were related to methane vapors. Methane concentrations decreased with continuous operation of the DPE system and did not adversely affect system performance. Methane sampling results are summarized in Table 4.

As of December 22, 2009, approximately 6,401.3 pounds TPHg and 3.2 pounds benzene had been removed by the system in vapor phase.

***Groundwater Extraction and Treatment System:*** During periods of operation, the overall groundwater extraction rate averaged between 1.0 and 3.5 gallons per minute. Influent groundwater concentrations peaked on November 21, 2008 at 87,000 micrograms per liter (µg/L) TPHg and 2,700 µg/L benzene. The final influent groundwater concentrations were 17,000 µg/L TPHg and 420 ug/L benzene. MTBE concentrations generally decreased throughout system operation. The initial MTBE influent concentration was 92 µg/L on June 25, 2007 and the last influent concentration was 16 µg/L on December 1, 2009.

At the time of system shut down on December 22, 2009, the system had removed an estimated 363.6 pounds of TPHg, 12.2 pounds of benzene, and 0.4 pounds of MTBE in the dissolved phase. The total volume of water pumped was 1,293,003 gallons. Groundwater extraction operational data, laboratory analytical data and mass removal

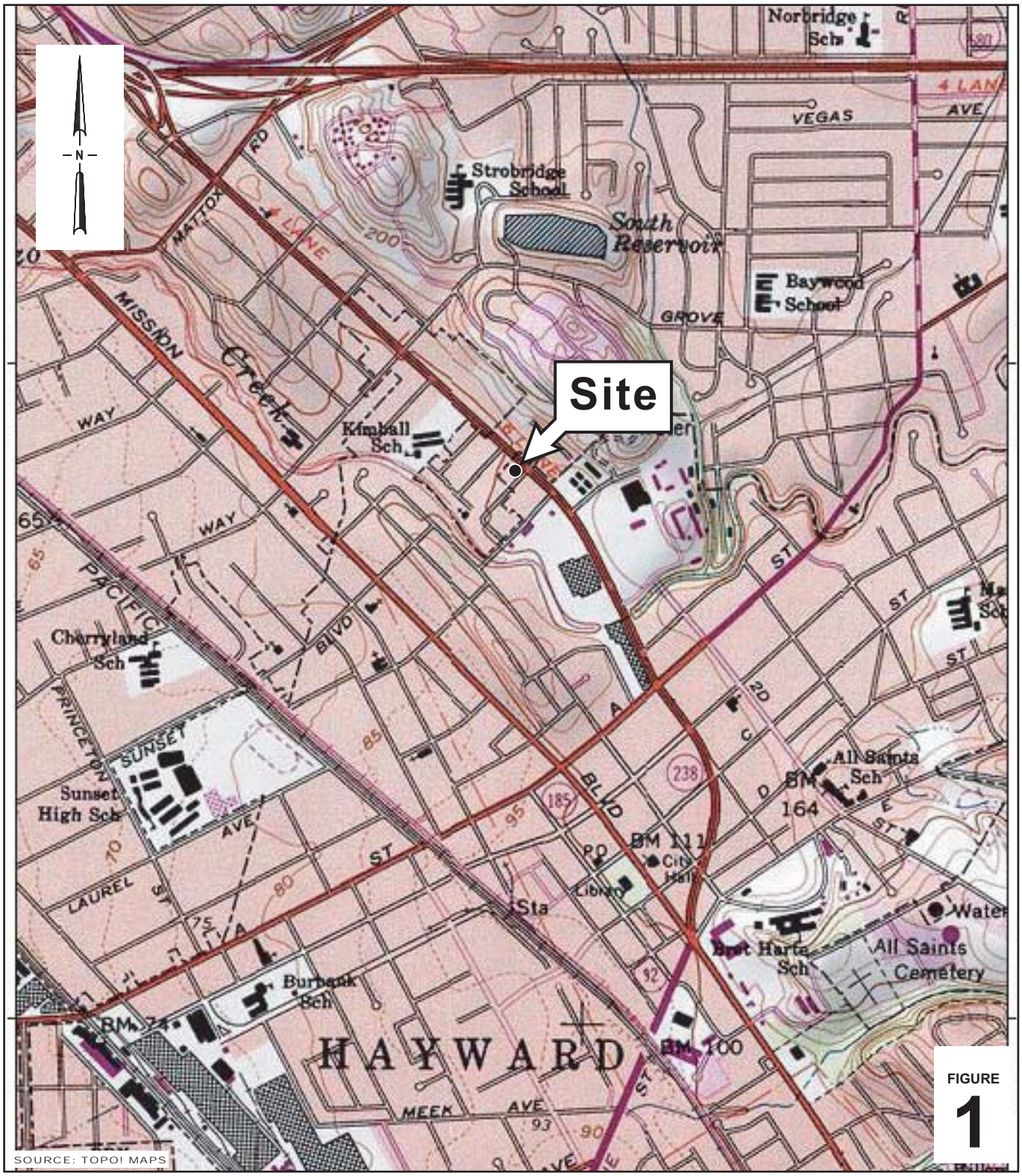
calculations are presented in Tables 5 and 6. The mass removal in dissolved phase is represented graphically on Figure 4.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

CRA operated the DPE system until the mass removal rates had decreased to a point of diminishing returns (< 5 ppd). The system was shut down on December 22, 2009 and remains off as of the date of this report. CRA will continue to monitor dissolved phase hydrocarbon concentrations at the site to evaluate potential rebound and to determine whether further DPE system operation is warranted. CRA proposes to monitor groundwater concentrations for the first two quarters of 2010 before assessing whether the system should be restarted. CRA will submit an evaluation of the groundwater data to ACEH in the third quarter of 2010 with recommendations for further system operation and/or groundwater concentration monitoring.

FIGURES

11/11/08




SOURCE: TOPO! MAPS

FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

I:\9-0260 HAYWARD\FIGURES\VICINITY-MAP.AI

**Former Chevron Station 9-0260**

21995 Foothill Boulevard

Hayward, California

CONESTOGA-ROVERS & ASSOCIATES

**Vicinity Map**

MW-10

TREATMENT SYSTEM ENCLOSURE

*FOOTHILL BOULEVARD*

MW-6

COMMERCIAL

FORMER CHEVRON SERVICE STATION 9-0260

former dispenser islands

former USTs

MW-7

MW-4

DVE-20

MW-19

DVE-9

DVE-12

MW-5

MW-11

MW-12

MW-9

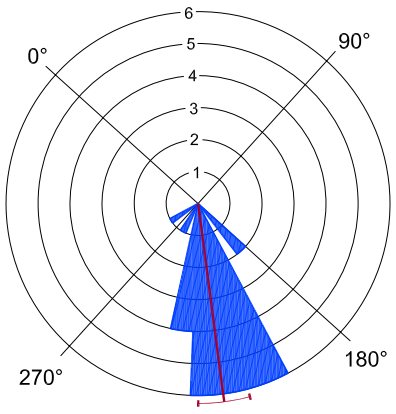
FORMER STANDARD SERVICE STATION NO.1230

MW-8

0 20 60ft

MW-13

*OAKVIEW AVENUE*




HISTORIC GROUNDWATER FLOW DIRECTION
1999 THROUGH 2009

RESIDENTIAL

MW-18

LEGEND

MW-1 MONITORING WELL LOCATION

MW-5 MONITORING WELL USED FOR DPE

DVE-12 DVE WELL CONVERTED TO DPE WELL

*REX ROAD*

MW-15

MW-14

MW-16

*RIO VISTA STREET*

*RIO VISTA STREET*

*ACCESS ROAD*

P-1

*SAN LORENZO CREEK*

Figure 2

EXPANDED SITE PLAN
FORMER CHEVRON SERVICE STATION 9-0260
21995 FOOTHILL BOULEVARD
*Hayward, California*

311915-2010-EM005

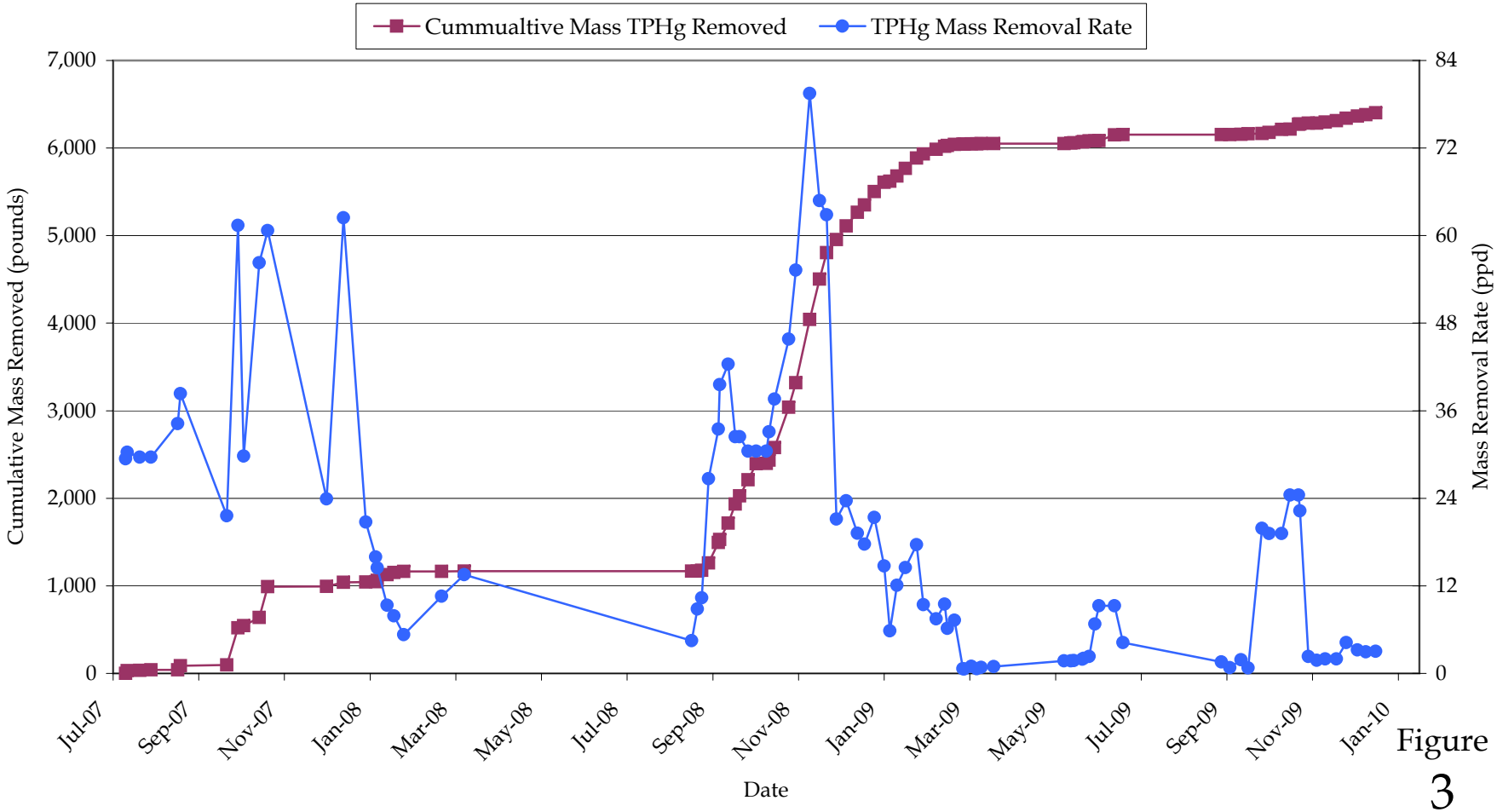



Figure 3

Former Chevron Service Station
21995 Foothill Boulevard
Hayward, CA

CONESTOGA-ROVERS & ASSOCIATES

Cumulative Vapor Phase TPHg Mass Removal and Mass Removal Rate versus Time

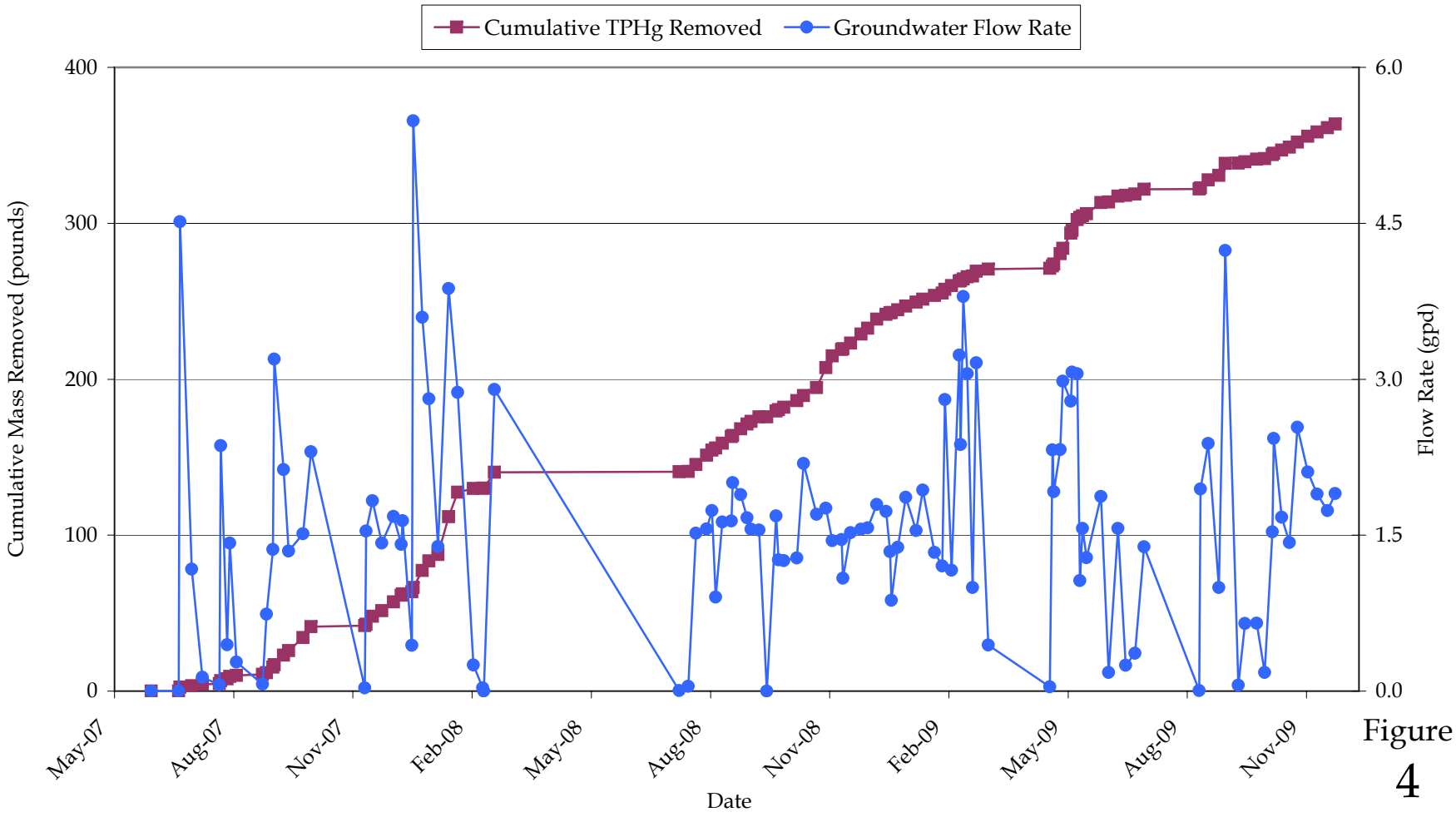



Figure 4

Former Chevron Service Station
21995 Foothill Boulevard
Hayward, CA

CONESTOGA-ROVERS & ASSOCIATES

Cumulative Dissolved Phase TPHg Mass Removed and Flow Rate versus Time

TABLES

**Table 1**
**Dual Phase Extraction System**
**Operational Data**
**Former Chevron Station # 9-0260**
**21995 Foothill Boulevard, Hayward, California**

| Date (mm/dd/yy) | Hour Meter (hours) | System Uptime (percent) | Period Operation (hours) | Operating Pressure (in Hg) | Operating Pressure (in H2O) | INF 2 pressure (in H2O) | INF 2 temp (°F) | Total Well Flow (acfm) | Total Well Flow (scfm) | INF 2 Flow Rate (acfm) | INF 2 Flow Rate (scfm) | Effluent Flow Rate (scfm) | Pre-Cat Temp (°F) | Post-Cat Temp (°F) | Influent1 PID (ppmv) | Influent2 PID (ppmv) | Effluent PID (ppmv) | Destruction Efficiency (%) | Destruction Efficiency Permit Limitation | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **07/16/07** | 0.0 | 0.0% | 0.0 | 13.0 | 176.7 | NM | NM | 118.4 | 67 | 122 | 122 | 122 | 1486 | 1476 | 17,000 | 1,670 | 2 | 99.9% | waived | |
| **07/17/07** | 25 | 100.0% | 25.0 | 17 | 224.3 | NM | NM | NM | NM | 126 | 126 | 126 | 1486 | 1476 | 13,500 | 1,415 | 3 | 99.8% | waived | |
| **07/17/07** | 2 | NM | 2.0 | 15 | 197.1 | NM | NM | NM | NM | 162 | 162 | 162 | 1458 | 1453 | 12,250 | 1,385 | 3 | 99.8% | waived | |
| **07/26/07** | 5 | 1.4% | 3.0 | 16 | 217.5 | NM | NM | 85.3 | 40 | 120 | 120 | 120 | 1489 | 1477 | 20,000 | 2,240 | 3 | 99.9% | waived | |
| **08/03/07** | 8 | 1.6% | 3.0 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | waived | |
| **08/16/07** | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | waived | |
| **08/17/07** | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | waived | |
| **08/22/07** | 9.4 | 0.3% | 1.4 | 15 | 204 | NM | NM | 90.0 | 45 | 124 | 124 | 124 | 1459 | 1478 | 35,440 | 3,150 | 0 | 100.0% | waived | |
| **08/24/07** | 38.3 | 60.2% | 28.9 | 12 | 163 | NM | NM | NM | NM | 139 | 139 | 139 | 1488 | 1497 | 10,000 | 1,995 | 6 | 99.7% | waived | |
| **09/26/07** | 49 | 1.4% | 10.7 | 5 | 68 | NM | NM | NM | NM | 198 | 198 | 198 | 1464 | 1457 | 10,000 | 2,170 | 1 | 100.0% | waived | |
| **09/27/07** | 78 | 100.0% | 29.0 | 5 | 68 | NM | NM | NM | NM | 230 | 230 | 230 | 1485 | 1474 | NM | NM | NM | NM | waived | |
| **10/04/07** | 243 | 98.2% | 165.0 | 5 | 68 | 7.0 | 182.0 | 108.0 | 90 | 266 | 223 | 223 | 1462 | 1452 | 75,000 | 2,550 | 2 | 99.9% | waived | |
| **10/08/07** | 263 | 20.8% | 20.0 | 5 | 68 | 6.8 | 177.0 | 35.7 | 30 | 128 | 108 | 108 | 1452 | 1444 | 6,800 | 2,350 | 2 | 99.9% | waived | |
| **10/19/07** | 302.8 | 15.1% | 39.8 | 9 | 122 | NM | NM | NM | NM | 204 | 204 | 204 | 1431 | 1420 | > 10000 | 3,520 | 4 | 99.9% | waived | |
| **10/25/07** | 443 | 97.4% | 140.2 | 7 | 95 | NM | NM | 20.0 | 15 | 220 | 220 | 220 | 1409 | 1413 | > 10000 | 1,850 | 0 | 100.0% | waived | |
| **12/06/07** | 446 | 0.3% | 3.0 | 9 | 122 | 0.39 | 172 | NM | NM | 198 | 166 | 166 | 1401 | 1400 | > 10000 | 1,378 | 0 | 100.0% | waived | 1 |
| **12/11/07** | 460 | 11.7% | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | waived | |
| **12/18/07** | 464 | 2.4% | 18.0 | 10 | 136 | 2 | 142 | 177 | 118 | 184 | 162 | 162 | 1444 | 1442 | > 30000 | 2,000 | 2 | 99.9% | waived | |
| **12/27/07** | 464 | 0.0% | 0.0 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | waived | |
| **01/03/08** | 464.5 | 0.3% | 0.5 | 5.86 | 80 | 0.8 | 169 | 19.2 | 15 | 240 | 202 | 202 | 1494 | 1480 | 7000 | 560 | 0 | 100.0% | waived | |
| **01/10/08** | 469 | 2.7% | 4.5 | 10 | 136 | 0.72 | 186 | 84 | 56 | 190 | 156 | 156 | 1481 | 1462 | 21000 | 4000 | 1 | 100.0% | waived | |
| **01/11/08** | 497 | 100.0% | 28.0 | 10 | 136 | 0.72 | 186 | NM | NM | 172 | 141 | 141 | 1470 | 1460 | > 10000 | 135 | 0 | 100.0% | waived | |
| **01/18/08** | 662 | 98.2% | 165.0 | 12.5 | 170 | 4.7 | 186.3 | 84 | 49 | 160 | 132 | 132 | 1470 | 1458 | 3500 | 360 | 3 | 99.2% | waived | |
| **01/23/08** | 740 | 65.0% | 78.0 | 14.1 | 191.3 | 0.25 | 174.7 | 52 | 28 | 134 | 112 | 112 | 1477 | 1465 | 3,200 | 705 | 1 | 99.9% | waived | |
| **01/30/08** | 798 | 34.5% | 58.0 | 16.6 | 225.7 | 0.16 | 185 | 46 | 20 | 92 | 75 | 75 | 1482 | 1463 | 1,350 | 210 | 0 | 100.0% | waived | |
| **02/07/08** | 915 | 60.9% | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | waived | |
| **02/26/08** | 916 | 0.2% | 1.0 | 8.5 | 115.6 | 6.1 | 178 | 81.5 | 58 | 231 | 194 | 194 | 1403 | 1382 | 2,300 | 497 | 1 | 99.8% | waived | |
| **03/13/08** | 919 | 0.8% | 3.0 | 15.0 | 203.9 | 4.16 | 92 | NM | NM | 112 | 108 | 108 | 1578 | 1550 | 8,410 | 390 | 0 | 100.0% | waived | |
| **08/22/08** | 920.8 | 0.0% | 1.8 | 7.0 | 95.2 | 6.00 | 210 | 26 | 20 | 80 | 48 | 48 | 1560 | 1543 | > 10000 | 1,386 | 0 | 100.0% | waived | |
| **08/27/08** | 927 | 5.2% | 6.2 | 3.5 | 47.6 | 7.00 | 108 | 17 | 15 | 140 | 95 | 95 | 1562 | 1559 | > 10000 | 1,500 | 0 | 100.0% | waived | |
| **08/29/08** | 946 | 39.6% | 19.0 | 5.0 | 68.0 | 7.00 | 95 | 11 | 9 | 115 | 111 | 111 | 1450 | 1453 | > 10000 | 2,170 | 2 | 99.9% | waived | |
| **09/03/08** | 1022 | 63.3% | 76.0 | 3.9 | 53.0 | 0.37 | 220 | 18 | 16 | 107 | 83 | 83 | 1571 | 1553 | 47,000 | 2,300 | 0 | 100.0% | waived | |
| **09/10/08** | 1188 | 98.8% | 166.0 | 4.1 | 55.7 | 7.00 | 240 | 18 | 16 | 160 | 123 | 123 | 1564 | 1550 | 1,532 | 409 | 7 | 98.3% | waived | |
| **09/11/08** | 1210 | 91.7% | 22.0 | 3.4 | 46.5 | 0.64 | 236 | 30 | 27 | 191 | 145 | 145 | 1564 | 1549 | 51,000 | 2,620 | 0 | 100.0% | waived | |
| **09/17/08** | 1315 | 72.9% | 105.0 | 3.4 | 46.0 | 0.64 | 238 | 27 | 24 | 205 | 155 | 155 | 1564 | 1547 | 10,000 | 4,300 | 0 | 100.0% | waived | |
| **09/22/08** | 1477 | 100.0% | 162.0 | 3.7 | 49.7 | 0.54 | 251 | 30 | 26 | 160 | 119 | 119 | 1569 | 1553 | 26,000 | 2,000 | 0 | 100.0% | waived | |
| **09/25/08** | 1546 | 95.8% | 69.0 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | |
| **10/01/08** | 1419 | 100.7% | 145.0 | 4.3 | 58.5 | 8.30 | 250 | 42 | 36 | 146 | 110 | 110 | 1571 | 1553 | 20,000 | 1,780 | 4 | 99.8% | waived | |
| **10/07/08** | 1486 | 46.5% | 67.0 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | |
| **10/14/08** | 1487 | 0.6% | 1.0 | 4.7 | 63.2 | 7.10 | 246 | NM | NM | 145 | 110 | 110 | 1552 | 1534 | 23,000 | 2,200 | 2 | 99.9% | waived | |
| **10/16/08** | 1514 | 56.3% | 27.0 | 5.0 | 68.0 | 0.49 | 205 | 25 | 21 | 151 | 120 | 120 | 1500 | 1482 | 37,000 | 1,300 | 0 | 100.0% | waived | |
| **10/20/08** | 1607 | 96.9% | 93.0 | 4.0 | 54.4 | 0.55 | 210 | 22.8 | 20 | 173 | 136 | 136 | 1479 | 1467 | 8,485 | 1,122 | 0 | 100.0% | waived | |
| **10/30/08** | 2123 | 100.0% | 240.0 | 10.3 | 140.0 | 0.75 | 225 | 56 | 37 | 215 | 166 | 166 | 1568 | 1563 | 19,800 | 2,800 | 0 | 100.0% | waived | 2 |
| **11/04/08** | 2246 | 102.5% | 123.0 | 11.0 | 149.5 | 11.20 | 208.4 | 128 | 81 | 152 | 123 | 123 | 1564 | 1551 | 20,950 | 2,840 | 0 | 100.0% | waived | |
| **11/14/08** | 2464 | 90.8% | 218.0 | 10.0 | 136.0 | NM | NM | NM | NM | 218 | 177 | 177 | NM | NM | NM | NM | NM | NM | NM | |
| **11/21/08** | 2634 | 101.2% | 170.0 | 9.9 | 134.5 | 11.10 | 201.6 | 91 | 61 | 176 | 144 | 144 | 1483 | 1470 | 12,000 | 1,746 | 1 | 99.9% | waived | |
| **11/26/08** | 2750 | 96.7% | 116.0 | 9.7 | 132.1 | 10.30 | 221 | 82 | 55 | 176 | 140 | 140 | 1465 | 1453 | 10,000 | 1,520 | 0 | 100.0% | waived | |
| **12/03/08** | 2920 | 101.2% | 170.0 | 12.0 | 163.1 | 9.10 | 194 | 81 | 49 | 148 | 122 | 122 | 1468 | 1455 | 7,850 | 1,333 | 0 | 100.0% | waived | |
| **12/10/08** | 3077 | 93.5% | 157.0 | 13.5 | 183.5 | 0.58 | 225 | 61 | 33 | 177 | 137 | 137 | 1535 | 1520 | 6,650 | 1,750 | 0 | 100.0% | waived | |
| **12/18/08** | 3269 | 100.0% | 192.0 | 12.5 | 170.5 | 8.30 | 220 | 57 | 33 | 140 | 111 | 111 | 1537 | 1523 | 7,350 | 1,578 | 0 | 100.0% | waived | |
| **12/23/08** | 3385 | 96.7% | 116.0 | 12.6 | 170.8 | 7.70 | 272 | 152 | 88 | 139 | 102 | 102 | 1541 | 1528 | 7,060 | 1,520 | 0 | 100.0% | waived | |
| **12/30/08** | 3556 | 101.8% | 171.0 | 15.0 | 203.9 | 7.00 | 205.3 | 54.2 | 27 | 153 | 123 | 123 | 1516 | 1503 | 4,810 | 1,052 | 0 | 100.0% | waived | |
| **01/06/09** | 3727 | 101.8% | 171.0 | 14.0 | 191.0 | 6.70 | 235 | 51 | 27 | 135 | 104 | 104 | 1526 | 1511 | 3,700 | 775 | 0 | 100.0% | waived | |
| **01/10/09** | 3778 | 53.1% | 51.0 | 14.0 | 190.3 | 1.00 | 90 | 43 | 23 | 43 | 41 | 41 | 1521 | 1498 | 4,400 | 1,100 | 0 | 100.0% | waived | |

**Table 1**
**Dual Phase Extraction System**
**Operational Data**
**Former Chevron Station # 9-0260**
**21995 Foothill Boulevard, Hayward, California**

| Date (mm/dd/yy) | Hour Meter (hours) | System Uptime (percent) | Period Operation (hours) | Operating Pressure (in Hg) | Operating Pressure (in H2O) | INF 2 pressure (in H2O) | INF 2 temp (°F) | Total Well Flow (acfm) | Total Well Flow (scfm) | INF 2 Flow Rate (acfm) | INF 2 Flow Rate (scfm) | Effluent Flow Rate (scfm) | Pre-Cat Temp (°F) | Post-Cat Temp (°F) | Influent1 PID (ppmv) | Influent2 PID (ppmv) | Effluent PID (ppmv) | Destruction Efficiency (%) | Destruction Efficiency Permit Limitation | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **01/15/09** | 3898 | 100.0% | 120.0 | 8.7 | 118.0 | 6.00 | 205 | 35 | 25 | 106 | 85 | 85 | 1565 | 1540 | 3,350 | 525 | 0 | 100.0% | waived | |
| **01/21/09** | 4041 | 99.3% | 143.0 | >14.7 | >200 | 5.40 | 238 | 58.5 | 30 | 134 | 103 | 103 | 1565 | 1550 | 2,950 | 775 | 0 | 100.0% | waived | |
| **01/29/09** | 4203 | 84.4% | 162.0 | 15.9 | 216.8 | 6.30 | 90 | 44.4 | 21 | 128 | 125 | 125 | 1565 | 1548 | 2,460 | 718 | 7 | 99.0% | waived | |
| **02/03/09** | 4324 | 100.8% | 121.0 | 14.4 | 195.8 | 7.10 | 250 | 48.2 | 25 | 134 | 101 | 101 | 1560 | 1546 | 2,870 | 656 | 1 | 99.8% | waived | |
| **02/12/09** | 4497 | 80.1% | 173.0 | 14.4 | 195.8 | 5.50 | 232 | 44.5 | 23 | 104 | 80 | 80 | 1522 | 1505 | 2,650 | 500 | 0 | 100.0% | waived | |
| **02/18/09** | 4577 | 55.6% | 80.0 | NM | NM | 1.00 | 110 | NM | NM | 110 | 102 | 102 | 1418 | 1410 | NM | NM | NM | NM | NM | |
| **02/20/09** | 4613 | 75.0% | 36.0 | 18.0 | 244.7 | 4.60 | 251 | 30.5 | 12 | 89 | 66 | 66 | 1567 | 1550 | 1,312 | 320 | 0 | 100.0% | waived | |
| **02/25/09** | 4653 | 33.3% | 40.0 | >14.7 | >200 | 6.50 | 240 | 22 | 11 | 102 | 78 | 78 | 1549 | 1535 | 710 | 75 | 0 | 100.0% | waived | |
| **03/03/09** | 4793 | 97.2% | 140.0 | 14.5 | 197.1 | 7.20 | 221 | 72 | 37 | 158 | 125 | 125 | 1408 | 1399 | 499 | 75 | 0 | 100.0% | waived | |
| **03/04/09** | 4806 | 54.2% | 13.0 | NM | NM | NM | NM | NM | NM | 152 | 120 | 120 | 1483 | 1470 | NM | NM | NM | NM | NM | |
| **03/09/09** | 4920 | 75.0% | 90.0 | NM | NM | NM | NM | NM | NM | 237 | 187 | 187 | NM | NM | NM | NM | NM | NM | NM | |
| **03/13/09** | 4688 | 22.9% | 22.0 | 10.0 | 136.0 | 8.10 | 230 | 84 | 56 | 157 | 123 | 123 | 1426 | 1410 | 540 | 180 | 0 | 100.0% | waived | 2 |
| **03/16/09** | 4762 | 102.8% | 74.0 | 15.2 | 206.2 | 5.50 | 230 | 44 | 22 | 203 | 157 | 157 | 1564 | 1549 | 624 | 189 | 1 | 99.5% | waived | |
| **03/25/09** | 5063 | 2.3% | 5.0 | 10.0 | 136.0 | NM | 110 | NM | NM | 191 | 179 | 179 | 1424 | 1407 | NM | NM | NM | NM | NM | 2 |
| **05/14/09** | 5074 | 0.9% | 11.0 | 22.0 | 299.1 | 9.90 | 250 | 31 | 8 | 70 | 53 | 53 | 1426 | 1410 | 902 | 800 | 4 | 99.5% | waived | |
| **05/19/09** | 5128 | 45.0% | 54.0 | NM | NM | NM | NM | NM | NM | 92.3 | NM | NM | NM | NM | NM | NM | NM | NM | NM | |
| **05/21/09** | 4902 | 100.0% | 48.0 | 20.0 | 271.9 | 8.0 | 260.0 | 53.5 | 18 | 72.5 | 54 | 54 | 1564 | 1547 | 958 | 520 | 0 | 100.0% | waived | |
| **05/27/09** | 5050 | 102.8% | 148.0 | 20.5 | 278.7 | 5.0 | 263.0 | 56.0 | 18 | 81.4 | 60 | 60 | 1568 | 1551 | 2372 | 1358 | 0 | 100.0% | waived | |
| **05/28/09** | 5345 | 100.0% | 24.0 | 20.0 | 271.9 | 3.0 | 125.0 | 68.0 | 23 | 70 | 64 | 64 | 1473 | 1458 | 1106 | 758 | 0 | 100.0% | waived | 2 |
| **06/01/09** | 5436 | 94.8% | 91.0 | 19.0 | 258.3 | NM | NM | NM | NM | 80 | 73 | 73 | 1433 | 1419 | NM | 1100 | 0 | 100.0% | waived | |
| **06/05/09** | 5439 | 3.1% | 3.0 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | 680 | NM | 25 | 96.3% | waived | |
| **06/08/09** | 5442 | 4.2% | 3.0 | 18.0 | 244.7 | 5.0 | 255.0 | 87.0 | 35 | 92 | 69 | 69 | 1428 | 1415 | 2070 | 924 | 1 | 99.9% | waived | |
| **06/19/09** | 5617 | 66.3% | 175.0 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | 680 | NM | 25 | 96.3% | waived | 2 |
| **06/25/09** | 5344 | 3.5% | 5.0 | 20.0 | 271.9 | 4.1 | 260.0 | 50.4 | 17 | 80.5 | 60 | 60 | 1446 | 1429 | 1000 | 640 | 1 | 99.9% | waived | 2 |
| **09/03/09** | 5344 | 0.0% | 0.0 | 15.0 | 203.9 | 4.0 | 130.0 | 55.0 | 27 | 36 | 33 | 33 | 1470 | 1460 | 240 | 68 | 1 | 99.6% | waived | |
| **09/09/09** | 5842 | 0.0% | 0.0 | 19.0 | 258.3 | 2.3 | 128.0 | 78.0 | 28 | 18 | 16 | 16 | 1450 | 1445 | 167 | 159 | 2 | 98.8% | waived | |
| **09/17/09** | 5917 | 39.1% | 75.0 | 19.0 | 258.3 | 2.4 | 260.0 | 80.0 | 29 | 53 | 39 | 39 | 1454 | 1434 | 130 | 5 | 0 | 100.0% | waived | |
| **09/22/09** | 6037 | 100.0% | 120.0 | 17.5 | 237.9 | 2.9 | 130.0 | 85.0 | 35 | 17 | 15 | 15 | 1440 | 1424 | 14 | 13 | 0.4 | 97.1% | waived | |
| **10/02/09** | 6041 | 1.7% | 4.0 | 19.0 | 258.3 | 4.8 | 253.0 | 104.0 | 38 | 98.5 | 74 | 74 | 1450 | 1428 | 824 | 808 | 1 | 99.9% | waived | |
| **10/07/09** | 6059 | 15.0% | 18.0 | 18.9 | 256.3 | 4.9 | 258.0 | 108.0 | 40 | 95.5 | 71 | 71 | 1447 | 1429 | 408 | 465 | 1 | 99.8% | waived | |
| **10/16/09** | 6099 | 18.5% | 40.0 | 0.0 | 0.0 | 0.0 | NA | 0.0 | 0 | 0 | 0 | 0 | NA | NA | NA | NA | NA | NA | NA | |
| **10/22/09** | 6102 | 2.1% | 3.0 | 17.4 | 236.1 | 6.1 | 237.0 | 50.2 | 21 | 118 | 91 | 91 | 1453 | 1436 | 202 | 240 | 0 | 100.0% | waived | |
| **10/28/09** | 6159 | 39.6% | 57.0 | 0.0 | 0.0 | 0.0 | NA | 0.0 | 0 | 0 | 0 | 0 | NA | NA | NA | NA | NA | NA | NA | |
| **10/29/09** | 6162 | 12.5% | 3.0 | 20.0 | 271.9 | 4.6 | 115.0 | 50.0 | 17 | 89 | 83 | 83 | 1445 | 1440 | 541 | 173 | 0 | 100.0% | waived | |
| **11/04/09** | 6247 | 59.0% | 85.0 | 0.0 | 0.0 | 0.0 | NA | 0.0 | 0 | 0 | 0 | 0 | NA | NA | NA | NA | NA | NA | NA | |
| **11/10/09** | 6247 | 0.0% | 0.0 | 10.0 | 136.0 | 3.5 | 115.0 | 39.0 | 26 | 68 | 63 | 63 | 1453 | 1432 | 653 | 201 | 0 | 100.0% | waived | |
| **11/16/09** | 6390 | 99.3% | 143.0 | 12.0 | 163.1 | 4.5 | 250.0 | 82.5 | 49 | 92.5 | 70 | 70 | 1450 | 1434 | 647 | 322 | 0 | 100.0% | waived | |
| **11/24/09** | 6587 | 102.6% | 197.0 | 13.0 | 176.7 | NM | 120.0 | NM | NM | NM | NM | NM | 1452 | 1451 | NM | NM | NM | NM | NM | |
| **12/01/09** | 6755 | 100.0% | 168.0 | 13.0 | 176.7 | 4.5 | 119.0 | 59.0 | 33 | 79 | 73 | 73 | 1455 | 1433 | 825 | 371 | 0 | 100.0% | waived | |
| **12/09/09** | 6944 | 98.4% | 189.0 | 18.0 | 244.7 | 2.3 | 110.0 | 65.0 | 26 | 60 | 56 | 56 | 1437 | 1431 | 406 | 325 | 0 | 100.0% | waived | |
| **12/15/09** | 7061 | 81.3% | 117.0 | 1.8 | 25.0 | 3.2 | 192.4 | 35.5 | 33 | 63 | 51 | 51 | 1446 | 1432 | 1298 | 114 | 0 | 100.0% | waived | 3 |
| **12/22/09** | 7228 | 99.4% | 167.0 | 5.0 | 68.0 | 2.9 | 96.0 | 40.0 | 33 | 55 | 53 | 53 | 1455 | 1430 | 150 | 35 | 0 | 100.0% | waived | |

