September 9, 2009

Mr. Jerry Wickham
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Dear Mr. Wickham:

I declare, under penalty of perjury, that the information and/or recommendations contained in URS' report titled "**SLIC Case No. RO0002892, Chevron Sunol Pipeline, 2793 Calaveras Road, Sunol, CA – Soil Vapor Extraction System Evaluation and Work Plan for Additional Site Characterization**" are true and correct to the best of my knowledge at the present time.

Submitted by:

Jeffery W. Johnson

Jeffrey Johnson
Chevron Pipe Line Company

URS

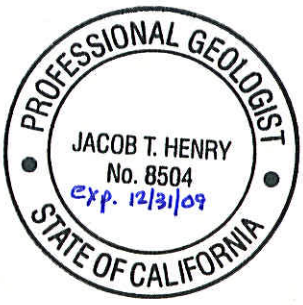
This document ("**Soil Vapor Extraction System Evaluation and Work Plan for Additional Site Characterization**") was prepared under my direct supervision. The information presented in this report is based on our review of available data obtained during our quarterly sampling activities and our previous subsurface investigation efforts. To the best of our knowledge, we have incorporated into our recommendations all relevant data pertaining to the Chevron Pipeline Release site in Sunol, California.

The document discussed herein was developed in accordance with the standard of care used to develop this type of report. The assumptions that were made and the recommendations for continued field activities were based on our professional experience and protocols reported in the literature for similar investigations.

URS Corporation
Approved by:

Joe Morgan III

Jacob Henry, P.G.



URS

September 9, 2009

Mr. Jerry Wickham
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: SLIC Case No. RO0002892, Chevron Sunol Pipeline, 2793 Calaveras Road, Sunol, CA – **Soil Vapor Extraction System Evaluation and Work Plan for Additional Site Characterization**

Dear Mr. Wickham:

On behalf of Chevron Pipe Line Company (CPL), URS Corporation (URS) has prepared the attached soil vapor extraction system evaluation and work plan to install GORE™ Modules to obtain additional subsurface data to further evaluate the extent of residual hydrocarbons at the CPL Sunol Pipeline Site (Site) in Sunol, California. Mr. Jeffery Johnson has been assigned as the new project manager of the Site. Mr. Johnson will be contacting you to introduce himself and to discuss the current status of the Site. Please provide comments and approval of the work plan at your earliest convenience. CPL has requested that Alameda County Environmental Health Department provide approval for this work plan before implementation. URS can implement the work plan within two weeks of approval.

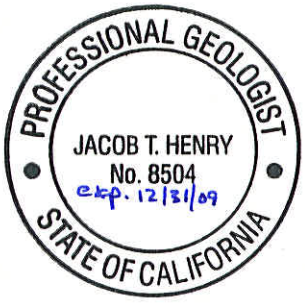
If you have any questions on this work plan, please call Mr. Joe Morgan at 510-874-3201.

Sincerely yours,

URS CORPORATION

Joe Morgan III
Senior Project Manager

Jacob Henry, P.G.
Senior Geologist



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SOIL VAPOR EXTRACTION SYSTEM EVALUATION AND WORK PLAN FOR ADDITIONAL SITE CHARACTERIZATION CHEVRON SUNOL PIPELINE SUNOL, CALIFORNIA

SLIC CASE NO. RO0002892

Prepared for:

Chevron Pipe Line Company
4800 Fournace Place, E320C
Bellaire, Texas 77401

September 2009

URS Corporation
1333 Broadway, Suite 800
Oakland, California 94612

26815217

TABLE OF CONTENTS

Figures

TABLE OF CONTENTS

Appendices

ACEH	Alameda County Environmental Health Department
bgs	below ground surface
COC	Constituents of Concern
CPL	Chevron Pipe Line Company
ePTFE	expanded polytetrafluoroethene
ETV	Environmental Technology Verification
HASP	Health and Safety Plan
JSA	Job Safety Analysis
PID	photoionization detector
SFPUC	San Francisco Public Utilities Commission
SMS	Safety Management Standard
SVE	soil vapor extraction
URS	URS Corporation
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
SVOC	semi-volatile organic compound

On behalf of Chevron Pipe Line Company (CPL), URS Corporation (URS) has prepared this "*Soil Vapor Extraction System Evaluation and Work Plan for Additional Site Characterization*" (Document) for the CPL Site (Site) in Sunol, California (Figure 1). This Document presents the soil vapor extraction (SVE) system results from April 22, 2009 through July 23, 2009, a discussion of the SVE system results, and a work plan for an additional subsurface investigation to evaluate the extent of any residual hydrocarbons at the Site. Based on the low and declining hydrocarbon recovery rates from the SVE wells, CPL and URS decided to remove the SVE system from operation in order to implement the additional subsurface investigation.

Due to the complex subsurface conditions at the Site and the discovery of low level hydrocarbons in MW-10 and MW-11, URS will collect additional subsurface data to evaluate the extent and mass flux to groundwater of residual hydrocarbons. URS will use GORE™ Modules (Modules), a passive soil gas collection methodology. This document describes the field activities involved in installing the Modules, retrieving the Modules after the required length of time (approximately 14 days), and the analyses associated with the results of the study.

This section summarizes the design of the SVE system and the monitoring and analysis program implemented at the Site.

2.1 SVE SYSTEM HISTORY

First SVE System Operational Period

URS installed four SVE wells (SVE-1D, SVE-2S, SVE-3S, and SVE-4D) on the dirt road in November 2005, as shown in Figure 2. The system operated for 3 months and removed an estimated 7,294 pounds of gasoline (approximately 1,042 gallons) during the period from November 8, 2005 through February 13, 2006.

Second SVE System Operational Period

Upon ACEH's request, URS installed five additional SVE wells (SVE-5 through SVE 9) below the dirt road on the steep hillside in November 2006. The updated system, including the earlier SVE wells was restarted on November 28, 2006. The updated system operated for approximately 9 months and removed an estimated total of 9,742 pounds of gasoline (approximately 1,597 gallons) during the period from November 28, 2006 through August 17, 2007.

The updated system was disconnected and removed from the Site on August 17, 2007, due to the safety issues with the dead trees killed as a result of the initial release. CPL and URS were concerned that the trees, which were losing limbs on a daily basis, would damage the SVE wells and piping or injure URS/subcontractor personnel. CPL and URS requested closure of SVE system activities in the *Third Quarter 2007 Groundwater and Soil Vapor Extraction Monitoring Report* dated November 15, 2007. In a letter dated November 27, 2007, ACEH requested an SVE system be reinstalled and be in operation by January 29, 2008. In a letter to ACEH dated January 15, 2008, URS requested from ACEH clarification on and guidance on development of closure requirements. In a letter dated February 1, 2008, ACEH referenced the United States Environmental Protection Agency document titled "Development of Recommendations and Methods to Support Assessment of Soil Venting Performance and Closure" dated September 2001 and requested a schedule for the tasks to be completed prior to the reinstallation of an SVE system. URS complied and submitted monthly SVE system updates to ACEH from March 2008 through January 2009.

Third SVE System Operational Period

Upon receipt of ACEH's letter dated February 1, 2008, URS and CPL coordinated to complete the removal of the dead trees, which occurred in June 2008. CPL also decided to install an electrical power system to provide power to the SVE system's future operations. In order to proceed with the installation of the electrical power system, an Alameda County Building Department (ACBD) permit was required. Furthermore, as a condition of the ACBD permit, several Alameda County Fire Department (ACFD) requirements were implemented. The ACFD requirements included vegetation removal, the construction of an all purpose road for fire truck access, and the installation of a 2, 500 gallon water tank. All ACBD and ACFD requirements were met by December 2008, with start-up of the SVE system implemented on December 12, 2008. Once results from the start-up were obtained and Bay Area Air Management District permits completed the new SVE system operations were started on December 22, 2008. The updated system was operated for approximately 2 months and removed an estimated total of 2,329 pounds of gasoline (approximately 382 gallons) during the period from December 22, 2008 through February 17, 2009.

Operation of the SVE system was discontinued February 17, 2009 when Pacific Gas and Electric (PG&E) disconnected the power from the electrical power system. During this time, the SVE system subcontractor, Stratus, Inc. (Stratus), contract ended and the SVE system was removed from the Site on March 13, 2009.

Fourth SVE System Operational Period

URS contracted with Mako Industries (Mako) to provide SVE system operation for an additional three month period. The system operated for approximately 3 months and removed an estimated total of 1,390 pounds of gasoline (approximately 228 gallons) during the period from April 30, 2009 through July 23, 2009.

Operation of the SVE system was discontinued July 23, 2009 when the contract with Mako ended and the system was removed from the Site.

2.2 SVE SYTEM DESIGN

The fourth SVE treatment system iteration was installed by Mako and consists of the following components:

- A trailer-mounted 350-cubic-feet-per-minute (cfm) propane thermal oxidizer (manufactured by Mako) that includes an electrically powered 15-horsepower (hp) liquid ring blower and a 250-gallon knockout pot;
- A 1000-gallon propane tank.
- An electrical power system with electrical power provided by PG&E;
- Conveyance pipes and manifolds were used; and
- A 500-gallon poly tank and associated level switch for the storage of groundwater extracted from the SVE wells, specifically SVE-8.

The SVE treatment system was located north of the release location on San Francisco Public Utilities Commission (SFPUC) property (Figure 2). The SFPUC property is fenced and has a locked gate for security. An additional separate 8-foot-high, slatted chain-link fence with a locked gate enclosed the SVE equipment compound. Vapors are extracted from the SVE wells with the liquid ring blower and conveyed to the treatment compound through two separate sets of piping. The first set of piping connects SVE-1D through SVE-5 to the treatment system and the second set of piping connects SVE-6 through SVE-9 to the treatment system. Both sets of piping consist of 2-inch-diameter Schedule 40 PVC conveyance pipes that run from each wellhead to the appropriate manifold. The valve manifold for each set of piping allows regulation of flow from each well. A single 1.5-inch diameter Schedule 40 PVC pipe connects the two manifolds to the treatment system. The extracted vapor stream flows from the manifolds to the knockout pot, which separates and collects moisture from the vapor stream. Hydrocarbon vapors are collected by the vacuum created by the liquid ring pump and are abated by the thermal oxidizer before discharge to the atmosphere. Mako obtained all necessary permits and approvals from the Bay Area Air Quality Management District prior to the operation of the SVE system.

2.3 FOURTH SVE SYSTEM OPERATIONAL PERIOD MONITORING AND ANALYSIS PROGRAM

Vapor concentration readings at each SVE wellhead and at the system influent and effluent points were monitored and recorded every week during this reporting period using a Horiba MEXA-554J Analyzer (Horiba).

Grab vapor samples for laboratory analysis were collected at each wellhead and at the system influent and effluent points once a month for analytical laboratory analysis to confirm field

readings. All vapor samples for chemical analysis were transported under URS chain-of-custody to Lancaster Laboratories via FedEx. The vapor samples were analyzed for the following:

- Hydrocarbon concentrations as hexane by USEPA Method 25 Modified
- BTEX by USEPA Method TO-14A

Analytical results generally confirmed the Horiba results recorded during weekly site visits. Appendix A provides the complete laboratory analytical results.

2.4 SVE SYSTEM OPERATION AND MONITORING RESULTS

This section details the operation and monitoring results of the SVE system from April 30, 2009 through July 23, 2009. Figures 3a through 11a show the Horiba readings at each well. Figures 3b through 11b show the cumulative mass of hydrocarbons removed and the mass removal rate as pounds per day (lbs/day) at each well. Figure 12 shows the mass removal rate as lbs/day for the SVE system. Gasoline mass removal was calculated based on the Horiba readings collected at the wellheads and on the analytical lab data.

After system start-up and stabilization, URS collected vapor samples on the first day of operation (April 30, 2009), and then monthly until shutdown on July 23, 2009. Site visits were conducted weekly to confirm that the system was operating properly and to record system readings. During the period of May 21, 2009 through June 11, 2009, electrical power fluctuations caused the system to shutdown periodically. However, the close proximity of Mako personnel in Livermore, California, allowed frequent checks on the system with the system typically down for only two to three days at a time.

Due to decreased Horiba readings and declining mass removal values at SVE-1D, SVE-2S, SVE-3S, SVE-4D, SVE-5, and SVE-8; the well valves were closed during the later half of June through the first half of July. These wells were checked weekly to confirm that no hydrocarbon rebound had occurred. All well valves were opened the last two weeks of operation in July 2009.

2.4.1 SVE Removal Results and Comparison Over Time

During the first SVE system operational period from November 8, 2005, through February 13, 2006, utilizing only SVE-1D, SVE-2S, SVE-3S, and SVE-4D, an estimated 7,294 pounds of

gasoline (approximately 1,042 gallons) were removed. The average product removal rate during this time period was 72.22 pounds per day (lbs/day).

During the second SVE system operational period from November 28, 2006, through August 17, 2007, utilizing SVE-1D, SVE-2S, SVE-3S, SVE-4D, and SVE-5 through SVE-9, an estimated 9,742 pounds of gasoline (approximately 1,597 gallons) were removed. The average removal rate during this entire time period was 37.18 lbs/day.

During the third SVE system operational period from December 22, 2008, through February 17, 2009, utilizing SVE-1D, SVE-2S, SVE-3S, SVE-4D, and SVE-5 through SVE-9, an estimated 2,329 pounds of gasoline (approximately 382 gallons) were removed. The average removal rate during this entire time period was 40.86 lbs/day.

During the fourth SVE system operational period from April 30, 2009, through July 23, 2009, utilizing SVE-1D, SVE-2S, SVE-3S, SVE-4D, and SVE-5 through SVE-9, an estimated 1,390 pounds of gasoline (approximately 228 gallons) were removed. The average removal rate during this entire time period was 18.78 lbs/day.

To date, an estimated 20,755 pounds of gasoline (approximately 3,249 gallons) have been removed.

URS discovered minor discrepancies in the average removal rate calculation previously reported during 1Q2009. These discrepancies have been corrected in this report.

2.4.2 SVE System Shutdown

The average SVE system influent hydrocarbon vapor concentration during the fourth operational period of April 30, 2009 through July 23, 2009 dropped to 251 parts per million by volume (ppmv). Ideally, a minimum influent hydrocarbon vapor concentration of 4,500 ppmv is needed to maximize removal efficiency, as designed (Mako Industries, 2009). URS measured a steady decline of hydrocarbon vapor concentrations at SVE-1D, SVE-2S, SVE-3S, SVE-4D, SVE-5, and SVE-8 during the fourth operational period. The decline in hydrocarbon vapor concentrations and a reassessment of groundwater hydrocarbon concentrations lead to the decision by CPL, at the recommendation of URS, to discontinue SVE system operations until an additional subsurface investigation could be conducted to evaluate the extent and mass flux to

groundwater of residual hydrocarbons at the base of the hillside. Therefore, on July 23, 2009, URS observed the removal of the SVE system from the Site by Mako.

2.5 MASS REMOVAL CALCULATIONS

The assumptions used in the mass removal calculations were as follows:

- The relative vapor density of gasoline is approximately 3.3 (unitless).
- The vapor density of pure, dry air is 1,200 grams per cubic meter (g/m^3) at 68° Fahrenheit (°F).

The vapor density of gasoline is therefore calculated as 3.3 x 1,200 g/m^3 = 3,960 g/m^3 at 68°F.

Air flow in standard cubic foot per minute (SCFM) at 14.7 pounds per square inch atmosphere (psia) and 68°F is converted from air flow in cubic feet per minute as follows:

SCFM (at 14.7psia and 68°F) = CFM x ([(Pg + Patm)/(Patm)] x [(68 +460)/(Tact +460)])

Where

- *Pg* is the gauge pressure at the wellhead
- *Patm* is the atmospheric pressure
- *Tact* is the actual temperature
- *460* is the temperature conversion factor from Fahrenheit to Rankin.

The mass removed in pounds is calculated as follows:

Pounds of Petroleum Hydrocarbons Removed = (flowrate in SCFM)(average concentration in ppmv)*(60 min/hr)*(106.88 lbs/molecule)*(Operation Time in hr)/1000000/379*

2.6 RECOMMENDATIONS

Based on the SVE results presented in this report, URS recommends further subsurface investigation to evaluate the extent of residual hydrocarbons. Furthermore, the data collected will be the first step in calculating the mass flux of residual hydrocarbons to groundwater. URS believes the current configuration of SVE wells is obsolete requiring the additional subsurface investigation. Once investigation results are available, URS will evaluate the next step towards

maximizing the efficiency and removal of residual hydrocarbons with the use of an SVE system, other remedial action, or further subsurface inve0stigation.

3.1 RELEASE HISTORY AND INVESTIGATION EFFORT TO DATE

An unleaded gasoline release occurred on August 14, 2005 when an underground pipeline (the Bay Area Product Line) was damaged during dirt road grading activities. The location of the pipeline release is approximately 2.7 miles south of the intersection of Interstate 680 and Calaveras Road, between mileposts 2.7 and 2.8 of Calaveras Road, in Sunol Valley, Valle de San Jose Mexican land grant (La Costa Valley Quadrangle) in Alameda County, California. The release location is approximately 4 miles southeast from the city of Sunol, California. The pipeline extends along Calaveras Road and traverses a steep hillside above the east side of the road (Figure 1). The San Francisco Public Utilities Commission (SFPUC) owns the property where the release occurred and leases it to a cattle rancher. Immediately to the west of Calaveras Road at the location of the release is a tree nursery (the Valley Crest Tree Company), which also leases the property from the SFPUC.

The release location is on a steep, west-facing slope with a grade ranging from 45 to 80 percent. Vegetation at the release location is predominantly oak woodlands. A small stream is located approximately 150 to 200 feet north of the release location. This stream flows into the Alameda Creek floodplain and joins Alameda Creek seasonally.