**Table 1**
**Dual Phase Extraction System**
**Operational Data**
**Former Chevron Station # 9-0260**
**21995 Foothill Boulevard, Hayward, California**

| Date (mm/dd/yy) | Hour Meter (hours) | System Uptime (percent) | Period Operation (hours) | Operating Pressure (in Hg) | Operating Pressure (in H2O) | INF 2 pressure (in H2O) | INF 2 temp ($^{o}$F) | Total Well Flow (acfm) | Total Well Flow (scfm) | INF 2 Flow Rate (acfm) | INF 2 Flow Rate (scfm) | Effluent Flow Rate (scfm) | Pre-Cat Temp ($^{o}$F) | Post-Cat Temp ($^{o}$F) | Influent1 PID (ppmv) | Influent2 PID (ppmv) | Effluent PID (ppmv) | Destruction Efficiency (%) | Destruction Efficiency Permit Limitation | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Abbreviations and Notes:**

1. = System flow calculated on positive side of blower from November onwards
2. = Hour meter misread. Period Operation Hours calculated from the chart recorder.
3. = Groundwater extraction system turned off while soil vapor extraction continued.

acfm = Actual cubic feet per minute
scfm = Standard cubic feet per minute
$^{o}$F = Degrees Farenheite
Temp =Temperature
% = Percentage
Inf 1 = Pre-dilution field-measured vapor concentration
Inf 2 = Post-dilution field-measured vapor concentration
in H2O = Inches of water
in Hg = Inches of mercury
PID = Photo-ionization detector
ppmv = Parts per million by volume
scfm = acfm (absolute operating pressure, in $H_2O$ / standard pressure, 406.9 in $H_2O$)
NM = Not measured
waived =Indicates effluent PID readings of less than 10 ppmv and/or post-cat temperature of less than 1400F

# Table 2
## Dual Phase Extraction System
## Vapor Phase Hydrocarbons Mass Removal Calculations
## Former Chevron Station # 9-0260
## 21995 Foothill Boulevard, Hayward, California

| Date (mm/dd/yy) | Concentrations[1] | | | | | | | | | | | | TPHg | | | Benzene | | | MTBE | | | POC | | | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Influent1 | | | | Influent2 | | | | Effluent | | | | TPHg Removal Rate[2, 6] (ppd) | Cumulative TPHg Removed[7] (pounds) | TPHg Emission Rate[2, 6] (ppd) | Benzene Removal Rate[3, 6] (ppd) | Cumulative Benzene Removed[7] (pounds) | Benzene Emission Rate[3, 6] (ppd) | MTBE Removal Rate[4, 6] (ppd) | Cumulative MTBE Removed[7] (pounds) | MTBE Emission Rate[4, 6] (ppd) | POC Removal Rate[5, 6] (ppd) | POC Emission Rate[5, 6] (ppd) | POC Destruction Efficiency[8] (%) | |
| | TPHg (ppmv) | Benzene (ppmv) | MTBE (ppmv) | POC (ppmv) | TPHg (ppmv) | Benzene (ppmv) | MTBE (ppmv) | POC (ppmv) | TPHg (ppmv) | Benzene (ppmv) | MTBE (ppmv) | POC (ppmv) | | | | | | | | | | | | | |
| 07/16/07 | | | | | | | | | | | | | 29.4 | 0.0 | 0.3 | 0.1 | 0.0 | 0.003 | 0.0 | 0.000 | 0.0 | 29.4 | 0.3 | waived | |
| 07/17/07 | 3,400 | 9 | < 0.68 | 3,401 | 750 | 2 | < 0.68 | 750 | < 7 | <0.08 | <0.07 | 7.1 | 30.3 | 31.6 | 0.3 | 0.1 | 0.1 | 0.003 | 0.0 | 0.029 | 0.0 | 30.3 | 0.3 | waived | |
| 07/26/07 | 4,400 | 12 | < 1.40 | 4,401 | 770 | 2 | < 0.14 | 770 | < 7 | <0.08 | <0.07 | 7.1 | 29.6 | 35.3 | 0.3 | 0.1 | 0.1 | 0.003 | 0.0 | 0.029 | 0.0 | 29.6 | 0.3 | waived | |
| 08/03/07 | | | | | | | | | | | | | 29.6 | 39.0 | 0.3 | 0.1 | 0.1 | 0.003 | 0.0 | 0.030 | 0.0 | 29.6 | 0.3 | waived | |
| 08/22/07 | 5,000 | 14 | < 1.40 | 5,001 | 860 | 2.5 | < 1.40 | 861 | < 7 | <0.08 | <0.07 | 7.1 | 34.2 | 41.0 | 0.3 | 0.1 | 0.1 | 0.003 | 0.1 | 0.033 | 0.0 | 34.2 | 0.3 | waived | |
| 08/24/07 | | | | | | | | | | | | | 38.4 | 87.2 | 0.3 | 0.1 | 0.2 | 0.003 | 0.1 | 0.108 | 0.0 | 38.4 | 0.3 | waived | |
| 09/26/07 | 5,300 | 9.5 | < 0.68 | 5,301 | 340 | 0.6 | < 0.07 | 340 | < 7 | <0.08 | <0.07 | 7.1 | 21.6 | 96.8 | 0.4 | 0.0 | 0.2 | 0.004 | 0.0 | 0.110 | 0.0 | 21.6 | 0.4 | waived | |
| 10/04/07 | 6,600 | < 7.7 | < 6.8 | 6,607 | 860 | 0.5 | < 0.07 | 860 | < 7 | <0.08 | <0.07 | 7.1 | 61.4 | 518.9 | 0.5 | 0.0 | 0.4 | 0.005 | 0.0 | 0.067 | 0.0 | 61.4 | 0.5 | waived | |
| 10/08/07 | | | | | | | | | | | | | 29.8 | 543.7 | 0.2 | 0.0 | 0.5 | 0.002 | 0.0 | 0.069 | 0.0 | 29.8 | 0.2 | waived | |
| 10/19/07 | | | | | | | | | | | | | 56.3 | 637.1 | 0.5 | 0.0 | 0.5 | 0.005 | 0.0 | 0.076 | 0.0 | 56.3 | 0.5 | waived | |
| 10/25/07 | | | | | | | | | | | | | 60.7 | 991.7 | 0.5 | 0.0 | 0.7 | 0.005 | 0.0 | 0.104 | 0.0 | 60.7 | 0.5 | waived | |
| 12/06/07 | 3,400 | 6 | < 2.70 | 3,403 | 450 | 0.69 | < 0.45 | 450 | 27 | < 7 | <0.07 | 27.1 | 23.9 | 994.6 | 1.4 | 0.0 | 0.7 | 0.004 | 0.0 | 0.107 | 0.0 | 23.9 | 1.4 | 94.0% | 9 |
| 12/18/07 | 11,000 | 8 | < 2.50 | 11,003 | 1,200 | 0.83 | < 0.15 | 1,200 | < 5 | < 0.05 | < 0.10 | 5.1 | 62.4 | 1,041.5 | 0.3 | 0.0 | 0.7 | 0.002 | 0.0 | 0.113 | 0.0 | 62.4 | 0.3 | waived | |
| 01/03/08 | 3,200 | 2 | < 0.40 | 3,200 | 320 | 0.32 | < 0.10 | 320 | < 5 | < 0.05 | < 0.10 | 5.1 | 20.7 | 1,041.9 | 0.3 | 0.0 | 0.7 | 0.003 | 0.0 | 0.113 | 0.0 | 20.7 | 0.3 | waived | |
| 01/10/08 | | | | | | | | | | | | | 16.0 | 1,044.9 | 0.2 | 0.0 | 0.7 | 0.002 | 0.0 | 0.114 | 0.0 | 16.0 | 0.3 | waived | |
| 01/11/08 | | | | | | | | | | | | | 14.5 | 1,061.8 | 0.2 | 0.0 | 0.7 | 0.002 | 0.0 | 0.119 | 0.0 | 14.5 | 0.2 | waived | |
| 01/18/08 | 2,000 | 1 | < 0.40 | 2,000 | 220 | 0.17 | < 0.10 | 220 | < 5 | < 0.05 | < 0.10 | 5.1 | 9.3 | 1,125.9 | 0.2 | 0.0 | 0.8 | 0.002 | 0.0 | 0.148 | 0.0 | 9.3 | 0.2 | waived | |
| 01/23/08 | | | | | | | | | | | | | 7.9 | 1,151.6 | 0.2 | 0.0 | 0.8 | 0.002 | 0.0 | 0.160 | 0.0 | 7.9 | 0.2 | waived | |
| 01/30/08 | | | | | | | | | | | | | 5.3 | 1,164.4 | 0.1 | 0.0 | 0.8 | 0.001 | 0.0 | 0.166 | 0.0 | 5.3 | 0.1 | waived | |
| 02/26/08 | | | | | 170 | 2 | < 0.10 | 170.00 | < 5 | < 0.05 | < 0.10 | 5.1 | 10.6 | 1,164.8 | 0.3 | 0.1 | 0.8 | 0.003 | 0.0 | 0.166 | 0.0 | 10.6 | 0.3 | waived | |
| 03/13/08 | 2,300 | 1 | < 0.15 | 2,300 | 390 | 0.24 | < 0.10 | 390.00 | < 5 | < 0.05 | < 0.10 | 5.1 | 13.5 | 1,166.5 | 0.2 | 0.0 | 0.8 | 0.002 | 0.0 | 0.167 | 0.0 | 13.5 | 0.2 | waived | |
| 08/22/08 | 2,900 | 1 | < 0.40 | 2,900 | 290 | 0.12 | < 0.10 | 290.00 | < 5 | < 0.05 | < 0.10 | 5.1 | 4.5 | 1,166.9 | 0.1 | 0.0 | 0.8 | 0.001 | 0.0 | 0.167 | 0.0 | 4.5 | 0.1 | waived | |
| 08/26/08 | | | | | | | | | | | | | 8.8 | 1,169.1 | 0.2 | 0.0 | 0.8 | 0.001 | 0.0 | 0.167 | 0.0 | 8.8 | 0.2 | waived | |
| 08/29/08 | | | | | | | | | | | | | 10.4 | 1,177.3 | 0.2 | 0.0 | 0.8 | 0.002 | 0.0 | 0.170 | 0.0 | 10.4 | 0.2 | waived | |
| 09/03/08 | 10,000 | 2.7 | < 0.40 | 10,000 | 1,000 | 0.34 | < 0.10 | 1,000 | < 5 | < 0.05 | < 0.10 | 5.1 | 26.7 | 1,261.8 | 0.1 | 0.0 | 0.8 | 0.001 | 0.0 | 0.179 | 0.0 | 26.7 | 0.1 | waived | |
| 09/10/08 | 7,800 | 2.0 | < 1.50 | 7,802 | 850 | 0.20 | < 0.15 | 850 | NS | NS | NS | NA | 33.5 | 1,493.4 | 0.2 | 0.0 | 0.9 | 0.002 | 0.0 | 0.220 | 0.0 | 33.5 | 0.2 | waived | |
| 09/11/08 | | | | | | | | | | | | | 39.6 | 1,529.7 | 0.2 | 0.0 | 0.9 | 0.002 | 0.0 | 0.220 | 0.0 | 39.6 | 0.2 | waived | |
| 09/17/08 | | | | | | | | | | | | | 42.4 | 1,715.0 | 0.2 | 0.0 | 0.9 | 0.002 | 0.0 | 0.220 | 0.0 | 42.4 | 0.3 | waived | |
| 09/22/08 | | | | | | | | | | | | | 32.4 | 1,934.0 | 0.2 | 0.0 | 1.0 | 0.000 | 0.0 | 0.258 | 0.0 | 32.4 | 0.2 | waived | |
| 09/25/08 | | | | | | | | | | | | | 32.4 | 2,027.3 | 0.2 | 0.0 | 1.0 | 0.002 | 0.0 | 0.275 | 0.0 | 32.4 | 0.2 | waived | |
| 10/01/08 | 7,600 | 6.1 | < 1.50 | 7,602 | 860 | 0.85 | < 0.15 | 860 | < 5 | < 0.05 | < 0.10 | 5.1 | 30.5 | 2,211.3 | 0.2 | 0.0 | 1.2 | 0.002 | 0.0 | 0.307 | 0.0 | 30.5 | 0.2 | waived | |
| 10/07/08 | | | | | | | | | | | | | 30.5 | 2,395.4 | 0.2 | 0.0 | 1.3 | 0.002 | 0.0 | 0.339 | 0.0 | 30.5 | 0.2 | waived | |
| 10/14/08 | | | | | | | | | | | | | 30.4 | 2,396.6 | 0.2 | 0.0 | 1.3 | 0.002 | 0.0 | 0.339 | 0.0 | 30.4 | 0.2 | waived | |
| 10/16/08 | | | | | | | | | | | | | 33.1 | 2,433.9 | 0.2 | 0.0 | 1.4 | 0.002 | 0.0 | 0.346 | 0.0 | 33.1 | 0.2 | waived | |
| 10/20/08 | | | | | | | | | | | | | 37.6 | 2,579.6 | 0.2 | 0.0 | 1.5 | 0.002 | 0.0 | 0.371 | 0.0 | 37.6 | 0.2 | waived | |
| 10/30/08 | | | | | | | | | | | | | 45.8 | 3,037.7 | 0.3 | 0.0 | 1.9 | 0.002 | 0.0 | 0.451 | 0.0 | 45.8 | 0.3 | waived | |
| 11/04/08 | 4,500 | 2.6 | < 0.70 | 4,501 | 1,400 | 0.64 | < 0.15 | 1,400 | < 5 | < 0.05 | < 0.10 | 5.1 | 55.3 | 3,320.9 | 0.2 | 0.0 | 2.0 | 0.000 | 0.0 | 0.451 | 0.0 | 0.0 | 0.2 | waived | |
| 11/14/08 | | | | | | | | | | | | | 79.5 | 4,042.9 | 0.3 | 0.0 | 2.3 | 0.003 | 0.0 | 0.528 | 0.0 | 79.5 | 0.3 | waived | |
| 11/21/08 | | | | | | | | | | | | | 64.8 | 4,501.9 | 0.2 | 0.0 | 2.5 | 0.002 | 0.0 | 0.577 | 0.0 | 64.8 | 0.2 | waived | |
| 11/26/08 | | | | | | | | | | | | | 62.8 | 4,805.7 | 0.2 | 0.0 | 2.6 | 0.002 | 0.0 | 0.610 | 0.0 | 62.8 | 0.2 | waived | |
| 12/03/08 | 2,800 | < 0.60 | < 0.50 | 2,801 | 540 | 0.11 | < 0.10 | 540 | < 5 | < 0.05 | < 0.10 | 5.1 | 21.2 | 4,955.6 | 0.2 | 0.0 | 2.7 | 0.002 | 0.0 | 0.638 | 0.0 | 21.2 | 0.2 | waived | |
| 12/10/08 | | | | | | | | | | | | | 23.7 | 5,110.4 | 0.2 | 0.0 | 2.7 | 0.002 | 0.0 | 0.666 | 0.0 | 23.7 | 0.2 | waived | |
| 12/18/08 | | | | | | | | | | | | | 19.2 | 5,264.2 | 0.2 | 0.0 | 2.7 | 0.002 | 0.0 | 0.695 | 0.0 | 19.2 | 0.2 | waived | |
| 12/23/08 | | | | | | | | | | | | | 17.7 | 5,349.7 | 0.2 | 0.0 | 2.7 | 0.001 | 0.0 | 0.711 | 0.0 | 17.7 | 0.2 | waived | |
| 12/30/08 | | | | | | | | | | | | | 21.4 | 5,501.9 | 0.2 | 0.0 | 2.7 | 0.002 | 0.0 | 0.739 | 0.0 | 21.4 | 0.2 | waived | |
| 01/06/09 | 1,300 | < 0.30 | < 0.25 | 1,300 | 440 | < 0.060 | < 0.10 | 440 | < 5 | < 0.05 | < 0.10 | 5.1 | 14.7 | 5,606.7 | 0.2 | 0.0 | 2.8 | 0.002 | 0.0 | 0.763 | 0.0 | 14.7 | 0.2 | waived | |
| 01/10/09 | | | | | | | | | | | | | 5.8 | 5,619.1 | 0.1 | 0.0 | 2.8 | 0.001 | 0.0 | 0.766 | 0.0 | 5.8 | 0.1 | waived | |
| 01/15/09 | | | | | | | | | | | | | 12.1 | 5,679.4 | 0.1 | 0.0 | 2.8 | 0.001 | 0.0 | 0.779 | 0.0 | 12.1 | 0.1 | waived | |
| 01/21/09 | | | | | | | | | | | | | 14.5 | 5,765.8 | 0.2 | 0.0 | 2.8 | 0.001 | 0.0 | 0.799 | 0.0 | 14.5 | 0.2 | waived | |
| 01/29/09 | | | | | | | | | | | | | 17.6 | 5,884.9 | 0.2 | 0.0 | 2.8 | 0.002 | 0.0 | 0.826 | 0.0 | 17.6 | 0.2 | waived | |
| 02/03/09 | 1,200 | < 0.20 | < 0.15 | 1,200 | 290 | 0.065 | < 0.10 | 290 | < 5 | < 0.05 | < 0.10 | 5.1 | 9.4 | 5,932.5 | 0.2 | 0.0 | 2.8 | 0.001 | 0.0 | 0.842 | 0.0 | 9.4 | 0.2 | waived | |
| 02/12/09 | | | | | | | | | | | | | 7.5 | 5,986.4 | 0.1 | 0.0 | 2.8 | 0.001 | 0.0 | 0.861 | 0.0 | 7.5 | 0.1 | waived | |
| 02/18/09 | | | | | | | | | | | | | 9.5 | 6,018.0 | 0.2 | 0.0 | 2.8 | 0.001 | 0.0 | 0.872 | 0.0 | 9.5 | 0.2 | waived | |
| 02/20/09 | | | | | | | | | | | | | 6.2 | 6,027.3 | 0.1 | 0.0 | 2.8 | 0.001 | 0.0 | 0.875 | 0.0 | 6.2 | 0.1 | waived | |
| 02/25/09 | | | | | | | | | | | | | 7.3 | 6,039.4 | 0.1 | 0.0 | 2.8 | 0.001 | 0.0 | 0.879 | 0.0 | 7.3 | 0.1 | waived | |
| 03/03/09 | 170 | 0.25 | < 0.10 | 170 | 16 | < 0.050 | < 0.10 | 16 | < 5 | < 0.05 | < 0.10 | 5.1 | 0.6 | 6,043.1 | 0.2 | 0.0 | 2.8 | 0.002 | 0.0 | 0.903 | 0.0 | 0.6 | 0.2 | waived | |
| 03/04/09 | | | | | | | | | | | | | 0.6 | 6,043.5 | 0.2 | 0.0 | 2.8 | 0.002 | 0.0 | 0.905 | 0.0 | 0.6 | 0.2 | waived | |
| 03/09/09 | | | | | | | | | | | | | 1.0 | 6,047.1 | 0.3 | 0.0 | 2.8 | 0.003 | 0.0 | 0.927 | 0.0 | 1.0 | 0.3 | waived | |
| 03/13/09 | | | | | | | | | | | | | 0.6 | 6,047.6 | 0.2 | 0.0 | 2.8 | 0.002 | 0.0 | 0.931 | 0.0 | 0.6 | 0.2 | waived | |
| 03/16/09 | | | | | | | | | | | | | 0.8 | 6,050.1 | 0.3 | 0.0 | 2.8 | 0.002 | 0.0 | 0.946 | 0.0 | 0.8 | 0.3 | waived | |
| 03/25/09 | | | | | | | | | | | | | 0.9 | 6,050.3 | 0.3 | 0.0 | 2.8 | 0.003 | 0.0 | 0.948 | 0.0 | 0.9 | 0.3 | waived | |
| 05/14/09 | 500 | 0.66 | < 0.10 | 500 | 100 | 0.110 | < 0.10 | 100 | 7 | < 0.05 | < 0.10 | 7.1 | 1.7 | 6,051.1 | 0.1 | 0.0 | 2.8 | 0.001 | 0.0 | 0.948 | 0.0 | 1.7 | 0.1 | waived | |
| 05/19/09 | | | | | | | | | | | | | 1.7 | 6,054.9 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 0.952 | 0.0 | 1.7 | 0.1 | waived | |
| 05/21/09 | | | | | | | | | | | | | 1.7 | 6,058.4 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 0.956 | 0.0 | 1.7 | 0.1 | waived | |
| 05/27/09 | | | | | | | | | | | | | 1.9 | 6,070.3 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 0.968 | 0.0 | 1.9 | 0.1 | waived | |
| 05/28/09 | | | | | | | | | | | | | 2.0 | 6,072.4 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 0.970 | 0.0 | 2.0 | 0.1 | waived | |

# Table 2
## Dual Phase Extraction System
## Vapor Phase Hydrocarbons Mass Removal Calculations
## Former Chevron Station # 9-0260
## 21995 Foothill Boulevard, Hayward, California

| Date (mm/dd/yy) | Concentrations[1] | | | | | | | | | | | | TPHg | | | Benzene | | | MTBE | | | POC | | | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Influent1 | | | | Influent2 | | | | Effluent | | | | TPHg Removal Rate[2, 6] (ppd) | Cumulative TPHg Removed[7] (pounds) | TPHg Emission Rate[2, 6] (ppd) | Benzene Removal Rate[3, 6] (ppd) | Cumulative Benzene Removed[7] (pounds) | Benzene Emission Rate[3, 6] (ppd) | MTBE Removal Rate[4, 6] (ppd) | Cumulative MTBE Removed[7] (pounds) | MTBE Emission Rate[4, 6] (ppd) | POC Removal Rate[5, 6] (ppd) | POC Emission Rate[5, 6] (ppd) | POC Destruction Efficiency[8] (%) | |
| | TPHg (ppmv) | Benzene (ppmv) | MTBE (ppmv) | POC (ppmv) | TPHg (ppmv) | Benzene (ppmv) | MTBE (ppmv) | POC (ppmv) | TPHg (ppmv) | Benzene (ppmv) | MTBE (ppmv) | POC (ppmv) | | | | | | | | | | | | | |
| 06/01/09 | | | | | 420 | 0.15 | < 0.10 | 420 | | | | | 2.3 | 6,081.2 | 0.2 | 0.0 | 2.9 | 0.001 | 0.0 | 0.978 | 0.0 | 2.3 | 0.1 | waived | |
| 06/05/09 | 630 | < 0.31 | < 0.10 | 630 | 290 | < 0.15 | < 0.14 | 290 | 12 | 0.16 | < 0.068 | 12.1 | 6.8 | 6,082.1 | 0.3 | 0.0 | 2.9 | 0.003 | 0.0 | 0.979 | 0.0 | 6.8 | 0.3 | 95.8% | 9 |
| 06/08/09 | | | | | | | | | | | | | 9.3 | 6,083.2 | 0.2 | 0.0 | 2.9 | 0.001 | 0.0 | 0.979 | 0.0 | 9.3 | 0.1 | waived | |
| 06/19/09 | | | | | | | | | | | | | 9.3 | 6,150.8 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 0.995 | 0.0 | 9.3 | 0.1 | waived | |
| 06/25/09 | 290 | 0.16 | < 0.10 | 290 | 220 | 0.16 | < 0.10 | 220 | < 5 | < 0.05 | < 0.10 | 5.1 | 4.2 | 6,151.7 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 0.996 | 0.0 | 4.2 | 0.1 | waived | |
| 09/03/09 | 590 | 0.20 | < 0.10 | 590 | 150 | 0.06 | < 0.10 | 150 | < 5 | < 0.05 | < 0.10 | 5.1 | 1.6 | 6,151.7 | 0.1 | 0.0 | 2.9 | 0.000 | 0.0 | 0.996 | 0.0 | 1.6 | 0.1 | waived | |
| 09/09/09 | | | | | | | | | | | | | 0.8 | 6,151.7 | 0.0 | 0.0 | 2.9 | 0.000 | 0.0 | 0.996 | 0.0 | 2.2 | 0.0 | waived | |
| 09/17/09 | | | | | | | | | | | | | 1.9 | 6,157.6 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 1.000 | 0.0 | 1.9 | 0.1 | waived | |
| 09/22/09 | | | | | | | | | | | | | 0.7 | 6,161.2 | 0.0 | 0.0 | 2.9 | 0.000 | 0.0 | 1.002 | 0.0 | 0.7 | 0.0 | waived | |
| 10/02/09 | 550 | 0.32 | < 0.10 | 550 | 840 | 0.35 | < 0.10 | 840 | < 5 | < 0.05 | < 0.10 | 5.1 | 19.9 | 6,164.6 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 1.002 | 0.0 | 19.9 | 0.1 | waived | |
| 10/07/09 | | | | | | | | | | | | | 19.2 | 6,178.9 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 1.004 | 0.0 | 19.2 | 0.1 | waived | |
| 10/16/09 | | | | | | | | | | | | | 19.2 | 6,210.8 | 0.0 | 0.0 | 2.9 | 0.000 | 0.0 | 1.008 | 0.0 | 19.2 | 0.1 | waived | |
| 10/22/09 | | | | | | | | | | | | | 24.5 | 6,213.9 | 0.1 | 0.0 | 2.9 | 0.001 | 0.0 | 1.008 | 0.0 | 24.5 | 0.1 | waived | |
| 10/28/09 | | | | | | | | | | | | | 24.5 | 6,272.0 | 0.0 | 0.0 | 3.0 | 0.000 | 0.0 | 1.015 | 0.0 | 24.5 | 0.1 | waived | |
| 10/29/09 | | | | | | | | | | | | | 22.3 | 6,274.8 | 0.1 | 0.0 | 3.0 | 0.001 | 0.0 | 1.015 | 0.0 | 22.3 | 0.1 | waived | |
| 11/04/09 | | | | | | | | | | | | | 2.3 | 6,283.0 | 0.1 | 0.0 | 3.0 | 0.001 | 0.0 | 1.015 | 0.0 | 2.3 | 0.1 | waived | |
| 11/10/09 | 220 | 0.052 | < 0.10 | 220 | 88 | < 0.50 | < 0.10 | 88 | < 5 | < 0.05 | < 0.10 | 5.1 | 1.8 | 6,283.0 | 0.1 | 0.0 | 3.0 | 0.001 | 0.0 | 1.015 | 0.0 | 1.8 | 0.1 | waived | |
| 11/16/09 | | | | | | | | | | | | | 2.0 | 6,294.7 | 0.1 | 0.0 | 3.1 | 0.001 | 0.0 | 1.029 | 0.0 | 2.0 | 0.1 | waived | |
| 11/24/09 | | | | | | | | | | | | | 2.0 | 6,310.8 | 0.1 | 0.0 | 3.1 | 0.001 | 0.0 | 1.047 | 0.0 | 2.0 | 0.1 | waived | |
| 12/01/09 | 390 | 0.053 | < 0.10 | 390 | 180 | < 0.050 | < 0.10 | 180 | < 5 | < 0.05 | < 0.10 | 5.1 | 4.2 | 6,340.3 | 0.1 | 0.0 | 3.1 | 0.001 | 0.0 | 1.063 | 0.0 | 4.2 | 0.1 | waived | |
| 12/09/09 | | | | | | | | | | | | | 3.2 | 6,365.7 | 0.1 | 0.0 | 3.2 | 0.001 | 0.0 | 1.078 | 0.0 | 3.2 | 0.1 | waived | |
| 12/15/09 | | | | | | | | | | | | | 3.0 | 6,380.2 | 0.1 | 0.0 | 3.2 | 0.001 | 0.0 | 1.086 | 0.0 | 3.0 | 0.1 | waived | |
| 12/22/09 | | | | | | | | | | | | | 3.0 | 6,401.3 | 0.1 | 0.0 | 3.2 | 0.001 | 0.0 | 1.097 | 0.0 | 3.0 | 0.1 | waived | |
| | | | | | | | | | | | | **Total Pounds Removed:** | **TPHg =** | **6,401.3** | | **Benzene =** | **3.2** | | **MTBE =** | **1.10** | | | | **>98.5%** | |

**Notes:**

1. = TPHg, Benzene, and MTBE analyzed by EPA Method 8260B. Vapor samples were collected in 1-liter tedlar bags.
2. = Molecular weight of TPHg assumed to be 86 lb/lb-mole as hexane.
3. = Molecular weight of Benzene assumed to be 78 lb/lb-mole.
4. = Molecular weight of MTBE assumed to be 88 lb/lb-mole.
5. = Molecular weight of VOCs assumed to be 86 lb/lb-mole as hexane.
6. Removal/Emission Rate = C (ppmv) x Q (cfm) x (1lb-mole/386ft3) x MW (lb/lb-mole) x 60 min/hr x 24 hr/day x 10-6
   C = concentrtation
   Q = flow
   MW = molecular weight
7. Cumulative TPHg / Benzene / MTBE removed = Previous Total + (Previous Removal Rate X Operation Interval)
8. Destruction Efficiency = (100)[(Mass Extracted - Mass Emitted)/(Mass Extracted)]
9. Low destruction efficiency approved by the BAAQMD

**Abbreviations:**

TPHg = gasoline-range total petroleum hydrocarbons ($C_2$ to $C_{10}$ hydrocarbons).
MTBE = Methyl tert butyl ether
POC = Precursor Organic Compounds
ppd = pounds per day
Blank Space = not sampled
NA = not applicable
NM = not measured
ppmv = parts per million by volume
Influent1 = pre-dilution vapor sample
Influent2 = post-dilution vapor sample

**Assumptions:**

If dilution air is utilized, then influent 2 concentration is used in mass calculation. If dilution air is not utilized, then influent 2 is not sampled and influent 1 is used in mass calculation (influent 1 is assumed to be equal to influent 2).

# Table 3
## Dual Phase Extraction System
## Individual Well Performance Data
## Former Chevron Station # 9-0260
## 21995 Foothill Boulevard, Hayward, California

| Date | System Vacuum | MW-11 | | | | DVE-9 | | | | DVE-20 | | | | MW-5 | | | | MW-12 | | | | DVE-12 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (mm/dd/yy) | (inWC) | Casing Vacuum (inWC) | Flow (cfm) | Conc (ppmv) | DTW (fbg) | Casing Vacuum (inWC) | Flow (cfm) | Conc (ppmv) | DTW (fbg) | Casing Vacuum (inWC) | Flow (cfm) | Conc (ppmv) | DTW (fbg) | Casing Vacuum (inWC) | Flow (cfm) | Conc (ppmv) | DTW (fbg) | Casing Vacuum (inWC) | Flow (cfm) | Conc (ppmv) | DTW (fbg) | Casing Vacuum (inWC) | Flow (cfm) | Conc (ppmv) | DTW (fbg) |
| **09/03/08** | 53 | 47.6 | 8 | 23,000 | NM | 47.6 | 10 | 69000 | NM | 54.4 | 11 | 63000 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| **09/10/08** | 55.8 | 61.2 | 15 | 1,692 | NM | 58.5 | 10 | 1622 | NM | 61.2 | 16 | 1503 | NM | NM | NM | NM | NM | 44.2 | 14 | 1198 | NM | 44.2 | 10 | 1157 | NM |
| **09/11/08** | 46.5 | 44.2 | 7 | 22,000 | NM | 44.2 | 10 | 70000 | NM | 44.2 | 8 | 57000 | NM | 40.8 | 7 | 22,000 | NM | 61.2 | 8 | 27000 | NM | 40.8 | 7 | 99000 | NM |
| **09/17/08** | 46 | 40.8 | 10 | > 10000 | NM | 40.8 | 12 | > 10000 | NM | 40.8 | 9 | > 10000 | NM | 45.0 | 19 | 7,200 | NM | 46.1 | 9 | > 10000 | NM | 46.2 | 14 | > 10000 | NM |
| **09/22/08** | 49.7 | 47.6 | 7 | 6,500 | NM | 47.6 | 7 | 37000 | NM | 61.2 | 9 | 24000 | NM | 48.1 | 7 | 12,200 | NM | 48.8 | 6 | 9500 | NM | 48.1 | 10 | 64000 | NM |
| **10/16/08** | 60.0 | NM | NM | NM | NM | 61.2 | 14 | 20000 | NM | 47.6 | 12 | 25000 | NM | NM | NM | NM | NM | NM | NM | NM | NM | 61.2 | 13 | 49000 | NM |
| **10/30/08** | 140 | 136.0 | 21 | 5,000 | NM | 68.0 | 21 | 25000 | NM | 136.0 | 25 | 12500 | NM | 136.0 | 21 | 255 | NM | 136.0 | 22.0 | 311 | NM | 136.0 | 22.0 | 319 | NM |
| **11/21/08** | 134.5 | 132.4 | 15 | 367 | NM | 135.6 | 25 | 776 | NM | 131.2 | 130 | 475 | NM | 135.4 | 18 | 571 | NM | 125.3 | 17.9 | 700 | NM | 135.5 | 17.8 | 168 | NM |
| **12/10/08** | 170.5 | 167.0 | 18 | 27,000 | NM | 167.0 | 18 | 15000 | NM | 167.0 | > 125 | 4100 | NM | 167.0 | 19 | 1,850 | NM | 167.0 | 17.2 | 1300 | NM | 167.0 | 18.5 | 18000 | NM |
| **12/18/08** | 183.6 | 166.7 | 36 | 27,790 | 23 | 166.1 | 56 | 11400 | 24 | 169.2 | > 125 | 3770 | 23 | 169.5 | 36 | 27,790 | 23 | 167.2 | 33.2 | 336 | 23 | 167.5 | 28.2 | 19150 | 24 |
| **01/06/09** | 191.0 | 170.0 | 20 | 775 | 23 | 177.0 | 27 | 4600 | 24 | 168.0 | 126 | 1800 | 23 | 173.0 | 17 | 11,500 | 23 | 172.0 | 20.0 | 500 | 23 | 177.0 | 15.0 | 26000 | 23 |
| **01/15/09** | 118.0 | 112.0 | 10 | 950 | 24 | 110.0 | 9 | 2200 | 24 | 129.0 | 11 | 1500 | 24 | 110.0 | 6 | 16,000 | 24 | 110.0 | 10.0 | 950 | 23 | 107.0 | 7.0 | 18000 | 24 |
| **01/21/09** | >200 | > 200 | 13 | 300 | 23 | 199.0 | 8 | 2650 | 24 | > 200 | 126 | 1075 | 23 | 199.0 | 8 | 11,000 | 23 | > 200 | 11.5 | 1600 | 23 | > 200 | 12.5 | 12000 | 24 |
| **01/29/09** | 216.8 | 205.0 | 13 | 144 | NM | 204.1 | 6 | 1165 | NM | 204.7 | > 125 | 1028 | NM | 219.6 | 9 | 13,910 | NM | 205.2 | 12.9 | 1013 | NM | 204.3 | 6.2 | 12780 | NM |
| **02/03/09** | 195.8 | 195.7 | 53 | 98 | 23 | 198.0 | 57 | 1587 | 24 | 197.8 | > 125 | 760 | 23 | 198.5 | 63 | 7,940 | 23 | 199.5 | 58.5 | 975 | 23 | 198.4 | 53.5 | 11030 | 24 |
| **02/12/09** | 195.0 | 0.0 | 0 | NM | 23 | 193.0 | 11 | 550 | 24 | 187.0 | > 126 | 75 | 24 | 193.0 | 8 | 8,900 | 24 | 192.0 | 11.5 | 1300 | 23 | 193.0 | 9.0 | 6650 | 24 |
| **02/20/09** | 136.0 | 0.0 | 0 | NM | 23 | 245.7 | 23 | 145 | 24 | 246.8 | 27 | 164 | 23 | 247.1 | 15 | 1,300 | 23 | 247.4 | 14.8 | 195 | 24 | 246.3 | 13.1 | 3400 | 24 |
| **03/13/09** | 244.8 | 0.0 | 0 | NM | 17 | 202.3 | 23 | 123 | 24 | 202.5 | 21 | 129 | 23 | 202.5 | 17.9 | 245 | 23 | 144.8 | 12.8 | 174 | 23 | 202.5 | 11.8 | 265 | 24 |
| **05/14/09** | 242.0 | NM | 20 | 41 | NM | 242.0 | 32 | 160 | NM | 242.0 | NM | NM | NM | 243.0 | 19.0 | 2,050 | NM | 242.0 | 13.5 | 570 | NM | 242.0 | 4.5 | 1240 | NM |
| **05/21/09** | 272.0 | 224.4 | 39 | 33 | NM | 224.4 | 32 | 99 | NM | 0.0 | 0 | 17 | NM | 224.4 | 47.8 | 820 | NM | 224.4 | 38.6 | 1550 | NM | 224.4 | 40.9 | 800 | NM |
| **05/27/09** | 278.8 | 272.0 | 36 | 36 | NM | 272.0 | 35 | 45 | NM | 272.0 | 61 | 987 | NM | 272.0 | 42.4 | 31,000 | NM | 272.0 | 33.6 | 4000 | NM | 272.0 | 46.5 | 807 | NM |
| **06/25/09** | 272.0 | 244.8 | NM | 45 | NM | 272.0 | 97 | 245 | NM | 272.0 | 44 | 162 | NM | 272.0 | 58.5 | 1,000 | NM | 272.0 | 56.5 | 850 | NM | 272.0 | 60.5 | 600 | NM |
| **09/03/09** | 204.0 | 64.0 | 11 | 0 | NM | 62.0 | 22 | 51 | NM | 64.0 | 15 | 45 | NM | 70.6 | 25.0 | 778 | NM | 62.0 | 16.0 | 252 | NM | 62.0 | 12.0 | 418 | NM |
| **09/09/09** | 258.4 | 0.0 | 0 | NM | NM | 272.0 | 39 | 58 | NM | 0.0 | 0 | NM | NM | 258.4 | 46.0 | 186 | NM | 258.4 | 35.0 | 202 | NM | 258.4 | 25.0 | 83 | NM |
| **09/17/09** | 258.4 | 0.0 | 0 | NM | NM | 258.4 | 12 | 25 | NM | 0.0 | 0 | NM | NM | 258.4 | 14.0 | 205 | NM | 258.4 | 38.5 | 110 | NM | 258.4 | 22.5 | 120 | NM |
| **09/22/09** | 238.0 | NM | NM | NM | NM | 229.0 | 39 | 0 | NM | 0.0 | 0 | NM | NM | 258.4 | 24.0 | 22 | NM | 258.4 | 35.0 | 13 | NM | 258.4 | 26.0 | 12 | NM |
| **10/02/09** | 259.1 | 253.4 | 85 | 32 | NM | 252.1 | 95 | 23 | NM | 255.1 | 70 | 483 | NM | 255.2 | 87.0 | 4,150 | NM | 254.7 | 39.7 | 774 | NM | 255.8 | 52.5 | 1570 | NM |
| **10/07/09** | 256.3 | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 255.3 | 53 | 300 | NM | 259.0 | 41.4 | 1,203 | NM | 256.2 | 41.7 | 725 | NM | 258.6 | 51.5 | 512 | NM |
| **10/22/09** | 236.2 | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 234.0 | 50 | 259 | NM | 234.0 | 38.6 | 1,160 | NM | 235.0 | 39.0 | 668 | NM | 235.0 | 46.7 | 515 | NM |
| **10/29/09** | 272.0 | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 272.0 | 29 | 145 | NM | 273.0 | 23.0 | 2,000 | NM | 273.0 | 47.0 | 299 | NM | 273.0 | 35.0 | 437 | NM |
| **11/10/09** | 136.0 | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 138.0 | 22 | 23 | NM | 138.0 | 22.0 | 253 | NM | 138.0 | 32.0 | 19 | NM | 137.0 | 21.0 | 87 | NM |
| **12/01/09** | 119.0 | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 159.1 | > 125 | 239 | NM | 160.5 | 30.0 | 1,478 | NM | 161.8 | 35.0 | 533 | NM | 159.1 | 33.0 | 854 | NM |
| **12/09/09** | 244.8 | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 227.1 | > 125 | 109 | NM | 227.1 | H2O | 753 | NM | 225.8 | > 125 | 274 | NM | 227.1 | 25.0 | 464 | NM |
| **12/15/09** | 19.2 | 19.2 | 17 | 5 | NM | 19.2 | 10 | 5 | NM | 19.2 | 24.7 | 31 | NM | 19.2 | 23.2 | 2,760 | NM | 19.2 | 25.8 | 83 | NM | 19.2 | 21.5 | 1440 | NM |
| **12/15/09** | 24.8 | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 24.8 | 22.6 | 2,460 | NM | 24.8 | 19.7 | 380 | NM | 24.8 | 24.8 | 1308 | NM |
| **12/22/09** | 68.0 | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 0.0 | 0 | NM | NM | 68.0 | 15.0 | 223 | NM | 68.0 | > 13 | 159 | NM | 68.0 | 12.0 | 65 | NM |

**Notes:**

DTW is measured to top of pump
Starting on 12/15/09, the GWE system was turned off. Only the SVE system was operational.

**Abbreviations:**

in WC = Inches of water column
cfm = cubic feet per minute
Conc = Concentration
ppmv = Parts per million by volume
DTW = Depth to Water
fbg = Feet below ground surface
>x.xx=Measurement over the range of the measuring device.

**Table 4**
**Dual Phase Extraction System**
**Methane Analysis Summary**
**Former Chevron Station # 9-0260**
**21995 Foothill Boulevard, Hayward, California**

| Sample Date Date (mm/dd/yyyy) | Sample Location | Methane Concentration (ppmv) | TPHg Concentration (ppmv) | Benzene Concentration (ppmv) | Toluene Concentration (ppmv) | Ethylbenzene Concentration (ppmv) | Total Xylenes Concentration (ppmv) | MTBE Concentration (ppmv) |
|---|---|---|---|---|---|---|---|---|
| 9/10/2008 | Influent | 510 | 7800 | <2.0 | 7.5 | 1.6 | 28 | <1.5 |
| 12/30/2008 | Influent | 100 | -- | -- | -- | -- | -- | -- |
| 5/14/2009 | Influent | 980 | -- | -- | -- | -- | -- | -- |
| 6/5/2009 | Influent | 170 | -- | -- | -- | -- | -- | -- |
| 10/2/2009 | Influent | -- | 550 | 0.32 | 4.3 | 1.2 | 9 | <0.10 |
| 9/10/2008 | Influent 2 | 65 | 850 | <0.20 | 0.81 | 0.18 | 3.2 | <0.15 |
| 12/30/2008 | Influent 2 | 28 | -- | -- | -- | -- | -- | -- |
| 6/1/2009 | Influent 2 | 50 | 420 | 0.15 | 2.3 | 0.24 | 4.8 | <0.10 |
| 6/5/2009 | Influent 2 | 85 | -- | -- | -- | -- | -- | -- |
| 10/2/2009 | Influent | -- | 840 | 0.35 | 7.5 | 1.9 | 14 | <0.10 |
| 9/10/2008 | DVE-20 | 660 | 7200 | <1.5 | 6.8 | 2.7 | 36 | <1.0 |
| 9/17/2008 | DVE-20 | 440 | -- | -- | -- | -- | -- | -- |
| 11/21/2008 | DVE-20 | 180 | 2100 | <0.40 | 2.1 | 1.5 | 30 | <0.40 |
| 1/29/2009 | DVE-20 | 94 | -- | -- | -- | -- | -- | -- |
| 3/16/2009 | DVE-20 | 260 | 220 | <0.050 | 0.39 | 0.67 | 6.2 | <0.10 |
| 9/3/2009 | DVE-20 | 6920 | 92 | <0.050 | <0.050 | 0.20 | 0.51 | NA |
| 10/2/2009 | DVE-20 | -- | 300 | <0.050 | 0.071 | 2.0 | 8.3 | <0.10 |
| 9/10/2008 | MW-11 | 300 | 5400 | 1.3 | <0.70 | <0.60 | 3.9 | <0.70 |
| 9/17/2008 | MW-11 | 100 | -- | -- | -- | -- | -- | -- |
| 11/21/2008 | MW-11 | 51 | 1400 | 0.92 | <0.25 | 0.33 | 2.1 | <0.25 |
| 1/29/2009 | MW-11 | 22 | -- | -- | -- | -- | -- | -- |
| 9/3/2009 | MW-11 | <5000 | 5.5 | <0.050 | <0.050 | <0.050 | <0.050 | |
| 10/2/2009 | MW-11 | -- | 14 | <0.050 | <0.050 | <0.050 | 0.15 | <0.10 |
| 9/10/2008 | DVE-9 | 1300 | 9700 | 6.7 | 28 | 2 | 76 | <1.5 |
| 9/17/2008 | DVE-9 | 510 | -- | -- | -- | -- | -- | -- |
| 11/21/2008 | DVE-9 | 160 | 4700 | 1.2 | 25 | 2.6 | 76 | <0.40 |
| 1/29/2009 | DVE-9 | 60 | -- | -- | -- | -- | -- | -- |
| 3/16/2009 | DVE-9 | 110 | 190 | 0.40 | 2.0 | 0.29 | 2.6 | <0.10 |
| 9/3/2009 | DVE-9 | <5000 | 120 | 0.41 | 0.16 | 0.17 | 0.83 | NA |
| 10/2/2009 | DVE-9 | -- | 9.2 | <0.050 | 0.058 | <0.050 | 0.26 | <0.10 |
| 9/17/2008 | MW-12 | 230 | -- | -- | -- | -- | -- | -- |
| 11/21/2008 | MW-12 | 89 | 760 | 1.7 | 3.2 | 1 | 7.1 | <0.15 |
| 1/29/2009 | MW-12 | 100 | -- | -- | -- | -- | -- | -- |
| 3/16/2009 | MW-12 | 120 | 370 | 0.49 | 1.7 | 0.31 | 2.8 | <0.10 |
| 9/3/2009 | MW-12 | <5000 | 480 | 0.092 | 0.38 | 0.18 | 1.0 | NA |
| 10/2/2009 | MW-12 | -- | 410 | 0.14 | 0.44 | 0.23 | 1.8 | <0.10 |
| 9/17/2008 | DVE-12 | 380 | -- | -- | -- | -- | -- | -- |
| 11/21/2008 | DVE-12 | 670 | 11000 | 3.2 | 59 | 4.4 | 300 | <0.70 |
| 1/29/2009 | DVE-12 | 270 | -- | -- | -- | -- | -- | -- |
| 3/16/2009 | DVE-12 | 620 | 600 | 0.42 | 14 | 0.91 | 11 | <0.10 |
| 9/3/2009 | DVE-12 | 13700 | 280 | 0.56 | 4.1 | 0.53 | 4.9 | NA |
| 10/2/2009 | DVE-12 | -- | 910 | 0.26 | 9.3 | 1.4 | 16 | <0.10 |
| 9/17/2008 | MW-5 | 750 | -- | -- | -- | -- | -- | -- |
| 11/21/2008 | MW-5 | 520 | 6900 | 2.3 | 62 | 6 | 110 | <0.70 |
| 1/29/2009 | MW-5 | 260 | -- | -- | -- | -- | -- | -- |
| 3/16/2009 | MW-5 | 120 | 420 | 0.31 | 28 | 3.1 | 24 | <0.10 |
| 9/3/2009 | MW-5 | 7060 | 1800 | 0.44 | 36 | 8.6 | 64 | NA |
| 10/2/2009 | MW-5 | -- | 1800 | 0.36 | 25 | 6.5 | 47 | <0.25 |

**Notes and Abbreviations:**

TPHg, Benzene, and MTBE analyzed by EPA Method 8260B.

All Methane samples analyzed by SCAQMD 25.1M, with the exception of sample taken on 9/3/09 analyzed by ASTM D-1946.

Vapor samples were collected in 1-liter tedlar bags.

TPHg= gasoline-range total petroleum hydrocarbons ($C_2$ to $C_{10}$ hydrocarbons).

MTBE=Methl tert butyl ether

--= not sampled

**TABLE 5: GROUNDWATER EXTRACTION AND TREATMENT SYSTEM**
Influent and Effluent Hydrocarbon Concentrations
Former Chevron Station # 9-0260
21995 Foothill Boulevard, Hayward, California

| | Influent | | | | | | Midfluent 1 | | | | | | Midfluent 2 | | | | | | Effluent | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date (mm/dd/yy) | TPHg [1] Conc. (µg/L) | Benzene [2] Conc. (µg/L) | Toluene Conc. (µg/L) | Ethylbenzene Conc. (µg/L) | Xylenes Conc. (µg/L) | MtBE [3] Conc. (µg/L) | TPHg Conc. (µg/L) | Benzene Conc. (µg/L) | Toluene Conc. (µg/L) | Ethylbenzene Conc. (µg/L) | Xylenes Conc. (µg/L) | MtBE Conc. (µg/L) | TPHg Conc. (µg/L) | Benzene Conc. (µg/L) | Toluene Conc. (µg/L) | Ethylbenzene Conc. (µg/L) | Xylenes Conc. (µg/L) | MtBE Conc. (µg/L) | TPHg Conc. (µg/L) | Benzene Conc. (µg/L) | Toluene Conc. (µg/L) | Ethylbenzene Conc. (µg/L) | Xylenes Conc. (µg/L) | MtBE Conc. (µg/L) | pH [4] |
| 06/25/07 | 34,000 | 2,000 | 6,400 | 1,300 | 6,100 | 92 | NA | NA | NA | NA | NA | NA | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.17 |
| 07/17/07 | 42,000 | 1,700 | 1,700 | 1,400 | 6,400 | 57 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.1 |
| 07/26/07 | 57,000 | 1,800 | 7,200 | 1,600 | 7,000 | 51 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | NA |
| 08/17/07 | 65,000 | 2,800 | 10,000 | 1,500 | 7,000 | 74 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.2 |
| 08/22/07 | 44,000 | 2,100 | 7,900 | 1,500 | 7,500 | 56 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.3 |
| 08/29/07 | 43,000 | 2,000 | 7,200 | 1,400 | 6,600 | 53 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 6.89 |
| 09/26/07 | 42,000 | 1,800 | 6,400 | 1,400 | 6,800 | 33 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 6.5 |
| 10/04/07 | 34,000 | 1,500 | 5,900 | 800 | 6,000 | 40 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.92 |
| 10/08/07 | 45,000 | 2,400 | 8,500 | 920 | 6,400 | 45 | 150 | 4.1 | **23** | **3** | **25** | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.36 |
| 10/19/07 | 42,000 | 2,300 | 8,100 | 950 | 6,000 | 38 | < 50 | 1.2 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.3 |
| 10/25/07 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | | | | | NS | NS | NS | NS | NS | NS | 7.3 |
| 12/05/07 | 46,000 | 2,400 | 7,500 | 920 | 4,800 | 42 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | NS |
| 12/06/07 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | | | | | NS | NS | NS | NS | NS | NS | 7.5 |
| 12/18/07 | 31,000 | 1,800 | 5,100 | 900 | 4,400 | 37 | < 50 | 0.9 | **3.3** | **0.6** | **2.6** | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.8 |
| 01/03/08 | 41,000 | 2,400 | 8,200 | 1,200 | 6,800 | 35 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.03 |
| 01/18/08 | 36,000 | 1,000 | 5,100 | 700 | 5,300 | 35 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | 0.5 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.8 |
| 02/07/08 | 65,000 | 2,400 | 9,500 | 1,000 | 7,200 | 21 | < 720 | < 29.0 | **110** | **3.9** | **95** | < 2.0 | | | | | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 6.65 |
| 02/14/08 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | | | | | NS | NS | NS | NS | NS | NS | 6.72 |
| 03/05/08 | 40,000 | 2,100 | 8,500 | 1,200 | 6,700 | 28 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | | | | | | | < 50 | < 0.5 | **0.7** | < 0.5 | < 1.5 | < 0.5 | 8.3 |
| 03/13/08 | 37,000 | 1,700 | 7,200 | 820 | 5,700 | 37 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | **Carbon vessel added 07/22/08** | | | | | | **120** | **2.2** | **17** | **1.2** | **23** | < 0.5 | NS |
| 8/1/2008 [5] | 41,000 | 1,500 | 7,400 | 990 | 4,300 | 36 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.25 |
| 08/08/08 | 40,000 | 1,900 | 6,900 | 990 | 5,400 | 35 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.01 |
| 09/03/08 | 31,000 | 970 | 4,900 | 800 | 4,600 | 33 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.41 |
| 09/17/08 | 32,000 | 1,300 | 7,300 | 710 | 5,400 | 22 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **0.80** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.47 |
| 10/01/08 | 26,000 | 980 | 5,400 | 350 | 4,200 | 28 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **0.80** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 6.73 |
| 10/16/08 | 27,000 | 1,100 | 6,600 | 750 | 4,600 | 34 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | NS |
| 11/04/08 | 25,000 | 670 | 4,700 | 320 | 3,800 | 24 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.42 |
| 11/21/08 | 87,000 | 2,700 | 18,000 | 1,100 | 11,000 | 30 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 6.69 |
| 12/03/08 | 33,000 | 710 | 4,400 | 480 | 5,500 | 26 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **0.8** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.32 |
| 12/18/08 | 39,000 | 730 | 4,500 | 680 | 6,200 | 24 | **82** | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **2** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 6.70 |
| 01/06/09 | 21,000 | 690 | 4,300 | 460 | 3,600 | 22 | **79** | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **2** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 8.65 |
| 01/21/09 | 17,000 | 640 | 3,300 | 360 | 2,800 | 25 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **3** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | NA |
| 02/03/09 | 17,000 | 530 | 3,200 | 350 | 2,800 | 21 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **4** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 6.78 |
| 02/20/09 | 35,000 | 660 | 5,200 | 670 | 4,800 | 200 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **5** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 6.97 |
| 03/03/09 | 12,000 | 350 | 1,800 | 130 | 2,400 | 12 | **66** | **1.6** | **0.5** | < 0.5 | < 1.5 | **8** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 6.59 |
| 03/16/09 | 27,000 | 630 | 3,500 | 410 | 4,100 | 26 | **78** | **6.6** | **1.6** | < 0.5 | < 1.5 | **7** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | NS |
| 05/11/09 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | 7.42 |
| 05/14/09 | 48,000 | 800 | 1,100 | 6,500 | 7,200 | 41 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | NA |
| 06/05/09 | 29,000 | 690 | 4,700 | 700 | 4,100 | 32 | **73** | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **0.8** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | **59** | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | NA |
| 06/08/09 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | 7.45 |
| 07/08/09 | 27,000 | 710 | 3,800 | 720 | 3,800 | 35 | **52** | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **2.0** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.20 |
| 09/03/09 | 30,000 | 700 | 5,200 | 1,000 | 4,800 | 33 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **1.0** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | NA |
| 09/09/09 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | 7.90 |
| 10/02/09 | 24,000 | 650 | 4,600 | 700 | 3,800 | 21 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **1.0** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.40 |
| 11/04/09 | 18,000 | 700 | 3,100 | 530 | 3,400 | 43 | **50** | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **1.0** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.65 |
| 12/01/09 | 17,000 | 420 | 2,700 | 110 | 3,100 | 16 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | **6** | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1.5 | < 0.5 | 7.10 |
| **Regulatory Limits (ug/L):** | | | | | | | | | | | | | | | | | | | **15,000** | **ND** | **ND** | **ND** | **ND** | | **5.5-12.5** |

**Abbreviations:**

Conc. = concentration
µg/L = micrograms per liter
NA = not analyzed
NS = not sampled
TPHg = total petroleum hydrocarbons quantified as gasoline (by EPA Method 8015B)
MtBE = methyl tert-butyl ether (by EPA Method 8260B)
L = liter

**Notes:**

1. = Analyzed by EPA Method 8015B
2. = Analyzed by EPA Method 8020
3. = Analyzed by EPA Method 8260B
4. = pH readings were obtained onsite by utilizing a portable multimeter
5. = Groundwater was pumped into a vacuum truck. No water was discharged to the sewer.

**TABLE 6: GROUNDWATER EXTRACTION AND TREATMENT SYSTEM**

Operational Data

Former Chevron Station # 9-0260

21995 Foothill Boulevard, Hayward, California

| Date | | | | | | TPHg | | | Benzene | | | MTBE | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hour Meter | Flow Meter Reading | Period Volume | Period Operational Flow Rate | Cumulative Volume Discharged | TPHg Concentration | Period Removal[5] | Cumulative Removal | Benzene Concentration | Period Removal[5] | Cumulative Removal | MTBE Concentration | Period Removal[5] | Cumulative Removal | |
| (mm/dd/yy) | (hours) | (gal) | (gal) | (gpm) | (gal) | (µg/L) | (pounds) | (pounds) | (µg/L) | (pounds) | (pounds) | (µg/L) | (pounds) | (pounds) | |
| **06/25/07** | NA | 211 | 0 | 0.00 | 0 | 34,000 | 0.0 | 0.0 | 2,000 | 0.00 | 0.00 | 92 | 0.00 | 0.00 | |
| **07/16/07** | NA | 211 | 0 | 0.00 | 0 | | 0.0 | 0.0 | | 0.00 | 0.00 | | 0.00 | 0.00 | |
| **07/17/07** | NA | 7,524 | 7,313 | 4.51 | 7,313 | 42,000 | 2.6 | 2.6 | 1,700 | 0.10 | 0.10 | 57 | 0.00 | 0.00 | 3 |
| **07/26/07** | NA | 9,422 | 1,898 | 1.17 | 9,211 | 57,000 | 0.9 | 3.5 | 1,800 | 0.03 | 0.13 | 51 | 0.00 | 0.00 | |
| **08/03/07** | NA | 10,947 | 1,525 | 0.13 | 10,736 | | 0.7 | 4.2 | | 0.02 | 0.16 | | 0.00 | 0.00 | |
| **08/16/07** | NA | 12,100 | 1,153 | 0.06 | 11,889 | | 0.6 | 4.8 | | 0.03 | 0.18 | | 0.00 | 0.01 | |
| **08/17/07** | NA | 15,500 | 3,400 | 2.36 | 15,289 | 65,000 | 1.8 | 6.7 | 2,800 | 0.08 | 0.26 | 74 | 0.00 | 0.01 | |
| **08/22/07** | NA | 18,700 | 3,200 | 0.44 | 18,489 | 44,000 | 1.2 | 7.8 | 2,100 | 0.06 | 0.32 | 56 | 0.00 | 0.01 | |
| **08/24/07** | NA | 22,800 | 4,100 | 1.42 | 22,589 | | 1.5 | 9.3 | | 0.07 | 0.39 | | 0.00 | 0.01 | |
| **08/29/07** | NA | 24,810 | 2,010 | 0.28 | 24,599 | 43,000 | 0.7 | 10.1 | 2,000 | 0.03 | 0.42 | 53 | 0.00 | 0.01 | |
| **09/18/07** | NA | 26,700 | 1,890 | 0.07 | 26,489 | | 0.7 | 10.7 | | 0.03 | 0.45 | | 0.00 | 0.01 | |
| **09/21/07** | NA | 29,900 | 3,200 | 0.74 | 29,689 | | 1.1 | 11.8 | | 0.05 | 0.50 | | 0.00 | 0.01 | |
| **09/26/07** | NA | 39,700 | 9,800 | 1.36 | 39,489 | 42,000 | 3.4 | 15.3 | 1,800 | 0.15 | 0.65 | 33 | 0.00 | 0.02 | |
| **09/27/07** | NA | 44,300 | 4,600 | 3.19 | 44,089 | | 1.6 | 16.9 | | 0.07 | 0.72 | | 0.00 | 0.02 | |
| **10/04/07** | NA | 65,765 | 21,465 | 2.13 | 65,554 | 34,000 | 6.1 | 23.0 | 1,500 | 0.27 | 0.98 | 40 | 0.01 | 0.02 | |
| **10/08/07** | NA | 73,526 | 7,761 | 1.35 | 73,315 | 45,000 | 2.9 | 25.9 | 2,400 | 0.16 | 1.14 | 45 | 0.00 | 0.03 | |
| **10/19/07** | NA | 97,500 | 23,974 | 1.51 | 97,289 | 42,000 | 8.4 | 34.3 | 2,300 | 0.46 | 1.60 | 38 | 0.01 | 0.04 | |
| **10/25/07** | NA | 117,400 | 19,900 | 2.30 | 117,189 | | 7.0 | 41.3 | | 0.38 | 1.98 | | 0.01 | 0.04 | 2 |
| **12/05/07** | 2.0 | 119,284 | 1,884 | 0.03 | 119,073 | 46,000 | 0.7 | 42.0 | 2,400 | 0.04 | 2.02 | 42 | 0.00 | 0.04 | 1 |
| **12/06/07** | 22.3 | 121,500 | 2,216 | 1.54 | 121,289 | | 0.9 | 42.8 | | 0.04 | 2.06 | | 0.00 | 0.04 | |
| **12/11/07** | 141.8 | 134,679 | 13,179 | 1.83 | 134,468 | | 5.1 | 47.9 | | 0.26 | 2.33 | | 0.00 | 0.05 | |
| **12/18/07** | 304.9 | 149,033 | 14,355 | 1.42 | 148,822 | 31,000 | 3.7 | 51.6 | 1,800 | 0.22 | 2.54 | 37 | 0.00 | 0.05 | |
| **12/27/07** | 518.7 | 170,809 | 21,776 | 1.68 | 170,598 | | 5.6 | 57.3 | | 0.33 | 2.87 | | 0.01 | 0.06 | |
| **01/02/08** | 648.5 | 183,000 | 12,191 | 1.41 | 182,789 | | 4.2 | 61.4 | | 0.24 | 3.11 | | 0.00 | 0.06 | |
| **01/03/08** | 666.7 | 185,361 | 2,361 | 1.64 | 185,150 | 41,000 | 0.8 | 62.2 | 2,400 | 0.05 | 3.16 | 35 | 0.00 | 0.06 | |
| **01/10/08** | 690.4 | 189,800 | 4,439 | 0.44 | 189,589 | | 1.5 | 63.7 | | 0.09 | 3.25 | | 0.00 | 0.06 | |
| **01/11/08** | 718.3 | 197,700 | 7,900 | 5.49 | 197,489 | | 2.7 | 66.5 | | 0.16 | 3.41 | | 0.00 | 0.07 | |
| **01/18/08** | 882.8 | 233,945 | 36,245 | 3.60 | 233,734 | 36,000 | 10.9 | 77.3 | 1,000 | 0.30 | 3.71 | 35 | 0.01 | 0.08 | |
| **01/23/08** | 1004.7 | 254,185 | 20,240 | 2.81 | 253,974 | | 6.1 | 83.4 | | 0.17 | 3.88 | | 0.01 | 0.08 | |
| **01/30/08** | 1061.7 | 268,200 | 14,015 | 1.39 | 267,989 | | 4.2 | 87.6 | | 0.12 | 4.00 | | 0.00 | 0.09 | |
| **02/07/08** | 1233.7 | 312,800 | 44,600 | 3.87 | 312,589 | 65,000 | 24.2 | 111.8 | 2,400 | 0.89 | 4.89 | 21 | 0.01 | 0.09 | |
| **02/14/08** | 1399.6 | 341,772 | 28,972 | 2.87 | 341,561 | | 15.7 | 127.5 | | 0.58 | 5.47 | | 0.01 | 0.10 | 2 |
| **02/26/08** | 1427.7 | 346,091 | 4,319 | 0.25 | 345,880 | | 2.3 | 129.9 | | 0.09 | 5.56 | | 0.00 | 0.10 | 4 |
| **03/04/08** | 1428.2 | 346,400 | 309 | 0.03 | 346,189 | | 0.2 | 130.0 | | 0.01 | 5.56 | | 0.00 | 0.10 | |
| **03/05/08** | 1,428.2 | 346,400 | 0 | 0.00 | 346,189 | 40,000 | 0.0 | 130.0 | 2,100 | 0.00 | 5.56 | 28 | 0.00 | 0.10 | |
| **03/13/08** | 1,617.8 | 379,835 | 33,435 | 2.90 | 379,624 | 37,000 | 10.3 | 140.4 | 1,700 | 0.47 | 6.04 | 37 | 0.01 | 0.11 | |
| **08/01/08** | 1,617.8 | 379,835 | 1,000 | 0.00 | 379,624 | 41,000 | 0.3 | 140.7 | 1,500 | 0.01 | 6.05 | 36 | 0.00 | 0.11 | 5 |
| **08/08/08** | 1,623.1 | 380,302 | 467 | 0.05 | 380,091 | 40,000 | 0.2 | 140.9 | 1,900 | 0.01 | 6.06 | 35 | 0.00 | 0.11 | |
| **08/14/08** | 1,734.0 | 393,425 | 13,123 | 1.52 | 393,214 | | 4.4 | 145.2 | | 0.21 | 6.27 | | 0.00 | 0.12 | |
| **08/22/08** | 1,928.0 | 411,400 | 17,975 | 1.56 | 411,189 | | 6.0 | 151.2 | | 0.28 | 6.55 | | 0.01 | 0.12 | |
| **08/26/08** | 2,052.0 | 421,400 | 10,000 | 1.74 | 421,189 | | 3.3 | 154.6 | | 0.16 | 6.71 | | 0.00 | 0.12 | |
| **08/29/08** | 2,095.7 | 425,300 | 3,900 | 0.90 | 425,089 | | 1.3 | 155.9 | | 0.06 | 6.77 | | 0.00 | 0.12 | |
| **09/03/08** | 2,218.9 | 436,999 | 11,699 | 1.62 | 436,788 | 31,000 | 3.0 | 158.9 | 970 | 0.09 | 6.87 | 33 | 0.00 | 0.13 | |
| **09/10/08** | 2,384.8 | 453,500 | 16,501 | 1.64 | 453,289 | | 4.3 | 163.2 | | 0.13 | 7.00 | | 0.00 | 0.13 | |
| **09/11/08** | 2,406.8 | 456,388 | 2,888 | 2.01 | 456,177 | | 0.7 | 163.9 | | 0.02 | 7.02 | | 0.00 | 0.13 | |
| **09/17/08** | 2,555.1 | 472,712 | 16,324 | 1.89 | 472,501 | 32,000 | 4.2 | 168.1 | 1,300 | 0.13 | 7.15 | 22 | 0.00 | 0.14 | |
| **09/22/08** | 2,674.4 | 484,718 | 12,006 | 1.67 | 484,507 | | 3.1 | 171.3 | | 0.10 | 7.25 | | 0.00 | 0.14 | |
| **09/25/08** | 2,743.4 | 491,450 | 6,732 | 1.56 | 491,239 | | 1.7 | 173.0 | | 0.05 | 7.31 | | 0.00 | 0.14 | |
| **10/01/08** | 2,880.0 | 504,825 | 13,375 | 1.55 | 504,614 | 26,000 | 2.9 | 175.9 | 980 | 0.11 | 7.42 | 28 | 0.00 | 0.15 | |
| **10/07/08** | 3,030.7 | 504,826 | 1 | 0.00 | 504,615 | | 0.0 | 175.9 | | 0.00 | 7.42 | | 0.00 | 0.15 | |
| **10/14/08** | 3,203.0 | 521,800 | 16,974 | 1.68 | 521,589 | | 3.7 | 179.6 | | 0.14 | 7.55 | | 0.00 | 0.15 | |
| **10/16/08** | 3,249.5 | 525,436 | 3,636 | 1.26 | 525,225 | 27,000 | 0.8 | 180.4 | 1,100 | 0.03 | 7.59 | 34 | 0.00 | 0.15 | |
| **10/20/08** | 3,342.5 | 532,668 | 7,232 | 1.26 | 532,457 | | 1.6 | 182.0 | | 0.07 | 7.65 | | 0.00 | 0.15 | |
| **10/30/08** | 3,587.3 | 551,119 | 18,451 | 1.28 | 550,908 | | 4.2 | 186.2 | | 0.17 | 7.82 | | 0.01 | 0.16 | |
| **11/04/08** | 3,710.8 | 566,883 | 15,764 | 2.19 | 566,672 | 25,000 | 3.3 | 189.5 | 670 | 0.09 | 7.91 | 24 | 0.00 | 0.16 | |
| **11/14/08** | 3,928.6 | 591,371 | 24,488 | 1.70 | 591,160 | | 5.1 | 194.6 | | 0.14 | 8.05 | | 0.00 | 0.17 | |