A total of 11 groundwater monitoring wells (MW-1 through MW-11) as shown on Figure 2 have been installed and quarterly groundwater monitoring has been conducted since the first quarter of 2006. In June 2008, monitoring wells MW-5 through MW-7 were abandoned after four consecutive quarters of non-detect analytical results for total petroleum hydrocarbons as gasoline range organics (TPH-GRO), benzene, toluene, ethylbenzene, and xylenes (BTEX).

Two water-bearing zones are observed at the Site; the unconfined water-bearing zone (screened by wells MW-1 through MW-4 and MW-8 through MW-11) and the confined sandstone water-bearing zone (screened by former wells MW-5 through MW-7). Based on the quarterly groundwater monitoring results, the unconfined water-bearing zone appears to be the hydrogeologic unit of concern for contaminant transport. Groundwater movement within the nursery unconfined water-bearing zone is affected by seasonal fluctuations in precipitation with minimal groundwater flow through the Site.

Wells MW-10 and MW-11 were installed in September 2007, approximately 200 feet northwest west of the release location, as shown on Figure 2. MW-10 and MW-11 were intended to define the northern extent of the contaminant plume. However, during first and second quarter 2009, low level concentrations of TPH-GRO, toluene, and xylenes have been observed in MW-10 (TPH-GRO and toluene) and MW-11 (TPH-GRO, toluene, and xylenes). URS recommends continuing quarterly monitoring and assessment of the downgradient edge of the groundwater plume if TPH-GRO, toluene, and xylene concentrations persist or increase. Due to the potential migration of residual hydrocarbons away from the original release location to the west and complex subsurface conditions, URS will collect additional subsurface data to evaluate residual hydrocarbons on the eastern and western sides of Calaveras Road. The Modules will be used as a tool to collect soil gas samples in the area of SVE wells SVE-1D through SVE-9 to the west towards the nursery. Specifically, the Modules will be placed to collect passive soil gas samples between the existing wells to further evaluate the effectiveness of the SVE system. The approximate dimensions are 300 feet (N-S direction) by 200 feet (E-W direction), as shown on Figure 13. The modules will be installed in a grid pattern with a proposed spacing of approximately 50 feet. Based on the survey results, URS will evaluate the need for further investigation.

3.2 GORE™ SURVEY

The Modules underwent the U.S. Environmental Protection Agency (USEPA) Environmental Technology Verification (ETV) Program in 1997. The demonstration results indicated that the Modules successfully collected soil gas samples in clay and sandy soils. The sampler provided positive identification of target compounds and may detect lower concentrations of VOCs in the soil gas than can be detected with more traditional soil gas sampling methods. The USEPA ETV Report is included in Appendix B.

Each Module is a passive soil gas sampler that is designed to collect a broad range of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs), including halogenated compounds, petroleum hydrocarbons, and polynuclear aromatic hydrocarbons. A typical module contains two or more passive collection units called sorbers. Each sorber contains an equal amount of sorbent materials (polymeric and carbonaceous resins). These granular adsorbent materials are used because of their affinity for a broad range of VOCs and SVOCs.

The sorbers are sheathed in the bottom of a 4-foot-long, vapor-permeable retrieval cord. The cord and the sorbers are constructed of inert, hydrophobic, microporous GORE-TEX® expanded polytetrafluoroethene (ePTFE). The microporous structure of ePTFE allows vapors to move freely across the membrane and onto the sorbent material. This microporous structure also protects the granular adsorbents from physical contact with soil particulates and water.

4.1 PRE-FIELDWORK ACTIVITIES

Prior to fieldwork, URS will obtain one free boring permit from the Alameda County Flood Control and Water Conservation District - Zone 7 and notify Underground Service Alert 48 hours prior to fieldwork to identify any shallow utilities running through the area. Because the depth of the holes is only 3 feet bgs, additional utility clearance of the area is not necessary.

4.2 FIELDWORK

The coverage of the screening method includes the area of SVE wells SVE-6 through SVE-9 to the west towards the nursery. The approximate dimensions are 300 feet (N-S direction) by 200 feet (E-W direction), as shown on Figure 13. The modules will be installed in a grid pattern with a proposed spacing of 30-40 feet. Although Calaveras Road is included in the coverage area, no modules will be installed on the roadway right of way. A line of modules will be installed along the eastern shoulder of Calaveras Road beyond the Calaveras Road right-of-way.

The Modules will be inserted into small (0.5-0.75-inch diameter) holes at depths of approximately three feet bgs. The hole will be created by advancing push rods. The sampler is then manually inserted into the hole using a specially designed push rod provided by GORE™. The hole will then be sealed with a stopper. The Module will remain in place for approximately 14 days to absorb soil gases and is then retrieved by hand. The modules will be analyzed by the manufacturer, W. L. Gore & Associates, Inc. for total petroleum hydrocarbons, benzene, toluene, ethylbenzene, and total xylenes. A colored contour map based on the analytical results will be provided by the manufacture.

4.3 HEALTH AND SAFETY MONITORING

Before field activities begin, a site-specific health and safety orientation will be conducted for all on-site personnel. The following topics will be discussed at the briefing:

- Health and safety personnel names and alternates responsible for site health and safety.
- Site hazards, as identified in the Health and Safety Plan (HASP), e.g. biological, traffic, slip trip and fall, cutting hazards.
- Personal protective equipment.
- Heat stress symptoms and control measures that will be employed.

- Applicable URS Safety Management Standards (SMSs).
- Safe work practices, including those discussed in the HASP, Chevron's Safety Guidelines, and the Loss Prevention System.
- Personnel and equipment decontamination procedures.
- Air monitoring.
- Emergency procedures.
- Other applicable topics.

At the end of the briefing, attendees will be informally quizzed to assess their understanding of the health and safety requirements.

In addition to the initial site-specific health and safety briefing, daily health and safety meetings will be conducted to address health and safety concerns. These meetings will be documented using the On-Site Health and Safety Tailgate Meeting Record Form in the HASP. Job Safety Analyses (JSAs) will be developed for new tasks. The JSAs will be discussed in detail with the personnel working on the respective task(s). The JSAs will also be reviewed daily in the Safety Tailgate Meeting.

4.4 SCHEDULE

URS plans on installing the modules as soon as the week of September 28, 2009, providing all the equipment is available. Installing the modules should take no more than two field days. The modules will then be removed and sent in for analysis approximately two weeks after installation. Removing the modules and sealing the holes should take no more than two field days.

4.5 REPORTING

Based on the contour maps showing the relative contaminant concentrations provided by GORE™, URS will evaluate the need for further investigation.

Figures

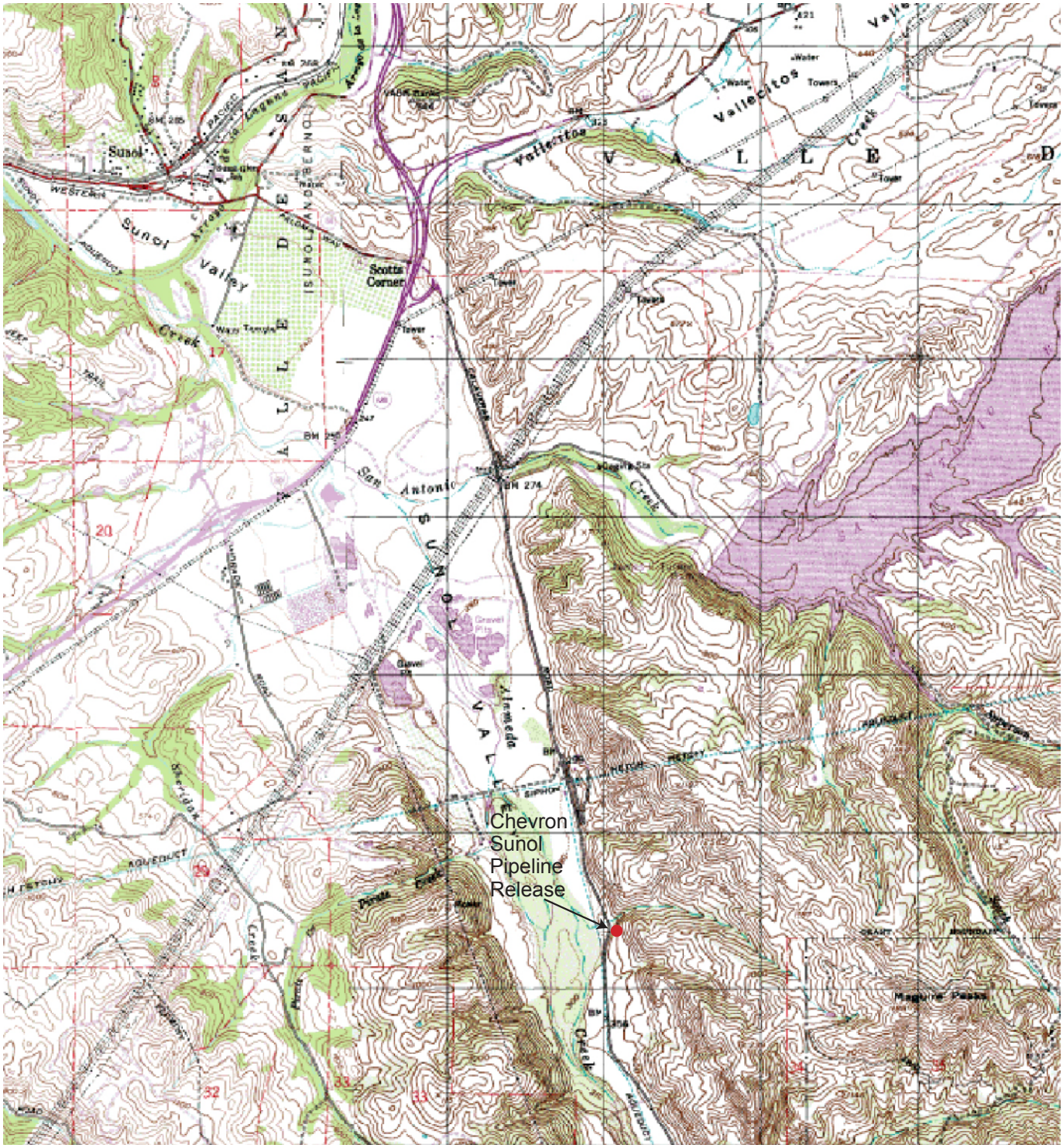

Image obtained from topozone.com

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MAP REFERENCE:

PORTION OF U.S.G.S. QUANDRANGLE MAP
7 1/2 MINUTE SERIES (TOPOGRAPHIC)
LA COSTA VALLEY QUADRANGLE

URS	Chevron Pipeline Company Project No. 26815217	SITE VICINITY MAP CHEVRON SUNOL PIPELINE SUNOL, CALIFORNIA	Figure 1

NORTH

0 50 100

SCALE IN FEET

CURRENT STREAM SAMPLE LOCATION

VERY SMALL STREAM

SW–CREEK
(Former Surface Water Sampling Location)

UPPER DIRT ROAD

LOWER DIRT ROAD

PIPELINE

CALAVERAS ROAD

MW–10

PROPERTY LINE/FENCE

MW–11

MW–9

MW–4

MW–3

MW–1

MW–2

MW–7

MW–8

MW–5

MW–6

SVE–1D

SVE–2S

SVE–8

SVE–3S

SVE–7

SVE–4D

SVE–5

SVE–6

SVE–9

RELEASE LOCATION

HILL SLOPE

HILL SLOPE

HILL SLOPE

HILL SLOPE AND DENSE VEGETATION

LEGEND:

- SURFACE WATER SAMPLE LOCATIONS
- MONITORING WELL
- ABANDONED MONITORING WELLS
- SVE WELL
- SHELF
- STAIRS
- FENCE
- PIPELINE
- SMALL STREAM
- PROPERTY LINE/FENCE
- HILL SLOPE 80–90% GRADE

URS	CHEVRON PIPELINE COMPANY Project No. 26815217	SVE AND GROUNDWATER MONITORING WELL LOCATIONS CHEVRON SUNOL PIPELINE	Figure 2

Jul 16, 2008 – 4:49pm
X:\x_env_waste\Chevron Pipeline Company\Sunol Spill\Site Figures\Current CADD\FIGURE 2.dwg

Figure 3a - TPH-GRO Field Concentrations for well SVE-1D

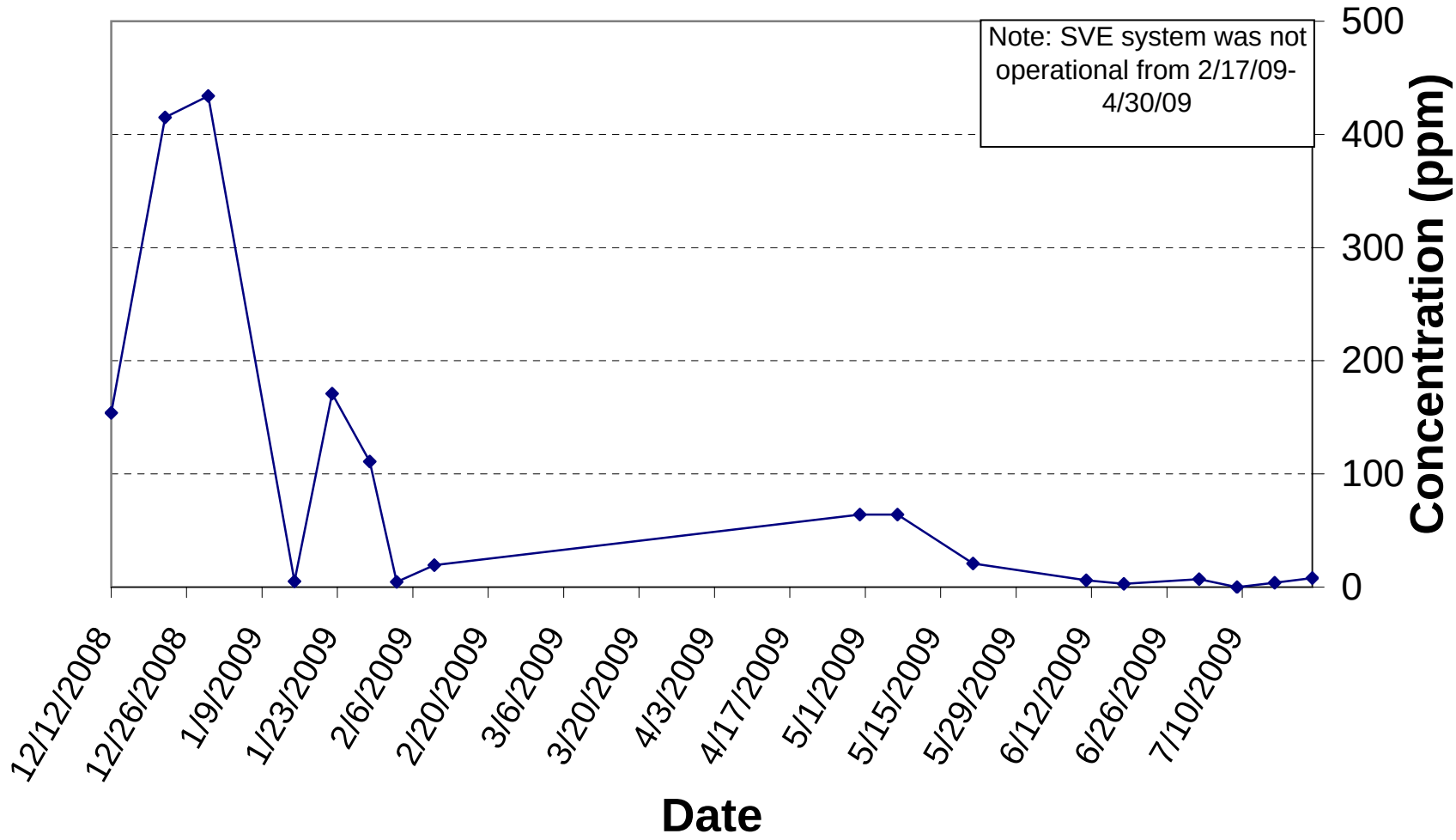


Figure 3b - Cumulative Mass Removal & Mass Removal Rate for well SVE-1D

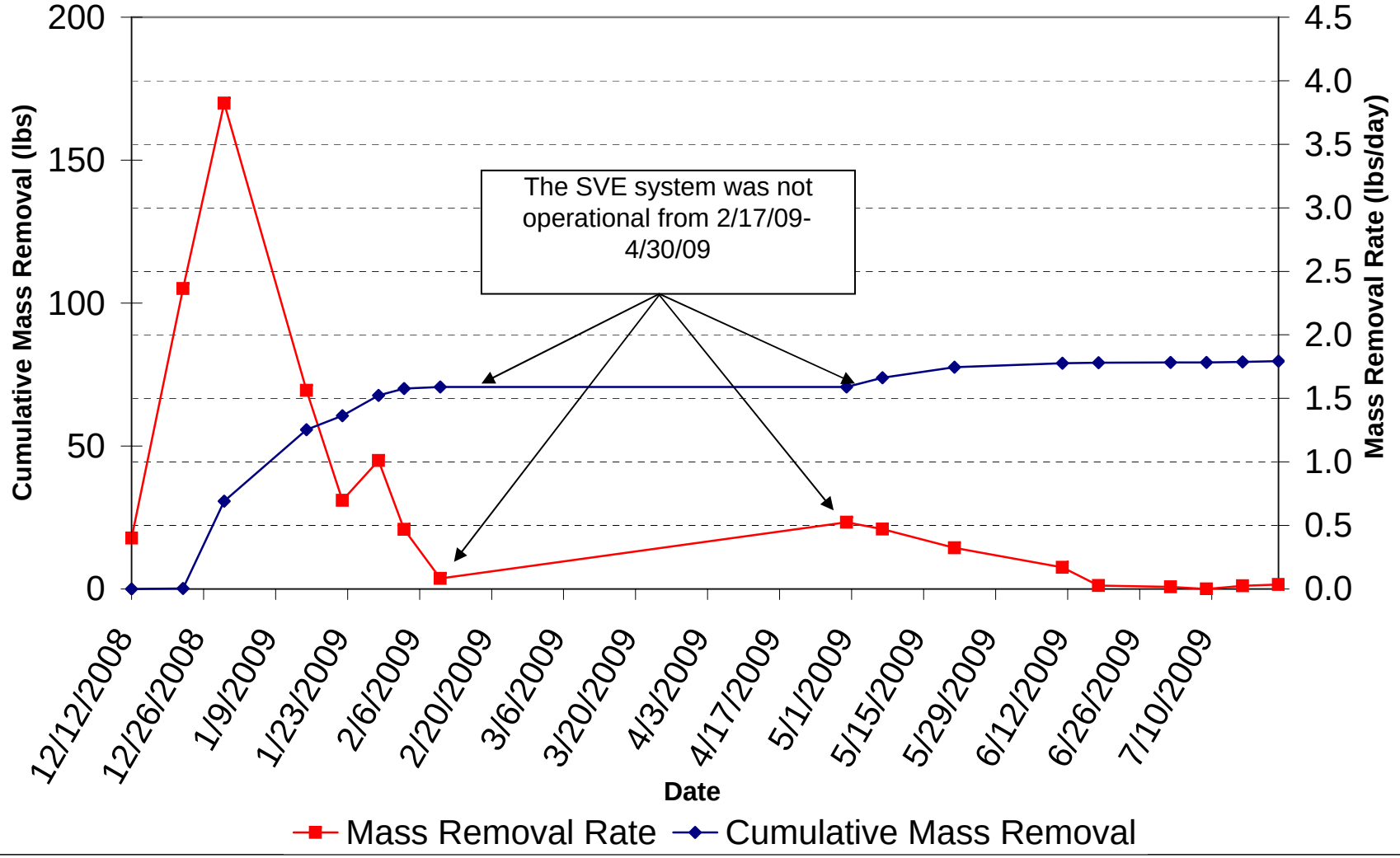


Figure 4a - TPH-GRO Field Concentrations for well SVE-2S

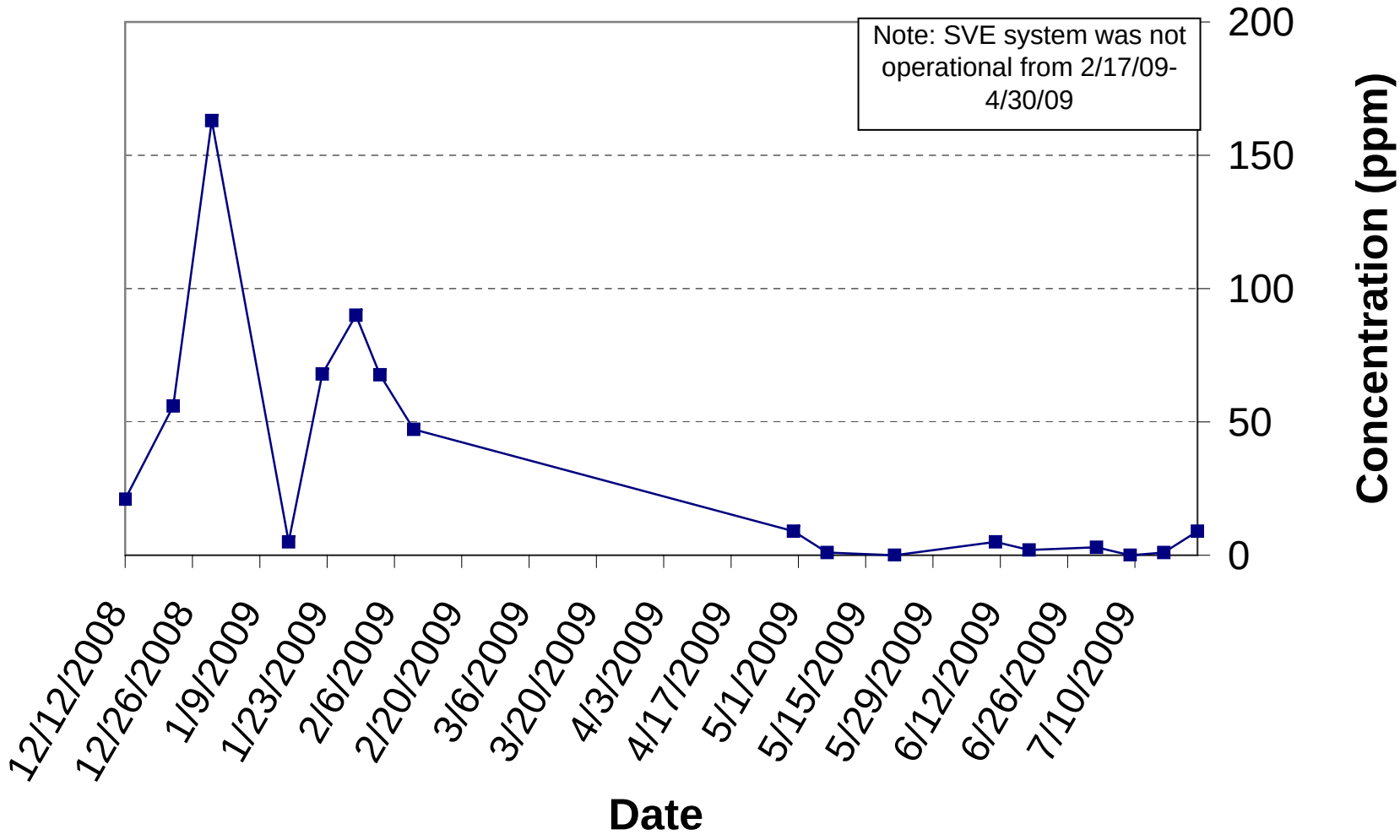


Figure 4b - Cumulative Mass Removal & Mass Removal Rate for well SVE-2S

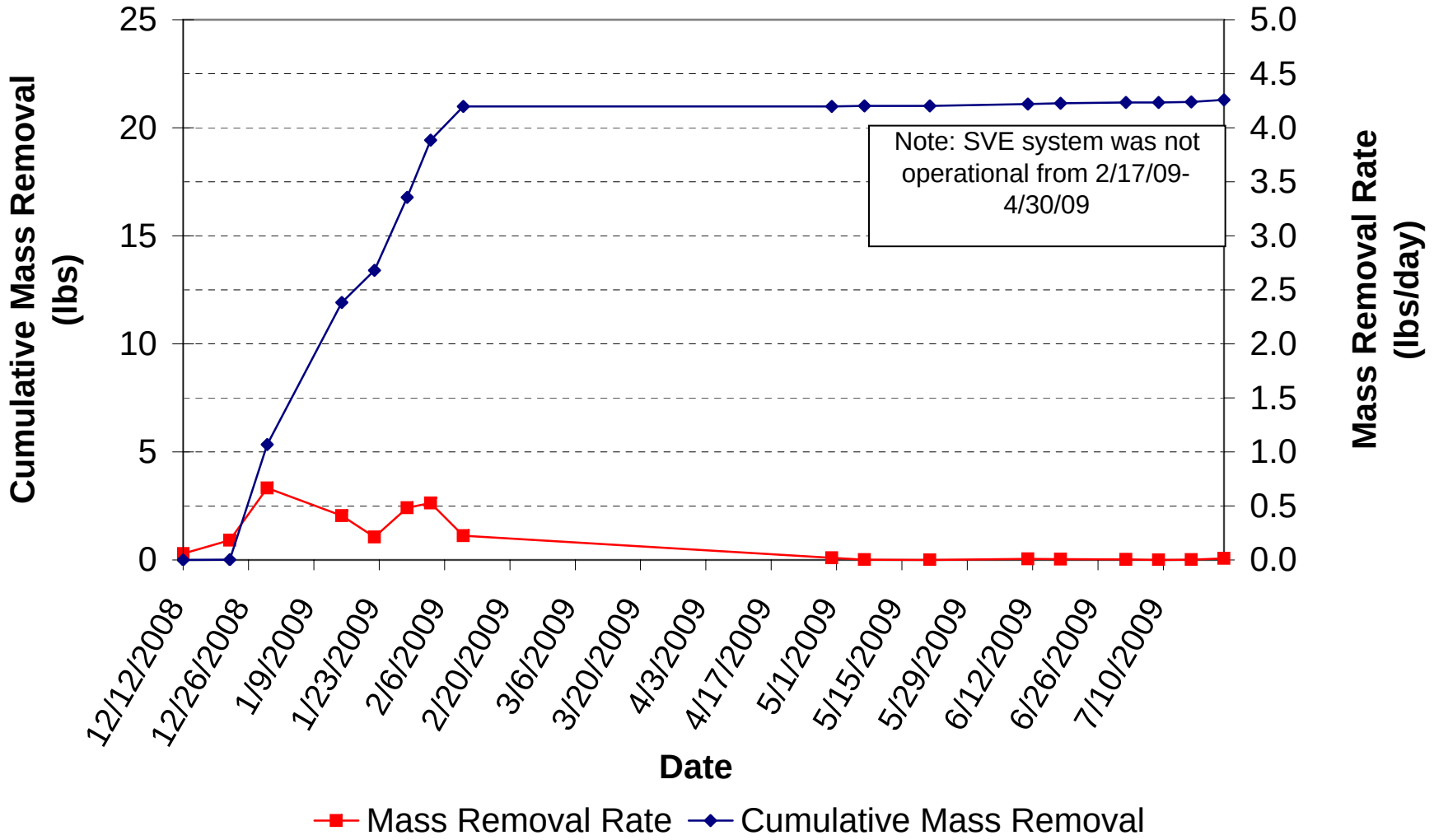


Figure 5a - TPH-GRO Field Concentrations for well SVE-3S

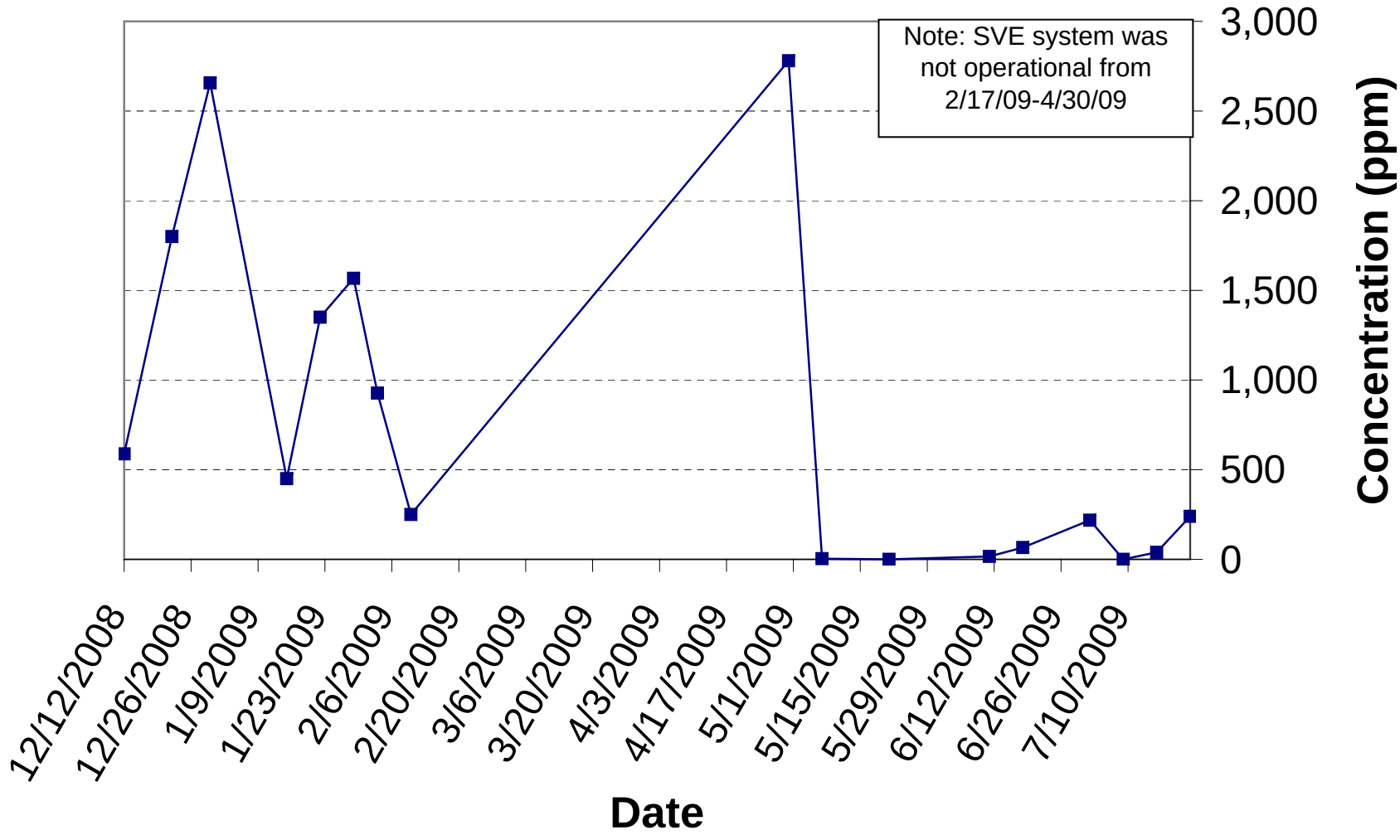


Figure 5b - Cumulative Mass Removal & Mass Removal Rate for SVE-3S

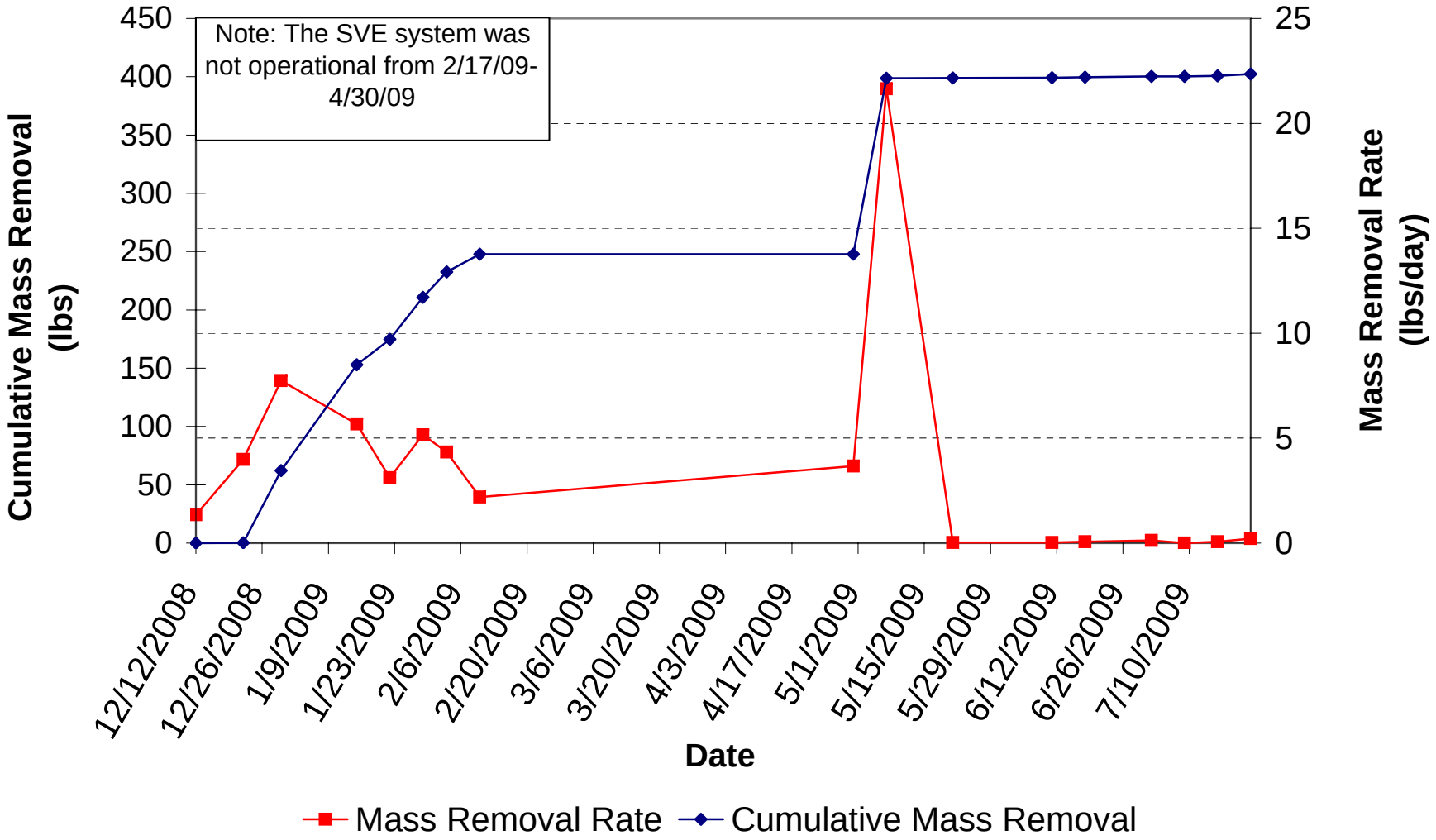


Figure 6a - TPH-GRO Field Concentrations for well SVE-4D

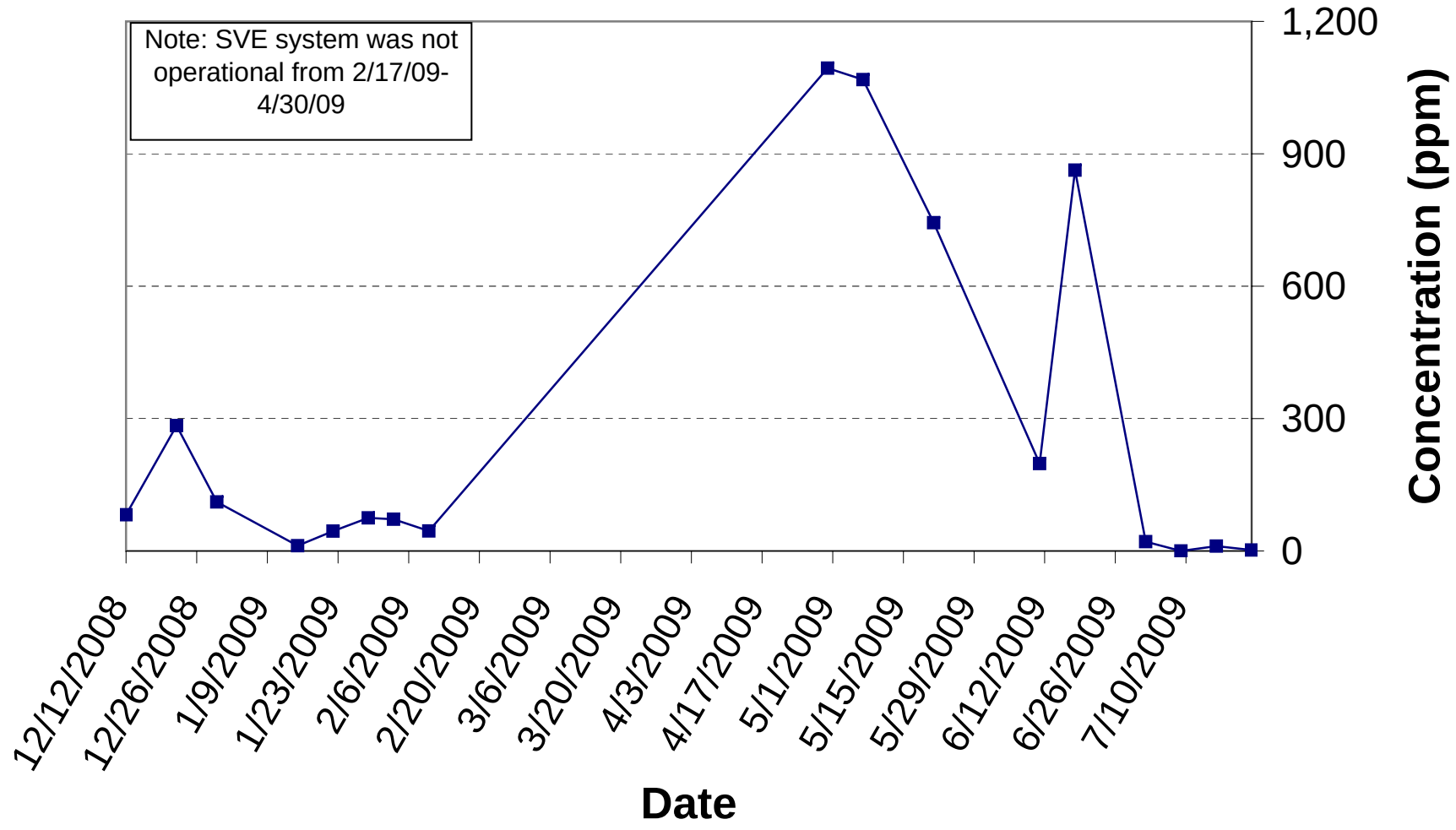


Figure 6b - Cumulative Mass Removal & Mass Removal Rate for well SVE-4D

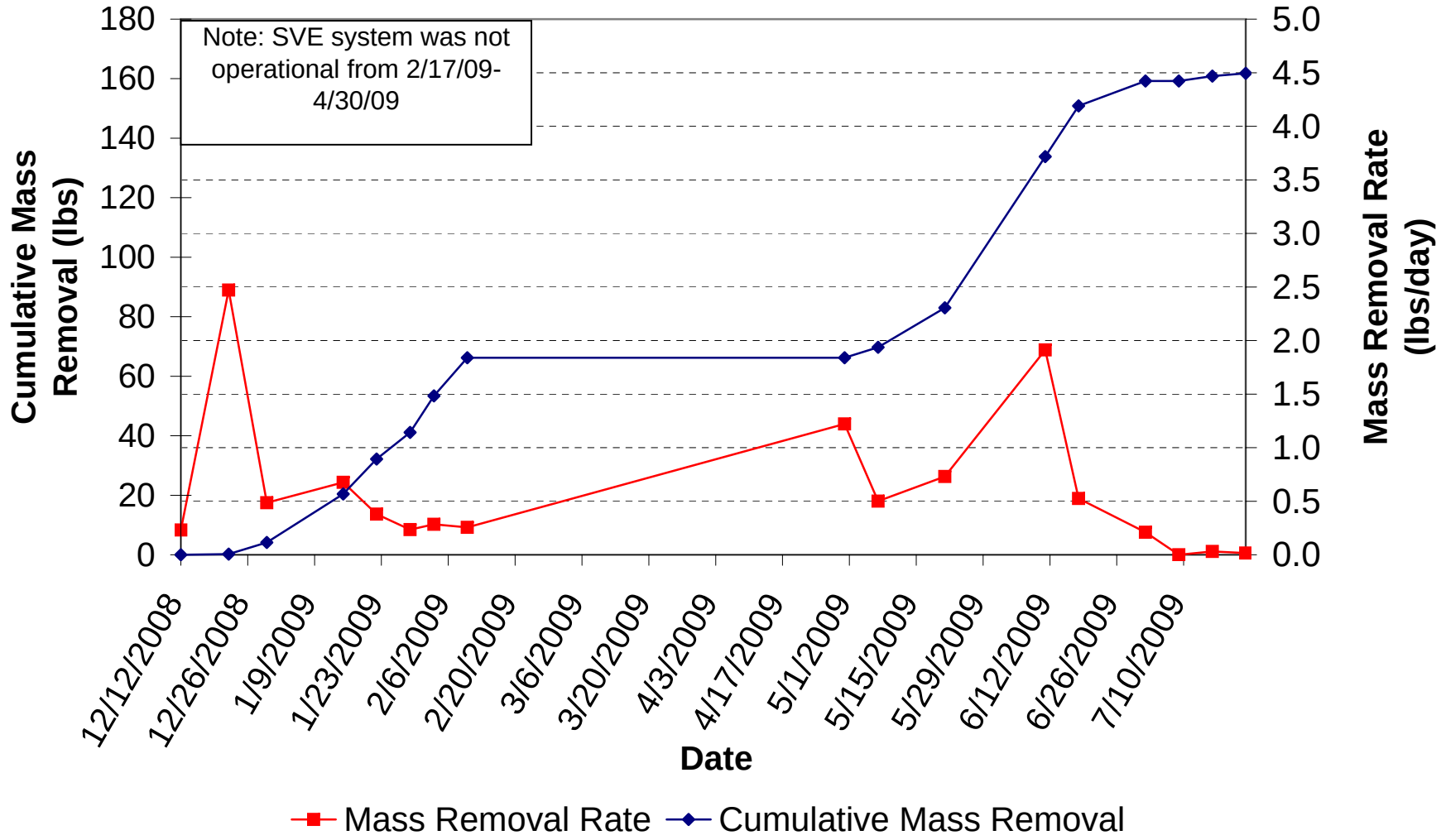


Figure 7a - TPH-GRO Field Concentrations for well SVE-5

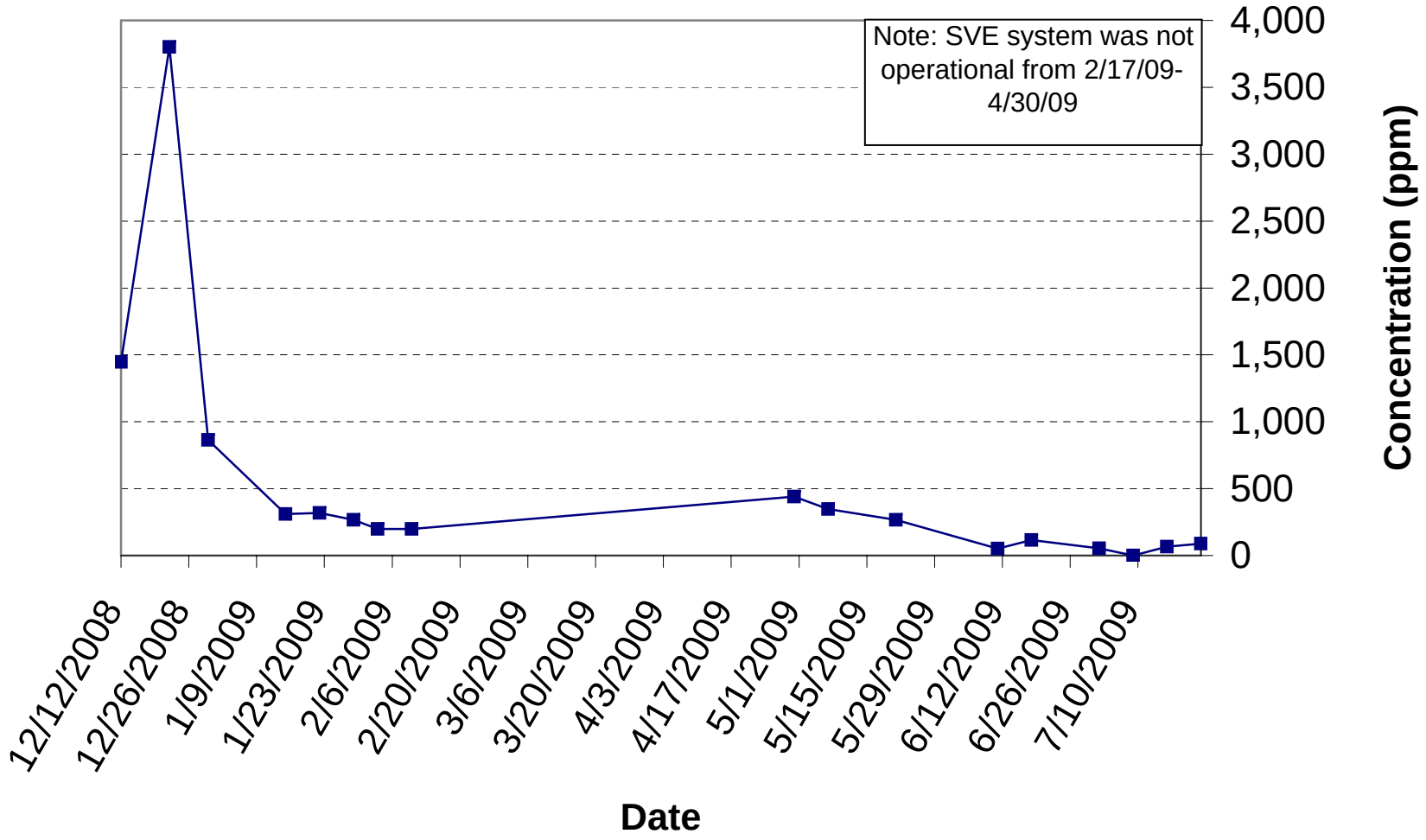