**TABLE 6: GROUNDWATER EXTRACTION AND TREATMENT SYSTEM**
Operational Data
Former Chevron Station # 9-0260
21995 Foothill Boulevard, Hayward, California

| Date | | | | | | TPHg | | | Benzene | | | MTBE | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hour Meter | Flow Meter Reading | Period Volume | Period Operational Flow Rate | Cumulative Volume Discharged | TPHg Concentration | Period Removal[5] | Cumulative Removal | Benzene Concentration | Period Removal[5] | Cumulative Removal | MTBE Concentration | Period Removal[5] | Cumulative Removal | |
| (mm/dd/yy) | (hours) | (gal) | (gal) | (gpm) | (gal) | (µg/L) | (pounds) | (pounds) | (µg/L) | (pounds) | (pounds) | (µg/L) | (pounds) | (pounds) | |
| **11/21/08** | 4,100.2 | 609,095 | 17,724 | 1.76 | 608,884 | 87,000 | 12.9 | 207.4 | 2,700 | 0.40 | 8.45 | 30 | 0.00 | 0.17 | |
| **11/26/08** | 4,215.2 | 619,510 | 10,415 | 1.45 | 619,299 | | 7.6 | 215.0 | | 0.23 | 8.68 | | 0.00 | 0.17 | |
| **12/03/08** | 4,384.8 | 634,191 | 14,681 | 1.46 | 633,980 | 33,000 | 4.0 | 219.1 | 710 | 0.09 | 8.77 | 26 | 0.00 | 0.18 | |
| **12/04/08** | 4,400.2 | 635,755 | 1,564 | 1.09 | 635,544 | | 0.4 | 219.5 | | 0.01 | 8.78 | | 0.00 | 0.18 | |
| **12/10/08** | 4,540.5 | 648,910 | 13,155 | 1.52 | 648,699 | | 3.6 | 223.1 | | 0.08 | 8.86 | | 0.00 | 0.18 | |
| **12/18/08** | 4,733.3 | 666,837 | 17,927 | 1.56 | 666,626 | 39,000 | 5.8 | 228.9 | 730 | 0.11 | 8.97 | 24 | 0.00 | 0.18 | |
| **12/23/08** | 4,849.8 | 678,134 | 11,297 | 1.57 | 677,923 | | 3.7 | 232.6 | | 0.07 | 9.03 | | 0.00 | 0.19 | |
| **12/30/08** | 5,019.9 | 696,221 | 18,087 | 1.79 | 696,010 | | 5.9 | 238.5 | | 0.11 | 9.15 | | 0.00 | 0.19 | |
| **01/06/09** | 5,190.8 | 713,656 | 17,435 | 1.73 | 713,445 | 21,000 | 3.1 | 241.6 | 690 | 0.10 | 9.25 | 22 | 0.00 | 0.19 | |
| **01/09/09** | 5,257.3 | 719,457 | 5,801 | 1.34 | 719,246 | | 1.0 | 242.6 | | 0.03 | 9.28 | | 0.00 | 0.19 | |
| **01/10/09** | 5,285.0 | 720,715 | 1,259 | 0.87 | 720,504 | | 0.2 | 242.8 | | 0.01 | 9.29 | | 0.00 | 0.19 | |
| **01/15/09** | 5,407.8 | 730,670 | 9,955 | 1.38 | 730,459 | | 1.7 | 244.5 | | 0.06 | 9.34 | | 0.00 | 0.20 | |
| **01/21/09** | 5,551.8 | 746,771 | 16,101 | 1.86 | 746,560 | 17,000 | 2.3 | 246.8 | 640 | 0.09 | 9.43 | 25 | 0.00 | 0.20 | |
| **01/29/09** | 5,714.0 | 764,570 | 17,799 | 1.55 | 764,359 | | 2.5 | 249.3 | | 0.10 | 9.52 | | 0.00 | 0.20 | |
| **02/03/09** | 5,800.3 | 778,493 | 13,923 | 1.93 | 778,282 | 17,000 | 2.0 | 251.3 | 530 | 0.06 | 9.59 | 21 | 0.00 | 0.21 | |
| **02/12/09** | 5,813.7 | 795,800 | 17,307 | 1.34 | 795,589 | | 2.5 | 253.8 | | 0.08 | 9.66 | | 0.00 | 0.21 | |
| **02/18/09** | 5,854.3 | 806,200 | 10,400 | 1.20 | 805,989 | | 1.5 | 255.3 | | 0.05 | 9.71 | | 0.00 | 0.21 | |
| **02/20/09** | 5,891.1 | 814,275 | 8,075 | 2.80 | 814,064 | 35,000 | 2.4 | 257.6 | 660 | 0.04 | 9.75 | 200 | 0.01 | 0.22 | |
| **02/25/09** | 5,931.4 | 822,654 | 8,379 | 1.16 | 822,443 | | 2.4 | 260.1 | | 0.05 | 9.80 | | 0.01 | 0.24 | |
| **03/03/09** | 6,062.5 | 850,576 | 27,922 | 3.23 | 850,365 | 12,000 | 2.8 | 262.9 | 350 | 0.08 | 9.88 | 12 | 0.00 | 0.24 | |
| **03/04/09** | 6,075.0 | 853,991 | 3,415 | 2.37 | 853,780 | | 0.3 | 263.2 | | 0.01 | 9.89 | | 0.00 | 0.24 | |
| **03/06/09** | 6,123.4 | 864,918 | 10,927 | 3.79 | 864,707 | | 1.1 | 264.3 | | 0.03 | 9.92 | | 0.00 | 0.24 | |
| **03/09/09** | 6,169.2 | 878,100 | 13,182 | 3.05 | 877,889 | | 1.3 | 265.6 | | 0.04 | 9.96 | | 0.00 | 0.24 | |
| **03/13/09** | 6,191.4 | 883,831 | 5,731 | 0.99 | 883,620 | | 0.6 | 266.2 | | 0.02 | 9.98 | | 0.00 | 0.24 | |
| **03/16/09** | 6,225.9 | 897,472 | 13,641 | 3.16 | 897,261 | 27,000 | 3.1 | 269.3 | 630 | 0.07 | 10.05 | 26 | 0.00 | 0.25 | |
| **03/25/09** | 6,231.3 | 903,200 | 5,728 | 0.44 | 902,989 | | 1.3 | 270.5 | | 0.03 | 10.08 | | 0.00 | 0.25 | |
| **05/11/09** | 6,238.2 | 906,017 | 2,817 | 0.04 | 905,806 | | 0.6 | 271.2 | | 0.01 | 10.09 | | 0.00 | 0.25 | |
| **05/13/09** | 6,278.0 | 912,700 | 6,683 | 2.32 | 912,489 | | 1.5 | 272.7 | | 0.04 | 10.13 | | 0.00 | 0.25 | |
| **05/14/09** | 6,291.9 | 915,463 | 2,763 | 1.92 | 915,252 | 48,000 | 1.1 | 273.8 | 800 | 0.02 | 10.15 | 41 | 0.00 | 0.25 | |
| **05/19/09** | 6,369.3 | 932,195 | 16,732 | 2.32 | 931,984 | | 6.7 | 280.5 | | 0.11 | 10.26 | | 0.01 | 0.26 | |
| **05/21/09** | 6,415.5 | 940,780 | 8,585 | 2.98 | 940,569 | | 3.4 | 283.9 | | 0.06 | 10.32 | | 0.00 | 0.26 | |
| **05/27/09** | 6,562.6 | 964,884 | 24,104 | 2.79 | 964,673 | | 9.7 | 293.6 | | 0.16 | 10.48 | | 0.01 | 0.27 | |
| **05/28/09** | 6,586.1 | 969,300 | 4,416 | 3.07 | 969,089 | | 1.8 | 295.4 | | 0.03 | 10.51 | | 0.00 | 0.27 | |
| **06/01/09** | 6,677.7 | 987,100 | 17,800 | 3.09 | 986,889 | | 7.1 | 302.5 | | 0.10 | 10.61 | | 0.00 | 0.27 | |
| **06/03/09** | 6,725.3 | 989,952 | 2,852 | 0.99 | 989,741 | | 1.1 | 303.6 | | 0.02 | 10.63 | | 0.00 | 0.27 | |
| **06/05/09** | 6,777.7 | 994,455 | 4,503 | 1.56 | 994,244 | 29,000 | 1.1 | 304.7 | 690 | 0.03 | 10.65 | 32 | 0.00 | 0.28 | |
| **06/08/09** | 6,847.9 | 1,000,000 | 5,545 | 1.28 | 999,789 | | 1.3 | 306.1 | | 0.03 | 10.68 | | 0.00 | 0.28 | |
| **06/19/09** | 7,022.7 | 1,029,670 | 29,670 | 1.87 | 1,029,459 | | 7.2 | 313.2 | | 0.17 | 10.86 | | 0.01 | 0.29 | |
| **06/25/09** | 7,026.5 | 1,031,225 | 1,555 | 0.18 | 1,031,014 | | 0.4 | 313.6 | | 0.01 | 10.86 | | 0.00 | 0.29 | |
| **07/02/09** | 7,105.7 | 1,047,007 | 15,782 | 1.57 | 1,046,796 | | 3.8 | 317.4 | | 0.09 | 10.96 | | 0.00 | 0.29 | |
| **07/08/09** | 7,123.4 | 1,049,143 | 2,136 | 0.25 | 1,048,932 | 27,000 | 0.5 | 317.9 | 710 | 0.01 | 10.97 | 35 | 0.00 | 0.29 | |
| **07/15/09** | 7,161.0 | 1,052,800 | 3,657 | 0.36 | 1,052,589 | | 0.8 | 318.7 | | 0.02 | 10.99 | | 0.00 | 0.29 | |
| **07/22/09** | 7,327.9 | 1,066,800 | 14,000 | 1.39 | 1,066,589 | | 3.2 | 321.9 | | 0.08 | 11.07 | | 0.00 | 0.30 | |
| **09/02/09** | 7,329.0 | 1,066,800 | 0 | 0.00 | 1,066,589 | 30,000 | 0.0 | 321.9 | 700.0 | 0.00 | 11.07 | 33.0 | 0.00 | 0.30 | |
| **09/03/09** | 7,337.6 | 1,069,900 | 3,100 | 2.15 | 1,069,689 | | 0.8 | 322.7 | | 0.02 | 11.09 | | 0.00 | 0.30 | |
| **09/09/09** | 7,484.7 | 1,090,472 | 20,572 | 2.38 | 1,090,261 | | 5.1 | 327.8 | | 0.12 | 11.21 | | 0.01 | 0.30 | |
| **09/17/09** | 7,560.0 | 1,101,956 | 11,484 | 1.00 | 1,101,745 | | 2.9 | 330.7 | | 0.07 | 11.28 | | 0.00 | 0.31 | |
| **09/22/09** | 7,680.0 | 1,132,472 | 30,516 | 4.24 | 1,132,261 | | 7.6 | 338.3 | | 0.18 | 11.46 | | 0.01 | 0.31 | |
| **10/02/09** | 7,881.9 | 1,133,286 | 814 | 0.06 | 1,133,075 | 24,000 | 0.2 | 338.5 | 650.0 | 0.00 | 11.46 | 21.0 | 0.00 | 0.31 | |
| **10/07/09** | 7,899.4 | 1,137,965 | 4,679 | 0.65 | 1,137,754 | | 0.9 | 339.4 | | 0.03 | 11.49 | | 0.00 | 0.32 | |
| **10/16/09** | 7,921.4 | 1,146,420 | 8,455 | 0.65 | 1,146,209 | | 1.7 | 341.1 | | 0.05 | 11.53 | | 0.00 | 0.32 | |
| **10/22/09** | 7,924.0 | 1,147,971 | 1,551 | 0.18 | 1,147,760 | | 0.3 | 341.4 | | 0.01 | 11.54 | | 0.00 | 0.32 | |
| **10/28/09** | 7,981.0 | 1,161,200 | 13,229 | 1.53 | 1,160,989 | | 2.6 | 344.1 | | 0.07 | 11.61 | | 0.00 | 0.32 | |
| **10/29/09** | 8,009.5 | 1,164,700 | 3,500 | 2.43 | 1,164,489 | | 0.7 | 344.8 | | 0.02 | 11.63 | | 0.00 | 0.32 | |
| **11/04/09** | 8,096.0 | 1,179,157 | 14,457 | 1.67 | 1,178,946 | 18,000 | 2.2 | 347.0 | 700.0 | 0.08 | 11.72 | 43.0 | 0.01 | 0.32 | |

**TABLE 6: GROUNDWATER EXTRACTION AND TREATMENT SYSTEM**

Operational Data

Former Chevron Station # 9-0260

21995 Foothill Boulevard, Hayward, California

| Date | | | | | | TPHg | | | Benzene | | | MTBE | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hour Meter | Flow Meter Reading | Period Volume | Period Operational Flow Rate | Cumulative Volume Discharged | TPHg Concentration | Period Removal[5] | Cumulative Removal | Benzene Concentration | Period Removal[5] | Cumulative Removal | MTBE Concentration | Period Removal[5] | Cumulative Removal | |
| (mm/dd/yy) | (hours) | (gal) | (gal) | (gpm) | (gal) | (µg/L) | (pounds) | (pounds) | (µg/L) | (pounds) | (pounds) | (µg/L) | (pounds) | (pounds) | |
| **11/10/09** | 8,238.7 | 1,191,500 | 12,343 | 1.43 | 1,191,289 | | 1.9 | 348.8 | | 0.07 | 11.79 | | 0.00 | 0.33 | |
| **11/16/09** | 8,386.9 | 1,213,431 | 21,931 | 2.54 | 1,213,220 | | 3.3 | 352.1 | | 0.13 | 11.92 | | 0.01 | 0.34 | |
| **11/24/09** | 8,577.5 | 1,237,700 | 24,269 | 2.11 | 1,237,489 | | 3.6 | 355.8 | | 0.14 | 12.06 | | 0.01 | 0.35 | |
| **12/01/09** | 8,744.9 | 1,256,800 | 19,100 | 1.89 | 1,256,589 | 17,000 | 2.7 | 358.5 | 420.0 | 0.07 | 12.13 | 16.0 | 0.00 | 0.35 | |
| **12/09/09** | 8,933.9 | 1,276,800 | 20,000 | 1.74 | 1,276,589 | | 2.8 | 361.3 | | 0.07 | 12.20 | | 0.00 | 0.35 | |
| **12/15/09** | 9,047.3 | 1,293,214 | 16,414 | 1.90 | 1,293,003 | | 2.3 | 363.6 | | 0.06 | 12.25 | | 0.00 | 0.35 | |
| | | | **Total Extracted Volume (gal):** | | **1,293,003** | **Pounds Removed:** | | **363.6** | **Pounds Removed:** | | **12.25** | **Pounds Removed:** | | **0.35** | |
| | | | **Average Operational Flow Rate (gpm):** | | **0.99** | **Gallons Removed:** | | **59.7** | **Gallons Removed:** | | **1.67** | **Gallons Removed:** | | **0.06** | |

**Notes:**

1. = Hour Meter installed beginning at zero.
2. = System shutdown for carbon change out.
3. = BISCO unit was reset to zero hours following replacement of PLC
4. = System restarted for collecting compliance vapor samples. Upon collection of vapor samples, system was turned off pending carbon changeout.
5. = Approximately 1,000 gallons of water pumped on 8/1/08 was not discharged to the sewer. Water was hauled offsite by IWM.
6. = System started for full time operation.

**Formulas and Assumptions:**

1. Mass Removed During the Period = Volume of Water Extracted (in gallons) x Concentration (ug/L) x (g/$10^6$ug) x (pound/453.6g) x (3.785 L/gal)
   When concentration of individual parameters were not detected, the concentration was assumed to half the detection limit for calculation purposes
2. Gallons Removed = Mass (pounds) x (Density)$^{-1}$ (cc/g) x 453.6 (g/pound) x (L/1000 cc) x (gal/3.785 L)
   Density: = 0.73 g/cc
   = 0.88 g/cc
   = 0.74 g/cc
3. Average Flow Rate = (Gallons of Extracted Water (gal) / Number of Operational Days) * (60 min/hr) * (24 hours/day)

**Abbreviations:**

TPHg = total petroleum hydrocarbons quantified as gasoline (by EPA Method 8015B)

BTEX = benzene, toluene, ethylbenzene, and total xylenes (by EPA Method 8020)
MTBE = methyl tert-butyl ether (by EPA Method 8260B)

L = liter
µg/L = micrograms per liter
gal = gallon
gpm = gallon per minute
lbs = pounds
mg = milligrams per liter
g = grams
Blank Cell = indicates not sampled

# APPENDIX A

# OCTOBER 9, 2009 REGULATORY CORRESPONDENCE

ALAMEDA COUNTY
**HEALTH CARE SERVICES**
AGENCY
ALEX BRISCOE, Acting Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 9, 2009

Mr. Aaron Costa
6111 Bollinger Canyon Road RM 3360
PO Box 6012
San Ramon, CA 94583-2324
(sent via electronic mail to acosta@chevron.com)

Subject: Soil & Water Investigation Report Required; Fuel Leak Case No. RO0000383 (Global ID # T0600100315), Chevron #9-0260, 21995 Foothill Boulevard, Hayward, CA 94541

Dear Mr. Costa:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site and the documents entitled *Third Quarter 2008 Groundwater Monitoring and Sampling Report* prepared by Conestoga Rovers Associates (CRA), and dated November 14, 2008, the *Additional Subsurface Investigation Work Plan,* and a Work Plan *Email Addendum,* dated May 27 2004 and November 8, 2005, respectively, and prepared by Cambria Environmental Technology, Inc. (Cambria). Groundwater analytical data collected in November 2008 indicate that significantly elevated levels of dissolved phase petroleum hydrocarbon contamination were detected at concentrations of up to 60,000 micrograms per liter (µg/L) TPH as Gasoline, and 3,200 µg/L benzene. In directive letters dated July 22, 2004, and November 14, 2005, ACEH concurred with the work plan and modifications; however, no report has been submitted to our office documenting the results of the investigation. The July 22, 2004, ACEH letter set the deadline for submittal of an additional subsurface investigation at 60 days after completion of the activities, and required a revised Site Conceptual Model (SCM), revised cross-sections and isopachs, any additional work plans for tasks necessary to refine the SCM. CPT bores are reported to have been installed in 2005, and the lithology has been used in cross-sections presented in the Work Plan *Email Addition;* however, a report on the installation of the bores or other associated work has not been submitted to ACEH. This site is not in compliance with ACEH directives.

Based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below.

**TECHNICAL COMMENTS**

1) **Proposed Soil and Groundwater Sampling Results.** In May 2004, Chevron submitted a work plan to install up to 14 CPT borings to define the lateral and vertical extent of contamination both onsite and offsite. In a directive letter dated July 22, 2004 ACEH approved the work plan. It appears that 14 CPT borings were installed; however, ACEH has not received a report documenting the results of the investigation. We request that you submit the results from the previously approved soil and groundwater investigation work plan in a Soil and Groundwater & Interim Remediation Report according to the schedule below. This is not an extension of the due date for the submission of the results from the previously approved work plan, reports for your site are late and you are out of compliance with directives from this agency.

2) **Proposed Soil Vapor Sampling.** In May 2004, Chevron proposed the installation of six soil vapor sample points co-located with six the CPT points to evaluate the potential risk associated with the soil vapor to indoor

air migration pathway for offsite residences; ACEH approved the installation of the soil vapor point in a directive letter dated July 22, 2004. To date, we have not received a report documenting the installation of the soil vapor points or the results from the soil vapor sampling. We request that you submit the results from the soil vapor sampling in the Soil and Groundwater & Interim Remediation Report according to the schedule below. This is not an extension of the due date for the submission of the results from the previously approved soil vapor sampling, reports for your site are late and you are out of compliance with directives from this agency.

3) **Well Survey, Public Notification, and Sensitive Receptor Survey.** In May 2004 Chevron proposed to conduct a community door-to-door well survey within the neighborhood; ACEH approved the draft neighborhood notification in a directive letter dated July 22, 2004. To date we have not received a report documenting the results of this community survey. Email correspondence dated June 13, 2005, between Hugh Murphy and ACEH indicated that Chevron was considering decommissioning vicinity residential wells as a good will gesture to the residents. ACEH is requesting an update on current status relative to this potential work be included in the Soil and Groundwater & Interim Remediation Report requested below. This is not an extension of the due date for the submission of the results from the previously approved soil vapor sampling, reports for your site are late and you are out of compliance with directives from this agency.

4) **Vapor Intrusion Pathways.** Advances in vapor intrusion since the May 2004 proposal to collect soil vapor samples indicate that the inclusion of, at a minimum, the presence of basements in the survey area to be appropriate, in particular due to the relative age of the building stock. This could easily be expanded to building foundation type for surveyed structures to preclude additional inquiries. Plots of residential wells, basements, and any other structure of import, in addition to pertinent soil and groundwater plume details, on an aerial photographic base map would allow rapid assessment of potential affects to the local community; please include these. We request you submit, in addition to the results from the community survey, the results of an inquiry into the presence of basement structures and foundation type on an aerial photographic base map in the Soil and Groundwater & Interim Remediation Report, according to the schedule below.

5) **Remedial Action Verification Sampling.** In May 2004 Chevron proposed the installation of six soil borings to evaluate the efficacy of previous interim remedial activities onsite (soil vapor extraction from 1997 to 2002). In a directive letter dated July 22, 2004 ACEH concurred with the proposal to collect onsite interim remediation verification soil and groundwater samples; however, we have been unable confirm that verification soil and groundwater samples have been collected. We request that you submit the results of verification sampling in the Soil and Groundwater & Interim Remediation Report requested below. This is not an extension of the due date for the submission of the results from the previously approved confirmation soil sampling, reports for your site are late and you are out of compliance with directives from this agency.

6) **Proposed Monitoring Well and DPE Well Installation.** In November 2005, Chevron proposed the installation of seven groundwater monitoring wells (both onsite and offsite) to evaluate petroleum hydrocarbon impacts to the deep water bearing zone at 30 feet to 40 feet below ground surface. In a directive letter dated November 14, 2005, ACEH concurred with the installation of seven monitoring wells to confirm the presence of contamination detected during the installation of the CPT borings. It appears that one monitoring well was installed onsite (MW-19) to evaluate the deeper water bearing zone; however, no explanation or discussion was presented to justify changing the previously approved scope of work, which called for the installation of seven monitoring wells. We request that you submit the results of verification sampling in the Soil and Groundwater & Interim Remediation Report requested below.

7) **Additional Interim Remediation.** In November 2005 Chevron also proposed the installation of six new DPE wells onsite to enhance the existing extraction well network. Well DVE-18 was proposed to be used, but has since been documented to have been destroyed in the November 17, 2006 *Monitoring Well Installation, Modification and Destruction Report* generated by Cambria. ACEH has either not received a report documenting the results from the monitoring well installation or the DPE well installation, or the change to justify destruction of DVE-18.

Subsequently, Chevron implemented the interim remedial action that included the installation and operation of a dual phase soil vapor and groundwater extraction and treatment system. The DPE remediation system is currently in operation and preliminary results indicate that system is effectively removing vapor phase and dissolved phase contamination from beneath your site. We request that you utilize the geologic content of more recent bore logs to update cross sections for the site and downgradient vicinity to help justify the DPE system, and to help determine if all SCM data gaps have been filled. ACEH appreciates submittal of relevant information for the project; however, we request that you submit all results from monitoring and DPE well installation in the Soil and Groundwater & Interim Remediation Report, according to the schedule below. This is not an extension of the due date for the previously approved soil and groundwater investigation report, as such reports for your site are late and you are out of compliance with directives from this agency.

8) **Draft Corrective Action Plan (CAP).** In a directive letter from ACEH dated April 7, 2004 we requested that you prepare and submit a CAP upon completion of a soil and groundwater investigation. ACEH approved the work plan for the soil and groundwater investigation in a directive letter dated July 22, 2004. In the same directive letter, ACEH reiterated that a CAP was necessary to evaluate technically and economically feasible remedial alternatives which would protect human health and the environment and meet the water quality objectives and cleanup goals as established in the CAP.

At this time, it appears that a Draft CAP that meets the provisions of Section 2725 of the UST regulations (Title 23, California Code of Regulations, Chapter 16) is warranted. The Draft CAP must include a concise background of soil and groundwater investigations performed in connection with this case and an assessment of the residual impacts of the chemicals of concern (COCs) for the site and the surrounding area where the unauthorized release has migrated or may migrate. The Draft CAP should also include, but is not limited to, a detailed description of site lithology, including soil permeability, receptor information including likely future land use scenarios, adjacent land use and sensitive receptors, and potential groundwater receptors, and most importantly, contamination cleanup levels and cleanup goals, in accordance with the San Francisco Regional Water Quality Control Board (SFRWQCB) Basin Plan and appropriate ESL guidance for all COCs and for the appropriate groundwater designation. Please note that soil cleanup levels should ultimately (within a reasonable timeframe) achieve water quality objectives (cleanup goals) for groundwater in accordance with the SFRWQCB Basin Plan. Please specify appropriate cleanup levels and cleanup goals in accordance with 23 CCR Section 2725, 2726, and 2727 in the Draft CAP.

The Draft CAP must evaluate at least three viable alternatives for remedying or mitigating the actual or potential adverse affects of the unauthorized release(s) besides the 'no action' and 'monitored natural attenuation' remedial alternatives. Each alternative shall be evaluated not only for cost-effectiveness but also its timeframe to reach cleanup levels and cleanup goals, include a discussion of the feasibility and limitations for each remedial alternative, a detailed description of proposed remediation including confirmation sampling and monitoring during implementation, and post-remedial monitoring.

Please provide the future development plans for the site to help in evaluation of the receptor information and proposed cleanup goals. Public participation is a requirement for the CAP process. Therefore, we request that you submit a Draft CAP for ACEH review according to the following schedule. Upon ACEH approval of a Draft CAP, ACEH will notify potentially affected members of the public who live or own property in the surrounding area of the proposed remediation described in the Draft CAP. Public comments on the proposed remediation will be accepted for a 30-day period.

9) **Wellhead Survey Data.** An online review of Geotracker indicates that only two of 18 or more active wells have been surveyed to Geotracker standards. Geotracker well standards have existed and have been required since 2001; we require that a licensed professional surveyor survey all monitoring well locations to Geotracker horizontal and vertical standards.

**TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Mark Detterman), according to the following schedule:

- **January 15, 2010 –** Soil and Groundwater & Interim Remediation Report. We request you identify remaining data gaps in this report.
- **February 15, 2010 –** Draft Corrective Action Plan.

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Mark E. Detterman
Hazardous Materials Specialist, P.G., C.E.G.

cc: Charlotte Evans, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A, Emeryville, CA, 94608 (sent via electronic mail to cevans@craworld.com)
Donna Drogos (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
File

| Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) | **ISSUE DATE:** July 5, 2005 |
|---|---|
| | **REVISION DATE:** March 27, 2009 |
| | **PREVIOUS REVISIONS:** December 16, 2005, October 31, 2005 |
| **SECTION:** Miscellaneous Administrative Topics & Procedures | **SUBJECT:** Electronic Report Upload (ftp) Instructions |

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

**REQUIREMENTS**

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

**Additional Recommendations**

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

**Submission Instructions**

1) Obtain User Name and Password:
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
         Or
      ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape and Firefox browsers will not open the FTP site.
   b) Click on File, then on Login As.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

# APPENDIX B

# SUMMARY OF PREVIOUS ENVIRONMENTAL WORK

## SUMMARY OF PREVIOUS ENVIRONMENTAL WORK

***1985 Station Purchase:*** Chevron bought the land and facilities from USA Petroleum Corporation in 1985. Monitoring wells MW-1 through MW-3 existed at this site when it was purchased. No details of the monitoring well installation or construction were available. The wells were installed in the tank field to the depth of the bottom of the tanks. These wells were not used for groundwater monitoring and were removed in 1996.

***1985 UST and Piping Replacement:*** In 1985, Chevron discovered a leak in one of the USTs. The UST was removed and replaced with a double-walled fiberglass UST. No report of this investigation could be located in Alameda County Environmental Health (ACEH) Geographical Information Systems (GIS), Chevron or CRA records.

***1987 Soil Vapor Contaminant Assessment:*** EA Engineering (EA) conducted a vapor investigation in 1987. The highest hydrocarbon vapor concentrations were detected in the vicinity of the station's tank field. Additional information available in EA's December 31, 1987 Report of Soil Vapor Contaminant Assessment.

***January 1988 Subsurface Investigation:*** Weiss Associates (Weiss) advanced six soil borings to further assess subsurface soil conditions and determine whether hydrocarbons had impacted groundwater. Two were advanced adjacent to the USTs to check for releases near the tank field. The remaining four were advanced across the site and completed as monitoring wells MW-4 through MW-7. Two proposed borings, B-6 and B-8 were aborted due to obstructions at depth. Additional information available in Weiss' March 31, 1988 letter report.

***October 1988 Phase II Investigation:*** Weiss drilled four soil borings and completed three of them as wells MW-8 through MW-10. No reports from this investigation could be located in ACEH GIS, Chevron or CRA records.

***June 1989 Phase III Investigation:*** Weiss installed wells MW-11 and MW-12 onsite and MW-13 offsite. Additional information available in Weiss' August 3, 1989 Subsurface Investigation Phase III report.

***August 1990 Subsurface Investigation:*** Weiss installed wells MW-14 through MW-16. Additional information available in Weiss' October 24, 1990 Subsurface Investigation Phase IV report.

***1991 Remediation Design, Installation, and Operation:*** Weiss coordinated the design, permitting and installation of a groundwater extraction system. The system was started on August 23, 1991. The system was temporarily shut-down on December 11, 1991 to install a

100-pound vessel of activated alumina for treatment of arsenic in groundwater. Groundwater treatment resumed on December 20, 1991. Additional information available in a Weiss' March 19, 1992 letter report.

***June 1992 Bioreactor Groundwater Remediation:*** Geraghty & Miller assumed operation of the groundwater extraction system and operated it using a bioreactor and carbon.

***August 1992 Subsurface Investigation:*** Weiss installed wells MW-17 and P-1 to assess the effects of San Lorenzo Creek on groundwater flow in the area (well MW-17 was installed on the far side of the creek). Low hydrocarbon concentrations were detected at 5.5 and 10.5 fbg in P-1 (up to 37 mg/kg TPHg and 0.58 mg/kg benzene). No hydrocarbons were detected in soil from MW-17. Weiss concluded that groundwater flowed toward San Lorenzo Creek from both sides and appeared to recharge San Lorenzo Creek through cracks and joints in the creek's concrete lining. Additional information available in Weiss' September 17, 1992 Subsurface Investigation.

***October 1996 Station Demolition:*** In October 1996 all station facilities were removed, including three 10,000-gallon USTs and product lines. Nearly 1,000 gallons of water and light non aqueous-phase liquid hydrocarbons were pumped from the tank excavation and disposed of offsite. Records indicate that pea gravel and soil overburden was placed back into the tank excavation. Additional information available in Touchstone Development's November 26, 1996 Underground Storage Tank Removal and Sampling Report.

***July 1997 Remediation Well Installation:*** In July 1997, Terra Vac installed sixteen extraction wells and groundwater monitoring well MW-18. Additional information available in Terra Vac's September 29, 1997 Drilling Report.

***July 1997 RBCA:*** In July 1997, Terra Vac submitted a revised risk-based corrective action (RBCA) analysis with the risk-based site specific target levels for benzene of 1,900 micrograms per liter (µg/L) benzene in groundwater and 0.46 mg/kg benzene in soil based on a 10-5 risk. Benzene was the only constituent analyzed that exceeded target risk levels. These risk values were more conservative than current guidance from the Regional Water Quality Control Board – San Francisco Bay Region.[1] No report from this investigation could be located in ACEH GIS, Chevron or CRA records. Based on this RBCA, ACEH established residential land use remediation goals for benzene in groundwater of 1,900 µg/L. Additional information available in Terra Vac's June 3, 1997 Interim Remediation Work Plan and July 18, 1997 Risk Assessment Addendum.

1 San Francisco Bay Region-Regional Water Quality Control Board, (RWQCB), 2008, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Interim final, November 2007, revised May 2008.

***August 1997 Well Survey:*** Gettler-Ryan conducted a survey of water wells in the site vicinity. Two domestic wells were located in the ½-mile search radius. No municipal water supply wells were identified. Additional information available in Gettler-Ryan's August 13, 1997 Well Search report.

***October 1997 Two-Phase Extraction System Installation and Operation:*** In October 1997, Terra Vac installed and started a two-phase extraction (TPE) remediation system. The system used a 600 SCFM Retox thermal oxidizer. During operations, the TPE system removed an estimated 30,800 pounds of hydrocarbons. Vapor-phase hydrocarbon removal rates during the first 60 days of operation ranged from about 100 to 250 pounds per day. Removal rates increased after about 130 days after wells DVE-17, DVE-18 and DVE-19 were installed and added to the system. Hydrocarbon removal rates after 250 days dropped to below 3 pounds per day. Terra Vac operated the system through approximately June 2002. Additional information available in Terra Vac's December 17, 1997 Startup Report.

***December 2002 Well Installation:*** In December 2002, Delta Environmental Consultants (Delta) installed temporary wells TMP-1 and TMP-2 for an upcoming dual-phase extraction (DPE) test. The wells were logged continuously using a direct push soil sampler. Headspace analyses of soil samples indicated a hydrocarbon smear zone from 15.0 to 22.5 fbg in well TMP-1 and from 17.5 to 22.5 fbg in TMP-2. Additional information available in Delta's February 20, 2003 Dual-Phase Extraction Pilot Testing Results Report.

***December 2002 Dual-Phase Extraction (DPE) Pilot Testing:*** In December 2002, Delta Environmental Consultants (Delta) conducted a DPE pilot test utilizing wells MW-4, MW-11 and MW-12 and temporary wells TMP-1 and TMP-2. Results indicated a radius of influence of 27 feet from the extraction point and sufficient drawdown to adequately expose the hydrocarbon smear zone to vapor extraction influence. Additional information is available in Delta's February 20, 2003 Dual-Phase Extraction Pilot Testing Results Report.

***June 2004 Conduit Study:*** In June 2004, Cambria Environmental Technology, Inc. (Cambria) compiled nearby utility location and depth data. Based on maximum utility burial depths and historical maximum groundwater elevation beneath the site, Cambria concluded utilities had not likely acted as potential pathways for hydrocarbon migration from the site. Additional information available in Cambria's June 7, 2004 Conduit Study.

***May 2006 Well Installation, Modifications and Destructions:*** In May 2006, Gregg Drilling installed two wells onsite. Groundwater monitoring well MW-19 was installed in the deeper sands, screened from 35-45 fbg, to investigate hydrocarbons concentrations identified by

previous borings. Remediation well DVE-20 was installed with a screen interval from 10 fbg to 25 fbg to accommodate the installation of a new remediation system. Groundwater monitoring wells MW-5, MW-11, MW-12 and remediation wells DVE-9 and DVE-12 were deepened and screened from 10 fbg to 25 fbg to accommodate the new remediation system. Remediation wells DVE-1 through DVE-8, DVE-10, DVE-11, DVE-13, DVE-17 through DVE-19 and temporary wells TMP-1 and TMP-2 were properly destroyed by pressure grouting. Additional information available in Cambria's November 17, 2006 Monitoring Well Installation, Modification and Destruction Report.

***September 2006 DPE Installation and Operation:*** In September 2006, CRA installed a DPE system consisting of a liquid-ring vacuum pump and thermal/catalytic oxidizer to extract and treat soil vapor, and submersible extraction pumps and aqueous-phase activated carbon to extract and treat groundwater. Operation of the system began in June 2007 and six wells (MW-5, MW-11, MW-12, DVE-, DVE-12 and DVE-20) were included in the network. The system operated through December 2009. As of December 2009, 6,401 pounds of TPHg and 3.2 pounds of benzene had been removed in the vapor phase and 363.6 pounds TPHg, 12.2 pounds benzene, and 0.4 pounds MTBE had been removed from the subsurface by groundwater extraction. The total volume of groundwater extracted was 1,293,003 gallons.

# APPENDIX C

# DUAL PHASE EXTRACTION SYSTEM DESIGN DRAWINGS

# REMEDIAL DESIGN PLANS

**FORMER CHEVRON SERVICE STATION No. 9-0260**
21995 Foothill Boulevard
Hayward, California

## DUAL-PHASE EXTRACTION (DPE) SYSTEM

Prepared for:
**CHEVRON PRODUCTS COMPANY**

Prepared by:
**CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.**

Chevron Contact:

Mark Inglis
tel. 925-842-1589

6001 Bollinger Canyon Road
Building K
San Ramon, CA 94583

03/28/06

I:\9-0260 HAYWARD\FIGURES\SYSTEM DESIGN\TITLE.DWG

**Former Chevron Station 9-0260**
21995 Foothill Boulevard
Hayward, California

**Title Sheet**

CAMBRIA

REMEDIAL DESIGN PLANS

FORMER CHEVRON SERVICE STATION No. 9-0260
21995 Foothill Boulevard
Hayward, California

DUAL-PHASE EXTRACTION (DPE) SYSTEM

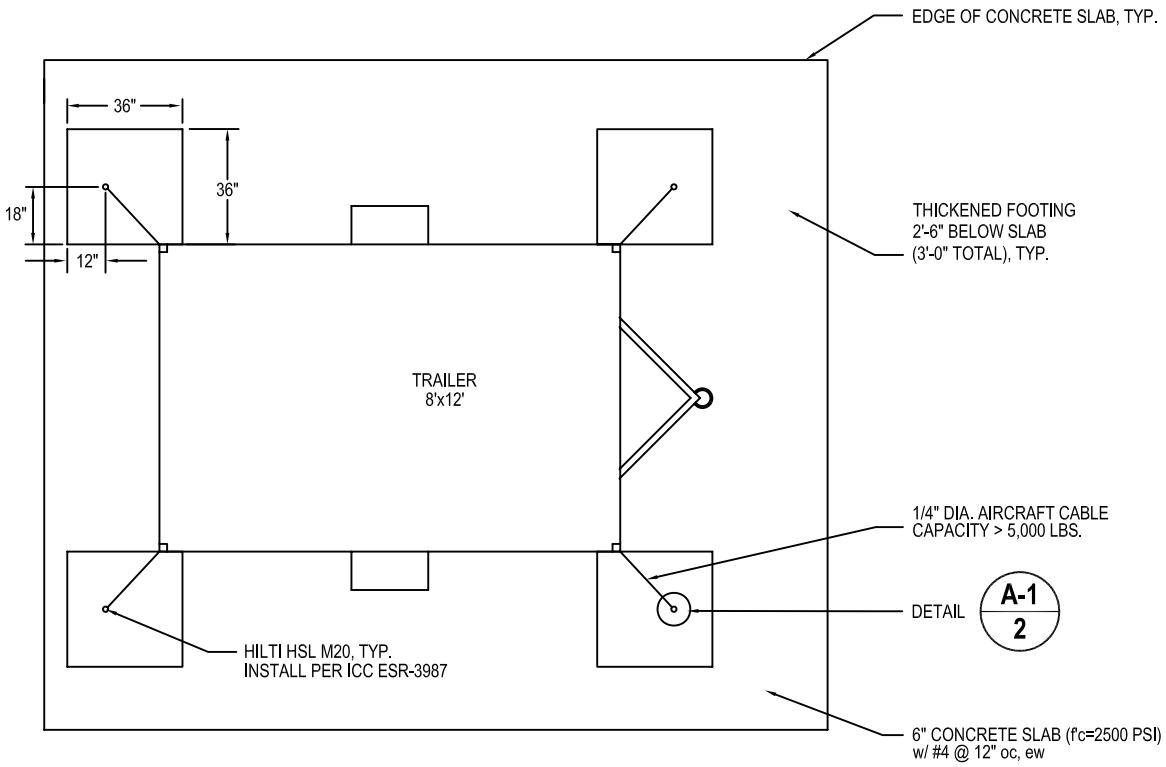
Prepared for:
CHEVRON PRODUCTS COMPANY

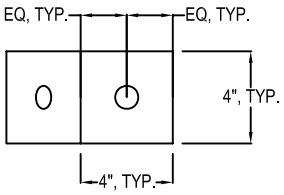
Prepared by:
CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.

Chevron Contact:
Mark Inglis
tel. 925-842-1589
6001 Bollinger Canyon Road
Building K
San Ramon, CA 94583

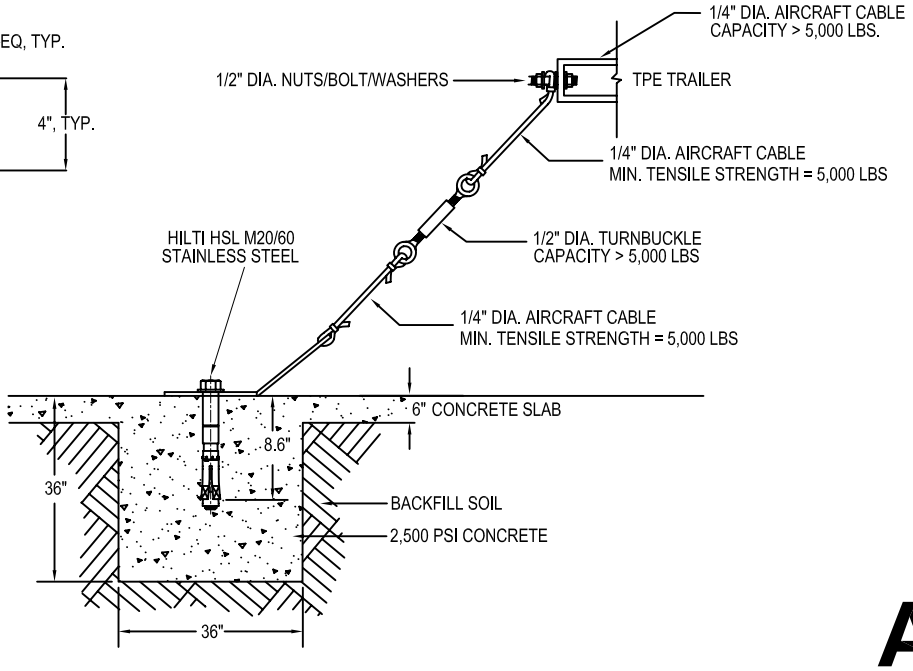
## A-1 / 1 Turnbuckle and Cable Detail

1"=5'




PLAN




## A-1 / 2 Seismic Anchor Detail

Not to Scale

FIGURE

# A-1

I:\9-0260 HAYWARD\FIGURES\REMED SYSTEM DESIGN\CIVIL DETAILS.DWG

**Former Chevron Station 9-0260**

21995 Foothill Boulevard

Hayward, California

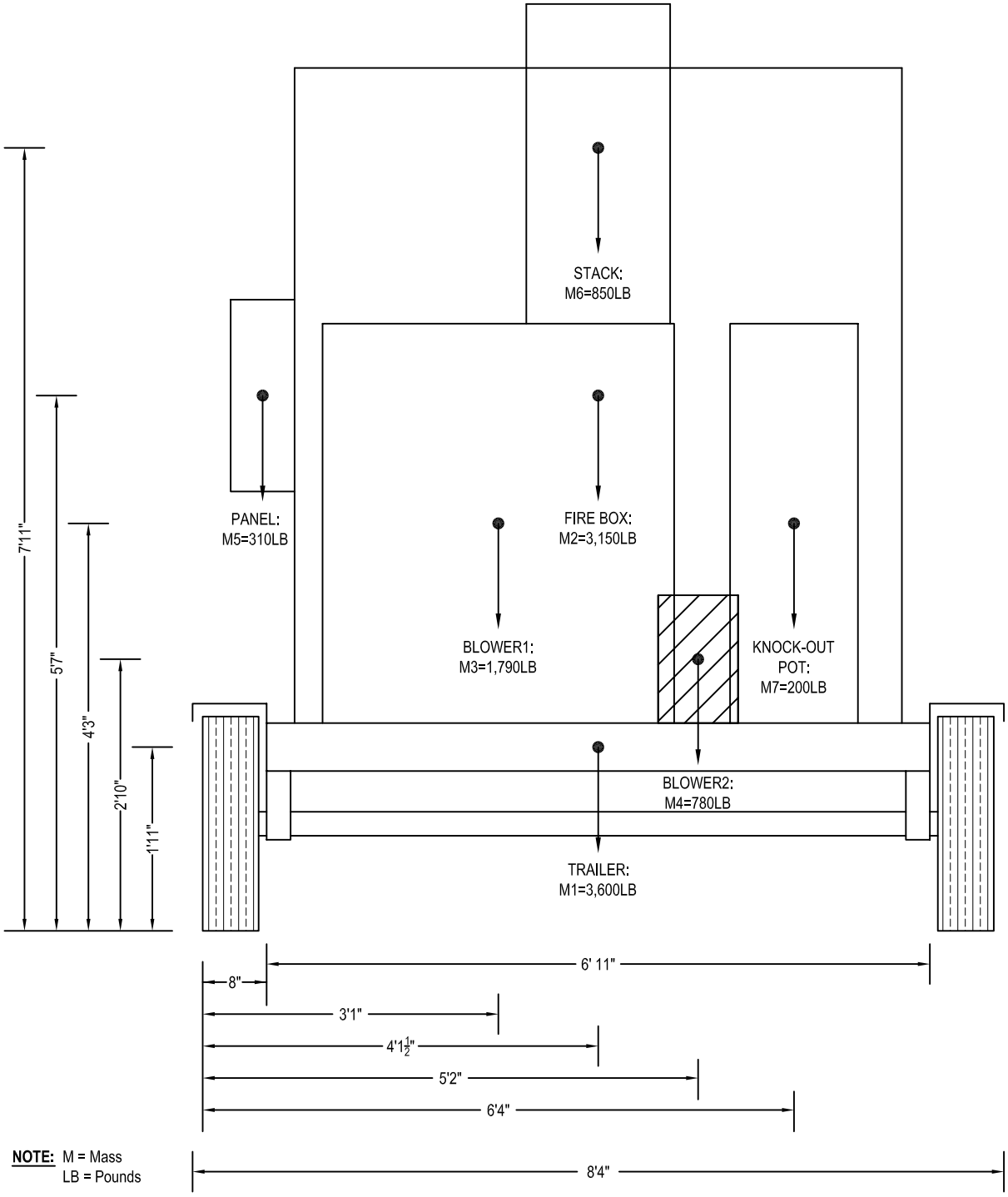
CAMBRIA

**Dual-Phase Extraction System - Civil Details**

A-2
1

## Seismic Calculations - Dual-Phase Extraction Trailer

Not to Scale




**NOTE:** M = Mass
LB = Pounds

FIGURE
**A-2**

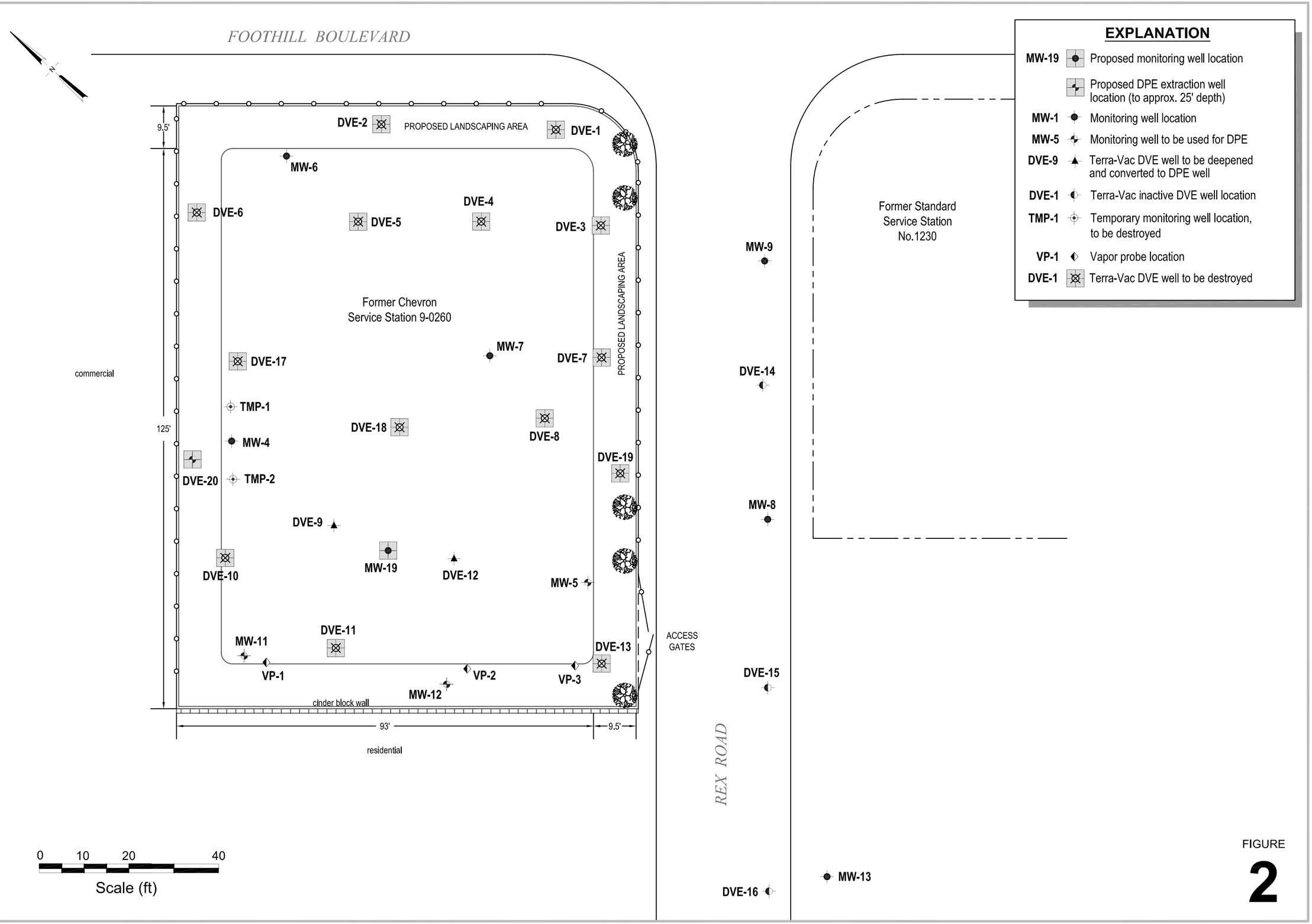
E:\9-0260 HAYWARD\FIGURES\REMED SYSTEM DESIGN\SEISMIC CALCULATIONS.DWG

**Former Chevron Station 9-0260**
21995 Foothill Boulevard
Hayward, California

CAMBRIA

**Dual-Phase Extraction System**
**- Civil Details**

04/25/06




I:\9-0260 HAYWARD\FIGURES\SYSTEM DESIGN\PROP-DPE-WELLS 1-06.DWG

**Proposed Treatment System Extraction Wells**

CAMBRIA

**Former Chevron Station 9-0260**
21995 Foothill Boulevard
Hayward, California

FIGURE
**2**

03/31/06

# Proposed Trench Layout

FOOTHILL BOULEVARD

N

PROPOSED GAS METER LOCATION (NEW SERVICE INSTALLATION)

chain link fence

9.5'

PROPOSED LANDSCAPING AREA

MW-6

4 D

PROPOSED EQUIPMENT ENCLOSURE (25'X25')

EXISTING ELECTRICAL PANEL, 400A, 240V, 3Φ SERVICE

JUNCTION BOX FOR ELECTRICAL CONTROLS AND GROUNDWATER & AIR LINES (PUMPS)

chain link fence

4 A

commercial

Former Chevron Service Station 9-0260

MW-7

PROPOSED LANDSCAPING AREA

chain link fence

125'

MW-4

4 B

4 C

JUNCTION BOX FOR ELECTRICAL CONTROLS, GROUNDWATER & AIR LINES (PUMPS) ROUTED TO DPE WELL

SEWER LINE CLEANOUT

DVE-9

DVE-12

4 B

MW-5

4 B

4 B

4 E

MW-11

VP-1

MW-12

VP-2

VP-3

EXISTING SEWER TIE-IN POINT

ACCESS GATES

cinder block wall

93'

9.5'

residential

0 10 20 40

Scale (ft)

MW-9

DVE-14

MW-8

DVE-15

REX ROAD

DVE-16

MW-13

Former Standard Service Station No.1230

## EXPLANATION

- Proposed DPE extraction well location (to approx. 20' depth)
- MW-1 — Monitoring well location
- MW-5 — Monitoring well to be used for DPE
- DVE-9 — Terra-Vac DVE well to be deepened and converted to DPE well
- DVE-1 — Terra-Vac inactive DPE well location
- VP-1 — Vapor probe location
- Proposed DVE piping trench location
- Proposed sewer piping trench location
- Proposed natural gas piping trench location

FIGURE

**3**

**Former Chevron Station 9-0260**

21995 Foothill Boulevard

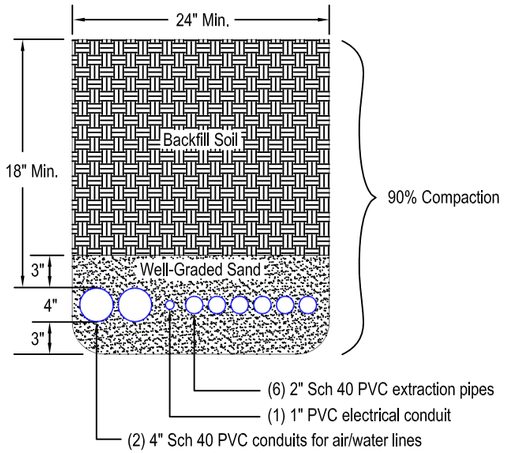
Hayward, California

CAMBRIA

I:\9-0260 HAYWARD\FIGURES\SYSTEM DESIGN\PROP TRENCH LAYOUT 1-06.DWG

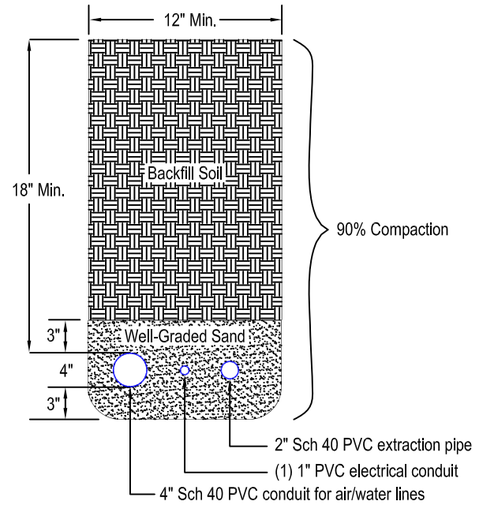
## 4/A Typical Trench Cross Section - Dual Phase Extraction Piping

Not to Scale



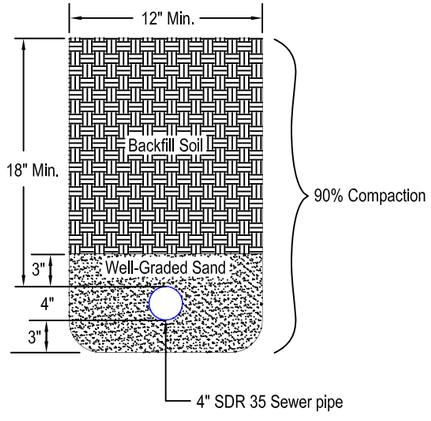

## 4/B Typical Trench Cross Section - Dual-Phase Extraction Piping

Not to Scale



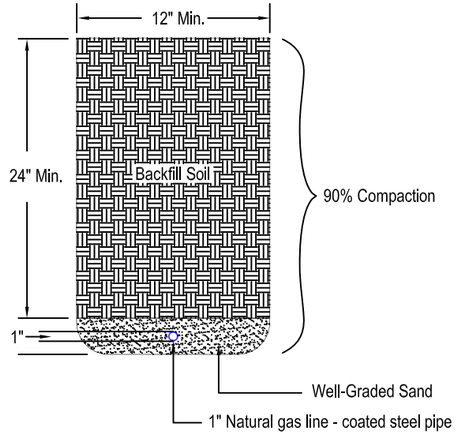

## 4/C Typical Trench Cross Section - Sewer Piping

Not to Scale



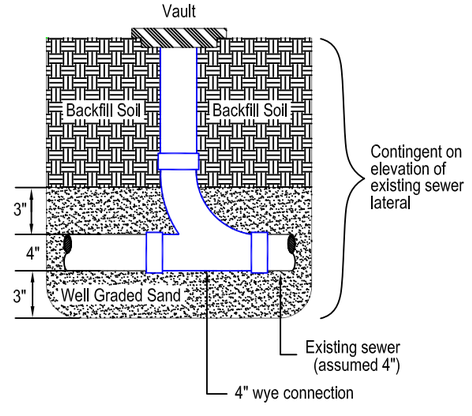

## 4/D Typical Trench Cross Section - Natural Gas Piping

Not to Scale




## 4/E Typical Trench Cross Section - Proposed Sewer Tie-In

Not to Scale




# Former Chevron Station 9-0260

21995 Foothill Boulevard
Hayward, California

## Dual-Phase Extraction System - Trench Cross Sections

CAMBRIA

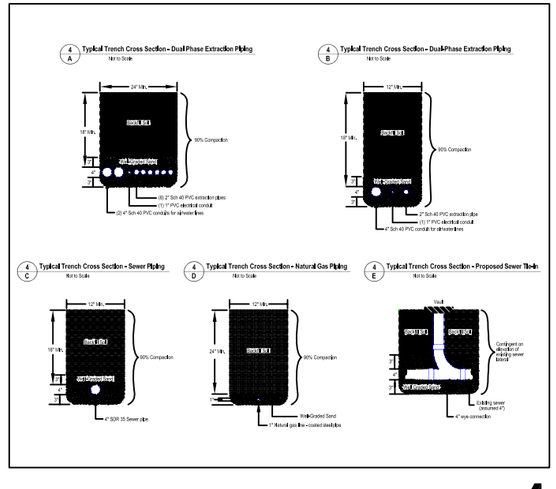
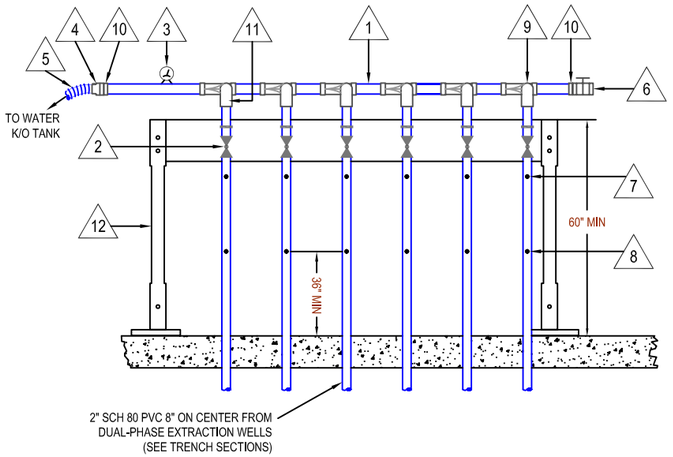


FIGURE 4

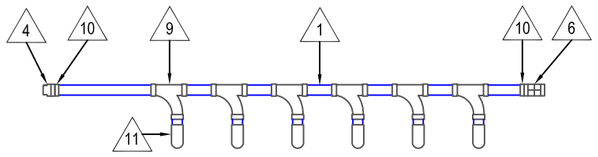
## 5A Typical Manifold System

Not to Scale

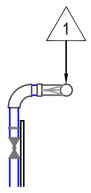
### VAPOR EXTRACTION MANIFOLD SYSTEM, FRONT VIEW




### MANIFOLD SYSTEM, TOP VIEW

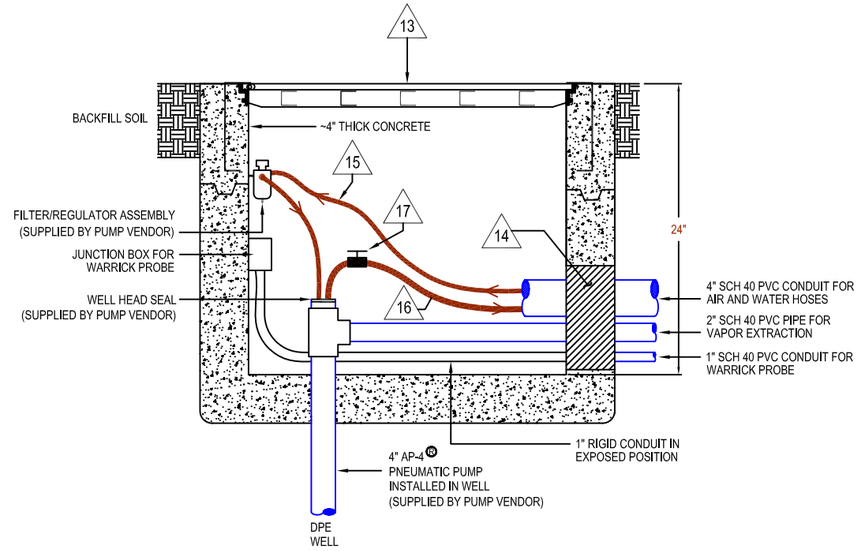



### MANIFOLD SYSTEM, SIDE VIEW




## 5B Typical Dual-Phase Extraction Wellhead Detail

Not to Scale




**NOTES:**

1. DUAL-PHASE EXTRACTION PIPING MANIFOLD
2. 2" DIA SCH. 80 PVC BALL VALVE (TYP. OF 6), HARRINGTON P/N 1070020 OR EQUIVALENT
3. 0-30" Hg VACUUM GAUGE
4. 4" ALUMINUM CAM LOCK FITTINGS, MALE CAM x MPT, FEMALE CAM x HOSE
5. 4" SPIRALITE 115 SUCTION HOSE TO WATER KNOCKOUT TANK
6. 4" GATE VALVE
7. 1/4" NPT MALE x HOSE PVC LABCOCK SAMPLE PORT - TYPICAL
8. 1/4" NPT PIPE PLUG - TYPICAL
9. SPEARS COMBO. WYE AND 1/8 BEND, REDUCING (SPEARS P/N P502-420)
10. 4' FEMALE ADAPTOR, HARRINGTON P/N 835-040
11. 2" GREY PVC LONG RADIUS 90°
12. UNISTRUT FRAME FOR MANIFOLD SUPPORT
13. 24" POMECO ROTO-LOCK TRAFFIC-RATED VAULT
14. GROUTED VAULT PENETRATION
15. 1/2" DAYCO MPT II MULTI-PURPOSE HOSE, OR EQUIVALENT, FOR AIR SUPPLY
16. 3/4" DAYCO MPT II MULTI-PURPOSE HOSE, OR EQUIVALENT, FOR WATER DISCHARGE
17. 3/4" DUO-BLOCK BALL VALVE, HARRINGTON P/N 1001007

# Former Chevron Station 9-0260

21995 Foothill Boulevard
Hayward, California

## Vapor Extraction Manifold and Dual-Phase Extraction Wellhead Detail

CAMBRIA

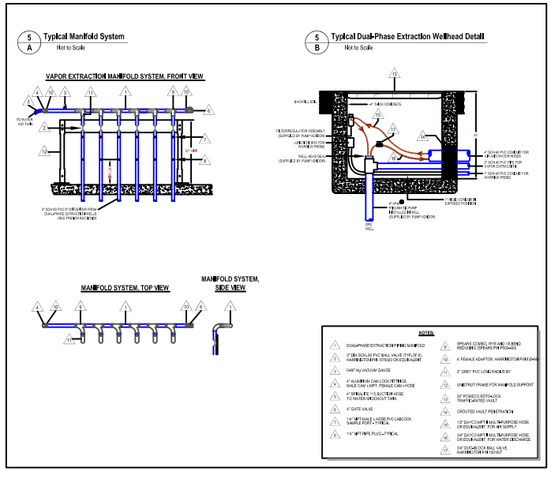
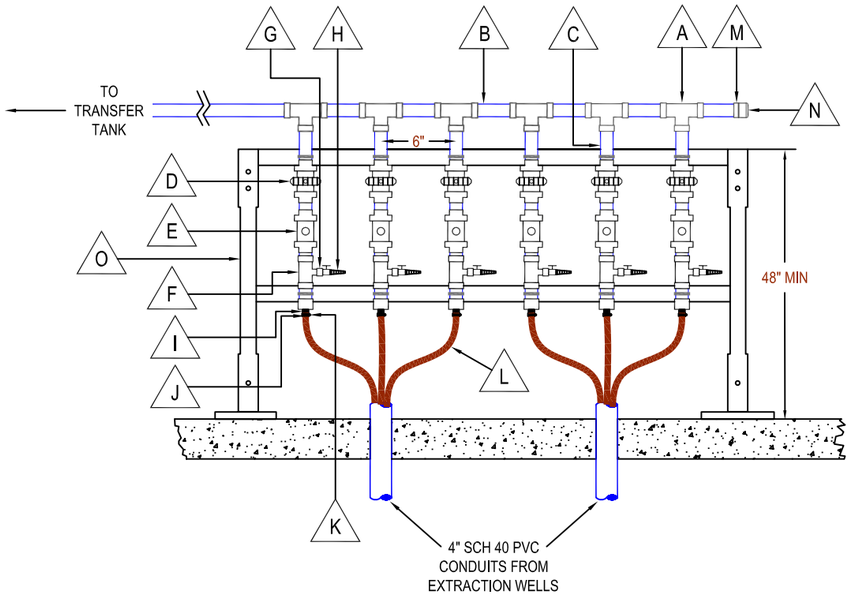