Figure 7b - Cumulative Mass Removal & Mass Removal Rate for well SVE-5

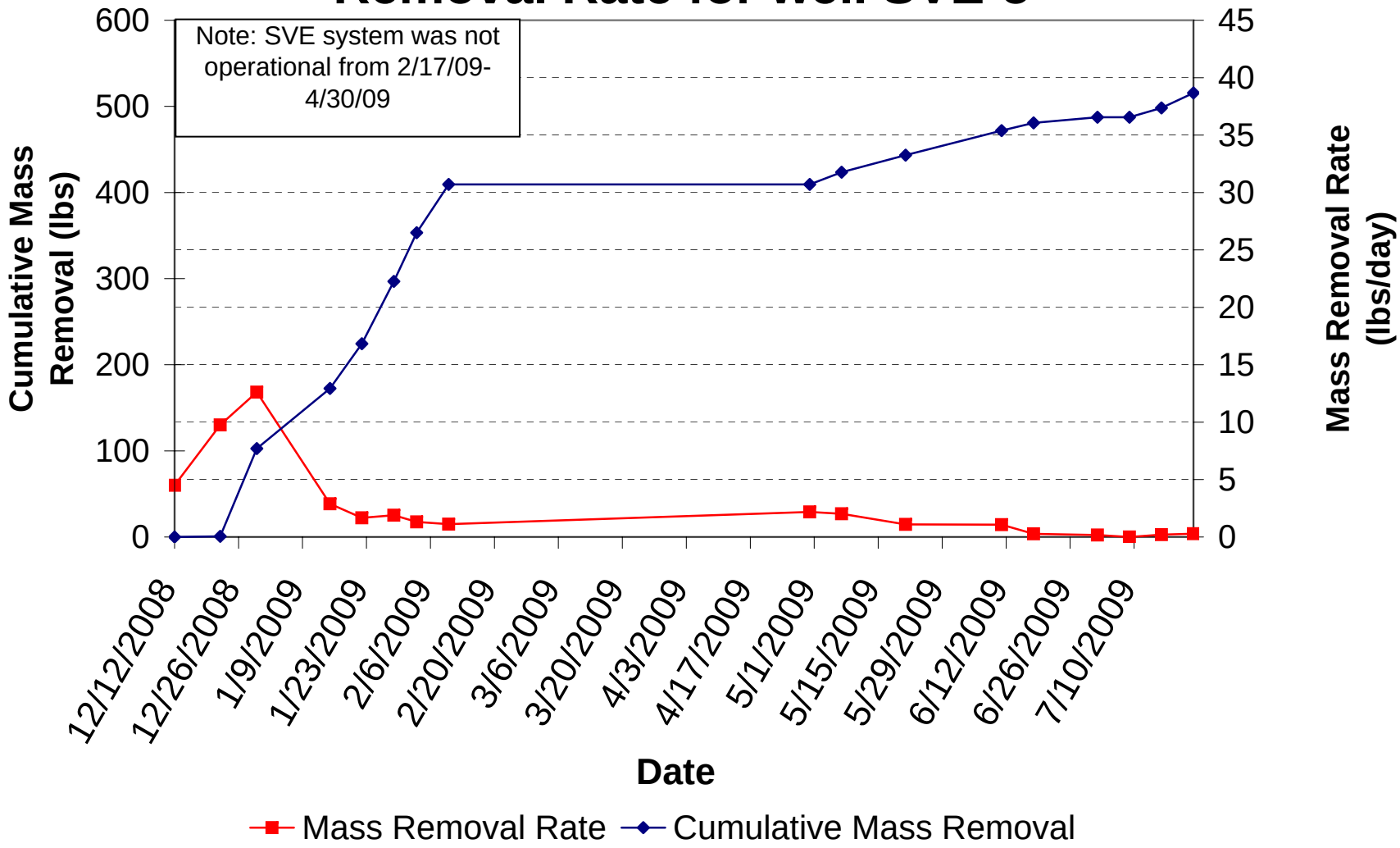


Figure 8a - TPH-GRO Field Concentrations for well SVE-6

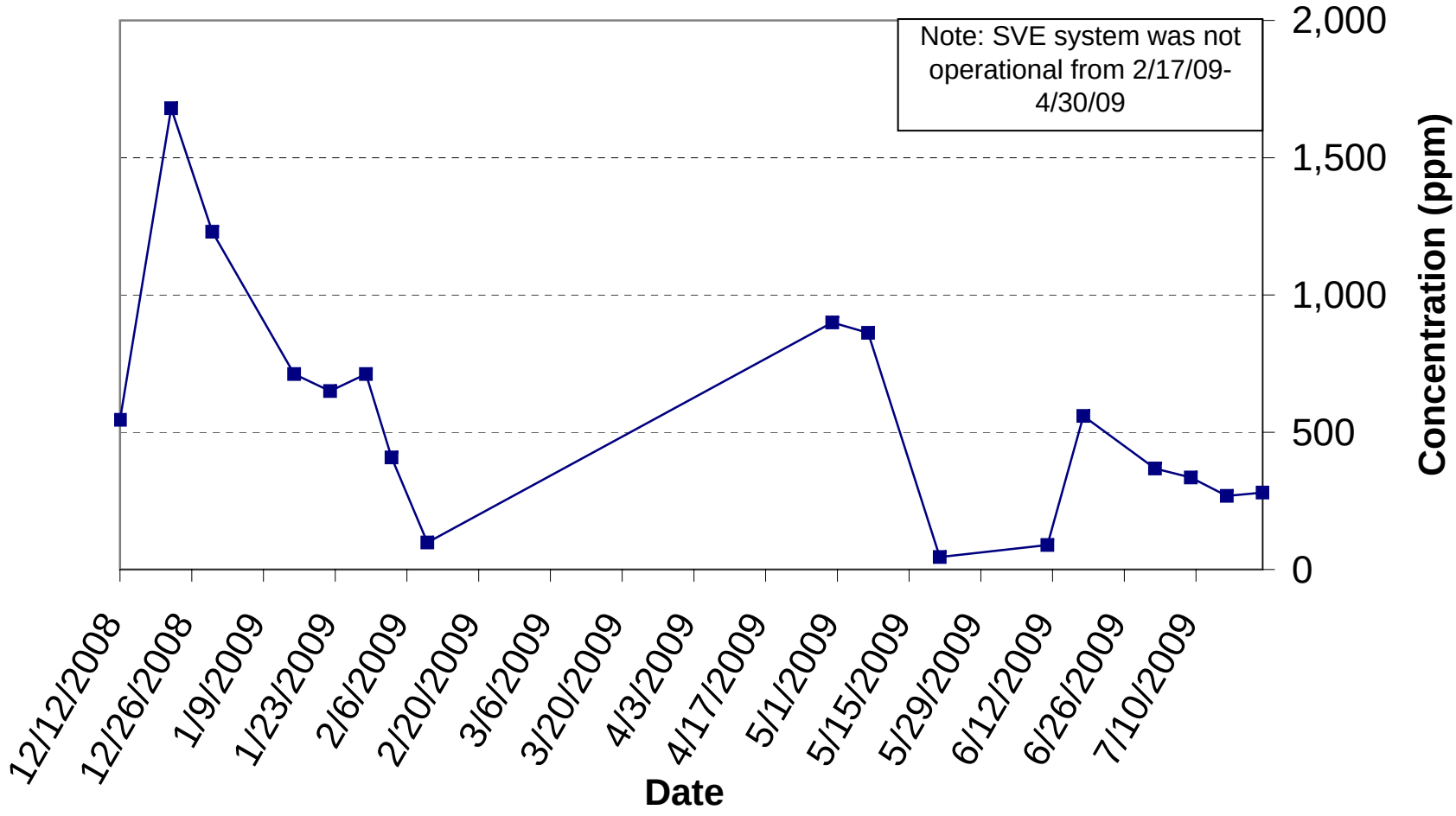


Figure 8b - Cumulative Mass Removal & Mass Removal Rate for well SVE-6

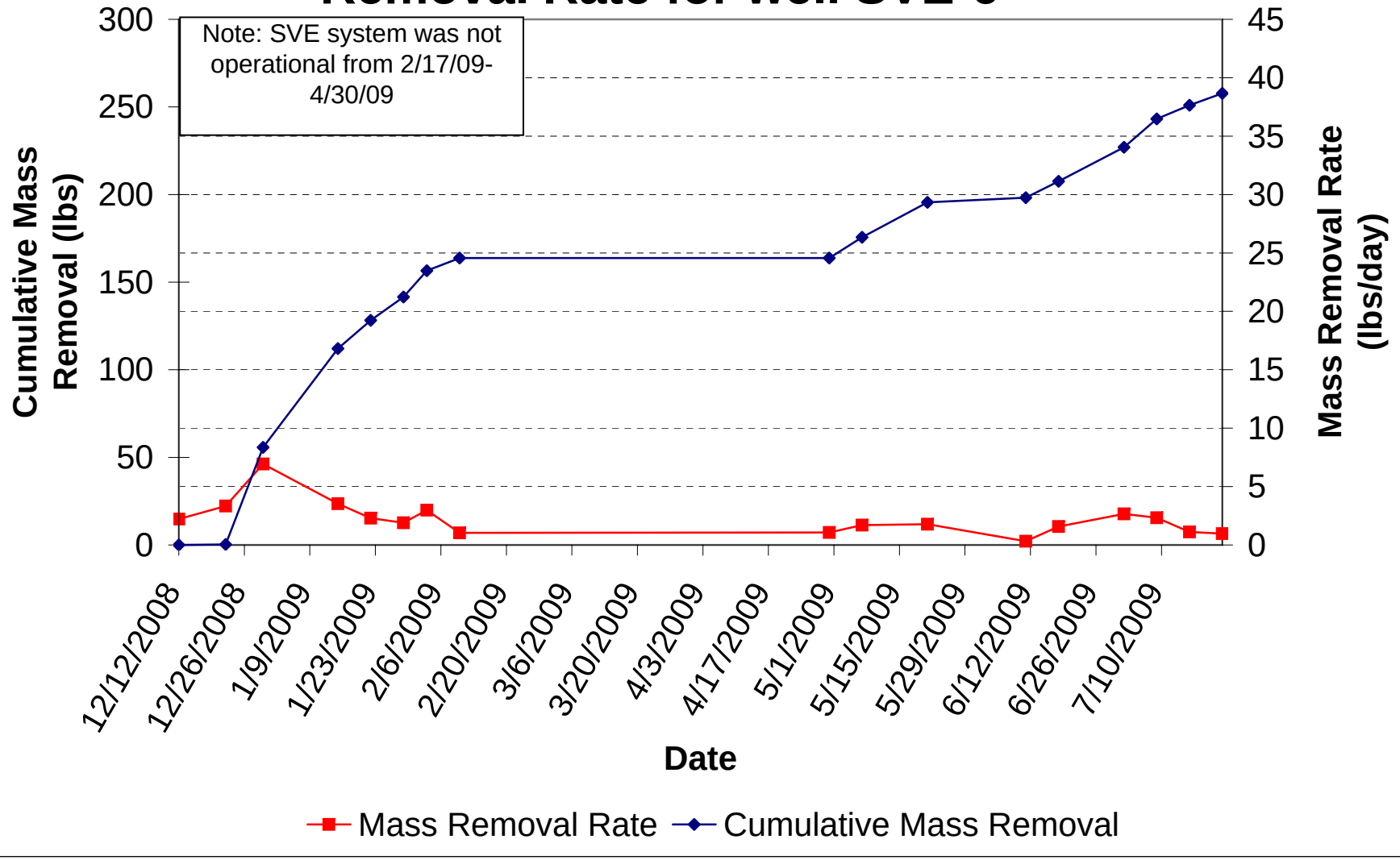


Figure 9a - TPH-GRO Field Concentrations for well SVE-7

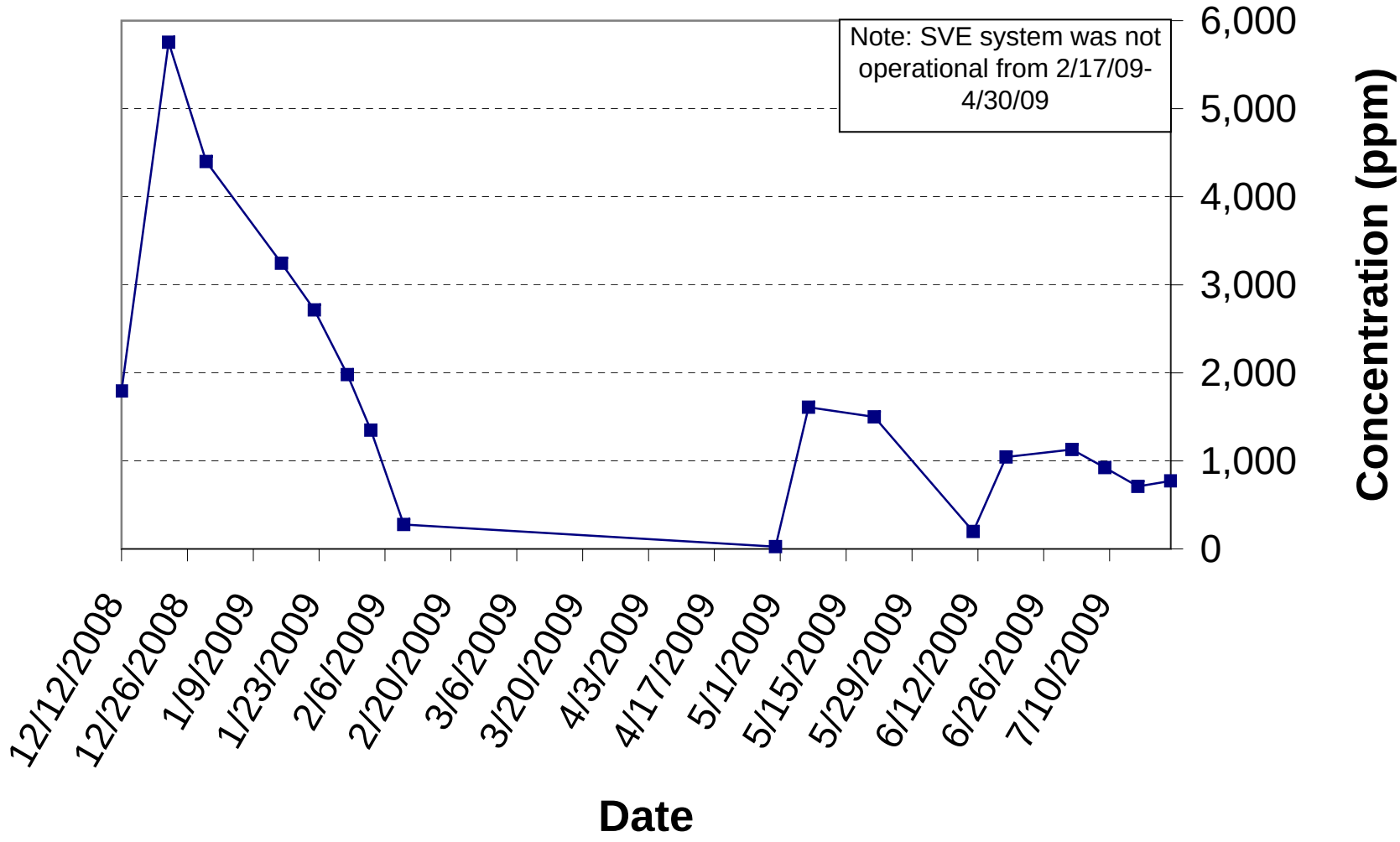


Figure 9b - Cumulative Mass Removal & Mass Removal Rate for well SVE-7

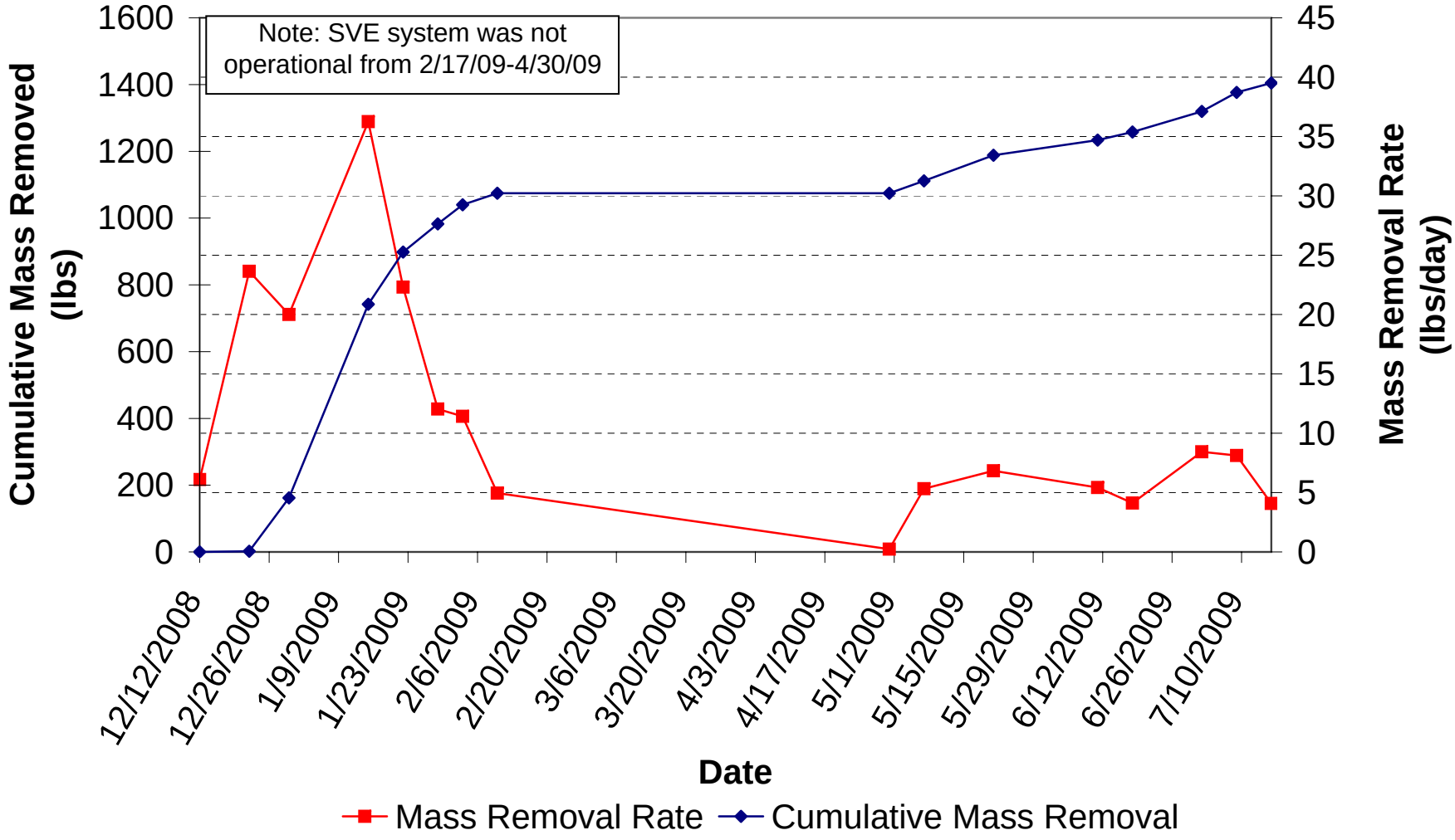


Figure 10a - TPH-GRO Field Concentrations for well SVE-8

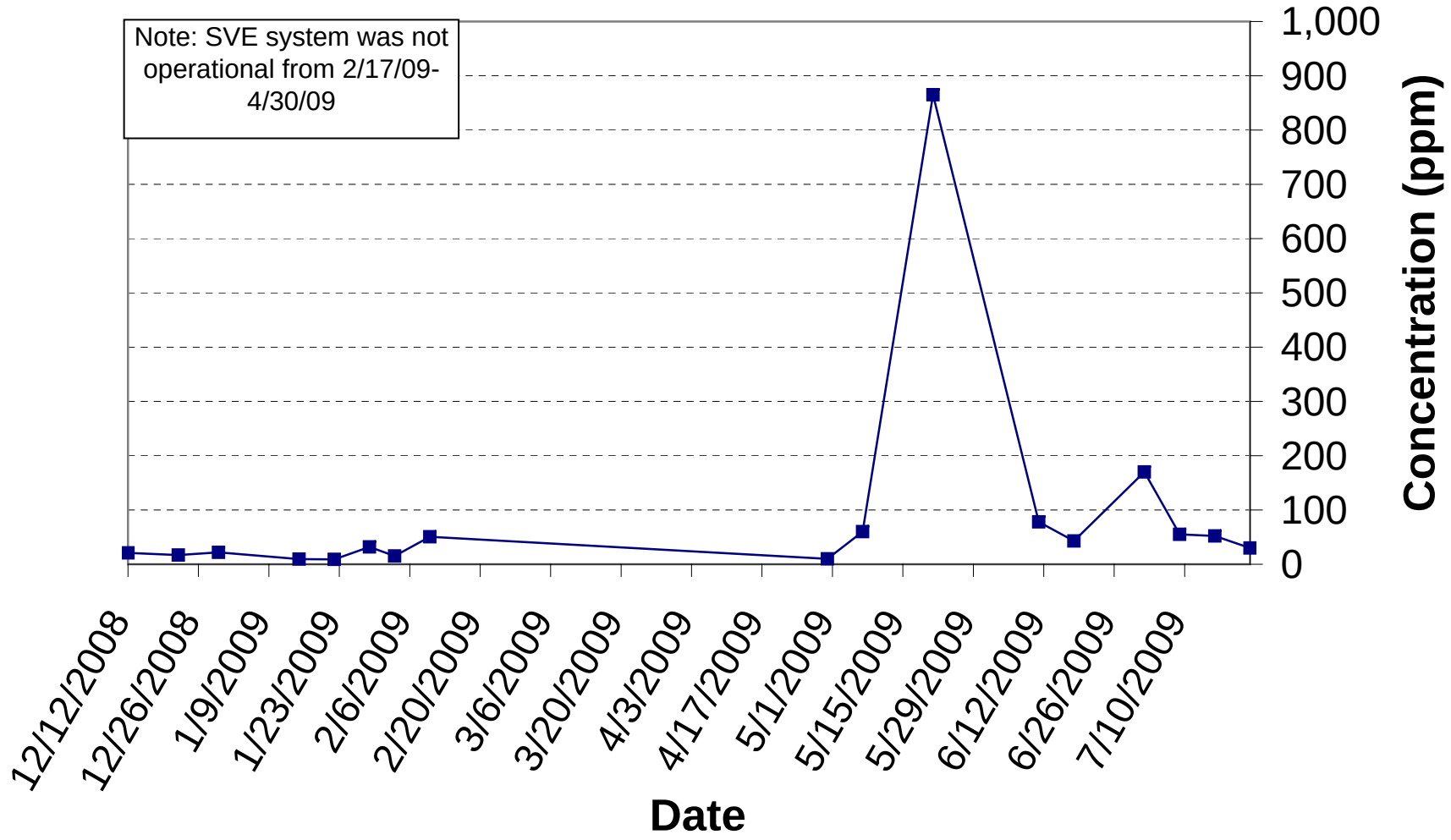


Figure 10b - Cumulative Mass Removal & Mass Removal Rate for well SVE-8

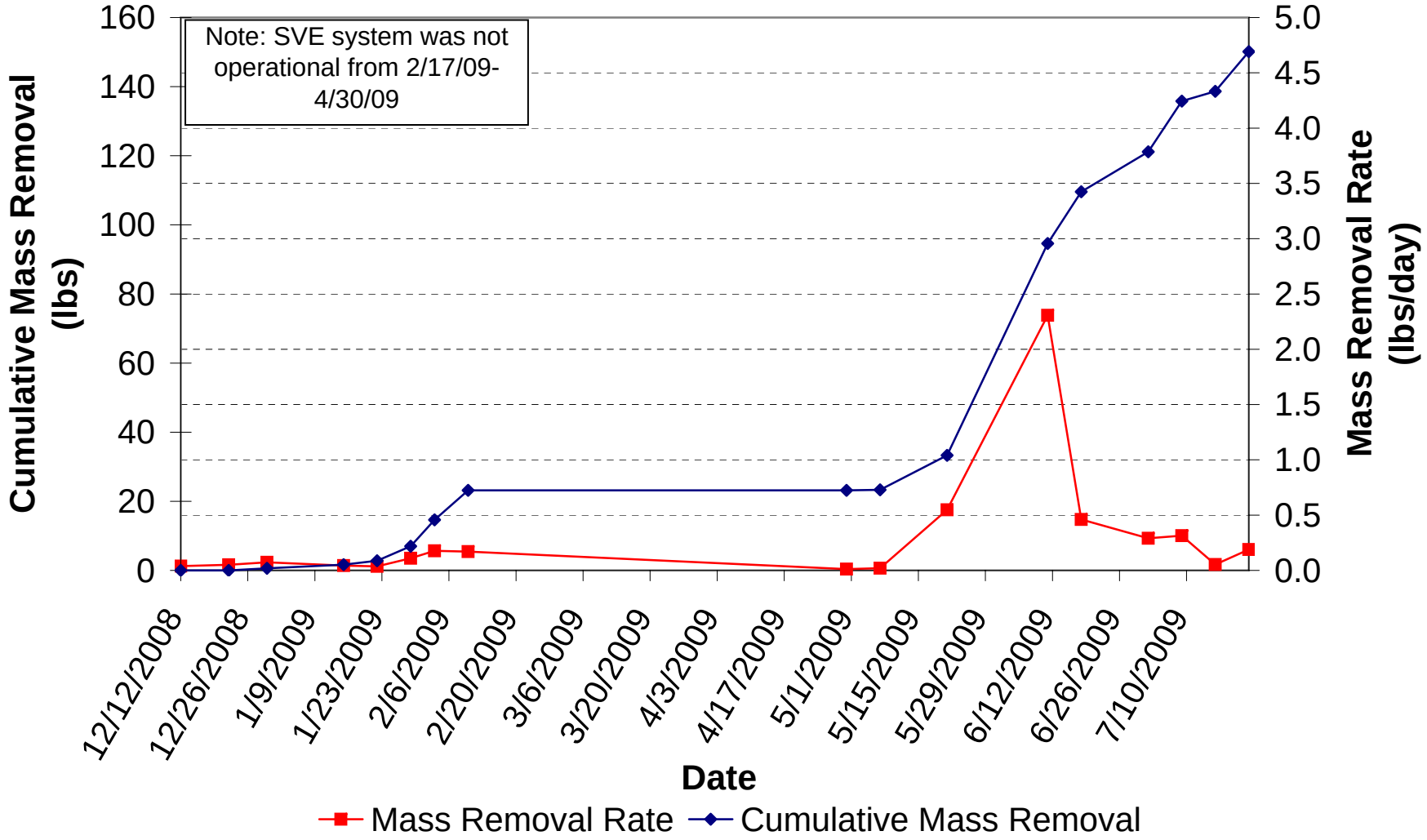


Figure 11a - TPH-GRO Field Concentrations for well SVE-9

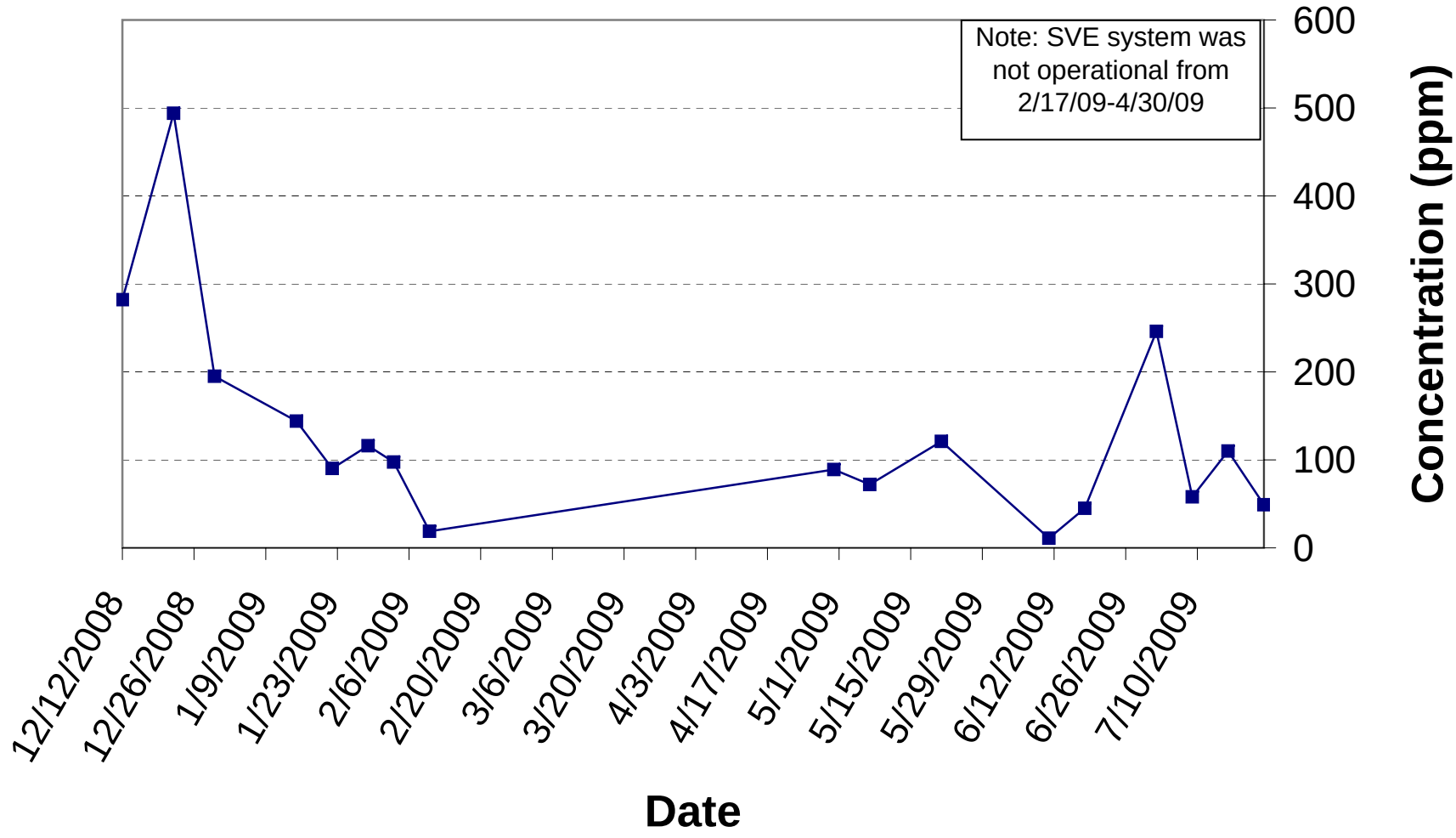


Figure 11b - Cumulative Mass Removal & Mass Removal Rate for well SVE-9