FIGURE **5A**

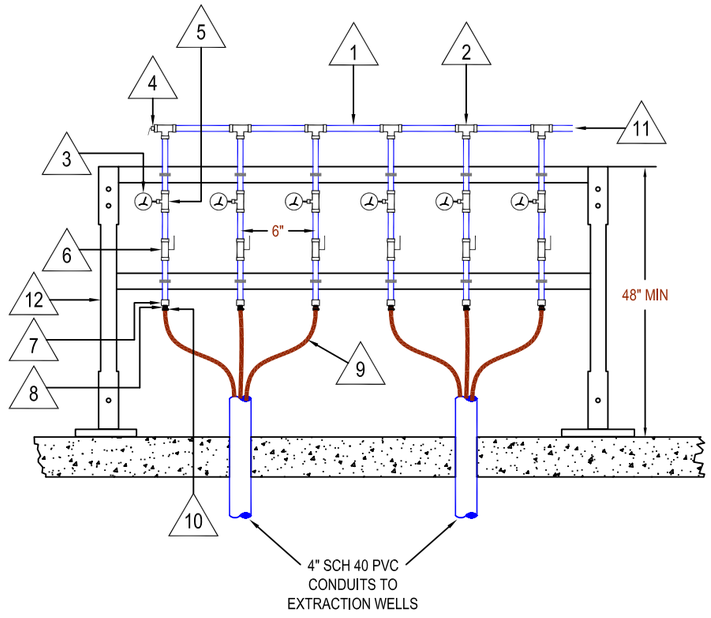
## 5/C Groundwater Pump Discharge Manifold System

Not to Scale




## 5/D Air Supply Manifold System

Not to Scale




### NOTES FOR GROUNDWATER PUMP DISCHARGE MANIFOLD:

| | | | |
|---|---|---|---|
| A | 1-1/2" x 3/4" SCH 80 PVC REDUCING TEE, SOCKET | I | 3/4" SCH 80 FEMALE ADAPTOR |
| B | 1-1/2" SCH 80 PVC PIPE | J | 3/4" MPT x 3/4" HOSE ADAPTOR |
| C | 3/4" SCH 80 PVC PIPE | K | HOSE CLAMP |
| D | 3/4" DUO-BLOCK BALL VALVE, HARRINGTON P/N 1001007 | L | 3/4" DAYCO HOSE |
| E | 3/4" BALL CHECK VALVE, HARRINGTON P/N TC10075STE | M | 1-1/2" FEMALE ADAPTOR |
| F | 3/4" SCH 80 PVC TEE, SOCKET | N | 1-1/2" PIPE PLUG |
| G | 3/4" x 1/4" REDUCING BUSHING, SPIGOT x FPT | O | UNISTRUT FRAME |
| H | 1/4" LABCOCK VALVE | | |

### NOTES FOR AIR SUPPLY MANIFOLD:

| | | | |
|---|---|---|---|
| 1 | 1/2" PIPE NIPPLE | 7 | 1/2" GALVANIZED THREADED COUPLING |
| 2 | 1/2" GALVANIZED TEE | 8 | 1/2" MPT x 1/2" HOSE ADAPTOR |
| 3 | 0-150 PSI GAUGE | 9 | 1/2" DAYCO HOSE |
| 4 | POP-SAFETY AIR VALVE, SET FOR 125PSI, McMASTER-CARR P/N 9889K39 | 10 | HOSE CLAMP |
| 5 | 1/2" x 1/4" GALVANIZED REDUCING TEE | 11 | AIR SUPPLY FROM COMPRESSOR |
| 6 | 1/2" BALL VALVE, BRASS BODY, LOCKABLE; McMASTER-CARR P/N 4629K13 | 12 | UNISTRUT FRAME |

# Former Chevron Station 9-0260

21995 Foothill Boulevard
Hayward, California

## Air Supply and Groundwater Pump Discharge Manifolds

CAMBRIA

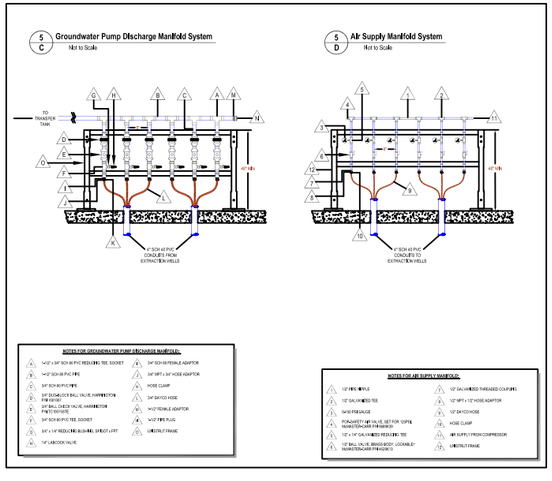
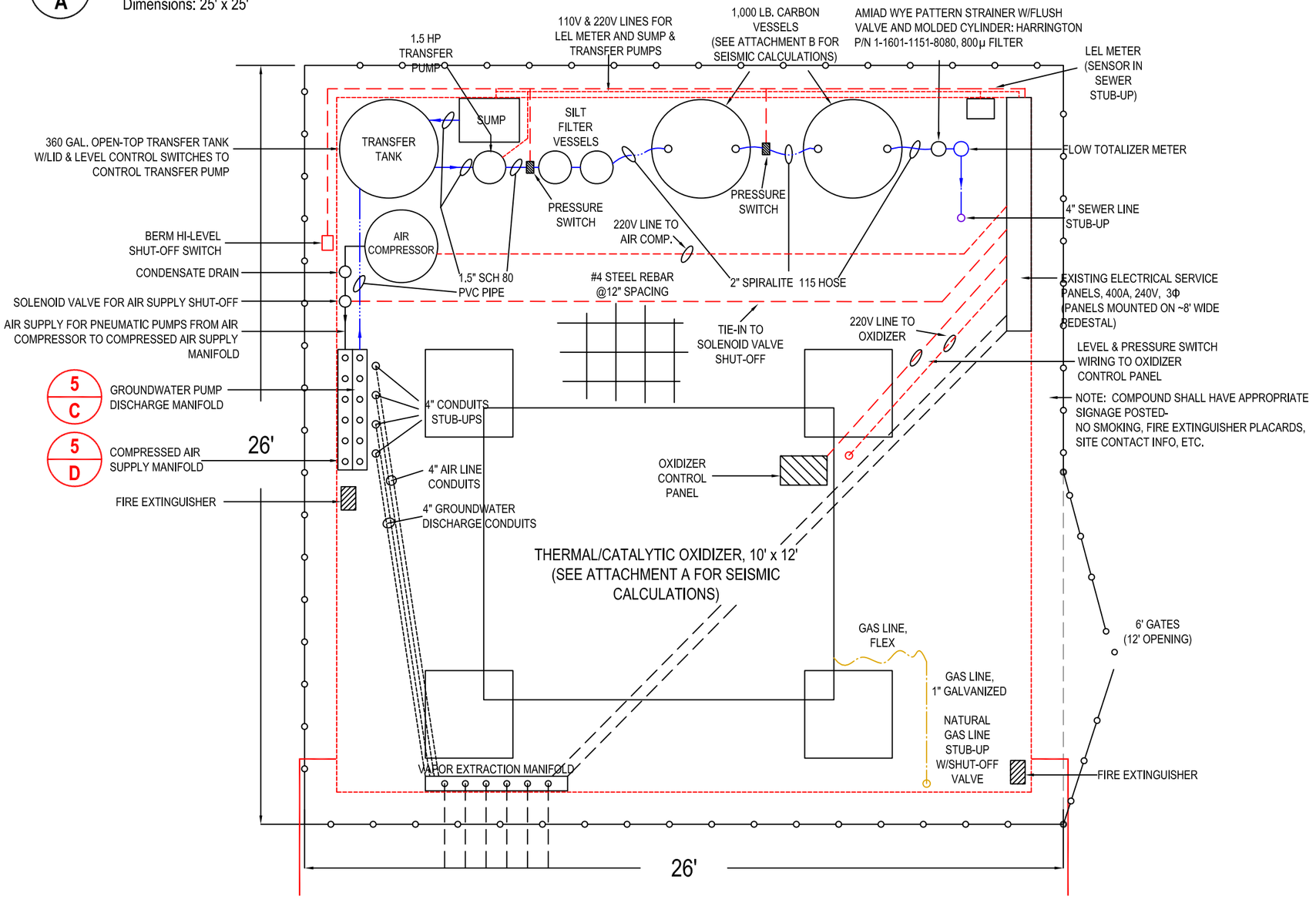



FIGURE **5B**

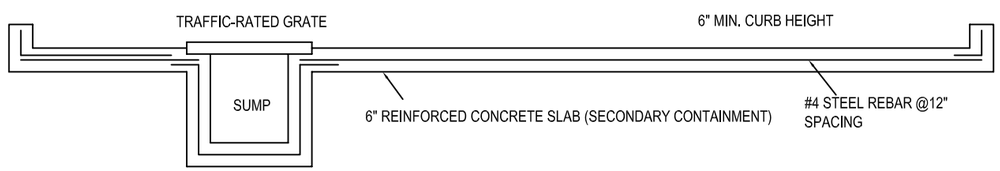
6/A **Proposed Compound Layout**

Dimensions: 25' x 25'

## PROPOSED COMPOUND LAYOUT, TOP VIEW




## BERM CROSS-SECTION, SHOWING SUMP




0 2 4 8

Scale (ft)

09/19/06

I:\9-0260 HAYWARD\FIGURES\SYSTEM DESIGN\LAYOUT2.DWG

# Former Chevron Station 9-0260

21995 Foothill Boulevard

Hayward, California

## Proposed Remediation System Compound Layout

CAMBRIA

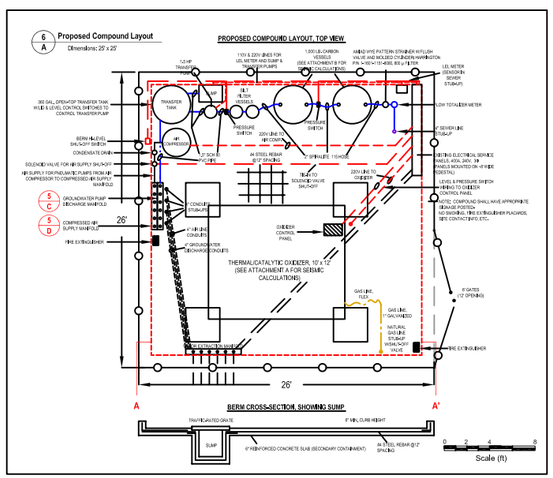
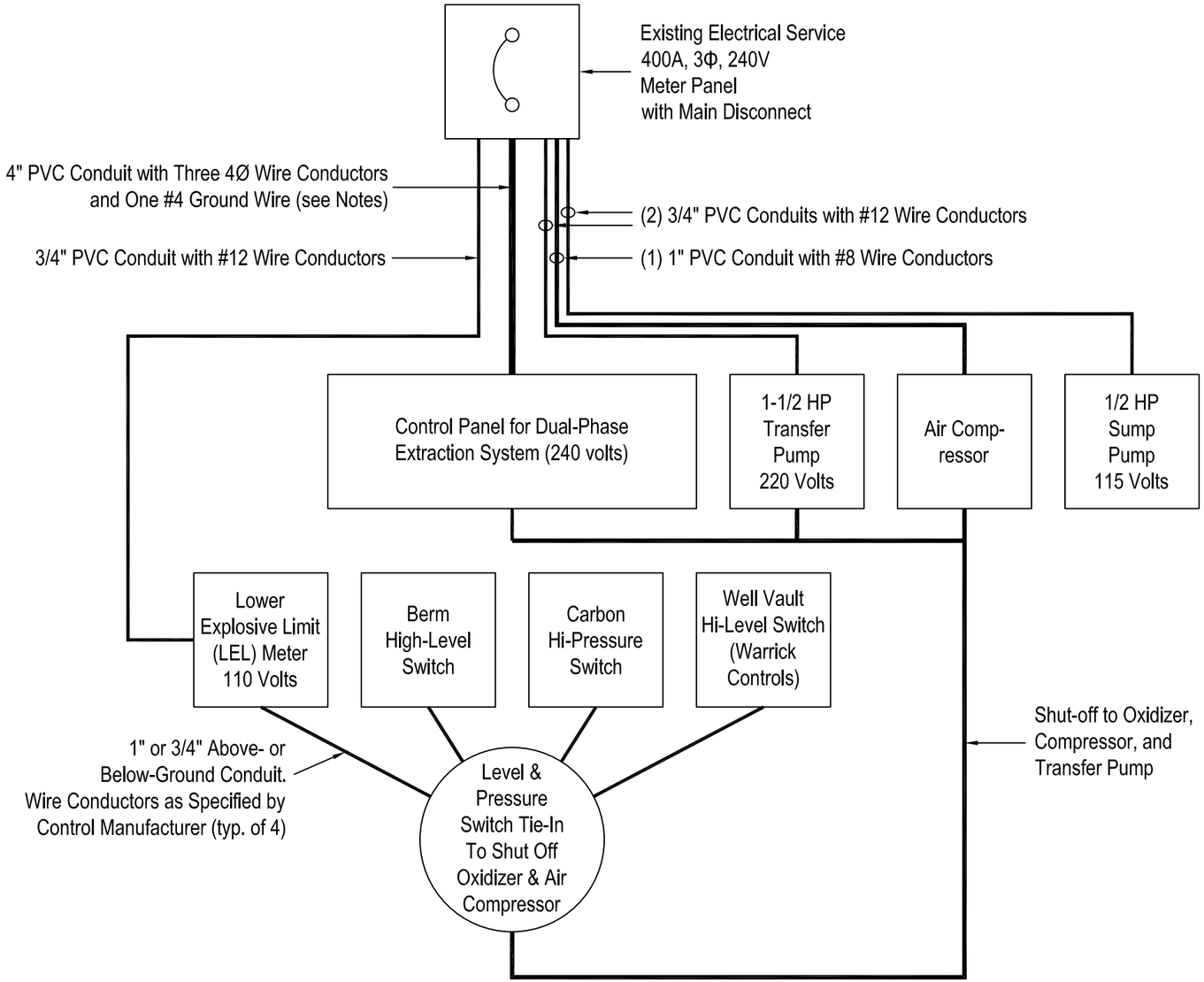


FIGURE **6**




**NOTES:**

- Conduit at above-ground locations shall be of rigid steel galvanized material, except where noted otherwise. Below-ground conduit shall be PVC.

- Connection to the dual-phase extraction system panel and air compressor shall be completed via flexible sealtite-type conduit or equivalent with approved termination fittings.

# Former Chevron Station 9-0260

21995 Foothill Boulevard
Hayward, California

## Electrical Component and Process Control Diagram

CAMBRIA

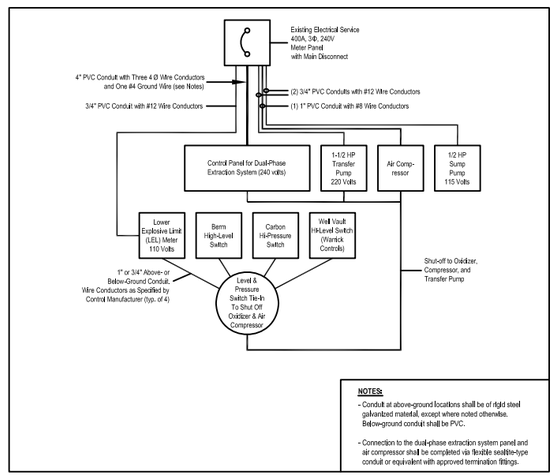
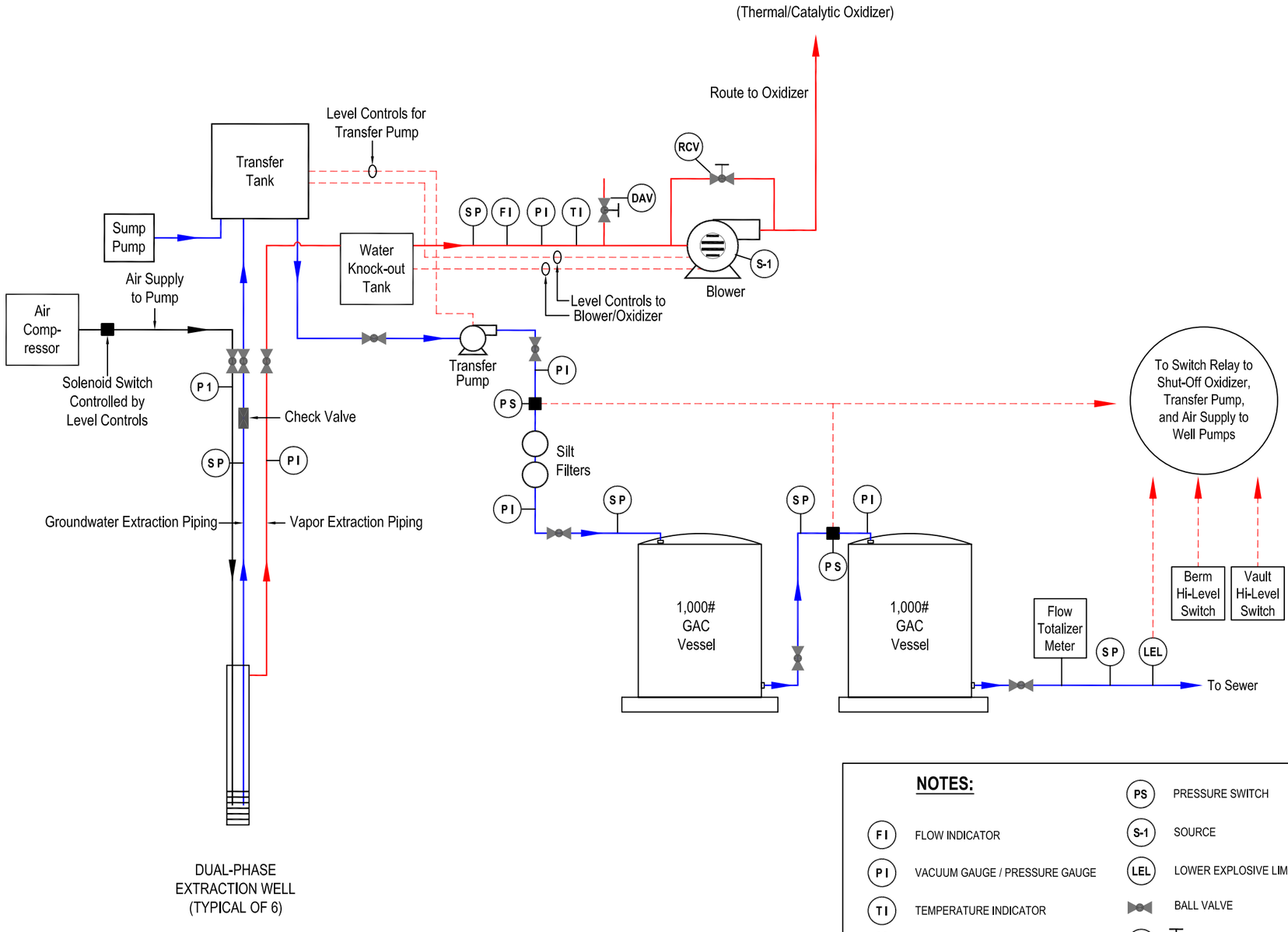



FIGURE **7**

8
A

## Process & Instrumentation Diagram - Typical Dual-Phase Extraction System

Not to Scale




**NOTES:**

| | | | |
|---|---|---|---|
| FI | FLOW INDICATOR | PS | PRESSURE SWITCH |
| PI | VACUUM GAUGE / PRESSURE GAUGE | S-1 | SOURCE |
| TI | TEMPERATURE INDICATOR | LEL | LOWER EXPLOSIVE LIMIT METER |
| FP | FLOW MEASUREMENT PORT | | BALL VALVE |
| SP | SAMPLE PORT | DAV | DILUTION AIR VALVE |
| | LINES OF CONTROL | RCV | RECIRCULATION VALVE |
| | | | CHECK VALVE |

# Former Chevron Station 9-0260

21995 Foothill Boulevard
Hayward, California

## Process & Instrumentation Diagram

CAMBRIA

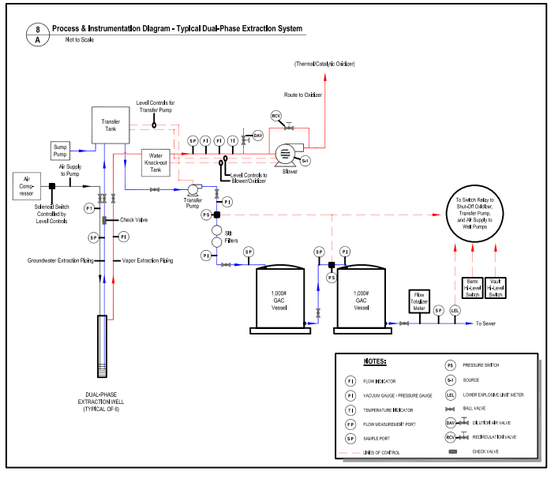


FIGURE **8**

03/31/06

I:\9-0260 HAYWARD\FIGURES\SYSTEM DESIGN\PFD.DWG

# APPENDIX D

# DUAL PHASE EXTRACTION SYSTEM PERMITS

B8218

# BAY AREA AIR QUALITY MANAGEMENT DISTRICT

939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

# PERMIT TO OPERATE

Plant# 18218 | Page: 1 | Expires: JUL 1, 2010

This document does not permit the holder to violate any District regulation or other law.

Charlotte Evans
Chevron EMC c/o Conestoga-Rovers & Assoc
5900 Hollis Street, Ste A
Emeryville, CA 94608

JUN 19 2009

Location: 21995 Foothill Blvd
Hayward, CA 94541

| S# | DESCRIPTION | [Schedule] | PAID |
|---|---|---|---|
| 1 | CHEM> Contaminated soil remediation, Contaminated soil vapor Soil Vapor Extraction System<br>Abated by: A1 SVE Abatement System | [G1] | 900 |

1 Permit Source, 0 Exempt Sources

*** See attached Permit Conditions ***

The operating parameters described above are based on information supplied by permit holder and may differ from the limits set forth in the attached conditions of the Permit to Operate. The limits of operation in the permit conditions are not to be exceeded. Exceeding these limits is considered a violation of District regulations subject to enforcement action.

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**
939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

# PERMIT TO OPERATE





*** PERMIT CONDITIONS ***

**COND# 23445** *applies to S# 1*

1. Precursor Organic Compound (POC) emissions from Source S-1 shall be abated by Abatement device A-1, SVE Abatement System, consisting of either a Thermal Oxidizer, Catalytic Oxidizer, or at least two (180 lbs minimum capacity) Activated Carbon Vessels during all periods of operation. During operation of both the Thermal Oxidizer and Catalytic Oxidizer, POC emissions to the atmosphere shall be from a point not less than 17 feet above grade. Start-up and subsequent operation of each abatement device shall take place only after written notification of same has been received by the District's Engineering Division. Vapor flow rate shall not exceed 250 scfm. [basis Reg. 8-47-301,2; HRSA Results]
2. The POC abatement efficiency of abatement device A-1 shall be maintained at a minimum of 98.5% by weight for inlet POC concentrations greater than or equal to 2000 ppmv (measured as hexane). For inlet concentrations below 2000 ppmv and greater than or equal to 200 ppmv, a minimum abatement efficiency of 97% shall be maintained. For inlet concentrations below 200 ppmv, a minimum abatement efficiency of 90% shall be maintained. The minimum abatement efficiency shall be waived if outlet POC concentrations are shown to be less than 10 ppmv (measured as hexane). In no event shall Benzene emissions to the atmosphere exceed 0.018 pounds per day. [basis: Regulation 2-5; TBACT]
3. While operating as a Thermal Oxidizer, the minimum operating temperature of A-1 shall not be less than 1400 degrees Fahrenheit. While operating as a Catalytic Oxidizer, the minimum operating temperature of A-1 shall not be less than 600 degrees Fahrenheit.
4. To determine compliance with Condition Number 3, the Thermal/Catalytic Oxidizer shall be equipped with continuous measuring and temperature recording instrumentation. The temperature data collected from the temperature recorder shall be maintained in a file which

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(415) 771-6000

# PERMIT TO OPERATE





*** PERMIT CONDITIONS ***

shall be available for District inspection for a period of at least 2 years following the date on which such data are recorded.

5. To determine compliance with Condition 2, within ten days after start-up of the Thermal Oxidizer, and within ten days after start-up of the Catalytic Oxidizer, the operator of this source shall:
   a. Analyze inlet gas stream to determine the flow rate and concentration of POC present.
   b. Analyze exhaust gas to determine the flow rate, and the concentration of Benzene and POC present.
   c. Calculate the Benzene emission rate in pounds per day based on the exhaust gas analysis and the operating exhaust flow rate. The soil vapor flow rate shall be decreased, if necessary, to demonstrate compliance with Condition 2.
   d. Calculate the POC abatement efficiency based on the inlet and exhaust gas analysis. For the purpose of determining compliance with condition 2, the POC concentration shall be reported as hexane.
   e. Submit to the District's Engineering Division the test results and emission calculations within one month from the testing date. Samples shall be analyzed according to modified EPA test methods 8015 and 8020 or their equivalent to determine the concentrations of POC and Benzene.
6. The operator of this source shall maintain the following records for each month of operation of the Thermal/Catalytic Oxidizer:
   a. Days and hours of operation.
   b. Each emission test, analysis or monitoring results logged-in for the day of operation they were taken.
   c. Analysis results for any catalyst plugs removed from the bed to determine remaining life of the catalyst.

   Such records shall be retained and made available for inspection by the District for two years following the date the data is recorded. [basis: Reg. 1-523]

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7. During operation of the Activated Carbon Vessels, the operator of this source shall monitor with a photo-ionization detector (PID), flame-ionization detector (FID), or other method approved in writing by the District's Source Test Manager at the following locations:
   a. At the inlet to the second to last Carbon vessel in series.
   b. At the inlet to the last Carbon vessel in series.
   c. At the outlet of the Carbon vessel that is last in series prior to venting to the atmosphere.

   When using an FID to monitor breakthrough, readings may be taken with and without a Carbon filter tip fitted on the FID probe. Concentrations measured with the Carbon filter tip in place shall be considered methane for the purpose of these permit conditions.
8. These monitor readings shall be recorded in a monitoring log at the time they are taken. The monitoring results shall be used to estimate the frequency of Carbon change-out necessary to maintain compliance with conditions number 9 and 10, and shall be conducted on a daily basis. The operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rates of the carbon vessels. Written approval by the District's Engineering Division must be received by the operator prior to a change to the monitoring schedule.
9. The second to last Carbon vessel shall be immediately changed out with unspent carbon upon breakthrough, defined as the detection at its outlet in excess of the higher of the following limits:
   a. 10 % of the inlet stream concentration to the carbon bed.
   b. 10 ppmv (measured as hexane).
10. The last Carbon vessel shall be immediately changed out with unspent Carbon upon detection

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# PERMIT TO OPERATE





*** PERMIT CONDITIONS ***

at its outlet of 10 ppmv or greater (measured as hexane).

11. The operator of this source shall maintain the following information for each month of operation of the Activated Carbon Vessels:
    a. Hours and time of operation.
    b. Each emission test, analysis or monitoring results logged in for the day of operation they were taken.
    c. The number of Carbon vessels removed from service.

    Such records shall be retained and made available for inspection by the District for two years following the date the data is recorded. [basis: Reg. 1-523]
12. Any non-compliance with these conditions shall be reported to the Compliance and Enforcement Division at the time that it is first discovered. The submittal shall detail the corrective action taken and shall include the data showing the exceedance as well as the time of occurrence.
13. The operator shall maintain a file containing all measurements, records and other data that are required to be collected pursuant to the various provisions of this conditional Authority to Construct/Permit to Operate. All measurements, records and data required to be maintained by the operator shall be retained for at least two years following the date the data is recorded. [basis: Reg. 1-523]
14. Upon final completion of the remediation project, the operator of Source S-1 shall notify the Engineering Division within two weeks of decommissioning the operation.

~~~~~~~~~~~~~~~~~~~~~~~~~~ END OF CONDITIONS ~~~~~~~~~~~~~~~~~~~~~~~~~~
~~~~~~~~~~~~~~~~~~~~~~~~~~

| S# | Source Description | Annual Average lbs/day PART | ORG | NOx | SO2 | CO |
|---|---|---|---|---|---|---|
| 1 | Soil Vapor Extraction System | - | .64 | - | - | - |
| | T O T A L S | | .64 | | | |

# ORO LOMA SANITARY DISTRICT



July 25, 2008

Mr. Aaron Costa
Conestoga-Rovers & Associates (CRA)
5900 Hollis Street, Suite A
Emeryville, CA 94608

Subject: Special Wastewater Discharge Permit

Dear Mr. Costa,

Please find the following enclosed:

- Special Wastewater Discharge Permit
- Permit Conditions
- Ordinance No. 39-8

If you have any questions regarding this permit please call me at (510) 481-6971.

Sincerely,

Jeff Carson
Industrial Waste Inspector

2655 Grant Avenue ■ San Lorenzo, California 94580-1838 ■ (510) 276-4700 ■ Fax (510) 276-1528 ■ Email: info@oroloma.org
www.oroloma.org

# ORO LOMA SANITARY DISTRICT

## WASTEWATER DISCHARGE PERMIT

Company Name: **CONESTOGA-ROVERS & ASSOCIATES FOR CHEVRON PRODUCTS COMPANY P.O. Box 6012, Room K2256 San Ramon, CA 94583**

Mailing Address: **5900 Hollis St., Suite A Emeryville, CA 94608**

Facility Address: **Chevron Service Station 9-0260 21995 Foothill Blvd. Hayward, CA 94541**

Discharge Description: **Treated Contaminated Ground Water**

The above named company is authorized to discharge wastewater to the Oro Loma Sanitary District sewerage system subject to compliance with the District's Ordinance No. 39 (as amended) and any Federal or State regulations that apply, all permit conditions set forth in this permit, and payment of fees and charges when billed.

This permit is granted in accordance with the application filed on July 17, 2008, in the office of the Oro Loma Sanitary District and in conformity with specifications and information submitted to the District in support of the above referenced application.

Permit No.: 007-03

Effective Date: **July 17, 2008**

Expiration Date: **July 16, 2010**

ANNUAL PERMIT FEE (Ordinance No. 37-26, IX) $ 594

Approved By: For Mike Cameron — **General Manager**

7/23/08 — **Date**

F:\GROUPS\OPS\pretreatment\GROUNDWATER DISCHARGERS\BEACON #3721\permit.doc

# ORO LOMA SANITARY DISTRICT
# PERMIT CONDITIONS

## PART I
## GENERAL

1. ***Definitions*** See Section 1.2 Ordinance No. 39-8 attached.

2. ***General*** The user shall comply with all the general prohibitive discharge standards in Article II: Regulations of Ordinance No. 39-8.

3. ***Right of Entry*** Ready and immediate access to the facility, the pretreatment area and the sampling points shall be provided to District personnel at all times.

4. ***Records Retention***. The user shall retain and preserve for no less than three (3) years any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made by, or on behalf of the User in connection with its discharge. Records shall be made available for inspection and copying by representatives of the District, the California Regional Water Quality Control Board or the United States Environmental Protection Agency (E.P.A.). All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the District shall be retained and preserved by the User until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

5. ***Confidential Information*** Except for data determined to be confidential under the provisions of Ordinance No. 39-8, all reports required by this permit shall be available for public inspection at the District Office, 2600 Grant Avenue, San Lorenzo, California 94580.

6. ***Time Schedules***. Time schedules for achieving compliance which are required through a notice of violation, administrative or judicial order, or any other written correspondence from the District are deemed to be a condition of the permit.

7. ***Signatory Requirement***. All reports required by this permit shall be signed by an authorized representative of the permittee or his designee, as defined in Ordinance No. 39-8.

8. ***Revocation of Permit***. The permit issued to the user by the District may be revoked when, after inspection, monitoring or analysis, it is determined that the discharge of wastewater to the sanitary sewer is in violation of Federal, State or local laws, ordinances, or regulations. Additionally, falsification or intentional misrepresentation of data or statements pertaining to the permit application or any other required reporting form shall be cause for permit revocation.

## PART I
## GENERAL

9. ***Limitation of Permit Transfer***. Wastewater discharge permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without the prior written approval of the District. Sale by a User shall obligate the purchaser to seek prior written approval of the District for continued discharge to the sewerage system and issuance of new permit.

10. ***Falsifying Information or Tampering with Monitoring Equipment***. Knowingly making any false statement on any report or other document required by this permit, or knowingly rendering any monitoring device or method inaccurate may result in punishment in accordance with District Ordinance No. 39-8 or other applicable laws.

11. ***Modification or Revision of the Permit***. The terms and conditions of this permit may be subject to modification by the District at any time as limitations or requirements as identified in the District Ordinance No. 39-8 are modified, or if other just cause exists.

    This permit may also be modified to incorporate special conditions resulting from the issuance of a special order by an agency which regulates the District's discharge.

    The terms and conditions may be modified as a result of Environmental Protection Agency promulgating a new federal pretreatment standard.

    Any permit modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance, if necessary.

12. ***Duty to Reapply*** Within thirty (30) days of the notification, the user shall reapply for re-issuance of the permit on a form provided by the District.

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

14. ***Property Rights*** The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of Federal, State or Local regulations.

## PART 2
## DISCHARGE REQUIREMENTS

*15.* ***Permit Duration*** The wastewater discharge permit will remain in effect for **two year** from the effective date of the permit. Users who are issued a wastewater discharge permit or renew a wastewater discharge permit shall pay the permit fee set forth in the current schedule of fees as adopted in the most current amendment to Ordinance No. **39-8.**

# PART 2
# DISCHARGE REQUIREMENTS

## 1. *Maintenance of Pretreatment Equipment and Monitoring Systems*

a. The waste treatment system shall be kept in a fully operational condition at all times. This includes maintaining adequate chemical supplies for treating wastewater, proper calibrations of all instrumentation (pH meters, etc.) and proper removal of sludges and unacceptable wastes. A qualified operator of the system shall be available to maintain the pretreatment system during all discharge periods.

b. The District shall be notified immediately if there are problems with the pretreatment system. Any proposed modifications to the system or the processes for pretreating the wastewater must be reviewed and approved by the District's Source Control Staff prior to implementation.

## 2. *Discharge Limitations.*

a. The wastewater discharge shall not contain constituents in excess of the following limits, and compliance with these units shall be demonstrated at the sampling location specified in Part 3 of this Permit.

| Parameter | Symbol | Limit for any one Sample |
|---|---|---|
| Arsenic | As | 0.8 mg/L |
| Cadmium | Cd | 0.2 mg/L |
| Copper | Cu | 1.9 mg/L |
| Cyanide | Cn | 1.0 mg/L |
| Lead | Pb | 1.0 mg/L |
| Mercury | Hg | 0.01 mg/L |
| Nickel | Ni | 1.0 mg/L |
| Selenium | Se | 1.0 mg/L |
| Silver | Ag | 0.8 mg/L |
| Total Chromium | Cr | 2.0 mg/L |
| Zinc | Zn | 3.0 mg/L |
| Phenolic compounds | | 70 mg/L |
| Oil and Grease (Mineral) | | 100 mg/L |
| Oil and Grease (Animal/Vegetable) | | 300 mg/L |
| pH | | 5.5 to 12.5 units |
| Temperature | | No higher than 150 deg. F |

# PART 2
# DISCHARGE REQUIREMENTS

***Discharge Limitations***

**b)** The permittee shall comply with all limits, prohibitions and requirements set forth in this permit and in Ordinance No. 39-8. Wastewater strength limits for constituents not listed above may be established based upon available treatment technology, existing wastewater conditions in the District's facilities or other factors as determined by the District.