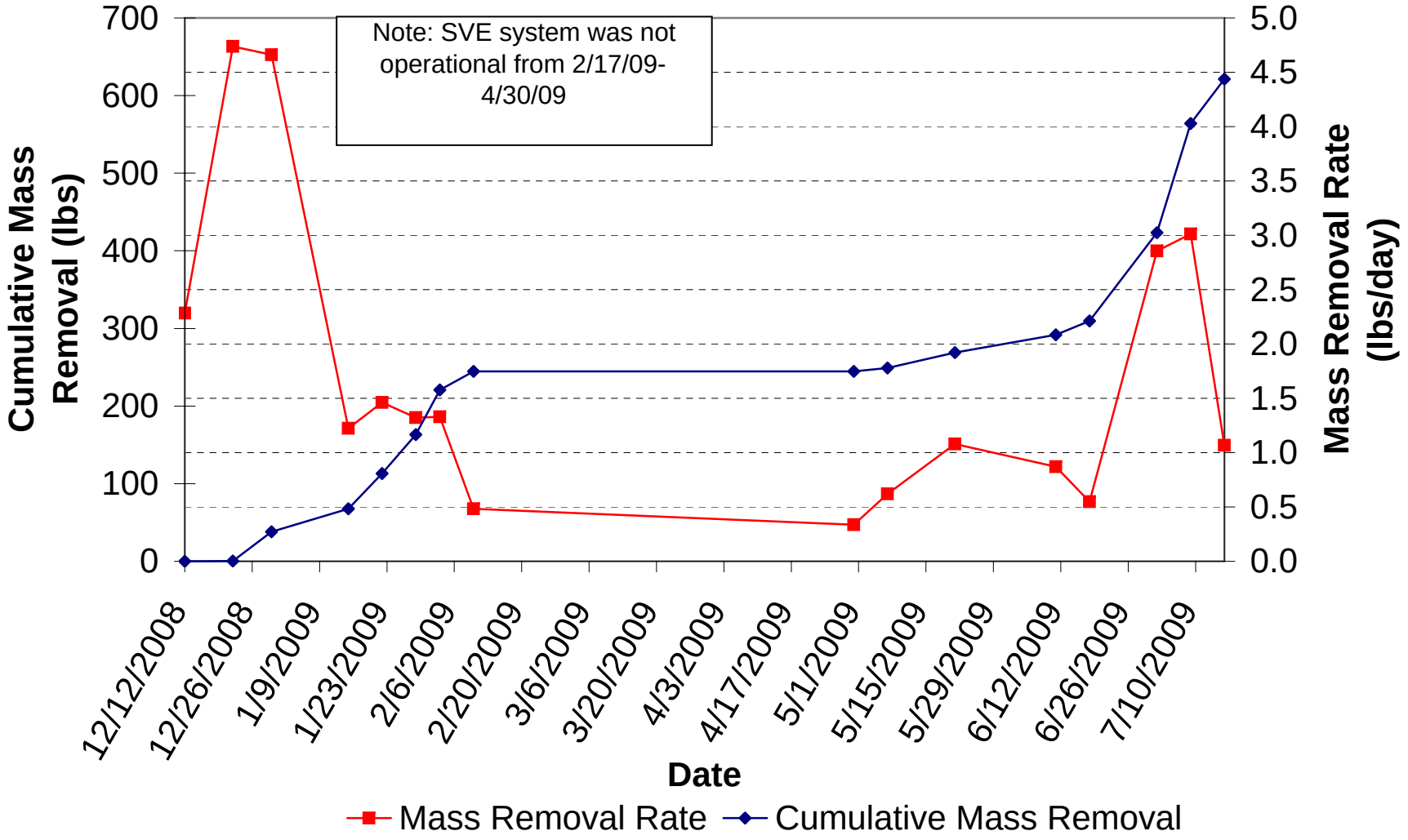
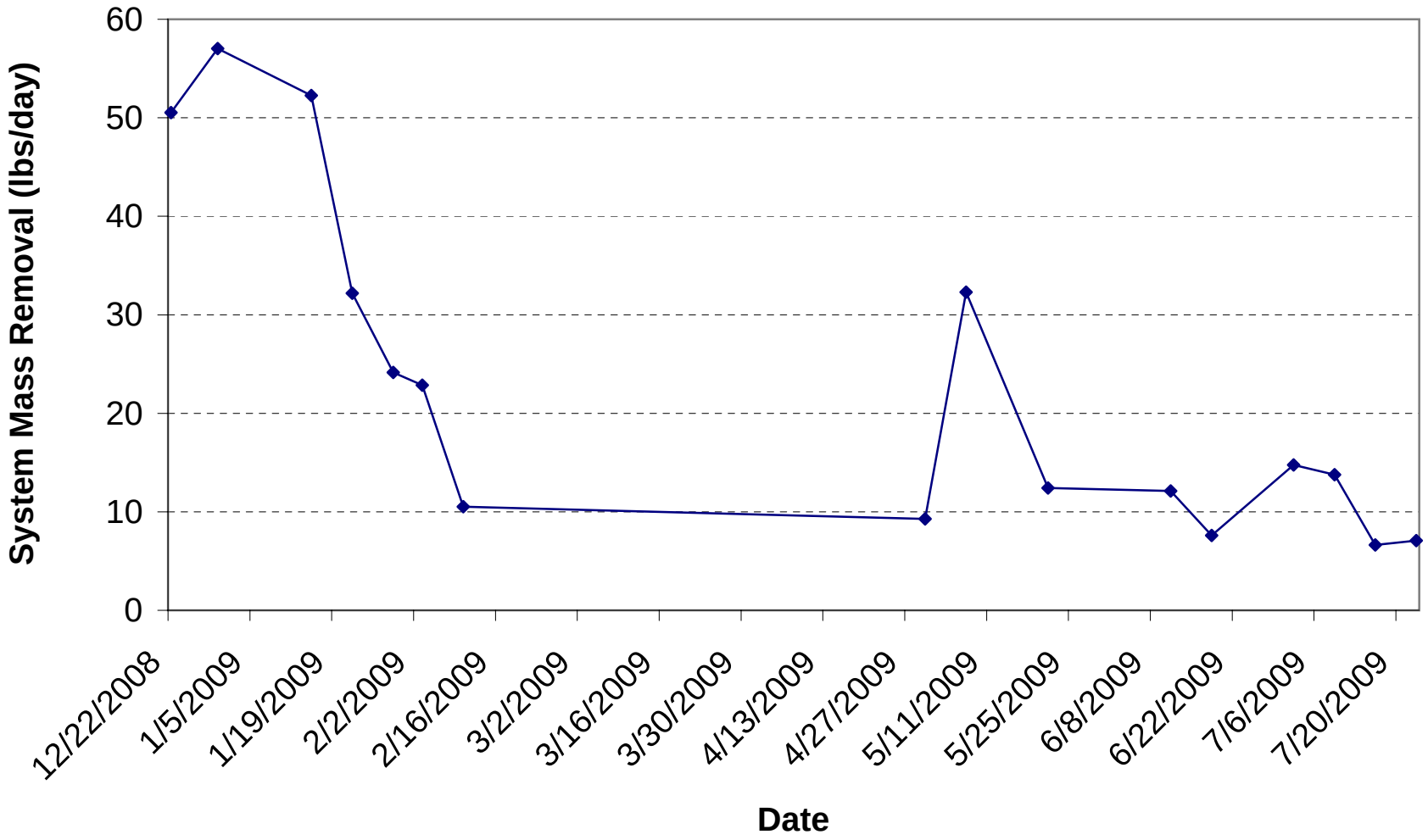


Figure 12 - System Mass Removal Rate



NORTH

0 50 100

SCALE IN FEET

LEGEND:

- SURFACE WATER SAMPLE LOCATIONS
- MONITORING WELL
- ABANDONED MONITORING WELLS
- SVE WELL
- SHELF
- STAIRS
- FENCE
- PIPELINE
- SMALL STREAM
- PROPERTY LINE/FENCE
- HILL SLOPE 80–90% GRADE
- GORE™ MODULE LOCATION

CURRENT STREAM SAMPLE LOCATION

VERY SMALL STREAM

PROPERTY LINE/FENCE

CALAVERAS ROAD

SW–CREEK
(Former Surface Water Sampling Location)

UPPER DIRT ROAD

LOWER DIRT ROAD

PIPELINE

HILL SLOPE

MW–10

MW–11

MW–9

MW–4

MW–7

MW–8

MW–5

MW–3

MW–1

MW–2

MW–6

SVE–1D

SVE–2S

SVE–8

SVE–3S

SVE–7

SVE–4D

SVE–5

SVE–6

SVE–9

RELEASE LOCATION

STEEP HILL SLOPE AND DENSE VEGETATION

PROPERTY LINE/FENCE

URS	CHEVRON PIPELINE COMPANY Project No. 26815217	PROPOSED GORE MODULE LOCATIONS CHEVRON SUNOL PIPELINE	Figure 13

Sep 08, 2009 – 4:22pm
X:\x_env_waste\Chevron Pipeline Company\Sunol Spill\Site Figures\Current CADD\FIGURE 13_090809.dwg

Appendix A
Analytical Results

Lancaster Laboratories

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Analysis Report

ANALYTICAL RESULTS

Prepared for:

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

713-432-3335

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

May 12, 2009

SAMPLE GROUP

The sample group for this submittal is 1142887. Samples arrived at the laboratory on Friday, May 01, 2009. The PO# for this group is 0015013514 and the release number is COSGRAY.

Client Description	Lancaster Labs Number
SVE-1D Grab Air	5660455
SVE-2S Grab Air	5660456
SVE-3S Grab Air	5660457
SVE-4D Grab Air	5660458
SVE-5 Grab Air	5660459
SVE-6 Grab Air	5660460
SVE-7 Grab Air	5660461
SVE-8 Grab Air	5660462
SVE-9 Grab Air	5660463
Effluent Grab Air	5660464
Influent Grab Air	5660465

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Chronicle.

ELECTRONIC	URS	Attn: Joe Morgan
COPY TO		
ELECTRONIC	URS	Attn: Rachel Naccarati

Lancaster Laboratories

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Analysis Report

COPY TO
ELECTRONIC URS Attn: Jacob Henry
COPY TO

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,

Chad A. Moline
Group Leader

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660455 **Group No. 1142887**
CA

SVE-1D Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-1D

Collected: 04/30/2009 11:45 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	57	1.0	200	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	N.D.	0.0080	N.D.	0.026	40
07869	Ethylbenzene	100-41-4	N.D.	0.0080	N.D.	0.035	40
07869	Toluene	108-88-3	0.091	0.0080	0.34	0.030	40
07869	m/p-Xylene	179601-23-1	0.026	0.0080	0.11	0.035	40
07869	o-Xylene	95-47-6	0.0083	0.0080	0.036	0.035	40

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091231ZA	05/02/2009 17:55	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/07/2009 00:25	Jonathan K Nardelli	40

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660456

Group No. 1142887
CA

SVE-2S Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-2S

Collected: 04/30/2009 11:50 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	2.5	1.0	8.7	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.011	0.0020	0.034	0.0064	10
07869	Ethylbenzene	100-41-4	0.078	0.0020	0.34	0.0087	10
07869	Toluene	108-88-3	0.29	0.020	1.1	0.075	100
07869	m/p-Xylene	179601-23-1	0.38	0.020	1.6	0.087	100
07869	o-Xylene	95-47-6	0.20	0.020	0.88	0.087	100

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091231ZA	05/02/2009 18:23	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AA	05/05/2009 20:01	Jonathan K Nardelli	10
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AA	05/05/2009 20:43	Jonathan K Nardelli	100

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660457

Group No. 1142887
CA

SVE-3S Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-3S

Collected: 04/30/2009 11:50 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	2,400	1.0	8,500	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	8.2	2.0	26	6.4	10000
07869	Ethylbenzene	100-41-4	18	2.0	79	8.7	10000
07869	Toluene	108-88-3	190	2.0	710	7.5	10000
07869	m/p-Xylene	179601-23-1	91	2.0	400	8.7	10000
07869	o-Xylene	95-47-6	38	2.0	160	8.7	10000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091231ZA	05/02/2009 18:51	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AA	05/05/2009 22:09	Jonathan K Nardelli	10000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660458

Group No. 1142887
CA

SVE-4D Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-4D

Collected: 04/30/2009 11:50 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	980	1.0	3,500	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.41	0.20	1.3	0.64	1000
07869	Ethylbenzene	100-41-4	0.67	0.20	2.9	0.87	1000
07869	Toluene	108-88-3	11	0.20	40	0.75	1000
07869	m/p-Xylene	179601-23-1	5.7	0.20	25	0.87	1000
07869	o-Xylene	95-47-6	2.4	0.20	11	0.87	1000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091231ZA	05/02/2009 19:20	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/06/2009 23:43	Jonathan K Nardelli	1000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660459

Group No. 1142887
CA

SVE-5 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-5

Collected: 04/30/2009 11:51 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	260	1.0	920	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	N.D.	0.10	N.D.	0.32	500
07869	Ethylbenzene	100-41-4	N.D.	0.10	N.D.	0.43	500
07869	Toluene	108-88-3	0.62	0.10	2.4	0.38	500
07869	m/p-Xylene	179601-23-1	0.74	0.10	3.2	0.43	500
07869	o-Xylene	95-47-6	0.52	0.10	2.2	0.43	500

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091241ZA	05/03/2009 15:13	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/06/2009 17:31	Jonathan K Nardelli	500

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660460

Group No. 1142887
CA

SVE-6 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-6

Collected: 04/30/2009 12:40 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	840	1.0	3,000	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.50	0.20	1.6	0.64	1000
07869	Ethylbenzene	100-41-4	1.2	0.20	5.2	0.87	1000
07869	Toluene	108-88-3	19	0.20	70	0.75	1000
07869	m/p-Xylene	179601-23-1	7.3	0.20	32	0.87	1000
07869	o-Xylene	95-47-6	4.9	0.20	21	0.87	1000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091241ZA	05/03/2009 15:41	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/06/2009 21:22	Jonathan K Nardelli	1000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660461 **Group No. 1142887**
CA

SVE-7 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-7

Collected: 04/30/2009 12:45 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	4.1	1.0	14	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	N.D.	0.0040	N.D.	0.013	20
07869	Ethylbenzene	100-41-4	0.038	0.0040	0.17	0.017	20
07869	Toluene	108-88-3	0.22	0.0040	0.82	0.015	20
07869	m/p-Xylene	179601-23-1	0.27	0.0040	1.2	0.017	20
07869	o-Xylene	95-47-6	0.22	0.0040	0.98	0.017	20

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091241ZA	05/03/2009 16:10	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/06/2009 18:15	Jonathan K Nardelli	20

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660462 **Group No. 1142887**
CA

SVE-8 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-8

Collected: 04/30/2009 12:45 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	15	1.0	53	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.011	0.0040	0.034	0.013	20
07869	Ethylbenzene	100-41-4	0.040	0.0040	0.17	0.017	20
07869	Toluene	108-88-3	0.44	0.0040	1.7	0.015	20
07869	m/p-Xylene	179601-23-1	0.25	0.0040	1.1	0.017	20
07869	o-Xylene	95-47-6	0.19	0.0040	0.82	0.017	20

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091241ZA	05/03/2009 16:38	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/06/2009 18:59	Jonathan K Nardelli	20

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660463 **Group No. 1142887**
CA

SVE-9 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-9

Collected: 04/30/2009 13:10 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	57	1.0	200	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.026	0.010	0.082	0.032	50
07869	Ethylbenzene	100-41-4	0.021	0.010	0.092	0.043	50
07869	Toluene	108-88-3	0.19	0.010	0.70	0.038	50
07869	m/p-Xylene	179601-23-1	0.39	0.010	1.7	0.043	50
07869	o-Xylene	95-47-6	0.29	0.010	1.3	0.043	50

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091241ZA	05/03/2009 17:07	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/06/2009 19:57	Jonathan K Nardelli	50

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660464

Group No. 1142887
CA

Effluent Grab Air
NA URSO
Sunol Pipeline SL0600100443 Effluent

Collected: 04/30/2009 13:45 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	N.D.	1.0	N.D.	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.0013	0.00040	0.0042	0.0013	2
07869	Ethylbenzene	100-41-4	0.017	0.00040	0.074	0.0017	2
07869	Toluene	108-88-3	0.064	0.0020	0.24	0.0075	10
07869	m/p-Xylene	179601-23-1	0.096	0.0020	0.41	0.0087	10
07869	o-Xylene	95-47-6	0.068	0.0020	0.29	0.0087	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091241ZA	05/03/2009 14:16	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/06/2009 20:40	Jonathan K Nardelli	2
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/06/2009 22:18	Jonathan K Nardelli	10

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Analysis Report

Lancaster Laboratories Sample No. AQ 5660465

Group No. 1142887
CA

Influent Grab Air
NA URSO
Sunol Pipeline SL0600100443 Influent

Collected: 04/30/2009 13:45 by JH

Account Number: 11875

Submitted: 05/01/2009 09:15
Reported: 05/12/2009 at 16:10
Discard: 06/12/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	260	1.0	920	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.25	0.040	0.79	0.13	200
07869	Ethylbenzene	100-41-4	0.43	0.040	1.9	0.17	200
07869	Toluene	108-88-3	8.5	0.10	32	0.38	500
07869	m/p-Xylene	179601-23-1	2.4	0.040	10	0.17	200
07869	o-Xylene	95-47-6	1.2	0.040	5.2	0.17	200

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091241ZA	05/03/2009 14:44	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/06/2009 23:00	Jonathan K Nardelli	200
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0912530AB	05/07/2009 08:22	Jonathan K Nardelli	500

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Analysis Report

Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1142887
Reported: 05/12/09 at 04:10 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A0912530AA	Sample number(s): 5660456-5660457							
Benzene	N.D.	0.00020	ppm(v)	85	99	70-130	15	25
Ethylbenzene	N.D.	0.00020	ppm(v)	85	94	70-130	10	25
Toluene	N.D.	0.00020	ppm(v)	92	106	70-130	15	25
m/p-Xylene	N.D.	0.00020	ppm(v)	84	94	70-130	12	25
o-Xylene	N.D.	0.00020	ppm(v)	88	97	70-130	9	25
Batch number: A0912530AB	Sample number(s): 5660455,5660458-5660465							
Benzene	N.D.	0.00020	ppm(v)	85	99	70-130	15	25
Ethylbenzene	N.D.	0.00020	ppm(v)	85	94	70-130	10	25
Toluene	N.D.	0.00020	ppm(v)	92	106	70-130	15	25
m/p-Xylene	N.D.	0.00020	ppm(v)	84	94	70-130	12	25
o-Xylene	N.D.	0.00020	ppm(v)	88	97	70-130	9	25
Batch number: M091231ZA	Sample number(s): 5660455-5660458							
>C4-C10 Hydrocarbons hexane	N.D.	1.0	ppm(v)					
Batch number: M091241ZA	Sample number(s): 5660459-5660465							
>C4-C10 Hydrocarbons hexane	N.D.	1.0	ppm(v)					

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

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Where quality is a science.

242042

For Lancaster Laboratories use only
Acct. #: 11875 Sample #: 5660455 -65 SCR#:

Group# 1142887

Facility #: Sunol Spill
Site Address: MP 2.7 Calaveras Road, Sunol, CA
Chevron PM: Jeff Cosgray Lead Consultant: URS Corp.
Consultant/Office: Oakland, CA
Consultant Prj. Mgr.: Joe Morgan
Consultant Phone #: 510-893-3600 Fax #: 510-874-3268
Sampler: Jacob Henry
Service Order #: ☐ Non SAR:

Analyses Requested / Preservation Codes

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☐ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	___ Oxygenates	Lead 7420 ☐ 7421 ☐	TO-14 BTEX Only	EPA25 TPH-g			
SVE-1D	Air	Yes	N/A	2009/4/30	1145	No	X		1							X	X			
SVE-2S	↓	↓	↓	↓	1150	↓	↓		↓							↓	↓			
SVE-3S					1150															
SVE-4D					1150															
SVE-5					1151															
SVE-6					1240															
SVE-7					1245															
SVE-8					1245															
SVE-9					1310															
Effluent					1345															
Influent	↓	↓	↓	↓	1345	↓	↓		↓							↓	↓			

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by:	Date	Time	Received by:	Date	Time
Jacob Henry	4/30/09	1400			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS (FedEx) Other ____			Received by: [signature]	5-6-09	0915
Temperature Upon Receipt NA C°			Custody Seals Intact? (Yes) No		

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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Analysis Report

ANALYTICAL RESULTS

Prepared for:

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

713-432-3335

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

June 24, 2009

SAMPLE GROUP

The sample group for this submittal is 1148852. Samples arrived at the laboratory on Friday, June 12, 2009. The PO# for this group is 0015013514 and the release number is JOHNSON.

Client Description	Lancaster Labs Number
SVE-1D Grab Air	5697617
SVE-2S Grab Air	5697618
SVE-3S Grab Air	5697619
SVE-4D Grab Air	5697620
SVE-5 Grab Air	5697621
SVE-6 Grab Air	5697622
SVE-7 Grab Air	5697623
SVE-8 Grab Air	5697624
SVE-9 Grab Air	5697625
Inf Grab Air	5697626
Eff Grab Air	5697627

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Chronicle.

ELECTRONIC	URS	Attn: Joe Morgan
COPY TO		
ELECTRONIC	URS	Attn: Rachel Naccarati

Lancaster Laboratories

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Analysis Report

COPY TO
ELECTRONIC URS Attn: Jacob Henry
COPY TO

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,

Chad A. Moline
Group Leader

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697617

Group No. 1148852
CA

SVE-1D Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-1D

Collected: 06/11/2009 09:32 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	6.0	1.0	21	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.00033	0.00020	0.0011	0.00064	1
07869	Ethylbenzene	100-41-4	0.0020	0.00020	0.0085	0.00087	1
07869	Toluene	108-88-3	0.0048	0.00020	0.018	0.00075	1
07869	m/p-Xylene	179601-23-1	0.016	0.00020	0.069	0.00087	1
07869	o-Xylene	95-47-6	0.012	0.00020	0.050	0.00087	1

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091631ZA	06/12/2009 19:46	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AB	06/19/2009 03:15	Jonathan K Nardelli	1

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697618

Group No. 1148852
CA

SVE-2S Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-2S

Collected: 06/11/2009 09:35 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	1.3	1.0	4.5	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.00051	0.00020	0.0016	0.00064	1
07869	Ethylbenzene	100-41-4	0.0059	0.00020	0.026	0.00087	1
07869	Toluene	108-88-3	0.012	0.00020	0.044	0.00075	1
07869	m/p-Xylene	179601-23-1	0.028	0.0020	0.12	0.0087	10
07869	o-Xylene	95-47-6	0.021	0.0020	0.091	0.0087	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091631ZA	06/12/2009 20:15	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AC	06/19/2009 14:01	Jonathan K Nardelli	10
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AC	06/19/2009 14:43	Jonathan K Nardelli	1

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697619

Group No. 1148852
CA

SVE-3S Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-3S

Collected: 06/11/2009 09:36 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	28	1.0	99	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.020	0.0020	0.064	0.0064	10
07869	Ethylbenzene	100-41-4	0.080	0.0020	0.35	0.0087	10
07869	Toluene	108-88-3	0.25	0.020	0.93	0.075	100
07869	m/p-Xylene	179601-23-1	0.23	0.020	1.0	0.087	100
07869	o-Xylene	95-47-6	0.26	0.0020	1.1	0.0087	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091631ZA	06/12/2009 20:43	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AC	06/19/2009 16:09	Jonathan K Nardelli	100
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AC	06/19/2009 16:53	Jonathan K Nardelli	10

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697620

Group No. 1148852
CA

SVE-4D Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-4D

Collected: 06/11/2009 09:37 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	400	1.0	1,400	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.32	0.020	1.0	0.064	100
07869	Ethylbenzene	100-41-4	0.70	0.020	3.1	0.087	100
07869	Toluene	108-88-3	4.6	0.20	17	0.75	1000
07869	m/p-Xylene	179601-23-1	2.2	0.20	9.6	0.87	1000
07869	o-Xylene	95-47-6	1.2	0.20	5.1	0.87	1000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091631ZA	06/12/2009 21:12	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AB	06/18/2009 21:27	Jonathan K Nardelli	1000
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AC	06/19/2009 18:19	Jonathan K Nardelli	100

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697621

Group No. 1148852
CA

SVE-5 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-5

Collected: 06/11/2009 09:38 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	320	1.0	1,100	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.66	0.10	2.1	0.32	500
07869	Ethylbenzene	100-41-4	0.83	0.10	3.6	0.43	500
07869	Toluene	108-88-3	13	1.0	48	3.8	5000
07869	m/p-Xylene	179601-23-1	7.8	0.10	34	0.43	500
07869	o-Xylene	95-47-6	4.1	0.10	18	0.43	500

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091631ZA	06/12/2009 21:40	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AB	06/18/2009 22:54	Jonathan K Nardelli	500
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AB	06/18/2009 23:37	Jonathan K Nardelli	5000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697622

Group No. 1148852
CA

SVE-6 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-6

Collected: 06/11/2009 10:08 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	540	1.0	1,900	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	1.5	0.20	4.8	0.64	1000
07869	Ethylbenzene	100-41-4	6.9	0.20	30	0.87	1000
07869	Toluene	108-88-3	41	2.0	150	7.5	10000
07869	m/p-Xylene	179601-23-1	22	2.0	93	8.7	10000
07869	o-Xylene	95-47-6	21	0.20	89	0.87	1000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091631ZA	06/12/2009 22:08	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AB	06/19/2009 00:21	Jonathan K Nardelli	1000
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AB	06/19/2009 01:03	Jonathan K Nardelli	10000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697623 **Group No. 1148852**
CA

SVE-7 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-7

Collected: 06/11/2009 10:09 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	1,000	1.0	3,500	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	1.6	0.20	5.0	0.64	1000
07869	Ethylbenzene	100-41-4	20	0.20	85	0.87	1000
07869	Toluene	108-88-3	77	2.0	290	7.5	10000
07869	m/p-Xylene	179601-23-1	59	2.0	260	8.7	10000
07869	o-Xylene	95-47-6	28	2.0	120	8.7	10000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091631ZA	06/12/2009 22:37	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AB	06/19/2009 01:48	Jonathan K Nardelli	1000
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AB	06/19/2009 02:31	Jonathan K Nardelli	10000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697624 **Group No. 1148852**
CA

SVE-8 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-8

Collected: 06/11/2009 10:10 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	13	1.0	46	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.14	0.020	0.45	0.064	100
07869	Ethylbenzene	100-41-4	0.57	0.020	2.5	0.087	100
07869	Toluene	108-88-3	0.96	0.020	3.6	0.075	100
07869	m/p-Xylene	179601-23-1	2.4	0.020	10	0.087	100
07869	o-Xylene	95-47-6	1.3	0.020	5.7	0.087	100

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091661ZA	06/14/2009 18:04	Jeffrey B Smith	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AD	06/23/2009 01:22	Jonathan K Nardelli	100

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697625

Group No. 1148852
CA

SVE-9 Grab Air
NA URSO
Sunol Pipeline SL0600100443 SVE-9

Collected: 06/11/2009 10:11 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	60	1.0	210	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.026	0.020	0.083	0.064	100
07869	Ethylbenzene	100-41-4	0.80	0.020	3.5	0.087	100
07869	Toluene	108-88-3	2.4	0.020	9.1	0.075	100
07869	m/p-Xylene	179601-23-1	2.7	0.20	12	0.87	1000
07869	o-Xylene	95-47-6	1.5	0.20	6.6	0.87	1000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091661ZA	06/14/2009 18:33	Jeffrey B Smith	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AC	06/19/2009 21:56	Jonathan K Nardelli	1000
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AC	06/19/2009 22:40	Jonathan K Nardelli	100

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697626

Group No. 1148852
CA

Inf Grab Air
NA URSO
Sunol Pipeline SL0600100443 Inf

Collected: 06/11/2009 10:45 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	390	1.0	1,400	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.36	0.20	1.2	0.64	1000
07869	Ethylbenzene	100-41-4	1.9	0.20	8.3	0.87	1000
07869	Toluene	108-88-3	17	0.20	64	0.75	1000
07869	m/p-Xylene	179601-23-1	10	0.20	45	0.87	1000
07869	o-Xylene	95-47-6	5.0	0.20	22	0.87	1000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091661ZA	06/14/2009 19:01	Jeffrey B Smith	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0917530AA	06/24/2009 18:01	Jonathan K Nardelli	1000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5697627