**c)** Should Federal Categorical Standards for a particular industrial category be more stringent than the limits set forth in this permit or ordinance, the more stringent Federal limits shall apply.

*3.* ***Dilution or Bypassing***

No user shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit. User shall not divert their waste streams from the pretreatment systems.

*4.* ***Proper Disposal of Pretreatment Sludges and Spent Chemicals***

The disposal of sludges and spent chemicals generated shall be done in accordance with all applicable State and Federal regulations. Copies of all Hazardous Wastes Manifests shall be maintained as part of the Records Retention Requirement Section 4.8 of Ordinance No. 39-8.

## PART 3
## REPORTING REQUIREMENTS

1. ***Notice to Employees*** In order that employees of user be informed of District requirements, users shall make available to their employees, copies of the Districts Discharge Regulations together with other wastewater information and notices which may be furnished by the District. User shall permanently post a notice advising employees whom to call in case of spill or accidental discharge. This notice shall be posted in a prominent place.

2. ***Accidental Spills or Slug Discharge*** The District is requiring Accidental Spill/ Slug Discharge Control Plans for all significant industrial users as outlined in Ordinance No. 39-8 Section 2.12. The accidental spill/ slug discharge control plan shall contain, at a minimum the following elements: (A) Description of discharge practices, including non-routine batch discharges; (B) Description of stored chemicals; (C) Procedures for immediately notifying the District of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5(b), with procedures for formal written notification discussing circumstances and remedies shall be submitted to the District within five days of the occurrence; (D) If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and / or measures and equipment for emergency response.

   ***Notification of Significant Facility Change*** The District must be notified immediately of any changes at your facility, not already addressed in your accidental spill/ slug discharge control plan requirement, which may affect the potential for a slug discharge.

3. ***Notification of Changed Discharge***. The user shall notify the District of any proposed changes (permanent or temporary) to the premises, operation of the firm, quality or volume of wastewater, water usage, process, installation or removal of tanks or equipment and obtain District approval prior to implementation.

4. ***Notification of Upset.*** Any upset experienced by the user of any of its treatment processes that places the user in a temporary state of noncompliance with the wastewater discharge limitations contained in this permit or other limitations specified in the District's Ordinance shall be reported to the District within 24 hours of first awareness of the commencement of the upset. A detailed report shall be filed with the District within five days of the start of the upset.

## PART 3
## REPORTING REQUIREMENTS

5. ***Periodic Reports of Compliance*** ***If required*** in this permit or under Federal pretreatment regulations, all significant industrial users, both categorical and non-categorical, must submit periodic reports of continued compliance to the District. These reports are due by ***June 30 and December 31*** of each year. The content and format of these reports must be in compliance with EPA and District requirements.

6. ***Hazardous Materials Notification***

a. The permittee shall notify the District, the E.P.A., Regional Waste Management Division Director and the California Department of Health Services in writing, of any intentional or accidental discharge of a RCRA characteristic or listed hazardous waste or material. Notification must be made within 180 days after the discharge, and must include the name and E.P.A. hazardous waste number of the material, the type of discharge, (continuous, batch or other), an identification of the hazardous constituents of the waste, an estimate of the mass and concentration in the waste stream discharge during that calendar month.

b. The Notification Requirement does not apply to pollutants already reported in periodic self-monitoring reports.

# PART 3
# REPORTING REQUIREMENTS

7. ***Compliance Sampling Point***

a. Located at discharge of final carbon vessel, around 4 inches after PVC ball valve.

*8 (A)* ***Self Monitoring: General Requirements***

In addition to self monitoring required elsewhere in this permit, the following conditions must be met:

1. All samples and measurements must be representative of the waste stream and taken under normal discharging conditions when monitored pollutants are likely to be present. Samples collected to determine compliance with Federal point Source Wastewater Discharge limitations must be taken immediately downstream from the pretreatment facilities. If no pretreatment is performed the samples must be taken immediately downstream from the regulated process, before the process wastewater combines with sanitary or other diluting water streams (non-contact cooling water, boiler blow down, etc.).

2. Sampling performed for periodic reports of continued compliance must be collected, processed, stored, analyzed and reported in compliance with EPA and District requirements.

3. All monitoring information and records must be retained for at least three years from the date of the sample, measurement, or report. This information must be made available for inspection and copying by District personnel or a District authorized representative upon request.

4. If self monitoring indicates a violation, the permittee must notify the District within 24 hours of becoming aware of the violation and must re-sample immediately. The results of the re-sample must be submitted to the District within 30 days after becoming aware of the violation. (40 CFR 403.12 (g)(2))

5. Self monitoring required through a Notice of Violation, Administrative Order, or any other written correspondence from the District is deemed to be a condition of this permit.

6. If any pollutant is monitored more frequently than required by the District or Federal regulation, the results of this additional sampling must also be included in the Periodic Reports of Continued Compliance.

## PART 4
## PENALTIES AND FEES

1. ***Significant Non-Compliance*** Should the District determine that the permittee is in significant non-compliance with applicable pretreatment requirements, the District will list the facility in the ***Public Notice of Significant Wastewater Violations*** in the largest daily newspaper in the area. This list will be published annually, but may be published more frequently at the discretion of the District.

   An industrial user is in significant non-compliance if one or more of the following violations occurs:

   a. Chronic violations of wastewater discharge limits, defined as those in which 66 percent or more of all of the measurements taken during a six month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter.

   b. Technical Review Criteria (TRC) violations, defined as those in which 33 percent or more of all of the measurements for each pollutant parameter taken during a six month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC =1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH.)

   c. Any other violation of a pretreatment effluent limit (daily maximum or longer-term average) that the District determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of District personnel or the general public).

   d. Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the District's exercise of its emergency authority to halt or prevent such a discharge.

   e. Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a permit or enforcement order for starting construction, completing construction, or attaining final compliance.

   f. Failure to provide, within 30 days after the due date, required reports such as baseline monitoring reports, 90 day compliance reports, periodic self monitoring reports, and reports on compliance with compliance schedules.

## PART 4
## PENALTIES AND FEES

g. Failure to accurately report non-compliance.

h. Any other violation deemed significant by the District.

2. ***Civil and Criminal Liability*** Any person who violates any requirements or conditions of this permit, Ordinance No. 39-8, an order of the District, or violates any cease and desist order, prohibition, effluent limitation, National Standard of Performance, pretreatment or toxicity standard shall be liable civilly for a penalty not to exceed $25,000.00 for each day in which such violation occurs or continues. In addition to penalties, the District may recover reasonable attorney's fees and other expenses of litigation.

Any person who commits such violations is guilty of a misdemeanor and upon conviction is subject to criminal penalties of not more than $25,000.00 and or imprisonment for not more than 30 days in the county jail.

Nothing in this permit relieves the permittee from civil and or criminal penalties for non-compliance under state or federal laws or regulations.

3. ***Wastewater Charges and Fees.*** The User shall pay to the District all sewer service charges; permit fees, monitoring charges and laboratory analysis charges levied in accordance with current District Ordinances. All charges are due and payable upon receipt of statement of charges. Failure to pay fees within 30 days may result in revocation of wastewater discharge permit and termination of service. Overdue fees shall be assessed a 10 percent penalty plus interest of 1.5 percent per month until fees have been paid.

]

## PART 5
## Special Conditions - Groundwater Discharges

*1.* ***General***

The terms and conditions set fort in this permit shall apply to ground water encountered during the excavation of under ground storage tanks on the facility address and to groundwater pumped from the facility address during the remediation phase of the project.

Discharge of other wastewater generated during this project (ie. Decontamination wastewater or purge water) may be allowed under this permit provided a written request is provided to the District prior to discharge.

**DISCHARGE OF GROUNDWATER, WASTEWATER, OR ANY OTHER SUBSTANCE GENERATED OUTSIDE THE DISTRICT'S SERVICE AREA IS PROHIBITED.**

The permittee shall provide easily accessible sampling points for both pre and post-treatment samples. The District reserves the right to sample at will for any constituents it deems necessary on groundwater samples collected from either pre or post-treatment locations.

There shall be no bypassing of any treatment process or unit or direct discharge into the sewer system at any time.

The permittee assumes full responsibility for any and all damages to the collection system or to the Oro Loma/Castro Valley Treatment Plant, that can be directly attributed to the discharge of treated groundwater from the operation site.

If air stripping is part of the treatment process, the Bay Area Air Quality Control Board shall be notified of the process. If a permit is required by the Air Board, a copy of that permit and subsequent extensions shall be submitted to the District.

*2.* ***Point of Discharge*** The point of discharge shall be established prior to discharge of any wastewater. The discharge point shall not be changed without ***prior*** written authorization from the District.

## PART 5
## Special Conditions - Groundwater Discharges

3. ***Pre-Pumping and Emergency Notification*** The permittee shall notify the District's Industrial Waste Inspector at **481-6971,** no less than twenty four (24 hours prior to commencement of any pumping activity and request an inspection of the site. No pumping shall occur until District staff have inspected the site, piping, pumping set-up, metering and discharge points.

   In the event of any explosive condition or other potentially harmful situation which may affect either the collection system or the P.O.T.W., the permittee shall contact the District at **(510) 276-4700 or (510) 481-6993** immediately (operators are on duty 24 hours per day) and the local Fire Department.

4. ***Initial Sampling*** During the initial three-hour start-up pumping period, the effluent discharge from the treatment process SHALL NOT be sewered. The total volume shall be contained in a tank. The system will be shut down. A representative groundwater sample shall be collected and analyzed for constituents listed on the attached table. Further processing of the groundwater will be allowed only after laboratory analysis demonstrate that the contents of the tank meet all of the limitations set forth in this permit.

# PART 5
## Special Discharge - Groundwater Discharges

### *Sampling Requirements*

| *Parameter* | *O.L.S.D. Limit* |
|---|---|
| Arsenic | 0.8 mg/L |
| Cadmium | 0.2 mg/L |
| Copper | 1.9 mg/L |
| Lead | 1.0 mg/L |
| Mercury | 0.01 mg/L |
| Nickel | 1.0 mg/L |
| Selenium | 1.0 mg/L |
| Silver | 0.8 mg/L |
| Total Chromium | 2.0 mg/l |
| Zinc | 3.0 mg/L |

### *Additional Testing*

| | |
|---|---|
| **Total Petroleum Hydrocarbons (EPA 8015)** | 15 mg/L |
| B.T.E.X. (EPA 8020) | Non-detectable |
| Phenols | 70 mg/L |
| Cyanide | 1.0 mg/L |

### *General Analysis*

| | |
|---|---|
| COD | N/A |
| Suspended Solids | N/A |
| pH | 5.5 to 12.5 units |

## PART 5
## Special Discharge - Groundwater Discharges

5. ***Proposed Sampling After Initial Testing***

***Week #1 Sampling***

One week after discharge begins, a representative sample shall be collected and analyzed for Total Petroleum Hydrocarbons (TPH).

If laboratory analysis show the TPH levels are above 15 mg/L on the first week's sample, another sample will be collected for TPH immediately upon receipt of the laboratory results of the first sample.

If laboratory analysis show the TPH level is below 15 mg/L, discharge may proceed.

***Monthly Sampling***

When laboratory analysis confirms the TPH levels have stabilized, monthly sampling for TPH, BTEX, COD, TSS and pH (the general analysis) shall be conducted by the permittee for the duration of the pumping operation.

The permittee shall notify the District's Industrial Waste Inspector at 276-4700, no less than 24 hours prior to any sampling event to allow District personnel the opportunity to observe sampling procedures.

During the entire treatment process, the TPH concentration shall not exceed 15 mg/L. Sampling frequency will be increased if test results show discharge levels are bordering or exceed 15 mg/L for TPH.

**The results of all laboratory analysis shall be transmitted to the District within three (3) days of receipt of the Laboratory Report.**

## PART 5
## Special Discharge - Groundwater Discharge

6. ***Metering*** The permittee shall submit specifications of the proposed flow meter to the District for approval. The meter must be appropriate for all anticipated conditions of flow and pressure and must include a non-resettable totalizer and fittings to allow for a "fill-up" test to verify the accuracy of the meter. This can also serve as the sampling point for discharge.

**Monthly flow data will be transmitted to the District no later than the 10th of the following month.**

6. **Billing and Permit Extensions** The permittee shall pay all District fees for sampling, monitoring inspections, loading charges, as well as any other related District expenses billed prior to the expiration of this permit.

The District will not consider an extension of this permit until all fees and reimbursable costs have been paid to the permittee.

7. **Fees** An annual permit fee of **$ 594** is charged with the issuance and any subsequent renewals of this discharge permit.

Sewer service and use charges will be **$2.626** per hundred cubic feet of water discharged.

## Oro Loma Sanitary District

# Ordinance No. 39-8

**AN ORDINANCE REGULATING THE USE OF PUBLIC AND PRIVATE SEWERS AND DRAINS, REGULATING THE DISCHARGE OF WATERS AND WASTES INTO THE PUBLIC SEWER SYSTEM, PROVIDING FOR WASTEWATER DISCHARGE PERMITS AND FIXING PERMIT AND MONITORING FEES, AND PROVIDING FOR LIABILITIES AND PENALTIES FOR THE VIOLATION OF THE PROVISIONS THEREOF**

## Adopted August 15, 2006

# ORDINANCE NO. 39-8

**AN ORDINANCE REGULATING THE USE OF PUBLIC AND PRIVATE SEWERS AND DRAINS, REGULATING THE DISCHARGE OF WATERS AND WASTES INTO THE PUBLIC SEWER SYSTEM, PROVIDING FOR WASTEWATER DISCHARGE PERMITS AND FIXING PERMIT AND MONITORING FEES, AND PROVIDING FOR LIABILITIES AND PENALTIES FOR THE VIOLATION OF THE PROVISIONS THEREOF**

The Sanitary Board of the Oro Loma Sanitary District, Alameda County, California, does ordain as follows:

## Article I
## GENERAL PROVISIONS

### 1.1 Purpose and Policy

The purpose of this Ordinance is to set forth uniform requirements for direct and indirect contributors into the District wastewater system and to enable the District to comply with all applicable State and Federal laws required by the Clean Water Act of 1977 and of 1986 and the General Pretreatment Regulations (40 CFR, Part 403).

The objectives of this Ordinance are:

(a) To comply with the laws of the State of California and of the United States relating to the protection of the environment, control of water pollution, disposal of hazardous wastes and pretreatment of industrial discharges to publicly owned treatment works;

(b) To prevent the introduction of pollutants into the District wastewater system which will interfere with the operation of the system or other District operations or contaminate the resulting sludge;

(c) To prevent the introduction of pollutants into the District wastewater system which will pass through the system, inadequately treated, into receiving waters or the atmosphere or otherwise be incompatible with the system's overall operations;

(d) To prevent the introduction of pollutants into the system which may affect the District's ability to dispose of its sludge or other residuals

(e) To improve the opportunity to recycle and reclaim wastewater and sludge from the system;

(f) To prevent the introduction of wastes that may be inadequately treated by District wastewater system and may adversely affect the environment or may cause a violation of the District's NPDES permit or may contribute to the need for modification of the District's NPDES permit;

(g) To protect District personnel while conducting activities related to the collection, treatment and disposal of wastes through the District wastewater system;

(h) To prevent a public hazard or public nuisance arising from the collection, treatment and disposal of wastes through the District wastewater system;

(i) To prevent the introduction of wastes to sewers connected to the District wastewater system that could result in the District being classified as a hazardous waste treatment, storage or disposal facility under the laws of the State of California or the United States; and

(j) To provide for equitable distribution of the cost of the District wastewater system.

(k) To implement the provisions of Chapter 1191 of the California Statues of 1991.

This Ordinance provides for the regulation of direct and indirect contributors to the District wastewater system through the issuance of permits to certain users and through enforcement of general requirements for the other users, authorizes monitoring and enforcement activities, requires user reporting, and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

This Ordinance shall apply to all users of the District wastewater system, including persons who are, by contract or agreement with the District, users of the District wastewater system. Except as otherwise provided herein, the General Manager of the District shall administer, implement, and enforce the provisions of this Ordinance.

## 1.2 Definitions

Unless the context specifically indicates otherwise, the following terms and phrases, as used in this Ordinance, shall have the meanings hereinafter designated:

(a) **Act or "the Act".** The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251, et. seq.

(b) **Authorized Representative of Industrial User.** An authorized representative of an Industrial user may be: (1) A principal executive officer of at least the level of vice-president, if the industrial user is a corporation; (2) A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively; (3) A duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the discharge originates and if such representative is identified in writing by the individual designated in (1) or (2) above.

(c) **Biochemical Oxygen Demand (BOD).** The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure, five (5) days at 20 degrees centigrade expressed in terms of weight and concentration (milligrams per liter (mg/l)).

(d) **Building Sewer.** A sewer conveying wastewater from the premises of a user to the District wastewater system.

(e) **Collection System.** The District pipelines, pump stations, manholes and other similar facilities which accept, collect and convey sanitary sewage to the treatment plant.

(f) **Composite Sample.** A combination of individual samples of water or wastewater taken at preselected intervals to minimize the effect of the variability of the individual sample. Individual subsamples may be of equal volume or may be proportional of the flow at the time of sampling.

(g) **Consistent Compliance.** Is 100% compliance or a compliance status in a quarterly period in which one minor violation occurs over a short duration and is corrected within 24 hours of IU notification.

(h) **Cooling Water.** The water discharged from any use such as air conditioning, cooling or refrigeration, or to which the only pollutant added is heat.

(i) **District.** The Oro Loma Sanitary District; its governing body is the Sanitary Board (the "Board").

(j) **District Wastewater System.** All of the District's system for collecting, conveying and treatment of wastewater including but not limited to the collection system and treatment plant.

(k) **Domestic Wastewater.** Domestic wastewater shall mean the liquid solid and water-carried waste derived from ordinary living processes of humans of such character as to permit satisfactory disposal, without special treatment, into the public sewer by means of a private conveyance system. The strength shall be considered to have no more than 300 milligrams per liter (mg/l) BOD and suspended solids.

(l) **Environmental Protection Agency, or EPA.** The U.S. Environmental Protection Agency, or where appropriate, the term may also be used as a designation for the administrator or other duly authorized official of said agency.

(m) **Flashpoint.** The minimum temperature at which vapor combustion will propagate away from its source of ignition.

(n) **Grab Sample.** A sample taken at a given place and time. It is only representative of the conditions occurring at the time of sampling.

(o) **General Manager.** The General Manager of the District or his/her duly authorized representative.

(p) **Hazardous Pollutants.** Any constituent or combination of constituents that is classified as hazardous under state or federal regulations or is included on the federal list of toxic pollutants as specified in CFR Title 40 Part 403.

(q) **Holding Tank Waste.** Any waste from holding tanks such as vessels, chemical toilets, campers, trailers and vacuum-pump tank trucks.

(r) **Inconsistent Compliance.** Is a compliance status in a quarterly period in which more than one minor violation occurs or if a violation is not corrected within 24 hours but still is not significant non-compliance.

(s) **Industrial User.** Any contributor of industrial waste or wastewater.

(t) **Industrial Waste or Wastewater.** All water-carried wastes and wastewater of the community, excluding domestic wastewater derived from any producing, manufacturing, processing, institutional, commercial, agricultural, or other operation. Industrial wastewater may also include wastes of human origin similar to domestic wastewater which have been mixed with industrial wastes or wastewater prior to discharge to the District wastewater system.

(u) **Interceptor.** A precast or cast-in-place concrete containment device designed to intercept, trap or otherwise prevent grease, sand, flammable liquids or other substances potentially harmful to the District wastewater system from entering said system.

(v) **Interference.** An act that harms or disrupts the District wastewater system, processes, or operation; or has an adverse affect on the quality of the effluent, sludge, air emissions, or other residuals generated by the District wastewater system; or has an adverse affect on the receiving waters; or is likely to endanger life, health, or property or otherwise cause a nuisance; or results in violation of the District's NPDES permit or other permits; or, in the opinion of the District otherwise adversely affects the District's ability to meet the objectives of this Ordinance.

(w) **Intermediate User.** An industrial user or non-residential user of the District's wastewater disposal system whose wastewater discharge does not fall within the requirements for a significant industrial user, yet requires sampling and/or monitoring for calculating sewer service charges and to verify compliance with the Ordinance and permit conditions.

(x) **Lower Explosive Limit (LEL).** The point where the concentration of a gas-in-air is sufficiently large to result in an explosion if an ignition source is present.

(y) **Minor User.** An industrial or non-residential user of the District's wastewater disposal system whose sewer service charge is calculated on a volume basis and/or wastewater discharge monitoring is conducted to verify compliance with the Ordinance and permit conditions.

(z) **National Pollution Discharge Elimination System or NPDES Permit.** A permit issued pursuant to section 402 of the Act (33 U.S.C. 1342).

(aa) **National Categorical Pretreatment Standard or Federal Categorical Pretreatment Standard, or Pretreatment Standard.** Any regulation containing pollutant discharge limits promulgated by the EPA in accordance with 40 CFR Subchapter N, Parts 401-471 and Section 307(b) and (c) of the Act (33 U.S.C. 1317) which applies to a specific category of industrial user.

(ab) **New Source.** Any building, structure, facility or installation from which there is or may be a Discharge of pollutants, the construction of which commenced after the publication of proposed Pretreatment Standards under section 307(c) of the Act which will be applicable to such source if such standards are thereafter promulgated in accordance with that sections, provided that:

(i) The building, structure, facility or installation is constructed at a site at which no other source is located; or

(ii) The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

(iii) The production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. Construction of a new source as defined under this paragraph has commenced if the owner or operator has:

(1) Begun, or caused to begin as part of a continuous on-site construction program:

(A) Any placement, assembly, or installation of facilities or equipment, or

(B) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(2) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operations within a reasonable time.

(ac) **Pass Through.** A discharge which exits the District's wastewater system into the waters of the State in quantities or in concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of violation of any requirement of the District's NPDES permit including an increase in the magnitude or duration of a violation.

(ad) **Person.** Any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by the context.

(ae) **pH.** The logarithm (base 10) of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.

(af) **Pollutant.** Includes sewage or any characteristic of sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation or of human or animal origin, or from any commercial producing, manufacturing, or processing operation of whatever nature.

(ag) **Pollution.** An alteration of the quality of the waters of the State by waste to a degree which unreasonably affects (1) such waters for beneficial use, or (2) facilities which serve such beneficial users or which creates a hazard to the public health.

(ah) **Pretreatment or Treatment.** The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into the District wastewater system. The reduction or alteration can be obtained by physical, chemical or biological processes, or process changes by other means, except as prohibited by 40 CFR Section 403.6(d).

(ai) **Pretreatment Standard.** Any regulation of the District, state or EPA containing pollutant discharge limits or other procedural or substantive requirements of the user.

(aj) **Significant Industrial User.** Any Industrial user of the District's wastewater disposal system who (1) has a discharge flow of 25,000 gallons or more of process wastewater per average work day, or (2) has a flow greater than 5% of the flow in the District's wastewater treatment plant, (3) is a categorical industry subject to categorical Pretreatment Standards, or (4) has in its wastes toxic pollutants in toxic amounts as defined in the standards issued under Section 307 of the Act, or is found by the District to have significant impact, either singly or in combination with other contributing industries, on the District wastewater system, the quality of District sludge, the system's effluent quality, or air emissions generated by the system.

(ak) **Significant Non-Compliance.** Violation of any one or more of the following:

(1) Chronic violations: those violations which exceed the daily maximum limit or the average limit 66% of the time during a 6-month period of the same pollutant parameter;
(2) Technical Review Criteria (TRC) violations: those violations in which 33% or more of measurements for each pollutant parameter taken during a 6-month period equal or exceed the product of the applicable limit and the TRC value (1.4 BOD, TSS, fats, oil and grease and 1.2 for all other pollutants except pH);
(3) a violation of pass through or interference;
(4) a discharge of imminent endangerment to human health, welfare, or the environment, or which required the POTW to use its emergency authorities under 40 CFR 403.8 (f) (1) (vi) (B);
(5) violations of a compliance schedule milestone by 90 days;
(6) violations of report submittal deadlines by 30 days;
(7) failure to report noncompliance; and,
(8) any other violation deemed significant by the District.

(al) **Slug Discharge.** A discharge capable of causing adverse impacts to the District, its workers, or the environment, or any pollutant including an oxygen-demanding pollutant released in

a discharge at a flow rate and/or pollutant concentration which may cause interference with the operation of the District's wastewater system. No case shall have a flow rate or contain concentrations or quantities of pollutants that exceed for any time period longer than fifteen (15) minutes or more than five times the average twenty-four (24) hour concentration, quantity or flow during normal operations. A slug discharge may be, but is not limited to, either a batch discharge or accidental spill. Batch discharges are intentional, controllable discharges that occur periodically within an industrial user's process (typically the result of a noncontinuous process). Accidental spills are unintentional, largely uncontrolled discharges that may result from leaks or spills or storage containers or manufacturing processes in an area with access to floor drains.

(am) **Standard Industrial Classification (SIC).** A classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget.

(an) **State.** State of California.

(ao) **Storm Water.** Any flow occurring during or following any form of natural precipitation and resulting therefrom.

(ap) **Suspended Solids.** The total suspended matter that floats on the surface of, or is suspended in, water, wastewater or other liquids, and which is removable by laboratory filtering.

(aq) **Total Toxic Organics (TTO).** The TTO is defined as the sum of the masses or concentrations of specific toxic organic compounds found in the industrial user's process discharge at a concentration greater than 0.01 mg/l. Each Categorical Standard lists the specific toxic organic compounds that are to be included in the summation to define TTO for the category.

(ar) **Toxic Pollutant.** Any pollutant or combination of pollutants listed as toxic in regulations promulgated by the Administrator of the Environmental Protection Agency under the provision of Section 307(a) of the Act, or other State or Federal laws.

(as) **Trap.** A cast iron or stainless steel containment device used for trapping substances and to prevent grease, sand or flammable liquids from entering the District wastewater system.

(at) **Upset.** An exceptional incident in which there is unintentional and temporary noncompliance with discharge permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(au) **Treatment Plant.** The facility owned by the District that is designed to provide treatment to wastewater.

(av) **User.** Any person who contributes or causes the contribution of wastewater into District wastewater system.

(aw) **Wastewater.** The liquid and water-carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, together with any ground water, surface water, and storm water that may be present, whether treated or untreated, which is contributed into or permitted to enter the District's wastewater system.

(ax) **Wastewater Discharge Permit.** A permit issued under Section 4.2 of this Ordinance.

(ay) **Waters of the State.** All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the State or any portion thereof.

## 1.3 Abbreviations

The following abbreviations shall have the designated meanings:

| | |
|---|---|
| BOD | Biochemical Oxygen Demand |
| CFR | Code of Federal Regulations |
| COD | Chemical Oxygen Demand |
| EPA | Environmental Protection Agency |
| LEL | Lower Explosive Limit |
| l | Liter |
| mg | Milligrams |
| mg/l | Milligrams per Liter |
| NPDES | National Pollutant Discharge Elimination System |
| POTW | Publicly Owned Treatment Works |
| SIC | Standard Industrial Classification |
| TTO | Total Toxic Organics |
| TRC | Technical Review Criteria |
| TSS | Total Suspended Solids |
| USC | United States Code |

# Article II
# REGULATIONS

## 2.1 General Discharge Prohibitions

No user shall contribute or cause to be contributed to the District wastewater system, any Pollutant or Wastewater which will interfere with the operation or performance of the system. These general prohibitions apply to all users of the District's wastewater system whether or not the user is subject to national pretreatment standards or any other pretreatment standards. A user may not contribute the following substances to the District's wastewater system:

(a) Any liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the District's wastewater system or personnel or to the operation of the District's wastewater system. At no time shall two successive readings on

an explosion hazard meter at the point of discharge into the system (or at any point in the system) be more than five percent (5%) nor any single reading over ten percent (10%) of the Lower Explosive Limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides, and any wastestream with a closed cup flashpoint of less than 140 Degrees F (60 Degrees C).

(b) Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the treatment plant such as, but not limited to: grease, garbage with particles greater than one-half inch (1/2") in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshing, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues from refining, or processing of fuel or lubrication oil, mud, or glass grinding or polishing wastes, petroleum oil, non-biodegradable cutting oil, or products of mineral origin in amounts that cause interference or pass through.

(c) Any wastewater having a pH less than 5.5, or greater than 12.5, or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel of the District.

(d) Any wastewater containing toxic pollutant in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the Treatment Plant, or to exceed the limitation set forth in a Categorical Standard. A toxic pollutant shall include, but not be limited to, any pollutant identified pursuant to Section 307(a) of the Act.

(e) Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other pollutants are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for maintenance and repair.

(f) Any substance which may cause the Treatment Plant's effluent or any other product of the Treatment Plant such as residues, sludges, or scums to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case shall a substance discharged to the District wastewater system cause the treatment plant to be in non-compliance with sludge use or disposal criteria, guidelines or regulations developed under Section 405 of the Act, or any criteria, guidelines or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act, or State criteria applicable to the sludge management method being used.

(g) Any substance which will cause the District to violate its NPDES Permit or the receiving water quality standards.

(h) Any wastewater with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.

(i) Any wastewater having a temperature which will inhibit biological activity in the Treatment Plant resulting in interference, but in no case, wastewater with a temperature at the

introduction into the treatment plant which exceeds 40 degrees centigrade (104 degrees Fahrenheit) with a temperature at the point of discharge to the collection system which exceeds 65 degrees centigrade (150 degrees Fahrenheit).

(j) Any pollutant, including oxygen demanding pollutants (BOD, etc.) released at a flow rate and/or pollutant concentration which a user knows or has reason to know will cause interference to the operation of the treatment plant. In no case shall a slug load have a flow rate or contain concentration or qualities of pollutants that exceed for any time period longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration, quantities, or flow during normal operation.

(k) Any wastewater containing any radioactive wastes or isotopes.

(l) Any wastewater which causes a hazard to human life or creates a public nuisance.

(m) Any storm water, ground water, rain water, street drainage, subsurface drainage, yard drainage, swimming pool or spa diatomaceous earth filter backwash, unless a special discharge permit is issued by the District. The District may approve such discharge only when no reasonable alternative is available or such water is determined to constitute a pollution hazard if not discharged to a sewer.

(n) Any unpolluted water including but not limited to cooling water, process water or blow-down from cooling towers or evaporative coolers or any other unpolluted water unless a permit for such discharge has been obtained from the District prior to the discharge. The District may approve the discharge of such water only when no reasonable alternative method of disposal is available or such alternative in determination of the District is unacceptable.

(o) Any septic tank sludge unless a permit is issued by the District.

(p) Any holding tank waste unless a permit is issued by the District.

(q) Any waste defined as hazardous, by any definition set forth in federal and/or State statutes or regulations, unless such waste has been delisted or decertified by the appropriate federal or State agency, and/or a variance has been granted by the appropriate federal or State agency, including provisions for discharge to any part of the District wastewater system, and said variance provisions are approved by the District.

(r) Any substance, waste, wastewater or constituent thereof as may be specifically prohibited or prohibited by concentration levels as may be set forth in local limits adopted by resolution of the District Board and a copy of said standards having been placed on file at the District office.

When the District determines that a user is contributing to the District's wastewater system , any of the above enumerated substances in such amounts as to interfere with the operation of the District shall: (1) Advise the user of the impact of the contribution on the system; and (2) develop effluent limitation(s) for such user to correct the interference compatible with the operation of the treatment plant.

## 2.2 Garbage Grinders

Waste from garbage grinders shall not be discharged into the District wastewater system except:

(a) wastes generated in preparation of food normally consumed on the premises, or

(b) where the user has obtained a permit for that specific use from the District and agrees to undertake whatever self-monitoring is required to enable the District to equitably determine the user charges based on the waste constituents and characteristics.

Such grinders must shred the waste to a degree that all particles will be carried freely under normal flow conditions prevailing in the collection system. Garbage grinders shall not be used for grinding plastic, paper products, inert materials or garden refuse.

## 2.3 Limitations on Point of Discharge

No person shall discharge any substances including but not limited to, any trucked or hauled pollutants except at discharge points designated by the District. Prior to discharge, the user must obtain a permit from the District by submitting a written application and payment of applicable charges and fees.

## 2.4 Modification of Federal Categorical Pretreatment Standards

Where the District's treatment plant achieves consistent removal of pollutants limited by pretreatment standards, the District may apply to the Regional Water Quality Control Board for modification of specific limits in the pretreatment standards. "Consistent Removal" shall mean reduction in the amount of a pollutant or alteration of the nature of the pollutant by the treatment plant to a less toxic or harmless state in the effluent which is achieved by the system 95 percent of the samples taken when measured according to the procedures set forth in Section 403.7(c)(2) of (Title 40 of the Code of Federal Regulations, Part 403) -- "General Pretreatment Regulations for Existing and New Sources of Pollution" promulgated pursuant to the Act. The District may then modify pollutant discharge limits in the Federal Pretreatment Standards if the requirements contained in 40 CFR, Part 403, Section 403.7, are fulfilled and prior approval from the Regional Water Quality Control Board is obtained.

## 2.5 Federal Categorical Pretreatment Standards

Upon the promulgation of a Categorical Standards for a particular industrial subcategory, the Categorical Standard, if more stringent than limitations imposed under this Ordinance for sources in that subcategory, shall immediately supersede the limitations imposed under this Ordinance. The District shall notify all affected users of the applicable reporting requirements under 40 CFR, Section 403.12.

## 2.6 Holding Tank Waste

A user proposing to discharge holding tank waste into the District wastewater system must secure a permit. Unless otherwise allowed by the District under the terms and conditions of the permit, a separate permit must be secured for each separate discharge. This permit will state the specific

location of discharge, the time of day the discharge is to occur, the volume of the discharge and the wastewater constituents and characteristics. If a permit is granted for discharge of such waste into a community sewer the user shall pay the applicable charges and fees and shall meet such other conditions as required by the District. The District may allow, at its sole discretion, the discharge of domestic wastes from mobile home holding tanks without a permit provided such discharges are approved by the District prior to discharge and the discharge is made into an agency approved facility designed to receive such wastes.

## 2.7 Specific Pollutant Limitations

(a) No person shall discharge wastewater containing in excess of:

| | | |
|---|---|---|
| 0.8 | mg/l | arsenic |
| 0.2 | mg/l | cadmium |
| 1.9 | mg/l | copper |
| 1.0 | mg/l | cyanide |
| 1.0 | mg/l | lead |
| 0.01 | mg/l | mercury |
| 1.00 | mg/l | nickel |
| 1.0 | mg/l | selenium |
| 0.8 | mg/l | silver |
| 2.0 | mg/l | total chromium |
| 3.0 | mg/l | zinc |
| 0.02 | mg/l | total identifiable chlorinated hydrocarbons |
| 70 | mg/l | phenolic compounds |
| 100 | mg/l | oil and grease of mineral origin |
| 300 | mg/l | oil and grease of animal or vegetable origin |

(b) Wastewater strength limits for constituents not listed in Section 2.7 (a) may be established in a wastewater discharge permit based upon available treatment technology, existing wastewater conditions in the District's facilities or other factors as determined by the District.

## 2.8 State Requirements

State requirements and limitations on discharges shall apply in any case where they are more stringent than federal requirements and limitations or those in this Ordinance.

## 2.9 District's Right of Revision

The District reserves the right to establish by Ordinance more stringent limitations or requirements on discharges to the District wastewater system if deemed necessary to comply with the objectives presented in Section 1.1 of this Ordinance.

## 2.10 Dilution or Bypassing

No user shall ever increase the use of process water or in any way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the National Categorical Pretreatment Standards, or in any other pollutant-specific

limitation developed by the District or State. User shall not divert any regulated waste stream from the pretreatment system.

## 2.11 Sample Collection and Analysis

Sample collection and analysis shall be performed in accordance with procedures established by the EPA and contained in 40 CFR, Part 136 as amended.

## 2.12 Accidental Discharges

Each user shall provide protection from accidental discharge of prohibited materials or other substances regulated by this Ordinance. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the owner or user's own cost and expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the District for review and shall be approved by the District before construction of the facility. No user who commences contribution to the District facilities after the effective date of this Ordinance shall be permitted to introduce pollutants into the District wastewater system until accidental discharge procedures have been approved by the District. Review and approval of such plans and operating procedures shall not relieve the user from the responsibility to modify the user's facility as necessary to meet the requirements of this Ordinance. The District may review the user's plan and need for a plan modification at a frequency deemed appropriate; but no less than once every two years. In the case of an accidental discharge, it is the responsibility of the user to immediately telephone and notify the District office of the incident. The notification shall include location of discharge, type of waste, concentration and volume, and corrective actions.

(a) **Written Notice.** Within five (5) days following an accidental discharge, the user shall submit to the General Manager, a detailed written report describing the cause of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the District facilities, fish kills, or any other damage to Person or property; nor shall such notification relieve the user of any fines, civil penalties, or other liability which may be imposed by this Ordinance or other applicable law.

(b) **Notice to Employees.** A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees of the user whom to call in the event of a dangerous discharge. Employers shall insure that all employees who may cause or suffer such a dangerous discharge to occur are advised of the emergency notification procedure

(c) **Notification of Changed Discharge.** The user shall notify the District of any proposed changes (permanent or temporary) to the premises, operation of the firm, quality or volume of wastewater, water usage, process, installation or removal of tanks or equipment, and obtain District approval prior to implementation.

## 2.13 Hazardous Materials Notification

(a) The user shall notify the District, the E.P.A., Regional Waste Management Division Director and the California Department of Health Service in writing of any intentional or accidental discharge of a RCRA characteristic or listed hazardous waste or material. Notification must be made

within 180 days after the discharge, and must include the name and EPA hazardous waste number of the material, the type of discharge, (continuous, batch or other) an identification of the hazardous constituents of the waste, an estimate of the mass and concentration in the waste stream discharged during that calendar month.

(b) The notification requirement does not apply to pollutants already reported in periodic self-monitoring reports.

## 2.14 Special Agreement

Special agreements and arrangements between the District and any person or agencies may be established when, in the opinion of the District, unusual or extraordinary circumstances compel special terms and conditions. Under no circumstances, however, will any special agreement or arrangement be established which contravenes any federal pretreatment regulation, categorical pretreatment standard, or any other provision of federal law, or which compromises the federal pretreatment goals to prevent pass through, interference or impairment of sludge use or disposal. The dischargers must apply for and receive approval for a wastewater discharge permit prior to discharge. Best available technology must be used, and the District may impose any condition deemed necessary including, but not limited to additional sampling, monitoring and reporting.

# Article III
# CHARGES AND FEES

## 3.1 Purpose

It is the purpose of this Article to provide for the recovery of costs from users of the District wastewater system for the implementation of the program established by this Ordinance. The applicable charges or fees shall be as set forth in the District's Schedule of Charges and Fees attached hereto as Ordinance No. 37-24.

## 3.2 Charges and Fees

The District may adopt charges and fees to compensate the District for its activities which may include:

(a) Setting up and operating the District's pretreatment program;
(b) Monitoring, inspections and surveillance procedures;
(c) Reviewing accidental discharge procedures and construction;
(d) Processing permit applications;
(e) Filing appeals;
(f) Preparing and processing requests relative to consistent removal (by the District) of pollutants otherwise subject to pretreatment standards;
(g) Other fees as the District may deem necessary to carry out the requirements contained herein.

These fees relate solely to the matters covered by this Ordinance and are separate from all other fees chargeable by the District.

## 3.3 Penalties for Non-payment.

Charges and fees are due and payable on the date shown on the District's invoice. Payment not received by the due date shall be considered as delinquent, and a penalty of ten percent (10%) shall be added, and for each month that such charge remains delinquent, a further penalty of one-half of one percent (½ of 1%) of said basic charge shall be added. Your failure to pay charges which remain delinquent for a period of sixty (60) days shall constitute a lien against the lot or parcel of land against which the charges for services or facilities were imposed, pursuant to Section 5473.11 of the California Health & Safety Code and Oro Loma Sanitary District Ordinance No. 37-3.

# Article IV
# ADMINISTRATION

## 4.1 Wastewater Discharger Classification

All dischargers shall be classified for wastewater disposal purposes in accordance with the principal activity conducted upon the premises, as determined by the District. The purpose of classification is to facilitate the regulation of wastewater dischargers based on quality, quantity, and flow, to provide an effective means of industrial waste source control, and to establish a system of wastewater disposal service charges based upon flow and waste strength.

## 4.2 Wastewater Discharge Permit

### 4.2.1 Permit Requirement

All dischargers, other than residential, whose wastewater requires special regulation or contains industrial wastes requiring source control shall secure a wastewater discharge permit. This includes dischargers classified as significant industrial users, intermediate users, minor users or any other discharger the General Manager shall require to obtain a discharge permit (See Ordinance 37-23).

It shall be unlawful to discharge wastewater into the District wastewater system except as authorized by the General Manager in accordance with the provisions of this Ordinance.

### 4.2.2 Permit Application

Any discharger classified as a significant industrial user proposing to connect to or to contribute to the District wastewater system shall make application for a wastewater discharge permit at least ninety (90) days prior to connecting to or contributing to the system. Any existing significant industrial users connected to or contributing to the system shall obtain a Wastewater Discharge Permit within ninety (90) days after the effective date of this Ordinance. Any existing significant industrial users connected to or contributing to the system and having a current Wastewater Discharge Permit shall be required to obtain a new permit upon the expiration of the existing permit.

Any other discharger (classified as an intermediate or minor user) required or who may be required to obtain a Wastewater Discharge Permit shall complete and file with the District an application in the form prescribed by the District and accompanied by an appropriate fee (See Ordinance 37-23). Any proposed new user shall apply at least ninety (90) days prior to

connecting to or contributing to the District's wastewater system. Any existing user (except one with a current permit) shall apply for a Wastewater Discharge Permit within ninety (90) days after the effective date of this Ordinance. Any existing users connected to or contributing to the system and having a current Wastewater Discharge Permit shall obtain a new permit upon the expiration of the existing permit.

Any new user shall arrange for a District representative to conduct a walk through site inspection of the user's facilities during the ninety (90) days period prior to connecting to the District's wastewater system. A new user shall submit to the District within thirty (30) days after commencement of discharge to the system, an analysis of such discharge delineating wastewater constituents and characteristics including but not limited to those mentioned in Section 2.7 of this Ordinance as determined by a certified analytical laboratory; sampling and analysis shall be performed in accordance with procedures established by the EPA contained in 40 CFR, Part 136, as amended.

The application may require the following information: Estimated wastewater strength, estimated wastewater flow, average and peak wastewater discharge flow for each side sewer; locations of side sewers, sampling points, and pretreatment facilities; description of activity, facilities, and plant process on the premises, including raw materials, processes and types of materials which are or could be discharge; total product produced, by type; number and type of employees; and any other information the District shall deem necessary to evaluate the permit application.

The District will evaluate the data furnished by the discharger and may require additional information. After evaluation and approval of the data furnished, the General Manager may issue a wastewater discharge permit subject to terms and conditions as provided herein or as deemed necessary by the General Manager.

**4.2.3 Permit Modifications**

Within three (3) months of the promulgation of a national pretreatment standard, the wastewater discharge permit of users subject to such standards shall be revised to require compliance with such standard within the time frame prescribed by such standard. Where a user, subject to a national pretreatment standard, has not previously submitted an application for a wastewater discharge permit as required by Sections 4.2.1. and 4.2.2, the user shall apply for a wastewater discharge permit within ninety (90) days after the promulgation of the national pretreatment standard.

In addition, the user with an existing wastewater discharge permit shall submit to the General Manager within sixty (60) days after promulgation of an applicable pretreatment standard the following information:

(a) The nature and concentration of any pollutants in the discharge which are limited by a pretreatment standard, and in the case of an existing user, a statement regarding whether or not the pretreatment standards are being met on a consistent basis and if not, whether additional Operation and Maintenance (O&M) and/or additional pretreatment is required for the user to meet applicable pretreatment standards;

(b) If additional pretreatment and/or O & M will be required to meet the pretreatment standards; the shortest schedule by which the user will provide such additional pretreatment. The

completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard:

The following conditions shall apply to this schedule:

(1) The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.).

(2) No increments referred to in subparagraph (1) shall exceed nine (9) months.

(3) Not later than 14 days following each date in the schedule and the final date for compliance, the user shall submit a progress report to the General Manager including, as a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the user to return the construction to the schedule established. In no event shall more than nine months (9) elapse between such progress reports to the General Manager.

**4.2.4 Permit Conditions**

Wastewater discharge permits shall be expressly subject to all provisions of this Ordinance and all other applicable regulations, charges and fees established by the District. Permits may contain the following:

(a) The unit charge or schedule of charges and fees for the wastewater to be discharged to the District's collection system;
(b) Limits on the average and maximum wastewater constituents and characteristics;
(c) Limits on the average and maximum rate and time of discharge or requirements for flow regulations and equalization;
(d) Requirements for installation and maintenance of inspection and sampling facilities;
(e) Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types and standards for tests and reporting schedule;
(f) Compliance schedules;
(g) Requirements for submission of technical reports or discharge reports;
(h) Requirements for maintaining and retaining plant records relating to wastewater discharge as specified by the District and affording District access thereto;
(i) Requirements for notification of the District of any new introduction of wastewater constituents or any substantial change in the volume or character of the wastewater constituents being introduced into the District wastewater system;
(j) Requirements for notification of slug discharges (defined in Section 2.1 (j);
(k) Requirements for protection from accidental discharges;
(l) Other conditions as deemed appropriate by the District to ensure compliance with this Ordinance.

### 4.2.6 Permit Duration

A permit shall be issued for a specified time period, not to exceed five (5) years. A permit may be issued for a period less than a year or may be stated to expire on a specific date. The user shall apply for permit reissuance a minimum of sixty (60) days prior to the expiration of the user's existing permit. The terms and conditions of the permit may be subject to modification by the District during the term of the permit as limitations or requirements identified in Article II are modified or as other just cause exists. The user shall be informed of any proposed changes in the permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

### 4.2.7 Permit Transfer

A wastewater discharge permit is issued to a specific user for a specific operation. A wastewater discharge permit shall not be reassigned or transferred to or sold to a new user, different premises, or a new or changed operation without the approval of the District. Any succeeding owner or user shall also comply with the terms and conditions of the existing permit.

## 4.3 Reporting Requirements for Permittee

### 4.3.1 Compliance Date Report

Within ninety (90) days following the date for final compliance with applicable Pretreatment Standards or, in the case of a new user connection, following commencement of the introduction of Wastewater into the District wastewater system, any user subject to pretreatment standards shall submit to the District a report indicating the nature and concentration of all pollutants in the discharge from the regulated process which are limited by pretreatment standards and the average and maximum daily flow for these process units in the user facility which are limited by such pretreatment standards. The report shall state whether the applicable pretreatment standards are being met on a consistent basis and, if not, what additional operational and maintenance changes and/or pretreatment is necessary to bring the user into compliance with the applicable pretreatment standards. This statement shall be signed by an authorized representative of the user, and certified correct by an authorized representative of a State certified laboratory and qualified wastewater engineering consultant (if such a consultant has been engaged by the user).

### 4.3.2 Periodic Compliance Reports

(a) Any categorical significant industrial user (see definition (ah)) shall submit to the General Manager during the months of June and December, unless required more frequently in the pretreatment standard or by the General Manager, a report indicating the nature and concentration of all pollutants in the effluent which are limited by such pretreatment standards. In addition, this report shall include a record of all daily flows which during the reporting period exceeded the average daily flow reported in paragraph 4.2.4 (c) of this section. At the discretion of the General Manager and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the General Manager may agree to alter the months during which the above reports are to be submitted.

(b) Significant Non-categorical Industrial Users may be required to submit to the District at least once every six months (on dates specified by the District) a description of the nature, concentration, and flow of the pollutants required to be reported by the District. These reports shall be based on sampling and analysis performed in the period covered by the report, and performed in accordance with the techniques described in 40 CFR part 136 and

amendments thereto. Where 40 CFR part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the administrator determines that the part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analysis shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures, including suggested by the District or other persons, approved by the District. This sampling and analysis may be performed by the District in lieu of the significant non-categorical industrial user.

(c) The District may impose mass limitations on users where the imposition of mass limitations are appropriate. In such cases, the report required under paragraph 4.3.2.(a) shall indicate the mass of pollutants regulated by the applicable pretreatment standards in the effluent of the user. These reports shall contain the results of sampling and analysis of the discharge, including the flow and the nature and concentration, or production and mass where requested by the General Manager, of pollutants contained therein which are limited by the applicable pretreatment standards. The frequency of monitoring shall be prescribed in the applicable Pretreatment Standard. All analysis shall be performed in accordance with procedures established by the EPA and contained in 40 CFR, Part 136 as amended on file at the District Office.

**4.3.3 Signatory and Certification Requirements**

The reports cited in Sections 4.3.1 and 4.3.2 and baseline reports as required in 40 CFR 403.12(b) must be signed and certified by an authorized representative of the industrial user. The certification statement must be:

*"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 assure 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 persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

## 4.4 Monitoring Facilities

The District may require to be provided and operated at the user's expense, monitoring facilities to allow inspection, sampling, and flow measurement of the Building Sewer and/or internal drainage systems. The monitoring facility should normally be situated on the user's premises, but the District may, when such a location would be impractical or cause undue hardship on the user, allow the facility to be constructed in the public street or sidewalk area and located so that it will not be obstructed by landscaping or parked vehicles.

If the monitoring facility is inside the user's fence, there shall be accommodations to allow access for District personnel, such as a gate secured with a District lock. There shall be ample room in or near such sampling manhole to allow accurate sampling and composition of samples for analysis. The manhole, sampling, and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the user.

Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with the District requirements and all applicable local construction standards and specifications. Construction shall be completed within ninety (90) days following written notification by the District.

## 4.5 Inspection and Sampling

The District has the right of inspection of the facilities of any user to ascertain whether the purpose of this Ordinance is being met and all requirements are being complied with. Persons or occupants of premises where wastewater is created or discharged into the District wastewater system shall allow the District or their representative ready access at all times to all parts of the premises for the purposes of inspection, sampling, analysis, records examination or in the performance of any of their duties. The District, Regional Water Quality Control Board and EPA shall have the right to set up on the user's property, such devices as are necessary to conduct sampling inspection, compliance monitoring and/or metering operations. Where a user has security measures in force which would require proper identification and clearance before entry into their premises, the user shall make necessary arrangements with their security guards so that upon presentation of suitable identification, personnel from the District, Regional Water Quality Control Board and EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

## 4.6 Pretreatment

A user shall provide necessary wastewater treatment as required to comply with this Ordinance and shall achieve compliance with all national pretreatment standards within the time limitations as specified by the Federal pretreatment standards. The District may require pretreatment of any industrial waste which the District determines is necessary in order to meet standards established by the Federal or State or other regulatory agencies or which the District, at its sole discretion, determines is necessary in order to protect the treatment plant or its proper and efficient operation or the health and safety of District employees or the environment and the prevention of the entry of such industrial waste into the District's collection system and treatment plant. Should acceptance of any industrial waste require any supplementary treatment plants, facilities, equipment or operations, the District may require payment of the resulting excess costs from the responsible discharger. Any facilities required to pretreat wastewater to a level acceptable to the District shall be provided, operated, and maintained at the user's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be submitted to the District for review and shall be acceptable to the District before construction of the facility. The review of such plans and operating procedures will in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the District under the provisions of this Ordinance. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be acceptable to the District prior to the user's initiation of the changes.

All records relating to compliance with pretreatment standards shall be made available to officials of the EPA, Regional Water Quality Control Board or District.

## 4.7 Confidential Information

Information and data on a user obtained from reports, questionnaires, permit applications, permits and monitoring programs and from inspections shall be available to the public or other governmental

agency without restriction unless the user specifically requests and is able to demonstrate to the satisfaction of the District that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the user.

When requested by the person or user furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available upon written request to governmental agencies for uses related to this Ordinance, the National Pollutant Discharge Elimination System (NPDES) Permit and/or the pretreatment program established by this ordinance; provided, however, that such portions of a report shall be available for use by the State or any State agency in judicial review or enforcement proceedings involving the person or user furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information.

Information accepted by the District as confidential shall not be transmitted to any governmental agency, except the EPA, or to the general public by the District until and unless a ten (10) day notification is given to the user.

## 4.8 Records Retention

The user shall retain and preserve for no less than three (3) years any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof relating to monitoring, sampling and chemical analyses made by or in behalf of the user in connection with its discharge of pollutants into the District wastewater system. Records shall be made available for inspection and copying by representatives of the District, the Regional Water Quality Control Board or the Environmental Protection Agency. All records that pertain to matters that are subject of special orders or any other enforcement or litigation activities brought by the District shall be retained and preserved by the user until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

## 4.9 Wastewater Volume Determination

### 4.9.1 Metered Water Supply

User charges may be applied against the total amount of water used from all sources unless, in the opinion of the District, significant portions of water received are not discharged to the District wastewater system. The total amount of water used from public and private sources will be determined by means of public meters or private meters, installed and maintained at the expense of the user and approved by the District.

### 4.9.2 Metered Wastewater Volume and Metered Diversions

For a user where, in the opinion of the District, a significant portion of the water received from any metered source does not flow into the District wastewater system because of the principal activity of the user or removal by other means, the user charges will be applied against the volume of water discharged from such premises into the system. Written notification and proof of the diversion of water must be provided by the user if the user is to avoid the application of the user charges against the total amount of water used from all sources. The user may install a meter of a type and at a location approved by the District and at the user's expense. Such meters may measure either the amount of wastewater discharged or the amount of water diverted.

Such meters shall be tested for accuracy at the expense of the user when deemed necessary by the District.

### 4.9.3 Estimated Wastewater Volume

(a) **Users Without Source Meters**. For a user where, in the opinion of the District, it is unnecessary or impractical to install **a** meter, the quantity of wastewater may be based upon an estimate prepared by the District. This estimate shall be based upon a rational determination of the wastewater discharged and may consider such factors as the number of fixtures, seating capacity, population equivalent, annual production of goods and services or such other determinants of water use necessary to estimate the wastewater volume discharged.

(b) **Users With Source Meters.** For a user who, in the opinion of the District, diverts a significant portion of its flow from a community sewer, the user charges may be based upon an estimate of the volume to be discharged, provided the user obtains a Wastewater Discharge Permit and pays the applicable charges and fees. The estimate must include the method and calculations used to determine the wastewater volume and may consider such factors as the number of fixtures, seating capacity, population equivalents, annual production of goods and services, or such other determinations of water use necessary to estimate the wastewater volume discharged.

## 4.10 New or Increased Contribution

Any new or increased discharge of pollutants, or changes in the nature of pollutants, to the District wastewater system by any Industrial User must be approved by the District prior to the changed discharge. A written request for and description of the change must be signed by an authorized representative for the industrial user and submitted to the General Manager.

# Article V
# ENFORCEMENT

## 5.1 Purpose

The District may adopt procedures and rules for the implementation and administration of this Ordinance. The District shall enforce the provisions of this Ordinance including requirements established or permits as provided herein, pursuant to any one or more of the alternatives set forth herein. The election to proceed under one alternative shall not limit the District's ability to proceed under any other alternative.

## 5.2 Notification of Violation

(a) Whenever the District finds that any user has violated or is violating this Ordinance, wastewater discharge permit, or any prohibition, limitation or requirement contained herein, the District may serve upon such user a written notice stating the nature of the violation. Within twenty-one (21) calendar days from the date of the notice, the user shall identify the cause or causes of the violation(s), and shall implement corrective actions.

(b) If sampling performed by an Industrial User indicates a violation, the user shall notify the District within 24 hours of becoming aware of the violation. The user shall repeat the sampling and analysis and submit the results of the repeat analysis to the District within 30 days after becoming aware of the violation. (40CFR403.12(g)(2))

## 5.3 Administrative Orders

(a) **Time Compliance Schedules**

Whenever the District finds that any user has violated or is violating or threatening to violate this Ordinance, wastewater discharge permit, or any prohibition, limitation or requirement contained herein, the District may require the discharger to submit within twenty-one (21) calendar days from notification a detailed time schedule of specific actions the user shall take in order to correct or prevent a violation for the District's approval.

The District may set forth a time schedule directing the user to take whatever corrective actions are deemed necessary in order to correct or prevent a violation.

(b) **Cease and Desist Orders**

Whenever the District finds that any user is violating or threatening to violate this Ordinance, their wastewater discharge permit, or any prohibition, limitation or requirement contained herein, the District may issue an order to cease and desist and direct those persons not complying with such prohibitions, limitations, requirements or provisions to:

1) comply forthwith,
2) comply in accordance with a time schedule set forth or approved by the District or
3) in the event of a threatened violation, take appropriate remedial or preventative action.

## 5.4 Damage to Facilities

Whenever the discharge of wastewater causes an obstruction, damage, or other impairment to any part of the collection system or Treatment Plant facilities, the user causing the damage shall be liable for the cost of the repairs and the District may recover those repair costs from the user.

## 5.5 Resampling and Reinspection Fees

Whenever the District conducts additional sampling, inspection or monitoring events (in excess of the number of events scheduled) as a result of a user's violations of this Ordinance, discharge permit or any prohibition, limitation or requirement contained herein, the District may recover the cost of such additional sampling, inspection, and monitoring events in accordance with the fees outlined in Ordinance No. 37-24.

## 5.6 Public Notice of Significant Noncompliance

Should the District determine that a user is in significant non-compliance with applicable pretreatment requirements, the District will list the facility in the Public Notice of Significant Wastewater Violations in the largest daily newspaper in the area. This notice will be published annually, but may be published more frequently at the discretion of the District.

An industrial user is in significant non-compliance if one or more of the following violation occurs:

(a) Chronic violations of wastewater discharge limits, defined as those in which sixty-six percent or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter.

(b) Technical Review Criteria (TRC) violations, defined as those in which thirty-three percent or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil and grease, and 1.2 for all other pollutants except ph).

(c) Any other violation of a pretreatment effluent limit (daily maximum or longer-term average) that the District determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of POTW personnel or the general public);

(d) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority to halt or prevent such a discharge;

(e) Failure to meet within 90 days after the schedule date, a compliance schedule milestone contained in a permit or enforcement order for starting construction, completing construction, or attaining final compliance;

(f) Failure to provide within 30 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;

(g) Failure to accurately report non-compliance;

(h) Any other violation deemed significant by the District.

## 5.7 Show Cause Hearing

(a) The District may order any user who causes or allows an unauthorized discharge to the District's facilities to show cause before the District Board of Directors why the proposed enforcement action should not be taken. A notice shall be served on the user specifying the time and place of a hearing to be held by the District Board of Directors regarding the violation, the reasons why the action is to be taken, the proposed enforcement action, and directing the user to show cause before the District Board of Directors why the proposed enforcement action should not be taken. The notice of the hearing shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days before the hearing. Service may be made on any agent or officer of a corporation.

(b) The District Board of Directors may itself conduct the hearing and take the evidence, or may designate any of its members or any officer or employee of the District to:

(1) Issue in the name of the District Board of Directors notices of hearing requesting the attendance and testimony of witnesses and the production of evidence relevant to any matter involved in such hearing;
(2) Take the evidence;
(3) Transmit a report of the evidence and hearing, including transcript and other evidence, together with recommendations to the District Board of Directors for action thereon.

(c) At any hearing held pursuant to this Ordinance, testimony taken must be under oath and recorded stenographically. The transcript, so recorded, will be made available to any member of the public or any party to the hearing upon payment of the reasonable charges thereof.

(d) After the District Board of Directors has reviewed the evidence, it may issue an order to the user responsible for the discharge directing that, following a specified time period, the sewer service may be discontinued unless adequate pretreatment facilities, devices or other related appurtenances shall have been installed or existing pretreatment facilities, devices or other related appurtenances are properly operated. Further orders and directives as are necessary and appropriate may be issued.

## 5.8 Revocation of Permit

Any user who violates the following conditions of this Ordinance, or applicable State and Federal regulations, is subject to having his permit revoked in accordance with the procedures of the Article:

(a) Failure of a user to factually report the wastewater constituents and characteristics of its discharge;

(b) Failure of the user to report significant changes in operations, or wastewater constituents and characteristics;

(c) Refusal of a reasonable access to the user's premises for the purpose of inspection or monitoring;

(d) Failure of a user to notify District immediately of accidental discharge and/or take appropriate corrective action to prevent a reoccurrence; or,

(e) Violation of any conditions of permit.

## 5.9 Termination of Sewer Service

The District may suspend the wastewater treatment service and/or a wastewater discharge permit when such suspension is necessary, in the opinion of the District in order to stop an actual or threatened discharge which presents or may present an imminent or substantial endangerment to the health or welfare of individuals or to the environment, causes or may cause interference to the Treatment Plant or causes or may cause the District to violate any condition of its NPDES Permit.

Any user notified of a suspension of the wastewater treatment service and/or the wastewater discharge permit shall immediately stop or eliminate the discharge. In the event of a failure of the

user to comply voluntarily with the suspension order, the District shall take such steps as deemed necessary including immediate severance of the sewer connection to prevent or minimize damage to the District's wastewater system or endangerment to any individuals. The District may reinstate the wastewater discharge permit and/or the wastewater treatment service upon proof of the elimination of the non-complying discharge. A detailed written statement submitted by the user describing the causes of the harmful discharge and the measures taken to prevent any future occurrence shall be submitted to the District within five (5) days of the date of occurrence.

## 5.10 Legal Action

If any Industrial User is in noncompliance with any applicable National Pretreatment Standards, State laws, this Ordinance, or if any person discharges any pollutant, including wastewater, into the District's wastewater system contrary to the provisions of State law, this Ordinance, pretreatment standards, or any order of the District, the District may commence an action for appropriate legal and/or equitable relief in the Superior Court of Alameda County.

## 5.11 Administrative Complaints and Penalties

(a) The General Manager may issue an administrative complaint to any person who violates any provision of this Ordinance, permit condition, prohibition, limitation or requirement.

The General Manager may administratively impose penalties up to specified maximums against any person who violates any provision of this Ordinance, permit condition, provision, limitation or requirements.

The complaint shall allege the act or failure to act that constitutes the violation of District requirements, the provisions of law authorizing civil liability to be imposed and the proposed civil penalty.

The complaint shall be served by personal delivery or certified mail on the person subject to the District's discharge requirement and shall inform the person served that a hearing shall be conducted within 60 days after the person has been served.

(b) **Hearing**

The hearing shall be before the General Manager. The person who has been issued an administrative complaint may waive the right to a hearing in which case the District shall not conduct a hearing. If after the hearing, if any, it is found that the person has violated any provision of this Ordinance, discharge permit condition, prohibition requirements, etc., the General Manager may assess a civil penalty against the person.

In determining the amount of the civil penalty, the General Manager may take into consideration all relevant circumstances including, but not limited to, the extent of harm caused by the violation, the economic benefit derived through the non-compliance, the nature and persistence of the violation, the length of time over which the violation occurs and the corrective actions, if any, attempted or taken by the discharger.

(c) **Civil Liability Penalties**

Civil penalties may be imposed by the General Manager as follows:

(1) In an amount not to exceed two thousand dollars ($2,000) for each day for failing or refusing to furnish technical or monitoring reports.

(2) In an amount not to exceed three thousand dollars ($3,000) for each day for failing or refusing to timely comply with any compliance schedule established by the District.

(3) In an amount not to exceed five thousand dollars ($5,000) per violation for each day for discharges in violation of any waste discharge limitation, permit condition, or requirement issued, reissued or adopted by the District.

(4) In an amount which does not exceed ten dollars ($10) per gallon for discharges in violation of any suspension, cease and desist order or other order, or prohibition issued, reissued or adopted by the District.

Unless appealed, orders setting administrative civil penalties shall become effective and final upon issuance thereof, and payment shall be made within 30 days of the date of the order. Copies of these orders shall be served by personal service or by registered mail upon the party served with the administrative complaint and upon persons who appeared at the hearing and requested a copy.

The amount of any civil penalties imposed which have remained delinquent for a period of 60 days from the date of order shall constitute a lien against the real property of the discharger from which the discharge originated resulting in the imposition of the civil penalty.

The District may, at its option, elect to petition the Superior Court to confirm any order establishing civil penalties and enter judgment in conformity.

No penalties shall be recoverable under this section for any violation for which civil liability is recovered under Section 6.1 hereof.

(d) **Appeal Process**

(1) A person dissatisfied with the decision of the General Manager may appeal to the Board of Directors within 30 days of notice of the Manager's decision.

(2) Any party aggrieved by a final order issued by the Board of Directors after granting review of the General Manager's order, may obtain review of the order of the Board in the Superior Court by filing in the court a petition for writ of mandate within 30 days following the issuance of the order by the Board.

Any party aggrieved by the General Manager's order for which the Board denies review, may obtain review of the order of the General Manager in the Superior Court by filing in the court a petition of writ of mandate within 30 days following the denial of review by the Board.

# Article VI
# PENALTIES

## 6.1 Civil Penalties

(a) Any user who is found to have violated an Order of the District, this Ordinance, or the orders, rules, regulations and permits issued hereunder, shall be liable civilly for a penalty not to exceed twenty-five thousand dollars ($25,000) for each day for each violation in which such violation occurs or continues. The District may petition the Superior Court to impose, assess, and recover the sums provided for in the section. In determining the amount the court shall take into consideration all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the economic benefit derived through any noncompliance, the nature and persistence of the violation, the length of time over which the violation occurs and the corrective action, if any, attempted or taken by the discharger. In addition to the penalties provided herein, the District may recover reasonable attorneys' fees, court costs, court reporters' fees, administrative costs of the District, and other expenses of litigation by appropriate suit at law against the person found to have violated this Ordinance or the orders, rules, regulations, and permits issued hereunder.

Remedies under this section are in addition to and do not supersede or limit any other remedies, civil or criminal, but no liability shall be recoverable under this section for any violations for which liability is recoverable under Section 5.11.

(b) **Injunction.** Whenever a discharge of wastewater is in violation of the provisions of this Ordinance or otherwise causes or threatens to cause a condition of contamination, pollution, or nuisance, the District may petition the Superior Court for the issuance of a preliminary or permanent injunction, or both, as may be appropriate, restraining the continuance of such discharge.

## 6.2 General Criminal Penalties

The violation of any regulation or ordinance of the District is a misdemeanor punishable by a fine not to exceed One Thousand Dollars ($1,000) or imprisonment for not more than thirty (30) days in the County jail, or both. Each day a violation occurs may constitute a new and separate offense and may subject the violator to an additional full measure of penalties as set forth herein.

## 6.3 Falsifying Information

Any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to this Ordinance, or Wastewater Discharge Permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this Ordinance, shall be deemed to have violated the provisions of this ordinance thereof.

## Article VII
## MISCELLANEOUS PROVISIONS

### 7.1 Severability

If any section, subsection, sentence, clause or phrase of this Ordinance or the application thereof to any Person or circumstance is for any reason held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this Ordinance or the application of such provision to other Persons or circumstances. The Board hereby declares that it would have passed this Ordinance or any section, subsection, sentence, clause or phrase hereof irrespective to the fact that any one or more sections, subsections, sentences, clauses or phrases be declared to be unconstitutional or invalid.

### 7.2 Repeal of Existing and Inconsistent Ordinances

Ordinances 39-1, 39-2, 39-3, 39-4, 39-5, 39-6, 39-7, and all other ordinances and parts of ordinances inconsistent herewith are hereby repealed.

### 7.3 Effective Date

This Ordinance shall be entered into the minutes of this Board, and the Board hereby directs the General Manager to prepare a summary of this Ordinance and cause such summary, along with the names of those Board members voting for and against the Ordinance, to be published once in The Daily Review, and to cause the full text of this Ordinance, along with the names of those Board members voting for and against the Ordinance, to be posted in the office of the Secretary. The Secretary is also directed to cause a copy of the Ordinance summary to be posted for one week in three places in the District. Said posting and publication is to be completed not later than one week from the date thereof. This Ordinance shall take effect one week following its posting and publication, whichever occurs later.

I hereby certify the foregoing is a full, true and correct copy of an Ordinance duly and regularly adopted by the Sanitary Board of the Oro Loma Sanitary District, Alameda County, California, at a meeting thereof held on the 15th day of August, 2006, by the following vote of the members thereof:

**AYES**, and in favor thereof, Members: Crowle, Dias, Kerr, Landis, Sidari

**NOES**, Members: None

**ABSENT**, Members: None

Roland J. Dias, President

COUNTERSIGNED:

Howard W. Kerr, Secretary

jk:f:..:ordinance:ord 39-8_adopted 8-15-06.wpd

# EXHIBIT "A"

## Schedule of Fees For Monitoring and Wastewater Discharge Permits

## Refer to Oro Loma Sanitary District Ordinance No. 37-24