Group No. 1148852
CA

Eff Grab Air
NA URSO
Sunol Pipeline SL0600100443 Eff

Collected: 06/11/2009 10:45 by JH

Account Number: 11875

Submitted: 06/12/2009 09:05
Reported: 06/24/2009 at 19:27
Discard: 07/25/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	1.9	1.0	6.5	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	N.D.	0.0020	N.D.	0.0064	10
07869	Ethylbenzene	100-41-4	0.028	0.0020	0.12	0.0087	10
07869	Toluene	108-88-3	0.094	0.0020	0.35	0.0075	10
07869	m/p-Xylene	179601-23-1	0.20	0.0020	0.89	0.0087	10
07869	o-Xylene	95-47-6	0.13	0.0020	0.56	0.0087	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.
The GC/MS volatile internal standard peak areas were outside the QC limits for both the initial analysis and re-analysis. The values reported here are from the initial analysis of the sample.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M091661ZA	06/14/2009 19:29	Jeffrey B Smith	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	A0916830AC	06/20/2009 02:19	Jonathan K Nardelli	10

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Analysis Report

Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1148852
Reported: 06/24/09 at 07:27 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A0916830AB	Sample number(s): 5697617,5697620-5697623							
Benzene	N.D.	0.00020	ppm(v)	106	119	70-130	12	25
Ethylbenzene	N.D.	0.00020	ppm(v)	105	120	70-130	14	25
Toluene	N.D.	0.00020	ppm(v)	111	122	70-130	9	25
m/p-Xylene	N.D.	0.00020	ppm(v)	105	122	70-130	15	25
o-Xylene	N.D.	0.00020	ppm(v)	104	121	70-130	15	25
Batch number: A0916830AC	Sample number(s): 5697618-5697620,5697625,5697627							
Benzene	N.D.	0.00020	ppm(v)	106	119	70-130	12	25
Ethylbenzene	N.D.	0.00020	ppm(v)	105	120	70-130	14	25
Toluene	N.D.	0.00020	ppm(v)	111	122	70-130	9	25
m/p-Xylene	N.D.	0.00020	ppm(v)	105	122	70-130	15	25
o-Xylene	N.D.	0.00020	ppm(v)	104	121	70-130	15	25
Batch number: A0916830AD	Sample number(s): 5697624							
Benzene	N.D.	0.00020	ppm(v)	106	119	70-130	12	25
Ethylbenzene	N.D.	0.00020	ppm(v)	105	120	70-130	14	25
Toluene	N.D.	0.00020	ppm(v)	111	122	70-130	9	25
m/p-Xylene	N.D.	0.00020	ppm(v)	105	122	70-130	15	25
o-Xylene	N.D.	0.00020	ppm(v)	104	121	70-130	15	25
Batch number: A0917530AA	Sample number(s): 5697626							
Benzene	N.D.	0.00020	ppm(v)	101	106	70-130	5	25
Ethylbenzene	N.D.	0.00020	ppm(v)	113	116	70-130	3	25
Toluene	N.D.	0.00020	ppm(v)	104	112	70-130	7	25
m/p-Xylene	N.D.	0.00020	ppm(v)	115	120	70-130	4	25
o-Xylene	N.D.	0.00020	ppm(v)	119	124	70-130	4	25
Batch number: M091631ZA	Sample number(s): 5697617-5697623							
>C4-C10 Hydrocarbons hexane	N.D.	1.0	ppm(v)					
Batch number: M091661ZA	Sample number(s): 5697624-5697627							
>C4-C10 Hydrocarbons hexane	N.D.	1.0	ppm(v)					

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

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For Lancaster Laboratories use only
Acct. #: 11875 Sample #: 5697617-27 SCR#: 242059

1148852

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run ____ oxy's on highest hit
- ☐ Run ____ oxy's on all hits

Facility #: Sunol Spill Site
Site Address: MP 2.7 Calaveras Rd, Sunol, CA
Chevron PM: Jeff Johnson Lead Consultant: URS
Consultant/Office: Oakland
Consultant Prj. Mgr.: J. Morgan
Consultant Phone #: 510-893-3600 Fax #: 510-874-3268
Sampler: J. Henry
Service Order #: ☐ Non SAR:

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☐ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐	EPA 25 TPH-ext	TO-14 BTEX only
SVE-1D	Air	Yes	N/A	2009/06/11	0932	No	X	N	1							X	X
SVE-2S					0935												
SVE-3S					0936												
SVE-4D					0937												
SVE-5					0938												
SVE-6					1008												
SVE-7					1009												
SVE-8					1010												
SVE-9					1011												
Inf.					1045												
Eff.					1045												

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by: J. Henry	Date 6/11/09	Time 1130	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS FedEx Other			Received by: Deborah A Neal	Date 6/12/09	Time 0905
Temperature Upon Receipt ____ C°			Custody Seals Intact? Yes (No)		

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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Analysis Report

ANALYTICAL RESULTS

Prepared for:

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

713-432-3335

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

July 31, 2009

SAMPLE GROUP

The sample group for this submittal is 1154770. Samples arrived at the laboratory on Friday, July 24, 2009. The PO# for this group is 0015036686 and the release number is COSGRAY.

Client Description	Lancaster Labs Number
SVE-1D NA Air	5731583
SVE-2S NA Air	5731584
SVE-3S NA Air	5731585
SVE-4D NA Air	5731586
SVE-5 NA Air	5731587
SVE-6 NA Air	5731588
SVE-7 NA Air	5731589
SVE-8 NA Air	5731590
SVE-9 NA Air	5731591
EFF NA Air	5731592
INF NA Air	5731593

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC	URS	Attn: Joe Morgan
COPY TO		
ELECTRONIC	URS	Attn: Rachel Naccarati

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Analysis Report

COPY TO
ELECTRONIC URS Attn: Jacob Henry
COPY TO

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,

Chad A. Moline
Group Leader

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731583

Group No. 1154770
CA

SVE-1D NA Air
NA URSO
Sunol Pipeline SL0600100443 SVE-1D

Collected: 07/23/2009 10:02 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	9.5	1.0	34	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	N.D.	0.0020	N.D.	0.0064	10
07869	Ethylbenzene	100-41-4	0.025	0.0020	0.11	0.0087	10
07869	Toluene	108-88-3	0.067	0.0020	0.25	0.0075	10
07869	m/p-Xylene	179601-23-1	0.13	0.0020	0.55	0.0087	10
07869	o-Xylene	95-47-6	0.078	0.0020	0.34	0.0087	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 15:30	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/30/2009 20:35	Jonathan K Nardelli	10

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731584 **Group No. 1154770**
CA

SVE-2S NA Air
NA URSO
Sunol Pipeline SL0600100443 SVE-2S

Collected: 07/23/2009 10:03 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	1.0	1.0	3.6	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.00059	0.00020	0.0019	0.00064	1
07869	Ethylbenzene	100-41-4	0.013	0.00020	0.057	0.00087	1
07869	Toluene	108-88-3	0.020	0.00020	0.075	0.00075	1
07869	m/p-Xylene	179601-23-1	0.057	0.0020	0.25	0.0087	10
07869	o-Xylene	95-47-6	0.038	0.0020	0.16	0.0087	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 16:55	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/30/2009 22:01	Jonathan K Nardelli	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/30/2009 22:44	Jonathan K Nardelli	10

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731585 **Group No. 1154770**
CA

SVE-3S NA Air
NA URSO
Sunol Pipeline SL0600100443 SVE-3S

Collected: 07/23/2009 10:04 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	210	1.0	740	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.29	0.020	0.93	0.064	100
07869	Ethylbenzene	100-41-4	0.91	0.020	4.0	0.087	100
07869	Toluene	108-88-3	9.8	0.20	37	0.75	1000
07869	m/p-Xylene	179601-23-1	9.2	0.20	40	0.87	1000
07869	o-Xylene	95-47-6	5.8	0.20	25	0.87	1000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 17:24	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/30/2009 23:28	Jonathan K Nardelli	100
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 13:45	Jonathan K Nardelli	1000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731586

Group No. 1154770
CA

SVE-4D NA Air
NA URSO
Sunol Pipeline SL0600100443 SVE-4D

Collected: 07/23/2009 10:04 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	2.8	1.0	9.7	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.0073	0.0020	0.023	0.0064	10
07869	Ethylbenzene	100-41-4	0.085	0.0020	0.37	0.0087	10
07869	Toluene	108-88-3	0.25	0.0020	0.95	0.0075	10
07869	m/p-Xylene	179601-23-1	0.42	0.020	1.8	0.087	100
07869	o-Xylene	95-47-6	0.31	0.020	1.4	0.087	100

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 17:52	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 00:54	Jonathan K Nardelli	10
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 01:38	Jonathan K Nardelli	100

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731587

Group No. 1154770
CA

SVE-5 NA Air
NA URSO
Sunol Pipeline SL0600100443 SVE-5

Collected: 07/23/2009 10:05 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	100	1.0	350	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.0023	0.0020	0.0073	0.0064	10
07869	Ethylbenzene	100-41-4	0.040	0.0020	0.18	0.0087	10
07869	Toluene	108-88-3	0.027	0.0020	0.10	0.0075	10
07869	m/p-Xylene	179601-23-1	0.29	0.0020	1.3	0.0087	10
07869	o-Xylene	95-47-6	0.15	0.0020	0.66	0.0087	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 18:20	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 13:02	Jonathan K Nardelli	10

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731588

Group No. 1154770
CA

SVE-6 NA Air
NA URSO
Sunol Pipeline SL0600100443 SVE-6

Collected: 07/23/2009 10:15 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	340	1.0	1,200	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.70	0.20	2.2	0.64	1000
07869	Ethylbenzene	100-41-4	4.1	0.20	18	0.87	1000
07869	Toluene	108-88-3	36	2.0	140	7.5	10000
07869	m/p-Xylene	179601-23-1	18	0.20	79	0.87	1000
07869	o-Xylene	95-47-6	9.2	0.20	40	0.87	1000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 18:49	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 03:47	Jonathan K Nardelli	1000
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 04:31	Jonathan K Nardelli	10000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731589

Group No. 1154770
CA

SVE-7 NA Air
NA URSO
Sunol Pipeline SL0600100443 SVE-7

Collected: 07/23/2009 10:16 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	860	1.0	3,000	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.45	0.20	1.4	0.64	1000
07869	Ethylbenzene	100-41-4	10	0.20	43	0.87	1000
07869	Toluene	108-88-3	45	2.0	170	7.5	10000
07869	m/p-Xylene	179601-23-1	35	2.0	150	8.7	10000
07869	o-Xylene	95-47-6	21	0.20	93	0.87	1000

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 19:18	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 05:14	Jonathan K Nardelli	1000
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 05:57	Jonathan K Nardelli	10000

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731590

Group No. 1154770
CA

SVE-8 NA Air
NA URSO
Sunol Pipeline SL0600100443 SVE-8

Collected: 07/23/2009 10:16 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	35	1.0	120	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	N.D.	0.020	N.D.	0.064	100
07869	Ethylbenzene	100-41-4	0.62	0.020	2.7	0.087	100
07869	Toluene	108-88-3	1.6	0.020	5.9	0.075	100
07869	m/p-Xylene	179601-23-1	3.2	0.020	14	0.087	100
07869	o-Xylene	95-47-6	2.0	0.020	8.9	0.087	100

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 19:46	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 06:41	Jonathan K Nardelli	100

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731591

Group No. 1154770
CA

SVE-9 NA Air
NA URSO
Sunol Pipeline SL0600100443 SVE-9

Collected: 07/23/2009 10:18 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	38	1.0	130	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.0072	0.0020	0.023	0.0064	10
07869	Ethylbenzene	100-41-4	0.084	0.0020	0.36	0.0087	10
07869	Toluene	108-88-3	0.23	0.0020	0.86	0.0075	10
07869	m/p-Xylene	179601-23-1	0.45	0.020	1.9	0.087	100
07869	o-Xylene	95-47-6	0.28	0.020	1.2	0.087	100

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 20:15	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 08:08	Jonathan K Nardelli	10
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 08:51	Jonathan K Nardelli	100

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731592

Group No. 1154770
CA

EFF NA Air
NA URSO
Sunol Pipeline SL0600100443 EFF

Collected: 07/23/2009 10:40 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	1.9	1.0	6.7	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.00098	0.00020	0.0031	0.00064	1
07869	Ethylbenzene	100-41-4	0.022	0.00020	0.096	0.00087	1
07869	Toluene	108-88-3	0.038	0.0020	0.14	0.0075	10
07869	m/p-Xylene	179601-23-1	0.10	0.0020	0.44	0.0087	10
07869	o-Xylene	95-47-6	0.066	0.0020	0.29	0.0087	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 20:43	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 09:35	Jonathan K Nardelli	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 10:17	Jonathan K Nardelli	10

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Analysis Report

Lancaster Laboratories Sample No. AQ 5731593

Group No. 1154770
CA

INF NA Air
NA URSO
Sunol Pipeline SL0600100443 INF

Collected: 07/23/2009 10:40 by JH

Account Number: 11875

Submitted: 07/24/2009 08:50
Reported: 07/31/2009 at 14:41
Discard: 08/31/2009

Chevron Pipeline Co.
4800 Fournace Place - E320 D
Bellaire TX 77401

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
EPA 25 modified	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07548	>C4-C10 Hydrocarbons hexane	n.a.	160	1.0	560	3.5	1
EPA TO14A	**Volatiles in Air**		**ppm(v)**	**ppm(v)**	**mg/m3**	**mg/m3**	
07869	Benzene	71-43-2	0.096	0.040	0.31	0.13	200
07869	Ethylbenzene	100-41-4	1.3	0.040	5.4	0.17	200
07869	Toluene	108-88-3	6.5	0.40	24	1.5	2000
07869	m/p-Xylene	179601-23-1	5.0	0.40	22	1.7	2000
07869	o-Xylene	95-47-6	2.9	0.040	13	0.17	200

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07548	>C4-C10 Hydrocarbons in Air	EPA 25 modified	1	M092081ZA	07/24/2009 21:12	David I Ressler	1
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 11:00	Jonathan K Nardelli	200
07869	TO-14A VOA Ext. List Tedlar	EPA TO14A	1	D0920930BB	07/31/2009 11:39	Jonathan K Nardelli	2000

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Analysis Report

Quality Control Summary

Client Name: Chevron Pipeline Co. Group Number: 1154770
Reported: 07/31/09 at 02:41 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D0920930BB	Sample number(s): 5731583-5731593							
Benzene	N.D.	0.00020	ppm(v)	87	88	70-130	1	25
Ethylbenzene	N.D.	0.00020	ppm(v)	94	94	70-130	0	25
Toluene	N.D.	0.00020	ppm(v)	92	92	70-130	0	25
m/p-Xylene	N.D.	0.00020	ppm(v)	92	92	70-130	0	25
o-Xylene	N.D.	0.00020	ppm(v)	97	98	70-130	0	25
Batch number: M092081ZA	Sample number(s): 5731583-5731593							
>C4-C10 Hydrocarbons hexane	N.D.	1.0	ppm(v)					

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11875 Sample #: 573158 3-93 SCR#: 248381

Group# 1154770

Facility #:
Site Address: MP 27 Calaveras Road, Sunol, CA
Chevron PM: Jeff Johnson Lead Consultant: URS Corp
Consultant/Office: 1333 Broadway, Ste 800, Oakland, CA 94612
Consultant Prj. Mgr.: Joe Morgan
Consultant Phone #: 510-893-3600 Fax #: 510-874-3268
Sampler: Jacob Henry
Service Order #: ☐ Non SAR:

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☐ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421 ☐	TO-14A BTEX	EPA 25 THC
SVE-1D	Air	Yes	NA	20090723	1002	No										X	X
SVE-2S					1003												
SVE-3S					1004												
SVE-4D					1004												
SVE-5					1005												
SVE-6					1015												
SVE-7					1016												
SVE-8					1016												
SVE-9					1018												
EFF.					1040												
Inf.					1040												

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ___ oxy's on highest hit
☐ Run ___ oxy's on all hits

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by:	Date	Time	Received by:	Date	Time
J. Henry	7/23/09	1130			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS (FedEx) Other			Received by: Jessica Agosto	Date 7-24-09	Time 0850
Temperature Upon Receipt NA C°			Custody Seals Intact? (Yes) No		

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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Appendix B

USEPA ETV Program Certificate for GORE™ Modules

ETV

U.S. ENVIRONMENTAL PROTECTION AGENCY

Environmental Technology Verification Report

W. L. Gore & Associates, Inc. is pleased to announce the release of the Environmental Technology Verification report published by the U.S. EPA entitled:

Soil Gas Sampling Technology, W. L. Gore & Associates, Inc., GORE-SORBER Screening Survey[1]

The report states…

"VOC Detection and Quantitation: The GORE-SORBER® Screening Survey detected the same compounds in each sample as the reference soil gas sampling method, as well as several VOCs that the reference method did not detect…

The demonstration results indicate that the GORE-SORBER® Screening Survey can provide useful, cost-effective data for environmental problem-solving. The GORE-SORBER® modules successfully collected soil gas samples in clay and sandy soils. The sampler provided positive identification of target compounds and may detect lower concentrations of VOCs in the soil gas than can the reference soil gas sampling method. Based on the results of this demonstration, there appears to be a general correlation between the GORE-SORBER® Screening Survey and reference method data."

To download a copy of the ETV report log onto the EPA's ETV website at:
http://www.epa.gov/etv/pdfs/vrvs/01_vr_goresorber.pdf